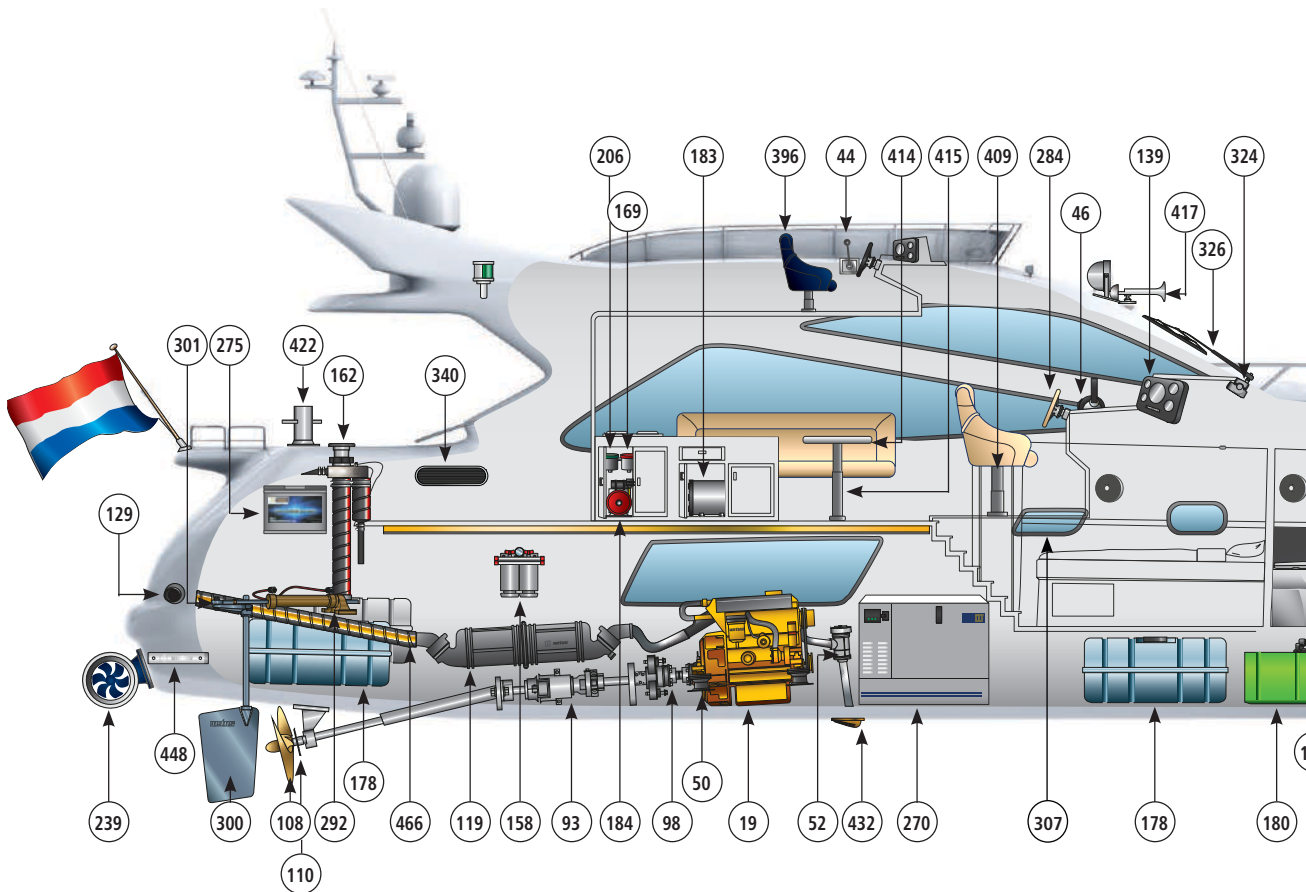
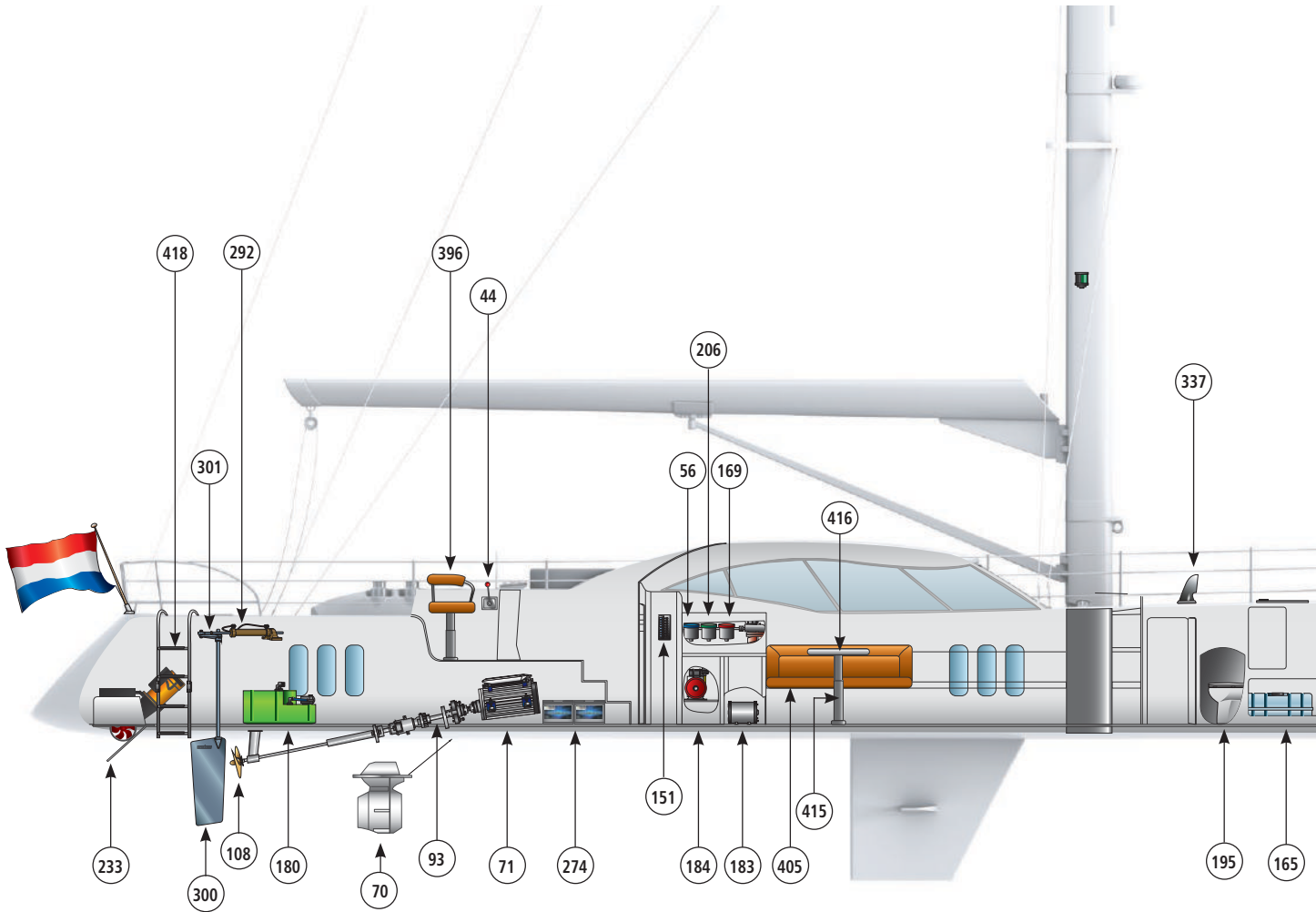


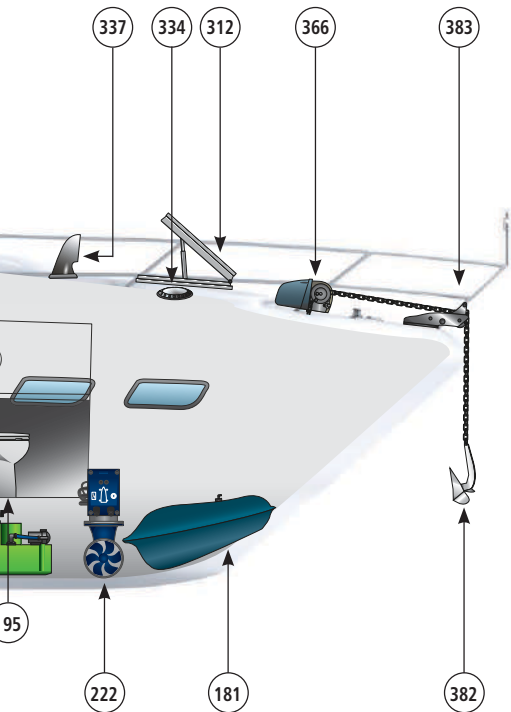
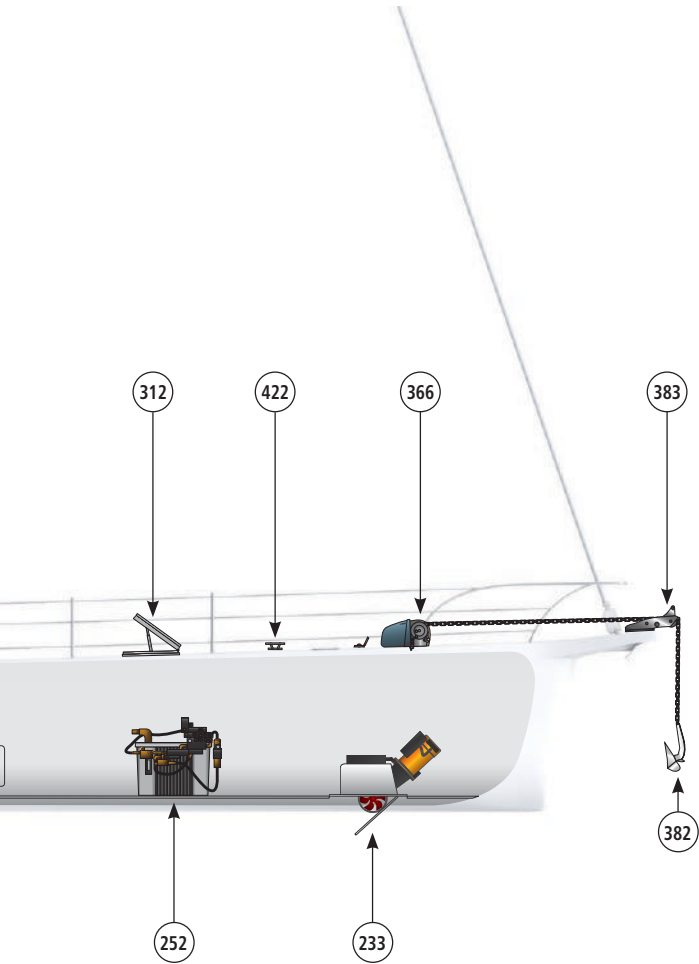


CREATOR OF BOAT SYSTEMS



2026
2027





19	Engines and around the engine	
63	Electric and hybrid propulsion	
89	Stern gear systems	
111	Exhaust systems	
135	Boat instruments	
153	Fuel systems	
173	Fresh water systems	
191	Waste water systems	
217	Thruster systems	
247	Power hydraulics	
267	Power on board	
281	Steering systems	
303	Glazing systems	
331	Ventilation	
345	Maxwell anchoring systems	
393	V-Quipment	
455	YellowV	

VETUS, Creator of boat systems

For six decades, VETUS has been shaping the future of boating through advanced onboard boat systems. Founded in 1964 by the late Willem den Ouden, VETUS has grown from a small Dutch company into a global leader with direct representation in 18 countries. Our dedicated engineering teams design and refine most of our products in-house, giving us complete control over quality, performance, and innovation. In addition, VETUS is supported by a worldwide network of distributors and dealers, ensuring that our products and expertise are available to boating enthusiasts and professionals across the globe.

Over the years, this steady growth has gone hand in hand with groundbreaking innovation. Major milestones include the revolutionary wet engine exhaust system introduced in the late 1970s, the world's quietest bow and stern thrusters, and the recent launch of hybrid and E-DRIVE electric propulsion systems. Likewise, the integration of Maxwell's advanced anchoring solutions has set new standards for safety and performance at sea. These innovations are the result of specialist expertise, rigorous testing, and an ongoing drive to improve. From concept to production, every solution is built to meet the highest standards of safety, reliability, and efficiency. This pioneering spirit remains at the core of both VETUS and Maxwell, ensuring that every product exceeds expectations and meets the evolving needs of boaters worldwide.

VETUS is your trusted supplier and advisory partner, giving you access to more than 4,000 technical products for your vessel - covering 17 systems and 5 brands. All of them are supported by our unmatched expertise, exceptional customer service, and global network. This catalog brings together exciting new innovations with proven systems and equipment that have been chosen by boaters and yacht builders for decades and continually refined to meet changing demands.

Choosing VETUS means benefiting from the efficiency, performance, and cost advantages of complete, fully compatible solutions - designed by a single specialist for seamless operation and one-stop supply. Every detail is optimized for long-term dependability.

As we move beyond our 60th anniversary milestone, VETUS remains committed to the spirit of innovation that has driven us from the very beginning. Whether you're looking for advanced, connected systems or individual components, you can trust us to deliver solutions that perform flawlessly, even in the harshest marine environments - so you can enjoy the freedom and pleasure of life on the water. As the "creator of boat systems," VETUS continues to make boating easy and worry-free for enthusiasts all over the world.



New purpose-built headquarters

In December 2024, VETUS moved into its newly constructed, state-of-the-art headquarters. The 6,500 m² facility features a thoughtfully designed office space created with the latest thinking in employee wellbeing and effective collaboration.

The move has doubled warehouse capacity as part of our growth strategy, allowing us to better meet the evolving needs of VETUS customers. The warehouse is equipped with the latest automated storage and retrieval systems and offers significantly greater pallet capacity than before - enabling us to store, process, and ship products faster and more efficiently.

The new location also provides improved facilities to showcase products and conduct in-water testing, with dedicated mooring spaces for VETUS demo boats.

Our new carbon-neutral headquarters reflects our commitment to innovation, wellbeing, and customer service. With this move, VETUS is ready to serve customers better and build a sustainable future.



Our brands

Throughout the years, we have obtained some businesses, each keeping their specialism. We now consist of:

VETUS - Creator of boat systems

VETUS is driven by a clear goal: to make time on the water as enjoyable and worry-free as possible. As the creator of complete onboard boat systems, the company provides a comprehensive range of products designed to work in perfect harmony. Every product is tested under extreme conditions, easy to install, and requires minimal maintenance - ensuring the ultimate carefree boating experience.

Maxwell - Anchoring excellence

Maxwell products are renowned for their reliability and performance throughout the international marine leisure industry. Its extensive range of windlasses, capstans, and accessories provides anchoring solutions for vessels from 6 meters (20 feet) to over 125 meters (393 feet).

With decades of development and engineering expertise, the company has earned a worldwide reputation for quality and dependability -firmly establishing its position as a market leader. Featuring advanced design and engineering across its comprehensive line of anchor windlasses, you can trust Maxwell to secure your investment.

Marex - Custom-made boat glazing

Marex is a leading brand specializing in custom-made boat windows, backed by decades of industry experience. Known for quality, innovation, and sophisticated design, Marex has become a trusted name among both boatbuilders and owners.

All products are independently certified to comply with the Recreational Craft Directive and relevant ISO standards, giving customers total peace of mind. Marex offers several core product lines, including the outstanding Marex Screw-On Line, Marex Comfort Line, and Marex Exclusive Line.

V-Quipment - Auxiliary items to meet the needs of every boat owner

V-Quipment offers high-quality, reliable, and affordable boating products that perfectly complement VETUS boat systems. The range is organized into themed groups: Comfort, Deck Equipment, Fittings, Pumps, Outboard, Materials, Accessories, Locks, and Stays. Every V-Quipment product is tested and approved by VETUS and backed by a full three-year warranty.

YellowV - Accessible, innovative watersports

From stand-up paddleboards and kayaks to inflatable boats and fun tubes, YellowV's inflatable products deliver excitement and adventure on the water. The expanding product line caters to both calm and white-water activities, exceeding industry standards and regulations.



YANMAR Marine Recreational Business Unit



VETUS is part of the YANMAR Marine Recreational Business Unit - one of YANMAR's seven fast-growing divisions covering both land and sea. Within this business unit, you'll find a full package of products, services, and expertise. Together with brands like YANMAR, VETUS, Maxwell, Flexofold, and Smartgyro, we deliver complete solutions for the boating world - from engines to smart systems.

YANMAR Marine International (YMI) has built a reputation as a leading supplier of innovative engines and advanced propulsion systems. Their diesel engines are clean, efficient, reliable, and built to last - ideal for both sailboats and powerboats, as well as light-duty commercial use. With a power range from 40 to 640 hp, YMI offers the most comprehensive line of common rail marine diesels on the market. Always with a strong focus on cutting-edge technology and sustainability, YMI's mission is to deliver the best possible boating experience for owners and builders alike.

To make that happen, we constantly listen to what our customers really want. Then, we turn those needs into creative, integrated solutions - with the YANMAR engine at the heart of it all. Backed by a global network of more than 60 subsidiaries and partners, we can provide everything a boat owner might need. Whether for a sailboat, powerboat, or commercial vessel, every product is tried, tested, and proven on the water.

YANMAR Group Companies



YANMAR Marine International (YMI)

YMI is a global leader in innovative marine propulsion, delivering the cleanest, most efficient and reliable diesel engines for sailboats, powerboats, and light-duty commercial vessels. With a powerful common rail range from 40 to 640 hp, they offer the most complete line-up in the industry.



Smartgyro

Since 2014, Smartgyro has been redefining life at sea with advanced gyro stabilizers. Designed for vessels from 40 to 95+ feet, they deliver smooth performance, easy installation, and unmatched comfort - whether for new builds or refits. Experience stability like never before.



Flexofold

Flexofold, Denmark's specialist in folding propellers, delivers low-drag performance for sailboats and multihulls worldwide. Built with precision CNC and robotic technology, our propellers are trusted by boatbuilders and sailors alike for efficiency, innovation, and proven results.

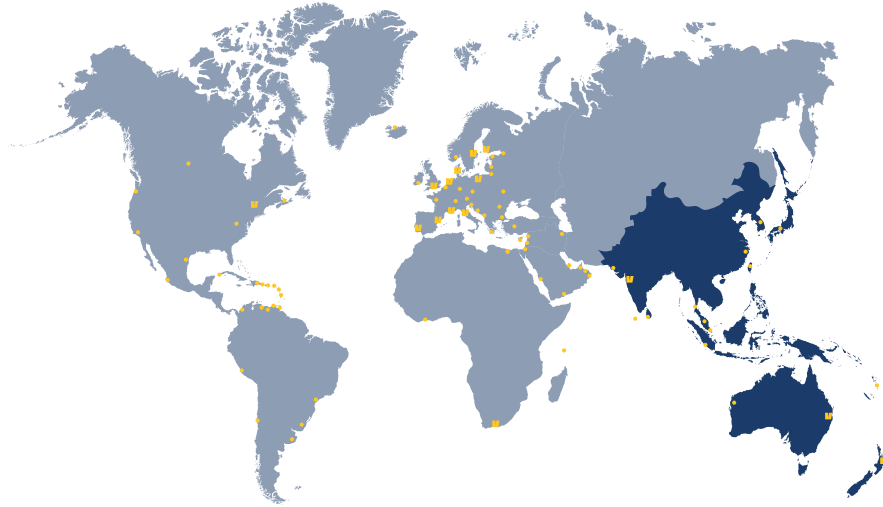


GETMYBOAT

Founded in San Francisco in 2013, GetMyBoat is the world's largest marketplace for boat rentals and water experiences. With 180,000+ listings across 10,000 destinations in 184 countries, we make boating accessible to everyone - connecting adventurers with watercraft owners worldwide.



Service & distribution network



Head office and subsidiaries

VETUS B.V.

Havenstraat 11
3115 HC Schiedam-Holland
Tel.: +31 (0)88 488 4700
sales@vetus.com (export)
info@vetus.com (NL)

Asia

VETUS-Maxwell
Tel.: +886 909 390 358
salesasia@vetus-maxwell.com

Australia

VETUS-Maxwell Pty Ltd
Tel.: +61 (0)7 3245 4755
salesau@vetus-maxwell.com

Belgium

VETUS Belgium
Tel.: +32 499 82 57 22
info@vetus.be

Denmark

VETUS ApS
Tel.: +45 76 975 000
info@vetus.dk

Finland

VETUS Oy
Tel.: +358 207 756 740
info@vetus.fi

France

VETUS Maxwell France
Tel.: +33 4 94 14 93 53
info@vetus.fr

Germany

VETUS Deutschland GmbH
Tel.: +49 431 97 99 77 15
vetusdeutschland@vetus.com

India

VETUS Maxwell India
Tel.: +91 22 2811 9871
smiranda@vetus.com

Italy

VETUS Maxwell SRL
Tel.: +39 0571 57122
info@vetusitalia.it

New Zealand

VETUS-Maxwell Apac
Tel.: +64 (0) 9 985 66 00
salesnz@vetus-maxwell.com

Poland

VETUS Sp. z o.o.
Tel.: +48 22 452 40 52
+48 22 452 40 53
info@vetus.pl

Portugal

VETUS Portugal
Tel.: +351 910 037 924
vetus@vetus.es

South Africa

VETUS Maxwell South Africa
Tel.: +27 21 552 42 75
info@vetus.co.za

Spain

VETUS Hispania S.A.
Tel.: +349 02 101 883
vetus@vetus.es

Sweden

VETUS AB
Tel.: +46 854 444 270
info@vetus.se

United Kingdom

VETUS Ltd.
Tel.: +44 23 8045 4507
sales@vetus.co.uk

United States

VETUS Maxwell AMERICA
(Head office for North,
Central and South America
and the Caribbean)
Tel.: +1 410 712 0740
sales-service@vetus.com

APAC Asia Pacific

Asia

VETUS-Maxwell
Tel.: +886 909 390 358
salesasia@vetus-maxwell.com

Australia

VETUS-Maxwell Pty Ltd
Tel.: +61 (0)7 3245 4755
salesau@vetus-maxwell.com

New Zealand

VETUS-Maxwell Apac
Tel.: +64 (0) 9 985 6600,
salesnz@vetus-maxwell.com

China

Shanghai Yikang
Chemical & Industries Co., Ltd
Tel.: +86 021 52419090
wayne.jin@yk.wahlee.com

Hong Kong

Ronsil Development Ltd.
Tel.: +852 2834 1633
ronsil@netvigator.com

Indonesia

PT Jelajah Samudera
Internasional
Tel.: +62 812-2515-7712 /
+62 813-2653-3543
jelajah_samudera@yahoo.com

PT Sumber Marine Equipment
Tel.: +6221 690 06 31
inbox@sumber-marine.com

Japan

Blue Ocean Yokohama Co., Ltd.
Tel.: +81 45 790 35 81
mizutani_t@
blueoceanyokohama.co.jp

Korea

Nadae-Soonshin Technology
Tel.: +82 51 832 15 95
boatcreator@soonshin.kr

Plus Service Co., Ltd
Tel.: +82 51 745 82 04
isseo@pluseng.com

Malaysia

Edaran Marin Centre Sdn Bhd
Tel.: +603 80 52 11 11
edaranmarin@gmail.com

Marine Supplies Asia Ltd
Tel.: +60 (0) 49610696
sarah.n@marinesuppliesasia.com

Maldives

Marine Equipments pvt Ltd.
Tel.: +960 333 88 20
www@meq.mv

New Caledonia

Limousin Marine
Tel.: +687 274186/282295
limousin@limousin.nc

Pacific Islands

see Australia

Philippines

Shoreline Yachts
International Ltd.
Tel.: +63 927 6486463
wvcpang@aim.com

Singapore

VETUS
Tripower Corporation Pte. Ltd.
Tel.: +65 686 11 188
sales@tripower.com.sg
sales@tritex.com.sg

Best Marine Electrical
Tel.: +65 674 10 317
bme17@singnet.com.sg

Sri Lanka

Neil Marine (Pvt) Ltd.
Tel.: +94 11 255 68 91
chairman@neilmarine.com

Taiwan

Maxwell
Merc. International
Trade Co., Ltd.
Tel.: +886 7 813 3233 / 5
mms46654@ms16.hinet.net

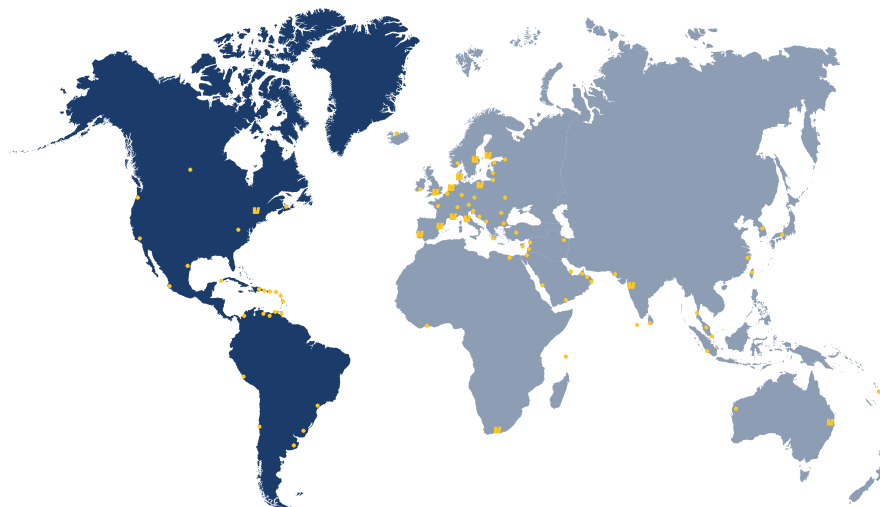
Thailand

Electrical Marine co.,Ltd.
Tel.: +66 76 510 782
sales@electrical-marine.com

Vietnam

Century Co., Ltd.
(+84 22 53 53 89 15
iamdp@thtcentury.com

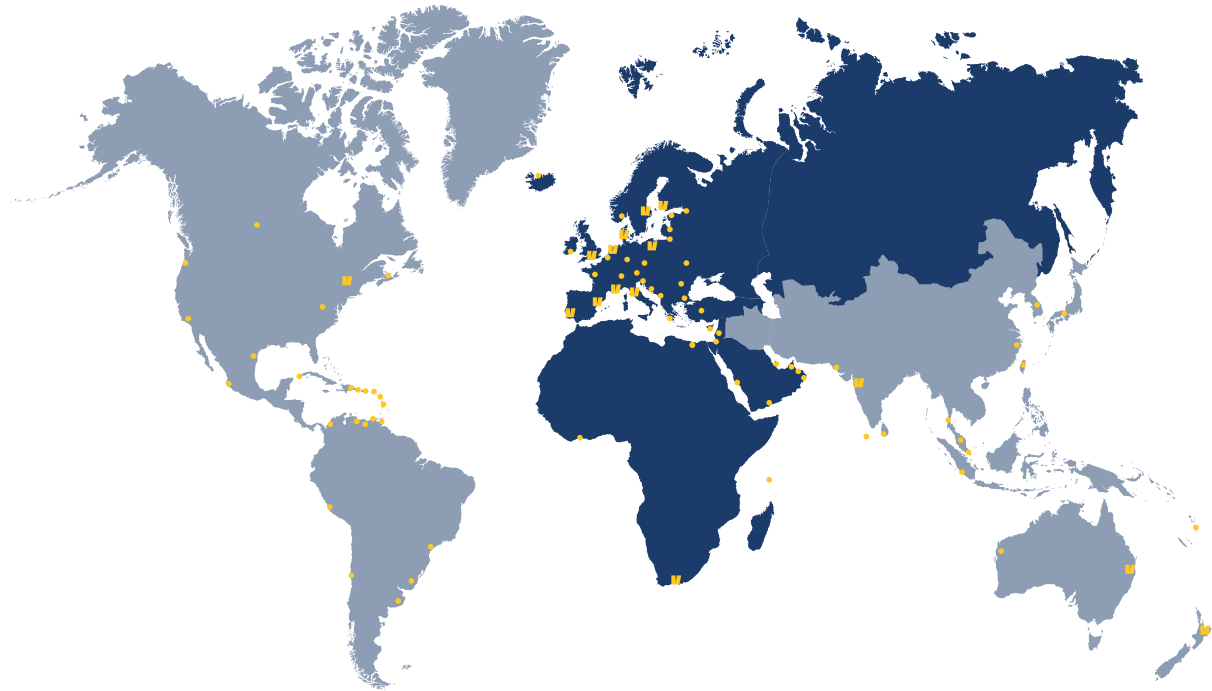
Service & distribution network



Americas and the Caribbean

<p>United States VETUS Maxwell America (Head office for North, Central and South America and the Caribbean) Tel.: +1 410 712 0740 sales-service@vetus.com</p> <p>Argentina Trimer S.A. Tel.: +54 11 4580 0444 trimer@trimer.com.ar</p> <p>Brazil Marine Office Com. Imp. e Repr. Ltda Tel.: +55 11 34775655 marine.office@marineoffice.com.br</p> <p>Canada Maritime Marine Supply Nova Scotia Tel.: +1 902-928-1900 info@maritimemarine.com</p> <p>Western Marine Company British Columbia Tel.: +1 604-253-3322 sales@westernmarine.com</p> <p>The Caribbean</p> <p>Antigua Budget Marine English Harbour Tel.: +1 268-562-8443 Antigua@budgetmarine.com</p> <p>Budget Marine Jolly Harbour Boatyard Tel.: +1 268-462-8753 Antigua@budgetmarine.com</p> <p>Budget Marine North Sound Tel.: +1 268-562-8753 Antigua@budgetmarine.com</p> <p>Aruba Budget Marine Aruba Tel.: +1 297 585 3769 aruba@budgetmarine.com</p> <p>Barbados Marine Power Solutions Tel.: +1 246 231 2199 alex@mps.bb</p>	<p>Bermuda Spar Yard Marine Solutions Tel.: +1 441 234 2235 kareem@sparyard.bm</p> <p>Bonaire Budget Marine Bonaire Tel.: +599 717 3710 Bonaire@budgetmarine.com</p> <p>British Virgin Islands Tortola Golden Hind Chandleries Tel.: +1 284 340 0150 matt@goldenhindchandleries.com</p> <p>Nanny Cay Chandlery Tel.: +284 494 2512 chandlery@nannycay.com</p> <p>Parts & Power Ltd. Tel.: +284 494 2830 tom@partsandpower.com</p> <p>Carriacou Budget Marine Carriacou Tel.: +1 473 443 1983 Carriacou@budgetmarine.com</p> <p>Curacao Budget Marine Curacao Tel.: +5999 462 7733 Curacao@budgetmarine.com</p> <p>Grenada Budget Marine Grenada Tel.: +1 473 439 1983 Grenada@budgetmarine.com</p> <p>Island Water World St. George's Tel.: +1 473 435 2150/1 grenada@islandwaterworld.com</p> <p>Island Water World St. David's Harbour Tel.: +1 473 443 1028 iwwstdavids@islandwaterworld.com</p> <p>Jamaica Durae's Boat Sales and Marine Tel.: +1 876 925 7633 duraes@cwjamaica.com</p> <p>Puerto Rico Martinez Marine Puerto Del Rey Marina Tel.: +1 787 863 4646 martinezmarine@hotmail.com</p>	<p>St. Kitts and Nevis Budget Marine St. Kitts Tel.: +1 869 466 0026 stkitts@budgetmarine.com</p> <p>St. Lucia Island Water World Rodney Bay Marina Tel.: +758 452 1222 sales@islandwaterworld.com</p> <p>St. Maarten Budget Marine St. Maarten Tel.: +1 721 544 3134 sales@budgetmarine.com</p> <p>Island Water World Cole Bay Tel.: +1 721 544 5310 sales@islandwaterworld.com</p> <p>Island Water World Bobby's Marine Tel.: +1 721 543 7119 sales@islandwaterworld.com</p> <p>Island Water World Marigot Tel.: 00590 590 51 32 06 sales@islandwaterworld.com</p> <p>St. Thomas Budget Marine Independent Boatyard Tel.: +1 340 779 2219 StThomas@budgetmarine.com</p> <p>Trinidad Budget Marine Trinidad Tel.: +1 868 634 2006 trinidad@budgetmarine.com</p> <p>LP Marine & Industrial Supplies Ltd. Tel.: +1 868 633 3395 info@lpmarinett.com</p> <p>Turks and Caicos Islands Caribbean Marine & Diesel Ltd. Tel.: +649 231 0877 caribmarinediesel@tcitway.tc</p> <p>Chile Motonautica Chile S.A. Tel.: +562 757 7900 info@motonautica.cl</p> <p>Colombia Transmidiesel S.A.S. Tel.: +57 605 6745993 emiliod@transmidiesel.com</p>	<p>Ecuador Motores del Pacifico Corp. Tel.: +593 4 217 4067 repuestos@motoresdelpacifico.com</p> <p>Mexico Zaragoza Marine Tel.: +52 322 226 3232 info@zaragoza.com.mx</p> <p>Peru Fibrecon Marine Amazonica S.A.C Tel.: +51 954 645 781 jesus.vargas@fibreconmarine.com.pe</p> <p>Rivera Diesel Tel.: +51 1 348 1500 info@riveradiesel.com.pe</p> <p>United States AER Supply (Gulf Coast) Tel.: 800-767-7606 www.aermarineparts.com</p> <p>CWR Wholesale Distribution (Eastcoast) Tel.: 732-237-9300 info@cwrdistribution.com</p> <p>Defender Industries Inc. (National) Tel.: 800-628-8225 www.defender.com</p> <p>Donovan Marine Inc. (Wholesale) Tel.: 800-347-4464 www.donovanmarine.com</p> <p>Fawcett Boat Supply (North East) Tel.: 800-456-9151 www.fawcettboat.com</p> <p>Fisheries Supply Inc. (North West) Tel.: 800-426-6930 www.fisheriessupply.com</p> <p>Hamilton Marine (Maine) (North East) Tel.: 800-639-2715 www.hamiltonmarine.com</p> <p>Lewis Marine (South East) Tel.: 800-327-3792 www.lewismarine.com</p>	<p>Mack Boring (North East) Tel.: 908-684-0700 www.mackboring.com</p> <p>Marine Equipment and Supply Co (Wholesale) Tel.: 856-853-8320 www.mesconet.com</p> <p>Marysville Marine Distributors Inc. (Mid-West) Tel.: 877-860-0967 www.marysvillemarine.com</p> <p>Mastry Engine Center (South East) Tel.: 800-545-4574 www.mastry.com</p> <p>Paxton Company (Wholesale) Tel.: 800-234-7290 www.paxtonco.com</p> <p>Seacoast Distributors LLC (Wholesale) Tel.: 631-884-1013 www.seacoastmarinesales.com</p> <p>SeaWide Distribution (Wholesale) Tel.: 866-732-9433 www.seawide.com</p> <p>TDC Equipment Inc. (South West) Tel.: 714-373-8099 www.tdcmarineequipment.com</p> <p>West Marine (National) Tel.: 800-262-8464 www.westmarine.com</p> <p>Wintron Electronics (Northeast) Tel.: 732-237-9300 sales@wintronelectronics.com</p> <p>Uruguay Bermúdez Náutica Tel.: +598 2628 6562 info@nautica.com.uy</p>
--	---	---	--	---

Service & distribution network



EMEA Europe, Middle East and Africa

VETUS B.V.

Havenstraat 11
3115 HC Schiedam-Holland
Tel.: +31 (0)88 488 4700
info@vetus.com (NL)
sales@vetus.com (export)

Belgium

VETUS Belgium
Tel.: +32 499 82 57 22
info@vetus.be

Denmark

VETUS ApS
Tel.: +45 76 975 000
info@vetus.dk

Finland

VETUS Oy
Tel.: +358 207 756 740
info@vetus.fi

France

VETUS Maxwell France
Tel.: +33 4 94 14 93 53
info@vetus.fr

Germany

VETUS Deutschland GmbH
Tel.: +49 431 97 99 77 15
vetusdeutschland@vetus.com

Italy

VETUS Maxwell SRL
Tel.: +39 0571 57122
info@vetusitalia.it

Poland

VETUS Sp. z o.o.
Tel.: +48 22 452 40 52 /
+48 22 452 40 53
info@vetus.pl

Portugal

VETUS Portugal
Tel.: +351 910 037 924
vetus@vetus.es

South Africa

VETUS Maxwell
South Africa
Tel.: +27 21 552 4275
info@vetus.co.za

Spain

VETUS Hispania S.A.
Tel.: +34 902 101 883
vetus@vetus.es

Sweden

VETUS AB
Tel.: +46 854 444 270
info@vetus.se

United Kingdom

VETUS Ltd.
Tel.: +44 23 8045 4507
sales@vetus.co.uk

Austria

Bukh-Bremen GmbH
Tel.: +49 421 535070
info@bukh-bremen.de

Bahrain

VETUS
see United Arab Emirates

Maxwell

H Al Dhaen Boats
Tel.: +973 17290400
info@aldhaenmarine.com

Bulgaria

Yacht Center Varbanov Ltd.
Tel.: +359 56 843 232
mail@yachtbg.com

Croatia

WASI d.o.o.
Tel.: +385 13 498 248
info@wasi.hr

Cyprus

M.D.I. Mercury Co. Ltd.
Tel.: +357 25877933
info@mercury.com.cy

Czech Republic

Imramovsky s.r.o.
Tel.: +420 603 427 606
imramovsky.michal@seznam.cz

Egypt

Dolphin Marine Co
Tel.: +2010 688 307 86
info@dolphin-marine.net

Estonia

BMG Power Systems OÜ
Tel.: +372 5628 9999
vp@bm.ee

Germany

Bukh-Bremen GmbH
Tel.: +49 421 535070
info@bukh-bremen.de

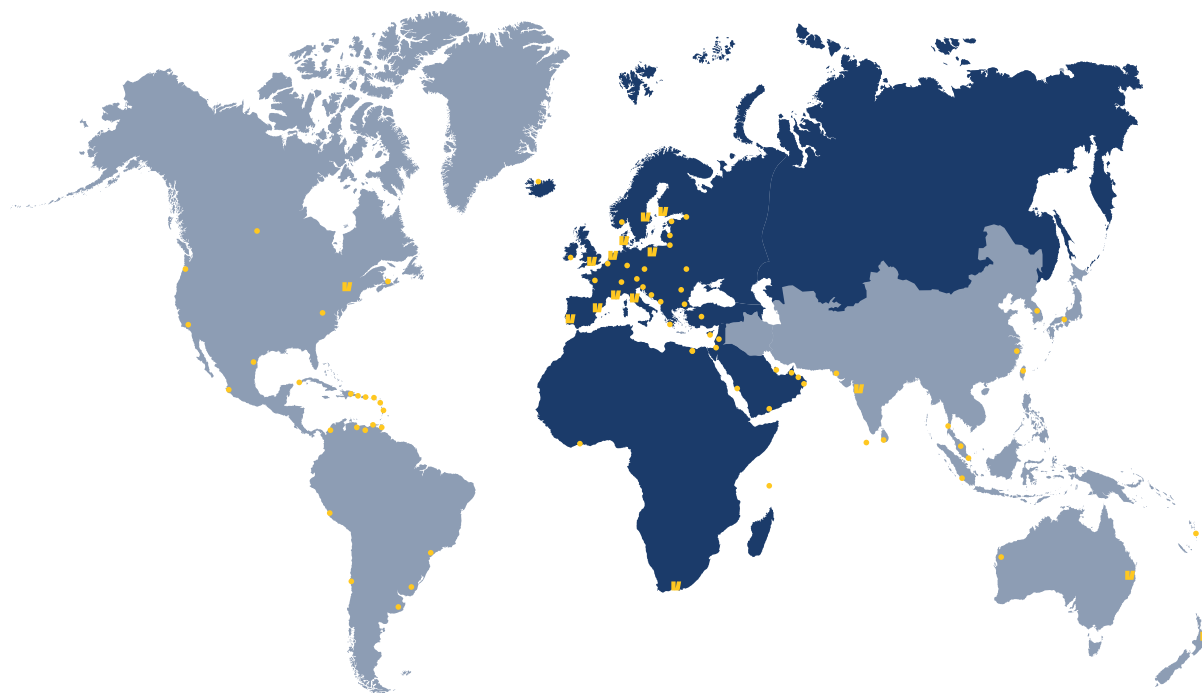
Gibraltar

M. Sheppard & Co Ltd
Tel.: +350 200 75148
retail@sheppard.gi

Greece

VETUS Hellas Ltd.
Tel.: +30 210
4135 531 / 4133 639
info@vetus.gr

Service & distribution network



EMEA Europe, Middle East and Africa

<p>Hungary Fukey Yacht Ltd. Tel.: +36 88 432 897 info@fukeyacht.hu</p> <p>Iceland Baldur Halldorsson ehf. Tel.: +354 462 37 00 b.h. vetus@outlook.com</p> <p>Ireland Union Chandlery Tel.: +353 21 4554 334 vetus@unionchandlery.com</p> <p>Israel Yamit YSB Ltd. Marine Trade Co. Tel.: +972 3 527 1777 office@yamitysb.co.il</p> <p>Ivory Coast Divertech divertech_ci@yahoo.fr</p> <p>Jordan see United Arab Emirates</p>	<p>Kuwait VETUS see United Arab Emirates</p> <p>Maxwell Al Sabih Marine Equipment Company Tel.: +965 992 701 05 sales@alsabihmarine.com</p> <p>Latvia BMG Power Systems OÜ LV Tel.: +371 26 606 457 info.lv@bm.ee</p> <p>Lebanon see United Arab Emirates</p> <p>Lithuania BMG Power Systems OÜ LT Tel.: +370 600 94 382 klaipeda@bm.ee</p> <p>Malta Gauci Borda & Co. Ltd. Tel.: +356 21 340 491 +356 21 313 758 sales@gauciborda.com</p>	<p>Norway Univa AS Tel.: +47 37 06 20 50 post@univa.no</p> <p>Oman see United Arab Emirates</p> <p>Qatar see United Arab Emirates</p> <p>Romania S.C. Technoind SRL Tel.: +40 744 593 593 puiu.maris@technoind.ro</p> <p>Saudi Arabia see United Arab Emirates</p>	<p>Seychelles Adesho Marine Tel.: +248 4224216 adesho@seychelles.net</p> <p>Power Marine & Accessories info@pmaseychelles.com Tel.: +248 278 3304</p> <p>Slovakia PHAROS s.r.o. Tel.: +421 911 233 202 pharos@pharos.sk</p> <p>Slovenia Seawave Marine d.o.o. Tel.: +386 45302 444 info@seawave-marine.si</p> <p>Switzerland ProMot AG Tel.: +41 62 788 88 77 vetus@promotag.ch</p>	<p>Turkey VETUS Marintek Deniz Ve Yat Malzemeleri Ticaret A.S. Tel.: +90 216 317 10 10 info@marintek.com.tr</p> <p>Maxwell DEKA Marin Deniz Malzemeleri Ticaret A.S. Tel.: +90 444 11 75 info@dekamarine.com</p> <p>Ukraine Marina Oriyana Tel.: +380 50 357 57 15 yacht@oriyana.com</p> <p>United Arab. Emirates Exalto Emirates LLC S.P. Tel.: +971 6545 3366 info@exalto-emirates.com</p> <p>Yemen see United Arab Emirates</p>
--	---	---	---	--

Certification

We take our responsibilities very seriously

VETUS is ISO 9001:2015 certified, meaning that we guarantee our quality by working according to certain established guidelines and processes which we monitor continuously. We deliver quality and service. This important certificate is a confirmation of our commitment.

Below you will find the organizations that have been accredited by a European Union Member State and International Inspection Agencies to assess whether our products meet established standards through assessment, inspection, and examination of a product, its design, and manufacturer.

- CE guidelines e.g. RCD (Recreational Craft Directive)
- MED (Marine Equipment Directive)
- EMC (Electromagnetic Compatibility Directive)
- LVD (Low Voltage Directive)
- ABYC (American Boating and Yachting Council)
- NMMA (National Marine Manufacturers Association)



VETUS online

Keeping you up-to-date with the latest activities

Our complete product range can be found on our website www.vetus.com. In addition to new product introductions and activities such as boat shows, you will also find our product manuals, instructional videos, service and maintenance information and frequently asked questions.



What are our handles?



UNIQUE 3 YEAR WARRANTY **VETUS equipment**

VETUS offers an industry leading 3 year warranty on nearly all equipment and a 5 year warranty on engines. Your interests are the most important consideration for VETUS. We want you to enjoy life on the water and not be let down by technical failure. We want you to have confidence in your boat and the equipment on board. This is the starting point for the development of all new and existing VETUS products. Naturally quality, innovation, ease of use and ease of installation are equally important for every product developed.

Besides a world beating warranty, VETUS also provides a worldwide service network, so that our customers can always count on outstanding support.



UNIQUE 5 YEAR WARRANTY **VETUS engines** (Pleasure Craft Application)

For the first 36 months after the date of delivery to the first owner, all VETUS diesel propulsion engines are fully warranted in accordance with the conditions specified in the VETUS Owner's manual. For an additional period of 24 months thereafter, or 1000 additional operating hours, whichever comes first, VETUS offers an extended limited warranty.



5+ EXTENDED WARRANTY **VETUS package deals**

When a VETUS engine is purchased together with a complete VETUS around the Engine package, warranty will be extended from 3 to 5 years on the around the engine package. Together with the already very good warranty conditions on VETUS engines (3+2 years) VETUS products will ensure you to have a long and carefree use of your boat!

For more information check the VETUS warranty conditions on www.vetus.com or www.vetus.com/en/5-plus-warranty

NEW PRODUCTS



**E-LINE Liquid cooled
ELINE220S**

Page 79



**Hybrid systems
M2H - M3H - M4H**

Page 86



**Converter
CANJ2N1**

Page 143



**Rudder angle sensor
CANNRUDSS**

Page 147



**Tank level sensor
CANNFLS**

Page 148



**Fuel Polisher
FPS12**

Page 162



**Retractable BOW PRO thruster
BOWR**

Page 233



**Sliding hatch
LING**

Page 317



COMING SOON!



NEW PRODUCTS



Drum winch TASMAN V2

Page 372



Winch series BH8

Page 374



Boat seat Captain's rest CHCRDGW CHCRDDG

Page 402



Boat seat Flag Officer CHFLAGDGW CHFLAGDCB

Page 402



Pedestal PCG4363B PCG5680B

Page 410



Rubber exhaust hose SLANGR

Page 468



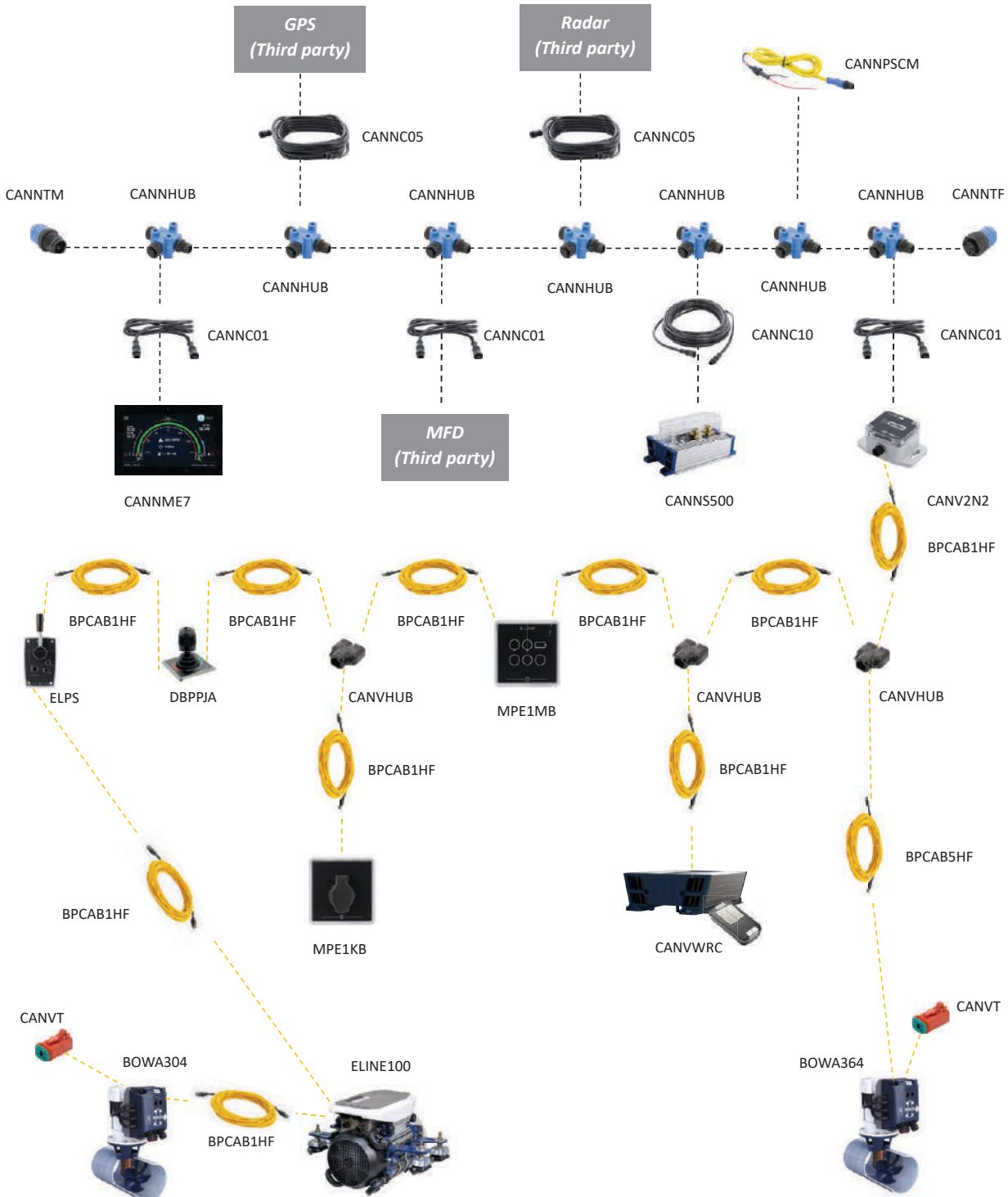
V-CAN (VETUS Controller Area Network)

CAN bus is a digital communication network, used to monitor and control devices which are connected on the CAN bus line. There are many different CAN bus networks in the world. The most common for marine applications are J1939® and NMEA0183® or NMEA2000®.

VETUS has designed its own CAN bus system called V-CAN, which is intended for VETUS products only. It has also made products which will communicate between this proprietary V-CAN system and J1939® or NMEA2000®.

The development of a proprietary V-CAN protocol enables VETUS to stay in control and maintain implemented safety factors designed into our products. External control or monitoring by other systems must always be done with VETUS approval. This is either via a Gateway to the other system, or through approved use of the V-CAN command structure (see the schematic).

VETUS has also assisted the NMEA2000® organization in the implementation of thrusters and electric propulsion to operate on that network. For this reason, VETUS is a NMEA2000® member.



VETUS V-CAN

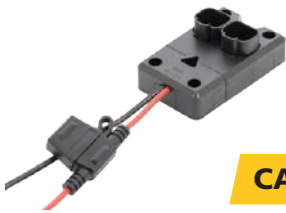
V-CAN connection cables

Available in six different lengths for use with BOW PRO and RIMDRIVE installations.

Type	Description
BPCAB1HF	V-CAN cable 1 m Halogen free
BPCAB5HF	V-CAN cable 5 m Halogen free
BPCAB10HF	V-CAN cable 10 m Halogen free
BPCAB15HF	V-CAN cable 15 m Halogen free
BPCAB20HF	V-CAN cable 20 m Halogen free
BPCAB25HF	V-CAN cable 25 m Halogen free



BPCAB..HF



CANVPS



CANVT



CANVHUB

Type	Description
CANVPS	V-CAN Power supply incl. safety
CANVT	V-CAN Terminating resistor
BPCABCGC	V-CAN Gender changer for joining CAN bus extension cables
CANVHUB	V-CAN bus 3-point hub



BPCABCGC

CANVERTER

The CANverter is a plug-and-play gateway that allows you to combine different CAN (Controller Area Network) protocols.



Type	Description
CANV2N2	CANverter bi directional NMEA2000 to V-CAN
CANV2Y2	CANverter bi directional J1939 to V-CAN
CANV2N1	CANverter mono directional V-CAN to NMEA2000
CANR	CANrepeater
CANVM12A	CANverter M12 adapter cable



CANVERTER

Type	Description
CANNS500	Digital Battery Monitoring Shunt NMEA2000 and WiFi connection, max. current 500A
CANNME7	Multifunction Display for Electric Propulsion 7" display, NMEA2000



CANVM12A



CANNS500



CANNME7

NMEA2000®

Cables

Available in 5 different lengths.



CANNC01



CANNC02



CANNC05



CANNC10

CANNC25

Type	Description
CANNC01	NMEA2000® Cable - 1 m - male-female
CANNC02	NMEA2000® Cable - 2 m - male-female
CANNC05	NMEA2000® Cable - 5 m - male-female
CANNC10	NMEA2000® Cable - 10 m - male-female
CANNC25	NMEA2000® Cable - 25 m - male-female

Hub

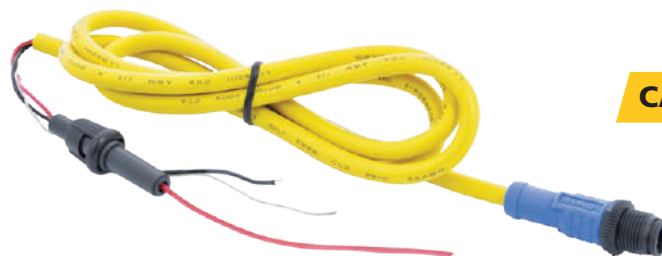
Type	Description
CANNHUB	NMEA2000® Hub - male-female-male



CANNHUB

Power supply cable

Type	Description
CANNPSCM	NMEA2000® Power supply cable - 3A fuse - male connector -1 m



CANNPSCM

Terminating resistor

Type	Description
CANNTF	NMEA2000® Terminating resistor - Female -120 Ohm
CANNTM	NMEA2000® Terminating resistor - Male -120 Ohm



CANNTF



CANNTM



VETUS V-CAN products

Electric propulsion Page 63



E-LINE



E-POD

E-LINE panels and controls Page 80 - 83



MPE1KB



MPE1MBV



ELPS



ELCS

Thrusters Page 222



BOWA



BOWB



RIMDRIVE

Thruster panels Page 240



BPPJA



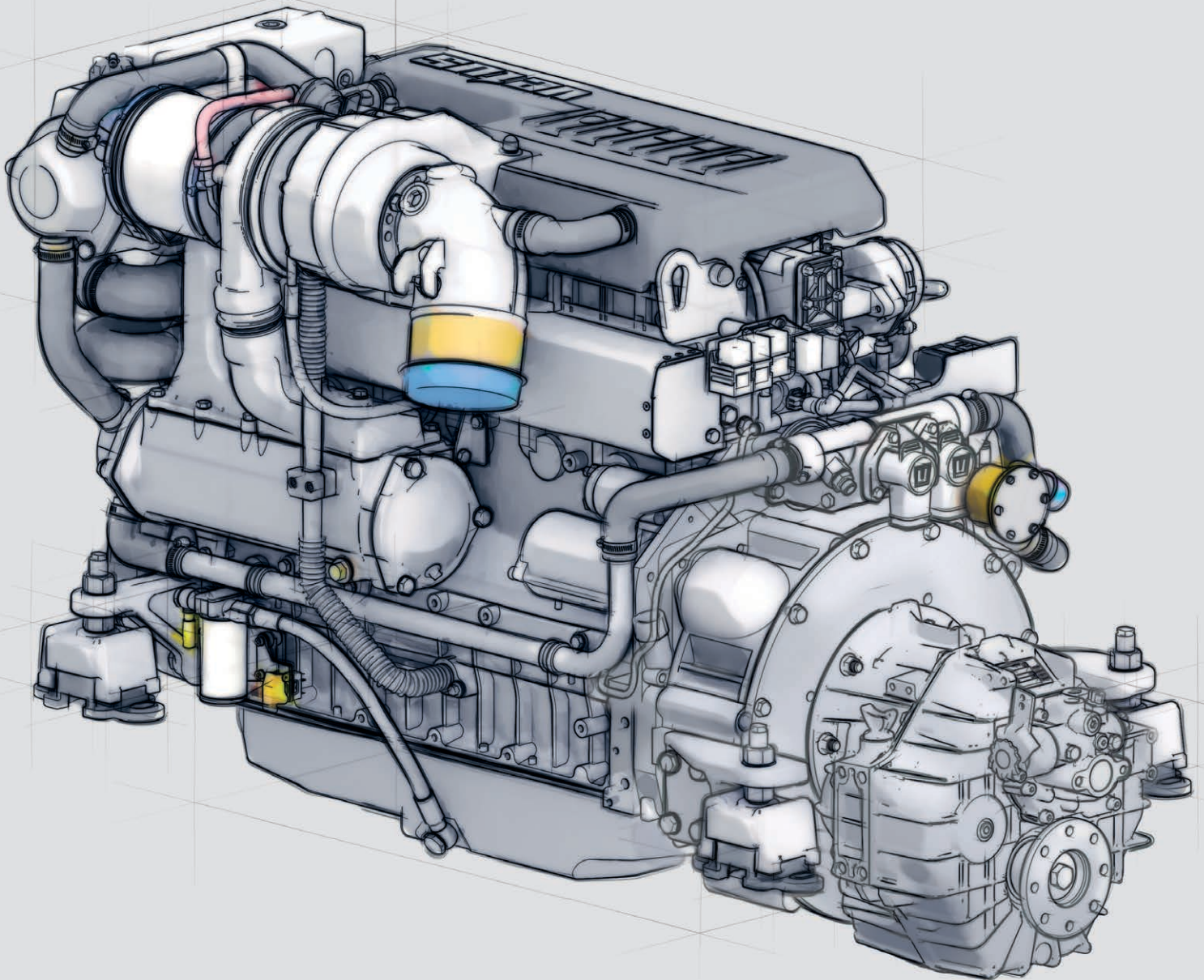
BPPPA



DBPPJA



Engines and around the engine



Engines and around the engine

Marine Diesel Engines

Most pleasure boat owners long for the moment they can set foot aboard. Work is forgotten and other worries vanish into the air. That sense of happiness is complete, when the engine comes to life with a healthy roar. The owner of a power or sailing boat with a VETUS engine is in a position to enjoy every moment on the water to the max, and that is the way it should be! Whether you own a sturdy two cylinder with saildrive or a whispering six cylinder beauty, a VETUS Diesel Engine will be your faithful servant. To complement each marine engine in the range, VETUS also offers a well-thought-out complete package of "around the engine" products: from the engine remote control to the fuel filter to the propeller shaft to the exhaust system.

Purchasing a VETUS engine brings a host of related benefits

- The extensive VETUS dealer network is on hand to provide service, spare parts and points of contact worldwide
- A VETUS engine brings with it over 50 years of experience in producing reliable and compact marine engines, ensuring safe and continuous boating pleasure
- All VETUS engines come with a 5 year warranty in accordance with the VETUS Warranty and Service Conditions

M-LINE

VETUS offers a complete range of M-Line marine diesel engines, suitable for many different types of boats including launches, sailing yachts, canal boats and small cabin cruisers. Over the course of many years of steady development these engines have proven both their quality and reliability.



M2.13
M2.18



M3.29



M4.35
M4.45



M4.56

HYBRID BOATING (NEW!)

New in the VETUS product range is the hybrid system for M2, M3, and M4. The two-cylinder engine is supplied with a 2.3 kW electric drive, and the 3- and 4-cylinder models include a 6 kW electric drive. The VETUS hybrid system allows you to enjoy both silent cruising with electric propulsion in inner cities or eco-sensitive areas, and when more power is required, the diesel can be engaged at higher speed. Please check for further details on page 86.



H-LINE

The H-Line engines are sturdy, reliable marine diesel engines and are suitable for all kinds of applications, such as cabin boats, small fishing boats and larger canal boats. These engines have low noise and vibration levels due to their robust construction. They are also highly fuel efficient.

VETUS offers the VH4.65, 65hp at 3000 rpm and VH4.80, 80hp at 4000 rpm which both are naturally aspirated engines. (VH4.80: RCD1, not available in EU.)



VH4.65
VH4.80

D-LINE

VETUS D-Line common-rail engines are ideal for (heavy) displacement boats and semi-planing boats. They are slow running and exceptionally smooth, making them the engine of choice where long distance cruising is involved. Based on the quality of the well-known Deutz engine blocks, they are exceptionally reliable and durable.



VD4.120
VD4.140



VD6.170
VD6.210

VETUS marine diesel engines certifications

Engine type	RCD	BSOII pleasure craft		SOLAS
		single	twin	
M2.13	2	✓	✓	x
M2.18	2	✓	✓	x
M3.29	2	✓	✓	✓
M4.35	2	✓	✓	✓
M4.45	2	✓	✓	✓
M4.56	2	x	x	✓
VH4.65	2	x	x	x
VH4.80	1	x	x	x
VD4.120	2	✓	✓	x
VD4.140	2	✓	✓	x
VD6.170	2	✓	✓	x
VD6.210	2	✓	✓	x



Engines and around the engine

M-LINE

M-Line engines are quiet running, highly fuel-efficient, reliable and offer high power and torque output. The fuel systems are automatically self-bleeding, a great convenience after a fuel filter replacement. All engines are equipped with a high output marine alternator as standard for fast recharging of batteries. A second alternator is available as an option on all type M4 engines. And there is more....!

INNOVATION

Engine space temperature reduction

The heat build-up in engine spaces can easily reach temperatures of 70°C. High ambient temperatures in the engine space can have negative effects on engine performance and installed equipment.

VETUS has developed an elegant yet efficient solution by fitting a water-cooled aluminium top cover. Located directly above the cylinder head, this huge cooling element absorbs radiant heat coming from the engine. This innovative concept results in a significant temperature reduction of up to 15°C - a 20% reduction! In turn, the cooler ambient temperature provides a more fuel-efficient air supply to the engine and better combustion. To the best of our knowledge, no other marine engine manufacturer uses such an incorporated cooling element to reduce ambient temperature in the engine space. A truly unique solution developed by VETUS.

Engine sound reduction

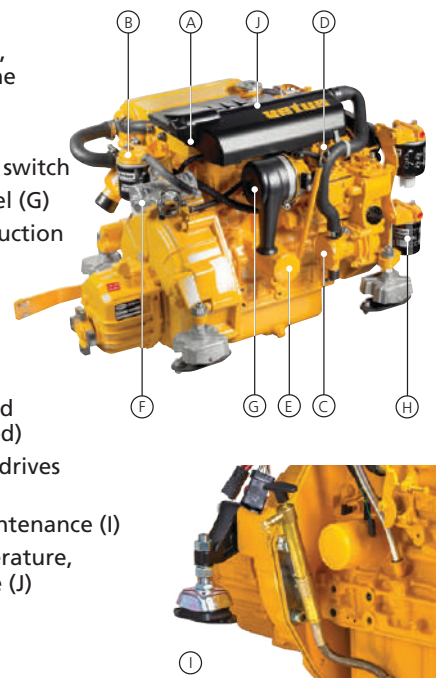
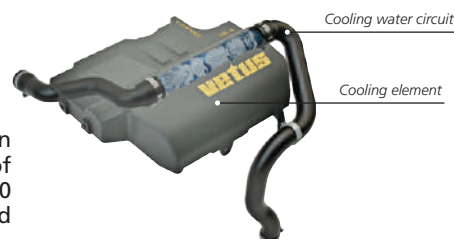
People often go boating to enjoy the peace of the water. VETUS likes to add to this experience by creating a propulsion system that performs as quietly as possible.

The sturdy, aluminium top cover also significantly reduces the noise level. When combined with the newly designed air filter housing, tests show a sound reduction of approximately 5 dB(A) and 'near silent' operation at a cruising speed of around 2200 rpm. Those present at the test sites have all enthusiastically described the engine sound as being incredibly more pleasant to the ear.

FEATURES

Based on customer feedback, the M-Line incorporates many features designed to make life easier for both the boat builder and the end user.

- Service parts such as fuses and relays (A), fuel filter and fuel connections (B), impeller (C), dipstick (D), and oil filter (E) are all easily accessible. On all M4 engines (except M4.56) the impeller is located at the front, for even easier access
- The wiring is improved to offer easy connection and extra safety
- All M-Line engines are equipped with an electric fuel pump (F), actuated by the ignition switch
- A new air inlet filter housing attenuates the airflow and lowers the induction sound level (G)
- The heat exchanger unit has 26 improvements over earlier versions, including the construction materials and surface treatments
- The synthetic front cover enhances safety and appearance. All pulleys and belts are covered, thereby meeting the EC Machinery Directive
- Front mounted oil and fuel filters including a bracket are available as an option, making servicing as convenient as possible (H)
- When higher charging output is required, all M4 engines are designed to accept a second alternator as an option (when a second alternator is fitted, the front cover is not supplied)
- Furthermore, all M-Line engines can be supplied with an adapter kit for Volvo Penta saildrives (110S/120S and 120SB)
- The oil sump pump on all M-Line engines is already installed on the engine for easy maintenance (I)
- Finally yet importantly, the water-cooled top cover not only reduces engine room temperature, but is designed to be used as a step, making it easier to move around or over the engine (J)



All these new advantages come without compromising any other features. With a range from 12 - 52 HP (9 - 37.5 kW) the VETUS M-Line is the preferred choice for many boat builders. Do you need more reasons to choose a VETUS engine?

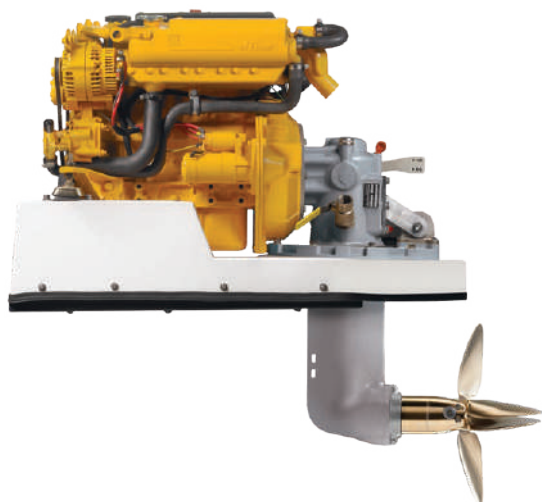
You can expect the highest level of service when choosing a VETUS engine, together with high quality and professional advice.

SOLAS

For our SOLAS solutions see page 30.



Options for M-Line and H-Line

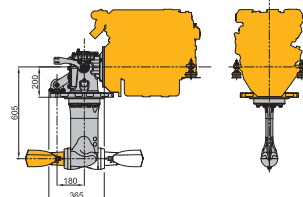


Saildrive

VETUS can supply a saildrive for all M-Line and H-Line engines. There is one type of saildrive available, the Technodrive SP60, with ratios of 2.15:1 or 2.38:1. The SP60 can be used for both single and twin engine installations.

The underwater drive leg can be installed reversed 180°, on request. This allows the engine to be installed either in front of or behind the saildrive unit, providing greater installation flexibility.

Standard scope of supply for saildrive engines: instrument panel MPA10 for M2.13/M2.18 and MPA22KBS2 for other engine models, two flexible engine mounts type KSTEUN100V, and a pre-installed oil sump pump.

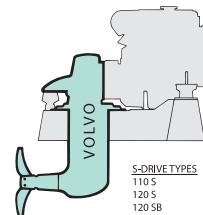


We will be pleased to recommend the correct Flexofold propeller for your saildrive (www.flexofold.com).

Saildrive kits

All VETUS M-Line engines can be supplied with an adapter kit to fit an existing Volvo Penta sail drive. Kits are available for 110S, 120S or 120SB saildrives.

Type	Saildrive
STM7614	110S
STM7619	120SB
STM7621	120S



Filters

Front mounted oil and fuel filters including a bracket are available as an option on the M-Line range, making servicing as convenient as possible.

Type	Engine type
08-01454	M2
08-01455	M3
08-01479	M4
08-01456	M2 + electric fuel pump
08-01457	M3 + electric fuel pump



Second alternator M4 models

Engine models M4.35, M4.45 and M4.56 can be supplied with a second factory fitted alternator of 110A, if specified at the time of order. When this option is specified, the front belt cover is not fitted. For older M4 models (M4.15/M4.17/M4.55) an 75A alternator can be ordered..



Keelcooling

M-Line and H-Line models are also available as keelcooled versions. Keelcooling systems are normally installed when the boat is used in shallow waters.



Engines and around the engine

M-Line

M2.13

● ● 8.8 kW / 12 HP

Supplied as standard with instrument panel type MPA10 (see page 139), four flexible engine mounts type KSTEUN25V (see page 50) and a pre-installed oil sump pump.

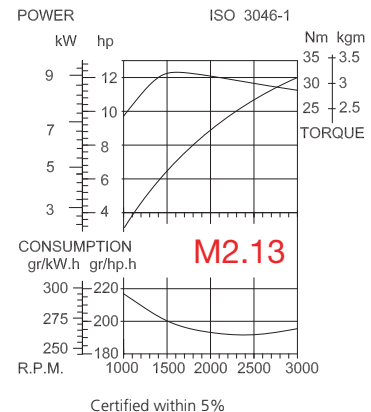
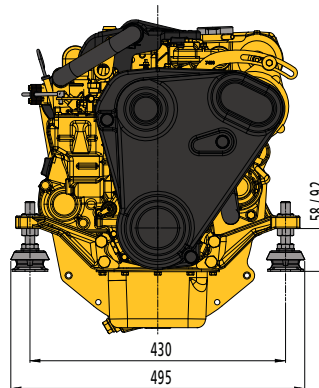
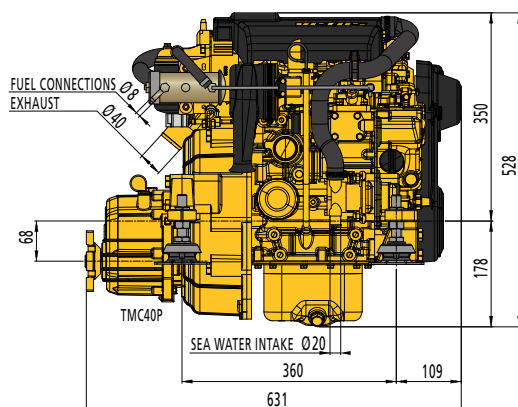


TECHNICAL SPECIFICATIONS

* Not Available in the United States.

Engine model	M2.13
Max. output at flywheel (ISO 8665)	8.8 kW (12 hp)
Max. output at propeller shaft (ISO 8665)	8.7 kW (11.8 hp)
Maximum rpm	3000
Max. torque	32.7 Nm / 1600 rpm
Bore x stroke	3" x 2.8" (76 mm x 70 mm)
Displacement	39 cu.inch (635 cm ³)
Number of cylinders	2 in line
Combustion system	indirect injection
Compression ratio	23:1
Firing order	1-2
Intake	naturally aspirated
Electrical system	12 VDC - 85 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TMC40 (2 / 2.60:1)
Gearbox options	ZF12M 2.14 / 2.63:1 ZF15MIV 2.13 / 2.99:1 TMC60A 2 / 2.5:1

Saildrive	SP60 2.15 / 2.38:1
Dry weight (incl. std. gearbox)	236 lb (107 kg)
Fuel consumption at 2500 rpm	268 g / kW.h (196 g / hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	5 ft. (1.5 m)
Calorifier connection kit	optional
Instrument panel (standard)	MPA10
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating/glow plugs
Electric circuit protection	fuse 20 Amps.
Certifications	EU-RCD II, BSO II





M-Line

M2.18

● ● 11.8 kW / 16 HP

Supplied as standard with instrument panel type MPA10 (see page 139), four flexible engine mounts type KSTEUN35V (see page 50) and a pre-installed oil sump pump.

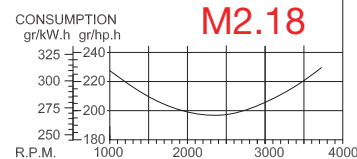
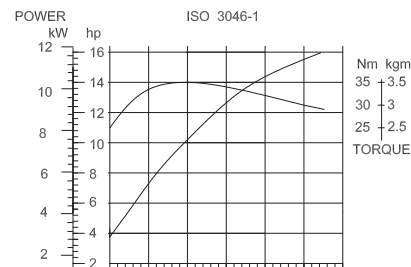
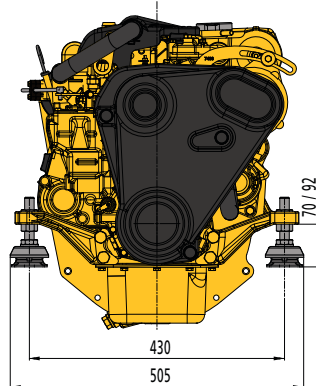
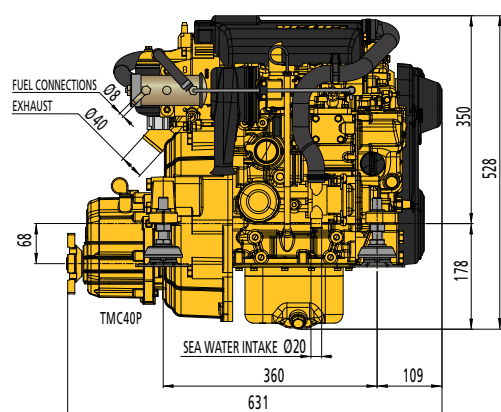


TECHNICAL SPECIFICATIONS

* Not Available in the United States.

Engine model	M2.18
Max. output at flywheel (ISO 8665)	11.8 kW (16 hp)
Max. output at propeller shaft (ISO 8665)	11.6 kW (15.8 hp)
Maximum rpm	3600
Max. torque	35.1 Nm / 2000 rpm
Bore x stroke	3" x 2.8" (76 mm x 70 mm)
Displacement	39 cu.inch (635 cm ³)
Number of cylinders	2 in line
Combustion system	indirect injection
Compression ratio	23:1
Firing order	1-2
Intake	naturally aspirated
Electrical system	12 VDC - 85 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TMC40 (2 / 2.60:1)
Gearbox options	ZF12M 2.14 / 2.63:1 ZF15MIV 2.13 / 2.99:1 TMC60A 2 / 2.5:1

Saildrive	SP60 2.15 / 2.38:1
Dry weight (incl. std. gearbox)	236 lb (107 kg)
Fuel consumption at 2500 rpm	268 g / kW.h (196 g / hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	5 ft. (1.5 m)
Calorifier connection kit	optional
Instrument panel (standard)	MPA10
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating/glow plugs
Electric circuit protection	fuse 20 Amps.
Certifications	EU-RCD II, BSO II



Certified within 5%

Engines and around the engine

M-Line

M3.29

● ● ● 20 kW / 27 HP



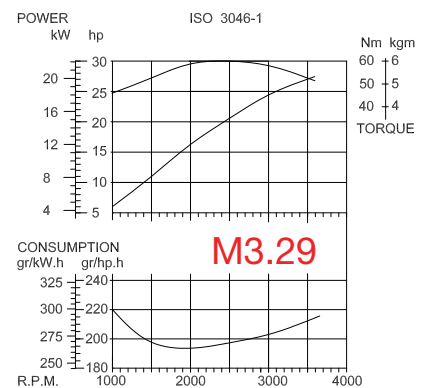
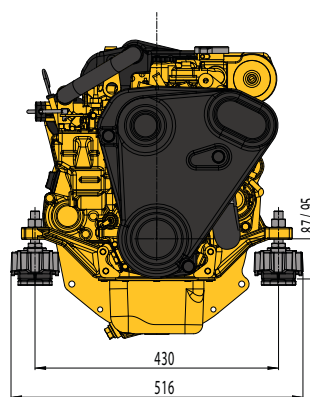
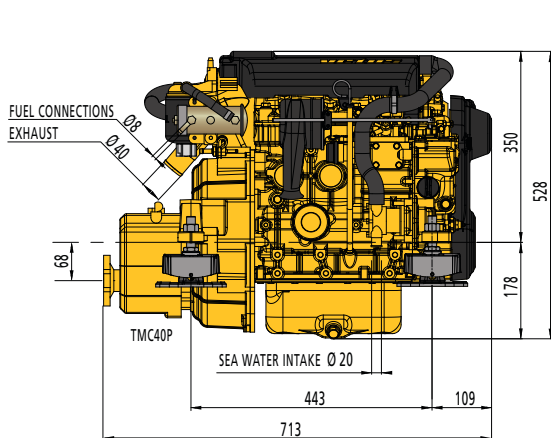
Supplied as standard with instrument panel type MPA22KBS2 (see page 140), four flexible engine mounts type KSTEUN40A (see page 50) and a pre-installed oil sump pump.

TECHNICAL SPECIFICATIONS

* Not Available in the United States.

Engine model	M3.29
Max. output at flywheel (ISO 8665)	20 kW (27 hp)
Max. output at propeller shaft (ISO 8665)	19.3 kW (26.2 hp)
Maximum rpm	3600
Max. torque	60.2 Nm / 2500 rpm
Bore x stroke	3" x 2.8" (76 mm x 70 mm)
Displacement	58 cu.inch (952 cm ³)
Number of cylinders	3 in line
Combustion system	indirect injection
Compression ratio	22:1
Firing order	1-3-2
Intake	naturally aspirated
Electrical system	12 VDC - 85 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TMC40 (2 / 2.60:1)
Gearbox options	ZF12M 2.14 / 2.63:1
	ZF15MIV 2.13 / 2.99:1
	TMC60A 2 / 2.5:1

Saildrive	SP60 2.15 / 2.38:1	
Dry weight (incl. std. gearbox)	295 lb (134 kg)	
Fuel consumption at 2500 rpm	270 g / kW.h (199 g / hp.h)	
Max. backwards installation angle	15°	
Max. lateral inclination angle;	Continuously	25°
	5 minutes max.	30°
Suction height of fuel lift pump	5 ft. (1.5 m)	
Calorifier connection kit	optional	
Instrument panel (standard)	MPA22KBS2	
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current	
	Control light for	pre-heating/glow plugs
Electric circuit protection	fuse 20 Amps.	
Certifications	EU-RCD II, BSO II, SOLAS	





M-Line

M4.35

● ● ● ● 24.3 kW / 33 HP

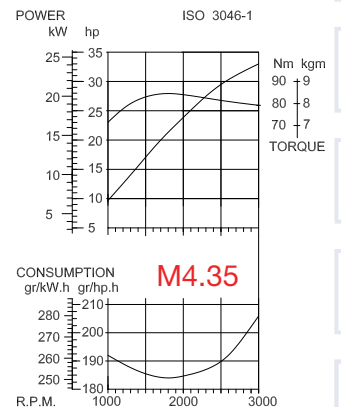
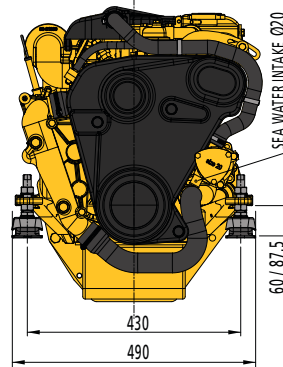
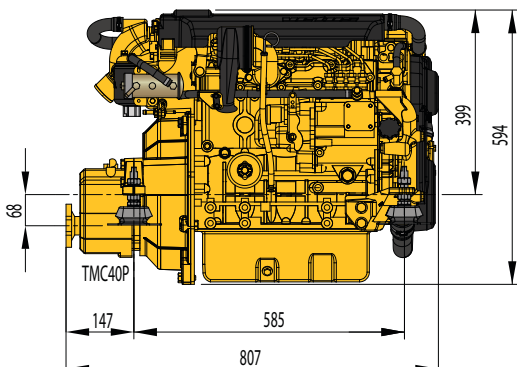


Supplied as standard with instrument panel type MPA22KBS2 (see page 140), four flexible engine mounts type KSTEUN75V (see page 50) and a pre-installed oil sump pump.

TECHNICAL SPECIFICATIONS

* Not Available in the United States.

Engine model	M4.35		
Max. output at flywheel (ISO 8665)	24.3 kW (33 hp)	Saildrive	SP60 2.15 / 2.38:1 SD10 2.23 / 2.49:1
Max. output at propeller shaft (ISO 8665)	23.6 kW (32.1 hp)	Dry weight (incl. std. gearbox)	439 lb (199 kg)
Maximum rpm	3000	Fuel consumption at 2500 rpm	252 g / kW.h (185 g / hp.h)
Max. torque	83.8 Nm/1700 rpm	Max. backwards installation angle	15°
Bore x stroke	3.07" x 3.62" (78 mm x 92 mm)	Max. lateral inclination angle;	
Displacement	108 cu.inch (1758 cm ³)	Continuously	25°
Number of cylinders	4 in line	5 minutes max.	30°
Combustion system	indirect injection	Suction height of fuel lift pump	5 ft (1.5 m)
Compression ratio	22:1	Calorifier connection kit	optional
Firing order	1-3-4-2	Instrument panel (standard)	MPA22KBS2
Intake	naturally aspirated	Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Electrical system	12 VDC - 110 Amps.	Control light for	pre-heating/glow plugs
Cooling system (standard)	indirect cooling (keel cooling optional)	Electric circuit protection	fuse 20 Amps.
Gearbox, standard	TMC40 2:1	Certifications	EU-RCD II, BSO II, SOLAS
Gearbox options	TMC60 (2 / 2.5 / 2.94:1) ZF12M 2.14 / 2.63:1 TMC60A 2 / 2.5:1		



Certified within 5%

Engines and around the engine

M-Line

M4.45

● ● ● ● 30.9 kW / 42 HP



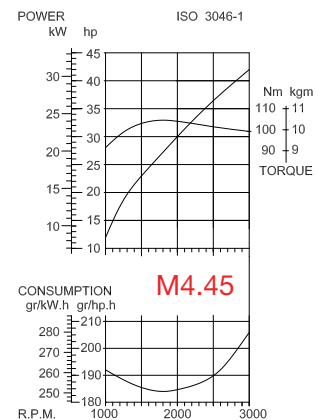
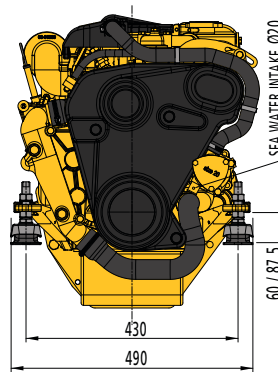
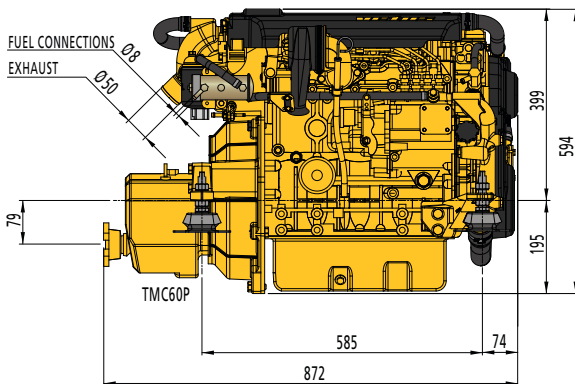
Supplied as standard with instrument panel type MPA22KBS2 (see page 140), four flexible engine mounts type KSTEUN75V (see page 50) and a pre-installed oil sump pump.

TECHNICAL SPECIFICATIONS

* Not available in the United States.

Engine model	M4.45
Max. output at flywheel (ISO 8665)	30.9 kW (42 hp)
Max. output at propeller shaft (ISO 8665)	30 kW (40.8 hp)
Maximum rpm	3000
Max. torque	106.4 Nm / 1750 rpm
Bore x stroke	3.07" x 3.62" (78 mm x 92 mm)
Displacement	108 cu.inch (1758 cm ³)
Number of cylinders	4 in line
Combustion system	indirect injection
Compression ratio	22:1
Firing order	1-3-4-2
Intake	naturally aspirated
Electrical system	12 VDC - 110 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TMC60 (2 / 2.5 / 2.94:1)
Gearbox options	ZF12M 2.14 / 2.63:1 TMC60A 2 / 2.5:1

Saildrive	SP60 2.15 / 2.38:1 SD10 2.23 / 2.49:1
Dry weight (incl. std. gearbox)	439 lb (199 kg)
Fuel consumption at 2500 rpm	252 g / kW.h (185 g / hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	5 ft (1.5 m)
Calorifier connection kit	optional
Instrument panel (standard)	MPA22KBS2
Warning lights and audible alarm	oil pressure, temperature and (coolant exhaust), charging current
Control light for	pre-heating/glow plugs
Electric circuit protection	fuse 20 Amps.
Certifications	EU-RCD II, BSO II, SOLAS





M-Line

M4.56

● ● ● ● 38.3 kW / 52 HP



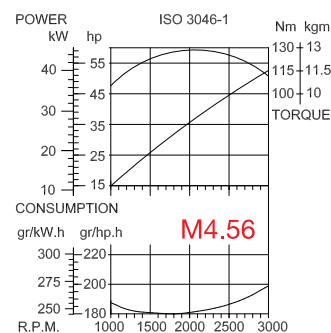
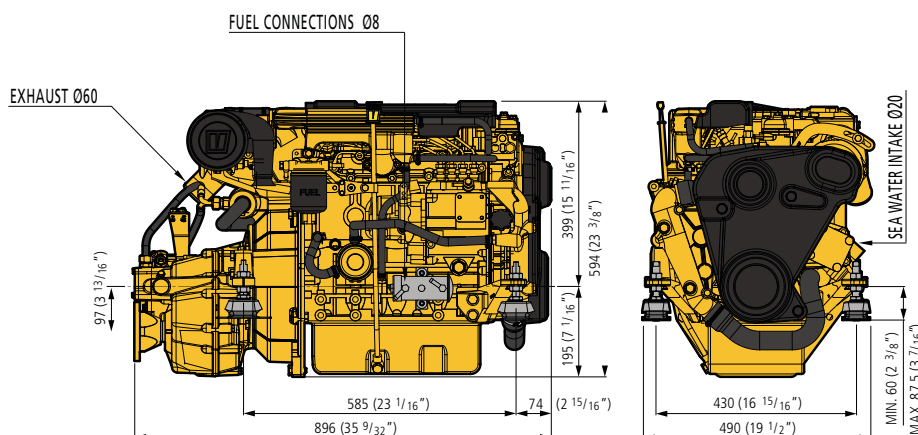
Supplied as standard with instrument panel type MPA22KBS2 (see page 140), four flexible engine mounts type KSTEUN80V (see page 50) and a pre-installed oil sump pump.

TECHNICAL SPECIFICATIONS

* Not available in the United States.

Engine model	M4.56
Max. output at flywheel (ISO 8665)	38.3 kW (52 hp)
Max. output at propeller shaft (ISO 8665)	37.1 kW (51 hp)
Maximum rpm	3000
Max. torque	127 Nm / 2000 rpm
Bore x stroke	3.07" x 3.62" (78 mm x 92 mm)
Displacement	108 cu.inch (1758 cm ³)
Number of cylinders	4 in line
Combustion system	indirect injection
Compression ratio	22:1
Firing order	1-3-4-2
Intake	Turbo charged
Electrical system	12 VDC - 110 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TM345(A) (2 / 2.47:1) TMC40 2:1
Gearbox options	ZF12M 2.14:1 ZF15MIV 2.13 / 2.99:1 TMC60 2 / 2.5 / 2.94:1

Saildrive	SP60 2.15 / 2.38:1 SD10 2.23 / 2.49:1
Dry weight (incl. std. gearbox)	454 lb (206 kg)
Fuel consumption at 2500 rpm	244 g / kW.h (179 g / hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	5 ft. (1.5 m)
Calorifier connection kit	optional
Instrument panel (standard)	MPA22KBS2
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating/glow plugs
Electric circuit protection	fuse 20 Amps.
Certifications	EU-RCD II, SOLAS



Certified within 5%

Engines and around the engine

SOLAS Engines

VETUS also offers a range of marine diesel engines which are SOLAS approved for life and rescue boats and tenders. This range comprises of four models from 27hp up to 52hp.

Standard specification

- Keelcooling system with thermostat and dry exhaust fitting
- Tilt switch
- Electric fuel lift pump
- Automatic self-bleeding system
- Fuel filter/water separator
- Electric start
- Air filter
- Alternator 12 VDC/85A (M3) or 12 VDC/110A (M4)
- MPA10S SOLAS panel including 4 m cable, warning lights and audible alarm for low oil pressure, high coolant temperature and exhaust temperature, and ignition switch with a non-removable key for start and stop
- V-belt cover
- Pre-installed bilge pump

Options

- Intercooling system including exhaust injection bend with seawater alarm sensor
- Fire fighting pump including pump bracket
- Engine heating (48 VDC)
- Spring starter
- Hydraulic starter
- Bigger alternator 12 VDC/140A for M4 engines
- Second alternator 12 VDC/110A or 12 VDC/140A for M4 engines
- MPA1XTSMB panel instead of MPA10S SOLAS panel
- Instrument panels type MP(A)22 or MP(A)34
- Flexible engine mounts
- Bracket for remote oil and fuel filter
- Spare parts kit

In addition we can offer:

- Complete propeller shaft system
- Exhaust system for intercooled engines
- Remote controls and push-pull cables
- All other around the engine equipment



MPA10S



MPA1XTSMB

Type	Dial color	Dimensions inches (mm)	Built-in depth inches (mm)	Voltage (DC)
MPA10S	Black	3 ¹⁵ / ₁₆ x 6 ¹ / ₁₆ (100 x 154)	4 ³ / ₄ (120)	12
MPA1XTSMB	Black	6 ¹⁹ / ₃₂ x 3 ¹¹ / ₃₂ (167.5 x 85)	4 ³ / ₄ (120)	12





H-LINE

The H-Line engines are sturdy, reliable engines and are suitable for many applications, such as cabin boats, small fishing boats and larger canal boats. These engines have low noise and vibration levels due to their robust construction. They are also highly fuel efficient.

The H-Line engines are four-cylinder 4-stroke engines with an indirect fuel injection system, a dual-circuit cooling system with integrated heat exchanger and a seawater injected exhaust bend.

Available in two versions: 65 hp at a maximum of 3000 rpm (VH4.65). 80 hp at a maximum of 4000 rpm (VH4.80). The VH4.80 is not available in the EU, USA, or Canada.

A few advantages of these engines

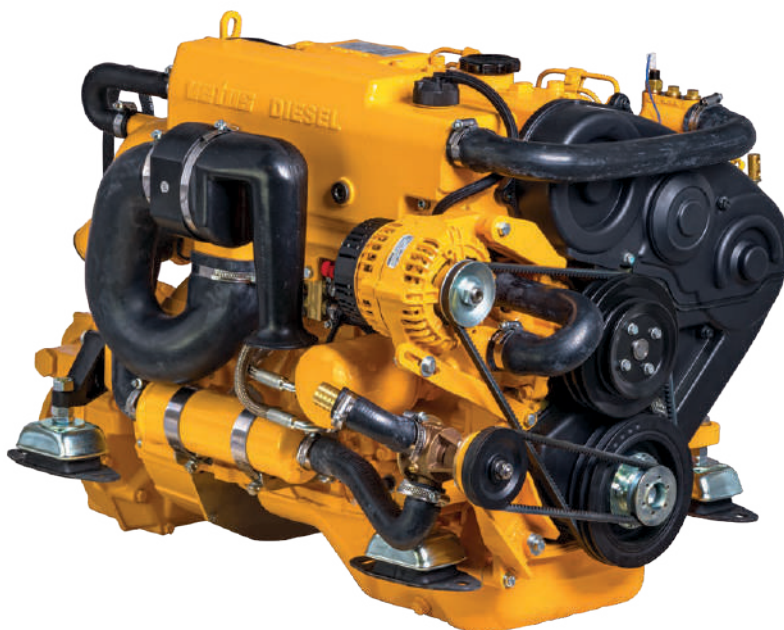
- Extremely favourable power to weight ratio
- Very low noise and vibration levels due to counter balancing shafts
- Very low fuel consumption
- Minimum hose connections, owing to extensive use of molded rubber cooling system components
- When higher charging output is required, a second alternator 12VDC/110A can be fitted on both engine models
- Self-bleeding fuel system
- Good accessibility of service parts for easy maintenance

Options

- The H-Line engines can be supplied with gearbox or saildrive
- The H-Line can be supplied with a second alternator 12VDC/80A or 12VDC/110A, which will be installed when ordered together with the engine.



Second alternator



Engines and around the engine

H-Line

VH4.65

● ● ● ● 48 kW / 65.3 HP

VH4.80^{*)}

● ● ● ● 59 kW / 80.3 HP

*) Not available in EU, USA and Canada.



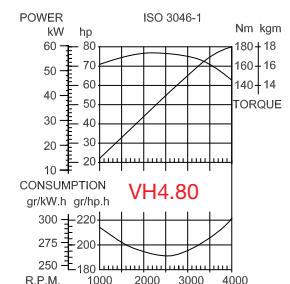
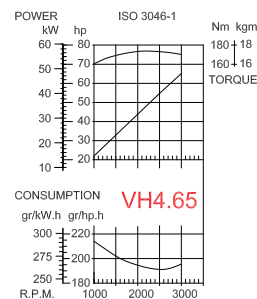
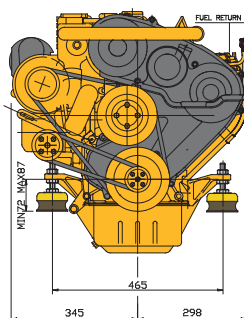
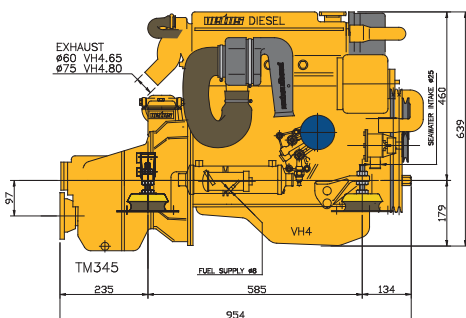
Supplied as standard with instrument panel type MPA22KBS2 / BS25 (see page 140), four flexible engine mounts type HY100 (see page 51) and an oil sump pump.

TECHNICAL SPECIFICATIONS

Engine model	VH4.65 / VH4.80
*Max. output at flywheel (ISO 3046-1)	48 kW (65.3 hp) (VH4.65) 59 kW (80.3 hp) (VH4.80)
*Max. output at propeller shaft (ISO 3046-1)	46.6 kW (63.4 hp) (VH4.65) 57.2 kW (77.6 hp) (VH4.80)
Maximum rpm	3000 (VH4.65) / 4000 (VH4.80)
Bore x stroke	3.58" x 3.94" (91.1 mm x 100 mm)
Displacement	159 cu.inch (2607 cm ³)
Number of cylinders	4 in line
Combustion system	indirect injection
Compression ratio	22:1
Firing order	1-3-4-2
Intake	Naturally aspirated
Electrical system	12 VDC - 115 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox (standard)	TM345(A)
Ratio	2 / 2.47:1
Gearbox options	ZF25A 1.93 / 2.29 / 2.71:1 ZF25 1.97 / 2.8:1

Saildrive	SP60 2.15:1
Dry weight (incl. std. gearbox)	528 lb (240 kg) (VH4.65) 539 lb (245 kg) (VH4.80)
Fuel consumption at 2500 rpm	260 g / kW.h (190 g / hp.h)
Max. torque	170 Nm / 2.200 rpm
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	1.5 m
Calorifier connection kit	optional
Instrument panel (standard)	MPA22KBS2 / BS25
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating
Electric circuit protection	fuse 20 Amps.
Certifications	EU-RCD II (VH4.65) EU-RCDI, RCDII pending (VH4.80) RRR emission standards (VH4.65/VH4.80)

* In accordance with ISO 8665



Certified within 5%



Equipment selection table for M-Line and H-Line



BULFL

See flexible couplings on page 96



FTR330

See water strainers on page 53



SISCO

See remote controls on page 44



See fuel filters on page 158



NLP40

See waterlocks on page 118 and 119



See propellers on page 108



NLP340

Engine model	M2.13		M2.18		M3.29		M4.35		M4.45		M4.56		VH4.65		VH4.80		
Gearbox reduction	2:1	2.6:1	2:1	2.6:1	2:1	2.6:1	2:1	2.5:1	2:1	2.5:1	2:1	2.47:1	2:1	2.63:1	1.97:1	2.8:1	
VETUS water lubricated propeller shaft system																	
* Shaft diam., Remanit 4462	25				30				35		30		35		40		
Indication for VETUS manganese bronze propeller for displacement boats (please request exact propeller calculation).																	
* 3-blade, P3B, diameter in inches	13"	15"	13"	15"	14"	16"	18"		20"	18"	20"	17"	21"	request	22"		
* 4-blade, P4E, diameter in inches	on request																
Flexofold NiAlBz folding propellers for sailing boats can exclusively be purchased through the Flexofold network (look at: www.flexofold.com)																	
2-blade, FoF folding propeller	13"	15"	13"	15"	15"	n.a.											
3-blade, FoF folding propeller	n.a.				15"	16"	17"	17"	18"	18"	20"	18"	20"	request	20"		
4-blade, FoF folding propeller	on request																
VETUS flexible couplings																	
* Bullflex type	01		02		04		08		04	08	04	08	04	08	04	08	
* Uniflex type					13				16	13			16				
* Combiflex type					12				n.a.	12			n.a.				
VETUS water strainer																	
* hose connection diam. inches (mm)					2 ⁵ / ₃₂ " (20)								1" (25)				
* water strainer, type FTR					470, 330 or 140/19								470 or 330/25				
* water strainer kit, type					WKIT33019								WKIT33025				
VETUS water separator / fuel filter																	
* hose connection suction/return in inches (mm)	5/16"(8) - 5/16"(8)																
* water separator / fuel filter, type:	WS180 or (75)330VTEB																
VETUS water-injected exhaust systems																	
* exhaust hose, diam. inches (mm)	1 ⁹ / ₁₆ " (40)				2" (50)				2 ³ / ₈ " (60)				3" (75)				
* waterlock, type	NLP(3)40/LP40/LSSA NLP40HD				NLP(3)50/L50R/5/LSSA NLP50HD				NLP(3)60/LP60/LSL/LSG NLP60HD				NLP(3)75/LP75/ LSL/LSG/NLP75HD				
* combi waterlock/muffler, type	NLP40				NLP50				NLP60				NLP75				
* muffler, type	MP40				MP50				MP60		MP60		MP75				
* gooseneck, type	LT40				LT50				LT60		LT60		LT75				
* combi muffler/gooseneck, type	NLP40				NLP50				NLP60		NLP60		NLP75				
* transom exhaust connection, type TRC	40R / PV or SV				50R / PV or SV				60R / PV or SV				TRC7590R				
* Anti-siphon, type ASD or AIRVENT	V or H																
VETUS engine remote controls																	
* to be selected	SISCO, SISCO, AFSTZIJ, RCTOPB, RCTOPS, AFSTTOP																
* push-pull cable:	CABL... (length to be determined)																
VETUS maintenance free batteries																	
* voltage									12								
* starter battery	min. 60A/max. 105A (M-Line)										min. 70A/max. 105A (H-Line)						
* service battery, Ah.									to be selected								
Advice on VETUS louvered air suction vents																	
* per engine, type ASV, SSV or SSVL	1 x 20	1 x 20	1 x 30	1 x 40 or 2 x 20	1 x 50 or 2 x 25	1 x 60 or 2 x 30	1 x 70 or 1 x 30 / 1 x 40	1 x 80 or 2 x 40									



D-LINE

COMMON-RAIL D-LINE ENGINES 122 - 210 HP

VETUS D-Line common-rail engines run smoothly, have a high power and torque, low revolutions and are highly reliable and durable. They are in conformity with the new RCD2 emission regulations. Extremely suitable for power hydraulics on board. These engines have a CAN bus system with a SAE J1939 protocol but can easily work with NMEA2000 systems on board as well.

These VETUS D-Line engines feature the unique, VETUS-designed, water-cooled top cover, reducing heat in the engine room as well as engine noise from an already quiet block. It can also be used as a step. Other features include: a smaller air filter to save space in the engine room, exhaust manifold insulation, high-output alternator (160 Amps), and an electric sump pump. A 12VDC or 24VDC second alternator can be ordered as an option. A front cover can only be supplied in combination with the 24VDC/75Amp alternator including ACR regulator.

The following options can be ordered with the engine

- 24 VDC electrical installation
- Double pole (aluminum boats)
- PTO for installation of a hydraulic pump
- Second alternator 12 VDC / 160 Amps or 24 VDC / 60 Amps
- Second alternator 24 VDC / 75 Amps including ACR regulator (WP)
- Potentiometer for mechanical controls
- Front belt cover for second 24 VDC/75A alternator
- Calorifier kit
- Electrical trolling valve 12 VDC or 24 VDC
- Extra pulley 2x SPA
- Fly-bridge instrument panel
- Possible read-out on NMEA2000 multifunctional displays (MFDs)



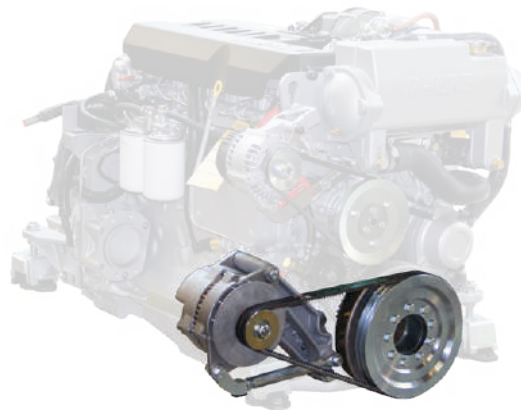
A second 24VDC alternator including an intelligent controller (ACR) can be supplied as an option. This combination can charge your batteries quickly, even at low RPM. The ACR maximizes the output of the second alternator. It is designed for optimal recharging and is suitable for all battery types such as VETUS SMF maintenance-free, gel, and AGM batteries. The 3-step charging method guarantees fast and safe charging of your batteries.

The second alternator will be supplied as a complete set consisting of: a 24V/75Amp alternator including intelligent controller (ACR), double SPA pulley and V-belts, temperature sensor, and a set of parts designed for easy installation on the engine.

Sets are available for VD4 and VD6 D-Line engines. A protective cover for the second alternator can also be supplied.

Second alternator 24 VDC 75 Amps including ACR regulator

Code	Engine type
18-15756	VD4
18-14446	VD4
18-15004	VD6
18-14446	VD6
18-16367	Front cover





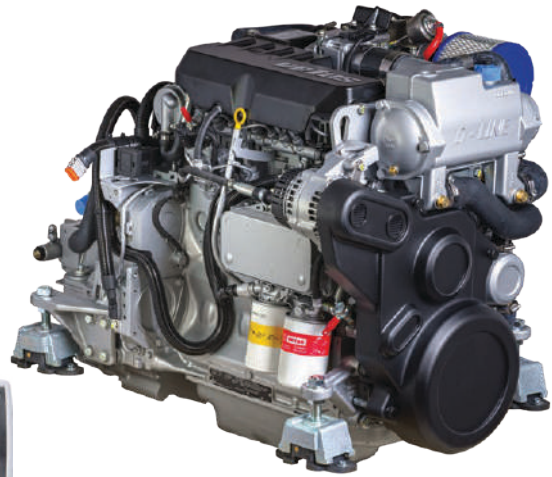
D-Line

VD4.120

● ● ● ● 90 kW / 122 HP

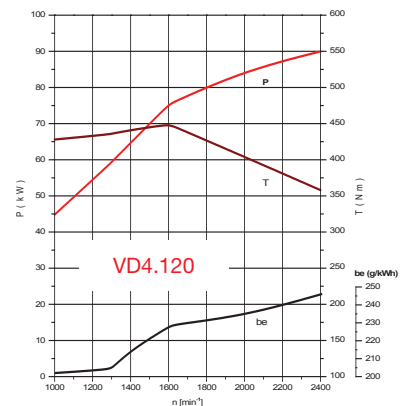
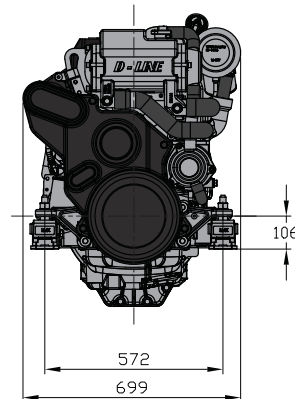
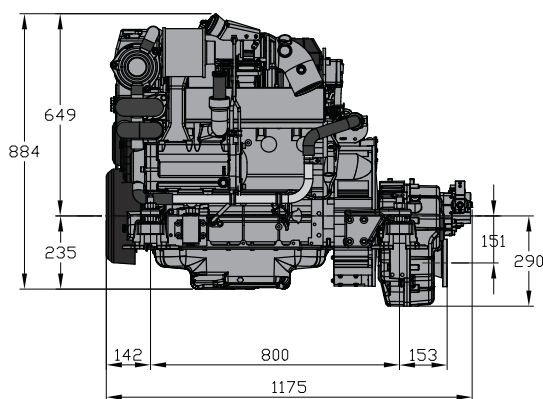
DI diesel / 4 stroke / 4 cyl. in line / turbo-charged
aftercooled / common rail / EMR 3

Supplied as standard with instrument panel type MPA34CANBS2 (see page 140) and four flexible engine mounts type LMX140 (see page 51).
Fuel filter/water separator type 340VTEB including water sensor.



TECHNICAL SPECIFICATIONS

Engine model	VD4.120	
CAN bus	SAE J1939	
Max. output at flywheel (ISO 8665)	90 kW (122 hp)	
Max. output at propeller shaft (ISO 8665)	86 kW (117 hp)	
Maximum rpm	2400	
Bore x stroke	3 ^{31/32} "(101 mm) x 4 ^{61/64} "(126 mm)	
Capacity	246.5 cu.inch (4040 cm ³)	
Number of cylinders	4 in line	
Cooling system	intercooling (keelcooling n.a.)	
Compression ratio	18:1	
Firing order	1-3-4-2	
Alternator	12 VDC - 160 Amps.	
	24 VDC - 60 Amps.	
Optional second alternator	12 VDC - 160 Amps.	
	24 VDC - 60 Amps.	
	24 VDC - 75 Amps. ACR regulator (WP)	
Torque	449 Nm / 1600 rpm	
Idle speed	800 rpm	
Fuel consumption at max. rpm	235 g / kW.h	
Gearbox (standard)	ZF45	
Ratio	2.2 / 2.51 / 3.1	
Gearbox (optional)	ZF45A	
	1.26:1 / 1.51 / 2.03 / 2.44:1 ZF68IV 1.29 / 1.56 / 1.99 / 2.47:1	
Dry weight (incl. standard gearbox)	1173 lb (532 kg)	
Fuel lift pump	5 ft. (1.5 m)	
Max. installation angle (backwards)	15°	
Max. athwartship angle (continuously)	30°	
Calorifier connection kit	optional	
Electric oil drain pump	standard	
P.T.O. flange to install hydr. pump	optional	
Instrument panel	MPA34CANBS2	
Instruments	Key switch, tacho meter/hour counter, volt meter, oil pressure gauge, temperature gauge	
Acoustic alarm	Oil pressure, temperature, charging current fresh and raw water	
Electric circuit protection	Resetable circuit breaker	
Certification	2013/53/EU RCD II	



Certified within 5%

Engines and around the engine

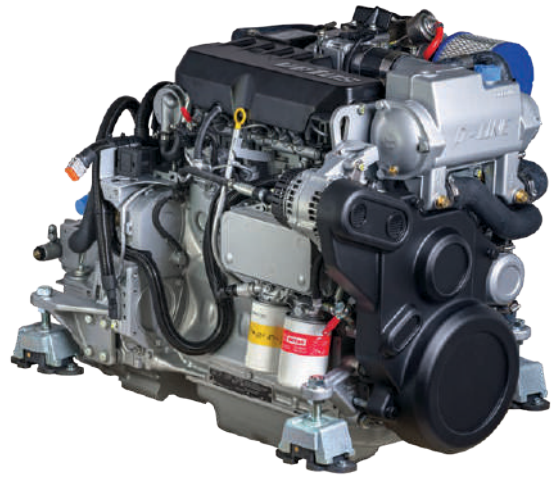
D-Line

VD4.140

● ● ● ● 103 kW / 140 HP

DI diesel / 4 stroke / 4 cyl. in line / turbo-charged
aftercooled / common rail / EMR 3

Supplied as standard with instrument panel type MPA34CANBS2 (see page 140) and four flexible engine mounts type LMX140 (see page 51). Fuel filter/water separator type 340VTEB including water sensor.

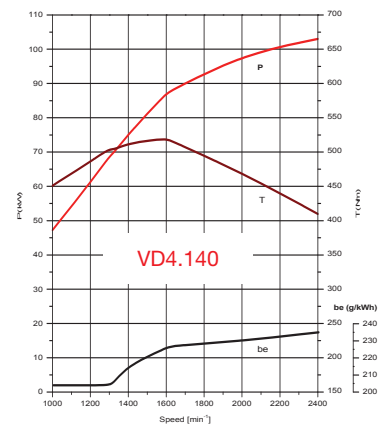
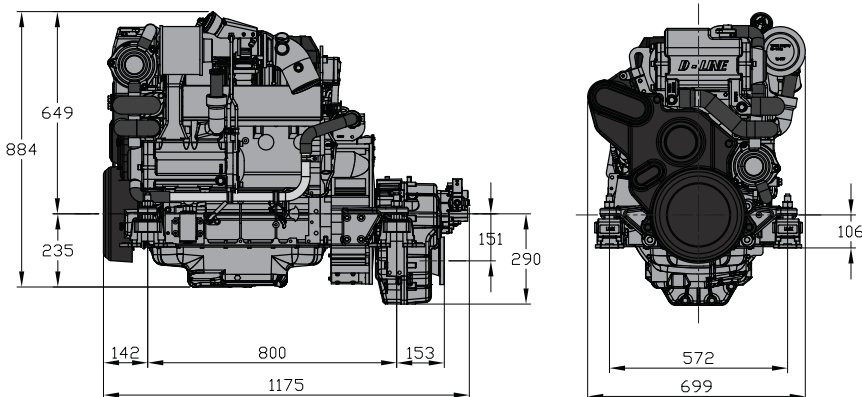


TECHNICAL SPECIFICATIONS

* Not Available in the United States or Canada.

Engine model	VD4.140
CAN bus	SAE J1939
Max. output at flywheel (ISO 8665)	103 kW (140 hp)
Max. output at propeller shaft (ISO 8665)	98.9 kW (134.4 hp)
Maximum rpm	2400
Bore x stroke	3 ³¹ / ₃₂ "(101 mm) x 4 ⁶¹ / ₆₄ "(126 mm)
Capacity	246.5 cu.inch (4040 cm ³)
Number of cylinders	4 in line
Cooling system	intercooling (keelcooling n.a.)
Compression ratio	18:1
Firing order	1-3-4-2
Alternator	12 VDC - 160 Amps. 24 VDC - 60 Amps.
Optional second alternator	12 VDC - 160 Amps. 24 VDC - 60 Amps. 24 VDC - 75 Amps. ACR regulator (WP)
Torque	520 Nm / 1600 rpm
Idle speed	800 rpm
Fuel consumption at max. rpm	235 g / kW.h
Gearbox (standard)	ZF45
Ratio	2.2 / 2.51 / 3.1

Gearbox (optional)	ZF45A 1.26:1 / 1.51 / 2.03 / 2.44:1 ZF68IV 1.29 / 1.56 / 1.99 / 2.47:1
Dry weight (incl. standard gearbox)	1173 (532 kg)
Fuel lift pump	5 ft. (1.5 m)
Max. installation angle (backwards)	15°
Max. athwartship angle (continuously)	30°
Calorifier connection kit	optional
Electric oil drain pump	standard
P.T.O. flange to install hydr. pump	optional
Instrument panel	MPA34CANBS2
Instruments	Key switch, tacho meter/hour counter, volt meter, oil pressure gauge, temperature gauge
Acoustic alarm	Oil pressure, temperature, charging current fresh and raw water
Electric circuit protection	Resetable circuit breaker
Certification	2013/53/EU RCD II



Certified within 5%



D-Line

VD6.170

● ● ● ● ● ● 125 kW / 170 HP

DI diesel / 4 stroke / 6 cyl. in line / turbo-charged
aftercooled / common rail / EMR 3

Supplied as standard with instrument panel type MPA34CANBS2 (see page 140) and four flexible engine mounts type LMX210 (see page 51). Fuel filter/water separator type 340VTEB including water sensor.

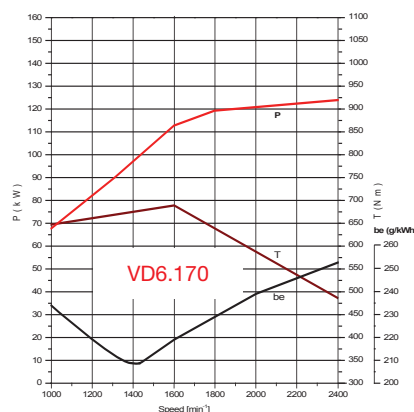
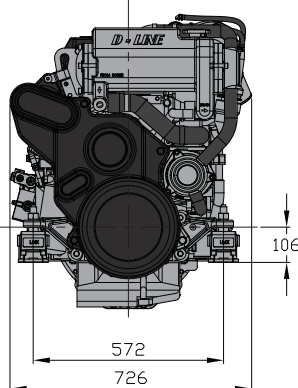
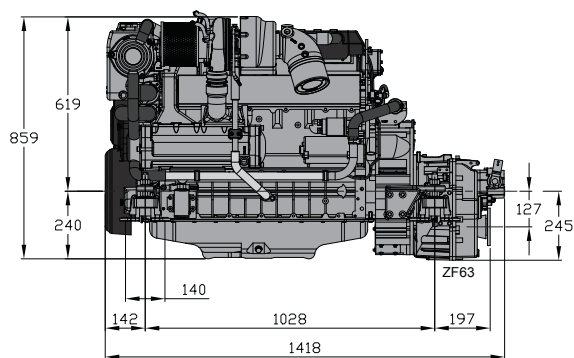


TECHNICAL SPECIFICATIONS

* Not Available in the United States or Canada.

Engine model	VD6.170
CAN bus	SAE J1939
Max. output at flywheel (ISO 8665)	125 kW (170 hp)
Max. output at propeller shaft (ISO 8665)	120 kW (163 hp)
Maximum rpm	2400
Bore x stroke	3 ³¹ / ₃₂ " (101 mm) x 4 ⁶¹ / ₆₄ " (126 mm)
Capacity	369.8 cu.inch (6060 cm ³)
Number of cylinders	6 in line
Cooling system	intercooling (keelcooling n.a.)
Compression ratio	18:1
Firing order	1-5-3-6-2-4
Alternator	12 VDC - 160 Amps. 24 VDC - 60 Amps.
Optional second alternator	12 VDC - 160 Amps. 24 VDC - 60 Amps. 24 VDC - 75 Amps. ACR regulator (WP)
Torque	680 Nm / 1600 rpm
Idle speed	800 rpm
Fuel consumption at max. rpm	240 g / kW.h
Gearbox (standard)	ZF68
Ratio	1.51 / 1.93 / 2.48 / 2.78:1

Gearbox (optional)	ZF68A 1.22 / 1.56 / 2.04 / 2.52:1 ZF68IV 1.29 / 1.56 / 1.99 / 2.47:1
Dry weight (incl. standard gearbox)	1448 lb (657 kg)
Fuel lift pump	5 ft. (1.5 m)
Max. installation angle (backwards)	15°
Max. athwartship angle (continuously)	26°
Calorifier connection kit	optional
Electric oil drain pump	standard
P.T.O. flange to install hydr. pump	optional
Instrument panel	MPA34CANBS2
Instruments	Key switch, tachometer/hour counter, volt meter, oil pressure gauge, temperature gauge
Acoustic alarm	Oil pressure, temperature, charging current fresh and raw water
Electric circuit protection	Resettable circuit breaker
Certification	2013/53/EU RCD II



Certified within 5%

Engines and around the engine

D-Line

VD6.210

● ● ● ● ● ● 155 kW / 210 HP

DI diesel / 4 stroke / 6 cyl. in line / turbo-charged
aftercooled / common rail / EMR 3

Supplied as standard with instrument panel type MPA34CANBS2 (see page 140) and four flexible engine mounts type LMX210 (see page 51). Fuel filter/water separator type 340VTEB including water sensor.

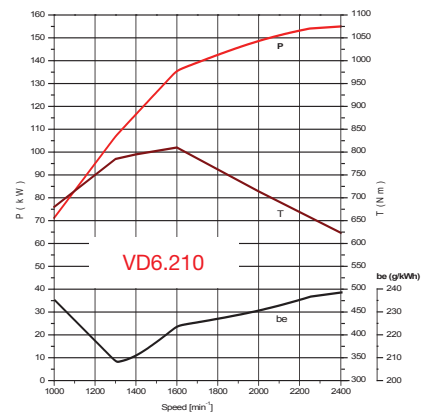
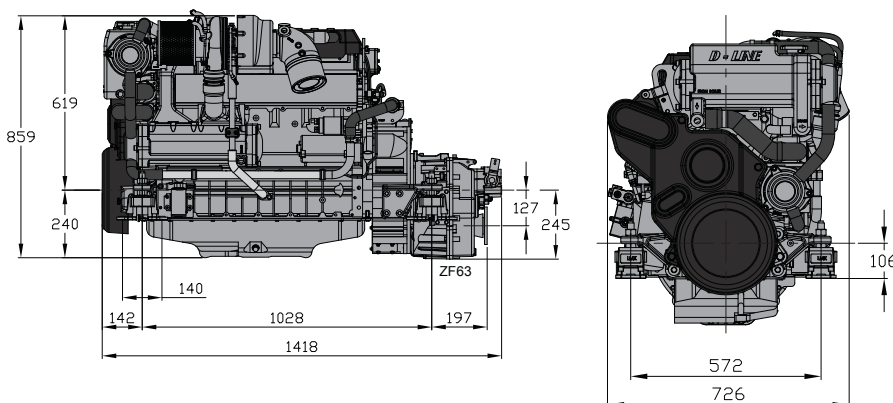


TECHNICAL SPECIFICATIONS

* Not Available in the United States or Canada.

Engine model	VD6.210
CAN bus	SAE J1939
Max. output at flywheel (ISO 8665)	155 kW (210 hp) (VD6.210)
Max. output at propeller shaft (ISO 8665)	149 kW (203 hp) (VD6.210)
Maximum rpm	2400
Bore x stroke	3 ³¹ / ₃₂ " (101 mm) x 4 ⁶¹ / ₆₄ " (126 mm)
Capacity	369.8 cu.inch (6060 cm ³)
Number of cylinders	6 in line
Cooling system	intercooling (keelcooling n.a.)
Compression ratio	18:1
Firing order	1-5-3-6-2-4
Alternator	12 VDC - 160 Amps. 24 VDC - 60 Amps.
Optional second alternator	12 VDC - 160 Amps. 24 VDC - 60 Amps. 24 VDC - 75 Amps. ACR regulator (WP)
Torque	810 Nm / 1600 rpm
Idle speed	800 rpm
Fuel consumption at max. rpm	240 g / kW.h
Gearbox (standard)	ZF68
Ratio	1.51 / 1.93 / 2.48 / 2.78:1

Gearbox (optional)	ZF68A 1.22 / 1.56 / 2.04 / 2.52:1 ZF68IV 1.29 / 1.56 / 1.99 / 2.47:1
Dry weight (incl. standard gearbox)	1448 lb (657 kg)
Fuel lift pump	5 ft. (1.5 m)
Max. installation angle (backwards)	15°
Max. athwartship angle (continuously)	26°
Calorifier connection kit	optional
Electric oil drain pump	standard
P.T.O. flange to install hydr. pump	optional
Instrument panel	MPA34CANBS2
Instruments	Key switch, tacho meter/hour counter, volt meter, oil pressure gauge, temperature gauge
Acoustic alarm	Oil pressure, temperature, charging current fresh and raw water
Electric circuit protection	Resetable circuit breaker
Certification	2013/53/EU RCD II



Certified within 5%



Equipment selection table for D-Line



BULFL

See flexible couplings on page 96



340VTEB

See fuel filters on page 158



EC4

See engine remote control on page 46



FTR330

See water strainers on page 53



MGP

See waterlocks on page 120 and 123



HPW127

Engine model	VD4.120		VD4.140		VD6.170		VD6.210	
Gearbox reduction	2,03/2,2:1	2,5:1	2,03/2,2:1	2,5:1	1,93/2,04:1	2,5:1	1,93/2,04:1	2,5:1
VETUS water lubricated propeller shaft system								
* Minimum required shaft diameter, Duplex 1-4462	40	40	40	40	45	45	45	50
VETUS manganese bronze propeller								
* 3-, 4- or 5-blade	on request							
VETUS flexible couplings								
* Bullflex type	12	12	12	16	16	16	16	32
VETUS intermediate flange between gearbox and flexible coupling								
* Type, only suitable for ZF gearbox	ZF45A: CT50009; ZF45: CT50068; ZF68(A)/16: CT50009; ZF68(A)/32: CT50065; ZF85A: CT50064							
VETUS constant velocity joint with integrated thrust bearing								
* Type	depending on the application							
* Dimensions gearbox flange	ZF45/ZF85A/ZF220: 6", ZF45A/ZF68/ZF68A: 5"							
VETUS water strainers								
* hose connection inches (mm)	1 1/4" (32)							
* water strainer, type FTR470, FTR330..(M) or CWS:	470 or 330(M)/32 / CWS1 1/4							
* water strainer kit, type	WKIT33032							
VETUS water separator / fuel filter (standard supplied with the engine including water sensor)								
* hose connection suction/return in inches (mm)	1/2" - 3/8" (12 - 10)							
* water separator / fuel filter, type:	(75)340VTEB							
VETUS water-injected exhaust systems								
* exhaust hose, diam. inches (mm)	4" (100)				5" (125)			
* waterlock, type	MF - MGP or HPW102				MF - MGS or HPW127			
* muffler, type	MP100				n.a.			
* gooseneck, type	LT102				LT127			
* exhaust transom connection, type					TRCR/PV or SV			
* anti-siphon, type ASD or AIRVENT					V or H			
VETUS engine remote controls								
* electronic	EC4, see selection table retail engine price list							
* mechanical	SICO, SISCO, AFSTZIJ, RCTOPB, RCTOPS, AFSTTOP							
* push-pull cable	CABLFL_ (length to be determined)							
Note: please be aware that when a mechanical remote control is installed, a potentiometer is required.								
VETUS maintenance free batteries								
* voltage	12 or 24VDC							
* start battery, Ah	105							
* light battery, Ah	min. 110A/max. 170A (12VDC) or min. 2 x 85A/max. 2 x 110A (24VDC)							
VETUS louvered air suction vents								
* per engine, type ASV, SSV or SSVL	2 x 60		2 x 70		2 x 90		2 x 50 + 2 x 60	





UNLEASH THE POWER OF PERFORMANCE

Sail Smarter with a Folding Propeller

Switching from a fixed propeller to a Flexofold folding propeller reduces drag and can increase sailing speed by around 15%, equivalent to 1–1.5 knots.

Low Drag, High Efficiency

Our precision-engineered blades fold automatically while sailing, minimizing resistance and improving overall performance. The result: faster, quieter, and more efficient sailing.

Power When You Need It

Under power, the blades open instantly to deliver strong thrust and reliable handling in all conditions.

Built to Last

Manufactured from high-quality, corrosion-resistant alloys, Flexofold propellers are designed for long life and minimal maintenance.

Tailored for Your Boat

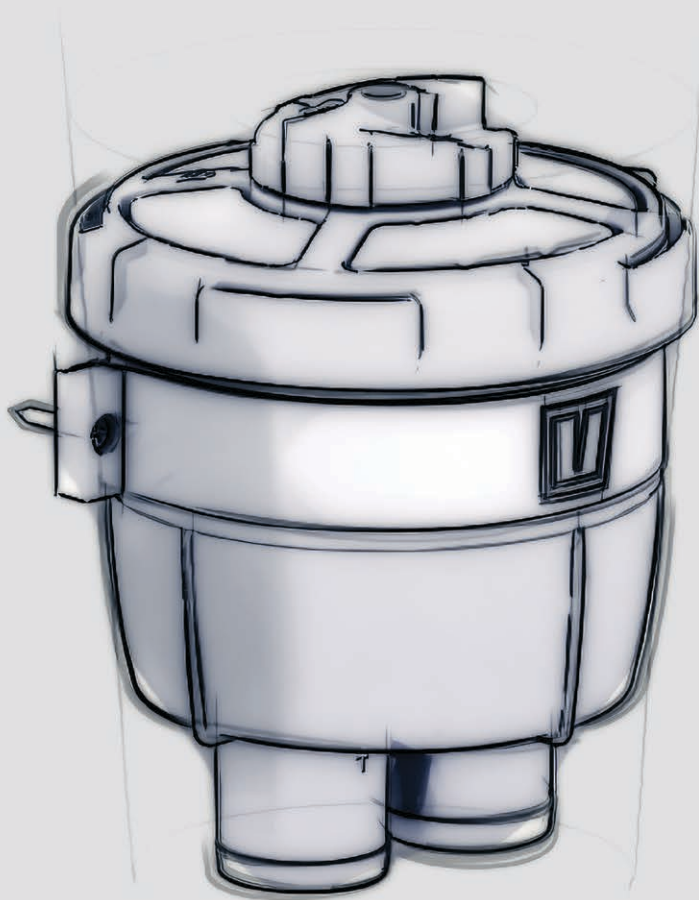
Choose the ideal model for your engine and hull type. Every Flexofold propeller is optimized to ensure the perfect balance of speed, power, and smooth operation.

Engineered in Denmark – Trusted Worldwide

For over 30 years, Flexofold has set the standard in folding propeller technology – trusted by sailors and boatbuilders around the world.



Visit our website and learn more about our products and request a quote: www.flexofold.com
or contact us by phone +45 7555 4346 or via email at sales@flexofold.com



Around the engine

Overview VETUS around the engine

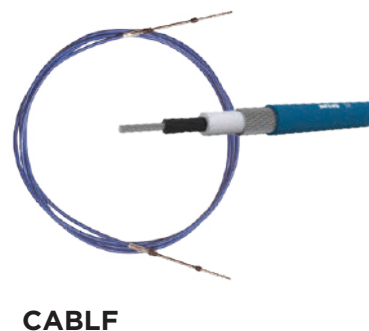
Mechanical engine remote controls see page 44 - 45



Electronic engine remote controls see page 46 - 47



Push-pull cables and accessories see page 48



Flexible engine mounts see page 50 - 51





Cooling water strainers see page 52 - 55



FTR140



FILTER150



FTR330



FTR470



FTR1320



FTR1900



FTR330..M

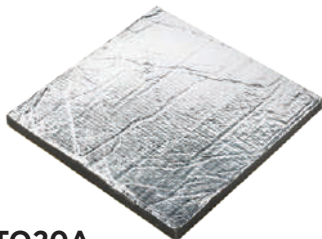


CWS

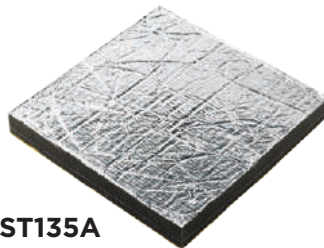


FTR525

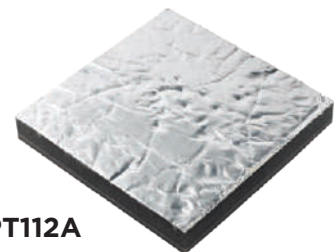
Sound insulation materials see page 58 - 59



STO20A



ST135A



PT112A



PT225S



ARM10X12



Around the engine

Mechanical engine remote controls

All remote controls (except type AFST) have a neutral safety switch as standard, which prevents the engine from being started when the gearbox is engaged. Controls are supplied with a red and a black knob.

Type SISCO - single lever

With stainless steel (AISI 316) handle and housing

VETUS single lever remote control for side mounting. The push-pull cables can be installed horizontally or vertically.

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)	Handle length from centre inches (mm)	Mechanism depth from centre inches (mm)
SISCO	5 ¹⁹ / ₃₂ (142)	5 ⁵¹ / ₆₄ (122)	3 ¹¹ / ₃₂ (85)	7 ⁷ / ₈ (200)	9 ⁹ / ₁₆ (243)
SISCOG	5 ¹⁹ / ₃₂ (142)	5 ⁵¹ / ₆₄ (122)	3 ¹¹ / ₃₂ (85)	7 ⁷ / ₈ (200)	9 ⁹ / ₁₆ (243)



SISCO

SISCOG

Type SICO - single lever

With stainless steel (AISI 316) handle and synthetic housing

VETUS single lever remote control for side mounting.

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)	Handle length from centre inches (mm)	Mechanism depth from centre inches (mm)
SICO	5 ¹³ / ₁₆ (147)	5 (127)	3 ¹¹ / ₃₂ (85)	7 ⁷ / ₈ (200)	9 ⁹ / ₁₆ (243)
SICOG	5 ¹³ / ₁₆ (147)	5 (127)	3 ¹¹ / ₃₂ (85)	7 ⁷ / ₈ (200)	9 ⁹ / ₁₆ (243)



SICO

SICOG

Type RCTOPS - single lever

With high-gloss polished stainless steel (AISI 316) handle and housing

VETUS single lever remote control for top mounting.

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)	Handle length from centre inches (mm)	Mechanism depth inches (mm)
RCTOPS	6 ³ / ₈ (162)	4 ³ / ₃₂ (104)	9 ²¹ / ₆₄ (237)	7 ⁷ / ₈ (200)	8 ³ / ₁₆ (208)
RCTOPSG	6 ³ / ₈ (162)	4 ³ / ₃₂ (104)	9 ²¹ / ₆₄ (237)	7 ⁷ / ₈ (200)	8 ³ / ₁₆ (208)



RCTOPS

RCTOPSG

Type RCTOPTS - twin lever

With high-gloss polished stainless steel (AISI 316) handles and housing

VETUS twin lever remote control for top mounting.

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)	Handle length from centre inches (mm)	Mechanism depth inches (mm)
RCTOPTS	6 ³ / ₈ (162)	7 ⁷ / ₈ (200)	9 ²¹ / ₆₄ (237)	7 ⁷ / ₈ (200)	8 ³ / ₁₆ (208)
RCTOPTSG	6 ³ / ₈ (162)	7 ⁷ / ₈ (200)	9 ²¹ / ₆₄ (237)	7 ⁷ / ₈ (200)	8 ³ / ₁₆ (208)



RCTOPTS

RCTOPTSG



Mechanical engine remote controls

Type RCTOPTB - twin lever

With cast aluminium housing and stainless steel (AISI 316) handles

VETUS twin lever remote control for top mounting

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)	Mechanism depth inches (mm)
RCTOPTB	6 ³ / ₈ (162)	7 ⁷ / ₈ (200)	9 ²¹ / ₆₄ (237)	8 ³ / ₁₆ (208)
RCTOPTBG	6 ³ / ₈ (162)	7 ⁷ / ₈ (200)	9 ²¹ / ₆₄ (237)	8 ³ / ₁₆ (208)



RCTOPTB



RCTOPTBG

Type RCTOPB - single lever

With cast aluminium housing and stainless steel (AISI 316) handles

VETUS single lever remote control for top mounting

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)	Mechanism depth inches (mm)
RCTOPB	6 ³ / ₈ (162)	4 ³ / ₃₂ (104)	9 ²¹ / ₆₄ (237)	8 ³ / ₁₆ (208)
RCTOPBG	6 ³ / ₈ (162)	4 ³ / ₃₂ (104)	9 ²¹ / ₆₄ (237)	8 ³ / ₁₆ (208)



RCTOPB



RCTOPBG

Type AFSTTOP

VETUS single lever control for top mounting with plastic housing and handle. Top mounting for single engine.

Type AFSTTOPT

VETUS twin lever control for top mounting with synthetic housing and handle. Top mounting for twin engines.

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)
AFSTTOP	6 ¹ / ₁₆ (154)	4 ⁴¹ / ₆₄ (118)	9 ³ / ₈ (238)
AFSTTOPT	6 ¹ / ₁₆ (154)	8 ³ / ₁₆ (208)	9 ³ / ₈ (238)



AFSTTOP



AFSTTOPT

Type AFSTZIJ

This side mount engine control can be used with mechanically controlled engines from 12 - 110 hp. The AFSTZIJ should be mounted in reach of the vessel's helm on either port or starboard side.

The mechanical part of the lever is made of painted zinc, finished with a synthetic housing and an ergonomically shaped rubber grip. The AFSTZIJ works with push/pull cables and features an integrated safety mechanism to protect the transmission. The gearbox can only be shifted at idling speed. The AFSTZIJ is the ideal engine control for sailing boats.

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)
AFSTZIJ	5 ⁷ / ₁₆ (138)	4 ²¹ / ₆₄ (110)	3 ³ / ₆₄ (78)

AFSTZIJ



Around the engine

Electronic engine remote control

Type EC4

High quality with the latest technology

This high quality electronic engine control lever is made of high-grade stainless steel (AISI 316) with hand-polished stainless steel (AISI 316) casing and is suitable for power and sailing yachts. It can operate single or twin engines and has multiple helm station possibilities with identical controls at all helm stations. The communication goes via CAN-bus protocol.

The EC4 is easy to install and configure and meets the EMC requirements as standard.

Characteristics

- Available for 12 and 24 VDC
- Waterproof (IP67)
- Suitable for mechanically controlled engines, combination mechanical / electronic engine control or fully electronic engine control
- Suitable for mechanical or hydraulic gearboxes and stern drives

Optional

Trolling valve control, trim tab or bow thruster control.

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)	Engines
EC4H1	5 ¹⁵ / ₁₆ (151)	5 ¹ / ₂ (140)	6 ⁵ / ₁₆ (161)	1 (left handle)
EC4H1R	5 ¹⁵ / ₁₆ (151)	5 ¹ / ₂ (140)	6 ⁵ / ₁₆ (161)	1 (right handle)
EC4HT1	5 ¹⁵ / ₁₆ (151)	5 ¹ / ₂ (140)	6 ⁵ / ₁₆ (161)	1 with trim control
EC4H2	5 ¹⁵ / ₁₆ (151)	5 ¹ / ₂ (140)	6 ⁵ / ₁₆ (161)	2
EC4HT2	5 ¹⁵ / ₁₆ (151)	5 ¹ / ₂ (140)	6 ⁵ / ₁₆ (161)	2 with trim control

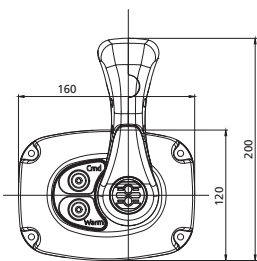
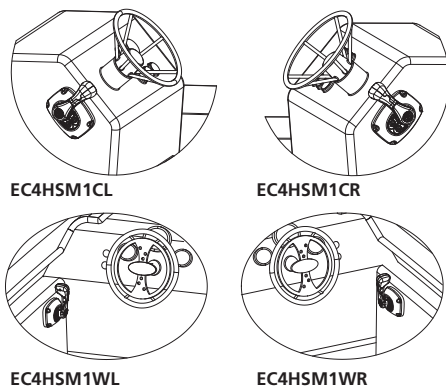


This engine control can be used with electrically and/or mechanically operated diesel engines and gearboxes. Ask your dealer for more information, as the EC4 is intended for use with VETUS engines. However, it may also be used with other engine brands that have the same control system as VETUS engines, either 0-5V, mechanical, or a combination of both.

Type EC4HSM

The EC4 series has now been expanded to include a sidemount variant. The same familiar technology, but now suitable for side mounting. Depending on the intended position of mounting, four different variants are available. See the images for the required model.

Type	Length inches (mm)	Width inches (mm)	Height inches (mm)	Engines
EC4HSM1CL	6 ⁵ / ₁₆ (160)	4 ³ / ₄ (120)	7 ⁷ / ₈ (200)	1 (centre console left)
EC4HSM1CR	6 ⁵ / ₁₆ (160)	4 ³ / ₄ (120)	7 ⁷ / ₈ (200)	1 (centre console right)
EC4HSM1WL	6 ⁵ / ₁₆ (160)	4 ³ / ₄ (120)	7 ⁷ / ₈ (200)	1 (wall mount left)
EC4HSM1WR	6 ⁵ / ₁₆ (160)	4 ³ / ₄ (120)	7 ⁷ / ₈ (200)	1 (wall mount right)



EC4HSM





EC4 Selection table

EC4 electronic motor control system			1 Engine	2 Engines	1 Engine	2 Engines	1 Engine	2 Engines	1 Engine	2 Engines	Optional/Remarks
Control method: first position = Throttle, Second position = Gears M = mechanical, E = Electrical			M/M	M/M	M/E	M/E	E/E	E/E	E/M	E/M	Extra control head units. Max. total units = 4
EC4 Stainless steel control head 1 engine	EC4H1/EC4H1R (right)		1		1		1		1		+1/+2/+3
EC4 Stainless steel control head 1 engine + Trim buttons	EC4HT1		1		1		1		1		+1/+2/+3
EC4 Stainless steel control head 2 engines	EC4H2			1		1		1		1	+1/+2/+3
EC4 Stainless steel control head 2 engines + Trim buttons	EC4HT2			1		1		1		1	+1/+2/+3
EC4 Stainless steel side mount control head 1 engine center console Left	EC4HSM1CL		1		1		1		1		+1/+2/+3
EC4 Stainless steel side mount control head 1 engine center console Right	EC4HSM1CR		1		1		1		1		+1/+2/+3
EC4 Stainless steel side mount control head 1 engine wall mount Left	EC4HSM1WL		1		1		1		1		+1/+2/+3
EC4 Stainless steel side mount control head 1 engine wall mount Right	EC4HSM1WR		1		1		1		1		+1/+2/+3
Electronic control box for 1 x mechanical motor and mechanical gear	12+24V EC4UMM1		1	2	x	x	x	x	x	x	
Electronic control box for 1 x mechanical motor and mechanical gear and trim	12+24V EC4UMMT1		1	2	x	x	x	x	x	x	
Electronic control box for 1 x mechanical motor and electrical gear and trim	12+24V EC4UMET1		x	x	1	2	x	x	x	x	
Electronic control box for 2 x mechanical motor and electrical gear and trim	12+24V EC4UMET2		x	x	x	1	x	x	x	x	
Electronic control box for 1 x mechanical motor and electrical gear and trolling	12+24V EC4UMETR1		x	x	1	2	x	x	x	x	
Electronic control box for 1 or 2 x electric motor (0-5V) and electrical gear and trim	12+24V EC4UEE		x	x	x	x	1	1	x	x	
Electronic control box for 1 or 2 x electric motor (0-5V) and electrical gear and trolling	12+24V EC4UEETR		x	x	x	x	1	1	x	x	
Electronic control box for 1 x electric motor control (0-5V) and mechanical gear	12+24V EC4UEM1		x	x	x	x	x	x	1	x	
Electronic control box for 2 x electric motor control (0-5V) and mechanical gear	12+24V EC4UEM2		x	x	x	x	x	x	1	1	
Electric throttle cable universal L = 3 m	EC3E3U		x	x	x	x	1	2	1	2	
Electric throttle cable for D engines L = 3 m	EC3E3MD		x	x	x	x	1	2	1	2	
Electric gear cable (12V only boxes 3 wires) L = 3 m	EC3G3M		x	x	1	2	1	2	x	x	For box with 3p connector
Electric gear cable for EC4 (12V+24V boxes, 6 wires) L = 3 m	ECG3/6		x	x	1	2	1	2	x	x	
Electric gear cable for EC4 (12V+24V boxes, 6 wires) L = 5 m	ECG5/6		x	x	1	2	1	2	x	x	
Electric gear cable for EC4 (12V+24V boxes, 6 wires) L = 7 m	ECG7/6		x	x	1	2	1	2	x	x	
Trim/Trolling cable L = 3 m	EC3T3M		O = 1		O = 1		O = 1		O = 1		Opt. for trim/trolling only
Trim/Trolling cable Mercruiser L = 3 m	EC3T3MM		O = 1		O = 1		O = 1		O = 1		Opt. for trim/trolling only

x = Not applicable 1 or 2 = Choose the requested type and the indicated amount



Around the engine

Push-pull cables

Type CABLE

Our standard push-pull cables type CABLE are especially suitable for applications where the required total length of the cables do not exceed 5 m (16.4 ft.) For more comfort and for longer required lengths we advise the use of our low friction cables, type CABLF.

Specifications

- Available lengths from 1.6 ft -16.4 ft (0.5 m to 5 m)
- Minimum bend radius 5.11" (130 mm)
- Stroke 3" (76.2 mm)
- Standard rod 10-32 UNF threaded ends



CABLE..A

Type	Description
CABLE05A*	Standard 33C cable, length 1.64 ft (0.5 m)
CABLE10A*	Standard 33C cable, length 3.28 ft (1.0 m)
CABLE15A*	Standard 33C cable, length 5 ft (1.5 m)
CABLE20A	Standard 33C cable, length 6.65 ft (2.0 m)
CABLE25A*	Standard 33C cable, length 8.2 ft (2.5 m)
CABLE30A*	Standard 33C cable, length 9.84 ft (3.0 m)
CABLE35A*	Standard 33C cable, length 11.48 ft (3.5 m)
CABLE40A*	Standard 33C cable, length 13.12 ft (4.0 m)
CABLE50A*	Standard 33C cable, length 16.4 ft (5.0 m)

* Available to special order

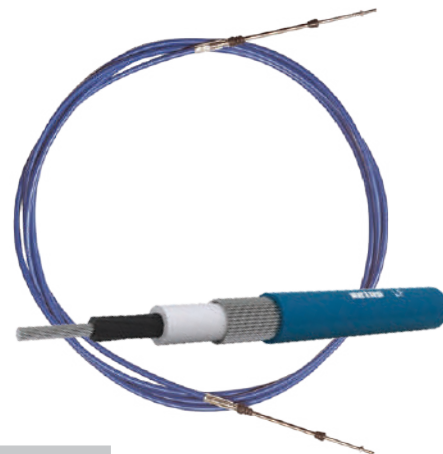
Type CABLF (low friction)

Superb strength and flexibility

This high-quality cable utilise a multi-strand wire core and a ribbed synthetic sheath to ensure that contact with the outer casing is kept to a minimum. Type CABLF is ideal for long and complicated runs and dual station installations.

Specifications

- Available lengths from 1.6 ft (0.5 m) to 33 ft (15 m) (up to 50 ft (17 m) available to special order)
- Nominal travel 3" (75 mm)
- Minimum bend radius 6 1/2" (165 mm)
- Stroke 3" (76.2 mm)
- Standard rod 10-32 UNF threaded ends



CABLF

Type	Description
CABLF05	Low friction cable, length 1.64 ft (0.5 m)
CABLF075	Low friction cable, length 2.46 ft (0.75 m)
CABLF10	Low friction cable, length 3.28 ft (1.0 m)
CABLF15	Low friction cable, length 5 ft (1.5 m)
CABLF20	Low friction cable, length 6.65 ft (2.0 m)
CABLF25	Low friction cable, length 8.2 ft (2.5 m)
CABLF30	Low friction cable, length 9.84 ft (3.0 m)
CABLF35	Low friction cable, length 11.48 ft (3.5 m)
CABLF40	Low friction cable, length 13.12 ft (4.0 m)
CABLF45	Low friction cable, length 14.76 ft (4.5 m)
CABLF50	Low friction cable, length 16.4 ft (5.0 m)
CABLF55	Low friction cable, length 18.04 ft (5.5 m)
CABLF60	Low friction cable, length 19.69 ft (6.0 m)
CABLF65	Low friction cable, length 21.33 ft (6.5 m)

Type	Description
CABLF70	Low friction cable, length 22.97 ft (7.0 m)
CABLF75	Low friction cable, length 24.61 ft (7.5 m)
CABLF80	Low friction cable, length 26.25 ft (8.0 m)
CABLF85	Low friction cable, length 27.88 ft (8.5 m)
CABLF90	Low friction cable, length 29.53 ft (9.0 m)
CABLF95	Low friction cable, length 31.17 ft (9.5 m)
CABLF100	Low friction cable, length 32.81 ft (10.0 m)
CABLF110	Low friction cable, length 36.09 ft (11 m)
CABLF120	Low friction cable, length 39.37 ft (12 m)
CABLF130	Low friction cable, length 42.65 ft (13 m)
CABLF140	Low friction cable, length 45.93 ft (14 m)
CABLF150	Low friction cable, length 49.21 ft (15 m)

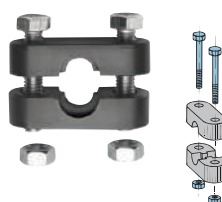


Cable accessories

Ball-joint / Cable clamp

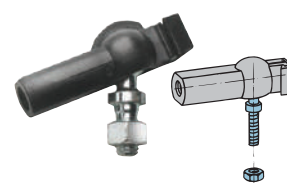
An extra for all VETUS push-pull cables.

Type	Description
KABELKL	Cable clamp for cables type 33 and LF
KOGELGEWR	Ball-joint for cables type 33 and LF



Cable clamp

KABELKL



Ball-joint

KOGELGEWR

Shut-off control

Type DC

Designed for mechanical fuel shut-off and similar actuation tasks. Equipped with a sturdy mounting base and a connection point for push-pull control cables, allowing precise and reliable manual operation.

Type DC is corrosion resistant and easy to install (horizontally or vertically) and can be used with VETUS push-pull cables. Comes with a 30° mounting bracket.

Type	Description
DC	Cable pull handle type DC



DC

Dual station units type DS

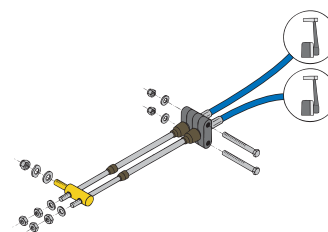
Type DS combines the action of a single lever control from either of two command stations, providing a single output to the engine throttle or gearbox lever. Two dual station units are needed per engine (type DS-UNIT for the gearbox and type DS-KITF for the throttle).

DS-kit throttle

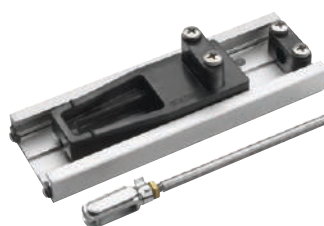
(only suitable for throttle control by pulling).



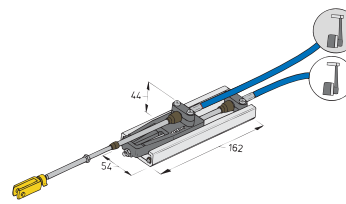
DSKITF



DS-unit (gearbox)



DS



Type	Description
DSKITF	Dual station unit type DS, for throttle
DS	Dual station unit type DS, for gearbox



Around the engine

Flexible engine mounts

The torque of an engine is one of the deciding factors for determination of the load applied to the engine mounts. When more powerful engines are installed, it is important to use the following formula to define the load per support in kg (four supporting points).

$$\frac{\text{engine weight in kg}}{\text{number of supports}} + \frac{\text{kW} \times 487 \times \text{reduction of gearbox}}{\text{engine revs/min.} \times \text{centre to centre spacing in meter of the longitudinal engine bearers}} = \text{max. load per support in kg}$$

Type K25V and K35V

For small engines and generator sets with one or two cylinders

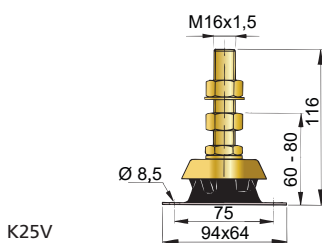
These flexible mounts contain a special rubber compound with excellent vibration damping properties. They are suitable for marine engines in the power range between 4 and 15 kW (6-20 hp).



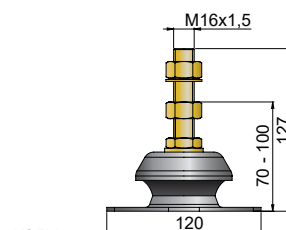
KSTEUN25V



KSTEUN35V



K25V



K35V

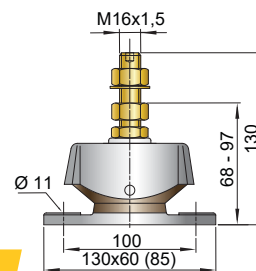
Type K40A

For three-cylinder marine diesel engines

Type K40 has a relatively soft, rubber compound which fulfills the requirements of light-weight vessels with a modern three-cylinder marine diesel engine. The rubber elements create optimum vibration dampening. Type KSTEUN40 features internal buffers which limit the engine movements when started or stopped. It is also secured against overload and shearing off.



KSTEUN40A



Type K

For smaller engines up to ± 60 kW (80 hp)

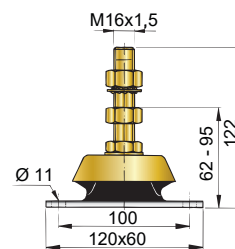
This type is suitable for smaller engines up to approximately 60 kW (80 hp).

KSTEUN50V

KSTEUN75V

KSTEUN80V

KSTEUN100V



Type	Stiffness ratio			Min. load lb (kg)	Min. compression inches (mm)	Max. load lb (kg)	Max. compression inches (mm)	Hardness in ° Shore
	vertical	athwart ships	fore and aft					
KSTEUN25V	1	1.4	1.4	33.07 (15)	1/16 (1,3)	55 (25)	1/8 (3)	45
KSTEUN35V	1	1.4	1.4	33.07 (15)	1/16 (1,3)	66 (30)	1/4 (7)	45
KSTEUN40A	1	1	2.4	55.12 (25)	3/16 (5)	88 (40)	5/16 (8)	50
KSTEUN50V	1	0.75	2.5	55.12 (25)	1/16 (2)	110 (50)	3/16 (4)	45
KSTEUN75V	1	0.75	2.5	83.78 (38)	1/16 (2)	165 (75)	3/16 (4)	55
KSTEUN80V	1	0.75	2.5	88.18 (40)	1/16 (2)	176 (80)	3/16 (4)	60
KSTEUN100V	1	0.75	2.5	110.23 (50)	1/16 (2)	220 (100)	3/16 (4)	65



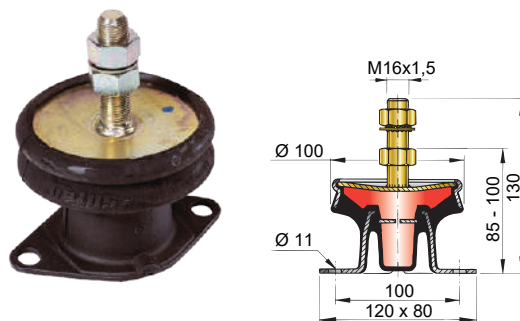
Flexible engine mounts

Type MITSTEUN

For marine diesel engines from 18 up to 26 kW (25-35 hp)

This hydro-damper is a combination of a conventional rubber-metal damper and a hydraulic shock absorber. Its reduction of vibration and noise is truly amazing. The maximum static load per support is 132 lb (60 kg) and the maximum thrust 110 lb (50 kg).

MITSTEUN



Type HY

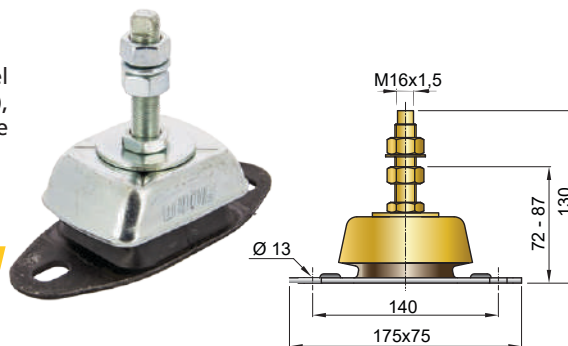
For heavy-weight engines with four or more cylinders

This type is extremely suitable for application with marine diesel engines in the power range between 30 and 125 kW (40-170 hp), by virtue of a low stiffness combined with high stiffness in the longitudinal direction.

HY100

HY150

HY230



Type LMX

For marine diesel engines from 70 up to 350 kW (95-480 hp)

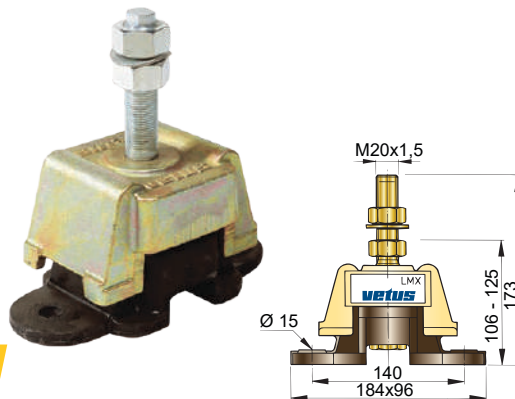
This type has been designed with particular regard to the power to weight ratio of modern diesel engines. The weight of an engine, in comparison to its thrust, has become lower and lower. Type LMX guarantees optimum damping of vibrations, even at idling revs. It has a very high horizontal and aft stiffness which allows the acceptance of considerable thrust. The cushioning of vibrations in horizontal direction athwart-ships is of equal excellence.

LMX140

LMX210

LMX340

LMX500



Type	Stiffness ratio			Min. load lb (kg)	Min. compression inches (mm)	Max. load lb (kg)	Max. compression inches (mm)	Hardness in ° Shore
	vertical	athwart ships	fore and aft					
MITSTEUN	1	1	1	56 (25)	1/16 (1,3)	148 (67)	3/16 (4)	45
HY100	1	1.2	3.5	88 (40)	1/16 (2)	220 (100)	3/16 (5)	35
HY150	1	1.2	3.5	132 (60)	1/16 (2)	330 (150)	3/16 (5)	50
HY230	1	1.2	3.5	202 (92)	1/16 (2)	507 (230)	3/16 (5)	60
LMX140	1	1	7	187 (85)	1/8 (3)	309 (140)	3/16 (5)	35
LMX210	1	1	7	276 (125)	1/8 (3)	463 (210)	3/16 (5)	45
LMX340	1	1	7	452 (205)	1/8 (3)	750 (340)	3/16 (5)	55
LMX500	1	1	7	661 (300)	1/8 (3)	1102 (500)	3/16 (5)	65

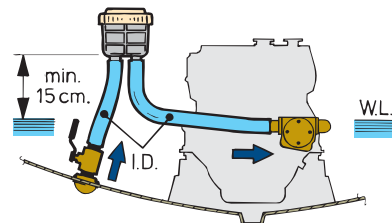
Around the engine

Cooling water strainers

All VETUS cooling water strainers have a transparent cover for easy inspection of the filter without dismantling. Cleaning of the filter seldom needs to be done but can be easily and quickly achieved.

Typical installation

VETUS advises to install the water strainer always above the waterline. Only type CWS and FTR330..M series can be installed below the waterline. Always install a sea-cock behind the inlet water scoop.



Type FTR140

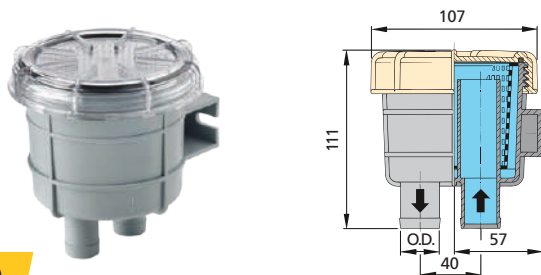
This water strainer is available with three different hose connection diameters. See page 56 for water strainer install kit.

Specifications

- Housing is made of Polypropylene GF
- Filter element is made of HD Polyethylene
- Cover is made of Styrol/Acrylonitrile SAN

Type	Internal hose Ø		Recommended input (L/min.)
	(mm)	(inches)	
FTR140/13	12.7	1/2	23
FTR140/16	15.9	5/8	35
FTR140/19	19.1	3/4	51
MBSET03	Mounting bracket set for FTR140		

See page 61 for the mounting bracket set.



FTR140

MBSET03

Type FILTER150

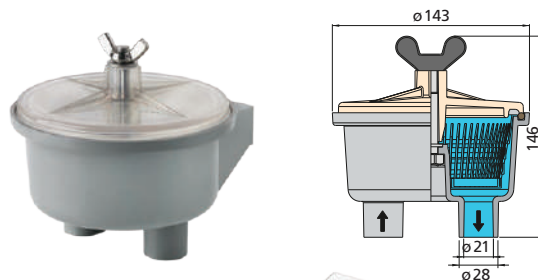
This water strainer is suitable for Ø 1 1/8" (28,5 mm) hoses.

Specifications

- Housing is made of Polypropylene GF
- Filter element is made of Polyamide
- Cover is made of A.B.S.

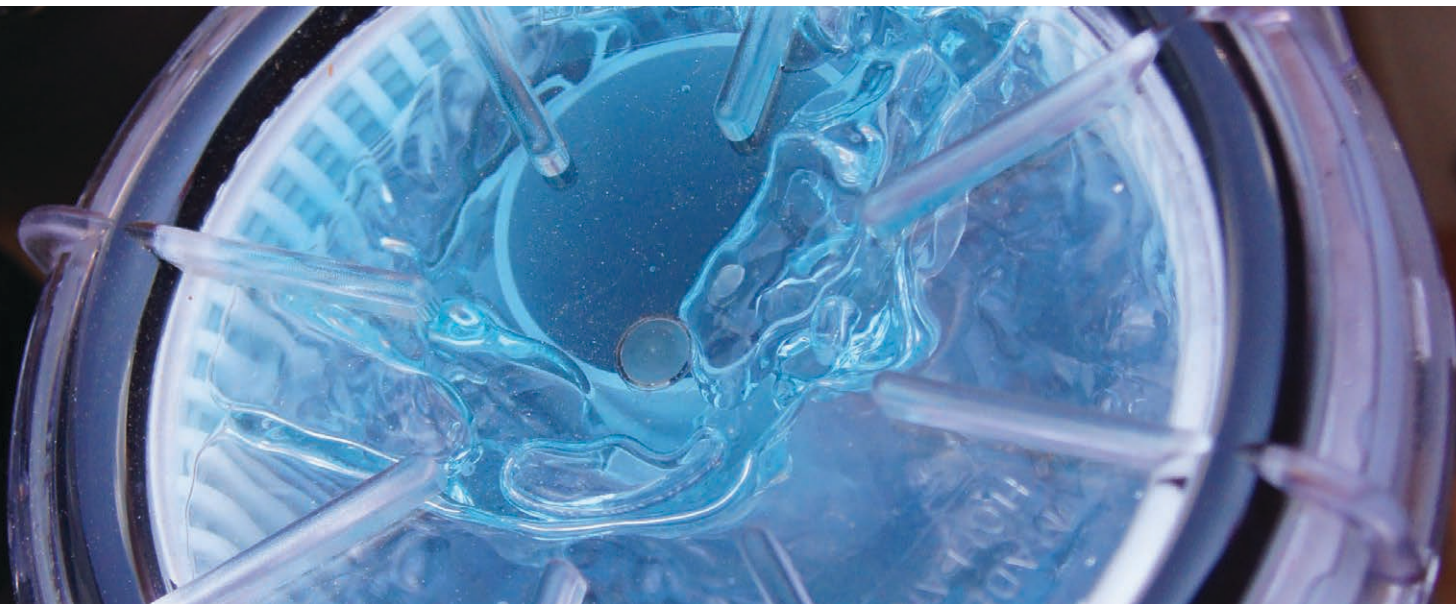
Type	Internal hose Ø		Recommended input (L/min.)
	(mm)	(inches)	
FILTER150	28.5	1 1/8	114
MBSET05	Mounting bracket set for FILTER150		

See page 61 for the mounting bracket set.



FILTER150

MBSET05





Cooling water strainers

Type FTR330

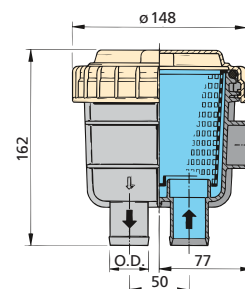
This water strainer is available for six different hose connections. See page 56 for water strainer install kit.

Specifications

- Housing is made of polypropylene GF
- Filter element is made of HD Polyethylene
- Cover is made of Styrol/Acrylonitrile SAN

Type	Internal hose Ø		Recommended input
	(mm)	(inches)	(L/min.)
FTR330/13	12.7	1/2	23
FTR330/16	15.9	5/8	35
FTR330/19	19.1	3/4	51
FTR330/25	25.4	1	91
FTR330/32	31.8	1 1/4	143
FTR330/38	38.1	1 1/2	200
MBSET05	Mounting bracket set for FTR330		

See page 61 for the mounting bracket set.



FTR330

MBSET05



Type FTR470

Easy mounting with 360° rotating wall bracket

This strainer is supplied with a rotating stainless steel (AISI 316) wall bracket for easy alignment of the hose connections and clamping it securely in place. This eliminates the need for back-bolting and simplifies the mounting process.

Specifications

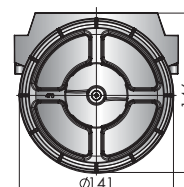
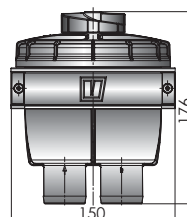
- Housing is made of Polypropylene GF
- Filter element is made of HD Polyethylene
- Cover is made of Polypropylene GF/Polycarbonate

See page 56 for the water strainer installation kit.

Type	Internal hose Ø		Recommended input
	(mm)	(inches)	(L/min.)
FTR470/13	12.7	1/2	23
FTR470/16	15.9	5/8	35
FTR470/19	19.1	3/4	51
FTR470/25	25.4	1	91
FTR470/32	31.8	1 1/4	143
FTR470/38	38.1	1 1/2	200



FTR470



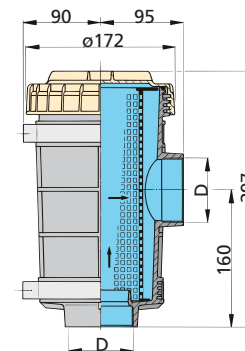
Type FTR1320

This type is provided with adjustable stainless steel (AISI 316) brackets for bulkhead mounting and is available with three different threaded connection diameters. Hose connectors are not supplied as standard. They can be found on page 432 of this catalogue.

Specifications

- Housing is made of Polypropylene GF
- Filter element is made of Polyethylene
- Cover is made of A.B.S.

Type	D	Internal hose Ø		Recommended input
		(mm)	(inches)	(L/min.)
FTR132038	G 1 1/2	38	1 1/2	205
FTR132050	G 2	50	2	365
FTR132063	G 2 1/2	63	2 1/2	570



FTR1320



Around the engine

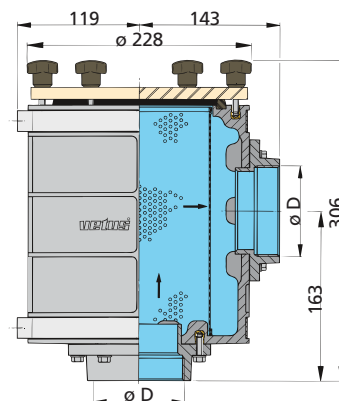
Cooling water strainers

Type FTR1900

This type has two different threaded connection diameters and comes with adjustable stainless steel (AISI 304) mounting brackets for bulkhead installation. Hose connectors are not supplied as standard. They can be found on page 432 of this catalogue.

Specifications

- Housing is made of Polypropylene
- Stainless steel (AISI 316) filter element
- Acrylic cover



Type	D	Internal hose Ø		Recommended input
		(mm)	(inches)	(L/min.)
FTR190063	G 2½	63	2½	570
FTR190076	G 3	76	3	820

FTR1900

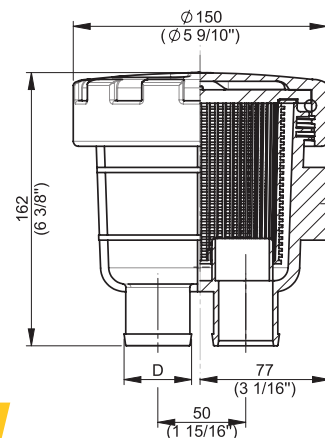
Type FTR330..M

The filter housing is made of NAVIDURIN® and features ¾, 1, 1¼ or 1½" (19, 25, 32 or 38 mm) hose connections. The metal lid allows easy inspection of the filter without removal. The FTR330..M series is tested up to a maximum of 8 bar over pressure, which means these filters are safe to place below the waterline!



Specifications

- NAVIDURIN® material Lloyd's approved!
- Easy inspection without dismantling
- New easily removable metal cover
- Robust and durable filter
- Can be mounted below the waterline



Type	Internal hose Ø		Recommended input
	(mm)	(inches)	(L/min.)
FTR33019M	19	¾	51
FTR33025M	25	1	91
FTR33032M	32	1¼	143
FTR33038M	38	1½	200

FTR330..M





Cooling water strainers

Heavy duty filter: Type CWS

For installations where the cooling water strainer must be mounted close to or below the waterline and for commercial applications, these nickel plated bronze strainers are an ideal solution. The cover is removable with one screw. Tested up to 7 bar overpressure.

This filter is available in three different sizes, with threaded connections of G1, G1¼ and G1½. Matching V-Quipment hose connections are available separately, see table below for item numbers.

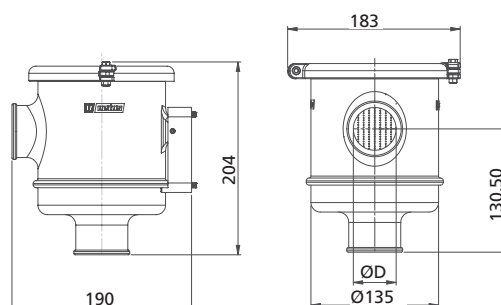
Specifications

- Housing is made of nickel plated bronze
- Cover is made of polycarbonate
- Filter element is made of stainless steel (AISI 316)
- Mounting bracket is made of nickel plated bronze
- Can be mounted near or below the waterline
- V-Quipment hose connections available separately, see also page 432

Type	Matching hose connector			Hose size		Recommended input (L/min.)
	Bronze	Brass	Brass	(mm)	(inches)	
CWS1¼	HPB11/4	HPM11/4	SLP11/438	31,8	1¼	143
CWS1½	HPB11/2	HPM11/2	SLP11/432	38,1	1½	200



CWS



Type FTR525

This water strainer has G1½ threaded connections. A set of stainless steel (AISI 316) mounting brackets (SETBKB170) can be supplied as an option. Hose connectors are not supplied as standard. They can be found on page 432 of this catalogue.

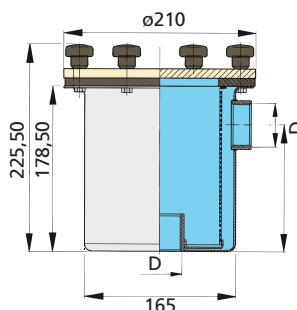
Specifications

- Stainless steel (AISI 316) housing and filter element
- Acrylic cover

Type	D	Internal hose Ø		Recommended input l/min.
		mm	inches	
FTR525	G 1½	38	1½	205



FTR525



SETBKB170



Around the engine

Accessories

Water strainer kit with brass fittings

We offer an installation kit for any VETUS cooling water strainer with 1/2", 3/4", 1", 1 1/4" or 1 1/2" (13, 19, 25, 32 or 38 mm) hose connection. These are available with brass fittings. For continuous immersion in salt water, we advise against using brass fittings.

The kit consists of: 2 m drinking water hose, one ball valve, four hose clamps, one water scoop and one hose connector.

Type	Hose connection	Thread connection
WKIT33013	13 mm	1/2" Brass
WKIT33019	19 mm	3/4" Brass
WKIT33025	25 mm	1" Brass
WKIT33032	32 mm	1 1/4" Brass
WKIT33038	38 mm	1 1/2" Brass



WKIT330..

For bronze fittings, see page 430 in the V-Quipment section.

Connection parts for water strainers, type CONN330

Easy interconnecting

With these connection parts two water strainers type 330/32 or 470/32 can be interconnected with a maximum capacity of 460 L/min.

Type 470 cannot be rotated when the kit is used.

Type	Description
CONN330	Connection kit for two FTR330/32 strainers



CONN330

Bilge water/oil separator, type BISEP

Collecting and retaining oil and grease from bilge water

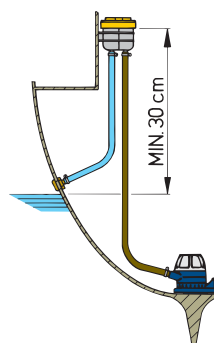
The BISEP is now supplied with new filter elements. These filter discs are made from a different material, have a larger capacity (up to 600 grams of oil) and filter up to 15,000 L of water, outperforming the previous filter by 87%! The new filter elements are reusable and made entirely from waste fibres. They absorb oils and oil-based contamination, thus removing oils, oil film and fats from the bilge water. The absorbed oil can be collected and recycled, after which the filter can be washed and reused.

This VETUS separator has a replaceable filter element with a capacity of 600 grams. It can remove 95% of oil in the bilge water. The bilge pump used in combination with this filter should have a maximum capacity of 25 L/min.

Specifications

- Connections for Ø 3/4" (19 mm) hoses
- Dimensions | 5 13/16" x w 5 15/16" x h 6 3/8" (148 x 150 x 162 mm)
-

Type	Description
BISEP19	Bilge water/oil separator
BISEP19F2	Replacement element for bilge water/oil filter BISEP19, set of 15 pieces



BISEP19



Accessories

Fire port

The fire port permits a fire extinguisher to be discharged into the engine space, or any other enclosed area without opening the engine access hatch or panel. Complies with ISO 9094:2022.

Specifications

- Nozzle can be inserted through the port in complete safety
- Minimizes the amount of oxygen so the fire does not increase
- Made of UV and seawater resistant synthetic material

Dimensions

- Cut-out Ø 1½" (38 mm)
- Outside Ø 3" (76 mm)



FIREPORTB

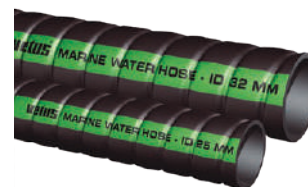
Type	Specifications
FIREPORTB	Fire port for engine compartment with black finishing ring

Cooling water hose, type MWHOSE

For all cooling fluids

Type MWHOSE is made of EPDM rubber with synthetic fabric and spiraled steel reinforcement. Suitable for cooling water, both suction and pressure (max. 2.5 bar), salt and fresh water. Temperature resistant between -22° and 320°F (-30° and +160°C).

Unlike lower quality un-reinforced hoses, MWHOSE will not kink or fold shut, thereby preventing a major cause of low seawater flow to the engine cooling system and consequent damage to the impeller and the exhaust system. Similar benefits accrue from the use of this hose for cockpit drains and other critical water connections.



MWHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCHDS clamp	HCS clamp
MWHOSE19	¾ (19)	1⅛ (28)	0.39	2.5	1⅛ (29)	20		HCS20
MWHOSE25	1 (25)	1⅜ (34)	0.51	2.5	1½ (38)	20		HCS25
MWHOSE32	1¼ (32)	1⅝ (41)	0.71	2.5	1⅞ (48)	20	HCHDS040	HCS32
MWHOSE38	1½ (38)	1⅞ (47)	0.88	2.5	2¼ (57)	20	HCHDS047	HCS40
MWHOSE51	2 (51)	2⅞ (60)	1.15	2.5	3⅞ (77)	20	HCHDS059	HCS50

For a complete overview of our range of hoses see page 466. HCHDS (heavy duty) and HCS clamps are made of stainless steel (AISI 316). For a complete overview of our range of hose clamps see page 440.



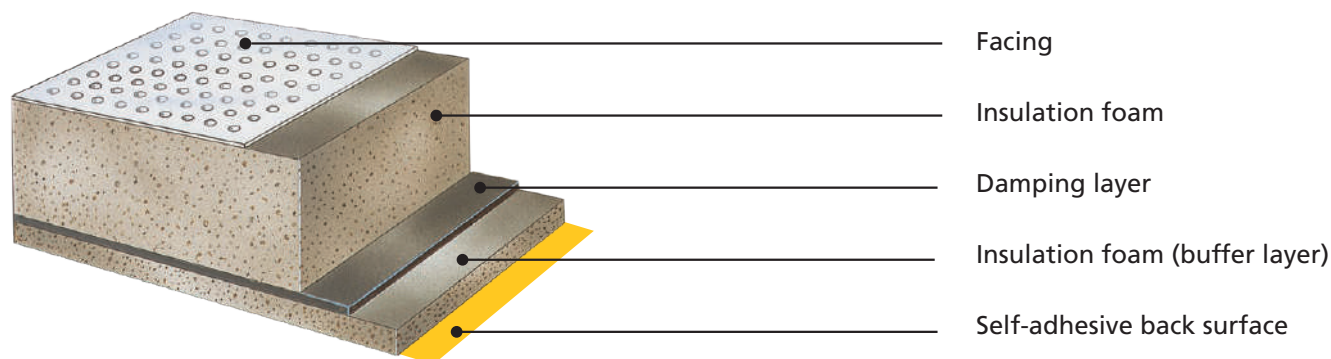
Around the engine

Sound insulation materials

VETUS sound insulation, discover peace and quietness!

Specifically designed for marine use, VETUS sound insulation offers a full range of high-performance materials that reduce noise and enhance onboard comfort. Liquid-tight, fire-resistant, and made from the highest quality insulation foams, our sound insulation solutions are ideal for use in engine rooms and other demanding onboard applications.

This product line is based on two advanced insulation foams – Sonitech and Prometech – each available in a variety of sheet thicknesses. Their sound absorption performance is independently tested in accordance with ISO 10534 standards. On the next page, a selection table is provided to help you choose the right product for your application.



Sound insulation

The sound absorption coefficients of both base foam materials are tested according to ISO 10534.

Guaranteed fire resistance; Class 0

The 'BS476 Class 0' fire resistance rating is the most demanding rating on the market today. To achieve class 0 the product must achieve:

- BS476 part 7, Surface spread of flame, Class 1
- BS476 part 6, Fire propagation, Index I <12 and i1 < 6

This means that the material does not spread flames and limits the amount of heat released from the surface during a fire.

Installation guidelines

Preparing the engine room

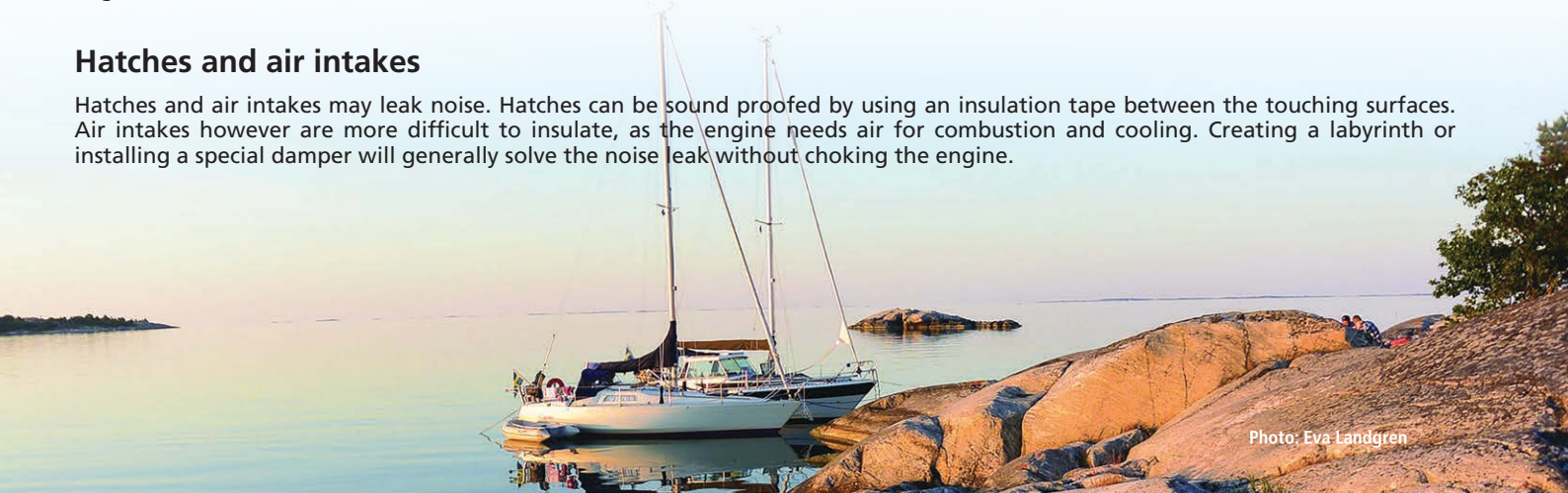
Sound is like water and until the last gap is closed, it will find a way out of the engine room. Therefore it is important to cover as much of the surface in the engine room as possible and to close all possible leaks. Any small gaps or holes in, between or under the bulkheads should be filled with flexible sealant, foam or other material. When the 'engine room' is in direct contact with the bilge or other spaces that run through the boat, it is recommended to build bulkheads or a box around the engine.

Fitting the sheets

While fitting the sheets, work around obstacles by cutting the sheet into the right shape and try to fit the puzzle as neatly as possible before actually sticking the sheets in place. Note that tanks tend to amplify noise. When a tank is in the same space as the engine, cover the tank in insulation sheets or build a bulkhead between them.

Hatches and air intakes

Hatches and air intakes may leak noise. Hatches can be sound proofed by using an insulation tape between the touching surfaces. Air intakes however are more difficult to insulate, as the engine needs air for combustion and cooling. Creating a labyrinth or installing a special damper will generally solve the noise leak without choking the engine.





Sound insulation materials

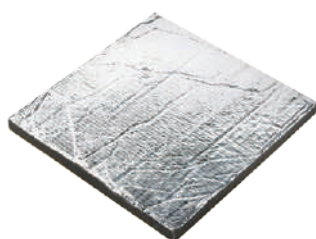
VETUS offers four product lines, based on two insulation foams: Sonitech and Prometech. Both foams have excellent sound reducing capabilities and are fire resistant. Prometech is rated to BS476 Class 0 fire resistance.

All sheets measure 39³/₈" (100 cm) x 23³/₈" (60 cm) and are supplied with a self-adhesive backing for quick and easy installation. The modified acrylic adhesive has high initial tag and adhesion of 1000 N/m to steel (ATM.1-PSTC.1).

Sonitech light

Flexible and light-weight sheet

This product has efficient sound insulation and is ideal for use when cost or space is the prime concern.

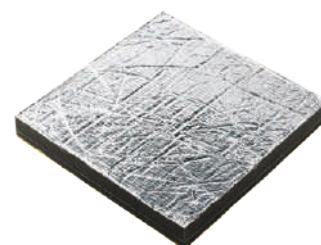


ST020A

Sonitech single

Good sound insulation capabilities

These sheets have a single damping layer resulting in good sound insulation. It gives excellent results at reasonable prices.

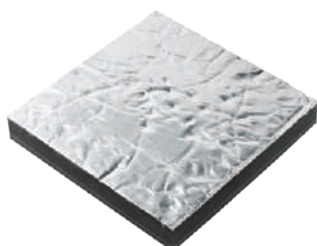


ST135A

Prometech single

Excellent sound insulation, highest safety level

This product has good sound reducing capabilities and the highest level of safety. Ideal for applications where space is limited. Fire resistant Class 0.



PT112A

Prometech double

Ultimate sound insulation and safety

This line is designed to absorb as much sound as possible. It is the top of the range product line with double damping layers. Fire resistant Class 0.



PT225S

Range		Sonitech light				Sonitech single				Prometech single				Prometech double																																																																																																																																																																																																																																			
Product code (All sheets are 600 x 1000 mm)		ST020A	ST040A	ST020W	ST040W	ST135A	ST145A	ST135W	ST145W	PT112A	PT135A	PT145A	PT112W	PT135W	PT145W	PT225S	PT245S	PT260S	PT225W	PT245W	PT260W																																																																																																																																																																																																																												
Material	Sonitech	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		Prometech																						Number of damping layers	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2		Total thickness (inch)	25 ³ / ₃₂	1 ³⁷ / ₆₄	25 ³ / ₃₂	1 ³⁷ / ₆₄	1 ³ / ₈	1 ⁴⁹ / ₆₄	1 ³ / ₈	1 ⁴⁹ / ₆₄	1/2	1 ³ / ₈	1 ⁴⁹ / ₆₄	1/2	1 ³ / ₈	1 ⁴⁹ / ₆₄	1	1 ⁴⁹ / ₆₄	1 ⁴⁹ / ₆₄	1	1 ⁴⁹ / ₆₄	1 ⁴⁹ / ₆₄	Facing	Aluminium	•	•			•	•			•	•	•	•	•	•	•	•	•	•	•	•		White foil			•	•																		Glass cloth Silver															•	•	•					Glass cloth White							•	•			•	•	•					•	•	•	Back	Self-adhesive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•
	Prometech																						Number of damping layers	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2		Total thickness (inch)	25 ³ / ₃₂	1 ³⁷ / ₆₄	25 ³ / ₃₂	1 ³⁷ / ₆₄	1 ³ / ₈	1 ⁴⁹ / ₆₄	1 ³ / ₈	1 ⁴⁹ / ₆₄	1/2	1 ³ / ₈	1 ⁴⁹ / ₆₄	1/2	1 ³ / ₈	1 ⁴⁹ / ₆₄	1	1 ⁴⁹ / ₆₄	1 ⁴⁹ / ₆₄	1	1 ⁴⁹ / ₆₄	1 ⁴⁹ / ₆₄	Facing	Aluminium	•	•			•	•			•	•	•	•	•	•	•	•	•	•	•	•		White foil			•	•																		Glass cloth Silver															•	•	•					Glass cloth White							•	•			•	•	•					•	•	•	Back	Self-adhesive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																						
	Number of damping layers	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2		Total thickness (inch)	25 ³ / ₃₂	1 ³⁷ / ₆₄	25 ³ / ₃₂	1 ³⁷ / ₆₄	1 ³ / ₈	1 ⁴⁹ / ₆₄	1 ³ / ₈	1 ⁴⁹ / ₆₄	1/2	1 ³ / ₈	1 ⁴⁹ / ₆₄	1/2	1 ³ / ₈	1 ⁴⁹ / ₆₄	1	1 ⁴⁹ / ₆₄	1 ⁴⁹ / ₆₄	1	1 ⁴⁹ / ₆₄	1 ⁴⁹ / ₆₄	Facing	Aluminium	•	•			•	•			•	•	•	•	•	•	•	•	•	•	•	•		White foil			•	•																		Glass cloth Silver															•	•	•					Glass cloth White							•	•			•	•	•					•	•	•	Back	Self-adhesive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																																												
	Total thickness (inch)	25 ³ / ₃₂	1 ³⁷ / ₆₄	25 ³ / ₃₂	1 ³⁷ / ₆₄	1 ³ / ₈	1 ⁴⁹ / ₆₄	1 ³ / ₈	1 ⁴⁹ / ₆₄	1/2	1 ³ / ₈	1 ⁴⁹ / ₆₄	1/2	1 ³ / ₈	1 ⁴⁹ / ₆₄	1	1 ⁴⁹ / ₆₄	1 ⁴⁹ / ₆₄	1	1 ⁴⁹ / ₆₄	1 ⁴⁹ / ₆₄	Facing	Aluminium	•	•			•	•			•	•	•	•	•	•	•	•	•	•	•	•		White foil			•	•																		Glass cloth Silver															•	•	•					Glass cloth White							•	•			•	•	•					•	•	•	Back	Self-adhesive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																																																																		
Facing	Aluminium	•	•			•	•			•	•	•	•	•	•	•	•	•	•	•	•		White foil			•	•																		Glass cloth Silver															•	•	•					Glass cloth White							•	•			•	•	•					•	•	•	Back	Self-adhesive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																																																																																								
	White foil			•	•																		Glass cloth Silver															•	•	•					Glass cloth White							•	•			•	•	•					•	•	•	Back	Self-adhesive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																																																																																																														
	Glass cloth Silver															•	•	•					Glass cloth White							•	•			•	•	•					•	•	•	Back	Self-adhesive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																																																																																																																																				
	Glass cloth White							•	•			•	•	•					•	•	•	Back	Self-adhesive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																																																																																																																																																										
Back	Self-adhesive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																																																																																																																																																																																
Weight	(lb)	0.9	1.5	0.9	1.5	7.9	8.4	7.9	8.4	7.9	10.8	11.9	7.9	10.8	11.9	15.9	17.2	20.3	15.9	17.2	20.3	Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																																																																																																																																																																																																						
Class 0	Fire resistant									•	•	•	•	•	•	•	•	•	•	•	•																																																																																																																																																																																																																												



Around the engine

Sound insulation materials

Anti-reverberation material type ARM

Reduces structure borne sounds

Type ARM specifically reduces structure-borne sounds caused by, for example, the ship's propeller. These plates are suitable for steel and aluminium structures.

Specifications

- Plate dimensions 3.3 ft (100 cm) x 3.9 ft (120 cm) x 3/16" (4 mm)
- Weight per plate 18 lb (8 kg)
- Temperature resistance -14°F (-10° C) to +194°F (90°C)



Type	Description
ARM10X12	Anti-reverberation plate

ARM10X12

Self-adhesive tape

Providing a neat and professional finish

When installing any VETUS sound insulation sheet, we recommend using these self-adhesive tapes to cover the joints.

Specifications

- Come in rolls of 98.5 ft (30 m) long and 2" (50 mm) wide
- Available in the colours grey (TAPEG30), white (TAPEW30) and aluminium (TAPEA30)



Type	Description
TAPEG30	Self-adhesive tape, grey
TAPEW30	Self-adhesive tape, white
TAPEA30	Self-adhesive tape, aluminium

TAPE

Glass cloth tape

For use with glass cloth faced insulation sheets

This tape is perfect for sound insulation applications, requiring strength, flexibility and resistance to heat. Especially suitable for use with the VETUS glass fibre faced sound insulation sheets.

Available in a 164' x 2" (50 m x 50 mm) size.



Type	Description
TAPEGF50	Self-adhesive tape, glass fibre

TAPEGF50



Sound insulation materials

Rosettes

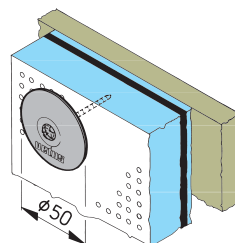
For easy installation of heavy sheets

These fixing rosettes made of Polypropylene are ideal for easy installing of heavy sheets. They come in packs of fifteen pieces (screw not supplied).



FIXP

Type	Description
FIXP	Ceiling rosette for fastening sound insulation sheets

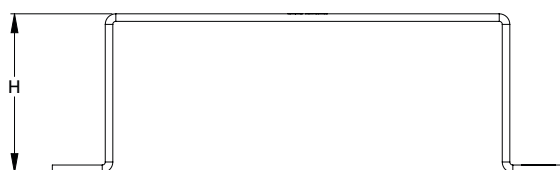
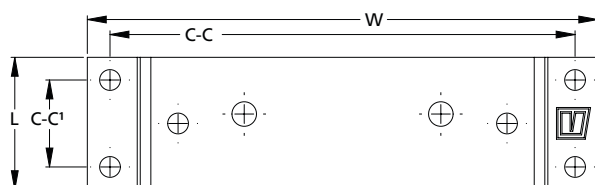


Mounting bracket type MBSET

For easy fixing of ancillary equipment

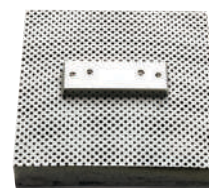
With this stainless steel (AISI 316) mounting bracket you easily fix cooling water strainers, no-smell and fuel filters on sound insulation materials up to 1 9/16" (40 mm) thick. It is supplied with bolts, washers and self-locking nuts. Fixings to mount the bracket are not included.

Type	Description	L inches (mm)	W inches (mm)	H inches (mm)	C-C inches (mm)	C-C' inches (mm)
MBSET01	Mounting bracket set M5 x 35 for ASD38V, ASD38H	1 3/4 (45)	6 9/16 (166)	1 5/8 (42)	6 1/16 (154)	1 5/16 (33)
MBSET02	Mounting bracket set for ASDV/H, AIRVENTV/H	1 3/8 (35)	5 5/16 (135)	1 5/8 (42)	4 13/16 (123)	7/8 (23)
MBSET03	Mounting bracket set for FTR140, WS180, WS720, NSFS	1 3/8 (35)	5 5/16 (135)	1 5/8 (42)	4 13/16 (123)	7/8 (23)
MBSET04	Mounting bracket set for fuel filters 330VTE(P)B, 340VTE(P)B & 350VTE(P)B	1 3/8 (35)	5 5/16 (135)	1 5/8 (42)	4 13/16 (123)	7/8 (23)
MBSET05	Mounting bracket set for FTR330, FILTER150, NSF	1 3/4 (45)	6 9/16 (166)	1 5/8 (42)	6 1/16 (154)	1 5/16 (33)



MBSET01

MBSET02



MBSET03

MBSET04

MBSET05





Passion for water

Get out of the house and onto the water with YellowV. Take our powerful Heartbeat Stand Up Paddling board series for example. These boards combine modern graphics with a distinguished black PVC backdrop. Double layered PVC wrapped around a high density drop-stitched core to be precise. And because we are YellowV, we add just that bit extra. Curious what that bit is? Visit us on vetus.com/brands/yellowv or find us on social media!

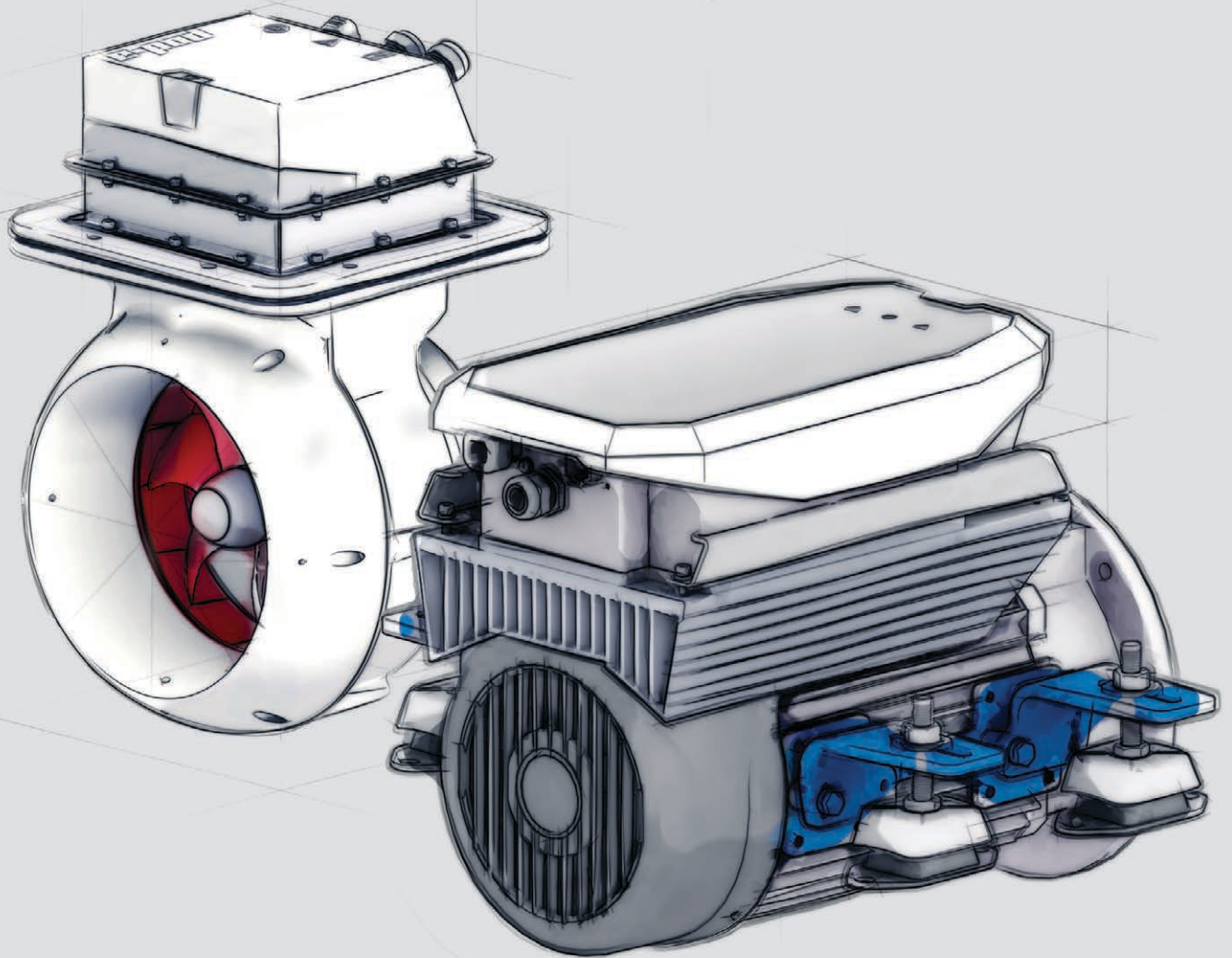


YellowV Next level leisure





Electric and hybrid propulsion



Electric and hybrid propulsion

VETUS Electric propulsion

Electric propulsion systems are not just better for the environment-there are even more reasons to choose electric mobility, from cutting-edge technology to more genuine moments in nature. Increasingly, more areas are becoming green zones where only electric boats are allowed. Boating with an electric-powered vessel gives you superior mobility and true freedom to go wherever you want.

Control the boat like you're used to, but with only the sound of the water

In developing the VETUS Electric Propulsion program, delivering the optimal boating experience was our top priority. This led to the design of electric motors that match-or even surpass-the comfort and performance of traditional internal combustion engines, all while eliminating emissions and noise.

Active Electric Braking

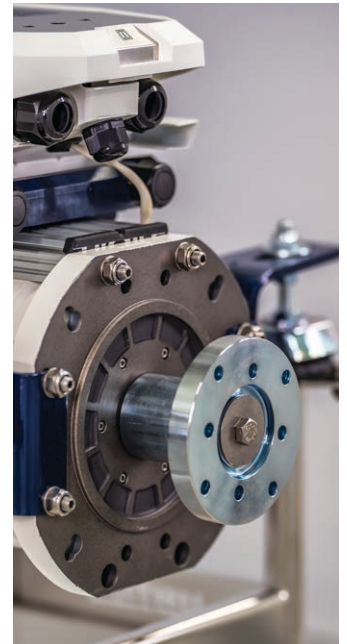
E-DRIVE systems deliver faster and more powerful acceleration than traditional diesel engines. Unlike diesel propulsion, they do not require a gearbox or clutch. As a result, reversing the propeller involves bringing the high-speed electric motor to a complete stop and then quickly rotating it in the opposite direction. To match the reverse power of a clutch-based system, VETUS developed Active Electric Braking-a unique feature available exclusively on the E-LINE and E-POD systems. This innovation uses the electric motor's high torque to actively and rapidly reverse its direction. The result: precise control and the ability to stop the boat within just one boat length if needed. A familiar boating experience with all the benefits of electric propulsion-instant torque, smooth handling, and total control.

Battery Protection function

The Battery Protection function, standard across all VETUS E-DRIVES, adds an extra layer of safety to protect battery health and extend its service life over many boating seasons. Discharging a battery pack below its minimum specified voltage can cause irreversible damage and significantly shorten its lifespan. To prevent this, the patented Motor Controller continuously monitors the battery's state of charge by tracking both voltage and current draw. This intelligent protection system ensures the batteries operate within safe parameters, maximizing reliability and longevity.

Boosted Battery Charge function

Another unique feature of the VETUS E-DRIVE motors is the patented Boosted Battery Charge function (see page 85 for a schematic overview). This innovation allows a standard 24 VDC charger to charge the 48 VDC electric propulsion battery pack, while a 24 VDC battery pack can be charged by a 12 VDC charger, offering both practical and economic advantages. Since 24 VDC chargers are more widely available and affordable, this reduces system complexity and overall installation costs. Additionally, it allows boatbuilders to easily implement a 24 VDC low-voltage electrical network on board, simplifying integration and enhancing flexibility.





Enjoy an exceptional boating experience

At VETUS, we are committed to delivering innovative and sustainable solutions. Our electric propulsion systems are designed to provide a superior boating experience that combines performance, comfort, and environmental responsibility. With silent operation, zero emissions, and low maintenance, it's ideal for eco-conscious cruising. The compact design saves space on board, while instant torque ensures smooth and responsive handling.

Compliant with environmental regulations, VETUS electric propulsion systems deliver smart and sustainable power for today's leisure boater. Thanks to cleverly engineered cooling solutions, the VETUS E-DRIVE systems deliver maximum motor performance and battery efficiency-giving you the power and range for a full day on the water, without compromise. With intuitive monitoring panels, energy levels are easy to track, and when paired with the appropriate battery pack, you can enjoy uninterrupted cruising all day long.

VETUS' approach to electric boating embraces what matters most today: efficiency, compactness, and compatibility-designed as a true plug-and-play solution for both new builds and retrofitted vessels. These E-DRIVE systems are V-CAN compatible and, of course, comply with all emission standards.

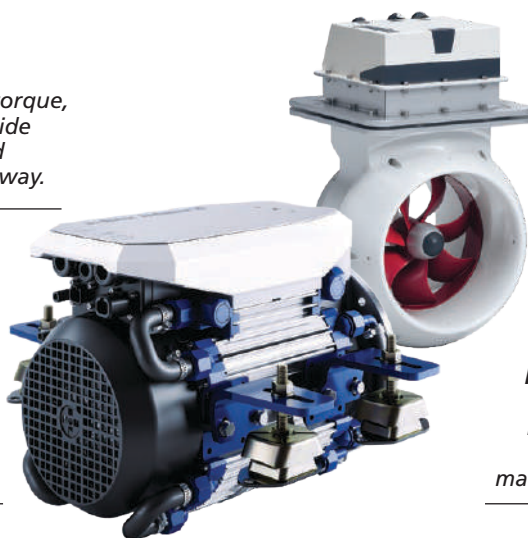
Quiet, smoothly adjustable, and protected against overload, VETUS E-DRIVES are the ideal companions for a green, comfortable, and worry-free boating experience.

Complete system ready to install

VETUS E-DRIVE sets include all key components such as the motor, cables, and standard monitoring devices. It's a complete system out of the box, only to be completed with the control lever of your choice.

Boating made better: With instant torque, VETUS E-DRIVE powered boats provide smooth, responsive acceleration and immediate deceleration once underway.

Smart sailing: Modular, fully integrated, self-monitoring, and engineered for ease of use. Smart functions abound with VETUS systems.



Refit and installation made easy: Designed to be compact and easy to install, VETUS E-DRIVES can be mounted on almost any existing engine foundation.

More affordable than you think: VETUS electric motors are simple and efficient by design, which means you can reduce your everyday operating costs with less maintenance and lower running expenses.



Electric and hybrid propulsion

VETUS Electric propulsion

The VETUS electric propulsion program is built around five seamlessly integrated modules. Each module offers multiple options and combinations, enabling fully customized configurations tailored to the specific requirements of different boats.

1. Propulsion

From all-in-one solutions such as the E-POD to advanced air- and liquid-cooled high-power systems like the E-LINE, VETUS electric motors are designed to power a wide range of boats up to 49 feet (15 m).

2. Control

A variety of control lever options allow boaters to tailor handling to their exact preferences.

3. Monitoring

To ensure an enjoyable experience on the water, VETUS offers several monitoring solutions. These include a practical monitoring panel as well as a multifunction touchscreen display with integrated GPS, providing clear insights at a glance.

4. Energy Storage

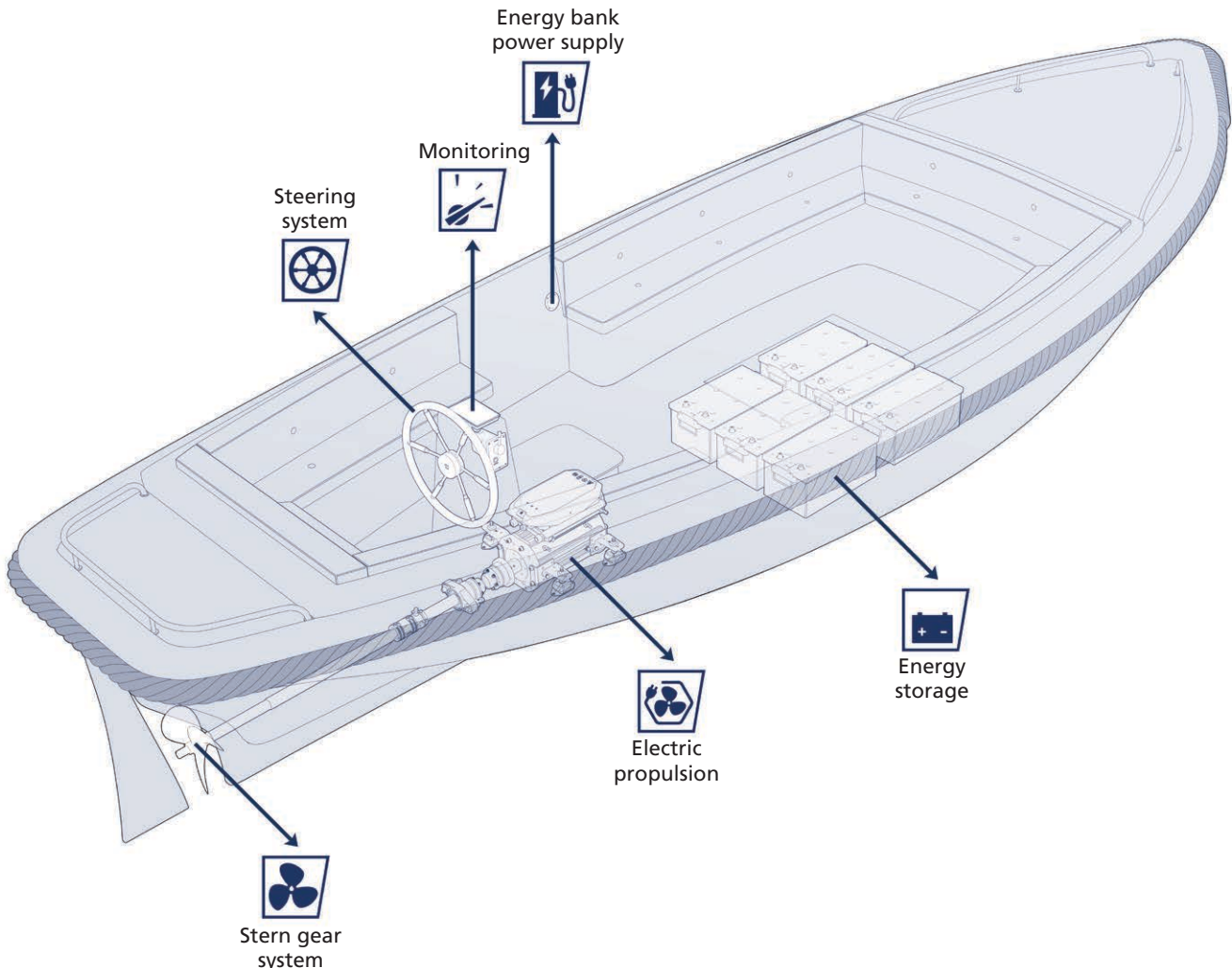
No electric propulsion system is complete without reliable, efficient batteries. VETUS offers both AGM and Lithium options, suitable for all types of installations.

5. Energy Supply

Even the best batteries depend on consistent, reliable charging. VETUS offers a complete range of solutions-from shore power connection kits and battery chargers to integrated generator sets-always ensuring safe and dependable energy supply.

Beyond Electric Motors

As a creator of complete boat systems, VETUS goes far beyond electric propulsion. We supply all essential components for professional installations-including shafts, propellers, seats, and more-making VETUS your single reliable source for both new builds and refits.





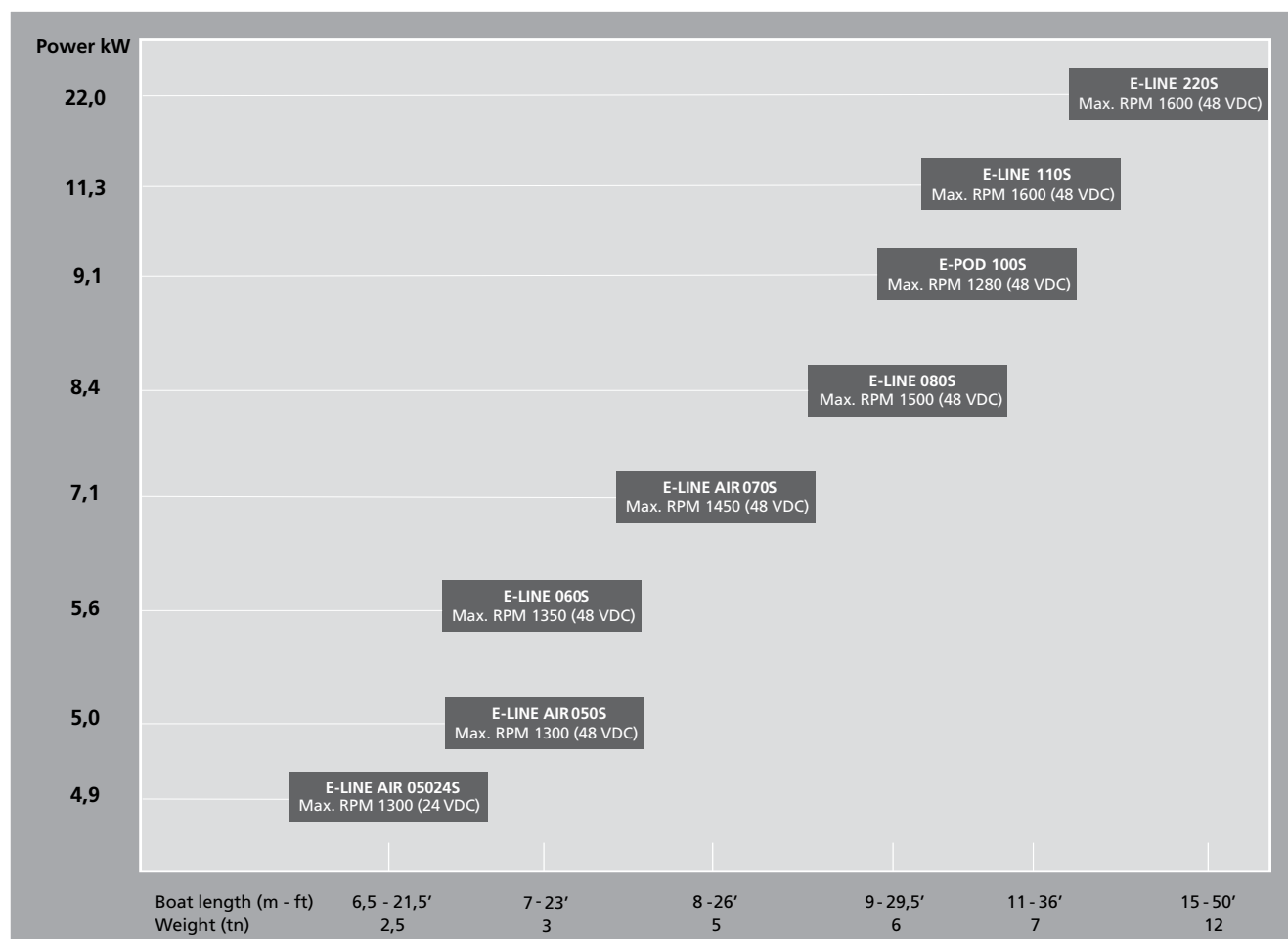
Module: Propulsion

The heart of the system is the motor, connected via the modular digital CAN-bus communication system V-CAN (see page 15). Quiet, reliable, and low-maintenance boating.

Below is an overview of which type of electric VETUS motor system suits which size of boat. Note that this is an approximate guideline. The motor selection depends on multiple parameters such as hull shape. Contact your dealer for detailed advice.

Model	Indicative comparable combustion engine	Indication for suitable boat length
E-LINE rental *	5-12 hp (max. input 3.2 - 5.6 - 8.6 kW)	4-7 m (13-23 feet)
E-POD	20 hp (max. input 9.1 kW / 11.3 kW peak)	up to 9 m (29.5 feet) or 6 ton
E-LINE AIR 050 24V	10 hp (max. input 4.9 kW / 6.7 kW peak)	up to 6.5 m (21 feet) or 2.5 ton
E-LINE AIR 050	11 hp (max. input 5.0 kW / 7.9 kW peak)	up to 7 m (23 feet) or 3 ton
E-LINE AIR 070	13 hp (max. input 7.1 kW / 8.6 kW peak)	up to 8 m (26 feet) or 5 ton
E-LINE 060	11 hp (max. input 5.6 kW / 7.3 kW peak)	up to 7 m (23 feet) or 3 ton
E-LINE 080	16 hp (max. input 8.4 kW / 10.2 kW peak)	up to 9 m (29.5 feet) or 5 ton
E-LINE 110	22 hp (max. input 11.3 kW / 13.3 kW peak)	up to 11 m (36 feet) or 7 ton
E-LINE 220	30 hp (max. input 22.0 kW / 24.5 kW peak)	up to 15 m (50 feet) or 20 ton

* For more information on the E-DRIVE in combination with the ELPS2 panel, please contact your local dealer.



Electric and hybrid propulsion

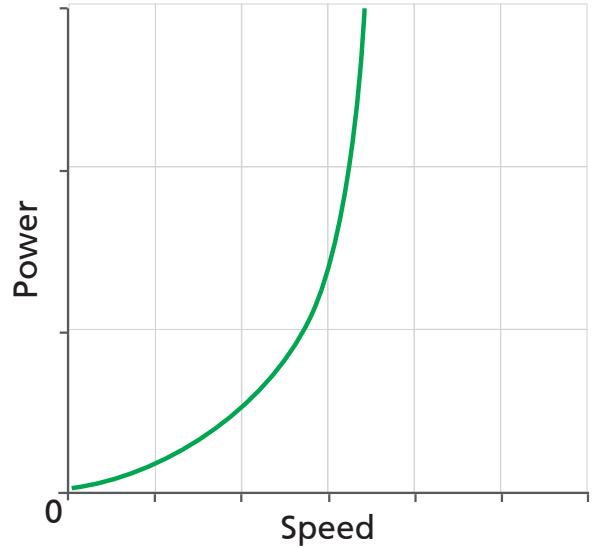
Module: Propulsion

The E-LINE motor range is designed to be compact and fit the existing propulsion foundation and propeller shaft installation. The supplied Swap & Go mounting brackets with motor mounts can easily be adjusted in height and set to angle the shaft to 0° or 8°. This makes the re-powering and connecting to an existing propeller shaft easy. The included motor mounts are specially developed for electric propulsion motors.

The E-POD combines the motor, mounts, cooling system, gearbox, clutch, propeller shaft, and propeller, all into one complete system. This space-saving solution makes the engine box and propeller shaft redundant, opening up more floor space. Both the E-LINE and E-POD motors are designed to deliver an optimal boating experience, offering the same intuitive control as a traditional combustion engine-without the emissions or noise. With VETUS electric propulsion, you can enjoy nature in its purest form-quiet and serene.

Hull speed

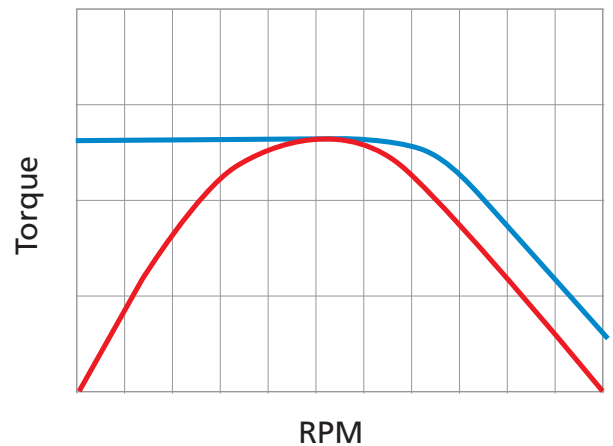
The hull speed, also known as the limit speed, is the maximum speed at which a displacement boat can travel. When a displacement boat reaches hull speed, the speed no longer increases regardless of the propulsion power added. This is explained by the bow wave: a boat cannot overtake its own bow wave. By adding more power at maximum hull speed, the bow wave becomes larger, more energy is consumed, and more water is displaced-but no additional speed is gained.



Torque and Speed

Diesel and electric motors differ significantly in how they deliver torque and speed. Diesel engines produce low torque at low RPM and build power as engine speed increases, reaching peak torque around mid-speed, typically 1500–2000 RPM. Due to the nature of combustion and mechanical lag, power delivery is less immediate, which can result in a slight delay when accelerating from a standstill.

In contrast, electric motors deliver maximum torque instantly from zero RPM. This means smooth, powerful acceleration the moment you engage the throttle-ideal for precise maneuvering in crowded marinas or narrow canals. With no delay and higher efficiency at low speeds, electric propulsion offers a more responsive and enjoyable boating experience right from the start.



■ Electric
■ Diesel

Simulated comparison between a 2-cylinder 12 HP diesel engine and the VETUS E-LINE 060
For illustrative purposes only. Actual technical data may vary.

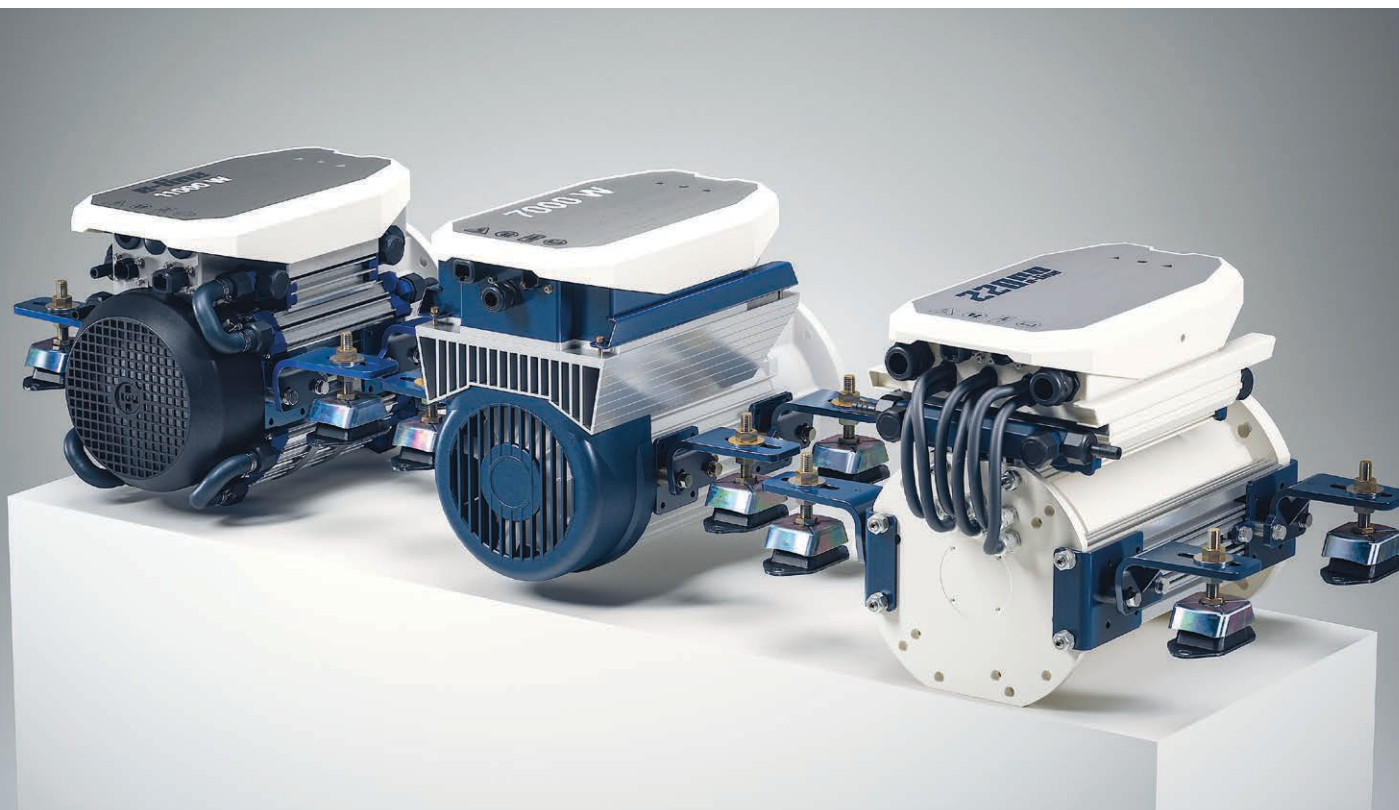


The overview below shows various boat speeds per vessel length and their corresponding power consumption as a reference. Since every boat is unique, this calculation is based on a theoretical standard displacement hull and propeller. The battery pack used for this comparison is a 440 Ah, 48 VDC VETUS AGM deep-cycle pack. This 440 Ah pack provides approximately 14.8 kWh of usable net energy and can be recharged overnight using a light 6A shore connection. In many countries, shore power connections allow up to 16A, which means charging can be completed roughly 2.5 times faster.

Keep in mind that available boating time increases exponentially when the speed is reduced below hull or limit speed. Continuous all-day cruising is possible!

Boat length (waterline)	4 m (13 feet)	6 m (19 feet)	8 m (26 feet)	10 m (33 feet)	12 m (39 feet)	15 m (50 feet)
Calm paced in km/h (knots)	6 (3.3)	6 (3.3)	6 (3.3)	6 (3.3)	6 (3.3)	6 (3.3)
Consumed input power in kW	1	0.7	0.8	1	1.1	1.2
Boating time calm paced with 440 Ah @ 48 V battery pack	15 h 30 m	20 h 45 m	17 h 30 m	14 h 15 m	13 h	13 h
Cruising speed in km/h (knots)	7 (3.8)	8.7 (4.7)	10.2 (5.5)	11.3 (6.1)	12.4 (6.7)	12.4 (6.7)
Consumed input power in kW	1.5	2.1	3.9	6.7	9.6	9.5
Boating time cruising speed with 440 Ah @ 48 V battery pack	10 h 15 m	7 h 15 m	3 h 45 m	2 h 15 m	1 h 30 m	1 h 30 m
Hull speed / Limit speed in km/h (knots)	9 (4.9)	11 (5.9)	12.8 (6.9)	14.3 (7.7)	15.7 (8.4)	14.3 (7.7)
Consumed input power in kW	3.1	4.1	7.7	13.4	18.9	22
Boating time limit speed with a 48 V battery pack	Contact a VETUS dealer for advice on the ideal battery pack.					

Indication only. Values strongly depending on hull shape, boat length, weight, propeller pitch/diameter and other parameters.



Electric and hybrid propulsion

E-POD

100

11,3 kW input peak power
1280 RPM - 84 Nm output

9,1 kW input power
1100 RPM - 79 Nm output



MPE1KB



MPE1MBV



EPOD100S

The E-POD combines the motor, mounts, cooling system, gearbox, clutch, propeller shaft, and propeller all into one complete system. This space-saving solution makes the engine box and propeller shaft through the boat redundant. The E-POD design opens up floor space, making a completely new boat design possible.

Another unique feature is that with the E-POD, there are no rotating or vibrating parts inside the boat. Even better, there is no shaft or shaft bearings. Instead, the E-POD with propeller submerged in the water powers the boat directly. This propeller is the rotor of the energy efficient permanent magnet brushless induction motor drive. To reduce propulsion sounds even more, the propeller is designed to minimize cavitation while maintaining maximum propulsion power.

The E-POD provides maximum motor power and the ability to travel long distances on one battery charge due to efficient motor management and direct 360° liquid cooling. A full day on the water without any limitations is possible.

Supplied with

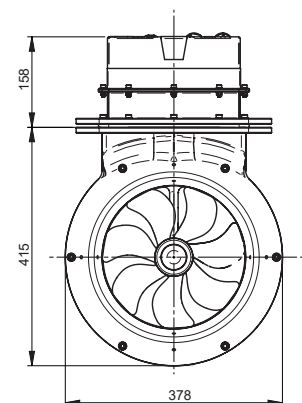
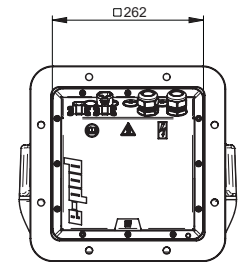
- All-in-one system solution. Integrated cooling system, thrust bearing, shaft system and propeller
- MPE1KB key switch - all-in-one solution; V-CAN power supply, external 12 VDC power supply and anti-theft, see page 80
- MPE1MBV monitoring panel - V-CAN monitoring, battery indication, motor alarms and motor status, see page 82
- IV4812360 converting 48 VDC to the required V-CAN power supply 12 VDC

Additional components and accessories to enhance your electric boating experience

- Side-mount V-CAN control levers with multiple propulsion modes (see page 81)
- Multifunctional display and battery monitoring solutions (see pages 82 and 83)
- Shore power connection set (see page 279)

TECHNICAL SPECIFICATIONS

E-POD model	100
Motor type	PMAC Permanent Magnet brushless induction motor
CAN bus	V-CAN
Nominal input voltage	48 VDC (40 - 60 VDC)
Maximum input current draw	255 A
Maximum output power	10.2 kW (cf. 20 hp)
Indicative energy consumption*	0.9 kWh @ 6 km/h (3.5 kt)*
Suitable for indicative boat length	up to 9 meter (29.5 feet) or 6 ton*
Maximum shaft rpm in NORMAL mode	1100 rpm with Ø 250 mm (9.84") propeller
Maximum shaft rpm in ECO mode	750 rpm with Ø 250 mm (9.84") propeller
Maximum shaft rpm in POWER mode	1280 rpm with Ø 250 mm (9.84") propeller
Maximum torque	84 Nm
Transmission ratio	1:1 direct electric drive
Coupling and shaft system	All-in-one system including propeller
IP-rating motor	IP69 sealed motor and IP65 top cover
Cooling system	Direct 360° cooling; motor submerged in water
Control and warning lights and audible indication on MPE1MBV panel (standard)	Propulsion active, POWER mode, temperature, battery level indication, high current draw, low voltage, limiting alarm
Electric circuit protection	Fuse 300 Amps
Dry weight	134 lb (61 kg)
Equipped with	Active Electronic Braking (2500 rpm brake) Battery Protection function Boosted Battery Charge function



*Indication only. Values strongly depending on hull shape, boat length, weight, propeller pitch/diameter and other parameters.



E-LINE AIR COOLED

An optimized design makes the E-LINE AIR COOLED compact and lightweight-ideal for smaller boats.



Available in three versions, 24 V or 48 V, with up to 8.6 kW peak input power and 55 Nm of torque.

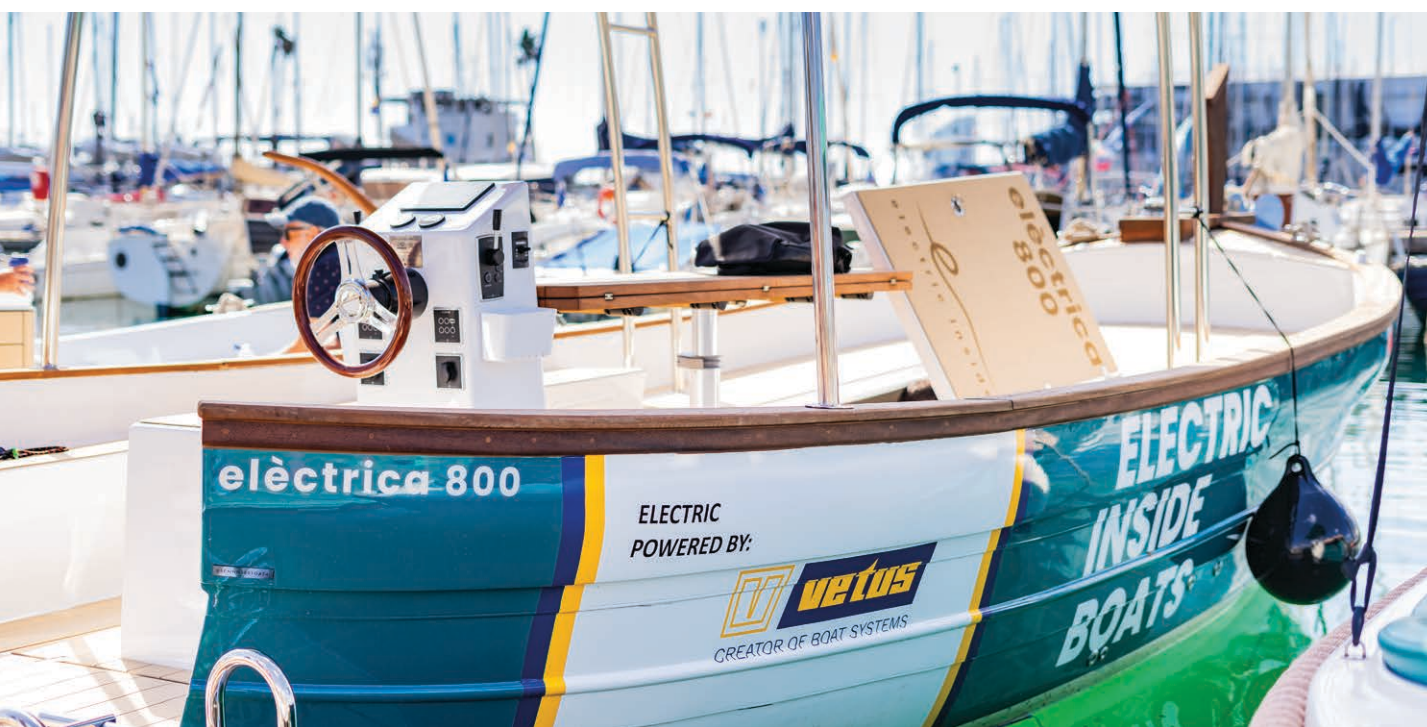
With its optimized construction and fewer components, the E-LINE AIR series is even more compact and lightweight than a standard liquid-cooled system, requiring less space in the engine compartment. Ideal for smaller boats up to 26 feet (8 m) or 5 tons, the E-LINE AIR simplifies installation and reduces maintenance costs.

Plug-and-play ready, the E-LINE AIR features an efficient, compact design integrating the motor and motor controller into a single unit. This series also includes Swap & Go engine brackets and mounts, specially developed for electric inboard motors. The height and angle (0° or 8°) of the mounting brackets can be easily adjusted during installation, simplifying repower projects and enabling quick connection to an existing propeller shaft.

Due to efficient motor management, you can travel much farther on a single battery charge-a full day on the water without limitations is possible.

TECHNICAL SPECIFICATIONS OVERVIEW

Model	E-LINE AIR 050 24	E-LINE AIR 050	E-LINE AIR 070
Maximum input peak power	6,7 kW	7,9 kW	8,6 kW
Maximum torque	40 Nm	50 Nm	55 Nm
Comparable combustion engine	10 hp	11 hp	13 hp
Indicative boat length	Up to 6,5 m (21 feet) or 2,5 ton	Up to 7 m (23 feet) or 2,5 ton	Up to 8 m (26 feet) or 2,5 ton
Motor type	Brushless induction	Brushless induction	Brushless induction
Nominal input voltage	24 VDC	48 VDC	48 VDC
Max. shaft rpm	1300	1300	1450



Electric and hybrid propulsion

E-LINE AIR COOLED

050

6,7 kW input peak power
1300 RPM - 40 Nm output

4,9 kW input power
1100 RPM - 36 Nm output

Input voltage 24 VDC



EAIR0502S



MPE1KB



MPE1MBV

EAIR0502S is supplied with

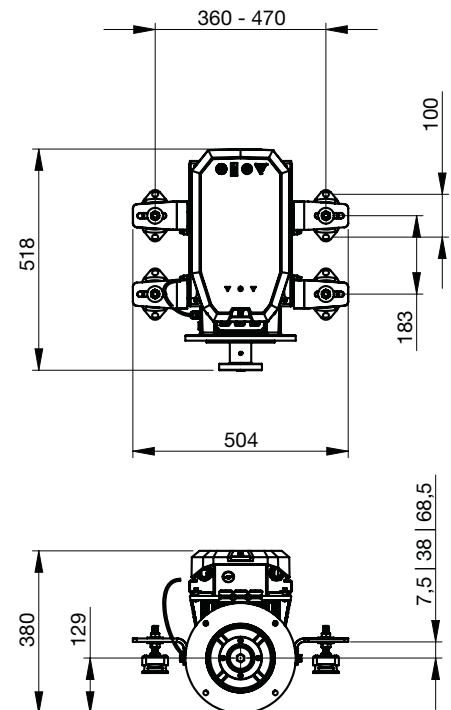
- Swap & Go motor brackets and motor mounts type EMX65
- Integrated thrust bearing
- Mounting flange 4" suitable for Combiflex 12, Bullflex type 1 (see page 95 for couplings and propeller shaft products)
- MPE1KB key switch - all-in-one solution; V-CAN power supply, external 12 VDC power supply and anti-theft, see page 80
- MPE1MBV monitoring panel - V-CAN monitoring, battery indication, motor alarms and motor status, see page 82
- IV2412360 converting 24 VDC to the required V-CAN power supply 12 VDC

Additional components and accessories to upgrade your electric boating experience

- Side-mount V-CAN control levers with different propulsion modes (see page 81)
- Multifunctional display and battery monitoring solutions (see pages 82 and 83)
- Shore power connection set (see page 279)

TECHNICAL SPECIFICATIONS

E-LINE AIR model	050 24
Motor type	Brushless induction motor
CAN bus	V-CAN
Nominal input voltage	24 VDC (20 - 35 VDC)
Maximum input current draw	280 A
Maximum output power	5.5 kW (cf. 11 hp)
Indicative energy consumption*	1.2 kWh @ 4 km/h (3.5 kt)*
Suitable for indicative boat length	up to 6.5 meter (21 feet) or 2.5 ton*
Motor output power	4 kW (@1100 rpm) (ISO/DIS 8665-2 as amended)
Maximum shaft rpm in NORMAL mode	1100 rpm
Maximum shaft rpm in ECO mode	1000 rpm
Maximum shaft rpm in POWER mode	1300 rpm
Maximum torque	40 Nm
Transmission ratio	1:1 direct electric drive
Coupling (optional)	Combiflex 1225 / 1230 Bullflex 0125 / 011
IP-rating motor	IP65 with gore-tex membrane and IPx3 cover
Cooling system	Air cooled
Control and warning lights and audible indication on MPE1MBV panel (standard)	Propulsion active, POWER mode, temperature, battery level indication, high current draw, low voltage, limiting alarm
Electric circuit protection	Fuse 300 Amps
Dry weight	68 kg
Equipped with	Active Electronic Braking (2500 rpm brake) Battery Protection function Boosted Battery Charge function



*Indication only. Values strongly depending on hull shape, boat length, weight, propeller pitch/diameter and other parameters.



E-LINE AIR COOLED

050

7,9 kW input peak power
1300 RPM - 45 Nm output

5,0 kW input power
1100 RPM - 36 Nm output

Input voltage 48 VDC



MPE1KB



MPE1MBV



EAIR050S

EAIR050S is supplied with

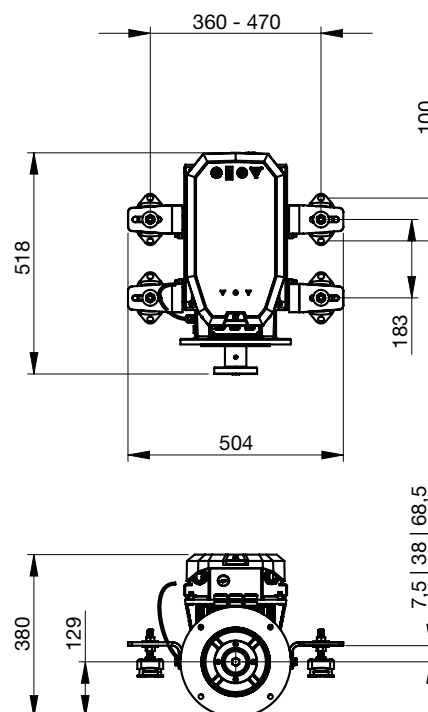
- Swap & Go motor brackets and motor mounts type EMX65
- Integrated thrust bearing
- Mounting flange 4" suitable for Combiflex 12, Bullflex type 1 (see page 95 for couplings and propeller shaft products)
- MPE1KB key switch - all-in-one solution; V-CAN power supply, external 12 VDC power supply and anti-theft, see page 80
- MPE1MBV monitoring panel - V-CAN monitoring, battery indication, motor alarms and motor status, see page 82
- IV4812360 converting 48 VDC to the required V-CAN power supply 12 VDC

Additional components and accessories to upgrade your electric boating experience

- Side-mount V-CAN control levers with different propulsion modes (see page 81)
- Multifunctional display and battery monitoring solutions (see pages 82 and 83)
- Shore power connection set (see page 279)

TECHNICAL SPECIFICATIONS

E-LINE AIR model	050
Motor type	Brushless induction motor
CAN bus	V-CAN
Nominal input voltage	48 VDC (40 - 60 VDC)
Maximum input current draw	210 A
Maximum output power	6.3 kW (cf. 11 hp)
Indicative energy consumption*	1.1 kWh @ 4 km/h (3.5 kt)*
Suitable for indicative boat length	up to 7 meter (23 feet) or 3 tons*
Motor output power	4 kW (@1100 rpm) (ISO/DIS 8665-2 as amended)
Maximum shaft rpm in NORMAL mode	1100 rpm
Maximum shaft rpm in ECO mode	1000 rpm
Maximum shaft rpm in POWER mode	1300 rpm
Maximum torque	50 Nm
Transmission ratio	1:1 direct electric drive
Coupling (optional)	Combiflex 1225 / 1230 Bullflex 0125 / 011
IP-rating motor	IP65 with gore-tex membrane and IPx3 cover
Cooling system	Air cooled
Control and warning lights and audible indication on MPE1MBV panel (standard)	Propulsion active, POWER mode, temperature, battery level indication, high current draw, low voltage, limiting alarm
Electric circuit protection	Fuse 250 Amps
Dry weight	68 kg
Equipped with	Active Electronic Braking (2500 rpm brake) Battery Protection function Boosted Battery Charge function



*Indication only. Values strongly depending on hull shape, boat length, weight, propeller pitch/diameter and other parameters.



Electric and hybrid propulsion

E-LINE AIR COOLED

070

8,6 kW input peak power
1450 RPM - 55 Nm output

7,1 kW input power
1350 RPM - 41 Nm output



EAIR070S



MPE1KB



MPE1MBV

EAIR070S is supplied with

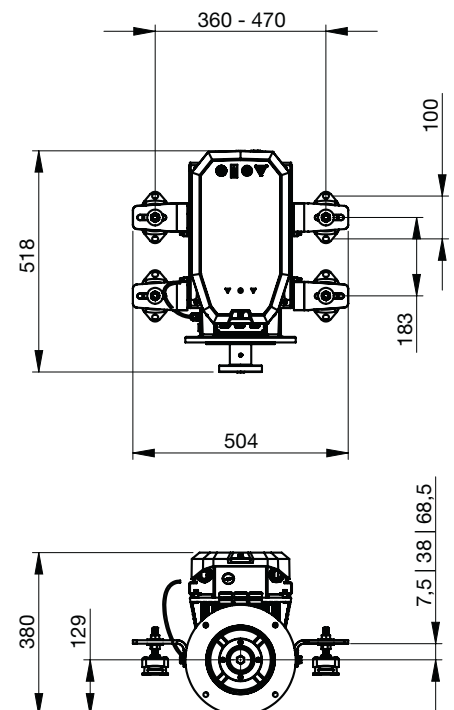
- Swap & Go motor brackets and motor mounts type EMX65
- Integrated thrust bearing
- Mounting flange 4" suitable for Combiflex 12, Bullflex type 1 (see page 95 for couplings and propeller shaft products)
- MPE1KB key switch - all-in-one solution; V-CAN power supply, external 12 VDC power supply and anti-theft, see page 80
- MPE1MBV monitoring panel - V-CAN monitoring, battery indication, motor alarms and motor status, see page 82
- IV4812360 converting 48 VDC to the required V-CAN power supply 12 VDC

Additional components and accessories to upgrade your electric boating experience

- Side-mount V-CAN control levers with different propulsion modes (see page 81)
- Multifunctional display and battery monitoring solutions (see pages 82 and 83)
- Shore power connection set (see page 279)

TECHNICAL SPECIFICATIONS

E-LINE AIR model	070
Motor type	Brushless induction motor
CAN bus	V-CAN
Nominal input voltage	48 VDC (40 - 60 VDC)
Maximum input current draw	220 A
Maximum output power	7.4 kW (cf. 13 hp)
Indicative energy consumption*	1.1 kWh @ 4 km/h (3.5 kt)*
Suitable for indicative boat length	up to 8 meter (26 feet) or 5 tons*
Motor output power	6 kW (@1350 rpm) (ISO/DIS 8665-2 as amended)
Maximum shaft rpm in NORMAL mode	1350 rpm
Maximum shaft rpm in ECO mode	1100 rpm
Maximum shaft rpm in POWER mode	1450 rpm
Maximum torque	55 Nm
Transmission ratio	1:1 direct electric drive
Coupling (optional)	Combiflex 1225 / 1230 Bullflex 0125 / 011
IP-rating motor	IP65 with gore-tex membrane and IPx3 cover
Cooling system	Air cooled
Control and warning lights and audible indication on MPE1MBV panel (standard)	Propulsion active, POWER mode, temperature, battery level indication, high current draw, low voltage, limiting alarm
Electric circuit protection	Fuse 300 Amps
Dry weight	68 kg
Equipped with	Active Electronic Braking (2500 rpm brake) Battery Protection function Boosted Battery Charge function



*Indication only. Values strongly depending on hull shape, boat length, weight, propeller pitch/diameter and other parameters.



E-LINE - LIQUID COOLED

A slim design with a highly efficient motor management system: power, speed, control, and comfort made easy.



Available in four different 48 V versions, delivering up to 22 kW peak input power and 130 Nm of torque.

The boating experience with an E-LINE is, in many ways, superior to that of a traditional internal combustion engine—emission-free, peacefully quiet, powerful, and responsive. Developed with a slim, efficient design and an advanced motor management system, the E-LINE stands out as best-in-class when power, speed, control, and comfort are your priorities.

Plug-and-play ready, the E-LINE also features a compact, efficient design integrating the motor and motor controller into a single unit. This motor range includes Swap & Go engine brackets and mounts designed specifically for electric inboard systems. The mounting brackets' height and angle (0° or 8°) can be easily adjusted during installation, simplifying repower projects and allowing fast connection to an existing propeller shaft.

You can travel much farther on a single battery charge thanks to efficient motor management. A full day on the water without compromise is achievable.

Ideal for boats up to 50 feet (15 m) or 20 tons.

TECHNICAL SPECIFICATIONS OVERVIEW

Model	E-LINE 060	E-LINE 080	E-LINE 110	E-LINE 220
Maximum input peak power	7,3 kW	10,2 kW	13,3 kW	24,5 kW
Maximum torque	45 Nm	60 Nm	70 Nm	130 Nm
Comparable combustion engine	11 hp	16 hp	22 hp	30 hp
Indicative boat length	Up to 7 m (23 feet) or 3 ton	Up to 9 m (29,5 feet) or 5 ton	Up to 11 m (36 feet) or 7 ton	Up to 15 m (50 feet) or 20 ton
Motor type	Brushless induction motor	Brushless induction motor	Brushless induction motor	Brushless induction motor
Nominal input voltage	48 VDC	48 VDC	48 VDC	48 VDC
Max. shaft rpm	1350	1500	1600	1600



Electric and hybrid propulsion

E-LINE

060

7,3 kW input peak power
1350 RPM - 43 Nm output

5,6 kW input power
1200 RPM - 36 Nm output



ELINE060S



MPE1KB



MPE1MBV

Supplied with

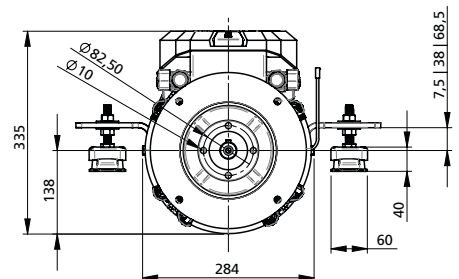
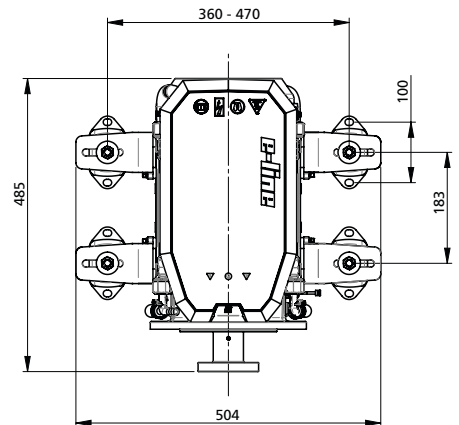
- Swap & Go motor brackets and motor mounts type EMX65
- Integrated thrust bearing
- Mounting flange 4" suitable for Combiflex 12, Bullflex type 1 (see page 95 for couplings and propeller shaft products)
- MPE1KB key switch - all-in-one solution; V-CAN power supply, external 12 VDC power supply and anti-theft, see page 80
- MPE1MBV monitoring panel - V-CAN monitoring, battery indication, motor alarms and motor status, see page 82
- IV4812360 converting 48 VDC to the required V-CAN power supply 12 VDC

Additional components and accessories to upgrade your electric boating experience

- Side-mount V-CAN control levers with different propulsion modes (see page 81)
- Freshwater cooling set for clean surface water (see page 80)
- Keel cooling set for closed cooling systems-ideal for salt or muddy water (see page 80)
- Multifunctional display and battery monitoring solutions (see pages 82 and 83)
- Shore power connection set (see page 279)

TECHNICAL SPECIFICATIONS

E-LINE model	060
Motor type	Brushless induction motor
CAN bus	V-CAN
Nominal input voltage	48 VDC (40 - 60 VDC)
Maximum input current draw	155 A
Maximum output power	6.0 kW (cf. 11 hp)
Indicative energy consumption*	1 kWh @ 6 km/h (3.5 kt)*
Suitable for indicative boat length	up to 7 meter (23 feet) or 3 ton*
Motor output power	5 kW (@1200 rpm) (ISO/DIS 8665-2)
Maximum shaft rpm in NORMAL mode	1200 rpm
Maximum shaft rpm in ECO mode	1000 rpm
Maximum shaft rpm in POWER mode	1350 rpm
Maximum torque	45 Nm
Transmission ratio	1:1 direct electric drive
Coupling (optional)	Combiflex 1225 / 1230 Bullflex 0125 / 011
IP-rating motor	IP65 with gore-tex membrane and IPX3 cover
Cooling system	Air and liquid cooled +
Liquid cooling system connections	12.7 mm (1/2") (intake and outlet)
Control and warning lights and audible indication on MPE1MBV panel (standard)	Propulsion active, POWER mode, temperature, battery level indication, high current draw, low voltage, limiting alarm
Electric circuit protection	Fuse 200 Amps
Dry weight	150 lb (68 kg)
Equipped with	Active Electronic Braking (2500 rpm brake) Battery Protection function Boosted Battery Charge function



*Indication only. Values strongly depending on hull shape, boat length, weight, propeller pitch/diameter and other parameters.



E-LINE

080

10,2 kW input peak power
1500 RPM - 55 Nm output

8,4 kW input power
1400 RPM - 48 Nm output



ELINE080S



MPE1KB



MPE1MBV

Supplied with

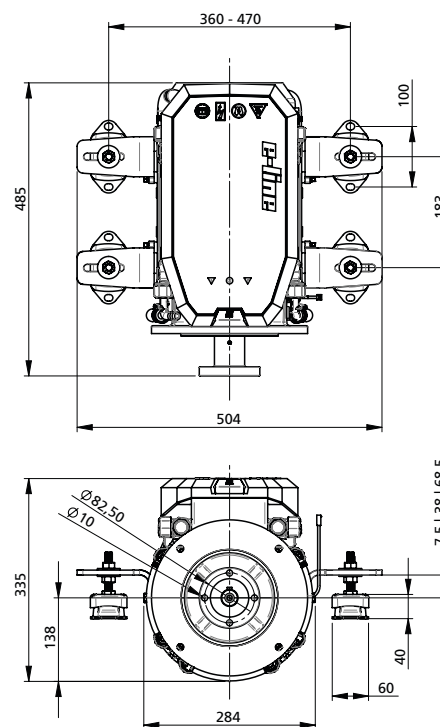
- Swap & Go motor brackets and motor mounts type EMX65
- Integrated thrust bearing
- Mounting flange 4" suitable for Combiflex 12, Bullflex type 1 (see page 95 for couplings and propeller shaft products)
- MPE1KB key switch - all-in-one solution; V-CAN power supply, external 12 VDC power supply and anti-theft, see page 80
- MPE1MBV monitoring panel - V-CAN monitoring, battery indication, motor alarms and motor status, see page 82
- IV4812360 converting 48 VDC to the required V-CAN power supply 12 VDC

Additional components and accessories to upgrade your electric boating experience

- Side-mount V-CAN control levers with different propulsion modes (see page 81)
- Freshwater cooling set for clean surface water (see page 80)
- Keel cooling set for closed cooling systems-ideal for salt or muddy water (see page 80)
- Multifunctional display and battery monitoring solutions (see pages 82 and 83)
- Shore power connection set (see page 279)

TECHNICAL SPECIFICATIONS

E-LINE model	080
Motor type	Brushless induction motor
CAN bus	V-CAN
Nominal input voltage	48 VDC (40 - 60 VDC)
Maximum input current draw	220 A
Maximum output power	8.5 kW (cf. 16 hp)
Indicative energy consumption*	1 kWh @ 6 km/h (3.5 kt)*
Suitable for indicative boat length	up to 9 meter (29.5 feet) or 5 ton*
Motor output power	7.5 kW (@1400 rpm) (ISO/DIS 8665-2)
Maximum shaft rpm in NORMAL mode	1400 rpm
Maximum shaft rpm in ECO mode	1100 rpm
Maximum shaft rpm in POWER mode	1500 rpm
Maximum torque	60 Nm
Transmission ratio	1:1 direct electric drive
Coupling (optional)	Combiflex 1225 / 1230 Bullflex 0125 / 011
IP-rating motor	IP65 with gore-tex membrane and IPx3 cover
Cooling system	Air and liquid cooled ++
Liquid cooling system connections	12,7 mm (1/2") (intake and outlet)
Control and warning lights and audible indication on MPE1MBV panel (standard)	Propulsion active, POWER mode, temperature, battery level indication, high current draw, low voltage, limiting alarm
Electric circuit protection	Fuse 250 Amps
Dry weight	152.1 lb (69 kg)
Equipped with	Active Electronic Braking (2500 rpm brake) Battery Protection function Boosted Battery Charge function



*Indication only. Values strongly depending on hull shape, boat length, weight, propeller pitch/diameter and other parameters.



Electric and hybrid propulsion

E-LINE

110

13,3 kW input peak power
1600 RPM - 67 Nm output

11,3 kW input power
1500 RPM - 61 Nm output



ELINE110S



MPE1KB



MPE1MBV

Supplied with

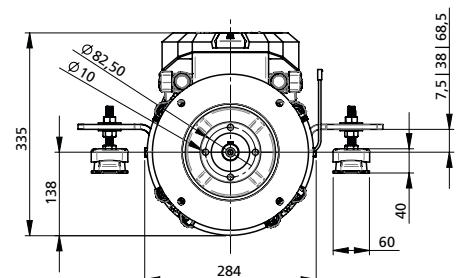
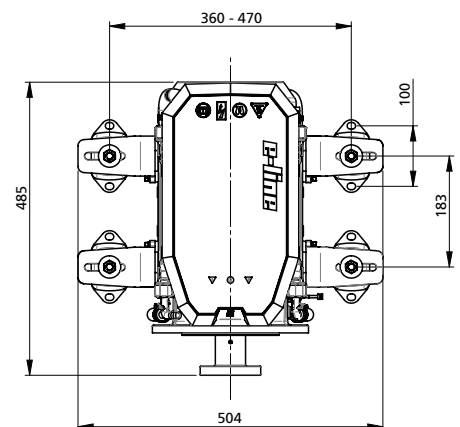
- Swap & Go motor brackets and motor mounts type EMX65
- Integrated thrust bearing
- Mounting flange 4" suitable for Combiflex 12, Bullflex type 1 (see page 95 for couplings and propeller shaft products)
- MPE1KB key switch - all-in-one solution; V-CAN power supply, external 12 VDC power supply and anti-theft, see page 80
- MPE1MBV monitoring panel - V-CAN monitoring, battery indication, motor alarms and motor status, see page 82
- IV4812360 converting 48 VDC to the required V-CAN power supply 12 VDC

Additional components and accessories to upgrade your electric boating experience

- Side-mount V-CAN control levers with different propulsion modes (see page 81)
- Freshwater cooling set for clean surface water (see page 80)
- Keel cooling set for closed cooling systems-ideal for salt or muddy water (see page 80)
- Multifunctional display and battery monitoring solutions (see pages 82 and 83)
- Shore power connection set (see page 279)

TECHNICAL SPECIFICATIONS

E-LINE model	110
Motor type	Brushless induction motor
CAN bus	V-CAN
Nominal input voltage	48 VDC (40 - 60 VDC)
Maximum input current draw	295 A
Maximum output power	11.2 kW (cf. 22 hp)
Indicative energy consumption*	1 kWh @ 6 km/h (3.5 kt)*
Suitable for indicative boat length	up to 11 meter (36 feet) or 8 ton*
Motor output power	10 kW (@1500 rpm) (ISO/DIS 8665-2)
Maximum shaft rpm in NORMAL mode	1500 rpm
Maximum shaft rpm in ECO mode	1200 rpm
Maximum shaft rpm in POWER mode	1600 rpm
Maximum torque	70 Nm
Transmission ratio	1:1 direct electric drive
Coupling (optional)	Combiflex 1225 / 1230 Bullflex 0125 / 011
IP-rating motor	IP65 with gore-tex membrane and IPx3 cover
Cooling system	Air and liquid cooled +++
Liquid cooling system connections	12.7 mm (1/2") (intake and outlet)
Control and warning lights and audible indication on MPE1MBV panel (standard)	Propulsion active, POWER mode, temperature, battery level indication, high current draw, low voltage, limiting alarm
Electric circuit protection	Fuse 300 Amps
Dry weight	156.5 lb (71 kg)
Equipped with	Active Electronic Braking (2500 rpm brake) Battery Protection function Boosted Battery Charge function



*Indication only. Values strongly depending on hull shape, boat length, weight, propeller pitch/diameter and other parameters.



E-LINE

220

24,5 kW input peak power
1600 RPM - 140 Nm output

22,0 kW input power
1500 RPM - 130 Nm output

NEW!



ELINE220S



MPE1KB



MPE1MBV

Supplied with

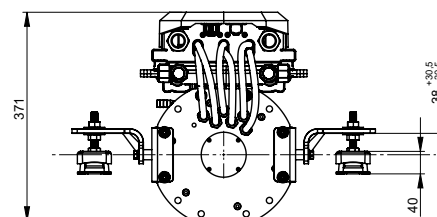
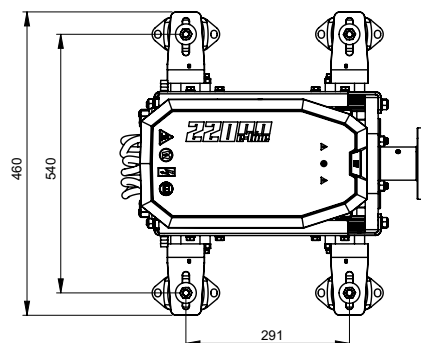
- Swap & Go motor brackets and motor mounts type EMX65
- Integrated thrust bearing
- Mounting flange 4" suitable for Combiflex 12, Bullflex type 1 (see page 95 for couplings and propeller shaft products)
- MPE1KB key switch - all-in-one solution; V-CAN power supply, external 12 VDC power supply and anti-theft, see page 80
- MPE1MBV monitoring panel - V-CAN monitoring, battery indication, motor alarms and motor status, see page 82
- IV4812360 converting 48 VDC to the required V-CAN power supply 12 VDC

Additional components and accessories to upgrade your electric boating experience

- Side-mount V-CAN control levers with different propulsion modes (see page 81)
- Freshwater cooling set for clean surface water (see page 80)
- Keel cooling set for closed cooling systems-ideal for salt or muddy water (see page 80)
- Multifunctional display and battery monitoring solutions (see pages 82 and 83)
- Shore power connection set (see page 279)

TECHNICAL SPECIFICATIONS

E-LINE model	220
Motortype	Brushless induction motor
CAN bus	V-CAN
Nominal input voltage	48 VDC (40 - 60 VDC)
Maximum input current draw	580 A
Maximum output power	22 kW (cf. 30 pk)
Indicative energy consumption*	1 kWh @ 6 km/u (3,5 kt)*
Suitable for indicative boat length	up to 15 m (50 feet) or 20 ton*
Motor output power	20 kW (@1500 rpm) (ISO/DIS 8665-2)
Maximum shaft rpm in NORMAL mode	1500 rpm
Maximum shaft rpm in ECO mode	1200 rpm
Maximum shaft rpm in POWER mode	1600 rpm
Maximum torque	130 Nm
Transmission ratio	1:1 direct electric drive
Coupling (optional)	Combiflex 1225 / 1230 Bullflex 0125 / 011
IP-rating motor	IP65 with gore-tex membrane and IPx3 cover
Cooling system	Liquid cooled
Liquid cooling system connections	12,7 mm (1/2") (intake and outlet)
Control and warning lights and audible indication on MPE1MBV panel (standard)	Propulsion active, POWER mode, temperature, battery level indication, high current draw, low voltage, limiting alarm
Electric circuit protection	Fuse 500 Amps
Dry weight	93 kg
Equipped with	Active Electronic Braking Battery Protection function Boosted Battery Charge function



*Indication only. Values strongly depending on hull shape, boat length, weight, propeller pitch/diameter and other parameters.



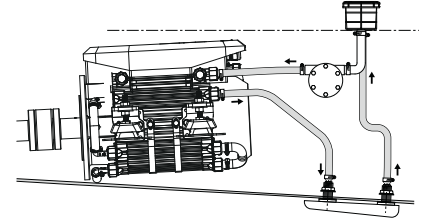
Electric and hybrid propulsion

Cooling system for E-LINE inline motor

The E-LINE motors can be cooled with fresh surface water or via keel cooler. In areas with clear fresh water the surface water cooling can be applied. For salt or turbid waters apply the keel cooler.

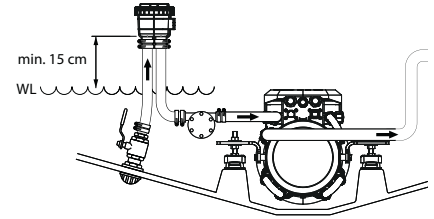
Keel cooler

The closed circulation keel cooling system, recommended for salt or turbid waters. Using the ELINEKC keel cooler and EIP40SET pump the coolant VOC (VETUS Organic Coolant) transports heat away from the motor and controller. The ELINEKC, material G-CuSn10Zn, is suitable for use with motors up to 11 kW* of power, at a water temperature of 77 °F (25 °C) and flow of 1.6 gal. (6 L). The EIP40SET contains a powerful extreme silent brushless 12V DC circulation pump. Do not run this pump dry. In the circulated system the EIP40 pump has a low energy consumption of about 8 W (0.67 A at 12 V DC).



Fresh water cooling

This installation requires the WP1208 12VDC or WP2408 24 VDC pump. Along with FTR140/13 filter with FTR140FM element. See page 430 for water scoop and hose barbs, page 52 for water strainer, page 466 for hoses and page 440 for hose clamps.



* For motors above 11 kW, consult your VETUS dealer.

A larger keel cooler (code EDKCSET2) set will be available in 2026.

Keel cooler

EDKCSET



Fresh water cooling

EDFWSET



Module: Control

The VETUS E-DRIVES (E-LINE and E-POD) work with V-CAN data communication as do the VETUS proportional thrusters (BOW PRO). This in-house designed data communication solution ensures less cables throughout your boat, robust reliable control and simple expandability. All E-LINE, E-AIR, and E-POD propulsion systems come standard with the MPE1KB key switch and the MPE1MBV monitoring panel.

Key switch for E-DRIVES

The MPE1KB key switch is an all-in-one solution incorporating the V-CAN power supply, 12-VDC cooling-pump power supply, and an anti-theft feature. It powers the V-CAN line, dashboard accessories and 12-VDC cooling pump with a turn of the key.

Specifications

- Compact design and high-quality materials
- Stylishly designed aluminum bezel 3¹¹/₃₂" x 3¹¹/₃₂" (85 x 85 mm)
- Quick installation in Ø 2⁶¹/₆₄" (75 mm) cut-out hole
- Can be installed in double frame (XTASF2P 6¹⁹/₃₂" x 3¹¹/₃₂" (167.5 x 85 mm)
- Waterproof IP65 when mounted
- V-CAN CANBUS protocol certified
- Input wires 12 VDC
- Reverse polarity protection for V-CAN output
- Switched output V-CAN connector 12 VDC, fuse protected 5 A max.
- Switched output 12 VDC, fuse protected 30 A max.
- LED indication when engaged



MPE1KB



Control levers for E-DRIVES

Type ELPS2

The E-LINE and E-POD are controlled by the ELPS2 side mounted V-CAN control lever. The panel has a neutral safety switch as standard, which prevents the motor from being started when the propulsion thrust is engaged. This control lever enables three propulsion control modes; NORMAL, ECO and POWER mode. By pressing the ECO mode the maximum output power of the E-DRIVE is limited. When in ECO the POWER mode is not available. Switching off the ECO mode, the E-DRIVE is in NORMAL mode. Pressing the POWER button unleashes the electric peak power kick for those fast manoeuvres.

Specifications

- Start/Stop Command button with LED status indication
- ECO mode latching button for increased range
- POWER (PWR) mode button to unleash full electric power
- LED and audible indication on E-DRIVE status
- Safe and easy proportional control of your vessel
- High quality materials
- Stylish designed aluminum bezel 6¹/₁₆" x 3¹⁵/₁₆" (154 x 100 mm)
- Waterproof IP65 when mounted
- V-CAN CANBUS protocol certified
- Twin connector for multiple stations

ELPS2



Type ELPSR2

Variant of ELPSR2 panel with the possibility to lock the control mode in either NORMAL or ECO for all E-DRIVES.

ELPSR2



Type ELCS

With three propulsion-control modes - NORMAL, ECO and POWER - the ELCS allows you full command over your range. The ECO mode limits the maximum output power and spreads the motor curve of your E-DRIVE, likely increase your boating range. Switching off the ECO mode puts the E-DRIVE in NORMAL mode. Pressing the POWER button will unleash electric peak power for fast manoeuvres on high rpms.

- Start/stop command button
- ECO-mode latching button for increased range
- POWER (PWR) mode button to unleash full electric power
- LED lights and audible indication on E-DRIVE status
- Safe and easy proportional control of your vessel
- High-quality material and finishing
- Stylish designed stainless steel 6¹/₄" x 4⁵/₈" (158 x 117 mm)
- Waterproof IP65 when mounted
- V-CAN CANBUS-protocol certified
- Twin connector for multiple stations

ELCS



Electric and hybrid propulsion

Module: Monitoring

To monitor the E-DRIVE status, warning and alarms there are multiple options. To see the most important instances at a glance the MPE1MBV V-CAN monitoring panel can be used. To see the rich digital information available on the digital CANbus line, the NMEA2000 connected solution can be selected. By using the CANV2N CANverter messages on the V-CAN line are translated towards NMEA2000 and can be displayed on NMEA2000 devices.

Monitoring panel for E-DRIVES

The MPE1MBV monitoring panel is the monitoring dashboard instrument, providing important instances insight with clear LED light indication of V-CAN electric propulsion activities.

Specifications

- Compact design and high-quality materials
- Stylish designed aluminum bezel 3¹¹/₃₂" x 3¹¹/₃₂" (85 x 85 mm)
- Quick installation in Ø 2⁶¹/₆₄" (75 mm) cut-out hole
- Can be installed in double frame (XTASF2P 6¹⁹/₃₂" x 3¹¹/₃₂" (167.5 x 85 mm)
- Waterproof IP65 when mounted
- Control and warning lights; Propulsion active, POWER mode, temperature, limiting power alarm, volt indication (four levels), high current draw, low voltage, charging active indication
- V-CAN CANBUS protocol certified
- Twin connectors for multiple stations



MPE1MBV

NMEA2000 monitoring solution for E-DRIVES

VETUS has taken on an active role on the NMEA2000 committee to enable electric propulsion data visible on NMEA2000. Using the VETUS CANverter (CANV2N) the V-CAN line can be connected to a NMEA2000 CAN-BUS line. When connecting a NMEA2000 display (CANNME7, see page 15) a rich set of parameters can be displayed. For example, the rpm and temperatures are visible.

CANNS500 battery monitoring

This Digital Battery Monitoring Shunt is especially designed for Electric Propulsion in order to monitor the percentage state of charge left in the batteries to calculate the remaining available boating time and ensure a worry-free stay on the water. The CANNS500 Digital Battery Monitoring Shunt is equipped with connectivity via WiFi protocol as well as NMEA2000. This WiFi connection is a local on-board signal. Meaning that a smartphone, tablet or laptop can be used to log on to the Digital Battery Monitoring Shunt to read-out data and set battery information as long as you are on board the boat.

Connecting the CANNS500 to NMEA2000 and the CANNME7 gives even more data. Next to power consumption, battery state of charge and a calculated estimation of remaining time when continuing at the current speed. The CANNS500 combined with the CANNME7 display gives you the option to see remaining range on the CANNME7 chart plotter.

NMEA2000 monitoring components (also see page 15)

CANV2N1	CANverter mono directional V-CAN to NMEA 2000
CANNS500	Digital Battery Monitoring Shunt NMEA 2000 and WiFi connection, max. current 500 A
CANNME7	Multifunction display for electric propulsion 7" display, NMEA 2000
CANNPSCM	NMEA 2000 power-supply cable male connector, 3 A fuse, 3.3-ft (1-m) cable
CANNC..	NMEA 2000 cable of certain length
CANNHUB	NMEA 2000 hub 3-way M-F-M
CANNTF	NMEA 2000 terminating resistor F - 120 Ohm
CANNTM	NMEA 2000 terminating resistor M - 120 Ohm



CANV2N1



CANNS500



CANNTF



CANNC05



Module: Monitoring

CANNME7 multifunctional display

One display. Every boat.

The CANNME7 gives you complete control on the water with a high-brightness screen that's easy to read even in full sun. Designed for **electrical**, **combustion**, and **hybrid systems**, it delivers all the data you need - from motor RPM and battery state of charge to real-time speed, range, and operating time.

With **integrated navigation maps** and a dynamic GPS range circle that updates instantly to your power use, you'll always know how far you can go. Free **OpenSea** charts come included, with optional **Navionics integration** for advanced navigation worldwide.

Combine it with the **CANV2N1** converter and **CANN5500** shunt, and the CANNME7 becomes the beating heart of your system - ensuring a smarter, safer, worry-free experience on the water.



CANNME7



Electric and hybrid propulsion

Module: Energy storage

Battery technologies for Electric Propulsion: LiFePO₄ vs. AGM

As electric propulsion systems become increasingly popular for their efficiency, low emissions, and silent operation, the role of batteries is more important than ever. At VETUS, we offer both **LiFePO₄ (Lithium Iron Phosphate)**- upon request - and **AGM (Absorbent Glass Mat)** battery options, each with distinct characteristics suited to different applications and vessel types.

Choosing the right battery

The best battery choice depends on the propulsion power, vessel size, budget, and performance expectations.

LiFePO₄ Batteries

Optimized for high-performance electric propulsion

LiFePO₄ is perfect for electric propulsion in boats due to their high efficiency rate, low weight, and service life. They also have the ability to deep discharge and fast recharge which is ideal for longer trips.

Key Benefits

- **High Energy Density:** Delivers more power in a compact, lightweight format
- **Long Lifespan:** Up to 2,000 - 6,000 cycles, reducing replacement frequency
- **Stable Voltage Output:** Stable voltage during load of a propulsion engine, which is important for constant output power of the engine
- **Fast Charging:** Supports higher charge currents with excellent efficiency
- **Deep Discharge Capable:** Allows 80 - 90% usable capacity without compromising lifespan
- **Maintenance-Free:** No need for electrolyte refills or regular checks
- **Enhanced Safety:** LiFePO₄ chemistry is among the safest in lithium battery technology

Considerations

- **Higher Initial Investment:** Offset by lower total cost of ownership over time
- **Requires a Dedicated Charging System:** To ensure optimal performance and safety
- **Cold Weather Sensitivity:** Reduced charging efficiency below 0°C

Contact your dealer for VETUS lithium packs (special order only).

AGM Batteries

Reliable and economical for lighter duty or budget-sensitive installations

AGM battery technology is most suitable for applications where affordability is a priority and prolonged operating time on the water is not essential.

Key Benefits

- **Cost-Effective:** Lower upfront investment
- **Compatibility:** Compatible with standard battery chargers
- **Good Cold Weather Performance:** Reliable at low temperature
- **Sealed and Maintenance-Free:** Spill-proof design with no servicing required

Considerations

- **Lower Energy Density:** Larger and heavier with less capacity
- **Shorter lifecycle:** Approximately 300–500 charge/discharge cycles
- **Limited Discharge:** Frequent deep discharging may shorten the battery lifespan
- **Voltage Drop Under Load:** Less suitable for continuous propulsion use
- **Longer Charging Times:** Lower charge acceptance compared to LiFePO₄
- **Heat Sensitivity:** Sensitive to heat when charging and discharging



Cost & Performance Comparison

Feature	LiFePO ₄	AGM
Initial investment	High	Low
Lifespan	10+ Years	2 - 5 Years
Cost per cycle	Low	High
Maintenance	None	None
Replacement needs	Rare	Frequent

At VETUS, we understand that every boat is unique. Whether you prioritize extended range, weight savings, or budget-friendly solutions, our range of **LiFePO₄** (upon request) and **AGM** batteries ensures optimal power performance for your electric propulsion system.

Need help choosing the right battery?

Our technical team is happy to assist you in selecting the best fit for your vessel and usage profile.

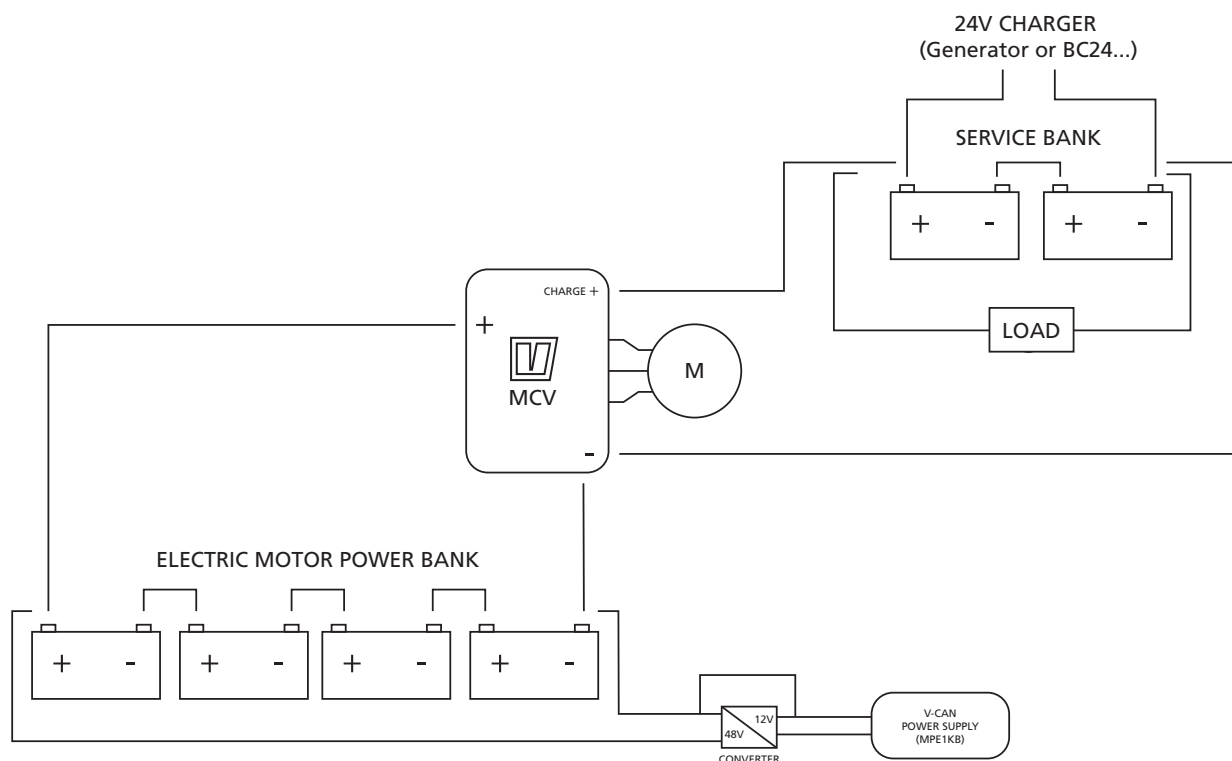
Module: Energy supply

What filling up the tank is for combustion engine systems, charging the batteries is for an electric propulsion system. Difference is there is no jerrycan or petrol filler nozzle. There are in fact multiple ways to charge a battery pack. Think about shore power, generator set, solar panels, wind generator, etc.

All VETUS E-DRIVE motors are equipped with the patented Motor Controller VETUS (MCV) with boosted charge function. Using the Boosted Battery Charge function, a 24-VDC charger can be used to charge the required 48-VDC battery pack for propulsion.

For larger battery banks, a 48 VDC 40 A battery charger (BC4840E) is available. Ask your dealer for more information.

For shore power connections material see page 279. For generator sets, battery chargers and other electricity on board materials see page 270.



Electric and hybrid propulsion

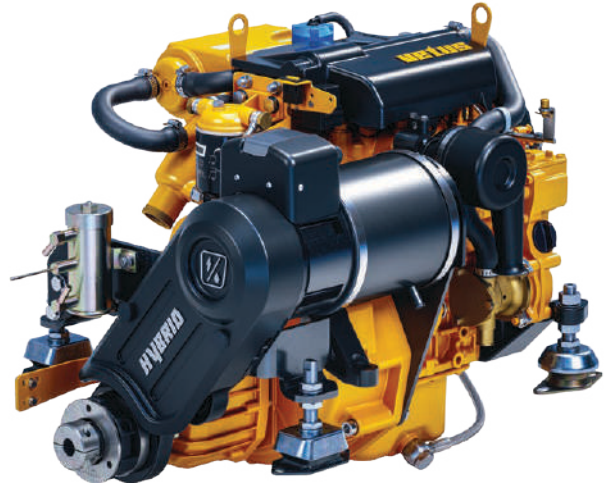
HYBRID SYSTEMS

NEW!

The new VETUS hybrid solution lets you effortlessly switch between diesel and electric propulsion, combining instant torque for quick maneuvers with the endurance and extended range needed for longer journeys.

Developed in-house and backed by years of experience with both diesel engines and electric propulsion, the VETUS hybrid system is engineered to integrate seamlessly with the M-Line diesel engines. Every detail - from RPM and gear ratio to cruising speed - has been carefully considered to deliver a truly refined boating experience. Only this level of internal know-how and proprietary technology would allow for a finely tuned hybrid solution that delivers smooth operation and optimal performance. With custom installation kits, any 2-, 3-, and 4-cylinder M-Line engine can be upgraded to a high-performance hybrid system - efficient, versatile, and ready for the future.

To ensure flexible, hassle-free operation - shore power is not required -- the battery bank connected to the electric motor is recharged automatically while the diesel engine is running. With two distinct modes of operation - electric-only as well as diesel-only - you can experience the best of both worlds: silent, emission-free cruising through inner-city canals and powerful diesel performance when navigating open waters.



Electric-Only Mode: Ideal for slow cruising, marinas, or eco-sensitive areas. Silent, zero-emission, and fuel-free.

Diesel-Only Mode: Engaged for higher speeds or longer distances. The diesel engine regenerates 50 amps to charge your batteries.

Hybrid systems M2, M3 and M4

- 2.3 to 6 kW solutions
- 24 and 48 VDC options
- Installation kits and brackets for all 2-, 3- and 4-cylinder M-Line engines
- Compact design
- Drive belt and pulley
- Patented motor control
- V-CAN control lever
- Designed for both new builds and retrofit projects

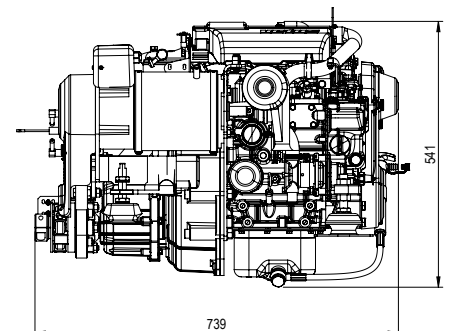
Hybrid

M2H

● ● 2.3 kW

TECHNICAL SPECIFICATIONS

Model	M2HSET
Max. speed (RPM)	1600
Max. torque (Nm)	17
Electric motor type	Permanent magnet motor
Voltage (V)	24
Maximum output power	2,3 kW
CAN bus	V-CAN
Cooling systems	Liquid Cooled





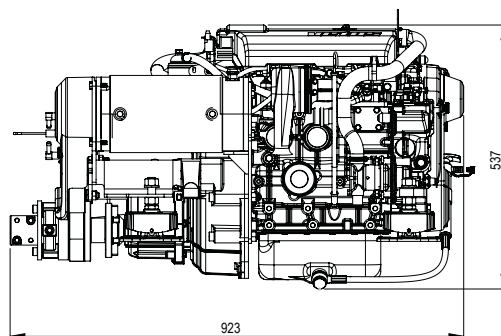
Hybrid

M3H

● ● ● 6 kW

TECHNICAL SPECIFICATIONS

Model	M3HSET
Max. speed (RPM)	1600
Max. torque (Nm)	35,8
Electric motor type	Permanent magnet motor
Voltage (V)	48
Maximum output power	6 kW
CAN bus	V-CAN
Cooling systems	Liquid Cooled



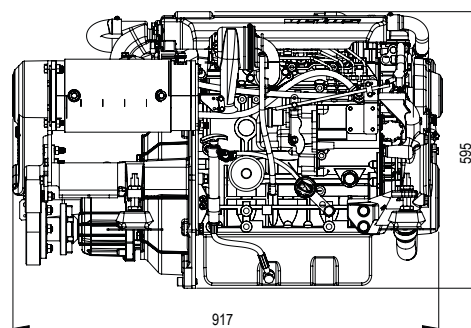
Hybrid

M4H

● ● ● ● 6 kW

TECHNICAL SPECIFICATIONS

Model	M4HSET
Max. speed (RPM)	1600
Max. torque (Nm)	35,8
Electric motor type	Permanent magnet motor
Voltage (V)	48
Maximum output power	6 kW
CAN bus	V-CAN
Cooling systems	Liquid Cooled



ELPS2H - Hybrid control lever

The **ELPS2H** is the dedicated side-mounted V-CAN control lever for VETUS hybrid systems. Designed for safety and efficiency, it includes a neutral safety switch as standard, ensuring the motor cannot be started while propulsion is engaged. This control lever provides two propulsion modes: **NORMAL** and **ECO**.

- **ECO mode** limits maximum output power, extending range and efficiency.
- Switching ECO mode off activates **NORMAL mode**, delivering full power for responsive handling and fast maneuvers.

Features and specifications

- Start/Stop command button with LED status indication
- ECO mode latching button for extended range
- LED and audible status alerts
- Smooth proportional control for safe, intuitive vessel handling
- High-quality construction with premium materials
- Stylish aluminum bezel 6¹/₁₆" x 3¹⁵/₁₆" (154 x 100 mm)
- Waterproof to IP65 when mounted
- Certified V-CAN CAN bus protocol integration
- Twin connector for true plug-and-play installation

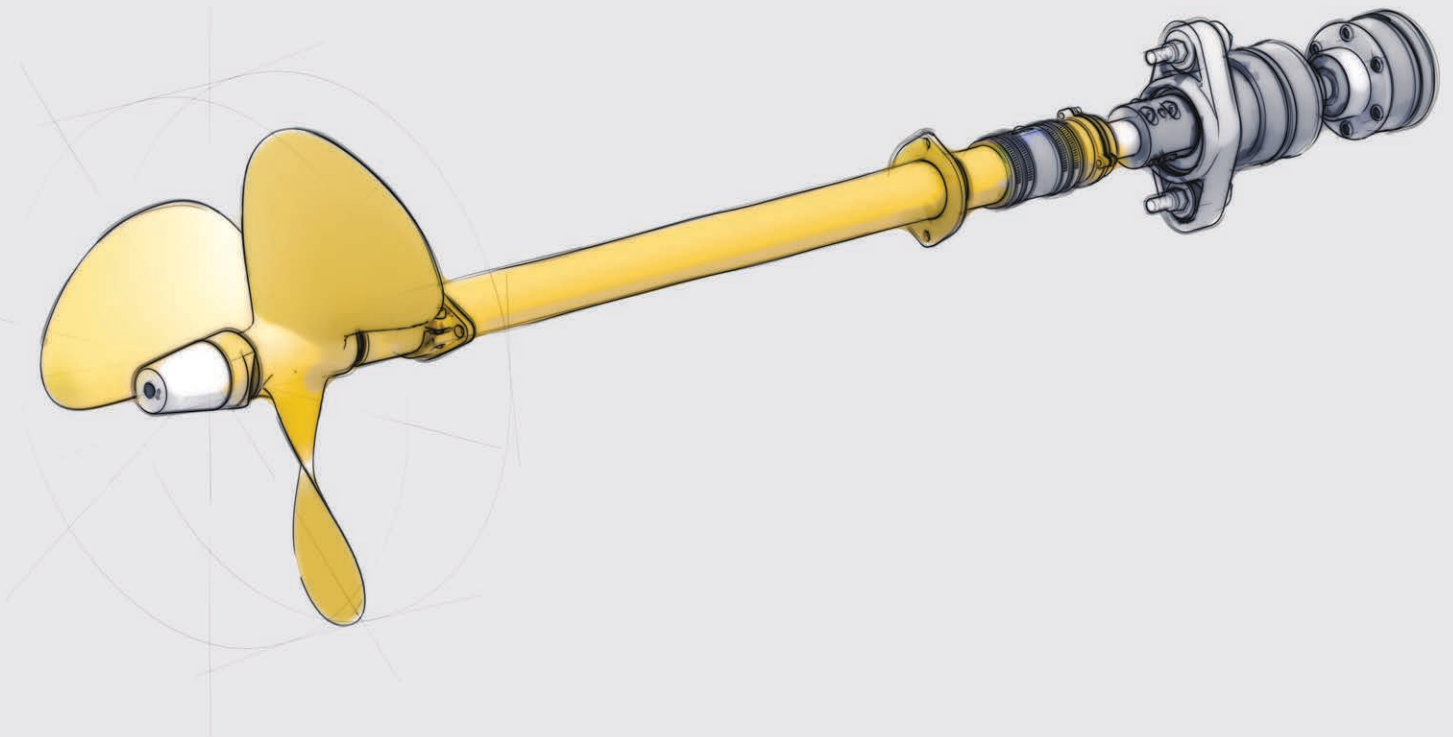
ELPS2H





e-line
11000W





Stern gear systems

Overview

Stern gear see page 92 - 93



Inner bearing
see page 93

Flexible couplings see page 94 - 97



COMBIFLEX



UNIFLEX

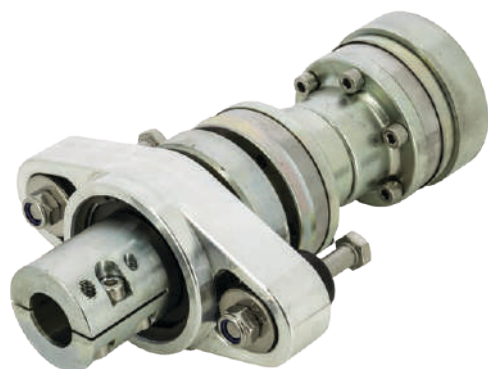


K05



BULLFLEX

Constant velocity joint couplings see page 98 - 99



VDR

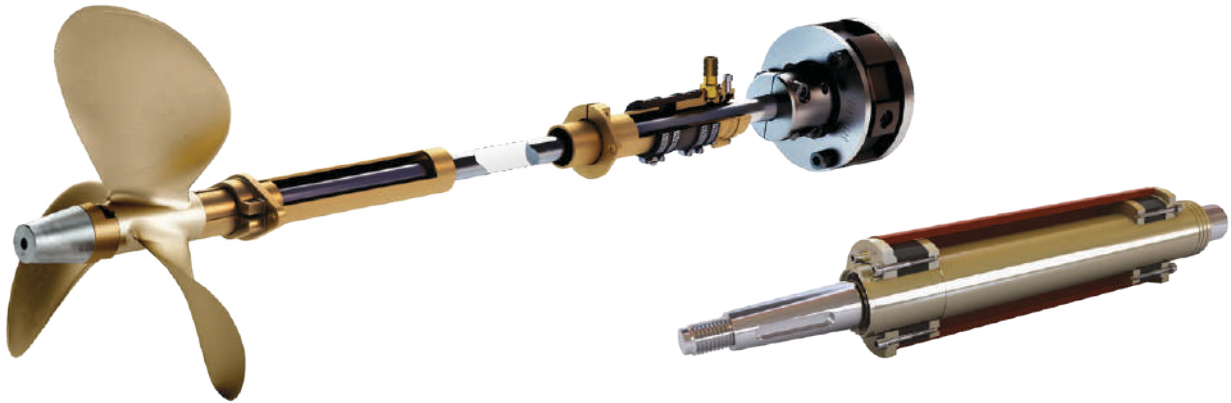
Adapter flanges see page 99



FLANGE



Water lubricated stern gear see page 100 - 104



Cutlass bearings see page 105



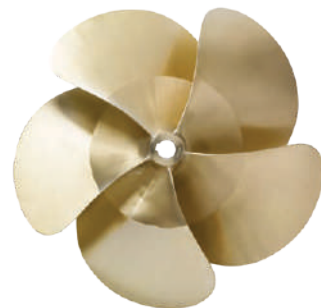
Propellers see page 108 - 109



P3B



P4G



P5G

Rope cutter see page 110



VRC



Stern gear systems

Why VETUS Stern gear systems?

The stern gear is one of the most important systems in a boat and deserves special attention. After all, a well-calculated, manufactured, and installed propeller shaft system can greatly enhance the performance and reliability of your boat. Our engineers, responsible for propulsion systems, feel like they represent the heart of the boat. They work with only the best quality propellers, propeller shafts, stern tubes, and couplings to design perfectly tuned systems.

The desired boat speed, waterline length, hull shape, and weight are the key factors to determine the perfect engine and gear box combination for a boat. Stern gear transfers the power of the engine to the water. The determination of the optimum propeller is specialized work that has to be carried out with sophisticated propeller calculation programs and needs above all, experience.

VETUS has many years of experience with stern gear and offers a wide range of products which are environmentally friendly and increase comfort on board. Water-lubricated propeller shafts eliminate the need for oil or grease while flexible couplings absorb deviations in the alignment of the propeller shaft and ensure that vibration transferred from the propeller shaft system to the boat is kept to a minimum.

A well-designed stern gear system needs

- A dynamically balanced propeller to prevent vibration, resonance, and cavitation
- A propeller shaft to transmit the engine power to the propeller
- Rubber bearings to ensure that vibration and noise are reduced to a minimum
- A stern tube and reliable stern gland
- A coupling to make alignment of the shaft and engine easier

Good reasons to choose a VETUS stern gear system

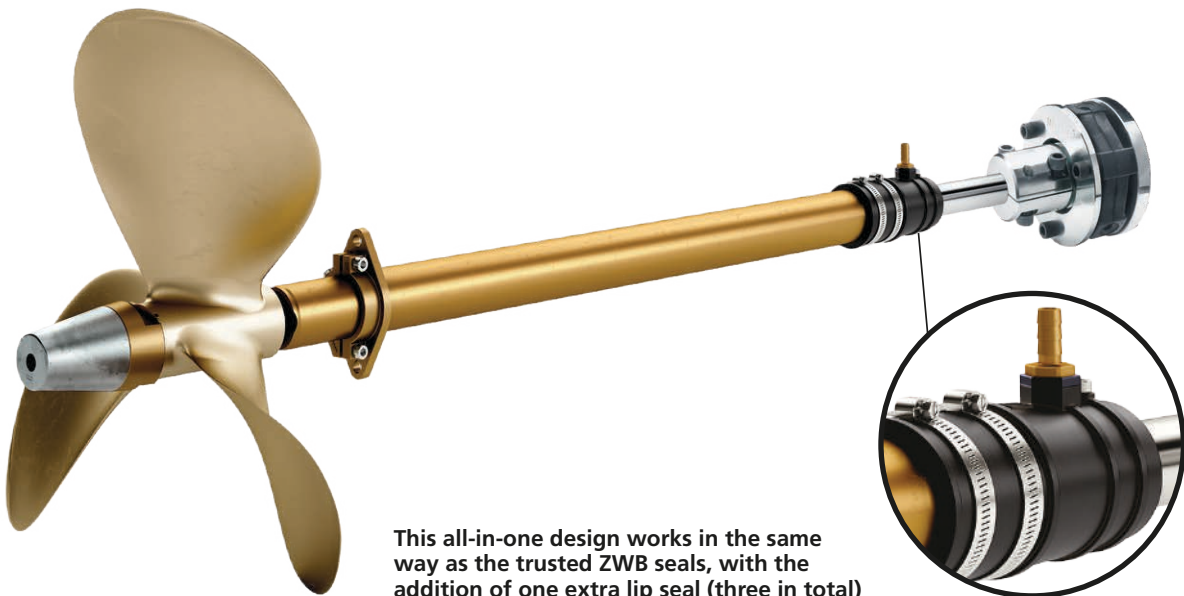
VETUS

- Offers free calculation of the correct propeller size using a special computer program
- Has a large stock of standard high-quality propellers in various sizes, pitches, and blade areas
- Provides in-house emergency repairs and can modify the bore and taper of stock propellers if necessary
- Uses high-quality corrosion-free materials designed for long life
- Supplies a complete system, using both standard and custom-made products
- Offers various stern tube systems for shafts from $63/64$ " to $2^{23}/64$ " (25–60 mm) in diameter
- Offers various flexible couplings which significantly reduce vibration
- Offers shaft assemblies which protect the environment; water lubrication means no oil or grease pollution

Self-aligning inner bearing and triple shaft seal for extra security

Type ZWBH

Please check page 106 for further details about this version of the ZWBH.



This all-in-one design works in the same way as the trusted ZWB seals, with the addition of one extra lip seal (three in total) for added security.



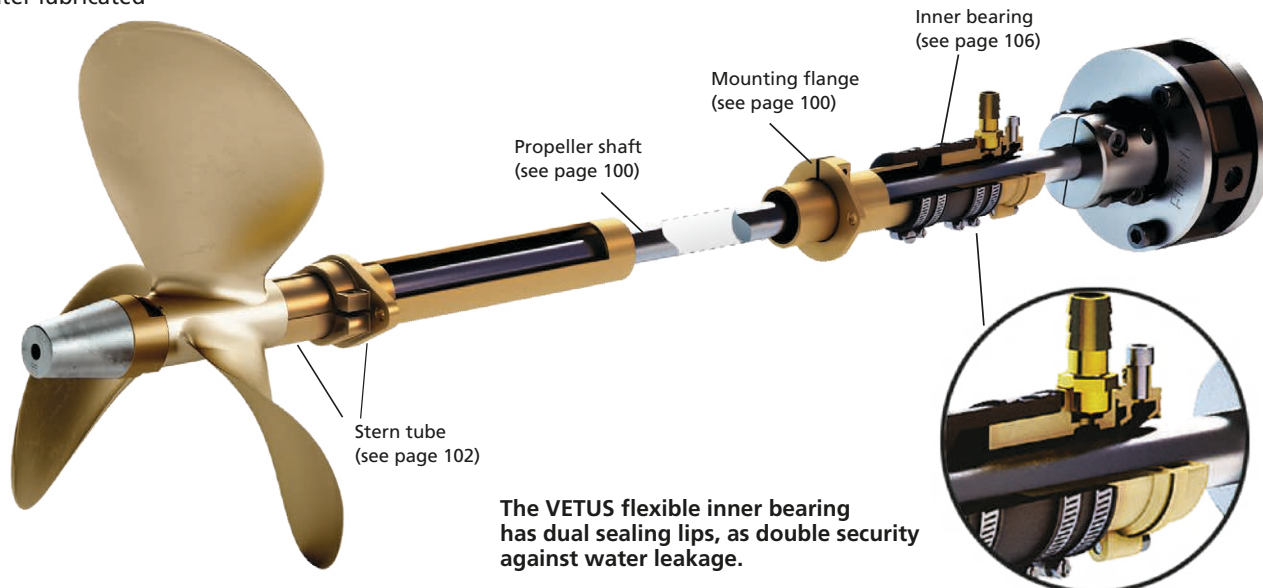
Water lubricated stern gear

Water lubricated stern gear for wooden, steel or polyester (G.R.P.) vessels

VETUS is able to deliver stern gear assemblies directly from stock. Machining, threading and keyway cutting have all been taken care of, so easy installation is guaranteed. On request, shafts can be custom-made in our machine shop.

Specifications

- All VETUS propeller shafts are made of stainless steel type Duplex 1-4462, corrosion-free and with excellent running properties in rubber bearings
- Dual or even triple shaft seal (eliminating the need for a stuffing box)
- A propeller nut with integrated zinc anode is supplied as standard
- Water lubricated



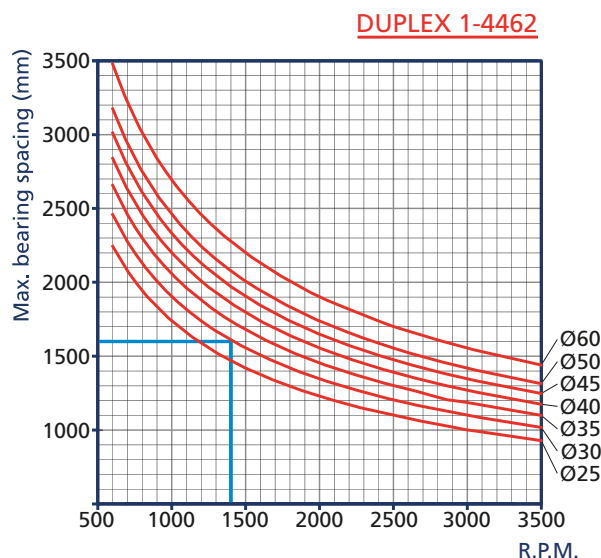
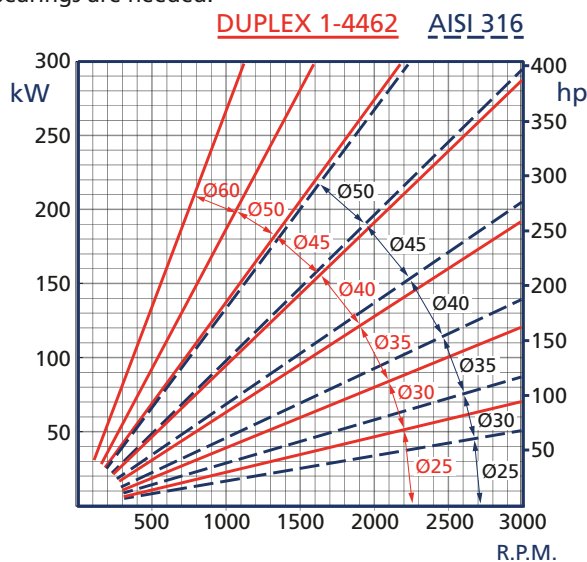
Why Duplex 1-4462 instead of AISI 316

All VETUS propeller shafts are made of stainless steel type "Duplex 1- 4462". In comparison with stainless steel materials like AISI 316 and Aquamet 17 or 22, the corrosion resistance of "Duplex 1-4462" is much greater. In addition, the tensile strength of "Duplex 1-4462" is about 30% greater than AISI 316 and its hardness is approximately 40% higher. It is precisely this high degree of hardness, which gives "Duplex 1-4462" its excellent running properties in rubber bearings.

Depending on shaft length, diameter and speed of rotation (rpm), one, two or three cutlass bearings must be installed.

Example

Imagine, you have a shaft with a maximum shaft speed of 1400 r.p.m. and a diameter of 1³/₁₆" (30 mm). The diagram shows (blue line) that the maximum distance between two bearings amounts to 5 ft 3" (1600 mm). If you have a shaft of e.g. 4 ft 11¹/₁₆" (1500 mm) length, then one rubber bearing will be sufficient. Should you have a shaft of 6 ft 6⁷/₆₄" (2000 mm) length, in this case two rubber bearings have to be used. For shafts with a length of 10 ft 6" (3200 mm) or longer, three bearings are needed.



Stern gear systems

Flexible couplings

VETUS offers a variety of solutions to connect the propeller shaft to the engine. The flexible rubber element of the flexible coupling ensures low-noise vibration-free transmission, without backlash between the engine and the propeller shaft. For smaller stern gear installations up to 1³/₁₆" (30 mm), depending on the space available in the engine room, you can either choose the Bullflex, Combiflex, Uniflex type 13, or the KO5. These couplings all permit a misalignment of 2° maximum. Only the KO5 is suitable for V-drives. For stern gear installations up to 2³/₄" (70 mm), you can choose between Bullflex and Uniflex type 16.

Last but not least, VETUS offers the VDR. This double acting constant velocity joint comes with a thrust bearing. The VDR is used when considerable misalignment angles need to be overcome.

Type COMBIFLEX

Optimum damping of torsional vibrations

The Combiflex coupling has been designed to ensure optimum damping of torsional vibrations, created by cycle irregularities especially at low engine revolutions. The Combiflex coupling is secured against shearing off, both axially and radially, thus ensuring safe transmission under all circumstances. The Combiflex coupling also provides excellent alignment of the propeller shaft. Aligning the engine and propeller shaft can be a rather time consuming affair, however the Combiflex will remain perfectly centred onto the gearbox flange, even if the shaft has a misalignment of 2° maximum. The parallel clamping hub ensures easy installation and probably even more importantly, easy dismantling of the shaft assembly. Available for shafts of Ø 1" (25 mm) or 1³/₁₆" (30 mm). Comes with a 4" flange to fit most common gearbox models.

Please note that the Combiflex is available in two different types: Type 12 and Type 13. Dimensions are the same, but Type 12 has a higher shore hardness, so appropriate for more engine power and torque than Type 13.

For specifications, please see the table on the next page.



Type Uniflex

Exact alignment and concentric installation of propeller shaft

Couplings of type Uniflex permit a misalignment of 2° maximum. Uniflex couplings will centre the shaft on the gearbox by means of a conical clamping hub and are an ideal flexible coupling between a propeller shaft with a self-aligning bearing and an engine on flexible supports. These couplings are axially and radially secured against shearing off. When the propeller shaft is connected to the engine at an angle of 2°, the maximum admissible number of revolutions is 1.500 r.p.m. on the shaft.

Specifications Uniflex type 13 and 16

- With cylindrical bore
- Clamping hub for shafts with a diameter of 2⁵/₃₂", 1" and 1³/₁₆" (20, 25 and 30 mm) (type 13), and 1³/₁₆", 1³/₈" or 1⁹/₁₆" (30, 35 or 40 mm) for type 16
- 4" connection (type 13) and/or 5" (type 16) for ZF-Hurth, Velvet, Technodrive, PRM and other makes
- Not suitable for V-Drives





Flexible couplings

Type KO5 (type 6)

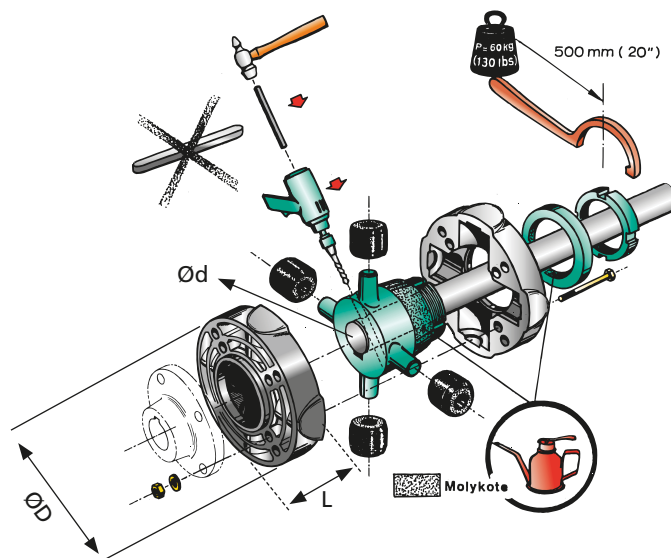
100% Concentric fit

This flexible coupling has a special conical clamping hub and is suitable for V-drives.

Type 6 saves considerable installation time. It is pilot bored $\text{Ø } 25/32''$ (20 mm) or with a cylindrical bore for $\text{Ø } 63/32''$, $3/16''$ and $13/8''$ (25, 30 and 35 mm) shaft. Comes with 4" and 5" connectors for ZF-Hurth, Velvet, Technodrive and PRM.



KO5



Specifications

Type	DIN 6270 B = pleasure craft. kW/100 r.p.m. on shaft (HP)	Example: at 1500 r.p.m. the max. admissible power is (DIN B)	DIN 6270 A = commercial craft. kW/100 r.p.m. on shaft (HP)	Ø D inch (mm)	L inch (mm)	Ø d (mm)	Weight lb (kg)
COMFL1325	2.4 (3.2)	15 x 2.4 = 36 kW (48 hp)	1.7 (2.2)	5 3/16 (132)	5 25/64 (137)	25	7.7 (3.5)
COMFL1330	2.4 (3.2)	15 x 2.4 = 36 kW (48 hp)	1.7 (2.2)	5 3/16 (132)	5 25/64 (137)	30	7.1 (3.2)
COMFL1225	5.2 (7.1)	15 x 5.2 = 79 kW (107 hp)	3.6 (5)	5 3/16 (132)	5 25/64 (137)	25	7.7 (3.5)
COMFL1230	5.2 (7.1)	15 x 5.2 = 79 kW (107 hp)	3.6 (5)	5 3/16 (132)	5 25/64 (137)	30	7.1 (3.2)
UNIFL1320	2.6 (3.6)	15 x 2.6 = 39 kW (53 hp)	1.8 (2.5)	5 1/8 (130)	3 55/64 (98)	20	5.3 (2.4)
UNIFL1325	2.6 (3.6)	15 x 2.6 = 39 kW (53 hp)	1.8 (2.5)	5 1/8 (130)	3 55/64 (98)	25	5.3 (2.4)
UNIFL1330	2.6 (3.6)	15 x 2.6 = 39 kW (53 hp)	1.8 (2.5)	5 1/8 (130)	3 55/64 (98)	30	5.3 (2.4)
UNIFL1630	5.2 (7.1)	15 x 5.2 = 79 kW (107 hp)	3.6 (5)	7 53/64 (199)	5 5/32 (131)	30	15.2 (6.9)
UNIFL1635	5.2 (7.1)	15 x 5.2 = 79 kW (107 hp)	3.6 (5)	7 53/64 (199)	5 5/32 (131)	35	15.2 (6.9)
UNIFL1640	5.2 (7.1)	15 x 5.2 = 79 kW (107 hp)	3.6 (5)	7 53/64 (199)	5 5/32 (131)	40	15.2 (6.9)
KO51	3.9 (5.3)	15 x 3.9 = 58.5 kW (79.5 hp)	3.3 (4.5)	5 3/8 (137)	3 5/16 (84)	25	5.9 (2.7)
KO52	3.9 (5.3)	15 x 3.9 = 58.5 kW (79.5 hp)	3.3 (4.5)	5 3/8 (137)	3 5/16 (84)	30	5.9 (2.7)
KO53	3.9 (5.3)	15 x 3.9 = 58.5 kW (79.5 hp)	3.3 (4.5)	5 3/8 (137)	3 5/16 (84)	35	5.9 (2.7)
KO54 (type 6)	3.9 (5.3)	15 x 3.9 = 58.5 kW (79.5 hp)	3.3 (4.5)	5 3/8 (137)	3 5/16 (84)	20 Pilot	5.9 (2.7)

Bolt sets required to attach flexible coupling to gearbox drive flange

Type	Description
SET64	Set bolts for coupling type 6, for flange 4"
SET65	Set bolts for coupling type 6, for flange 5"
UNISET4/5	Set studs and bolts (M10) for couplings Combiflex, Uniflex and Bullflex 1-8, for flange 4"/5"

Stern gear systems

Flexible couplings

Type Bullflex

Ensuring optimum damping of vibrations

The Bullflex is the answer to the increasing demand of greater boating comfort. It is especially designed to ensure optimum damping of vibrations. Torsional vibrations are smoothed out extremely efficiently by its very flexible rubber element, ensuring low-noise and vibration-free transmission without backlash between the engine and propeller shaft. Another strong characteristic is the excellent alignment of the propeller shaft. For the most popular Volvo, YANMAR and Kanzaki gearboxes special (also custom made) adapter flanges are available (see page 99).

Features

- Very high flexibility
- Secured against shearing off (axially and radially) ensuring safe transmission under all circumstances
- Misalignment of up to 2° permissible
- Excellent centering of the shaft, allowing high shaft revolutions
- Shaft remains centred even in reverse gear
- Possibility to remove the centering ring, in case two or more bearings are applied
- Built-in thrust damper reducing axial vibrations
- Non-tapered clamping hub for perfect centering and easy dismantling of the shaft assembly

Specifications

- Models 1, 2 and 4 have a 4" gearbox connection
- Models 8, 12 and 16 feature a 4" and 5" gearbox connection
- Model 32 is provided with six threaded M16 holes on a pitch circle diameter of Ø 120.65 mm / 4.75" enabling mounting of the couplings to most models of gearboxes (ZF-Hurth, Velvet, Technodrive, and PRM)
- VETUS can also supply the required fasteners for installation of the Bullflex onto the gearbox. This coupling is not suitable for V-Drives



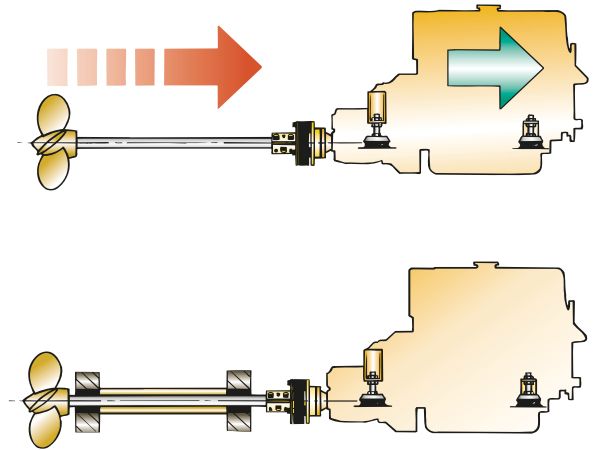
BULFL

For specifications, please see table on the next page.

Centering the Bullflex

An engine on flexible mountings will by definition, always move. When the propeller shaft is installed rigidly - which means to say: supported by two or more non-flexible bearings - the propeller shaft should not be affected by engine movements.

If this should happen, damage of engine mounting, coupling and sealing of the shaft may result. Where a rigid shaft assembly is installed, the centering ring can be removed from the Bullflex coupling. This must be done if the distance between the output flange of the gearbox and the first shaft bearing is less than twenty times the shaft diameter. Pendulum movements of the flexibly mounted engine will then not be transmitted onto the propeller shaft, but will be effortlessly absorbed by the Bullflex coupling. Naturally, removal of the centering ring has no adverse effects on the vibration damping properties. Where the propeller shaft is supported by one rigid bearing only, the Bullflex coupling - with its centering ring installed - will function as a flexible ball joint. The propeller shaft will thus be supported and centered inside the Bullflex coupling, regardless of any engine movements.



Model	Type	Shaft Size Imperial Ø (inch)
BULFL011	Type Bullflex1	1
BULFL021	Type Bullflex2	1
BULFL041	Type Bullflex4	1
BULFL0814	Type Bullflex8	1¼
BULFL0812	Type Bullflex8	1½
BULFL1212	Type Bullflex12	1½

Model	Type	Shaft Size Imperial Ø (inch)
BULFL1213	Type Bullflex12	1¾
BULFL1612	Type Bullflex16	1½
BULFL1613	Type Bullflex16	1¾
BULFL162	Type Bullflex16	2
BULFL3213	Type Bullflex32	1¾
BULFL322	Type Bullflex32	2





Flexible couplings

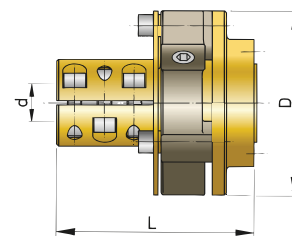
Type Bullflex

Example

An engine has an output of 84 kW at maximum 3,600 r.p.m. and a gearbox ratio of 2.1:1.

The maximum speed of the propeller shaft is $\frac{3.600}{2,1} = 1,714$ r.p.m.

Therefore, the power to be transmitted per 100 r.p.m. is $\frac{84}{17,14} = 4.9$ kW/100 r.p.m.



From the table, column 10, for instance in case of a shaft $1\frac{37}{64}$ " (40 mm) (size d), the correct model is a Bullflex 8 for a pleasure craft or a Bullflex 12 for a commercial craft (columns 2 and 3).

This formula can also be used with the relevant tables for Combiflex, Uniflex, and KO5 flexible couplings.

Type Bullflex	DIN 6270 B = pleasure craft kW (HP)/ 100 shaft RPM	DIN 6270 A = commercial craft kW (HP)/ 100 shaft RPM	maximum torque Nm		max. r.p.m. at zero misalignment	max. r.p.m. at 2° misalignment	D inch (mm)	L inch (mm)	d mm
			DIN	DIN					
			6270B	6270A					
1	0.8 (1.1)	0.5 (0.7)	75	45	7000	3500	3 ¹⁵ / ₁₆ (100)	3 ¹¹ / ₃₂ (85)	20, 25
2	1.6 (2.1)	0.9 (1.3)	150	90	6500	3250	4 ²³ / ₃₂ (120)	4 ²³ / ₃₂ (120)	20, 25
4	3.1 (4.3)	2.1 (2.8)	300	200	6000	3000	5 ²⁹ / ₃₂ (150)	6 (152)	25, 30
8	6.3 (8.5)	4.3 (5.8)	600	410	5000	2500	6 ¹¹ / ₁₆ (170)	6 ¹⁷ / ₃₂ (166)	30, 35, 40
12	9.8 (12.8)	7.1 (9.6)	900	540	4000	2000	7 ⁷ / ₈ (200)	6 ³¹ / ₃₂ (177)	35, 40, 45
16	12.6 (17.1)	9.8 (13.3)	1200	935	4000	2000	8 ⁵ / ₆₄ (205)	7 ³ / ₄ (197)	40, 45, 50
32	23.0 (31.3)	18.6 (25.3)	2200	1780	3600	1800	10 ¹⁵ / ₆₄ (260)	10 ²³ / ₆₄ (263)	40, 50, 60, 70

Specifications

Type	DIN 6270 B = pleasure craft kW (HP)/ 100 shaft RPM	DIN 6270 A = commercial craft kW (HP)/ 100 shaft RPM	maximum torque Nm		max. r.p.m. at zero misalignment	max. r.p.m. at 2° misalignment	D inch (mm)	L inch (mm)	d mm
			DIN	DIN					
			6270B	6270A					
BULFL0120	0.8 (1.1)	0.5 (0.7)	75	45	7000	3500	3 ¹⁵ / ₁₆ (100)	3 ¹¹ / ₃₂ (85)	20
BULFL0125	0.8 (1.1)	0.5 (0.7)	75	45	7000	3500	3 ¹⁵ / ₁₆ (100)	3 ¹¹ / ₃₂ (85)	25
BULFL0220	1.6 (2.1)	0.9 (1.3)	150	90	6500	3250	4 ²³ / ₃₂ (120)	4 ²³ / ₃₂ (120)	20
BULFL0225	1.6 (2.1)	0.9 (1.3)	150	90	6500	3250	4 ²³ / ₃₂ (120)	4 ²³ / ₃₂ (120)	25
BULFL0425	3.1 (4.3)	2.1 (2.8)	300	200	6000	3000	5 ²⁹ / ₃₂ (150)	6 (152)	25
BULFL0430	3.1 (4.3)	2.1 (2.8)	300	200	6000	3000	5 ²⁹ / ₃₂ (150)	6 (152)	30
BULFL0830	6.3 (8.5)	4.3 (5.8)	600	410	5000	2500	6 ¹¹ / ₁₆ (170)	6 ¹⁷ / ₃₂ (166)	30
BULFL0835	6.3 (8.5)	4.3 (5.8)	600	410	5000	2500	6 ¹¹ / ₁₆ (170)	6 ¹⁷ / ₃₂ (166)	35
BULFL0840	6.3 (8.5)	4.3 (5.8)	600	410	5000	2500	6 ¹¹ / ₁₆ (170)	6 ¹⁷ / ₃₂ (166)	40
BULFL1235	9.8 (12.8)	7.1 (9.6)	900	540	4000	2000	7 ⁷ / ₈ (200)	6 ³¹ / ₃₂ (177)	35
BULFL1240	9.8 (12.8)	7.1 (9.6)	900	540	4000	2000	7 ⁷ / ₈ (200)	6 ³¹ / ₃₂ (177)	40
BULFL1245	9.8 (12.8)	7.1 (9.6)	900	540	4000	2000	7 ⁷ / ₈ (200)	6 ³¹ / ₃₂ (177)	45
BULFL1640	12.6 (17.1)	9.8 (13.3)	1200	935	4000	2000	8 ⁵ / ₆₄ (205)	7 ³ / ₄ (197)	40
BULFL1645	12.6 (17.1)	9.8 (13.3)	1200	935	4000	2000	8 ⁵ / ₆₄ (205)	7 ³ / ₄ (197)	45
BULFL1650	12.6 (17.1)	9.8 (13.3)	1200	935	4000	2000	8 ⁵ / ₆₄ (205)	7 ³ / ₄ (197)	50
BULFL3245	23.0 (31.3)	18.6 (25.3)	2200	1780	3600	1800	10 ¹⁵ / ₆₄ (260)	10 ²³ / ₆₄ (263)	45
BULFL3250	23.0 (31.3)	18.6 (25.3)	2200	1780	3600	1800	10 ¹⁵ / ₆₄ (260)	10 ²³ / ₆₄ (263)	50
BULFL3260	23.0 (31.3)	18.6 (25.3)	2200	1780	3600	1800	10 ¹⁵ / ₆₄ (260)	10 ²³ / ₆₄ (263)	60
BULFL3270	23.0 (31.3)	18.6 (25.3)	2200	1780	3600	1800	10 ¹⁵ / ₆₄ (260)	10 ²³ / ₆₄ (263)	70

Type	Description
BUL16SET	Set stud & bolts 7/16" UNF for couplings type Bullflex 12 and 16
BUL32SET	Set stud & bolts For couplings type Bullflex 32
TMCSET	Set stud & bolts For couplings type Bullflex with Technodrive Gearbox
UNISSET4/5	Set stud & bolts For couplings type 1-8, and for flange 4"/5"

Stern gear systems

Drive for propeller shaft

Type VETUS DRIVE

More freedom for engine movement, less freedom for vibration

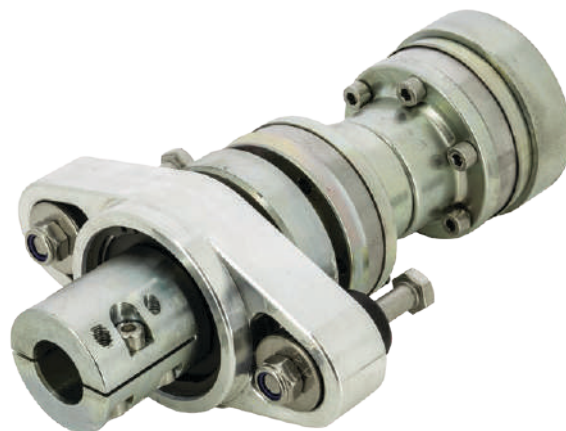
The VETUS DRIVE (Type VDR) is a combination of a self-aligning thrust bearing and a double acting constant velocity joint. The propeller thrust is absorbed by the inbuilt thrust bearing allowing the engine to be set up on softer mountings, resulting in lower vibration and transmitted noise. The VDR is made of electro-galvanized steel and high-performance rubber. This heavy-duty VDR has been tested under the toughest conditions and is suitable for maximum thrust up to 24000 N.

Specifications

- VDR6 is available for shaft diameters of 2" / 2³/₈" / 2³/₄" (50 / 60 / 70 mm)
- VDR2 and 4 are available for shaft diameters of 1" / 1¹/₁₆" / 1³/₈" / 1⁹/₁₆" / 1³/₄" / 2" (25 / 30 / 35 / 40 / 45 / 50 mm)
- Interchangeable with other well-known models
- Durable design with long lifetime

Note: For the most popular Volvo, YANMAR and Kanzaki gearboxes special (also custom made) adapter flanges are available (see page 99).

To determine which VETUS Drive is needed, refer to our website where you can find charts in the VDR manual.



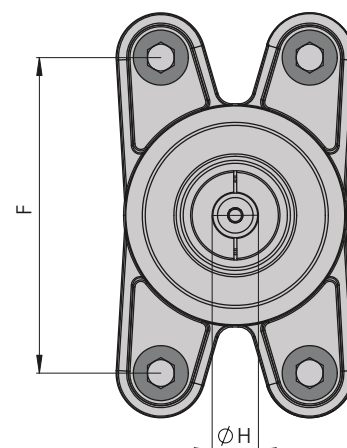
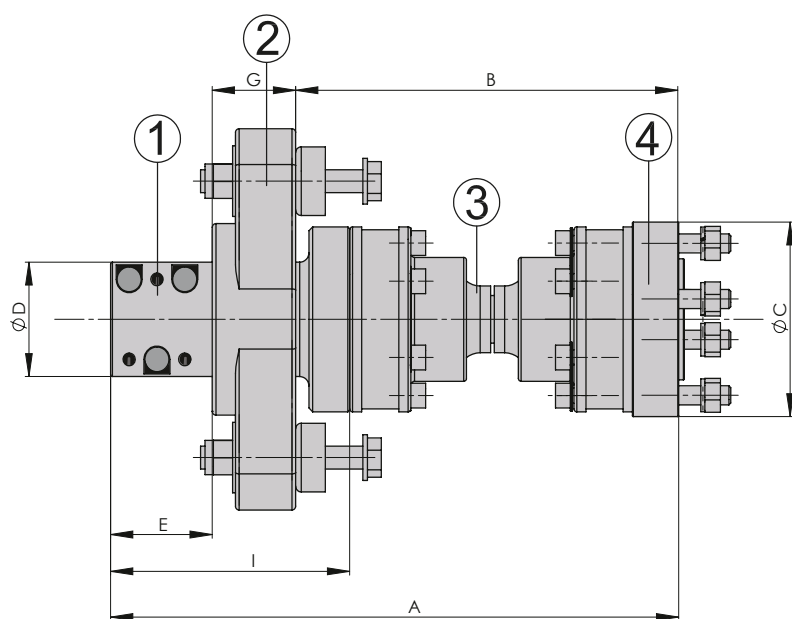
VDR

Dimensions for VDR constant velocity joint

Type	A (mm)	B (mm)	C (mm)	D Ø (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)
VDR210254	325	217	101.6	60	63	145	45	25	143
VDR210255	325	217	127	60	63	145	45	25	143
VDR210304	325	217	101.6	60	63	145	45	30	143
VDR210305	325	217	127	60	63	145	45	30	143
VDR215254	376	268	101.6	60	63	145	45	25	175
VDR215255	376	268	127	60	63	145	45	25	175
VDR215304	376	268	101.6	60	63	145	45	30	175
VDR215305	376	268	127	60	63	145	45	30	175
VDR215354	401	268	101.6	69	88	145	45	35	200
VDR215355	401	268	127	69	88	145	45	35	200
VDR221304	429	321	101.6	60	63	145	45	30	183
VDR221305	429	321	127	60	63	145	45	30	183
VDR221354	454	321	101.6	69	88	145	45	35	208
VDR221355	454	321	127	69	88	145	45	35	208
VDR221404	454	321	101.6	69	88	145	45	40	208
VDR221405	454	321	127	69	88	145	45	40	208
VDR421404	437	294	101.6	85	90	214	53	40	188
VDR421405	437	294	127	85	90	214	53	40	188
VDR421454	437	294	101.6	85	90	214	53	45	188
VDR421455	437	294	127	85	90	214	53	45	188
VDR421505	448	294	127	89	102	214	53	50	199
VDR430404	538	395	101.6	85	90	214	53	40	233
VDR430405	538	395	127	85	90	214	53	40	233
VDR430454	538	395	101.6	85	90	214	53	45	233
VDR430455	538	395	127	85	90	214	53	45	233
VDR430504	549	395	101.6	89	101	214	53	50	244
VDR430505	549	395	127	89	101	214	53	50	244
VDR630505	522	333	127	87.5	87.5	250	87	50	250
VDR630605	522	333	127	87.5	87.5	250	87	60	250
VDR630705	522	333	127	87.5	87.5	250	87	70	250
VDR630506	522	333	152.4	87.5	87.5	250	87	50	250
VDR630606	522	333	152.4	87.5	87.5	250	87	60	250
VDR630706	522	333	152.4	87.5	87.5	250	87	70	250
VDR642505	579	362	127	87.5	87.5	250	87	50	250
VDR642605	579	362	127	87.5	87.5	250	87	60	250
VDR642705	579	362	127	87.5	87.5	250	87	70	250
VDR642506	579	362	152.4	87.5	87.5	250	87	50	250
VDR642606	579	362	152.4	87.5	87.5	250	87	60	250
VDR642706	579	362	152.4	87.5	87.5	250	87	70	250



Drive for propeller shaft



1. Clamp Hub
2. Thrust Bearing
3. CV Joint (Constant Velocity Joint)
4. Flange

Type FLANGE

Adapter flanges for connecting gearboxes to flexible couplings

These adapter flanges can be used for many gearboxes made by Volvo, YANMAR and Kanzaki and are available as an option. When the pump unit on some hydraulic gearboxes is positioned in a way that it is impossible to install a flexible coupling directly onto the output flange, an intermediate flange will have to be fitted as well. Intermediate flanges are available on special request.

Type	Description
FLANGE1	Adapter flange for YANMAR KM2C, KMP2P, KM3A, KM3P, Kanzaki KBW, KC30, KC45 and KC100
FLANGE2	Adapter flange for Volvo MS2L, MS10A/L, MS15A/L and MS25A/L
FLANGE2A	Adapter flange for Volvo MS, MS2A, MS2L, MSB and all types MS2
FLANGE3	Adapter flange for YANMAR KM4A, KM4A1, KMH4A, KBW20-1, KBW21 and Kanzaki KC180



FLANGE

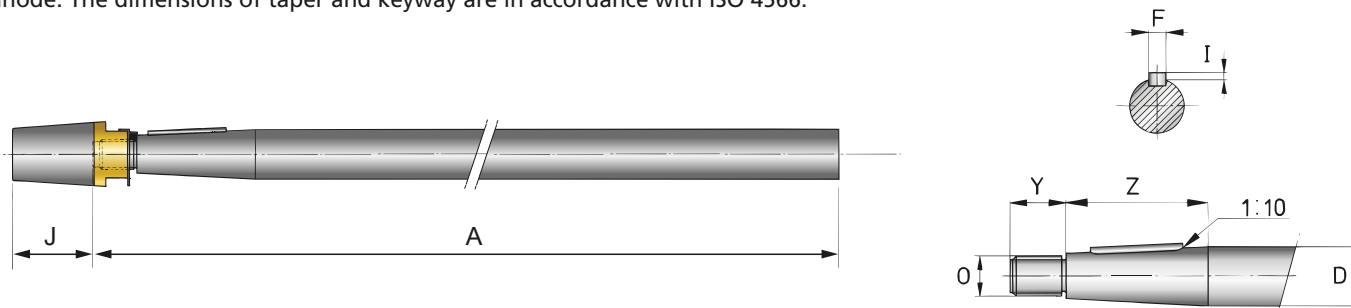
Stern gear systems

Water lubricated stern gear

Propeller shaft type SA

Duplex 1-4462 stainless steel propeller shaft

This shaft is machined with 1:10 taper and a keyway as standard. It is supplied with key and propeller nut with integrated zinc anode. The dimensions of taper and keyway are in accordance with ISO 4566.



Shaft types with all dimensions in inches (mm)

Type	Ø D inch (mm)	Shaft lengths (A) inch (mm)	F inch (mm)	I inch (mm)	J inch (mm)	O inch (mm)	Y inch (mm)	Z inch (mm)
SA25	1 (25)	39 3/8 / 59 1/16 / 78 3/4 / 98 7/16 / 118 1/8 (1000 / 1500 / 2000 / 2500 / 3000)	5/16 (8)	1/8 (3)	1 9/16 (40)	M16 x 1.5	1 (25)	2 11/64 (55)
SA30	1 3/16 (30)	39 3/8 / 59 1/16 / 78 3/4 / 98 7/16 / 118 1/8 (1000 / 1500 / 2000 / 2500 / 3000)	5/16 (8)	1/8 (3)	2 1/4 (57)	M20 x 1.5	1 3/16 (30)	2 51/64 (75)
SA35	1 3/8 (35)	39 3/8 / 59 1/16 / 78 3/4 / 98 7/16 / 118 1/8 (1000 / 1500 / 2000 / 2500 / 3000)	25/64 (10)	1/8 (3)	2 1/8 (54)	M24 x 2	1 3/8 (35)	1 1/32 (85)
SA40	1 9/19 (40)	on request	15/32 (12)	1/8 (3)	2 23/64 (64)	M24 x 2	1 3/8 (35)	3 47/64 (95)
SA45	1 49/64 (45)	on request	35/64 (14)	9/64 (3,5)	2 23/32 (69)	M30 x 2	1 9/19 (40)	4 9/64 (105)
SA50	1 31/32 (50)	on request	35/64 (14)	9/64 (3,5)	3 7/64 (79)	M36 x 2	1 49/64 (45)	4 17/32 (115)
SA60	2 23/64 (60)	on request	45/64 (18)	5/32 (4)	3 25/32 (96)	M42 x 3	2 11/64 (55)	5 1/8 (130)
SA301500A	1 3/16 (30)	59 1/16 (1500)	5/16 (8)	1/8 (3)	1 9/16 (40)	M16 x 1.5	1 (25)	2 11/64 (55)
SA302000A	1 3/16 (30)	78 3/4 (2000)	5/16 (8)	1/8 (3)	1 9/16 (40)	M16 x 1.5	1 (25)	2 11/64 (55)
SA302500A	1 3/16 (30)	98 7/16 (2500)	5/16 (8)	1/8 (3)	1 9/16 (40)	M16 x 1.5	1 (25)	2 11/64 (55)

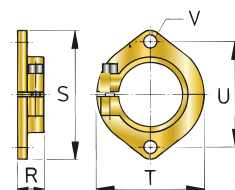
Type	
SA25/+	Extra charge per 19 11/16 (500)
SA30/+	Extra charge per 19 11/16 (500)
SA35/+	Extra charge per 19 11/16 (500)

Type	
SA40/+	Extra charge per 19 11/16 (500)
SA45/+	Extra charge per 19 11/16 (500)
SA50/+	Extra charge per 19 11/16 (500)
SA60/+	Extra charge per 19 11/16 (500)

Mounting flange for stern tube

The propeller end of the bronze stern tube is provided with an outer cutlass bearing and a mounting flange. The slots in the tube are designed for easy replacement of the cutlass bearing. A second flange maybe required to secure the inboard end of the stern tube and can be ordered separately.

Type	Ø D inch (mm)	R inch (mm)	S inch (mm)	T inch (mm)	U inch (mm)	Ø V inch (mm)
FLK25	1 (25)	45/64 (18)	3 25/64 (86)	2 53/64 (72)	2 3/4 (70)	2 1/64 (8.5)
FLK30	1 3/16 (30)	45/64 (18)	3 35/64 (90)	3 5/64 (78)	2 29/32 (74)	2 1/64 (8.5)
FLK35	1 3/8 (35)	29/32 (23)	4 13/32 (112)	3 13/16 (97)	3 5/8 (92)	1 3/32 (10.5)
FLK40	1 9/16 (40)	29/32 (23)	4 9/16 (116)	3 31/32 (101)	3 25/32 (96)	1 3/32 (10.5)
FLK45	1 49/64 (45)	1 7/64 (28)	5 13/64 (132)	4 11/64 (118)	4 1/4 (108)	3 3/64 (13)
FLK50	1 31/32 (50)	1 7/64 (28)	5 7/16 (138)	4 59/64 (125)	4 31/64 (114)	3 3/64 (13)



FLK



Water lubricated stern gear

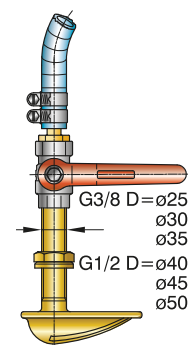
Water lubrication connections

There are two possibilities to water lubricate your shaft assembly

1. By means of a water scoop G 3/8, with ball valve, hose pillar, 1 meter of water hose and hose clamps, or
2. By tapping a small amount of water from the main engine's raw water cooling circuit.

Type	Description
WCAPSET	Water scoop kit for $\varnothing 1\frac{3}{16}$ - $\frac{3}{8}$ " (25-30-35 mm), shaft
WCAPS1/2	Water scoop kit for $\varnothing 1\frac{9}{16}$ - $1\frac{49}{64}$ - $1\frac{31}{32}$ " (40-45-50 mm), shaft

WCAPS



For the second option we offer the ZWBKIT. With this kit you have all you need to water lubricate your shaft assembly by using water from the main engine's raw water cooling circuit. The kit consists of a T-piece $\frac{45}{64}$ - $\frac{25}{64}$ - $\frac{45}{64}$ " (18 -10 -18 mm), 9.84 ft. (3 m) of $\varnothing \frac{25}{64}$ " (10 mm) hose (DWHOSE10A) and four hose clamps.

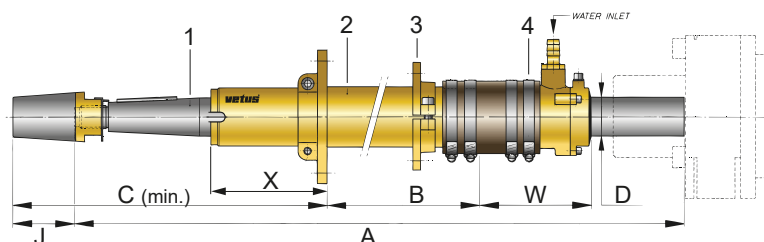
Type	Consist of	Code
ZWBKIT	1 TP1810 T-piece	TP1810
	3 Fresh water hose per meter	DWHOSE10A
	4 Hose clamps AISI 304 $\frac{23}{64}$ " (9 mm) $\varnothing \frac{5}{16}$ - $\frac{5}{8}$ " (8 - 16 mm)	HCS08

ZWBKIT



Bronze stern tube assembly

1. Propeller shaft
2. Stern tube
3. Mounting flange
4. Inner bearing



When ordering, please specify dimensions A, B and D.

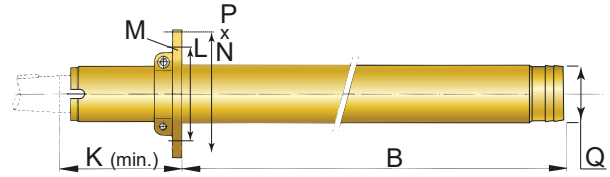
Type	Ø Shaft (D) inch (mm)	A inch (mm)	B inch (mm)	X inch (mm)	C inch (mm)	W inch (mm)	J inch (mm)
BL25	1 (25)	Shaft length	Stern tube length	$\frac{37}{16}$ (88)	$8\frac{17}{64}$ (210)	$4\frac{13}{32}$ (112)	$1\frac{9}{16}$ (40)
BL30	$1\frac{3}{16}$ (30)	Shaft length	Stern tube length	$4\frac{9}{64}$ (105)	$10\frac{33}{64}$ (267)	$4\frac{13}{32}$ (112)	$2\frac{1}{4}$ (57)
BL35	$1\frac{3}{8}$ (35)	Shaft length	Stern tube length	$4\frac{39}{64}$ (117)	$11\frac{29}{64}$ (291)	$4\frac{13}{32}$ (112)	$2\frac{1}{8}$ (54)
BL40	$1\frac{9}{16}$ (40)	Shaft length	Stern tube length	$4\frac{7}{16}$ (113)	$12\frac{7}{8}$ (327)	$4\frac{31}{64}$ (114)	$2\frac{33}{64}$ (64)
BL45	$1\frac{49}{64}$ (45)	Shaft length	Stern tube length	$5\frac{45}{64}$ (145)	$14\frac{9}{64}$ (359)	$5\frac{5}{64}$ (129)	$2\frac{23}{32}$ (69)
BL50	$1\frac{31}{32}$ (50)	Shaft length	Stern tube length	$6\frac{3}{8}$ (162)	$15\frac{25}{32}$ (401)	$5\frac{5}{64}$ (129)	$3\frac{7}{64}$ (79)

Stern gear systems

Water lubricated stern gear

Type BL

Bronze stern tube with mounting flange and one cutlass aft bearing. The slots in the tube are designed for easy replacement of the cutlass bearing.



Type	Ø D inch (mm)	Length B inch (mm)			K inch (mm)	L inch (mm)	Ø M inch (mm)	N inch (mm)	P inch (mm)	Q inch (mm)	
BL25	1 (25)	19 ¹¹ / ₁₆ (500)	39 ³ / ₈ (1000)	59 ¹ / ₁₆ (1500)	78 ³ / ₄ (2000)	3 ¹⁵ / ₃₂ (88)	3 ³⁵ / ₆₄ (90)	2 ¹ / ₆₄ (8.5)	4 ²¹ / ₆₄ (110)	2 ²³ / ₆₄ (60)	1 ¹¹ / ₁₆ (43)
BL30	1 ³ / ₁₆ (30)	19 ¹¹ / ₁₆ (500)	39 ³ / ₈ (1000)	59 ¹ / ₁₆ (1500)	78 ³ / ₄ (2000)	4 ⁶ / ₆₄ (105)	3 ¹⁵ / ₁₆ (100)	2 ¹ / ₆₄ (8.5)	4 ²³ / ₃₂ (120)	2 ⁴¹ / ₆₄ (67)	1 ⁶¹ / ₆₄ (49.5)
BL35	1 ³ / ₈ (35)	on request				4 ³⁹ / ₆₄ (117)	4 ²¹ / ₆₄ (110)	1 ³ / ₃₂ (10.5)	5 ¹³ / ₆₄ (132)	3 (76)	2 ¹ / ₄ (57)
BL40	1 ⁹ / ₁₆ (40)	on request				4 ²⁹ / ₆₄ (113)	4 ⁹ / ₁₆ (116)	1 ³ / ₃₂ (10.5)	5 ⁷ / ₁₆ (138)	3 ¹⁵ / ₆₄ (82)	2 ⁷ / ₁₆ (62)
BL45	1 ⁴⁹ / ₆₄ (45)	on request				5 ⁴⁵ / ₆₄ (145)	5 ²⁹ / ₃₂ (150)	3 ³ / ₆₄ (13)	7 ³ / ₃₂ (180)	3 ²¹ / ₃₂ (93)	2 ⁵¹ / ₆₄ (71)
BL50	1 ³¹ / ₃₂ (50)	on request				6 ³ / ₈ (162)	6 ³ / ₈ (165)	1 ⁹ / ₃₂ (15)	7 ³ / ₄ (197)	3 ⁵⁷ / ₆₄ (99)	3" (76.1)

Type	Description
BL25/+	Extra charge per 19 ¹¹ / ₁₆ (500)
BL30/+	Extra charge per 19 ¹¹ / ₁₆ (500)
BL35/+	Extra charge per 19 ¹¹ / ₁₆ (500)

Type	Description
BL40/+	Extra charge per 19 ¹¹ / ₁₆ (500)
BL45/+	Extra charge per 19 ¹¹ / ₁₆ (500)
BL50/+	Extra charge per 19 ¹¹ / ₁₆ (500)

Type BR2

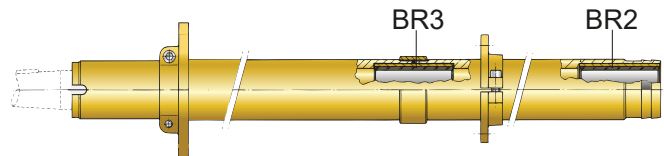
Forward cutlass bearing for bronze stern tube. When ordering please specify type BL and type BR2. The tube will be supplied with the second bearing already installed.

Type BR3

Intermediate cutlass bearing for bronze stern tube. When ordering please specify type of BL, type BR2 and type BR3.

The tube will be supplied with ordered bearings already installed.

Please contact us to be advised on this.



Forward bearing for stern tubes

Type	Description
BR225	Bearing for Ø 1" (25 mm) stern tube
BR230	Bearing for Ø 1 ³ / ₁₆ " (30 mm) stern tube
BR235	Bearing for Ø 1 ³ / ₈ " (35 mm) stern tube
BR240	Bearing for Ø 1 ⁹ / ₁₆ " (40 mm) stern tube
BR245	Bearing for Ø 1 ⁴⁹ / ₆₄ " (45 mm) stern tube
BR250	Bearing for Ø 1 ³¹ / ₃₂ " (50 mm) stern tube

Intermediate bearing for stern tubes

Type	Description
BR325	Bearing for Ø 1" (25 mm) stern tube
BR330	Bearing for Ø 1 ³ / ₁₆ " (30 mm) stern tube
BR335	Bearing for Ø 1 ³ / ₈ " (35 mm) stern tube
BR340	Bearing for Ø 1 ⁹ / ₁₆ " (40 mm) stern tube
BR345	Bearing for Ø 1 ⁴⁹ / ₆₄ " (45 mm) stern tube
BR350	Bearing for Ø 1 ³¹ / ₃₂ " (50 mm) stern tube

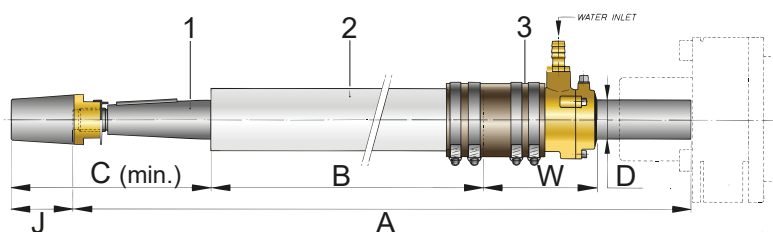


Water lubricated stern gear

G.R.P. (Polyester) stern tube assembly

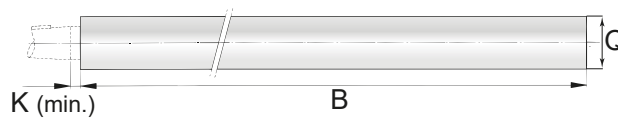
Type	Ø D inch (mm)	Length inch (mm)	J inch (mm)	Ø Q inch (mm)	W inch (mm)	C inch (mm)	Length B inch (mm)			
BG25	1 (25)	19 ¹¹ / ₁₆ (500)	1 ⁹ / ₁₆ (40)	1 ⁴⁷ / ₆₄ (44)	4 ¹³ / ₃₂ (112)	5" (127)	22 ⁷ / ₈ (581.5)	42 ³⁷ / ₆₄ (1081.5)	62 ¹⁷ / ₆₄ (1581.5)	81 ¹⁵ / ₁₆ (2081.5)
BG30	1 ³ / ₁₆ (30)	19 ¹¹ / ₁₆ (500)	2 ¹ / ₄ (57)	1 ³¹ / ₃₂ (50)	4 ¹³ / ₃₂ (112)	6 ⁴⁹ / ₆₄ (172)	2 ³⁷ / ₁₆ (595.5)	43 ¹ / ₈ (1095.5)	62 ¹³ / ₁₆ (1595.5)	82 ¹ / ₂ (2095.5)
BG35	1 ³ / ₈ (35)	19 ¹¹ / ₁₆ (500)	2 ¹ / ₈ (54)	2 ¹ / ₄ (57)	4 ¹³ / ₃₂ (112)	7 ¹ / ₄ (184)	2 ³⁷ / ₁₆ (595.5)	43 ¹ / ₈ (1095.5)	62 ¹³ / ₁₆ (1595.5)	82 ¹ / ₂ (2095.5)
BG40	1 ⁹ / ₁₆ (40)	19 ¹¹ / ₁₆ (500)	2 ³³ / ₆₄ (64)	2 ⁷ / ₁₆ (62)	4 ³¹ / ₆₄ (114)	8 ²⁷ / ₆₄ (214)	2 ³⁷ / ₁₆ (595.5)	43 ¹ / ₈ (1095.5)	62 ¹³ / ₁₆ (1595.5)	82 ¹ / ₂ (2095.5)

- 1. Propeller shaft
- 2. Stern tube
- 3. Inner bearing



G.R.P. stern tubes - type BG

The propeller end of the G.R.P. stern tube is provided with an outer cutlass bearing. The stern tubes must be bonded directly into the hull.



Type	Ø D inch (mm)	Length B inch (mm)				K inch (mm)	Ø Q inch (mm)
BG25	1 (25)	22 ⁷ / ₈ (581.5)	42 ³⁷ / ₆₄ (1081.5)	62 ¹⁷ / ₆₄ (1581.5)	81 ¹⁵ / ₁₆ (2081.5)	5 ¹ / ₁₆ (8)	1 ⁴⁷ / ₆₄ (44)
BG30	1 ³ / ₁₆ (30)	2 ³⁷ / ₁₆ (595.5)	43 ¹ / ₈ (1095.5)	62 ¹³ / ₁₆ (1595.5)	82 ¹ / ₂ (2095.5)	2 ⁵ / ₆₄ (10)	1 ³¹ / ₃₂ (50)
BG35	1 ³ / ₈ (35)	2 ³⁷ / ₁₆ (595.5)	43 ¹ / ₈ (1095.5)	62 ¹³ / ₁₆ (1595.5)	82 ¹ / ₂ (2095.5)	2 ⁵ / ₆₄ (10)	2 ¹ / ₄ (57)
BG40	1 ⁹ / ₁₆ (40)	22 ⁷ / ₈ (581.5)	42 ³⁷ / ₆₄ (1081.5)	62 ¹⁷ / ₆₄ (1581.5)	81 ¹⁵ / ₁₆ (2081.5)	1 ⁵ / ₃₂ (12)	2 ⁷ / ₁₆ (62)



Depending on the length, diameter and RPM of the shaft, there is a need for one, two or three cutlass bearings.

Forward bearing for stern tubes

Type	Description
BR225	Bearing for Ø 1" (25 mm) stern tube
BR230	Bearing for Ø 1 ³ / ₁₆ " (30 mm) stern tube
BR235	Bearing for Ø 1 ³ / ₈ " (35 mm) stern tube
BR240	Bearing for Ø 1 ⁹ / ₁₆ " (40 mm) stern tube

Intermediate bearing for stern tubes

Type	Description
BR325	Bearing for Ø 1" (25 mm) stern tube
BR330	Bearing for Ø 1 ³ / ₁₆ " (30 mm) stern tube
BR335	Bearing for Ø 1 ³ / ₈ " (35 mm) stern tube
BR340	Bearing for Ø 1 ⁹ / ₁₆ " (40 mm) stern tube

Stern gear systems

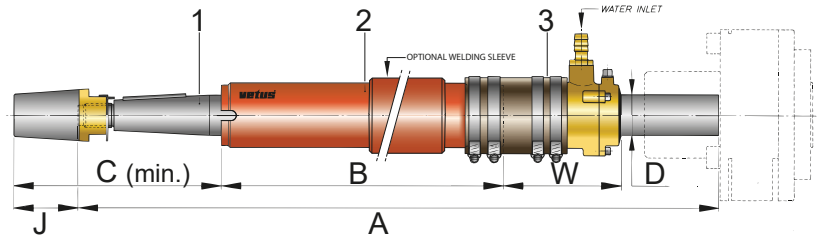
Water lubricated stern gear

Steel stern tube assembly

When ordering, please specify dimensions A, B and D.

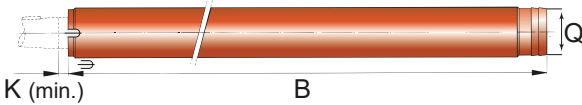
Type	Ø Shaft (D) inch (mm)	Shaft length A inch (mm)	Stern tube length B inch (mm)	C inch (mm)	W inch (mm)	J inch (mm)
BS25	1 (25)	on request	on request	5" (127)	4 ¹³ / ₃₂ (112)	1 ⁹ / ₁₆ (40)
BS30	1 ³ / ₁₆ (30)	on request	on request	6 ⁴⁹ / ₆₄ (172)	4 ¹³ / ₃₂ (112)	2 ¹ / ₄ (57)
BL35S	1 ³ / ₈ (35)	on request	on request	7 ¹ / ₄ (184)	4 ¹³ / ₃₂ (112)	2 ¹ / ₈ (54)
BL40S	1 ⁹ / ₁₆ (40)	on request	on request	8 ⁷ / ₆₄ (206)	4 ³¹ / ₆₄ (114)	2 ³³ / ₆₄ (64)
BL45S	1 ⁴⁹ / ₆₄ (45)	on request	on request	8 ⁵⁷ / ₆₄ (226)	5 ⁵ / ₆₄ (129)	2 ²³ / ₃₂ (69)
BL50S	1 ³¹ / ₃₂ (50)	on request	on request	10" (254)	5 ⁵ / ₆₄ (129)	3 ⁷ / ₆₄ (79)
BL60S	2 ²³ / ₆₄ (60)	on request	on request	11 ¹⁹ / ₆₄ (287)	3 ²¹ / ₃₂ (93)	3 ²⁵ / ₃₂ (96)

1. Propeller shaft
2. Stern tube
3. Inner bearing



Steel stern tubes

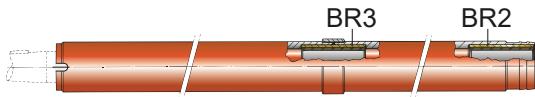
The propeller end of the steel stern tube is provided with an outer cutlass bearing. The slots in the tube are designed for easy replacement of the cutlass bearing. All steel stern tubes may be supplied with additional sleeves to reduce distortion when welding. Please specify when ordering.



Type	Ø D inch (mm)	Length B inch (mm)	K inch (mm)	Ø Q inch (mm)
BS25	1 (25)	on request	5 ¹ / ₁₆ (8)	1 ⁴⁷ / ₆₄ (44)
BS30	1 ³ / ₁₆ (30)	on request	2 ⁵ / ₆₄ (10)	2 ¹ / ₆₄ (51)
BL35S	1 ³ / ₈ (35)	on request	2 ⁵ / ₆₄ (10)	2 ¹ / ₄ (57)
BL40S	1 ⁹ / ₁₆ (40)	on request	1 ⁵ / ₃₂ (12)	2 ⁷ / ₁₆ (62)
BL45S	1 ⁴⁹ / ₆₄ (45)	on request	1 ⁵ / ₃₂ (12)	2 ³ / ₄ (70)
BL50S	1 ³¹ / ₃₂ (50)	on request	1 ⁹ / ₃₂ (15)	3" (76.1)
BL60S	2 ²³ / ₆₄ (60)	on request	1 ⁹ / ₃₂ (15)	3 ⁵ / ₈ (92)

Type BR2

Forward cutlass bearing for steel stern tube. When ordering please specify type BL and type BR2. The tube will be supplied with second bearing already installed.



Forward bearing for stern tubes

Type	Description
BR225	Bearing for Ø 1" (25 mm) stern tube
BR230	Bearing for Ø 1 ³ / ₁₆ " (30 mm) stern tube
BR235	Bearing for Ø 1 ³ / ₈ " (35 mm) stern tube
BR240	Bearing for Ø 1 ⁹ / ₁₆ " (40 mm) stern tube
BR245	Bearing for Ø 1 ⁴⁹ / ₆₄ " (45 mm) stern tube
BR250	Bearing for Ø 1 ³¹ / ₃₂ " (50 mm) stern tube
BR260	Bearing for Ø 2 ²³ / ₆₄ " (60 mm) stern tube

Type BR3

Intermediate cutlass bearing for steel stern tube. When ordering please specify type BL, type BR2 and type BR3.

The tube will be supplied with ordered bearings already installed.

Please contact us to be advised on this.

Intermediate bearing for stern tubes

Type	Description
BR325S	Bearing for Ø 1" (25 mm) stern tube
BR330S	Bearing for Ø 1 ³ / ₁₆ " (30 mm) stern tube
BR335S	Bearing for Ø 1 ³ / ₈ " (35 mm) stern tube
BR340S	Bearing for Ø 1 ⁹ / ₁₆ " (40 mm) stern tube
BR345S	Bearing for Ø 1 ⁴⁹ / ₆₄ " (45 mm) stern tube
BR350S	Bearing for Ø 1 ³¹ / ₃₂ " (50 mm) stern tube
BR360S	Bearing for Ø 2 ²³ / ₆₄ " (60 mm) stern tube

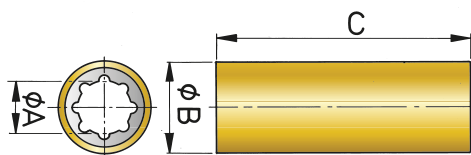


Bearings

Water lubricated cutlass bearings

These cutlass bearings have a polyurethane-rubber lining. The outer bushings are made of either brass or phenolic resin. Phenolic resin is lightweight, cannot corrode and can easily be replaced. These bearings are available for shaft diameters between Ø 20 and Ø 100 mm and from Ø 1" through Ø 4". VETUS rubber bearings are also available for larger shaft diameters to special order.

For dimensions please see the tables below.



Rubber bearings with shaft size (A) in mm and shell size (B) in inches. Length (C) in mm.

Brass shell	Phenolic shell	A (mm)	B** (inch)	C (mm)
RULAGER20	RULAG25PH	20 *	1 1/4	76
RULAGER22		22 *	1 1/4	76
RULAGER25		25	1 1/2	100
RULAGER30	RULAG30PH	30	1 3/4	127
RULAGER35	RULAG35PH	35	1 7/8	140
RULAGER40	RULAG40PH	40	2 1/8	160
RULAGER45	RULAG45PH	45	2 3/8	180
RULAGER50	RULAG50PH	50	2 5/8	200
RULAGER60	RULAG60PH	60	3	240
RULAGER65		65 *	3 3/8	260
RULAGER70	RULAG70PH	70	3 1/2	280
RULAGER80	RULAG80PH	80	4	320

Rubber bearings with shaft size (A) in mm and shell size (B) in mm. Length (C) in mm.

Brass shell	Phenolic shell	A (mm)	B (mm)	C (mm)
RL2540	RL2540PH	25	40	100
RL3045	RL3045PH	30	45	120
RL3550	RL3550PH	35	50	140
RL4055	RL4055PH	40	55	160
RL4565	RL4565PH	45	65	180
RL5070	RL5070PH	50	70	200
RL6080	RL6080PH	60	80	240
RL7090	RL7090PH	70	90	280
RL8010	RL8010PH	80	100	320
RL9011	RL9011PH	90	110	360
RL1012	RL1012PH	100	125	400

Rubber bearings with shaft size (A) in inches and shell size (B) in inches. Length (C) in inches.

Brass shell	Phenolic shell	A (inch)	B (inch)	C (inch)
RULAG1	RL1PH	1	1 1/2	4
RULAG11/8	RL11/8PH	1 1/8	1 5/8	4 1/2
RULAG11/4	RL11/4PH	1 1/4	1 3/4	5
RULAG13/8	RL13/8PH	1 3/8	1 7/8	5 1/2
RULAG11/2	RL11/2PH	1 1/2	2	6
RULAG15/8		1 5/8	2 1/8	6 1/2
RULAG13/4	RL13/4PH	1 3/4	2 3/8	7
RULAG2	RL2PH	2	2 5/8	8
RULAG21/4	RL21/4PH	2 1/4	3	9
RULAG21/2	RL21/2PH	2 1/2	3 1/4	10
RULAG23/4	RL23/4PH	2 3/4	3 3/4	11
RULAG3	RL3PH	3	4	12
RULAG31/2	RL31/2PH	3 1/2	4 1/2	14
RULAG4	RL4PH	4	5	16



* Available to special order
** Used in VETUS stern gear

RULAGER **RULAG..PH** **RL**



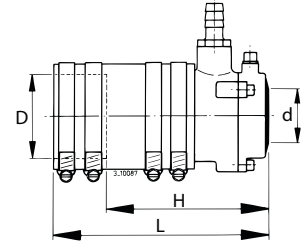
Stern gear systems

Bearings

Bronze self-aligning inner bearing and dual shaft seal

The VETUS flexible inner bearing used in this system has dual sealing lips for double security against water leakage.

Type	Description	H inch (mm)	L inch (mm)	D inch (mm)	d inch (mm)
ZWB25I	Bronze flexible inner bearing Ø 1 (25), with dual lip seal	4 ¹³ / ₃₂ (112)	5 ⁴³ / ₆₄ (144)	1 ¹¹ / ₁₆ (43)	1 (25)
ZWB30I	Bronze flexible inner bearing Ø 3/16 (30), with dual lip seal	4 ¹³ / ₃₂ (112)	5 ⁴³ / ₆₄ (144)	1 ⁶¹ / ₆₄ (49,5)	3/16 (30)
ZWB35A	Bronze flexible inner bearing Ø 1 3/8 (35), with dual lip seal	4 ¹³ / ₃₂ (112)	5 ⁴⁵ / ₆₄ (145)	2 ¹³ / ₆₄ (56)	1 3/8 (35)
ZWB40A	Bronze flexible inner bearing Ø 1 9/16 (40), with dual lip seal	4 ³¹ / ₆₄ (114)	5 ²⁹ / ₃₂ (150)	2 ¹³ / ₃₂ (61)	1 9/16 (40)
ZWB45A	Bronze flexible inner bearing Ø 1 49/64 (45), with dual lip seal	4 ⁵ / ₆₄ (129)	6 ²⁹ / ₆₄ (165)	2 ⁵¹ / ₆₄ (71)	1 49/64 (45)
ZWB50A	Bronze flexible inner bearing Ø 1 31/32 (50), with dual lip seal	4 ⁵ / ₆₄ (129)	6 ²⁹ / ₆₄ (165)	2 ⁶³ / ₆₄ (76)	1 31/32 (50)
ZWB60	Bronze flexible inner bearing Ø 2 23/64 (60), with dual lip seal	4 ⁵ / ₆₄ (129)	6 ²⁹ / ₆₄ (165)	3 ³⁵ / ₆₄ (90)	2 23/64 (60)
ZWB2540	Replacement set for VETUS 1 (25) inner bearing with stuffing box				
ZWB3044	Replacement set for VETUS 3/16 (30) inner bearing with stuffing box				



ZWB

Self-aligning inner bearing and triple shaft seal for extra security

ZWBH seals are developed for use with water lubricated stern gear. This updated monoblock design works in the same way as the trusted ZWB seals, with the addition of one extra lip seal (three total) for added security. Minimal friction, oil and grease resistant and with a separate 3/8" x 10 mm hose barb for water injection. As the ZWBH has a threaded connection, a valve can also easily be applied on it.

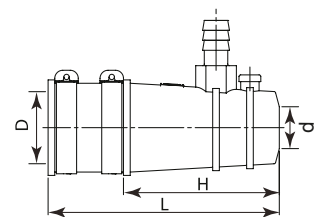
VETUS advises annual lubrication with silicon grease to keep this stern gear seal in optimal condition. ZWBH seals can withstand temperatures between -15° and + 85° and are suitable for VETUS bronze, steel or GRP stern tubes. The set comes with two stainless steel hose clamps and grease.



ZWBH..



Type	Description	H inch (mm)	L inch (mm)	D inch (mm)	d inch (mm)
ZWBH25	Flexible inner bearing, with triple lip seal	3 ¹¹ / ₁₆ (93)	5 ⁷ / ₁₆ (138)	1 ¹¹ / ₁₆ (43)	1 (25)
ZWBH30	Flexible inner bearing, with triple lip seal	3 ¹¹ / ₁₆ (93)	5 ⁷ / ₁₆ (138)	1 ³¹ / ₃₂ (50)	1 3/16 (30)
ZWBH35	Flexible inner bearing, with triple lip seal	3 1/4 (83)	5 ⁴⁵ / ₆₄ (145)	2 ¹¹ / ₆₄ (55)	1 3/8 (35)
ZWBH40	Flexible inner bearing, with triple lip seal	3 ⁷ / ₁₆ (88)	5 ²⁹ / ₃₂ (150)	2 ²³ / ₆₄ (60)	1 9/16 (40)





Water lubricated stern gear

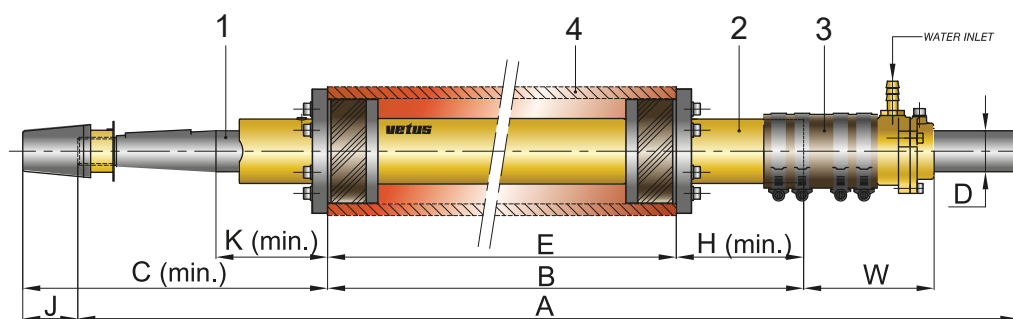
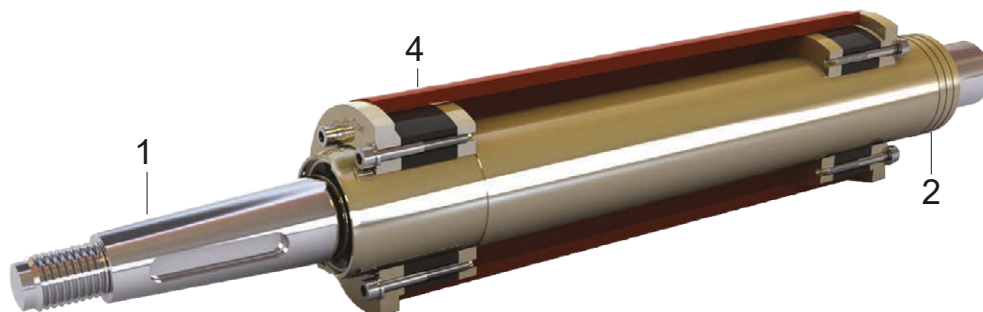
Type CS

This water-lubricated propeller shaft assembly uses a thick walled steel outer tube which can be welded into a steel boat with minimum distortion. In this steel tube you can easily fit a bronze stern tube with the aid of rubber bushings.

Specifications

- One rear cutlass bearing (additional bearings can be supplied on request)
- Bronze stern tube (can be supplied with a VETUS self-aligning inner bearing with dual lip seal type ZWB)

For dimensions see the table below. Please state dimensions A, B, D and E when ordering.



1. Propeller shaft
2. Stern tube
3. Inner bearing
4. Thick walled steel outer tube

Ø D inch (mm)	A inch (mm)	B inch (mm)	C inch (mm)	E inch (mm)	H inch (mm)	J inch (mm)	K inch (mm)	W inch (mm)	Precision steel tube
1 ³ / ₈ (35)	on request	on request	11 ²⁹ / ₆₄ (291)	on request	2 ²³ / ₆₄ (60)	2 ¹ / ₈ (54)	4 ³⁹ / ₆₄ (117)	4 ¹³ / ₃₂ (112)	I.D. = 89 / O.D. = 101.6
1 ⁹ / ₁₆ (40)	on request	on request	12 ⁷ / ₈ (327)	on request	2 ³¹ / ₆₄ (63)	2 ³³ / ₆₄ (64)	4 ²⁹ / ₆₄ (133)	4 ³¹ / ₆₄ (114)	I.D. = 89 / O.D. = 101.6
1 ⁴⁹ / ₆₄ (45)	on request	on request	14 ⁹ / ₆₄ (359)	on request	2 ³¹ / ₆₄ (63)	2 ²³ / ₃₂ (69)	5 ⁴⁵ / ₆₄ (145)	5 ⁵ / ₆₄ (129)	I.D. = 112.8 / O.D. = 127
1 ³¹ / ₃₂ (50)	on request	on request	15 ²⁵ / ₃₂ (401)	on request	2 ³¹ / ₆₄ (63)	3 ⁷ / ₆₄ (79)	6 ³ / ₈ (162)	5 ⁵ / ₆₄ (129)	I.D. = 112.8 / O.D. = 127

Stern gear systems

Propellers

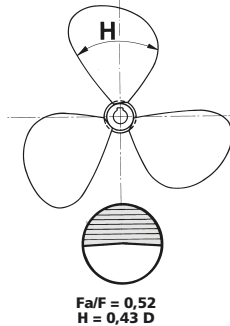
The most essential component of your boat

VETUS uses a software tool, which determines exactly the right propeller for your boat. The most important elements of propeller design and manufacture are balance, dimensions, material and the blade area.

1. If you bear in mind that a propeller is often rotating at 2,000 r.p.m. (more than thirty revolutions per second), you will understand that it is an absolute must that a good propeller is well-balanced.
2. In order to achieve the best performance and to minimize vibration, it is extremely important to ensure that the pitch of each blade is identical and that the distance between the blades does not vary. This requires great manufacturing precision.
3. VETUS propellers are made of manganese bronze, an extremely resilient, yet flexible material.
4. The choice of the best suitable propeller with all the combined qualities above is of the utmost importance.
5. A propeller specialist must always determine the diameter and pitch and the required (fixed) Fa/F ratio. This means the total area of the propeller circle (F) in comparison to the surface area (stretched and developed) of all blades (Fa). The choice of the Fa/F ratio is dependent on the shape of the underwater section and the speed of the boat in question.

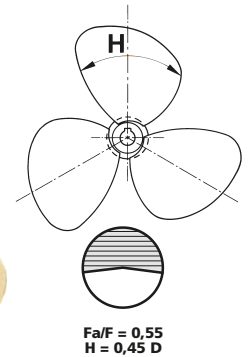
3-Bladed propeller
Type P3B

P3B



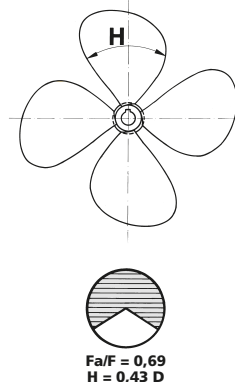
3-Bladed propeller
Type P3C

P3C



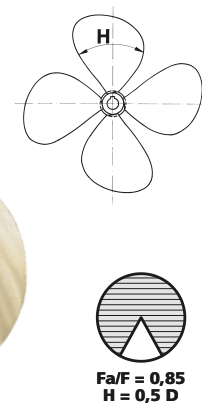
4-Bladed propeller
Type P4E

P4E



4-Bladed propeller
Type P4G

P4G



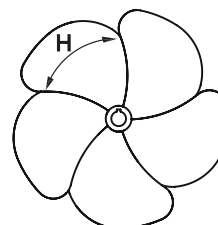


Propellers

Propellers of different types and dimensions are available to special order

5-Bladed propeller
Type P5G

P5G

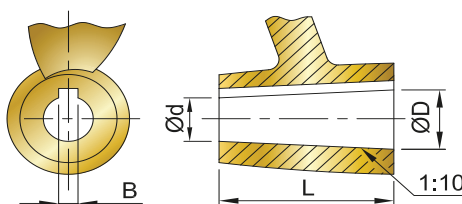


$Fa/F = 1,06$
 $H = 0,5 D$

Note: Types P3B, P3C and P4E have standard shaft holes and keyway. Dimensions are according to ISO 4566. Sizes are indicated in the tables. VETUS can also supply matching propeller shafts from stock (see page 100).

Standard taper of shaft holes of VETUS propellers (1:10). Dimensions according to ISO 4566

Propeller diameter					Shaft hole		Hub	
3-bladed propeller P3B	3-bladed propeller P3C	4-bladed propeller P4E	4-bladed propeller P4G	5-bladed propeller P5G	Largest diameter D inch (mm)	Smallest diameter d inch (mm)	Hub length L inch (mm)	Keyway width B inch (mm)
12"-15"	12"-15"	14"-15"	-	-	1 (25)	3/4 (19)	2 23/64 (60)	5/16 (8)
16"-18"	16"-18"	16"-17"	on request	on request	1 3/16 (30)	55/64 (22)	3 5/32 (80)	5/16 (8)
19"-21"	19"-21"	18"-20"	on request	on request	1 3/8 (35)	1 1/32 (26)	3 35/64 (90)	25/64 (10)
22"-24"	22"-24"	21"-22"	on request	on request	1 9/16 (40)	1 3/16 (30)	3 15/16 (100)	15/32 (12)
25"	25"	23"-24"	on request	on request	1 49/64 (45)	1 11/32 (34)	4 21/64 (110)	35/64 (14)
greater than 25"	greater than 25"	on request	on request	on request	1 31/32 (50)	1 1/2 (38)	4 23/32 (120)	35/64 (14)



How to order

Please give us the propeller diameter and pitch, as well as the number of blades, the sense of rotation and the dimensions of the hub and the taper as shown below. In case propeller details are not known to you: VETUS uses a software tool, which determines the exact right propeller for your boat.

Propeller shaft taper

All stock VETUS propellers have a standard taper of 1:10. This means that the difference between the largest and the smallest diameter of the tapered hole represents 10% of the propeller hub length ($D-d=0.1xL$). If required, we can machine the hub to a taper of 1:12, 1:16, etc. It takes a few days extra delivery time plus a small surcharge.

Note: VETUS offers a wide variety of propeller sizes to special order. Propellers are supplied in manganese bronze. Aluminium bronze propellers can also be supplied to special order.

Stern gear systems

Propellers

Zinc anode for shaft nut

To prevent galvanic corrosion on the shaft and propeller

Type	Specifications
SN25B	Spare zinc anode for Ø 1" (25 mm) shaft nut
SN30B	Spare zinc anode for Ø 1 ³ / ₁₆ " (30 mm) shaft nut
SN35B	Spare zinc anode for Ø 1 ³ / ₈ " (35 mm) shaft nut
SN40B	Spare zinc anode for Ø 1 ⁹ / ₁₆ " (40 mm) shaft nut

Type	Specifications
SN45B	Spare zinc anode for Ø 1 ⁴⁹ / ₆₄ " (45 mm) shaft nut
SN50B	Spare zinc anode for Ø 1 ³¹ / ₃₂ " (50 mm) shaft nut
SN60B	Spare zinc anode for Ø 2 ²³ / ₆₄ " (60 mm) shaft nut



For more information or an overview of anodes see page 448.

Rope cutter

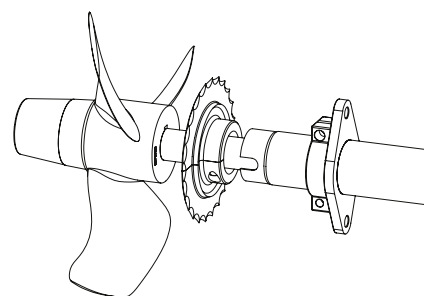
Designed to stop ropes jamming between the sterntube and the propeller. The VETUS Rope cutter (VRC) is a circular AISI Type 316L stainless steel saw blade positioned behind the propeller (viewed from stern).

Type VRC

The VRC disc, consisting of 2 parts, is suitable for 1" and 1³/₁₆" (25 and 30 mm) propeller shafts and fits in VETUS Stern gear systems as well as in other shaft systems.

Includes

- VRC25 Rope Cutter Disc half A
- VRC25 Rope Cutter Disc half B
- Nuts and bolts

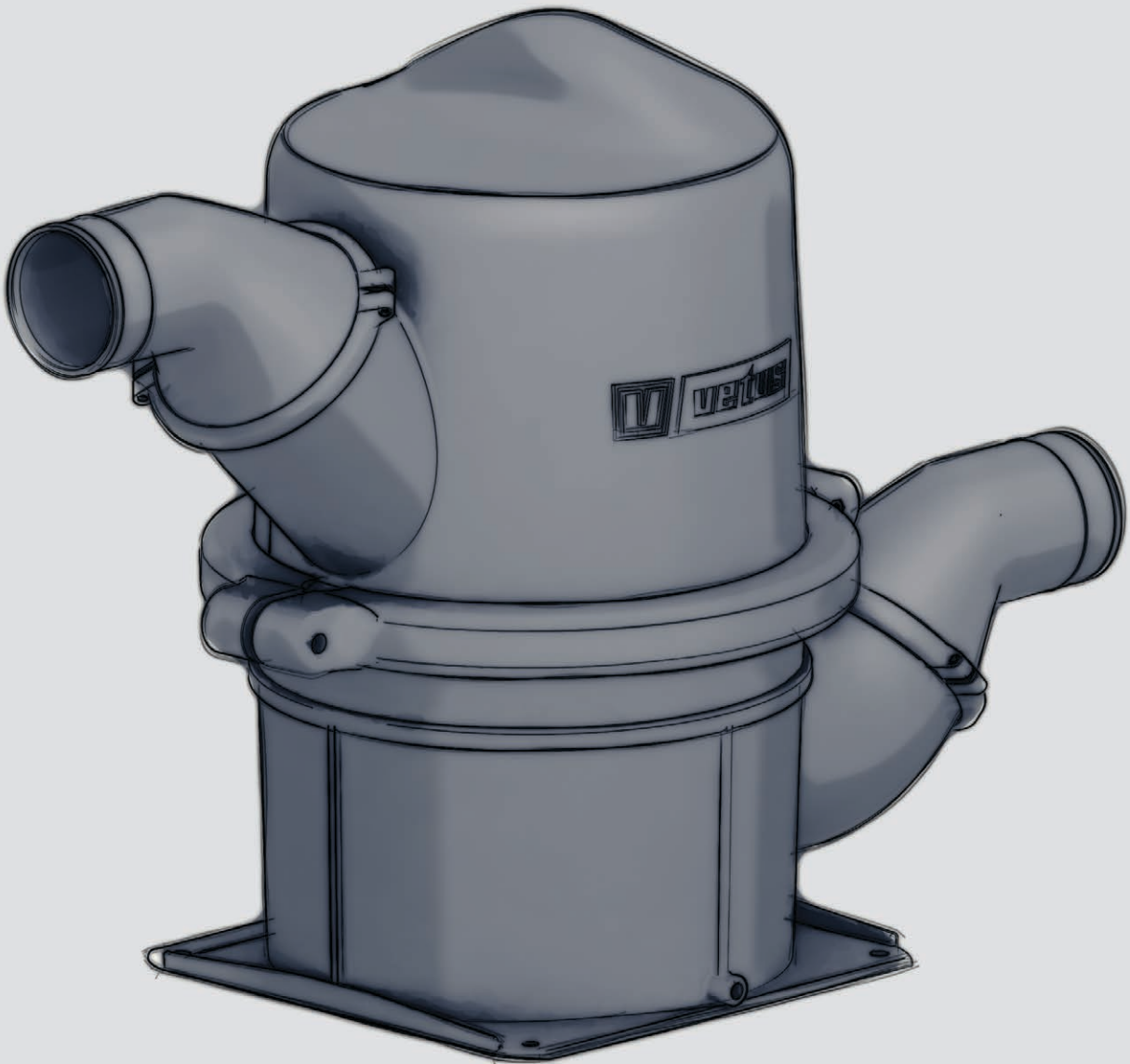


Type	Main dimensions inch (mm)	Shaft dimension Ø inch (mm)
VRC25	4 ¹⁷ / ₃₂ x 1 ³ / ₁₆ (115 x 30)	1 (25)
VRC30	4 ¹⁷ / ₃₂ x 1 ³ / ₁₆ (115 x 30)	1 ³ / ₁₆ (30)



VRC





Exhaust systems

Overview

Waterlock

Standard installations see page 116 - 117



WLOCKLP30



WLOCKLR



WLOCKL



LSSA



LSL



LSG

Waterlock

Dual stage see page 118



NLP

Waterlock

For installations with limited space such as sail boats see page 119



NLPH



NLP3

Waterlock

For larger boats see page 120



MG

Muffler

For high-performance craft see page 121



MV



MF

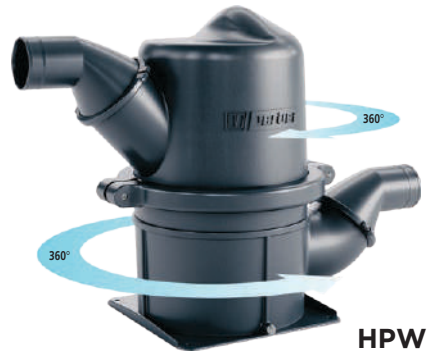


Waterlock

Heavy Duty Line see page 122 - 123



NLPHD



HPW

Muffler

 see page 124

DEMPM

Gooseneck

 see page 125

NLPG



WLOCKLT



LT

Air vent

 see page 126 - 127

ASD



ASD38



AIRVENT

Separator

 see page 128

LGS4038



LGS6050



LGS9075

Transom exhaust connection

 see page 129

TRCR



TRCPV



TRCSV



TC



Exhaust systems

A wet exhaust system

VETUS exhaust systems are based on "wet" systems in which engine cooling water is injected into the exhaust line. This reduces the exhaust gas temperature to about 104°F to 122°F (40 °C to 50 °C) along with a reduction in diesel exhaust fumes. The "wet" exhaust system is much preferred over a "dry" exhaust system in which the exhaust gas temperatures can reach 1112°F (600 °C) or more.

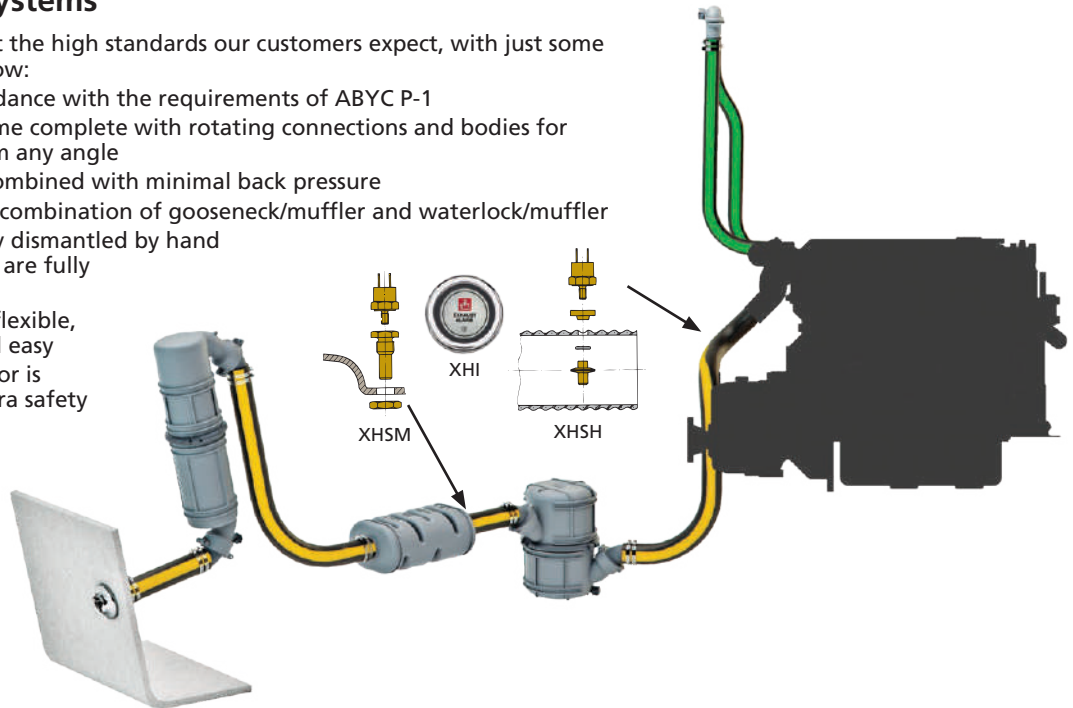
Depending on the overall system design, the exhaust gas may flow through one or more of:

- Exhaust hose
- A waterlock/muffler
- A gooseneck
- A transom connector

Why VETUS exhaust systems

All VETUS exhaust systems meet the high standards our customers expect, with just some of the benefits highlighted below:

- Designed and tested in accordance with the requirements of ABYC P-1
- Many system components come complete with rotating connections and bodies for easy installation of hoses from any angle
- Excellent noise reduction is combined with minimal back pressure
- Some available systems use a combination of gooseneck/muffler and waterlock/muffler
- The ASD air vent can be easily dismantled by hand for cleaning and all materials are fully corrosion resistant
- Exhaust hoses are extremely flexible, making installation quick and easy
- An exhaust temperature sensor is available as an option for extra safety



Heavy Duty waterlocks

Made of the special blended composite NAVIDURIN®, which is temperature resistant up to 500 °F (260 °C), these Heavy Duty waterlocks outperform standard GRP materials by 170%! The same applies for the thermal resistance to deformation under pressure. For the outperforming characteristics of the composite NAVIDURIN®, VETUS received Lloyd's approval.



- NLPHD Series

The NLPHD series is perfect for medium to large size sail or power boats, with exhaust diameters from Ø 1 9/16" to 3 1/2" (40 to 90 mm).

Unique features

- Fits Ø 1 9/16", 1 3/4", 2", 2 3/8", 3" and 3 1/2" (40, 45, 50, 60, 75 and 90 mm) exhausts
- Excellent sound attenuation with minimal back pressure
- Rotating body and hose connections for easy installation



- HPW Series

The HPW series was designed for heavy duty applications such as commercial and military vessels. The ability to handle extreme conditions combined with the rotating bodies and hose connections makes the HPW series a cost effective solution for your vessel compared to higher priced custom solutions.

Unique features

- High capacity water lift design providing complete security for your engine
- Excellent sound attenuation with minimal back pressure
- Rotating body and hose connections for easy installation
- Complete with floor mounting brackets





Preventing water running back to the engine

Installation above or below waterline

The cooling water injection point is crucial. If the water injection point is 6" (15 cm) or more above the waterline, the cooling water can be injected directly into the exhaust system. But when it is less than 6" (15 cm) above or even below the waterline, the cooling system can siphon water through the intake when the engine is turned off. Water can fill up the exhaust system and backflow into the engine through the exhaust valves. This can be prevented by using a breather hose (1) in the cooling water system or an air vent (2).

Calculation tool

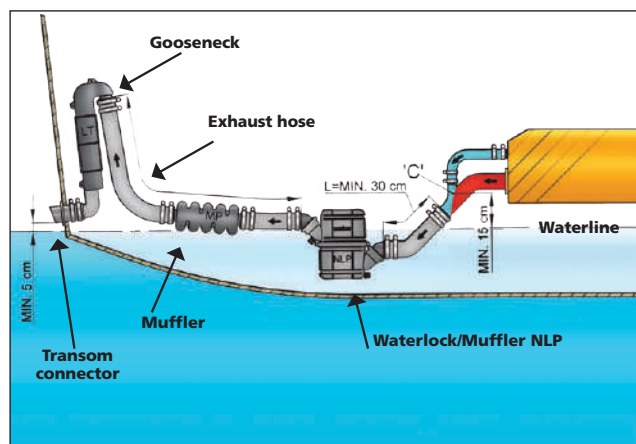
The waterlock capacity can be easily determined by the following formula:

$$2 \times \left(\frac{\pi}{4} \times D^2 \times L \right) \times 0.25 / 1000.000$$

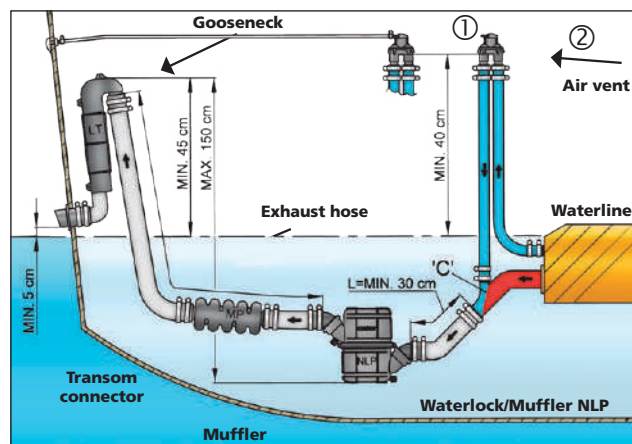
↓
↓
↓
↓

Safety margin Volume 25% Water in hose Conversion to litre

D = Internal diameter of the hose (mm)
L = Length of hose (mm)



Exhaust system with the water injection point "C" **6" (15 cm) or more** above the waterline.



Exhaust system with the water injection point "C" **below or less than 6" (15 cm)** above the waterline.

How to choose your perfect exhaust system

The combination of engine and waterlock determines the optimum sound attenuation. By using the table below you can choose a waterlock which is suitable for your engine power and exhaust diameter. The permitted back pressure can be found in the engine specifications.

Exhaust in/out Ø mm	30/30	40/40	45/45	50/50	60/60	65/65	75/75	90/90	102/102	102/127	127/127	127/152	152/152	152/203	203/203	203/254
hp (kW)@ 0.1 bar *	13 (9)	22 (16)	28 (21)	34 (25)	49 (36)	57 (42)	77 (56)	110 (81)	141 (104)	178 (131)	219 (161)	264(194)	313 (230)	427/(313)	558 (409)	707/(519)
hp (kW)@ 0.2 bar *	26 (18)	44 (32)	56 (42)	68 (50)	98 (72)	114 (84)	154 (112)	220 (162)	282 (208)	356 (262)	438 (322)	528 (388)	626 (460)	854 (626)	1116 (818)	1414 (1038)
hp (kW)@ 0.3 bar *	39 (27)	66 (48)	84 (63)	102 (75)	147 (108)	172 (126)	231 (168)	330 (243)	423 (312)	534 (393)	657 (483)	792 (582)	939 (690)	1281 (939)	1674 (1227)	2121 (1557)
WLOCKLP30	■															
WLOCKLR		■														
WLOCK50S			■													
WLOCKLP				■												
LSSA		■														
LSL				■												
LSG					■											
NLP		■														
NLPHD		■														
NLPH		■														
NLP3		■														
MG								■								
MV								■								
MF								■								
HPW								■								

This table is for general recommendation only. When a higher back pressure is allowed by the engine manufacturer, VETUS waterlocks can be used for engines with a higher output than indicated in this table.

* maximum allowable back pressure

Exhaust systems

Waterlocks

Easy installation

Once the engine of your boat has stopped, a VETUS waterlock of the correctly chosen capacity will make sure that water will not backflow into the engine. All VETUS waterlocks are provided with a drain plug for winter storage.

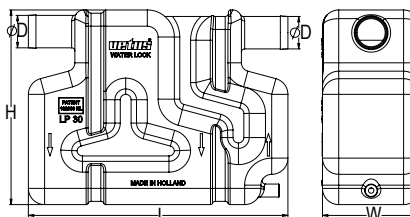
Type WLOCKLP

- Suitable for exhaust hose with an internal diameter of $\varnothing 1\frac{3}{16}$ " (30 mm)



WLOCKLP30

Type	Capacity (gal.)	A inch (mm)	B inch (mm)	Ø (D) inch (mm)
WLOCKLP30	0.6	9 ²⁹ / ₆₄ x 3 ⁹ / ₁₆ (240 x 90)	7 ¹ / ₁₆ (180)	1 ³ / ₁₆ (30)



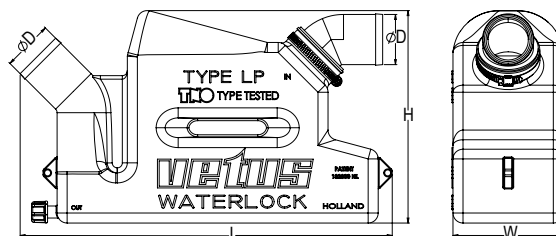
Type WLOCKLR

- Suitable for exhaust hose with internal diameter of $\varnothing 1\frac{9}{16}$ " (40 mm), $1\frac{3}{4}$ " (45 mm) or 2" (50 mm)



WLOCKLR

Type	Capacity (gal.)	A inch (mm)	B inch (mm)	Ø (D) inch (mm)
WLOCKL40R	1.05	14 ⁵ / ₈ x 4 ⁵ / ₁₆ (372 x 110)	8 ⁵ / ₁₆ (211)	1 ⁹ / ₁₆ (40)
WLOCKL45R	1.05	14 ⁵ / ₈ x 4 ⁵ / ₁₆ (372 x 110)	8 ⁵ / ₁₆ (211)	1 ³ / ₄ (45)
WLOCKL50R	1.05	14 ⁵ / ₈ x 4 ⁵ / ₁₆ (372 x 110)	8 ⁵ / ₁₆ (211)	1 ¹⁵ / ₁₆ (50)



Type WLOCKLS and WLOCKLP

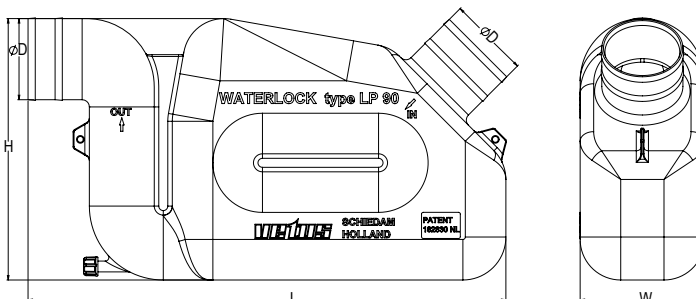
- Suitable for exhaust hose with internal diameter of $\varnothing 2$ " (50 mm), 2³/₈" (60 mm), 3" (75 mm) or 3¹/₂" (90 mm)



WLOCKL50S

WLOCKLP

Type	Capacity (gal.)	A inch (mm)	B inch (mm)	Ø (D) inch (mm)
WLOCKL50S	2.77	20 ⁷ / ₈ x 5 ⁷ / ₁₆ (530 x 138)	11 ⁷ / ₁₆ (290)	2 (50)
WLOCKLP60	2.77	20 ⁷ / ₈ x 5 ⁷ / ₁₆ (530 x 138)	11 ⁷ / ₁₆ (290)	2 ³ / ₈ (60)
WLOCKLP75	2.77	20 ⁷ / ₈ x 5 ⁷ / ₁₆ (530 x 138)	11 ⁷ / ₁₆ (290)	3 (75)
WLOCKLP90	2.77	20 ⁷ / ₈ x 5 ⁷ / ₁₆ (530 x 138)	11 ⁷ / ₁₆ (290)	3 ¹ / ₂ (90)





Waterlocks

Long exhaust systems

Sometimes the exhaust line is so long that an extra large capacity waterlock is required to prevent water from running back into the engine. The VETUS waterlock type LS is the ideal solution.

Type LSSA

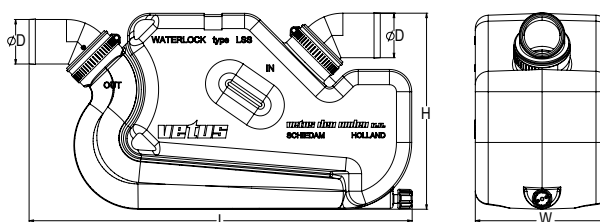
For standard hose connections

- Suitable for exhaust hose with internal diameter of $\varnothing 1\frac{3}{16}$ " (40 mm), $1\frac{3}{4}$ " (45 mm) or 2" (50 mm)
- 360° Rotating inlet and outlet stubs
- Comes with one securing strap



LSSA

Type	Capacity (gal.)	A inch (mm)	B inch (mm)	Ø (D) inch (mm)
LSS40A	1.25	16 ¹⁵ / ₁₆ x 6 (430 x 152)	8 ⁷ / ₈ (225)	1 ⁹ / ₁₆ (40)
LSS45A	1.25	16 ¹⁵ / ₁₆ x 6 (430 x 152)	8 ⁷ / ₈ (225)	1 ³ / ₄ (45)
LSS50A	1.25	16 ¹⁵ / ₁₆ x 6 (430 x 152)	8 ⁷ / ₈ (225)	2 (50)



Type LSL

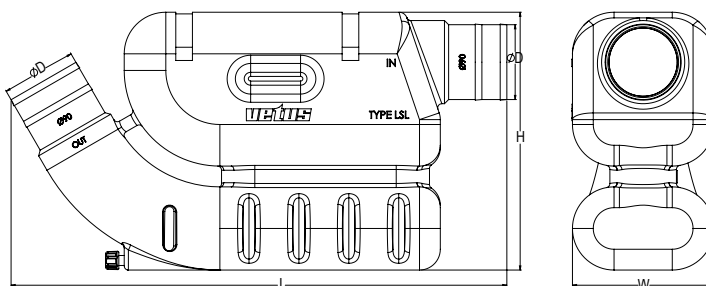
For long relatively straight exhaust runs

- Suitable for exhaust hose with internal diameter of $\varnothing 2\frac{3}{8}$ " (60 mm), 3" (75 mm) or 3¹/₂" (90 mm)
- Non-rotating inlet and outlet connections
- Comes with two securing straps



LSL

Type	Capacity (gal.)	A inch (mm)	B inch (mm)	Ø (D) inch (mm)
LSL60	4.23	23 ⁷ / ₁₆ x 6 ¹¹ / ₁₆ (596 x 170)	12 ³ / ₁₆ (310)	2 ³ / ₈ (60)
LSL75	4.23	23 ⁷ / ₁₆ x 6 ¹¹ / ₁₆ (596 x 170)	12 ³ / ₁₆ (310)	3 (75)
LSL90	4.23	23 ⁷ / ₁₆ x 6 ¹¹ / ₁₆ (596 x 170)	12 ³ / ₁₆ (310)	3 ¹ / ₂ (90)

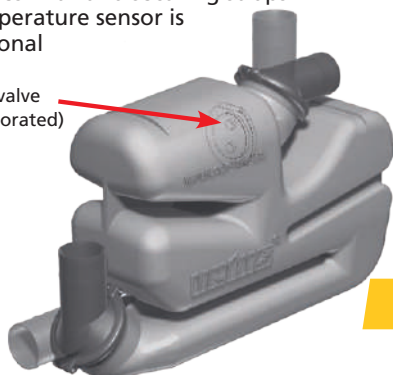


Type LSG

With incorporated check valve for extra security

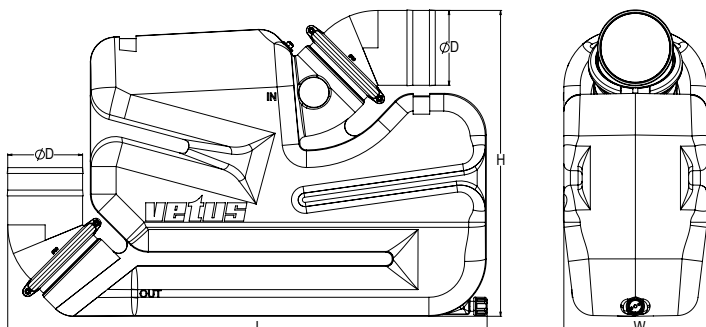
- Suitable for exhaust hose with internal diameter of $\varnothing 2\frac{3}{8}$ " (60 mm), 3" (75 mm) or 3¹/₂" (90 mm)
- 360° Rotating inlet and outlet stubs
- Exchangeable 2⁹/₁₆" (65 mm) hose connection (SET00025) can be ordered separately
- Comes with two securing straps
- Temperature sensor is optional

Check valve (incorporated)



LSG

Type	Capacity (gal.)	A inch (mm)	B inch (mm)	Ø (D) inch (mm)
LSG60	4.5	22 ³ / ₄ x 6 ¹¹ / ₁₆ (596 x 170)	14 ¹ / ₂ (368)	2 ³ / ₈ (60)
LSG75	4.5	22 ³ / ₄ x 6 ¹¹ / ₁₆ (596 x 170)	14 ¹ / ₂ (368)	3 (75)
LSG90	4.5	22 ³ / ₄ x 6 ¹¹ / ₁₆ (596 x 170)	14 ¹ / ₂ (368)	3 ¹ / ₂ (90)



Exhaust systems

Dual stage waterlocks

Type NLP

Superior silencing, minimal back pressure

Our NLP waterlocks are of dual stage construction featuring upper and lower chambers with a horizontal partition plate and a riser tube through the center. The installation of the exhaust system, even in confined engine spaces, is greatly simplified due to the 360° rotating top chamber and rotating inlet and outlet connectors. For optimum silencing of exhaust noise you can also use a VETUS muffler and gooseneck, after the waterlock.

Including mounting brackets for bulkhead and floor mounts.



NLP50S*

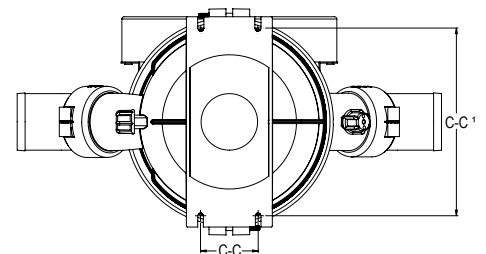
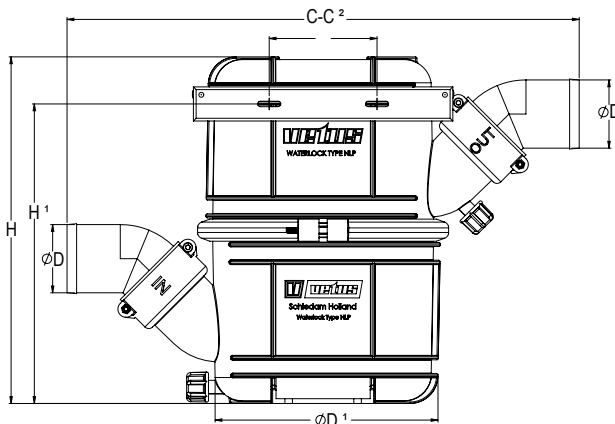


NLP

Specifications

- Type NLP40/45/50 has an exhaust hose with inside diameter of $\varnothing 1\frac{1}{16}$ " , $1\frac{3}{4}$ " or 2" (40, 45 or 50 mm) with a capacity of 1.2 gal. (4.5 liters)
- Type NLP60/65/75/90/50S has an exhaust hose with inside diameter of $\varnothing 2$ " , $2\frac{3}{8}$ " , $2\frac{1}{2}$ " 3" or $3\frac{1}{2}$ " (50, 60, 65, 75 or 90 mm) with a capacity of 2.6 gal. (10 liters)

Type	Capacity gal. (liter)	Hose I.D.			L inch (mm)	H inch (mm)	H ¹ inch (mm)	\varnothing C-C inch (mm)	\varnothing C-C ¹ inch (mm)	\varnothing C-C ² inch (mm)
		\varnothing D inch (mm)	\varnothing D ¹ inch (mm)	\varnothing D ² inch (mm)						
NLP40	1.2 (4.5)	$1\frac{9}{16}$ (40)	$6\frac{1}{2}$ (165)	$15\frac{5}{32}$ (385)	10 (254)	$8\frac{11}{16}$ (220)	2 (50.5)	$7\frac{5}{16}$ (186)	$3\frac{1}{8}$ (79)	
NLP45	1.2 (4.5)	$1\frac{3}{4}$ (45)	$6\frac{1}{2}$ (165)	$15\frac{5}{32}$ (385)	10 (254)	$8\frac{11}{16}$ (220)	2 (50.5)	$7\frac{5}{16}$ (186)	$3\frac{1}{8}$ (79)	
NLP50	1.2 (4.5)	2 (50)	$6\frac{1}{2}$ (165)	$15\frac{5}{32}$ (385)	10 (254)	$8\frac{11}{16}$ (220)	2 (50.5)	$7\frac{5}{16}$ (186)	$3\frac{1}{8}$ (79)	
NLP50S	2.6 (10)	2 (50)	$8\frac{17}{64}$ (210)	$20\frac{9}{32}$ (515)	$14\frac{1}{4}$ (362)	$12\frac{5}{8}$ (320)	3 (75.5)	$9\frac{7}{16}$ (240)	$3\frac{1}{8}$ (79)	
NLP60	2.6 (10)	$2\frac{3}{8}$ (60)	$8\frac{17}{64}$ (210)	$20\frac{9}{32}$ (515)	$14\frac{1}{4}$ (362)	$12\frac{5}{8}$ (320)	3 (75.5)	$9\frac{7}{16}$ (240)	$3\frac{1}{8}$ (79)	
NLP65	2.6 (10)	$2\frac{1}{2}$ (65)	$8\frac{17}{64}$ (210)	$20\frac{9}{32}$ (515)	$14\frac{1}{4}$ (362)	$12\frac{5}{8}$ (320)	3 (75.5)	$9\frac{7}{16}$ (240)	$3\frac{1}{8}$ (79)	
NLP75	2.6 (10)	3 (75)	$8\frac{17}{64}$ (210)	$20\frac{9}{32}$ (515)	$14\frac{1}{4}$ (362)	$12\frac{5}{8}$ (320)	3 (75.5)	$9\frac{7}{16}$ (240)	$3\frac{1}{8}$ (79)	
NLP90	2.6 (10)	$3\frac{1}{2}$ (90)	$8\frac{17}{64}$ (210)	$20\frac{9}{32}$ (515)	$14\frac{1}{4}$ (362)	$12\frac{5}{8}$ (320)	3 (75.5)	$9\frac{7}{16}$ (240)	$3\frac{1}{8}$ (79)	



Dimensions: plus or minus 2%



Waterlock/Muffler

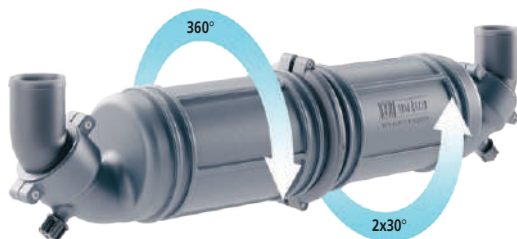
Designed for horizontal installation

The body of this waterlock / muffler consists of two rotatable chambers and fully rotatable hose connections, ensuring simple and time saving installation in a wide range of applications.

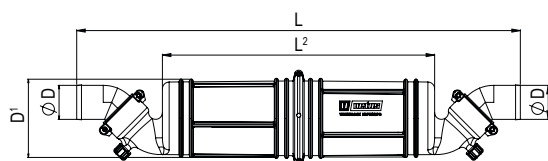
Type NLPH

Suitable for a wide range of applications

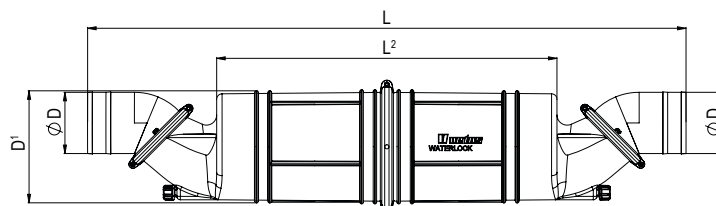
- Suitable for \varnothing 1⁹/₁₆" , 1³/₄" , 2" , 2³/₈" , 3" or 3¹/₂" (40, 45, 50, 60, 75 or 90 mm) internal hose diameters
- Comes with two securing straps
- Exchangeable 2⁹/₁₆" (65 mm) hose connection (SET00025) can be ordered separately



NLPH



Type 40, 45, 50



Type 60, 75, 90

Type	Capacity gal.	Hose I.D.		L	L ²
		\varnothing (D)	\varnothing D ¹		
NLPH40	0.8	1 ⁹ / ₁₆ (40)	4 ²¹ / ₆₄ (110)	25 ⁴³ / ₆₄ (652)	15 ³ / ₄ (400)
NLPH45	0.8	1 ³ / ₄ (45)	4 ²¹ / ₆₄ (110)	25 ⁴³ / ₆₄ (652)	15 ³ / ₄ (400)
NLPH50	0.8	2 (50)	4 ²¹ / ₆₄ (110)	25 ⁴³ / ₆₄ (652)	15 ³ / ₄ (400)
NLPH60*	2.6	2 ³ / ₈ (60)	6 ⁷ / ₆₄ (155)	34 ³⁹ / ₆₄ (879)	19 ¹¹ / ₁₆ (500)
NLPH75*	2.6	3 (75)	6 ⁷ / ₆₄ (155)	34 ³⁹ / ₆₄ (879)	19 ¹¹ / ₁₆ (500)
NLPH90*	2.6	3 ¹ / ₂ (90)	6 ⁷ / ₆₄ (155)	34 ³⁹ / ₆₄ (879)	19 ¹¹ / ₁₆ (500)

Type NLP3

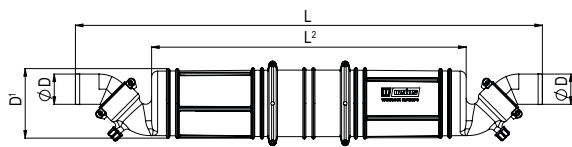
The quietest waterlock in the world!

Due to its unique three chamber technology it has a sound reduction of an incredible 10dB more than the traditional waterlocks. Its rotatable chambers and hose connections ensure a quick and simple installation even in the most confined spaces.

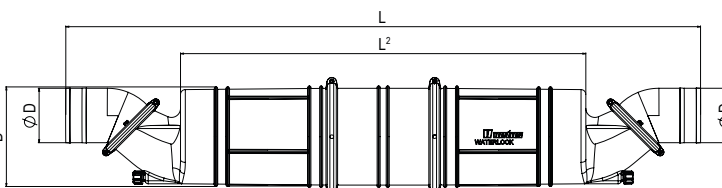
- Suitable for hose connections to suit internal diameters of \varnothing 1⁹/₁₆" , 1³/₄" , 2" , 2³/₈" , 3" or 3¹/₂" (40, 45, 50, 60, 75 or 90 mm)
- Comes with two securing straps
- Exchangeable 2⁹/₁₆" (65 mm) hose connection (SET00025) can be ordered separately



NLP3



Type 40, 45, 50



Type 60, 75, 90

Type	Capacity gal.	Hose I.D.		L	L ²
		\varnothing D	\varnothing D ¹		
NLP340	1.3	1 ⁹ / ₁₆ (40)	4 ²¹ / ₆₄ (110)	30 ²⁵ / ₆₄ (772)	20 ¹⁵ / ₃₂ (520)
NLP345	1.3	1 ³ / ₄ (45)	4 ²¹ / ₆₄ (110)	30 ²⁵ / ₆₄ (772)	20 ¹⁵ / ₃₂ (520)
NLP350	1.3	2 (50)	4 ²¹ / ₆₄ (110)	30 ²⁵ / ₆₄ (772)	20 ¹⁵ / ₃₂ (520)
NLP360*	3.4	2 ³ / ₈ (60)	6 ⁷ / ₆₄ (155)	41 ¹¹ / ₃₂ (1050)	26 ³ / ₈ (670)
NLP375*	3.4	3 (75)	6 ⁷ / ₆₄ (155)	41 ¹¹ / ₃₂ (1050)	26 ³ / ₈ (670)
NLP390*	3.4	3 ¹ / ₂ (90)	6 ⁷ / ₆₄ (155)	41 ¹¹ / ₃₂ (1050)	26 ³ / ₈ (670)
NLP36015L*	15	2 ³ / ₈ (60)	6 ⁷ / ₆₄ (155)	47 ¹ / ₄ (1200)	32 ³¹ / ₆₄ (825)
NLP37515L*	15	3 (75)	6 ⁷ / ₆₄ (155)	47 ¹ / ₄ (1200)	32 ³¹ / ₆₄ (825)
NLP39015L*	15	3 ¹ / ₂ (90)	6 ⁷ / ₆₄ (155)	47 ¹ / ₄ (1200)	32 ³¹ / ₆₄ (825)

Exhaust systems

Waterlocks specifically for larger boats

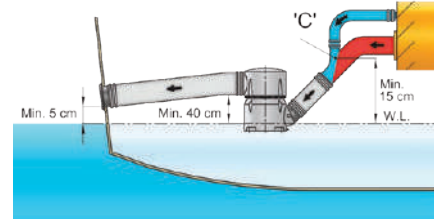
Excellent sound reduction, minimal back pressure

This type of waterlock is designed for modern high performance boats with one or two large engines which have little space to spare in the engine room. The outlet connection at the top can rotate through 360° and the inlet connection is at an angle of 45° upward. Type MG can only be installed in water injected exhaust systems. Its body is entirely made of synthetic materials, therefore not susceptible to corrosion or galvanic action.

Type MG

Specifications

- Excellent sound reduction
- Minimal back pressure
- Drain valve for winter storage
- Suitable for Ø 3½", 4", 5", 6", 8" or 10" (90, 102, 127, 152, 209 or 250 mm) internal hose diameters
- Capacities of 6.08, 19.8 or 34.3 gallon (23, 75 or 130 liter)
- Drain thread size M12
- Temperature sensor is optional



MGP

Type	Capacity (gal.)	Hose I.D. Ø D inch (mm)	Hose I.D. Ø D¹ inch (mm)	Ø D² inch (mm)	H inch (mm)	C-C inch (mm)	C-C¹ inch (mm)
MGP9090	6.08	3½ (90)	3½ (90)	10½ (270)	17½ (450)	8½ (213.5)	8½ (213.5)
MGP102102	6.08	4 (102)	4 (102)	10½ (270)	17½ (450)	8½ (213.5)	8½ (213.5)
MGP5455	6.08	5 (127)	5 (127)	10½ (270)	17½ (450)	8½ (213.5)	8½ (213.5)
MGP102127	6.08	4 (102)	5 (127)	10½ (270)	17½ (450)	8½ (213.5)	8½ (213.5)



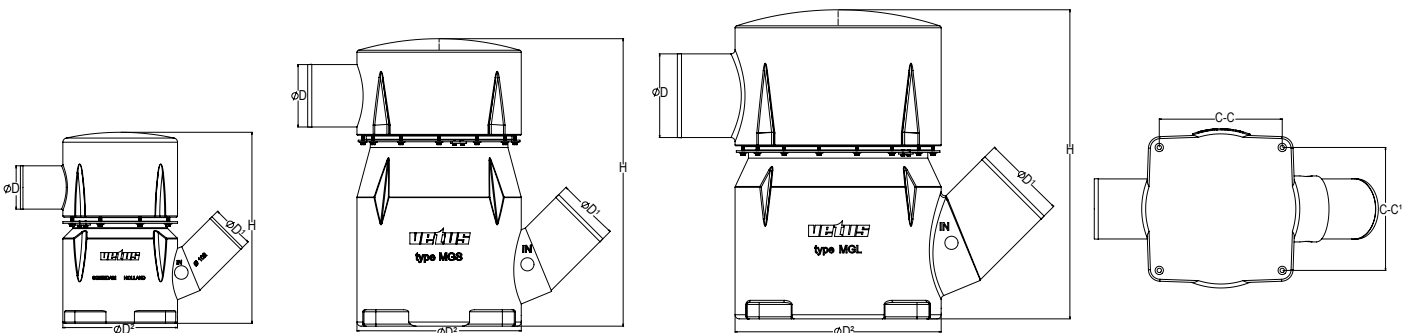
MGS

Type	Capacity (gal.)	Hose I.D. Ø D inch (mm)	Hose I.D. Ø D¹ inch (mm)	Ø D² inch (mm)	H inch (mm)	C-C inch (mm)	C-C¹ inch (mm)
MGS5455A	19.8	5 (127)	5 (127)	15¾ (400)	27¾ (700)	8½ (213.5)	8½ (213.5)
MGS5456A	19.8	5 (127)	6 (152)	15¾ (400)	27¾ (700)	8½ (213.5)	8½ (213.5)
MGS6456A	19.8	6 (152)	6 (152)	15¾ (400)	27¾ (700)	8½ (213.5)	8½ (213.5)



MGL

Type	Capacity (gal.)	Hose I.D. Ø D inch (mm)	Hose I.D. Ø D¹ inch (mm)	Ø D² inch (mm)	H inch (mm)	C-C inch (mm)	C-C¹ inch (mm)
MGL6458A	34.3	6 (152)	8 (203)	19½ (500)	29¾ (750)	15½ (382)	15½ (382)
MGL8458A	34.3	8 (203)	8 (203)	19½ (500)	29¾ (750)	15½ (382)	15½ (382)
MGL84510A	34.3	8 (203)	8 (203)	19½ (500)	29¾ (750)	15½ (382)	15½ (382)



Note: For a minimum order of 10 pieces, we can supply these waterlocks with inlet or outlet connection at an angle of 0°, 15° or 30°.

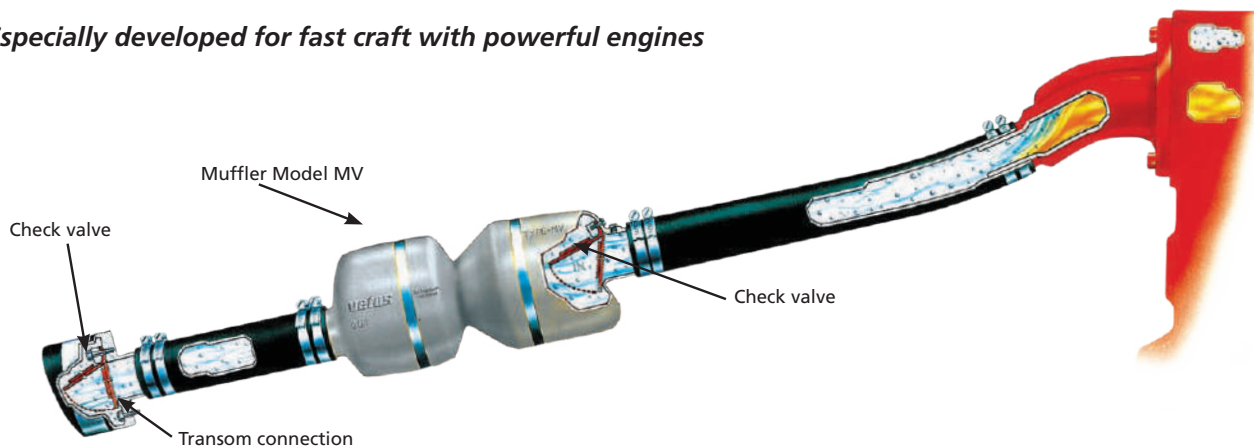
To optimise the sound reduction, flexible mounts for the waterlocks MG and HPW can be used. Please see page 131 for more information.





Exhaust systems for high-performance crafts

Especially developed for fast craft with powerful engines



This system is perfect for high-speed craft with powerful engines without available space for installation of a waterlock and/or gooseneck. By using one of these compact mufflers, exhaust noise reduction is achieved with minimal back pressure. All parts are made of synthetic materials, corrosion-free and lightweight.

The transom connections for this system are available in stainless steel (AISI 316) or reinforced black plastic. Muffler type MV and the transom connection are provided with a check valve which prevents the seawater from flowing into the engine.

Type MV

Specifications

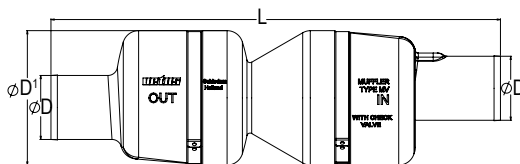
- For hose diameters \varnothing 3 1/2", 4", 5" and 6" (90, 100, 125 and 150 mm)
- Comes with stainless steel (AISI 316) mounting brackets
- The optional temperature sensor XHSM is recommended, see page 132

Connection point for temperature sensor



MV

Type	Capacity (gal.)	Hose I.D.		L
		\varnothing D inch (mm)	\varnothing D' inch (mm)	
MV090	3	3 1/2" (90)	8 1/16" (210)	27 19/32" (702)
MV100	3	4" (100)	8 1/16" (210)	27 19/32" (702)
MV125	9.8	5" (125)	12 19/32" (320)	35 13/16" (910)
MV150	9.8	6" (150)	12 19/32" (320)	35 13/16" (910)



Type MF

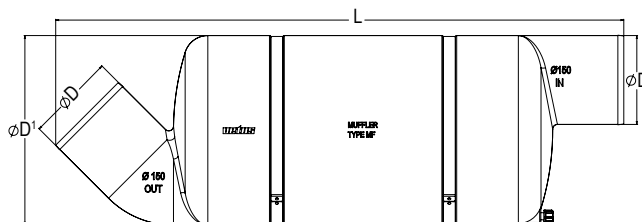
Specifications

- For hose diameters \varnothing 3 1/2", 4", 5" and 6" (90, 102, 127 and 152 mm)
- Comes with stainless steel (AISI 316) mounting brackets



MF

Type	Capacity (gal.)	Hose I.D.		L
		\varnothing D inch (mm)	\varnothing D' inch (mm)	
MF090	3.5	3 1/2" (90)	8 1/16" (210)	28 19/32" (728)
MF100	3.5	4" (100)	8 1/16" (210)	28 15/16" (735)
MF125	11.5	5" (125)	12 19/32" (320)	37" (940)
MF150	11.5	6" (150)	12 19/32" (320)	37 13/16" (959)



Note: Both types should be installed exclusively in combination with an approved reinforced rubber exhaust hose (see pages 130 and 131).



Exhaust systems

Waterlocks specifically for commercial boats Heavy Duty Line



Heavy Duty waterlocks

Made of the special blended composite NAVIDURIN® - which is temperature resistant up to 500 °F (260 °C) - these Heavy Duty waterlocks outperform standard GRP materials by 170%! The same applies for the thermal resistance to deformation under pressure. For the outperforming characteristics of the composite NAVIDURIN®, VETUS received LLOYD's approval. We offer two types of HD waterlocks; the NLPHD 1.2 - 2.6 gal (4.5 - 10 L) and the HPW 14 gal (55 L).

The NLP waterlock design is already known for its extraordinary noise reduction features, versatile installation options and extremely low back pressure. Made from NAVIDURIN®, this product can meet any challenge. The Heavy Duty Line is therefore unique in this market! A more cost effective and technically superior exhaust component, even compared with GRP or stainless steel waterlocks. The HPW series is perfect for applications where the system is put to the test such as commercial or coastguard vessels.

For specifications see next page.



NLPHD



HPW

Specifications	VETUS Heavy Duty Composite (NAVIDURIN®)	GRP	Class 1 Epoxy Vinyl Ester resin
Material temperature resistance	500°F (260°C)	302°F (150°C)	345°F (174°C)
Continuous operating temperature	356°F (180°C)	248°F (120°C)	284°F (140°C)
Maximum operating temperature	482°F (250°C)	302°F (150°C)	345°F (174°C)
Temperature for deflection under load (1.8 MPa, 18 Bar, 260 psi)	482°F (250°C)	248°F (120°C)	284°F (140°C)
Tensile strength	190 MPa	100 MPa	114 MPa
Flexural strength	300 MPa	140 MPa	167 MPa





Waterlocks specifically for commercial boats Heavy Duty Line



NLPHD

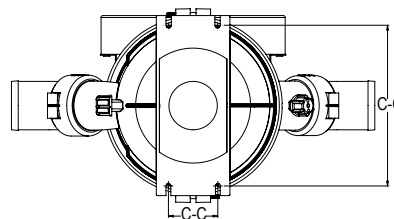
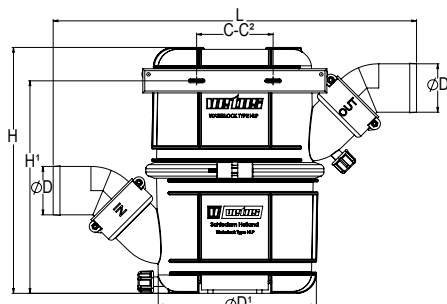
Specifications

- Suitable for Ø 1⁹/₁₆" , 1³/₄" , 2" , 2³/₈" , 2⁹/₁₆" 3" , 3¹/₂" (40, 45, 50, 60, 65, 75 and 90 mm) internal hose diameters
- Special composite blend (NAVIDURIN®) is capable of handling temperatures up to 500 °F (260 °C)
- 360° Rotating bodies and hose connections (infinite connection possibilities)
- Comes with floor and bulkhead mounting brackets



NLPHD

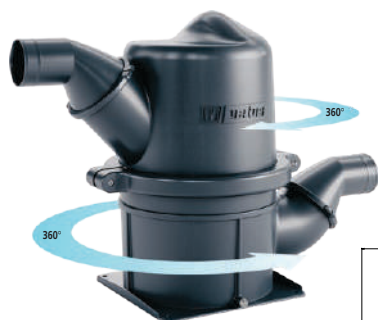
Type	Capacity (gal.)	Hose I.D. Ø D inch (mm)	Ø D ¹ inch (mm)	L inch (mm)	H inch (mm)	H ¹ inch (mm)	Ø C-C inch (mm)	Ø C-C ¹ inch (mm)	Ø C-C ² inch (mm)
NLP40HD	1.2	1 ⁹ / ₁₆ (40)	6 ¹ / ₂ (165)	15 ⁵ / ₃₂ (385)	10 (254)	8 ¹¹ / ₁₆ (220)	2 (50.5)	7 ⁵ / ₁₆ (186)	3 ¹ / ₈ (79)
NLP45HD	1.2	1 ³ / ₄ (45)	6 ¹ / ₂ (165)	15 ⁵ / ₃₂ (385)	10 (254)	8 ¹¹ / ₁₆ (220)	2 (50.5)	7 ⁵ / ₁₆ (186)	3 ¹ / ₈ (79)
NLP50HD	1.2	2 (50)	6 ¹ / ₂ (165)	15 ⁵ / ₃₂ (385)	10 (254)	8 ¹¹ / ₁₆ (220)	2 (50.5)	7 ⁵ / ₁₆ (186)	3 ¹ / ₈ (79)
NLP50SHD	2.6	2 (50)	8 ¹⁷ / ₆₄ (210)	20 ⁹ / ₃₂ (515)	14 ¹ / ₄ (362)	12 ⁵ / ₈ (320)	3 (75.5)	9 ⁷ / ₁₆ (240)	3 ¹ / ₈ (79)
NLP60HD	2.6	2 ³ / ₈ (60)	8 ¹⁷ / ₆₄ (210)	20 ⁹ / ₃₂ (515)	14 ¹ / ₄ (362)	12 ⁵ / ₈ (320)	3 (75.5)	9 ⁷ / ₁₆ (240)	3 ¹ / ₈ (79)
NLP65HD	2.6	2 ⁹ / ₁₆ (65)	8 ¹⁷ / ₆₄ (210)	20 ⁹ / ₃₂ (515)	14 ¹ / ₄ (362)	12 ⁵ / ₈ (320)	3 (75.5)	9 ⁷ / ₁₆ (240)	3 ¹ / ₈ (79)
NLP75HD	2.6	3 (75)	8 ¹⁷ / ₆₄ (210)	20 ⁹ / ₃₂ (515)	14 ¹ / ₄ (362)	12 ⁵ / ₈ (320)	3 (75.5)	9 ⁷ / ₁₆ (240)	3 ¹ / ₈ (79)
NLP90HD	2.6	3 ¹ / ₂ (90)	8 ¹⁷ / ₆₄ (210)	20 ⁹ / ₃₂ (515)	14 ¹ / ₄ (362)	12 ⁵ / ₈ (320)	3 (75.5)	9 ⁷ / ₁₆ (240)	3 ¹ / ₈ (79)



HPW

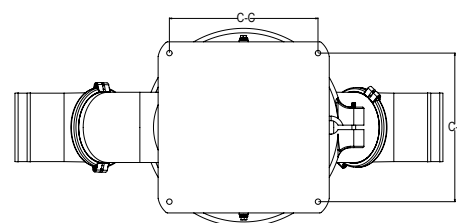
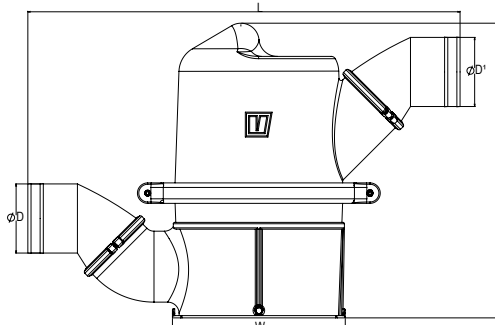
Specifications

- Suitable for Ø 4¹/₆₄, 5 and 5⁶³/₆₄" (102, 127 and 152 mm) internal hose diameters
- Special composite blend (NAVIDURIN®) is capable of handling temperatures up to 500 °F (260 °C)
- High capacity waterlift design providing complete security for your engine
- Excellent sound attenuation with minimal back pressure
- Rotating body and hose connections for easy installation
- With integrated mounting plate
- HPW is equipped with 2 drains of G 1/4 internal thread to simplify access with twin engine installation
- Temperature sensor is optional



HPW

Type	Capacity (gal.)	Hose I.D. Ø D inch (mm)	Hose I.D. Ø D ¹ inch (mm)	L inch (mm)	W inch (mm)	H inch (mm)	Ø C-C inch (mm)	Ø C-C ¹ inch (mm)
HPW102	14.5	4 (102)	4 (102)	37 ³ / ₈ (950)	15 (380)	25 ¹ / ₂ (648)	13 (330)	13 (330)
HPW127	14.5	5 (127)	5 (127)	37 ³ / ₈ (950)	15 (380)	25 ¹ / ₂ (648)	13 (330)	13 (330)
HPW152	14.5	6 (152)	6 (152)	37 ³ / ₈ (950)	15 (380)	25 ¹ / ₂ (648)	13 (330)	13 (330)
HPW127152	14.5	5 (127)	6 (152)	37 ³ / ₈ (950)	15 (380)	25 ¹ / ₂ (648)	13 (330)	13 (330)



Exhaust systems

Muffler

Type DEMPMP

Better noise reduction

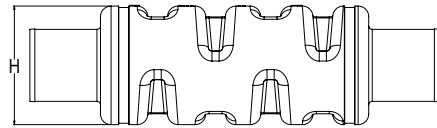
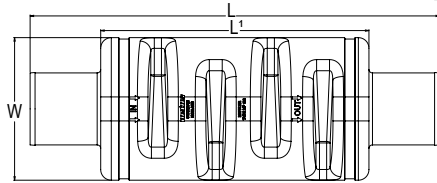
The construction of this muffler causes almost no resistance to the free flow of the exhaust gases. It creates additional mixing of the water inside the exhaust line which results in even better noise reduction.

- Suitable for \varnothing 1 $\frac{3}{16}$ "", 1 $\frac{3}{4}$ "", 2", 2 $\frac{3}{8}$ "", 3", 3 $\frac{1}{2}$ " or 4" (40, 45, 50, 60, 75, 90 or 102 mm) internal hose diameters



DEMPMP

Type	Hose I.D.				
	\varnothing D inch (mm)	L inch (mm)	L' inch (mm)	W inch (mm)	H inch (mm)
DEMPMP40	1 $\frac{3}{16}$ (40)	14 $\frac{1}{2}$ (368)	9 $\frac{29}{64}$ (240)	6 $\frac{1}{4}$ (158)	4 $\frac{1}{4}$ (108)
DEMPMP45	1 $\frac{3}{4}$ (45)	14 $\frac{1}{2}$ (368)	9 $\frac{29}{64}$ (240)	6 $\frac{1}{4}$ (158)	4 $\frac{1}{4}$ (108)
DEMPMP50	2 (51)	14 $\frac{1}{2}$ (368)	9 $\frac{29}{64}$ (240)	6 $\frac{1}{4}$ (158)	4 $\frac{1}{4}$ (108)
DEMPMP60	2 $\frac{3}{8}$ (60)	14 $\frac{1}{2}$ (368)	9 $\frac{29}{64}$ (240)	6 $\frac{1}{4}$ (158)	4 $\frac{1}{4}$ (108)
DEMPMP75	3 (76)	5 $\frac{1}{8}$ (456)	9 $\frac{29}{64}$ (240)	7 $\frac{1}{16}$ (180)	5 $\frac{1}{8}$ (130)
DEMPMP90	3 $\frac{1}{2}$ (90)	5 $\frac{1}{8}$ (456)	9 $\frac{29}{64}$ (240)	7 $\frac{1}{16}$ (180)	5 $\frac{1}{8}$ (130)
DEMPMP100	4 (102)	22 $\frac{13}{16}$ (580)	9 $\frac{29}{64}$ (240)	7 $\frac{61}{64}$ (202)	6 $\frac{5}{8}$ (168)



Muffler and gooseneck

Type NLPG

Perfect combination of a muffler and gooseneck

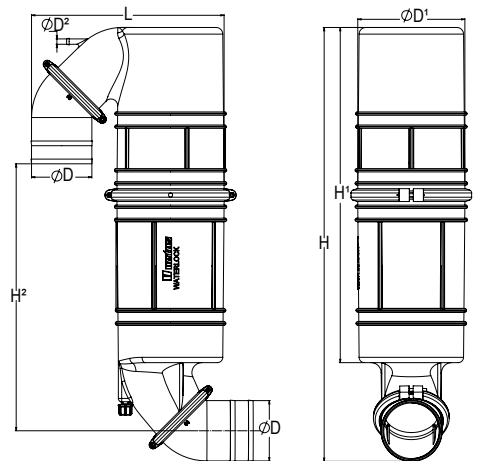
Combining the functions of a muffler and gooseneck saves installation time and space while maintaining the essential qualities of a good exhaust system with impressive negligible back pressure. The gooseneck prevents water back filling the exhaust and the muffler creates additional water mixing to further reduce the exhaust noise.

Specifications

- Suitable for exhaust hose with internal diameter of \varnothing 1 $\frac{3}{16}$ "", 1 $\frac{3}{4}$ "", 2", 2 $\frac{3}{8}$ "", 3" or 3 $\frac{1}{2}$ " (40, 45, 50, 60, 75 or 90 mm)
- Fully rotatable sections and hose connections to ensure easy installation
- Comes with a hose barb to connect the air vent
- Comes with two securing straps
- Exchangeable 2 $\frac{3}{16}$ " (65 mm) hose connection (SET00025) can be ordered separately



NLPG



Type	Capacity (gal.)	Hose I.D. \varnothing D inch (mm)	\varnothing D' inch (mm)	Vent \varnothing D' inch (mm)	L inch (mm)	H inch (mm)	H' inch (mm)	H'' inch (mm)
NLPG40	0.8	1 $\frac{3}{16}$ (40)	4 $\frac{5}{16}$ (110)	$\frac{5}{16}$ (8)	8 $\frac{1}{16}$ (205)	19 $\frac{29}{64}$ (494)	15 $\frac{3}{16}$ (385)	15 $\frac{3}{4}$ (400)
NLPG45	0.8	1 $\frac{3}{4}$ (45)	4 $\frac{5}{16}$ (110)	$\frac{5}{16}$ (8)	8 $\frac{1}{16}$ (205)	19 $\frac{29}{64}$ (494)	15 $\frac{3}{16}$ (385)	15 $\frac{3}{4}$ (400)
NLPG50	0.8	2 (50)	4 $\frac{5}{16}$ (110)	$\frac{5}{16}$ (8)	8 $\frac{1}{16}$ (205)	19 $\frac{29}{64}$ (494)	15 $\frac{3}{16}$ (385)	15 $\frac{3}{4}$ (400)
NLPG60*	2.6	2 $\frac{3}{8}$ (60)	6 $\frac{9}{64}$ (160)	$\frac{5}{16}$ (8)	11 $\frac{1}{4}$ (285,3)	25 $\frac{29}{64}$ (646,4)	15 $\frac{15}{16}$ (405)	19 $\frac{11}{16}$ (500)
NLPG75*	2.6	3 (75)	6 $\frac{9}{64}$ (160)	$\frac{5}{16}$ (8)	11 $\frac{1}{4}$ (285,3)	25 $\frac{29}{64}$ (646,4)	15 $\frac{15}{16}$ (405)	19 $\frac{11}{16}$ (500)
NLPG90*	2.6	3 $\frac{1}{2}$ (90)	6 $\frac{9}{64}$ (160)	$\frac{5}{16}$ (8)	11 $\frac{1}{4}$ (285,3)	25 $\frac{29}{64}$ (646,4)	15 $\frac{15}{16}$ (405)	19 $\frac{11}{16}$ (500)



Gooseneck

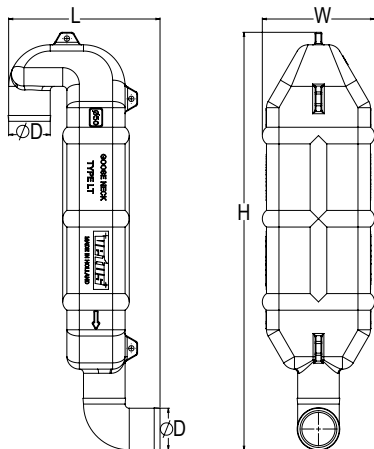
The gooseneck raises the exhaust line above the waterline and provides additional noise reduction. The outlet fits directly to all VETUS rubber transom connectors.

Type WLOCKLT

This gooseneck is suitable for an exhaust hose with an internal diameter of \varnothing 1 $\frac{3}{16}$ "", 1 $\frac{3}{4}$ "", 2" or 2 $\frac{3}{8}$ " (40, 45, 51 or 60 mm). Engines with a 2 $\frac{1}{4}$ " (57 mm) exhaust elbow can be connected to a 2 $\frac{3}{8}$ " (60 mm) VETUS exhaust hose and use 2 $\frac{3}{8}$ " (60 mm) exhaust components.



WLOCKLT



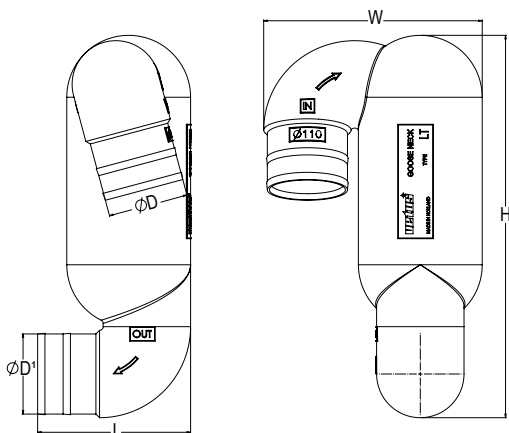
Type	Hose I.D. \varnothing D inch (mm)	L inch (mm)	W inch (mm)	H inch (mm)
WLOCKLT40	1 $\frac{3}{16}$ (40)	7 $\frac{1}{64}$ (182)	5 $\frac{5}{16}$ (135)	19 $\frac{3}{4}$ (502)
WLOCKLT45	1 $\frac{3}{4}$ (45)	7 $\frac{1}{64}$ (182)	5 $\frac{5}{16}$ (135)	19 $\frac{3}{4}$ (502)
WLOCKLT50	2 (51)	7 $\frac{1}{64}$ (182)	5 $\frac{5}{16}$ (135)	19 $\frac{3}{4}$ (502)
WLOCKLT60	2 $\frac{3}{8}$ (60)	7 $\frac{1}{64}$ (182)	5 $\frac{5}{16}$ (135)	19 $\frac{3}{4}$ (502)

Type LT

This type is suitable for an exhaust hose with an internal diameter of \varnothing 3", 3 $\frac{1}{2}$ ", 4", 5" or 6" (76, 90, 102, 127 or 152 mm). Supplied with stainless steel (AISI 316) mounting brackets.



LT



Type	Hose I.D. \varnothing D inch (mm)	Hose I.D. \varnothing D ¹ inch (mm)	L inch (mm)	W inch (mm)	H inch (mm)
LT6575	3 (76)	3 (75)	6 $\frac{1}{8}$ (155)	9 $\frac{1}{4}$ (235)	19 $\frac{3}{4}$ (500)
LT7575	3 (75)	3 (75)	6 $\frac{1}{8}$ (155)	9 $\frac{1}{4}$ (235)	19 $\frac{3}{4}$ (500)
LT9090	3 $\frac{1}{2}$ (90)	3 $\frac{1}{2}$ (90)	8 $\frac{1}{4}$ (210)	11 $\frac{7}{8}$ (300)	20 $\frac{3}{4}$ (525)
LT90110	3 $\frac{1}{2}$ (90)	4 $\frac{5}{16}$ (110)	8 $\frac{1}{4}$ (210)	11 $\frac{7}{8}$ (300)	20 $\frac{3}{4}$ (525)
LT102	4 (102)	4 (102)	8 $\frac{1}{4}$ (210)	11 $\frac{7}{8}$ (300)	20 $\frac{3}{4}$ (525)
LT110110	4 $\frac{5}{16}$ (110)	4 $\frac{5}{16}$ (110)	8 $\frac{1}{4}$ (210)	11 $\frac{7}{8}$ (300)	20 $\frac{3}{4}$ (525)
LT127	5 (127)	5 (127)	10 $\frac{7}{8}$ (275)	15 (380)	22 $\frac{1}{4}$ (565)
LT152	6 (152)	6 (152)	10 $\frac{7}{8}$ (275)	15 (380)	22 $\frac{1}{4}$ (565)



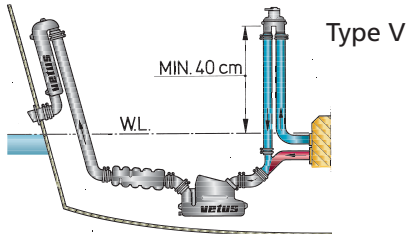
Exhaust systems

Air vents

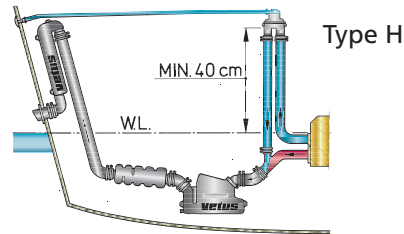
Anti-siphoning

When the cooling water injection point is less than 6" (15 cm) above the waterline, the cooling system can siphon water through the intake when the engine is turned off. Water can siphon into the exhaust system and even into the engine itself. This can be prevented by using an air vent.

Type ASDV with pressure valve



Type ASDH with ventilation hose



Type ASDV with pressure valve

Less maintenance is needed

This air vent is made of synthetic material and is exchangeable with type AIRVENT due to the same fixed holes centers. It has a silicone anti-siphon pressure valve and is low-maintenance.

Specifications

- Types ASDV and type AIRVENTV are suitable for hose connections with an internal diameter of \varnothing 1/2", 3/4", 1" and 1 1/4" (13, 19, 25 and 32 mm)
- Type ASD38V can be used with hoses with an internal diameter of \varnothing 1 1/2" (38 mm) and is ideal for toilets or holding tanks which are installed below the waterline

Type ASDH with ventilation hose

Constant bleed of cooling water

This air vent has a hose connection to the outside of the hull and has a constant bleed of cooling water through the hose while the engine is running. Type H comes with a skin fitting, hose clamps and four meter of hose.

Specifications

- Types ASDH and type AIRVENTH are suitable for \varnothing 1/2", 3/4", 1" and 1 1/4" (13, 19, 25 and 32 mm) internal hose connections
- Type ASD38H has a \varnothing 1 1/2" (38 mm) hose connection and is ideal for toilets or holding tanks which are installed below the waterline



Type	Description	Hose I.D. Ø inch (mm)	VENT Ø D inch (mm)	L inch (mm)	W inch (mm)	H inch (mm)	H' inch (mm)	C-C inch (mm)
ASDV	Anti syphon device with valve	1/2 / 3/4 / 1 / 1 1/4 (13 / 19 / 25 / 32)	-	2 1/16 (68)	3 7/8 (96)	5 1/4 (133)	1 9/16 (40)	3 7/16 (87)
ASDH	Anti syphon device with hose	1/2 / 3/4 / 1 / 1 1/4 (13 / 19 / 25 / 32)	5/16 (8)	2 1/16 (68)	3 7/8 (96)	5 1/4 (133)	1 9/16 (40)	3 7/16 (87)
ASDVS	Spare set: ASDV valves							
MBSET02	Mounting bracket set for ASDV, ASDVH, AIRVENTV, AIRVENTH							



Air vents

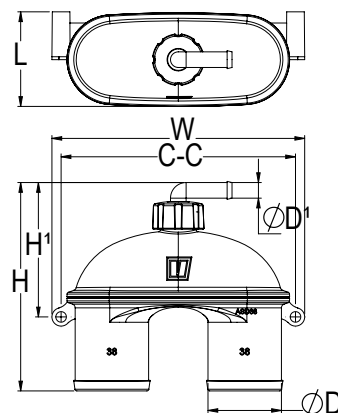
Type ASD



ASD38V



ASD38H



Type	Description	Hose I.D. Ø D inch (mm)	VENT Ø D ¹ inch (mm)	L inch (mm)	W inch (mm)	H inch (mm)	H ¹ inch (mm)	C-C inch (mm)
ASD38V	Anti syphon device with valve	1 1/2 (38)	-	1 7/8 (48)	5 1/16 (129)	4 3/16 (107)	2 11/16 (69)	4 23/32 (120)
ASD38H	Anti syphon device with hose	1 1/2 (38)	5/16 (8)	1 7/8 (48)	5 1/16 (129)	4 3/16 (107)	2 11/16 (69)	4 23/32 (120)
ASDVS	Spare set: ASDV valves							
MBSET01	Mounting bracket set M5 x 35 for ASD38V, ASD38H							

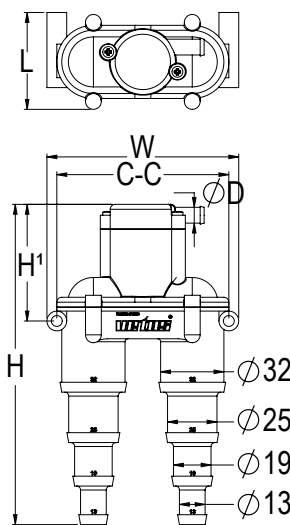
Type AIRVENT



AIRVENTV



AIRVENTH



Type	Description	Hose I.D. Ø inch (mm)	VENT Ø D inch (mm)	L inch (mm)	W inch (mm)	H inch (mm)	H ¹ inch (mm)	C-C inch (mm)
AIRVENTV	Anti syphon device with valve	1/2 / 3/4 / 1 / 1 1/4 (13 / 19 / 25 / 32)	-	1 5/16 (50)	3 7/8 (98)	6 3/8 (162)	2 5/16 (59)	3 27/64 (87)
AIRVENTH	Anti syphon device with hose	1/2 / 3/4 / 1 / 1 1/4 (13 / 19 / 25 / 32)	5/16 (8)	1 5/16 (50)	3 7/8 (98)	6 3/8 (162)	2 5/16 (59)	3 27/64 (87)
AV006	Replacement valve for AIRVENT							
MBSET02	Mounting bracket set for ASDV, ASDVH, AIRVENTV, AIRVENTH							

For both model ASD and AIRVENT a mounting bracket is available to facilitate installation onto surfaces clad with sound insulation (see page 58). This mounting bracket is supplied with bolts, washers and self-locking nuts to mount the air vent.

MBSET..



Exhaust systems

Gas / water separator

For marine engines and generator sets

The VETUS gas / water separator has a double function. It separates the injected raw cooling water from the exhaust gases and also functions as a gooseneck. Particularly important for generator sets, the separator reduces the exhaust noise and drains the cooling water below the waterline, thus preventing the characteristic splashing sound.

Type LGS 40/45/50/60/75/90

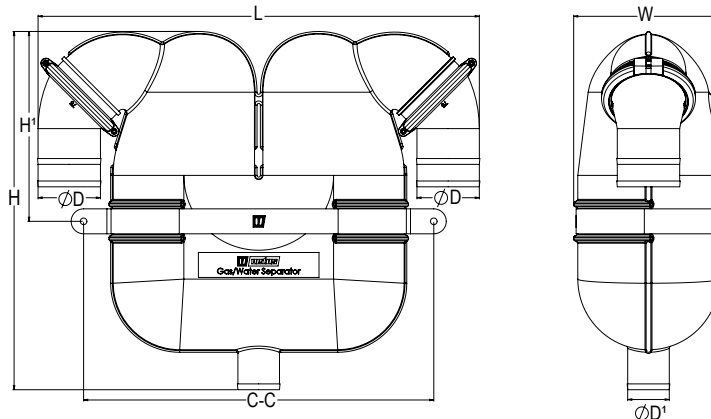
Specifications

- 360° Rotating hose connections for 1⁹/₁₆" , 1³/₄" , 2" , 2³/₈" , 3" or 3¹/₂" (40, 45, 51, 60, 76 or 91 mm) internal hose diameters
- Cooling water drain of 1¹/₂" (38 mm), 1¹⁵/₁₆" (50 mm) or 2¹⁵/₁₆" (75 mm)
- All models come with a stainless steel (AISI 316) mounting strap or a stainless steel (AISI 316) mounting bracket with synthetic straps



LGS

Type	Max. water flow (gal.)	HOSE I.D. Ø D inch (mm)	DRAIN Ø D' inch (mm)	L inch (mm)	W inch (mm)	H inch (mm)	H' inch (mm)	C-C inch (mm)
LGS4038	26.4	1 ⁹ / ₁₆ (40)	1 ¹ / ₂ (38)	16 (406)	5 ⁹ / ₃₂ (134)	14 ⁹ / ₁₆ (370)	7 ¹⁵ / ₁₆ (201)	11 ¹⁵ / ₁₆ (304)
LGS4538	26.4	1 ³ / ₄ (45)	1 ¹ / ₂ (38)	16 (406)	5 ⁹ / ₃₂ (134)	14 ⁹ / ₁₆ (370)	7 ¹⁵ / ₁₆ (201)	11 ¹⁵ / ₁₆ (304)
LGS5038	26.4	1 ¹⁵ / ₁₆ (50)	1 ¹ / ₂ (38)	16 (406)	5 ⁹ / ₃₂ (134)	14 ⁹ / ₁₆ (370)	7 ¹⁵ / ₁₆ (201)	11 ¹⁵ / ₁₆ (304)
LGS6050	48.6	2 ³ / ₈ (60)	1 ¹⁵ / ₁₆ (50)	21 ¹⁷ / ₆₄ (540)	6 ¹¹ / ₁₆ (170)	16 ¹⁷ / ₃₂ (420)	9 (228)	16 ⁹ / ₁₆ (421)
LGS7550	48.6	2 ¹⁵ / ₁₆ (75)	1 ¹⁵ / ₁₆ (50)	21 ¹⁷ / ₆₄ (540)	6 ¹¹ / ₁₆ (170)	16 ¹⁷ / ₃₂ (420)	9 (228)	16 ⁹ / ₁₆ (421)
LGS9075	124.6	3 ¹ / ₂ (90)	2 ¹⁵ / ₁₆ (75)	22 ¹ / ₆₄ (559)	6 ¹¹ / ₁₆ (170)	21 ⁹ / ₆₄ (537)	14 ¹ / ₈ (359)	16 ⁹ / ₁₆ (421)



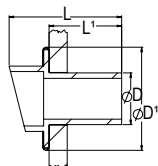


Transom exhaust connections

Easy mounting to transom

Type TRCR

The flexible EPDM rubber connector is mounted to the outside of the transom with a $\frac{3}{32}$ " (2 mm) thick stainless steel (AISI 316) mounting ring. VETUS mufflers and goosenecks with corresponding dimensions fit directly into the rubber sleeve. For connection of the exhaust hose, a plastic connector type SLVBR or SLVBG is required (see page 132 - 133).

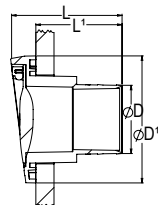


TRCR

Type	For exhaust hose I.D. inch (mm)	Cutout Ø D inch (mm)	D ¹ inch (mm)	L inch (mm)	L ¹ inch (mm)
TRC40R	1 ⁹ / ₁₆ (40)	2 ¹ / ₁₆ (53)	3 ²⁷ / ₆₄ (87)	4 ¹⁵ / ₁₆ (125)	3 ³ / ₈ (86)
TRC45R	1 ³ / ₄ (45)	2 ⁵ / ₁₆ (58)	4 ¹ / ₂ (114)	4 ¹⁵ / ₁₆ (125)	3 ³ / ₈ (86)
TRC50R	2 (51)	2 ¹ / ₂ (63)	4 ¹ / ₂ (114)	4 ¹⁵ / ₁₆ (125)	3 ³ / ₈ (86)
TRC60R	2 ³ / ₈ (60)	2 ⁷ / ₈ (73)	4 ¹ / ₂ (114)	4 ¹⁵ / ₁₆ (125)	3 ³ / ₈ (86)
TRC7590R	3 (76) and 3 ¹ / ₂ (90)	4 ³ / ₈ (111)	6 ⁷ / ₁₆ (164)	5 ¹ / ₈ (130)	3 ⁹ / ₁₆ (90)

Type TRCPV

Type TRCPV has a synthetic body and an integral check valve. The exhaust hose can be fitted directly to these transom connectors.

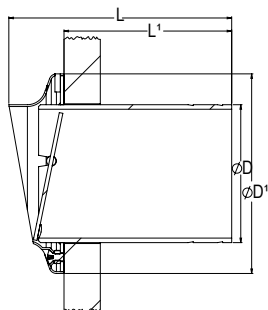


TRCPV

Type	For exhaust hose I.D. inch (mm)	Cutout Ø D inch (mm)	D ¹ inch (mm)	L inch (mm)	L ¹ inch (mm)
TRC40PV	1 ⁹ / ₁₆ (40)	2 ¹ / ₁₆ (52)	3 ¹ / ₂ (88)	4 ¹ / ₈ (105)	2 ⁶¹ / ₆₄ (75)
TRC45PV	1 ³ / ₄ (45)	2 ¹ / ₁₆ (52)	3 ¹ / ₂ (88)	4 ¹ / ₈ (105)	2 ⁶¹ / ₆₄ (75)
TRC50PV	2 (51)	2 ¹¹ / ₁₆ (68)	4 ¹ / ₄ (108)	4 ¹ / ₈ (105)	2 ⁶¹ / ₆₄ (75)
TRC60PV	2 ³ / ₈ (60)	2 ¹¹ / ₁₆ (68)	4 ¹ / ₄ (108)	4 ¹ / ₈ (105)	2 ⁶¹ / ₆₄ (75)
TRC75PV	3 (75)	3 ⁷ / ₈ (97)	5 ¹ / ₂ (140)	4 ¹³ / ₁₆ (123)	3 ⁴⁷ / ₆₄ (95)
TRC90PV	3 ¹ / ₂ (90)	3 ⁷ / ₈ (97)	5 ¹ / ₂ (140)	4 ¹³ / ₁₆ (123)	3 ⁴⁷ / ₆₄ (95)

Type TRCSV

Type TRCSV is made from stainless steel (AISI 316) and has an integral check valve. The exhaust hose can be fitted directly to these transom connectors.

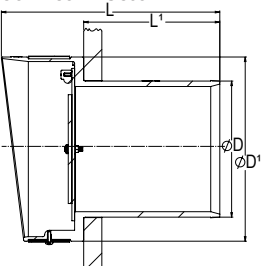


TRCSV

Type	For exhaust hose I.D. inch (mm)	Cutout Ø D inch (mm)	D ¹ inch (mm)	L inch (mm)	L ¹ inch (mm)
TRC40SV	1 ⁹ / ₁₆ (40)	1 ⁵ / ₈ (41)	2 ²⁹ / ₃₂ (74)	3 ⁷ / ₈ (99)	2 ⁶¹ / ₆₄ (75)
TRC45SV	1 ³ / ₄ (45 m)	1 ¹³ / ₁₆ (46)	3 ¹ / ₈ (79)	3 ⁷ / ₈ (99)	2 ⁶¹ / ₆₄ (75)
TRC50SV	2 (51)	2 (51)	3 ⁵ / ₁₆ (84)	3 ⁷ / ₈ (99)	2 ⁶¹ / ₆₄ (75)
TRC60SV	2 ³ / ₈ (60)	2 ⁹ / ₁₆ (61)	3 ¹¹ / ₁₆ (94)	3 ⁷ / ₈ (99)	2 ⁶¹ / ₆₄ (75)
TRC75SV	3 (76)	3 ¹ / ₁₆ (77)	4 ⁵ / ₁₆ (110)	4 ¹³ / ₁₆ (123)	3 ²¹ / ₃₂ (93)
TRC90SV	3 ¹ / ₂ (90)	3 ¹⁹ / ₃₂ (91)	14 ⁷ / ₈ (123)	5 ⁵ / ₈ (143)	4 ²¹ / ₆₄ (110)
TRC100SV	4 (102)	4 ¹ / ₁₆ (103)	5 ¹ / ₂ (140)	6 (152)	4 ³⁹ / ₆₄ (117)
TRC125SV	5 (127)	5 ¹ / ₁₆ (128)	6 ⁵ / ₈ (169)	7 ¹ / ₁₆ (180)	5 ¹ / ₂ (140)
TRC150SV	6 (152)	6 ¹ / ₃₂ (153)	7 ⁵ / ₈ (194)	7 ³ / ₄ (197)	6 ¹ / ₃₂ (153)

Type TC

Type TC is made from black glass reinforced synthetic with a decorative stainless steel (AISI 316) band. The exhaust hose can be fitted directly to this transom connector.



TC

Type	For exhaust hose I.D. inch (mm)	Cutout Ø D inch (mm)	D ¹ inch (mm)	L inch (mm)	L ¹ inch (mm)
TC090	3 ¹ / ₂ (90)	3 ¹¹ / ₁₆ (93)	5 ⁹ / ₁₆ (141)	6 ¹³ / ₁₆ (173)	4 ²¹ / ₆₄ (110)
TC100	4 (102)	4 ¹ / ₁₆ (103)	6 ¹ / ₈ (155)	7 (178)	4 ¹⁷ / ₃₂ (115)
TC125	5 (127)	5 ¹ / ₁₆ (128)	7 (178)	9 ¹ / ₈ (231)	5 ¹ / ₂ (140)
TC150	6 (152)	6 ¹ / ₃₂ (153)	8 (203)	9 ¹ / ₂ (241)	5 ²⁹ / ₃₂ (150)

Exhaust systems

Hoses

Silicone hose type SIHOSE

Extremely high temperature resistant

Type SIHOSE is made of high grade silicone rubber with woven synthetic and an encapsulated steel spiral with an external smooth gloss finish. This flexible hose is highly resistant to ageing and suitable for a wide range of applications (exhaust, cooling and waste water hose). Temperature range of -65°, + 350 °F (-54 to 177 °C) (intermittently up to 482 °F (250 °C)).

Type SIHOSE meets all the requirements of the ISO13363 type Class B and SAE J 2006 R1 standards.



SIHOSE

Type	Internal Ø inch (mm)	External Ø inch (mm)	Weight kg/m	Max. pressure bar	Bending radius inch (mm)	Roll length (m)	HCHDS clamp	HCS clamp
SIHOSE25	1 (25)	1 ³ / ₈ (35)	0,60	5.0	2 ⁷ / ₁₆ (62)	20	HCHDS034	HSC25
SIHOSE32	1 ¹ / ₄ (32)	1 ⁵ / ₈ (41)	0,73	4.5	3 ¹ / ₈ (80)	20	HCHDS040	HSC32
SIHOSE38	1 ¹ / ₂ (38)	1 ⁷ / ₈ (47)	0,85	4.0	3 ³ / ₄ (95)	20	HCHDS047	HSC40
SIHOSE51	2 (51)	2 ³ / ₈ (61)	1,31	4.0	5 ⁷ / ₈ (150)	20	HCHDS059	HSC50
SIHOSE63	2 ¹ / ₂ (63)	2 ¹⁵ / ₁₆ (74)	1,60	3.5	7 ¹ / ₂ (190)	20	HCHDS073	HSC60
SIHOSE76	3 (76)	3 ⁷ / ₁₆ (87)	2,06	3.5	8 ⁷ / ₈ (225)	20	HCHDS085	HSC75
SIHOSE102	4 (102)	4 ⁷ / ₁₆ (113)	2,70	2.0	14 ³ / ₁₆ (360)	20	HCHDS112	HSC110

Rubber exhaust hose type SLANG

Flexible and strong, saving valuable installation time

VETUS exhaust hose type SLANG is the most flexible hose because of the increased spiral reinforcement and the extremely supple rubber. The completely smooth internal surface of the hose will reduce back pressure in the engine. Exhaust hoses with an internal diameter up to Ø 6" (152 mm) have a bending radius of 1,5 x the diameter. Exhaust hoses with an internal diameter of more than Ø 6" (152 mm) have a bending radius of twice the diameter.

Specifications

Certification
Temperature

Lloyds Approved, SAE J2006 R2
Continuous operating temperature range: -22 °F to +212 °F (-30 °C to +100 °C); capable of withstanding brief exposures up to +239 °F (+115 °C).

Construction
Smooth Interior
Application

EPDM rubber hose, high tensile synthetic textile and steel helix reinforcement, EPDM rubber cover.
A flush bore design minimizes back pressure, enhancing flow efficiency and system performance.
Designed for the delivery of wet exhaust gases and seawater in marine engine cooling systems.



SLANG

Type	Internal Ø inch (mm)	External Ø inch (mm)	Weight kg/m	Max. pressure bar	Burst pressure min. (bar)	Bending radius inch (mm)	Roll length (m)	HCHDS clamp	HCS clamp
SLANG30	1 ³ / ₁₆ (30)	1 ¹ / ₂ (38)	0,55	4	12	1 ³ / ₄ (45)	20	HCHDS037	HCS32
SLANG40	1 ⁹ / ₁₆ (40)	1 ⁷ / ₈ (48)	0,79	4	12	2 ³ / ₈ (60)	20	HCHDS047	HCS40
SLANG45	1 ³ / ₄ (45)	2 ¹ / ₁₆ (53)	0,88	4	12	2 ¹¹ / ₁₆ (68)	20	HCHDS051	HCS40
SLANG50	2 (51)	2 ⁹ / ₁₆ (59)	1,0	4	12	3 ¹ / ₁₆ (77)	20	HCHDS059	HCS50
SLANG57	2 ¹ / ₄ (57)	2 ⁹ / ₁₆ (65)	1,1	3.3	10	3 ³ / ₈ (86)	20	HCHDS063	HCS50
SLANG60	2 ³ / ₈ (60)	2 ¹¹ / ₁₆ (68)	1,2	3.3	10	3 ⁹ / ₁₆ (90)	20	HCHDS068	HCS60
SLANG65	2 ⁹ / ₁₆ (65)	2 ⁷ / ₈ (73)	1,3	3.3	10	3 ⁷ / ₈ (98)	20	HCHDS068	HCS60
SLANG75	3 (76)	3 ⁵ / ₁₆ (84)	1,4	3.3	10	4 ¹ / ₂ (114)	20	HCHDS079	HCS75
SLANG90	2 (51)	3 ⁷ / ₈ (98)	1,9	2	6	5 ⁵ / ₁₆ (135)	20	HCHDS097	HCS90
SLANG100	4 (102)	4 ⁵ / ₁₆ (110)	2,3	2	6	6 (153)	20	HCHDS104	HCS110
SLANG110	4 ⁵ / ₁₆ (110)	4 ¹¹ / ₁₆ (119)	2,8	2	6	6 ¹ / ₂ (165)	20	HCHDS112	HCS110
SLANG125	5 (127)	5 ³ / ₈ (137)	3,3	2	6	7 ¹ / ₂ (191)	20	HCHDS130	HCS130
SLANG150	6 (152)	6 ⁷ / ₁₆ (163)	4,4	2	6	9 (228)	20	HCHDS162	HCS150
SLANG200	8 (203)	8 ⁹ / ₁₆ (218)	6,8	2	6	16 (406)	12	HCHDS213	
SLANG250	10 (254)	10 ⁵ / ₈ (270)	8,5	2	6	20 (508)	12	HCHDS260	
SLANG300	12 (305)	12 ¹¹ / ₁₆ (323)	10,8	2	6	23 ⁷ / ₈ (606)	12	HCHDS300	

For a complete overview of our range of hoses see page 466. HCHDS (heavy duty) and HCS clamps are made of stainless steel. For a complete overview of our range of hose clamps see page 440.



Hoses

Rubber exhaust hose type SLANGR

RINA approved and Ultra-Flexible

Certified by RINA, the VETUS SLANGR exhaust hose builds on the trusted "SLANG" design with enhanced spiral reinforcement and extremely supple rubber. In addition, the completely smooth interior reduces engine back pressure.

Specifications

Certification: RINA-approved, ISO 13363

Temperature: Continuous operating temperature range: -22 °F to +212 °F (-30 °C to +100 °C)

Construction: NBR blend rubber hose, high tensile synthetic textile reinforcement with steel helix wire and an abrasion/ ozone-resistant cover.

Smooth Interior: A flush bore design minimizes back pressure, enhancing flow efficiency and system performance.

Application: Suitable for the discharge of gases and fuels used in heating and cooling systems.



SLANGR

Type	Internal Ø inch (mm)	External Ø inch (mm)	Weight kg/m	Max. pressure bar	Burst pressure min. (bar)	Bending radius inch (mm)	Roll length (m)	HCHDS clamp	HCS clamp
SLANG30R	1 ³ / ₁₆ (30)	1 ¹ / ₂ (38)	0,6	2,5	10	1 ³ / ₄ (45)	20	HCHDS037	HCS32
SLANG40R	1 ⁹ / ₁₆ (40)	1 ⁷ / ₈ (48)	0,8	2,5	10	2 ³ / ₈ (60)	20	HCHDS047	HCS40
SLANG60R	2 ³ / ₈ (60)	2 ¹¹ / ₁₆ (68)	1,2	2,5	10	3 ⁹ / ₁₆ (90)	20	HCHDS063	HCS60
SLANG65R	2 ⁹ / ₁₆ (65)	2 ⁷ / ₈ (73)	1,3	2,5	10	3 ⁷ / ₈ (98)	20	HCHDS068	HCS60
SLANG75R	3 (76)	3 ⁵ / ₁₆ (84)	1,7	2,5	10	4 ¹ / ₂ (114)	20	HCHDS079	HCS75
SLANG90R	3 ³ / ₁₆ (90)	3 ⁷ / ₈ (99)	2,0	2,5	10	7 ¹ / ₁₆ (180)	20	HCHDS097	HCS90
SLANG150R	6 (152)	6 ⁷ / ₁₆ (164)	5,9	2,5	10	24 (610)	20	HCHDS162	HCS150

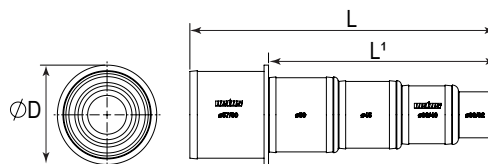
Synthetic hose adapters type HA

These synthetic hose adapter can be cut to the appropriate hose sizes.

Reducing the diameter of the exhaust system will result in a higher back pressure!



HA3060



Type	Hose I.D. inch (mm)	Ø D inch (mm)	L inch (mm)	L' inch (mm)
HA3060	1 ³ / ₁₆ - 1 ⁹ / ₁₆ - 1 ³ / ₄ - 2 - 2 ³ / ₈ (30 - 40 - 45 - 51 - 60)	2 ⁵ / ₈ (67)	8 ¹ / ₈ (207)	6 ¹ / ₁₆ (154)

Flexible mountings for waterlocks

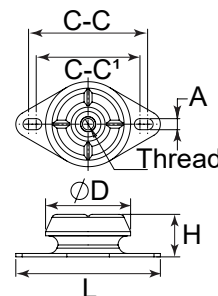
Minimize the noise

These flexible mountings can be used to minimize the noise caused by induced vibrations in the waterlock. Sold by the piece.



MGVB45

MGVB55



Type	Description	L inch (mm)	Ø D inch (mm)	H inch (mm)	C-C inch (mm)	C-C' inch (mm)	A inch (mm)	Thread
MGVB45	Anti vibration mounts for MGP waterlocks up to 77 lb (35 kg)	3 ³ / ₈ (85)	1 ¹⁵ / ₁₆ (50)	1 ¹ / ₄ (32)	2 ³ / ₄ (70)	2 ³ / ₈ (61)	1/4 (6,5)	M8
MGVB55	Anti vibration mounts for MGS, MGL and HPW waterlocks up to 143 lb (65 kg)	3 ³ / ₈ (85)	1 ¹⁵ / ₁₆ (50)	1 ¹ / ₄ (32)	2 ³ / ₄ (70)	2 ³ / ₈ (61)	1/4 (6,5)	M8

Exhaust systems

Accessories

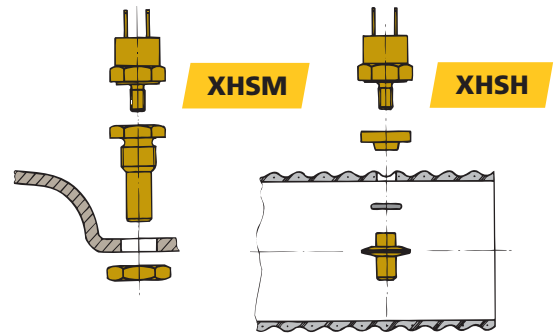
Exhaust temperature alarm

Safety first. Always place an alarm in the exhaust line!

A blockage in the engine water intake or a damaged pump impeller will result in a complete loss, or severe reduction in the volume of cooling water in the exhaust system. In this case the temperature in the exhaust will rise much faster than the temperature of the engine. VETUS always recommends placing an exhaust temperature alarm that provides a visual and audible alarm when the temperature inside the exhaust hose or the muffler exceeds an acceptable level.

Specifications

- Alarm cut-out dimension $\varnothing 2\frac{1}{16}"$ (52 mm), overall diameter $2\frac{7}{16}"$ (62 mm)
- Build-in depth $1\frac{9}{16}"$ (40 mm)
- Suitable for 12 or 24 VDC
- Use sensor XHSM in VETUS waterlocks that have a pre-installed connection
- Use sensor type XHSH for fitting in the exhaust hose



Note: The temperature sensors and the alarm unit must be ordered separately. In case of a twin engine installation, two sensors can be connected to one alarm unit.



XHI

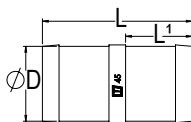
Type	Description	Color
XHI12B	Dashboard instrument for exhaust temperature alarm 12 VDC	Black
XHI24B	Dashboard instrument for exhaust temperature alarm 24 VDC	Black
XHSM	Sensor for exhaust temperature alarm to fit MV/LSG/MGS/MGL/MGP	
XHSH	Sensor for exhaust temperature alarm to fit exhaust hose	

Synthetic hose connectors

These hose connectors are made of synthetic material and are available in a straight, 60° or 90° bend type.

Type SLVBR

This is a straight type and suitable for hoses with an internal diameter of $\varnothing 1\frac{9}{16}"$ to $5\frac{7}{8}"$ (40 to 150 mm).



SLVBR

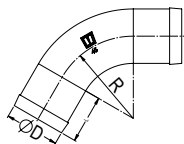
Type	Description	Ø D inch (mm)	L inch (mm)	L' inch (mm)
SLVBR40K	Straight	1 ⁹ / ₁₆ (40)	3 ⁹ / ₁₆ (90)	1 ⁹ / ₁₆ (40)
SLVBR45K	Straight	1 ³ / ₄ (45)	3 ⁹ / ₁₆ (90)	1 ⁹ / ₁₆ (40)
SLVBR50K	Straight	2 (51)	3 ⁹ / ₁₆ (90)	1 ⁹ / ₁₆ (40)
SLVBR60K	Straight	2 ³ / ₈ (60)	4 ⁷ / ₁₆ (112)	1 ⁷ / ₈ (48)
SLVBR65K	Straight	2 ⁹ / ₁₆ (65)	5 ³ / ₁₆ (131)	2 ⁵ / ₁₆ (58)
SLVBR75K	Straight	3 (75)	5 ⁷ / ₈ (150)	2 ¹¹ / ₁₆ (68)
SLVBR90K	Straight	3 ¹ / ₂ (90)	7 ⁵ / ₁₆ (185)	3 ³ / ₈ (85)
SLVBR100K	Straight	4 (100)	8 ¹ / ₁₆ (205)	3 ³ / ₄ (95)
SLVBR110K	Straight	4 ⁵ / ₁₆ (110)	8 ⁷ / ₁₆ (215)	3 ¹⁵ / ₁₆ (100)
SLVBR125K	Straight	5 (125)	9 ¹ / ₄ (235)	4 ⁵ / ₁₆ (110)
SLVBR150K	Straight	6 (150)	10 ¹ / ₁₆ (255)	4 ³ / ₄ (120)



Accessories

Type SLVBG

This is a 60° bend type and suitable for hoses with an internal diameter of \varnothing 1⁹/₁₆" to 5⁷/₈" (40 to 150 mm).

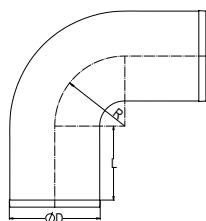


SLVBG

Type	Description	Ø D inch (mm)	L inch (mm)	R inch (mm)
SLVBG40K	Bent 60°	1 ⁹ / ₁₆ (40)	1 ⁹ / ₁₆ (40)	2 ³ / ₈ (60)
SLVBG45K	Bent 60°	1 ³ / ₄ (45)	1 ⁹ / ₁₆ (40)	2 ¹ / ₁₆ (68)
SLVBG50K	Bent 60°	2 (51)	1 ⁹ / ₁₆ (40)	2 ¹⁵ / ₁₆ (75)
SLVBG60K	Bent 60°	2 ³ / ₈ (60)	1 ³ / ₄ (45)	3 ⁹ / ₁₆ (90)
SLVBG65K	Bent 60°	2 ⁹ / ₁₆ (65)	1 ³ / ₄ (45)	3 ⁷ / ₈ (98)
SLVBG75K	Bent 60°	3 (75)	1 ³ / ₄ (45)	4 ⁷ / ₁₆ (112)
SLVBG90K	Bent 60°	3 ¹ / ₂ (90)	2 ⁹ / ₁₆ (65)	5 ⁵ / ₁₆ (135)
SLVBG100K	Bent 60°	4 (100)	2 ¹⁵ / ₁₆ (75)	5 ⁷ / ₈ (150)
SLVBG110K	Bent 60°	4 ⁵ / ₁₆ (110)	2 ¹⁵ / ₁₆ (75)	6 ¹ / ₂ (165)
SLVBG125K	Bent 60°	5 (125)	3 ¹ / ₈ (80)	7 ³ / ₈ (188)
SLVBG150K	Bent 60°	6 (150)	3 ⁹ / ₁₆ (90)	8 ⁷ / ₈ (225)

Type ELB

This is a 90° bend type and suitable for hoses with an internal diameter of \varnothing 5", 6", 8" or 10" (127, 152, 203 or 254 mm).



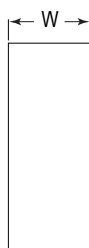
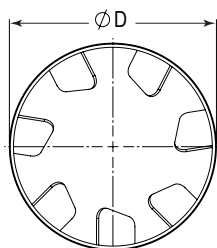
ELB

Type	Description	Ø D inch (mm)	L inch (mm)	R inch (mm)
ELB90127	Bent 90°	5 (127)	4 ¹⁷ / ₃₂ (115)	3 ⁷ / ₈ (99)
ELB90152	Bent 90°	6 (152)	4 ¹⁷ / ₃₂ (115)	4 ⁹ / ₁₆ (116)
ELB90203	Bent 90°	8 (203)	5 ⁵ / ₁₆ (135)	5 ³ / ₄ (146)
ELB90254	Bent 90°	10 (254)	5 ⁵ / ₁₆ (135)	6 ⁷ / ₈ (175)

Water mixer

In some boats the exhaust waterlock must be positioned so closely behind the engine's exhaust manifold (this is especially true in the case of near horizontal exhaust assemblies), that the injected cooling water does not always mix properly with the hot exhaust gases. This often results in the exhaust hose and/or the waterlock becoming overheated. Installation of a water mixer directly behind the exhaust manifold will prevent this problem.

The water mixer is available for exhaust hoses with inside diameter of 3¹/₂", 4", 5", 6" (90, 100, 125 or 150 mm).



MIXER

Type	For exhaust hoses Ø inch (mm)	W inch (mm)
MIXER090	3 ⁹ / ₁₆ (90)	1 ⁹ / ₁₆ (40)
MIXER100	3 ¹⁵ / ₁₆ (100)	1 ⁹ / ₁₆ (40)
MIXER125	5 (127)	1 ⁹ / ₁₆ (40)
MIXER150	6 (152)	1 ⁹ / ₁₆ (40)



WANT TO GROW YOUR BOAT RENTAL BUSINESS?

YOU BRING THE BOAT, WE BRING THE RENTERS.

List your boat for free to start growing your business like never before, thanks to our global audience of renters and a suite of custom-built boat management tools.

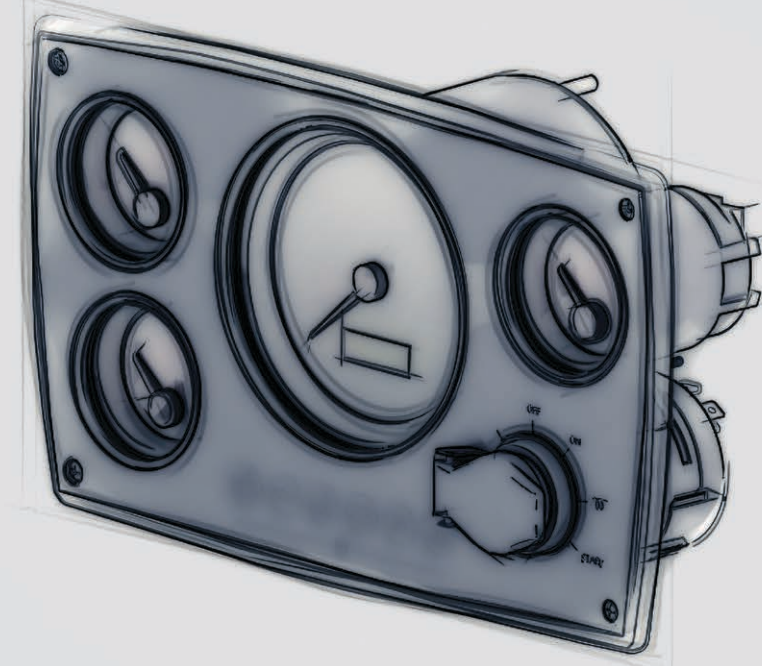
Expand your reach

Master your boat management

Manage your payments



Get started today at
Getmyboat.com



Boat instruments

Overview

Engine instrument panels see page 139 - 143



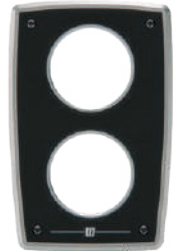
MPA10



MPA1XTKMB



MPA22B



MPA1XB



MPA34B



MP22KB



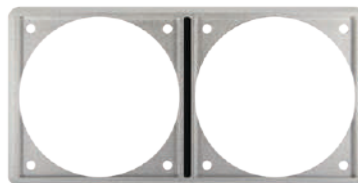
XTPAN252A



MPA1KB



MPA1MB



XTASF2P



CANJ2N1

NEW!

Dashboard gauges see page 144 - 146



TACH



XHI



TRIM



TEMP



HOUR



VLT



AMP



OIL



WAST



FUEL



WATER



Rudder position sending units see page 147



RUDD



RUDD.40



RUDDS

NEW!



CANNRUDDS



RUDDHD

Tank senders / sensors see page 148 - 150



SENSOR



WWSENSORA



FSENSOR



CANNFLS

NEW!



SENSORA



WWCP



SENSORD

Switch panels see page 150 - 151



P8FA



P6CB



P6F



P12F



P12CB

Detectors see page 152



GD1000



GSENSOR



PD1000



Boat instruments

Why VETUS Boat instruments?

Panels

VETUS offers a complete range of high-quality instrument panels, from the sleek aluminum versions of type MPA, available in various models, to the traditional plastic panels of type MP. For both models, expansion panels are available to add extra instruments. For common rail engines, a CAN bus instrument panel of type MP34CANBS can be supplied. All VETUS instrument panels are pre-wired for easy installation.

VETUS gauges

To get an optimal overview of your vessel's (critical) functions, you can choose from a wide range of VETUS instruments with dual lenses - from engine monitoring (e.g., tachometer, voltmeter, oil pressure gauge, and engine coolant temperature gauge) to controls for bow and stern thrusters, fuel, fresh water, and black/gray water tanks. All VETUS instruments comply with EMC standards and are thoroughly tested in our development department.

Our range of boat instruments includes:

- Engine instrument panels
- E-DRIVE panels (see page 82)
- Control panels for bow and stern thrusters (see page 240)
- Switch panels
- Senders and sensors
- Windshield wiper control (see page 330)
- Gauges, sensors, and wiring harnesses

Five good reasons to choose VETUS boat instruments

- 1. Highly accurate instrument and gauges**
Meticulously control and monitor every function of your vessel. Suitable for most vessels, as each instrument can be calibrated individually.
- 2. Reliable and durable products**
All panels and gauges are tested in-house, to guarantee highly reliable and long lasting products, even in the toughest environments. All instruments are **double glazed** to minimize condensation.
- 3. Good readability**
The translucent dials are backlit with bright dimmable and switchable bi-color LEDs, offering high contrast, good readability and the ability to color match your existing cockpit illumination.
- 4. OEM looks**
Instruments are supplied with two bezels: one matt black and one chrome, to match the existing wheelhouse decor.
- 5. Standardized dimensions**
VETUS panels and instruments are designed to fit the original cut-outs, making replacement easy. Large instruments have a diameter of $\varnothing 4\frac{31}{64}$ " (114 mm) and fit in $\varnothing 3\frac{15}{16}$ " (100 mm) holes. Small instruments have a diameter of $\varnothing 2\frac{31}{64}$ " (63 mm) and fit in $\varnothing 2\frac{3}{64}$ " (52 mm) holes. Both large and small instruments are 10 mm high and align neatly with other instruments.





Type MPA

Stylish aluminium engine panels

With their sleek design and high-quality materials, these panels greatly enhance the wheelhouse appearance. They are made of anodized marine-grade aluminum with a textured foil finish for a premium look.

All $\varnothing 2\frac{3}{64}$ " (52 mm) instruments can be mounted in the wheelhouse panel or on the flybridge, depending on configuration, or used with the VETUS MPA1XB expansion panel.

Specifications

- More accurate sensor readings in instrument panels
- More precise oil pressure and oil temperature alarms
- No manual alarm adjustment required
- Fewer components thanks to STM6911 functions integrated on the PCB
- Easy installation
- Available with black or white instruments
- Supplied with gaskets and mounting screws
- Plug and play
- Splash-proof (IP 64)

Customization

All VETUS aluminum instrument panels can be supplied with your company logo or in other colors, depending on order quantity. Price on request.

Type MPA10 and MPA1XTKMB

Instrument panel with six warning lights, buzzer, glow/ignition key switch with removable key. MPA10 and MPA1 panels are compact and suitable for installations where space is limited, and can be mounted horizontally $6\frac{19}{32} \times 3\frac{11}{32}$ " (167.5 x 85 mm) or vertically $3\frac{11}{32} \times 6\frac{19}{32}$ " (85 x 167.5 mm).

Type	Dial color	Dimensions inches (mm)	Built-in depth inches (mm)	Voltage (DC)
MPA10	Black	$3\frac{15}{16} \times 6\frac{1}{16}$ (100 x 154)	$4\frac{3}{4}$ (120)	12
MPA1XTKMB	Black	$6\frac{19}{32} \times 3\frac{11}{32}$ (167.5 x 85)	$4\frac{3}{4}$ (120)	12



MPA10



MPA1XTKMB



Boat instruments

Type MPA22

Instrument panel with six warning lights, buzzer, glow/ignition key switch with removable key, integrated tachometer/hour meter, and voltmeter.

Type MPA1XB

The MPA1XB extension panel is suitable for all VETUS 2³/₆₄" (52 mm) gauges.



MPA22B



MPA1XB

Type	Description	Dial color	RPM	Dimensions inches (mm)	Built-in depth inches (mm)	Voltage (DC)
MPA22KBS2	Aluminium engine panel	Black	0-4000	8 ⁷ / ₆₄ x 6 ³ / ₁₆ (218 x 157)	4 ³ / ₄ (120)	12
MPA22KBS25	Aluminium engine panel	Black	0-5000	8 ⁷ / ₆₄ x 6 ³ / ₁₆ (218 x 157)	4 ³ / ₄ (120)	12
MPA22KBW2	Aluminium engine panel	White	0-4000	8 ⁷ / ₆₄ x 6 ³ / ₁₆ (218 x 157)	4 ³ / ₄ (120)	12
MPA22KW25	Aluminium engine panel	White	0-5000	8 ⁷ / ₆₄ x 6 ³ / ₁₆ (218 x 157)	4 ³ / ₄ (120)	12
MPA1XB	Aluminium extension panel for two extra gauges	Black		3 ¹⁵ / ₁₆ x 6 ¹ / ₁₆ (100 x 154)	3 ¹⁵ / ₁₆ (100)	

Type MPA34

Instrument panel with six warning lights, buzzer, glow/ignition key switch with removable key, integrated tachometer/hour meter, temperature gauge, oil pressure gauge, and voltmeter.



MPA34B

Type	Description	Dial color	RPM	Dimensions inches (mm)	Built in depth inches (mm)	Voltage (DC)
MPA34KBS2	Aluminium engine panel	Black	0-4000	10 ¹ / ₂ x 6 ³ / ₁₆ (267 x 157)	4 ³ / ₄ (120)	12
MPA34KBW2	Aluminium engine panel	White	0-4000	10 ¹ / ₂ x 6 ³ / ₁₆ (267 x 157)	4 ³ / ₄ (120)	12
MPA34KBS25	Aluminium engine panel	Black	0-5000	10 ¹ / ₂ x 6 ³ / ₁₆ (267 x 157)	4 ³ / ₄ (120)	12
MPA34KBW25	Aluminium engine panel	White	0-5000	10 ¹ / ₂ x 6 ³ / ₁₆ (267 x 157)	4 ³ / ₄ (120)	12
MPA34CANBS2	Aluminium engine panel CAN-bus	Black	0-5000	10 ¹ / ₂ x 6 ³ / ₁₆ (267 x 157)	4 ³ / ₄ (120)	12
MPA34CANBS4	Aluminium engine panel CAN-bus	Black	0-5000	10 ¹ / ₂ x 6 ³ / ₁₆ (267 x 157)	4 ³ / ₄ (120)	24



Type MP22KB

Instrument panel with six warning lights, integrated tachometer/hour meter, buzzer, and glow/start key switch with removable key. This panel is particularly suitable for flybridge installations. Once installed, the panel front is splash-proof (IP 64).

Type	Dial color	RPM	Dimensions inches (mm)	Built-in depth inches (mm)	Voltage (DC)
MP22KBS2	Black	0-4000	7 ⁵ / ₈ x 6 ¹ / ₁₆ (193 x 161)	4 ³ / ₄ (121)	12
MP22KBS2D 2nd alternator	Black	0-4000	7 ⁵ / ₈ x 6 ¹ / ₁₆ (193 x 161)	4 ³ / ₄ (121)	12



MP22KB..

Type MP34KB

Instrument panel with six warning lights, buzzer, glow/start key switch with removable key, integrated tachometer/hour meter, temperature gauge, voltmeter, and oil pressure gauge. Once installed, the panel front is splash-proof (IP 64).

Type	Dial color	Rpm	Dimensions inches (mm)	Built-in depth inches (mm)	Voltage (DC)
MP34KBS2	Black	0-4000	10 ¹ / ₁₆ x 6 ¹ / ₁₆ (255 x 161)	4 ³ / ₄ (121)	12
MP34KBW2	White	0-4000	10 ¹ / ₁₆ x 6 ¹ / ₁₆ (255 x 161)	4 ³ / ₄ (121)	12
MP34KBS4	Black	0-4000	10 ¹ / ₁₆ x 6 ¹ / ₁₆ (255 x 161)	4 ³ / ₄ (121)	24



MP34KB..

Type XTPAN252A

Expansion panel suitable for all VETUS Ø 2³/₆₄" (52 mm) instruments.

Type	Dial color	Dimensions inches (mm)
XTPAN252A	Black	3 ⁷ / ₈ x 6 ¹ / ₁₆ (99 x 161)



XTPAN252A



Boat instruments

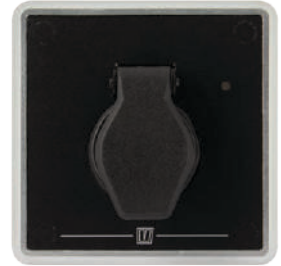
Type MPA1KB

This panel features a dedicated pre-heat / ignition switch with removable key. The panel can be used in isolation or combined with other 2⁶¹/₆₄" (75 mm) diameter panels by using the XTASF2P mounting frame shown below. Also suitable for use with the PWLK system.

To connect the MPA1KB to the MPA1MB and rest of the system use the MP35374 panel wiring.

Type	Color	Cut-out size Ø inches (mm)	Dimensions inches (mm)	Built-in depth inches (mm)
MPA1KB	Black	2 ⁶¹ / ₆₄ (75)	3 ¹¹ / ₃₂ X 3 ¹¹ / ₃₂ (85 x 85)	3 ³⁵ / ₆₄ (90)

MPA1KB



Type MPA1MB

This panel is equipped with 6 warning light and an acoustic alarm. The panel can be used in isolation or combined with other 2⁶¹/₆₄" (75 mm) diameter panels by using the XTASF2P mounting frame shown below. Also suitable for use with the PWLK system.

To connect the MPA1MB to the MPA1KB and rest of the system use the MP35374 panel wiring.

Type	Color	Cut-out size Ø inches (mm)	Dimensions inches (mm)	Built-in depth inches (mm)
MPA1MB	Black	2 ⁶¹ / ₆₄ (75)	3 ¹¹ / ₃₂ X 3 ¹¹ / ₃₂ (85 x 85)	2 ²³ / ₆₄ (60)

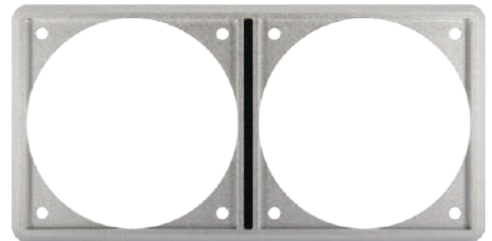
MPA1MB



Double mounting frame Type XTASF2P

This frame 6¹⁹/₃₂ X 3¹¹/₃₂" (167.5 x 85 mm) is designed to accept two VETUS control or monitoring panels with a cut out size of Ø 2⁶¹/₆₄" (75 mm). You have the freedom to decide which panels you want to combine.

XTASF2P



Examples of combined Ø 75 mm panels.



XTASF2P + DBPPJA + MPA1KB



XTASF2P + MPA1MB + DBPPJA



XTASF2P + MPA1MB + MPA1MB



J1939 to NMEA2000 converter

The J1939-NMEA2000 converter reads the J1939 protocol and converts it into NMEA2000 PGN format. It can be used in the D-Line engine series, enabling engine data to be displayed on VETUS displays or other multi-function displays (MFD).

Specifications

- Operating voltage: 0-16 V
- Current consumption: < 50 mA
- Protection class: IP65

Type	Description
CANJ2N1	J1939 to NMEA2000 converter



NEW!

CANJ2N1

Design your own panel with the "PWLK" system

Many designers and installers wish to lay out their own instrument panel, rather than using a standard panel supplied by the engine manufacturer. This can be easily accomplished using the PWLK system.

Advantages

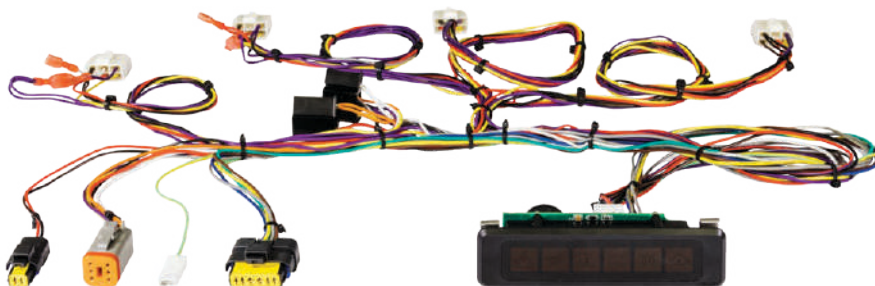
- Choose your own instruments, black, cream or white and for 12 or 24 VDC supply
- All cables are bundled and colour coded: no more tracing loose wires
- Cable plugs and connectors are factory fitted, ready to connect to VETUS engine instruments
- The Instruments can be positioned up to 20" (50 cm) away from the key switch

Standard system

- Monitoring panel 5 1/8" x 1 3/8" (130 x 35 mm) with six warning lights
- Acoustic alarm
- Glow plug pre-heat and starting key switch
- Cable for tachometer (revolution counter/hour counter)
- Cables for voltmeter, oil pressure gauge, water temperature gauge
- Plugs for connection of extension cables

Optional equipment to complete the system

- Extension cable to the engine, available in 6.5 ft, 13 ft or 20 ft (2, 4 or 6 m)
- Cable splitter to connect to a second panel
- Revolution counter / hour counter
- Voltmeter, oil pressure gauge, water temperature gauge



PWLK

Type	Description
PWLK	Wiring loom for engine instruments, including warning light panel and starter switch, 12 / 24 VDC



Boat instruments

Dashboard instruments with black or white dials

All VETUS gauges are available in dual-voltage versions (12/24 VDC), except for the VETUS voltmeter, and come with two bezel options: matte black and chrome finish (synthetic).

Three reasons to choose VETUS boat instruments:

- High Precision: Easy monitoring of all onboard systems
- Reliability and Long Service Life: High-quality manufacturing
- Smart Illumination: Excellent visibility under all conditions with backlit displays and LED lights with adjustable brightness.
Available in yellow and red

All VETUS gauges have dual lenses to reduce condensation and minimize the risk of internal damage caused by moisture.

All VETUS gauges are available with black or white face and include round bezels: black or white synthetic and a chrome finish option.

Code suffix



B = black

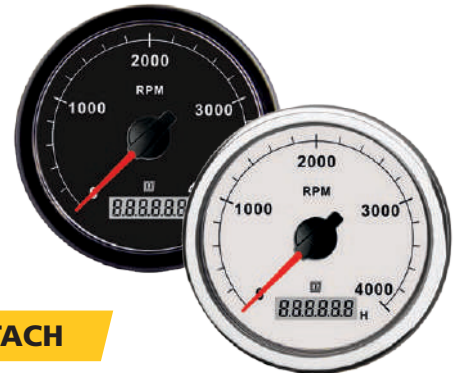


W = white

Tachometer (revolution counter)

Available in two versions: 0-4000 rpm and 0-5000 rpm, 12/24 VDC, with integrated digital hour meter. Overall diameter: 4 1/2" (114 mm).

Type	Color	Voltage (DC)	Cut-out size Ø inches (mm)	Overall diameter inches (mm)
TACHB4000	Black	12/24	3 15/16 (100)	4 1/2 (114)
TACHW4000	White	12/24	3 15/16 (100)	4 1/2 (114)
TACHB5000	Black	12/24	3 15/16 (100)	4 1/2 (114)
TACHW5000	White	12/24	3 15/16 (100)	4 1/2 (114)



TACH

Temperature gauge

Available in 2 1/2" (63 mm) diameter. Scale calibration: 40-120°C and 105-250°F. Temperature sensors are available as optional equipment. Suitable for both 12 VDC and 24 VDC.

Type	Color	Voltage (DC)	Cut-out size Ø inches (mm)	Overall diameter inches (mm)
TEMPB	Black	12/24	2 3/64 (52)	2 1/2 (63)
TEMPW	White	12/24	2 3/64 (52)	2 1/2 (63)
TEMPSR220	Sender for temperature gauge, 12/24 VDC, single pole M14 x 1.5			
TEMPSR222	Sender for temperature gauge, 12/24 VDC, double pole M14 x 1.5			



TEMP

Voltmeter

Available in 2 1/2" (63 mm) diameter. Can be supplied for 12 or 24 VDC, with scale calibration respectively: 8 - 16 VDC and 16 - 32 VDC.

Type	Color	Voltage (DC)	Cut-out size Ø inches (mm)	Overall diameter inches (mm)
VLT12B	Black	12	2 3/64 (52)	2 1/2 (63)
VLT24B	Black	24	2 3/64 (52)	2 1/2 (63)
VLT12W	White	12	2 3/64 (52)	2 1/2 (63)
VLT24W	White	24	2 3/64 (52)	2 1/2 (63)



VLT



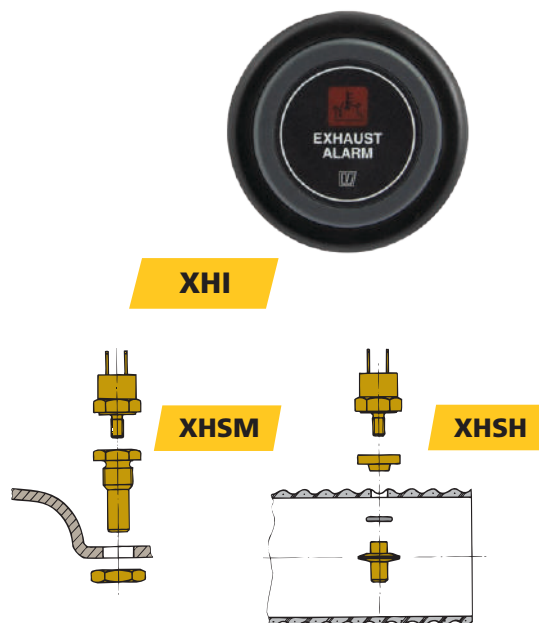
Dashboard instruments with black or white dials

Exhaust/gas temperature alarm

Available with a diameter of $\varnothing 2\frac{1}{2}$ " (63 mm). Suitable for water-injected exhaust systems. Provides both visual and audible warning when the temperature in the exhaust hose or muffler exceeds the permitted limit.

Temperature sensor for installation in the exhaust hose or muffler must be ordered separately. In twin-engine installations, two sensors can be connected to one alarm panel. A single sensor can also be used in two alarm panels if a second helm station is fitted.

Type	Color	Voltage (DC)	Cut-out size \varnothing inches (mm)	Overall diameter \varnothing inches (mm)
XHI12B	Black	12	$2\frac{3}{64}$ (52)	$2\frac{1}{2}$ (63)
XHI24B	Black	24	$2\frac{3}{64}$ (52)	$2\frac{1}{2}$ (63)
XHSH	Sensor for exhaust temp. alarm to fit exhaust hose			
XHSM	Sensor for exhaust temperature alarm to fit muffler types MV/LSG			



Amp meter

Available in $\varnothing 2\frac{1}{2}$ " (63 mm) size. Scale: +/- 80 A or 150 A. Suitable for 12 VDC and 24 VDC systems. Ammeter is supplied with shunt.

Type	Color	Voltage (DC)	Scale calibration	Cut-out size \varnothing inches (mm)	Overall diameter \varnothing inches (mm)
AMP080B	Black	12/24	+/- 80A	$2\frac{3}{64}$ (52)	$2\frac{1}{2}$ (63)
AMP150B	Black	12/24	+/- 150A	$2\frac{3}{64}$ (52)	$2\frac{1}{2}$ (63)



Hour counter

Available in $62\frac{1}{2}$ " (63 mm) diameter. Analogue engine hour counter which connects to the ignition switch. Suitable for both 12 VDC and 24 VDC.

Type	Color	Voltage (DC)	Cut-out size \varnothing inches (mm)	Overall diameter \varnothing inches (mm)
HOURECB	Black	12/24	$2\frac{3}{64}$ (52)	$2\frac{1}{2}$ (63)
HOURECW	White	12/24	$2\frac{3}{64}$ (52)	$2\frac{1}{2}$ (63)



Trim gauge

Available in $2\frac{1}{2}$ " (63 mm) diameter. For connection to the trim sensor of a stern drive or a set of trim tabs. Sensor resistance range: Trim down: 10 Ohm. Trim up: 180 Ohm. Suitable for both 12 VDC and 24 VDC.

Type	Color	Voltage (DC)	Cut-out size \varnothing inches (mm)	Overall diameter \varnothing inches (mm)
TRIMB	Black	12/24	$2\frac{3}{64}$ (52)	$2\frac{1}{2}$ (63)
TRIMW	White	12/24	$2\frac{3}{64}$ (52)	$2\frac{1}{2}$ (63)
TRIMWR	Connection cable			



Boat instruments

Dashboard instruments with black or white dials

Black or grey waste water gauge

Available in 2 1/2" (63 mm) diameter. The waste water indicator can be provided with an interface (code EP412326). A warning light can be connected to this interface, which will indicate when the holding tank is almost full. Suitable for both 12 VDC and 24 VDC.

Type	Color	Voltage (DC)	Cut-out size Ø inches (mm)	Overall diameter Ø inches (mm)
WASTB	Black	12/24	2 3/64 (52)	2 1/2 (63)
WASTW	White	12/24	2 3/64 (52)	2 1/2 (63)



WAST

Oil pressure gauge

Available in 2 1/2" (63 mm) diameter. Scale calibration 0-8 kg/cm² and 0-110 p.s.i. Oil pressure sensors are available as optional equipment. Suitable for both 12 VDC and 24 VDC.

Type	Color	Voltage (DC)	Cut-out size Ø inches (mm)	Overall diameter Ø inches (mm)
OILB	Black	12/24	2 3/64 (52)	2 1/2 (63)
OILW	White	12/24	2 3/64 (52)	2 1/2 (63)
OILS	Oil pressure sender 12/24 VDC, single pole, M10 x 1K			
OILS2	Oil pressure sender 12/24 VDC, double pole, M10 x 1K			



OIL

Fuel gauge

Available in 2 1/2" (63 mm) diameter. Suitable for both 12 VDC and 24 VDC.

Type	Color	Voltage (DC)	Cut-out size Ø inches (mm)	Overall diameter Ø inches (mm)
FUELB	Black	12/24	2 3/64 (52)	2 1/2 (63)
FUELW	White	12/24	2 3/64 (52)	2 1/2 (63)



FUEL

Fresh water gauge

Available in 2 1/2" (63 mm) diameter. Suitable for both 12 VDC and 24 VDC.

Type	Color	Voltage (DC)	Cut-out size Ø inches (mm)	Overall diameter Ø inches (mm)
WATERB	Black	12/24	2 3/64 (52)	2 1/2 (63)
WATERW	White	12/24	2 3/64 (52)	2 1/2 (63)



WATER



Dashboard instruments with black or white dials

Rudder indicator

Available in 2 1/2" (63 mm) diameter. Suitable for both 12 VDC and 24 VDC.

Type	Color	Voltage (DC)	Cut-out size Ø inches (mm)	Overall diameter Ø inches (mm)
RUddb	Black	12/24	2 3/64 (52)	2 1/2 (63)
RUddw	White	12/24	2 3/64 (52)	2 1/2 (63)



RUDD

Rudder position sending unit

Type RUDDS is required for indicators 2 1/2" (63 mm) (RUddb, RUddw) and should be ordered separately.

Type	Description	Voltage (DC)
RUDDS	Rudder position sending unit	12/24



RUDDS

Rudder angle sensor

The rudder angle sensor measures the angle of the rudder. Output: NMEA2000 signal.

Specifications

- Measurement range: ± 165 degrees
- Operating voltage: 9-32 V
- Current consumption: < 60 mA
- Protection class: IP67

Type	Description
CANNRUDDS	Rudder angle sensor



CANNRUDDS

NEW!

Rudder indicator

Available in 4 3/64" (114 mm) diameter. Suitable for both 12 VDC and 24 VDC.

Type	Color	Voltage (DC)	Cut-out size Ø inches (mm)	Overall diameter Ø inches (mm)
RUddb40	Black	12/24	3 15/16 (100)	4 3/64 (114)
RUddw40	White	12/24	3 15/16 (100)	4 3/64 (114)



RUDD.40

Heavy Duty position sending unit

Type RUDDSHD is required for Ø 4 3/64" (114 mm) gauges (RUddb40, RUddw40) and must be ordered separately.

Type	Description	Voltage (DC)
RUDDSHD	Heavy Duty position sending unit	12/24



RUDDSHD



Boat instruments

Tank senders / sensors

Universal sender for fresh water, petrol/gasoline and diesel fuel

Universal tank sender for drinking water, petrol and diesel fuel (type SENSOR). Available in seven different lengths: 11", 12^{39/64}", 15", 18^{57/64}", 22^{27/32}", 26^{3/4}" or 30^{45/64}" (280, 320, 380, 480, 580, 680 or 780 mm). The VETUS universal tank sender indicates the difference in fluid level in steps of 2.5 inch (6.35 cm). Just compare this with other systems which can only show 3 positions (full - about half full - empty).

Specifications

- Empty 300 Ω
- Full 10 Ω
- For 12 and 24 VDC

Each sender length is equipped with the maximum possible number of reading points (electrical contacts) instead of the standard three points (full, half, empty). This ensures that VETUS gauges display the tank level as accurately as possible. The reading points are "sealed."

Type	Length inches (mm)	Voltage (DC)
SENSOR280	11 (280)	12/24
SENSOR320	12 ^{39/64} (320)	12/24
SENSOR380	15 (380)	12/24
SENSOR480	18 ^{57/64} (480)	12/24
SENSOR580	22 ^{27/32} (580)	12/24
SENSOR680	26 ^{3/4} (680)	12/24
SENSOR780	30 ^{45/64} (780)	12/24



SENSOR

Tank level sensor

The tank level sensor measures the tank level of petrol, gasoline, diesel and fresh water tanks. Output: NMEA2000 signal.

Specifications

- Operating voltage: 9-16 V
- Protection class: IP67

Type	Description	Length inches (mm)
CANNFLS28	Tank level sensor	11 (280)
CANNFLS32	Tank level sensor	12 ^{39/64} (320)
CANNFLS38	Tank level sensor	15 (380)
CANNFLS48	Tank level sensor	18 ^{57/64} (480)
CANNFLS58	Tank level sensor	22 ^{27/32} (580)
CANNFLS68	Tank level sensor	26 ^{3/4} (680)
CANNFLS78	Tank level sensor	30 ^{45/64} (780)

CANNFLS



NEW!

Waste water tank sensor type WWSENSOR A

Easy measurement

Simple to fit, reliable waste water tank sensor. Adjustable arm length ranging from 7^{7/8}" (200 mm) to 16^{1/4}" (412 mm).

Specifications

- Empty 300 Ω
- Full 0 Ω
- For 12 and 24 VDC

Type	Description	Voltage (DC)
WWSENSOR A	Waste water sensor	12/24

WWSENSOR A





Tank senders / sensors

Sender for fuel tanks

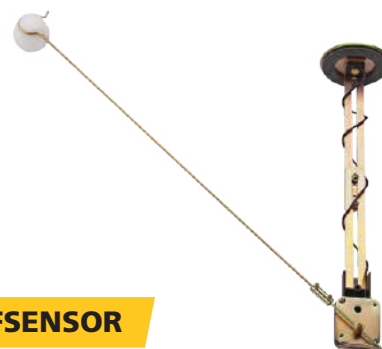
Sender for all rigid petrol and diesel fuel tanks suitable for heights between 5½" and 26" (140 and 660 mm). Both the vertical strip and the horizontal float arm are completely adjustable.

Specifications

- Empty 280 Ω
- Full 40 Ω
- For 12 and 24 VDC

Type	Description	Voltage (DC)
FSENSOR	Fuel tank float	12/24

FSENSOR



All VETUS level gauges are matched to our tank senders and can be connected directly to each other for accurate reading. To connect certain VDO level indicators to a VETUS tank sender, it is necessary to install a signal converter (code EP46849) in the circuit.

Ultrasonic level sensors

Accurate, contactless tank monitoring

The VETUS ultrasonic level sensors SENSORA and SENSORB are advanced devices designed to measure tank contents without moving parts and without contact with the liquid.

They are suitable for black water, gray water, fresh water, diesel, or gasoline, in virtually all shapes and sizes of tanks, up to a depth of 3.9 ft. (120 cm). Maximum tank volume: 1320 gallon (5000 liter). They are ideal for modern boats and yachts, offering easy installation and high reliability. Once installed, the sensor can be easily calibrated onboard with a dedicated display.



SENSORA

SENSORB

Specifications

SENSORA - Analog output sensor

- Contactless ultrasonic measurement for high reliability
- Compatible with all VETUS analog tank level gauges and WWCP panel
- Easy onboard calibration with LED and a calibration wire
- Ideal for black, grey, fresh water, petrol, and diesel fuel tanks
- Not suitable for use with metal tanks

Specifications

SENSORB - CAN bus sensor

- Uses RS485 bus interface (CAN bus type)
- Designed for integration with digital VETUS display SENSORD
- Contactless, reliable, and easy to calibrate
- Ideal for high-end digital installations
- Not suitable for use with metal tanks

Thanks to the RS485 bus, data can be transmitted over long distances without signal loss, with improved immunity to interference and the ability to connect up to eight sensors to a single SENSORD panel.

Feature	SENSORA	SENSORB
Output interface	Analog	RS485 Bus (CAN bus)
Voltage	12 / 24 VDC	12 / 24 VDC
Current consumption	35 mA	35 mA
Max. tank depth	120 cm	120 cm
Accuracy	±5%	±5%
Temperature range	-4 °F to 158 °F (20 °C to +70 °C)	-4 °F to 158 °F (20 °C to +70 °C)
Mounting flange	SAE, 5-hole	SAE, 5-hole
Dimensions	Ø 3 1/32" x 2 9/32" (77 mm x 23 mm)	Ø 3 1/32" x 2 9/32" (77 mm x 23 mm)
Compatibility	Analogue gauges, WWCP panel	SENSORD digital display only
Suitable for	Water, fuel, black/grey water tanks	Water, fuel, black/grey water tanks
Not suitable for	Metal tanks	Metal tanks



Boat instruments

Tank senders / sensors

Waste water control panel type WWCP

Integrated tank level monitoring

This easy-to-use control panel with security lock can be used manually or automatically to control the full tank pump-out and manage the complete waste water system. The WWCP panel is connected to a VETUS level sensor (type WWSENSORA) and indicates the content level in the tank using LED's, it will ignore brief maximum level peaks caused by boat movements.



WWCP

For detailed information see the Waste water section, page 191.

Ultrasonic level system-bus version (RS485-bus) and graphic display

The VETUS ultrasonic level sensor, type SENSORB, is contactless and measures the fluid level in any shape and type of tank (except metal tanks), regardless of its dimensions, with a maximum depth of 3.9 ft. (120 cm). It is suitable for use with gasoline, fresh water, black water, and gray water. Once installed, the SENSORB can be calibrated very easily using the SENSORD graphic display. The SENSORD graphic display model can show the contents of up to four different tanks on one screen. With this system, you can monitor up to eight tanks.

Specifications

- Power supply: 8 - 32 VDC
- Current consumption
Instrument: 125 mA at 12 VDC 63 mA at 24 VDC
Including background lighting
- Current consumption sensor: 35mA
- Number of sensors: max. 8
- Number of display instruments: max. 2
- Max. current on alarm output: 200 mA
- Language selection: Dutch, English, German, French, Spanish and Italian
- Operating temperature: 32 to 122 °F (0 to +50 °C)
- Protection class: IP66



SENSORD

EMC-directive 89/336/EEC, 92/31/EEC and 93/68/EEC

The tank management system consists of a display instrument (SENSORD) and an ultrasonic level sensor (SENSORB) for each tank. The required number of sensors must be purchased separately.

Type	Description	Dimensions inches (mm)
SENSORD	Display for level indication via bus-system, max four tanks	4 ^{21/64} x 4 ^{21/64} " (110 x 110)

Switch panels

Type P8FA

After mounting, the panel is splash proof from front face (IP 64). It has eight separate circuits, each provided with a switch, indicator LED and fuse holder and it is suitable for both 12 and 24 VDC circuits.

The eight fuse holders are located in a separate compartment, which can be opened at the front of the panel and either type of fuse may be fitted. Sixty self-adhesive name/symbol plates for different functions are supplied. There are also two covers supplied for the fuse compartment, depending on whether automatic fuses or conventional automotive (ATO) fuses are used. The panel is fully pre-wired and fitted with a bus bar for power and device connections. The panel is made of synthetic and non-corrosive materials.

Specifications

- Dimensions 3^{57/64}" x 6^{11/32}" (99 x 161 mm)
- Built-in depth 1^{3/4}" (45 mm)



P8FA

Type	Specifications	Voltage (DC)
FUSE06A4	Automatic fuse 6 Amps, for P8FA Set of four pcs.	12/24
FUSE08A4	Automatic fuse 8 Amps, for P8FA Set of four pcs.	12/24
FUSE10A4	Automatic fuse 10 Amps, for P8FA Set of four pcs.	12/24
FUSE15A4	Automatic fuse 15 Amps, for P8FA Set of four pcs.	12/24
P8FA	Switch panel, for eight blade fuses or automatic fuses (sixteen blade fuses supplied)	12/24



The following automotive (ATO) fuses are supplied as standard: 2 x 1A, 2 x 3A, 4 x 5A, 2 x 7.5A, 4 x 10A and 2 x 15A. Automatic fuses may be ordered as optional equipment (see price list).

The panel can be used with conventional automotive (ATO) fuses or with automatic fuses.



Switch panels

Type P6

The panel has six on/off switches, six indicator lights, and the option to choose between six 10 A circuit breakers or glass tube fuses.

Specifications

- Dimensions 3^{11/16}" x 6^{9/64}" (94 x 156 mm)
- Built-in depth 2" (50 mm)

Available for 12 or 24 VDC circuits. Sixty self-adhesive name/symbol plates for different functions are supplied.

Type	Specifications	Voltage (DC)
P6F12	Switch panel type P6 with 6 fuses	12
P6F24	Switch panel type P6 with 6 fuses	24
P12F12	Switch panel type P12 with 12 fuses	12
P12F24	Switch panel type P12 with 12 fuses	24
P6CB12	Switch panel type P6 with 6 circuit breakers	12
P6CB24	Switch panel type P6 with 6 circuit breakers	24
P12CB12	Switch panel type P12 with 12 circuit breakers	12
P12CB24	Switch panel type P12 with 12 circuit breakers	24



P6CB12

P6CB24

Circuit breakers



P6F12

P6F24

Glass tube fuses

Type P12

Also available in a version with twelve on/off switches, twelve indicator lights, and the option to choose between twelve 10 A circuit breakers or glass tube fuses.

Specifications

- Dimensions 7^{13/32}" x 6^{9/64}" (188 x 156 mm)
- Built-in depth 2" (50 mm)

Available for 12 or 24 VDC circuits. Sixty self-adhesive name/symbol plates for different functions are supplied.



P12F12

P12F24

Glass tube fuses



P12CB12

P12CB24

Circuit breakers

VETUS switch panels are supplied pre-wired. Simply connect the positive and negative power cable to the respective device (lights, pumps, etc.). These panels are made of corrosion-resistant plastic, but they are not waterproof.



Boat instruments

Detectors



GD1000

Gas detector GD1000 panel and sensor

The VETUS gas detector model GD1000 offers a gas detection system for a range of combustible gases including propane, butane, methane and hydrogen. In addition it will also detect poisonous carbon monoxide.

A single sensor is supplied as standard, which can detect both flammable gases (such as bottled gas) and carbon monoxide. A second sensor can be fitted as an option, for gas detection in an alternative location.

If a valve for a gas stove is installed, it can be operated via a button on the gas detector panel. If this solenoid valve is open (or if it is not installed), gas presence is monitored continuously. If the valve is closed, the measurement is taken periodically.

An electrically operated gas valve installed in the gas line can be connected to model GD1000 at the "valve" output. Maximum allowed current is 1 A. The valve is not included with model GD1000.

GD1000 and PD1000

Specifications

- Voltage: 12 or 24 VDC
- Maximum relay contact ratings for extractor fan, gas solenoid valve and external alarm: 1 A for each function
- Control panel dimensions: 3¹¹/₃₂" x 3¹¹/₃₂" (85 x 85 mm)
- Built-in depth: 1⁹/₁₆" (40 mm)
- Sensor: 1³/₈" x 1" x 2⁷/₁₆" (35 x 26 x 62 mm) high

Type	Specifications	Voltage (DC)
GD1000	Gas & carbon monoxide detector, incl. sensor	12/24
GSENSOR	Additional sensor for gas & carbon monoxide detector type GD1000	12/24



PD1000

Gas detector PD1000 panel and sensor

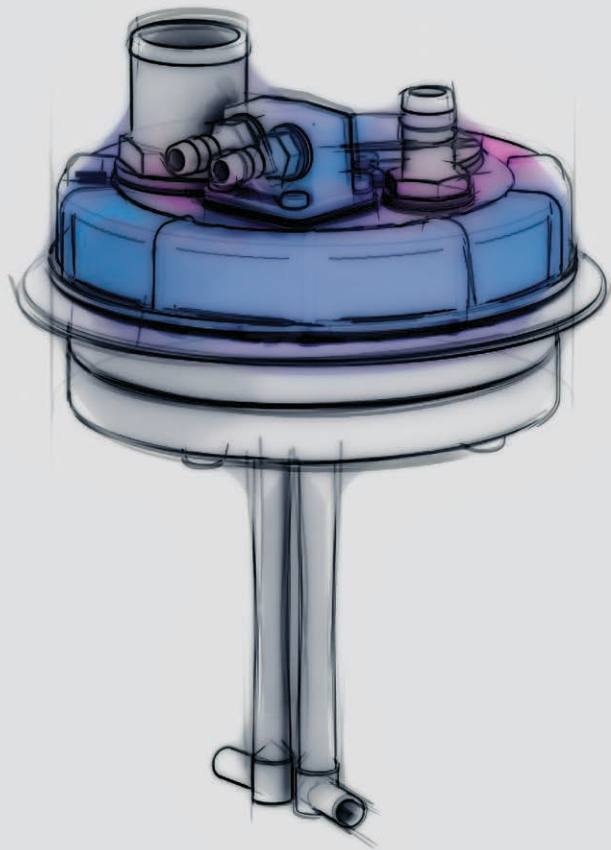
Gas detector model PD1000 specifically detects petrol vapour to prevent the risk of explosion in the engine room, as well as poisonous carbon monoxide (CO).

This gas detector can be supplied with one or two sensors. Both detection functions are carried out simultaneously. All other functions are as described for model GD1000 shown above.

Gas detector PD1000 is suitable for both 12 and 24 VDC supply and its dimensions are identical to model GD1000.

Type	Specifications	Voltage (DC)
PD1000	Petrol vapour & carbon monoxide detector, incl. sensor	12/24
PSENSOR	Extra sensor for petrol vapour detection	12/24

It is recommended that the possible presence of petrol vapour and carbon monoxide be checked on a permanent basis; even when the boat is not in use! Therefore, always keep the power supply to this gas detector switched on.



Fuel systems

Overview

Spin-on filters see page 157 - 158



VTEPB



350VTEB



75330VTEB



75350VTEB

Centrifugal filters

see page 159



75100VTE

Fuel filter hose connectors

see page 160



FFD0890

Petrol/diesel filters

see page 161



WS180

Petrol fuel filter

see page 161



320VTNEB

Fuel polisher

see page 162

NEW!



FPS12



Splash stops see page 162 - 163



FS



FSA

Tanks see page 163 - 165



FTANK



ATANK



APT

Tank kits see page 166 - 168



FTL



FTLDB



**ILT120B
ILT120X**



ILTCONF38

No-smell filters see page 169



NSF



NSFCAN

NSFCANS



Fuel systems

Why VETUS fuel systems?

The fuel system on a boat is a VETUS specialty. You don't have to experience that helpless feeling when an engine unexpectedly stops at a critical moment. VETUS can provide you with the best products, accessories and tips to keep your engine running smoothly, ensuring your safety, comfort and compliance with good practice and environmental regulations.

A good working fuel system

Many people are unaware of the problems that water in fuel can cause. Even a small drop of water can be extremely damaging for the fuel pump, its injectors, filters and engine. Water carries dirt, rust and micro-organisms through the narrow pipes into the system and when trapped, the water becomes a perfect breeding place, resulting in blockage in the fuel pump and additional wear and tear. Placing a fuel filter / water separator between the tank and the fuel lift pump will prevent damage to the engine and ensures easy starting and smooth running.

VETUS offers the following types of filters

Spin-on filters

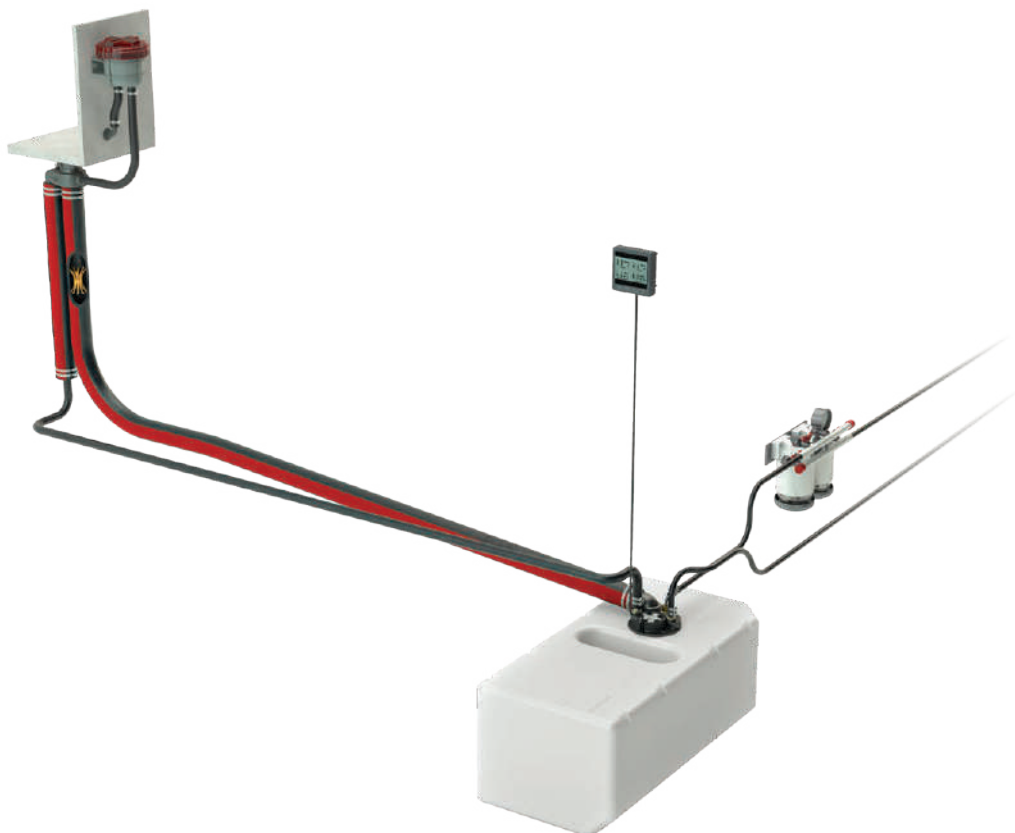
With a maximum capacity from 95 to 211 gal/hr (360 to 800 L/hr), based on a patented fuel flow system in which water is separated from the fuel before the fuel flows back through the filter element.

Centrifugal filters

With a maximum capacity of 190 up to 951 gal/hr (720 up to 3600 L/hr). This modular system can be ordered in combinations of two to six filters for engines up to 5000 hp. The fuel inlet and outlet can be configured on the same or the opposite sides.

7 Reasons why you should choose a VETUS fuel system

- Our patented full-flow system gives VETUS fuel filters up to five times larger filtering surface
- Our fuel filters have a CE and ABYC approved clear bowl
- Our fuel filters use O-ring sealing for leak-free element replacement
- Our Splash Stop protects the environment by preventing fuel spillages
- Our fuel tanks are made from synthetic, corrosion free material resulting in less condensation
- Our fuel tanks FTANKA/B are ready for installation, complete with a center point and five blind bolt holes for a SAE flange gauge sender
- Our Fuel-safe provides complete low cost protection against fuel theft





Spin-on filter

Patented fuel flow system

VETUS Spin-on fuel filters, with maximum capacities ranging from 95 to 211 gallons (360 to 800 L) per hour, are based on a patented fuel flow system in which water and dirt is separated from the fuel before the fuel flows through the filter element. This way damage can be prevented and an easy starting, smooth running engine is guaranteed.

Note: All VETUS Spin-on filters comply with ISO 10088 and ABYC requirements (regarding installation in the engine room) and can withstand a fire test of 2½ minutes.

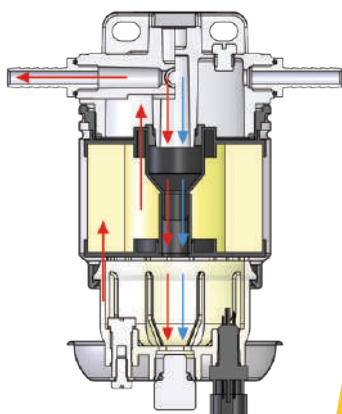
Type VTEB / VTEPB

Consistent filtering and a longer lifetime

These filters have an increased filtering surface and efficiency up to five times the surface of conventional filters. They are provided with a transparent bowl, which allows easy checking for water contamination. The elements can be easily replaced as a single unit, ruling out leakage or spills. The filters can be replaced without tools and with the engine running.

Characteristics

- Suitable for all diesel engines up to 500 hp
- A connection kit for 3/8" (10 mm) hose incl. three blind plugs is included
- All fittings feature O-ring sealing
- Single Spin-on filters are available with or without a manual pump to facilitate easy bleeding of the fuel system (type VTEPB)



VTEB



VTEPB



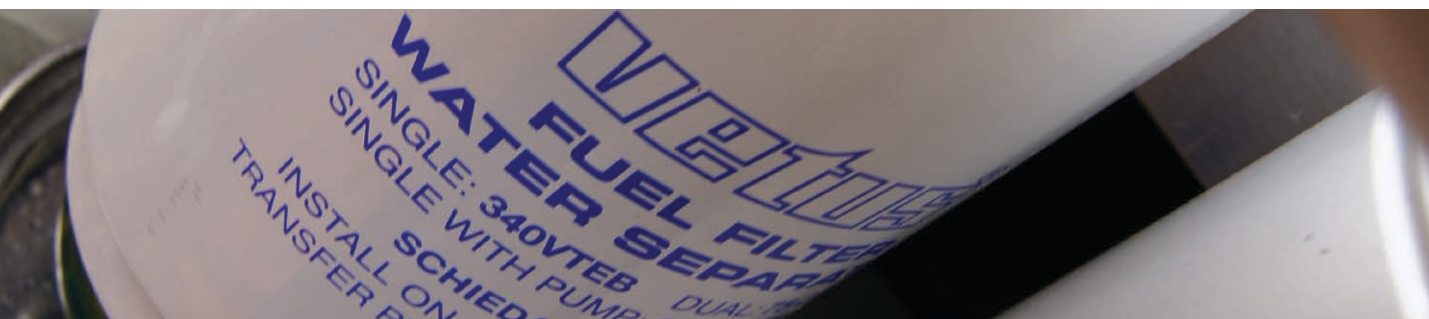
Double Spin-on filters

For boats that sail offshore

For boats that sail offshore, we strongly recommend these dual filter systems. In rougher sea conditions, dirt and water accumulated in the fuel tank becomes agitated and can rapidly clog the filter with little warning. This may result in loss of engine power and all the dangers that may present.

By turning the changeover valve, the system will switch over to a clean spare filter without having to turn off the engine. This dual filter system is supplied with a vacuum gauge which shows when the filter element should be replaced.

75...VTEB



Fuel systems

Spin-on filter

Product overview - Spin-on filters for diesel fuel

Single Spin-on filters
with or without bleed pump



Type		330VTEB	330VTEPB	340VTEB	340VTEPB	350VTEB	350VTEPB
Max. capacity in gal/hr (l/hr)		95 (360)	71 (270)	164 (620)	123 (465)	211 (800)	159 (600)
Version		single	with pump	single	with pump	single	with pump
Connections*		M16 x 1.5*		M16 x 1.5*		M16 x 1.5*	
Dimensions inches (mm)	Height	8 ⁵ / ₆₄ (205)		10 ⁷ / ₁₆ (265)		12 ⁵¹ / ₆₄ (325)	
	Width	4 ²³ / ₃₂ (120)		4 ²³ / ₃₂ (120)		4 ²³ / ₃₂ (120)	
	Depth	4 ²³ / ₃₂ (120)		4 ²³ / ₃₂ (120)		4 ²³ / ₃₂ (120)	
Weight lb (kg)		2.9 (1.3)		3.2 (1.45)		3.5 (1.6)	
Replacement filter	10 µm (standard)	VT33EB		VT34EB		VT35EB	
	30 µm (optional)	VT33ER		VT34ER		VT35ER	
Replacement advice				Minimum annually			
Certification				Fire resistant ISO 10088			



*A connection kit for 10mm hose and three blind plugs is standard supply.

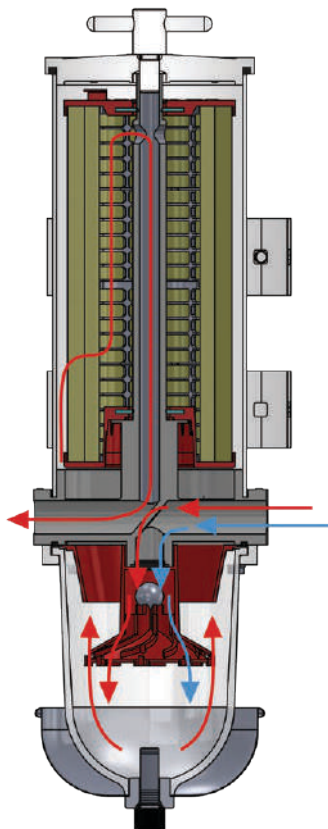


Double Spin-on filters
Parallel or in line

Type		75330VTEB	75340VTEB	75350VTEB
Max. capacity in gal/hr (l/hr)		95 (360)	164 (620)	211 (800)
When both filters are in use		100 (380)	201 (760)	243 (920)
Version		Double	Double	Double
Connections		R 1/2	R 1/2	R 1/2
Dimensions inches (mm)	Height	12 ¹ / ₆₄ (305)	14 ³ / ₈ (365)	16 ⁴⁷ / ₆₄ (425)
	Width	12 ¹³ / ₆₄ (310)	12 ¹³ / ₆₄ (310)	12 ¹³ / ₆₄ (310)
	Depth	6 ³⁷ / ₆₄ (167)	6 ³⁷ / ₆₄ (167)	6 ³⁷ / ₆₄ (167)
Weight lb (kg)		10.4 (4,7)	11 (5)	11.7 (5,3)
Replacement filter	10 µm (standard)	2 x VT33EB	2 x VT34EB	2 x VT35EB
	30 µm (optional)	2 x VT33ER	2 x VT34ER	2 x VT35ER
Replacement advice		When vacuum gauge indicates between -2.8 and -5.4 psi, or annually		
Certification		Fire resistant ISO 10088		



Centrifugal filters



Modular system for effective filtering

VETUS centrifugal filters have maximum capacities ranging from 190 up to 951 gal/hr (720 up to 3600 L/hr). This modular system can be ordered in combinations of two to six filters for engines up to 5000 hp. The fuel in- and outlet can be configured on the same or the opposite sides. When determining the required capacity, it is always assumed that one filter is held in reserve. In case of a six filter configuration, five elements are in use and one is in reserve.

Note: All VETUS centrifugal filters comply with ISO 10088 and ABYC requirements (regarding installation in the engine room) and can withstand a fire test of 2½ minutes.

Specifications

- Suitable for all diesel engines up to 5000 hp
- All fittings feature O-ring sealing
- Centrifugal filters are equipped with a vacuum gauge

Multiple centrifugal filters for diesel fuel

Available in parallel or in line

For the capacities, dimensions and specifications see table below.



..VTE

Type		75100VTE	79100VTE	83100VTE	87100VTE	91100VTE
Max. capacity in gal/hr (l/hr)		190 (720)*	380 (1440)*	571 (2160)*	761 (2880)*	951 (3600)*
Version		2	3	4	5	6
Connections		R ¾	R 1	R 1½	R 1½	R 1½
Dimensions inches (mm)	Height	21 ¹⁷ / ₆₄ (540)	21 ¹⁷ / ₆₄ (540)	21 ¹⁷ / ₆₄ (540)	21 ¹⁷ / ₆₄ (540)	21 ¹⁷ / ₆₄ (540)
	Width	18 ⁵ / ₁₆ (465)	24 ⁵ / ₁₆ (630)	31 ¹ / ₃₂ (788)	37 ¹ / ₆₄ (940)	43 ⁵ / ₁₆ (1100)
	Depth	13 ³ / ₁₆ (335)	13 ³ / ₁₆ (335)	13 ³ / ₁₆ (335)	13 ³ / ₁₆ (335)	13 ³ / ₁₆ (335)
Weight lb (kg)		27.6 (12.5)	44 (20)	60.8 (27.6)	77 (35)	90.4 (41)
Replacement filter	30 µm (standard)	2 x 2020VTR	3 x 2020VTR	4x 2020VTR	5 x 2020VTR	6 x 2020VTR
	10 µm (optional)	2 x 2020VTB	3 x 2020VTB	4x 2020VTB	5 x 2020VTB	6 x 2020VTB

Replacement advice

When vacuum gauge indicates between -2.8 and -5.4 psi, or once a year

Certified

Fire resistant ISO 10088

* When determining the required capacity it is always assumed that one filter is held in reserve. When all filters are in use, 190 gal/hr can be added to the capacity!



Fuel systems

Replacement elements for spin-on and centrifugal filters

VETUS recommends having a spare fuel filter at all times, on board. This can be done by changing over filters in a multi-filter system or by keeping a spare element on board.

Spare Spin-on filter type VT3

Comes with a 10 micron element as standard. A spare part element with a filtration of 30 micron is also available (a filter of 10 micron will filter out more dirt but will also become clogged sooner). A 30 micron element is recommended when the tank is very large, infrequently filled or the fuel used is of low quality. Filtration of 10 micron has text printed in blue and 30 micron has text printed in red.

Replacement elements for spin-on filters

Type	Description	Filter	Spin-on filter
VT33EB	Replacement fuel filter element	10 micron	330VTEB, 330VTEPB, 75330VTEB
VT34EB	Replacement fuel filter element	10 micron	340VTEB, 340VTEPB, 75340VTEB
VT35EB	Replacement fuel filter element	10 micron	350VTEB, 350VTEPB, 75350VTEB
VT33ER	Replacement fuel filter element	30 micron	330VTEB, 330VTEPB, 75330VTEB
VT34ER	Replacement fuel filter element	30 micron	340VTEB, 340VTEPB, 75340VTEB
VT35ER	Replacement fuel filter element	30 micron	350VTEB, 350VTEPB, 75350VTEB



VT3..

Spare element for centrifugal filter type 2020VT

Comes with a 30 micron element as standard. Also available in 10 micron.

Note: Filtration of 10 micron has an endcap in blue and 30 micron has an endcap in red. Just choose the product code ending with a R (red) or a B (blue) for the right spare part element.

This also holds true for older VETUS filters. These are still available and can be ordered using the code on the existing filter element that is being replaced.



2020VTR

Also available in blue (10 micron).

Replacement elements for centrifugal filters

Type	Description	Filter	Max. gal/hr (L/h)
2020VTB	Replacement fuel filter element	10 micron	190 (720)
2020VTR	Replacement fuel filter element	30 micron	190 (720)

Fuel filter hose connectors

VETUS single 'Spin-on' fuel filters are supplied as standard with $\varnothing \frac{3}{8}$ " (10 mm) straight hose connectors. In some situations different connectors can be preferred. Therefore we offer $\varnothing \frac{3}{8}$ " (10 mm) connectors with a 90° bend, as well as straight and angled $\varnothing \frac{5}{16}$ " (8 mm) connectors.

The double 'Spin-on' filters feature a R1/2 male thread connection. For these filters both straight and angled connections of $\varnothing \frac{5}{16}$ " (8 mm) and $\frac{3}{8}$ " (10 mm) are available.

Type	Suitable for	Hose \varnothing inches (mm)	Model	Thread
FFS0800	Single spin-on filters type 330VTE(P)B, 340VTE(P)B and 350VTE(P)B	$\frac{5}{16}$ (8)	Straight	M16 x 1.5 male
FFS0890		$\frac{5}{16}$ (8)	90° Angled	M16 x 1.5 male
FFS1000		$\frac{3}{8}$ (10)	Straight	M16 x 1.5 male
FFS1090		$\frac{3}{8}$ (10)	90° Angled	M16 x 1.5 male
FFS1300		$\frac{1}{2}$ (13)	Straight	M16 x 1.5 male
FFS1390	$\frac{1}{2}$ (13)	90° Angled	M16 x 1.5 male	
FFD0800	Double spin-on filters type 75330VTEB, 75340VTEB and 75350VTEB	$\frac{5}{16}$ (8)	Straight	G1/2 female
FFD0890		$\frac{5}{16}$ (8)	90° Angled	G1/2 female
FFD1000		$\frac{3}{8}$ (10)	Straight	G1/2 female
FFD1090		$\frac{3}{8}$ (10)	90° Angled	G1/2 female



FFD0800

FFS0890

FFD0890

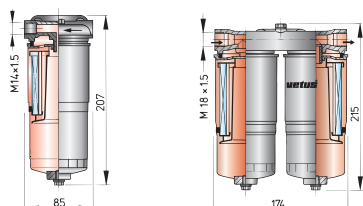


Petrol/diesel filters

Type WS

Filter for both petrol and diesel

Type WS180 and WS720 comply with the fire resistance test according to ISO 10088. These filters must be installed in a vertical position as close to the fuel tank as possible.



WS180



WS720

Type		WS180	WS720
Max. capacity in gal/hr (l/h)		47.6 (180)	190 (720)
Recommended capacity in g/hr (l/hr)		29 (110)	116 (440)
Connections	Thread	M14 x 1.5	M18 x 1.5
inches (mm)	Fittings	$5/16$ (8) hose barb	$9/16$ (15) compression fitting
Dimensions	Height	$8^{5/32}$ (207)	$8^{15/32}$ (215)
inches (mm)	Width	$3^{11/32}$ (85)	$6^{27/32}$ (174)
	Depth	$3^{11/32}$ (85)	$3^{11/32}$ (85)
Weight lb (kg)		1.6 (0.7)	3.3 (1.5)
Replacement filter	40 μ m	WS180FE	2 x WS180FE
Replacement advice		After 200 service hours or annually	
Certification		Fire resistant ISO 10088	

Petrol fuel filter

Designed for use with outboard engines

Type 320VTNEB (Spin-on)

Type 320VTNEB is designed for use with outboard engines, but can also be used as a pre-filter for inboard engines. It fits petrol engines with a maximum of 500 hp.

Type		320VTNEB
Max. capacity in gal/hr (l/h)		31.7 (120)
Hose connections inches (mm)		$3/8$ (10)
Dimensions inches (mm)	Height	$6^{3/16}$ (157)
	Width	$4^{3/32}$ (104)
	Depth	$4^{13/32}$ (112)
Weight lb		1.3
Replacement filter	10 μ m	VTN32EB
Replacement advice		After 200 service hours or at least once a year
Certification		Fire resistant ISO 10088



320VTNEB



Fuel systems

Fuel Polisher

NEW!

Smart Diesel Maintenance - Prevents the build-up of harmful substances

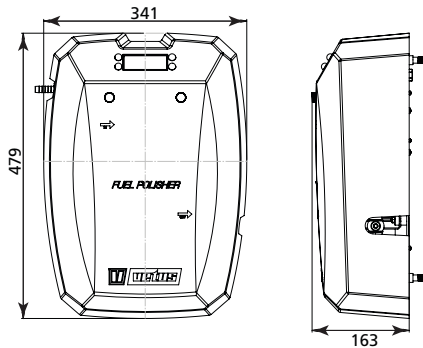
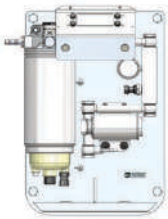
The new VETUS Fuel Polisher system has been engineered to keep your diesel in top condition, increasing the reliability of the fuel system and ensuring your engine runs smoothly. Designed to maintain fuel quality, this intelligent system prevents the accumulation of harmful substances such as water, bacteria, and mold. By automatically cycling the fuel at set intervals, the Fuel Polisher actively removes contaminants before they can cause damage – eliminating the need for additives.

Equipped with sensors and a high-performance, hydrophobic filtration system, it provides real-time feedback and operates through a programmable control unit. This proactive approach not only extends the lifespan of your fuel system components but also reduces costly maintenance and prevents downtime.

Specifications

- **Advanced Filtration:** Custom-designed filter separates both emulsified and standing water
- **Smart Monitoring:** Built-in sensors provide real-time system insights
- **Programmable Control:** Intelligent unit with customizable fuel cycling schedules
- **Extended Component Life:** Helps preserve filters and reduce wear on system parts
- **Cost-Efficient:** Minimizes the need for professional tank cleaning and reduces maintenance costs

Type	Flow rate	Voltage (DC)
FPS12	.8 Gal/min	12V and 24V



FPS12

Fuel Splash-Stop

Overflowing fuel or foam collector

The fuel Splash-stop is connected right under the deck filler plate to ensure that overflowing fuel or foam cannot flood onto the deck, soiling your deck and polluting the water.

Type FS

VETUS Splash-Stop model FS is directly connected to a deck entry plate (1), with a diameter of 1 1/2" (38 mm) or 2" (51 mm) (optional equipment) and has a reservoir with a capacity of approximately .5 gal (2 L). Excessive fuel will flow back into the main tank through connection (2). This connection serves as the necessary tank ventilation. The breather line to outside is to be installed as shown at (3). FS is supplied with connections for Ø 1 1/2" (38 mm) or for Ø 2" (51 mm) fuel filling hose (4).



FS

FS3816

- Deck entry Ø 1 1/2" (38 mm)
- Filler hose connection Ø 1 1/2" / 2" (38 / 51 mm)
- Breather connection Ø 5/8" (16 mm)

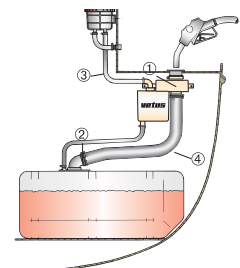
FS5125

- Deck entry Ø 2" (51 mm)
- Filler hose connection Ø 2" (51 mm)
- Breather connection Ø 1" (25 mm)

FS5116

- Deck entry Ø 2" (51 mm)
- Filler hose connection Ø 1 1/2" / 2" (38 / 51 mm)
- Breather connection Ø 5/8" (16 mm)

Note: For use outside the engine room only!



Type	L x W x H inches	Hose Ø inches (mm)	Breather inches (mm)	Deck entry Ø inches (mm)
FS3816	9 ²⁷ / ₃₂ x 4 ²³ / ₃₂ x 8 ¹⁵ / ₃₂	1 1/2 / 2 (38 / 51)	5/8 (16)	1 1/2 (38)
FS5116	9 ²⁷ / ₃₂ x 4 ²³ / ₃₂ x 8 ¹⁵ / ₃₂	1 1/2 / 2 (38 / 51)	5/8 (16)	2 (51)
FS5125	9 ²⁷ / ₃₂ x 4 ²³ / ₃₂ x 8 ¹⁵ / ₃₂	2 (51)	1 (25)	2 (51)



Fuel Splash-Stop

Type FSA

The fuel Splash-stop is connected right under the deck filler plate to ensure that overflowing fuel or foam cannot flood onto the deck. The excess diesel* or petrol fuel is collected in a parallel hose which functions as a reservoir, returning the fuel back into the tank.

The capacity of the reservoir is determined by the length and diameter of the hose (see three types below). Always choose the largest reservoir possible, with a maximum of 0.58 gallons (2.2 liter). The housing and hose connection are made of anodized aluminium. The fill and vent lines, hose clamps and a matching stainless steel (AISI 316) deck entry should be ordered separately. The Fuel Splash-Stop complies with ISO 10088 and ABYC requirements.

FSA3816

- Suitable for Ø 1 1/2" (38 mm) hose and 5/8" (16 mm) breather line.
- The capacity of Ø 1 1/2" (38 mm) hose is 0.29 gal. (1.1 L) p/m

FSA5116

- Suitable for Ø 2" (51 mm) hose and 5/8" (16 mm) breather line.
- The capacity of Ø 2" (51 mm) hose is 0.52 gal. (2 L) p/m

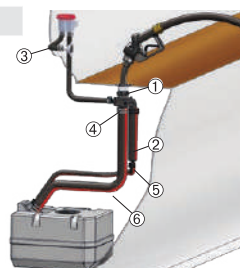
FSA5119

- Suitable for Ø 2" (51 mm) hose and 3/4" (19 mm) breather line.
- The capacity of Ø 2" (51 mm) hose is 0.52 gal. (2 L) p/m



FSA

Type	L x W x H inches	Hose Ø inches (mm)	Breather Ø inches (mm)	Capacity gal. p/m (L)
FSA3816	5 3/4 x 3 25/64 x 4 49/64	1 1/2 (38)	5/8 (16)	0.27 (1.1)
FSA5116	5 3/4 x 3 25/64 x 4 49/64	2 (51)	5/8 (16)	0.49 (2)
FSA5119	5 3/4 x 3 25/64 x 4 49/64	2 (51)	3/4 (19)	0.49 (2)



1. Deck entry
2. Reservoir / overflow hose and breather line
3. Tank breather line to outside
4. Splash-Stop
5. Hose connection
6. Fuel filling hose

* **Note:** A no-smell filter (for diesel only) can be fitted in the tank breather line to prevent unpleasant smells. If the filter is located well above the deck entry, the breather line may exit lower than the deck level if required.

To prevent expensive fuel theft, we recommend placing a FUELSAFE (see page 170) into the Splash-Stop.

Rigid tanks for diesel fuel

Tank with connectors type FTANKA/B

Designed for diesel fuel

This range of rigid VETUS tanks is made of high-grade polyethylene. The centre point for a SAE flange gauge sender is incorporated (except FTANK25) together with 5 blind bolt holes. The gauge sender should be ordered separately.

Tanks are in accordance with the ISO 21487 standard.



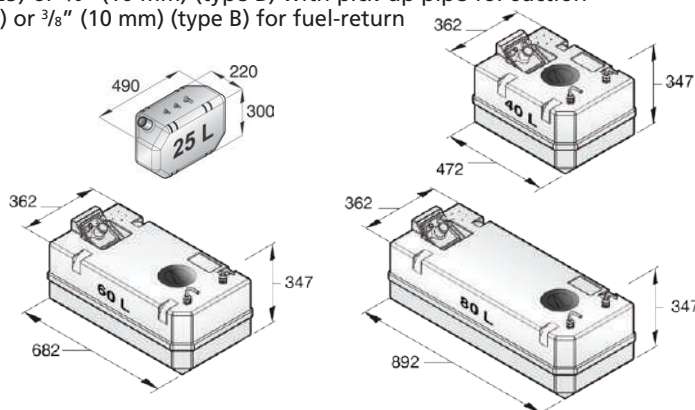
FTANK..A

FTANK..B

Each tank is supplied with the following connections

- Fixed hose connector Ø 1 1/2" (38 mm) (Ø 2" (51 mm) for FTANK25) for filling and 5/8" (16 mm) for breather line
- Rotating hose connector Ø 5/16" (8 mm) (type A + FTANK25) or 3/8" (10 mm) (type B) with pick-up pipe for suction
- Rotating hose connector Ø 5/16" (8 mm) (type A + FTANK25) or 3/8" (10 mm) (type B) for fuel-return

Type	Description	Capacity (L)
FTANK25	Synthetic diesel fuel tank	6 gal. (25 L)
FTANK40A	Synthetic diesel fuel tank	10 gal. (40 L)
FTANK60A	Synthetic diesel fuel tank	15 gal. (60 L)
FTANK80A	Synthetic diesel fuel tank	21 gal. (80 L)
FTANK40B	Synthetic diesel fuel tank	10 gal. (40 L)
FTANK60B	Synthetic diesel fuel tank	15 gal. (60 L)
FTANK80B	Synthetic diesel fuel tank	21 gal. (80 L)



Dimensions: plus or minus 2%. Height dimensions includes connectors

Fuel systems

Rigid tanks for diesel fuel

ATANK series

Versatile and durable

The ATANK is a strong, multi-purpose tank designed to hold diesel fuel, wastewater (both black and gray water), or fresh water. It is made from thick, odor-proof, high-quality polyethylene, which makes it more resistant to pressure. Unlike metal tanks, it does not corrode and produces less condensation. An inspection lid and fittings can be installed wherever needed (sold separately). Labels for different types of fluids, such as diesel fuel, are included.

Specifications

- Available in 11, 16, 23, 29, 36, 44.9, 56.8, 88.5 and 103 gal. (42, 61, 88, 110, 137, 170, 215, 335 and 390 L)
- Light blue translucent polyethylene
- Durable: Thick-walled construction
- Corrosion-resistant: Ideal for long-term use in tough environments
- Multi-purpose: Suitable for diesel fuel, wastewater (black water and gray water), and fresh water
- Flexible installation: Fittings can be placed where needed

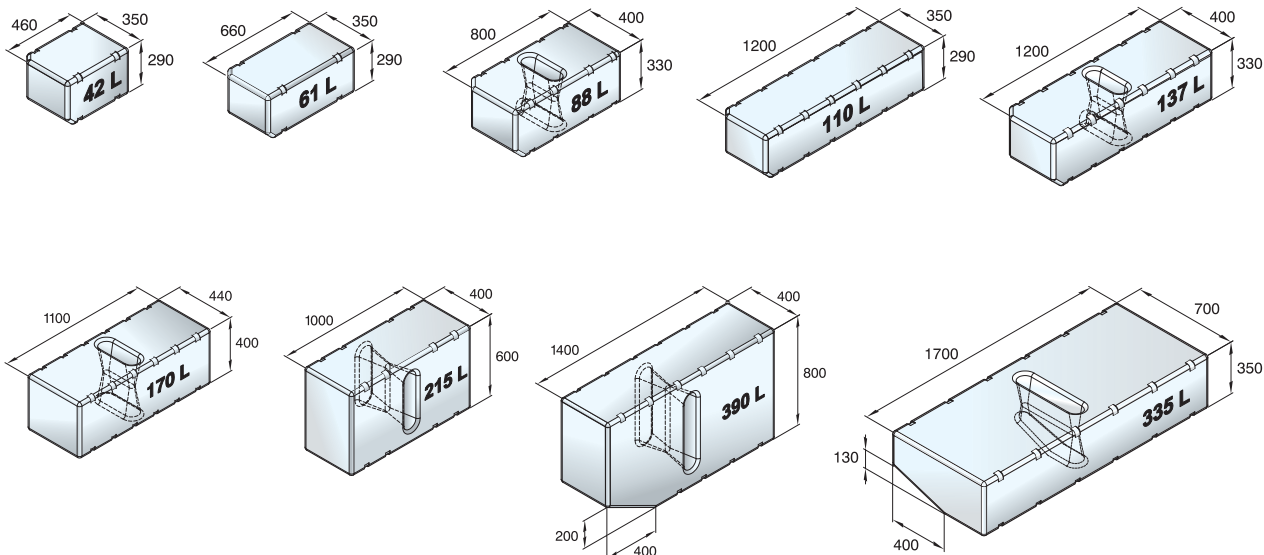
Some ATANK models include an integrated baffle that reduces liquid movement inside the tank during sailing. This improves stability and reduces noise.



ATANK

Type	Suitable for	Capacity gallon (ltr)	Wall thickness inches (mm)	Baffle integrated	Color
ATANK042	Diesel (wastewater or fresh water)	11 (42)	³ / ₁₆ (5)		Light blue translucent
ATANK061	Diesel (wastewater or fresh water)	16 (61)	³ / ₁₆ (5)		Light blue translucent
ATANK088	Diesel (wastewater or fresh water)	23 (88)	¹⁵ / ₆₄ (6)	✓	Light blue translucent
ATANK110	Diesel (wastewater or fresh water)	29 (110)	¹⁵ / ₆₄ (6)		Light blue translucent
ATANK137	Diesel (wastewater or fresh water)	36 (137)	¹⁵ / ₆₄ (6)	✓	Light blue translucent
ATANK170	Diesel (wastewater or fresh water)	44.9 (170)	¹ / ₄ (6.5)	✓	Light blue translucent
ATANK215	Diesel (wastewater or fresh water)	56.8 (215)	¹ / ₄ (6.5)	✓	Light blue translucent
ATANK335	Diesel (wastewater or fresh water)	88.5 (335)	⁹ / ₃₂ (7)	✓	Light blue translucent
ATANK390	Diesel (wastewater or fresh water)	103 (390)	⁹ / ₃₂ (7)	✓	Light blue translucent

Dimensions: plus or minus 2%





Rigid tanks for diesel fuel

Rigid all-purpose tanks for diesel fuel – APT Series

Diesel, fresh water, or wastewater: this tank can handle it all

The APT tanks are designed for storing diesel fuel, fresh water, and wastewater. They are made from high-quality polyethylene with an antibacterial additive. All tanks come with a large inspection lid and are prepped for the ILTCONF38 connection kit. A 1½" (38 mm) hose connection at the bottom can be drilled open for interconnection or draining.

Specifications

- Available in 13.2, 19.8, 26.4, 39.6, 52.8 and 72.6 gal. (50, 75, 100, 150, 200, and 275 L)
- Made of high-quality polyethylene with an antibacterial additive
- Suitable for diesel fuel, fresh water, or wastewater
- Large inspection lid (suitable diameter +/- 5 1/8" (130 mm)) to meet ISO 21487 (fuel tank standard)
- 1½" (38 mm) bottom hose connection (can be drilled open if needed) for interconnection or draining
- Ready for ILTCONF38 connection kit
- Easy to clean and inspect thanks to the wide access lid
- Strong and durable for long-term marine use due to design and wall thickness
- Clear identification: supplied with labels for all contents



APT

Type	Tank capacity gallon (ltr)	Maximum tank pressure (bar)	Wall thickness inches (mm)	Connection inches (mm)	Color
APT050	13.2 (50)	0,3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONF38-ready	Light blue translucent
APT075	19.8 (75)	0,3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONF38-ready	Light blue translucent
APT100	26.4 (100)	0,3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONF38-ready	Light blue translucent
APT150	39.6 (150)	0,3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONF38-ready	Light blue translucent
APT200	52.8 (200)	0,3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONF38-ready	Light blue translucent
APT275	72.6 (275)	0,3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONF38-ready	Light blue translucent

* can be drilled open if needed.

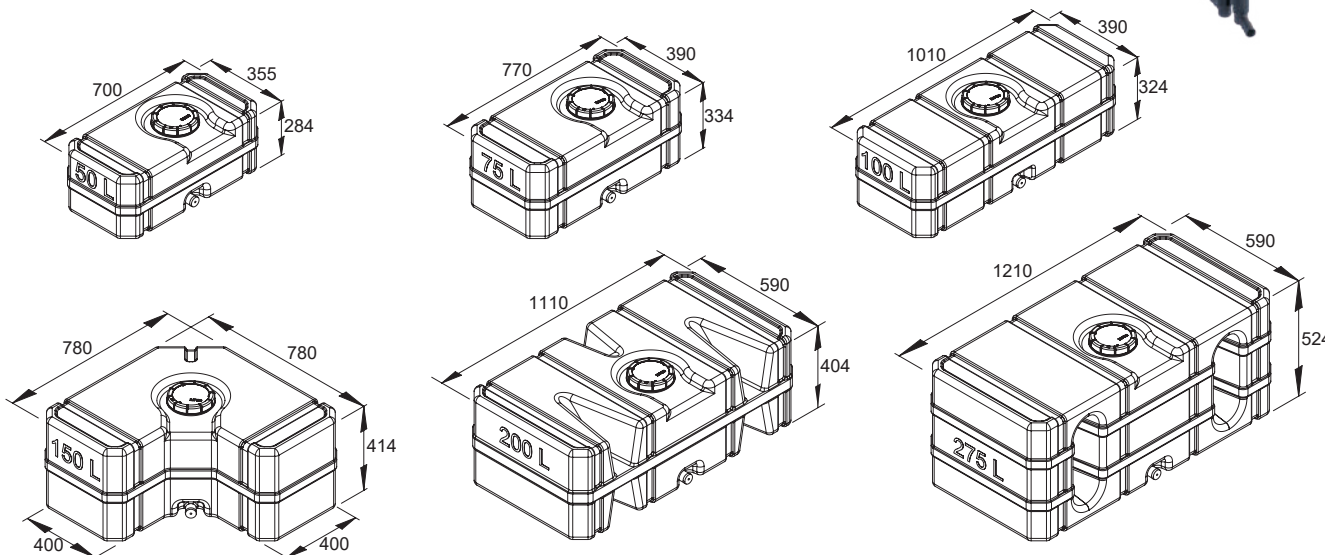
Recommended Accessories – VTSTRAP Lashing Straps & WRILT Lid Opener

For secure installation of your APT tank, we recommend the VTSTRAP lashing strap set. Each set includes two straps, each measuring 9.8 ft. (3 m) long and 1" (25 mm) wide.

For easy and hassle-free lid handling, we recommend the WRILT opener (see page 168).



ILTCONF38 (Fuel)



Fuel systems

Connection kit for rigid tanks

Type FTL....B

Saves considerable installation time

This connection kit has an anodized, salt water resistant aluminium lid with a counter flange and a rubber seal which is tightened very easily with just 3 bolts compressing the rubber seal to ensure a perfect seal. The set contains all the required connections, only one single hole with a diameter of 4³¹/₆₄" (114 mm) needs to be cut in the top of the fuel tank. This connection kit is also suitable for plastic, metal or GRP, diesel or petrol fuel tanks.

The following connections are supplied

- Hose connection for filling Ø 1½" (38 mm) or 2" (51 mm) and a 5/8" (16 mm) tank ventilation connection
- Fuel suction pipe according to model selected
 - Ø 5/16" (8 mm), max. tank depth 440 mm
 - Ø 3/8" (10 mm), max. tank depth 850 mm
 - Ø 5/8" (16 mm), max. tank depth 970 mm
- Fuel return for Ø 5/16", 3/8" or 5/8" (8, 10 or 16 mm) hose
- Mounting flange for tank level sensors (connection is suitable for sensors with a 5-hole SAE flange)
- Terminal tag 1/4" (6.3 mm) for ground wire
- Two lashing straps to secure tank



FTL38..B

FTL51..B

Type	Filler inches (mm)	Supply/return Ø inches (mm)	Vent inches (mm)
FTL3808B	1½ (38)	5/16 (8)	5/8 (16)
FTL3810B	1½ (38)	3/8 (10)	5/8 (16)
FTL3815B	1½ (38)	5/8 (16)	5/8 (16)

Type	Filler inches (mm)	Supply/return Ø inches (mm)	Vent inches (mm)
FTL5108B	2 (51)	5/16 (8)	5/8 (16)
FTL5110B	2 (51)	3/8 (10)	5/8 (16)
FTL5115B	2 (51)	5/8 (16)	5/8 (16)

VTSTRAP

Lashing straps with VETUS logo.

Type	Description
VTSTRAP	Lashing straps, two pieces, 9.8 ft x 1" (3 m x 25 mm) with VETUS logo

VTSTRAP



Type FTLDB

For installation of twin tanks

With this interconnection kit, two VETUS fuel tanks can be connected. The lid of this set has two 5/8" (16 mm) connections for tank ventilation. Two brass skin fittings (G3/4) and a coupling are supplied to connect the tanks. Including two lashing straps to secure the tank.

Type	Description
FTLDB	Connection kit for two fuel tanks
VSAW114	Ø 4 ³¹ / ₆₄ " (114 mm) hole saw for FTL. For synthetic, G.R.P. or metal tanks

FTLDB





The all-in-one tank solution: the VETUS ILT system!

An inspection opening in all tanks is crucial and is a mandatory requirement for fuel tanks*, so a compliant and versatile system is the ideal solution.

Easy to install and ensuring a perfect seal, the VETUS ILT tank inspection and connection system fulfills all purposes and is suitable for freshwater, waste water and fuel tanks, whether plastic, G.R.P. or metal.

The ILT tank system passes all mandatory regulations worldwide, including the required inspection access opening size, as stated in ABYC H-33.10.3. In addition, our customers appreciate the timesaving, ease of installation and prevention of leaks.

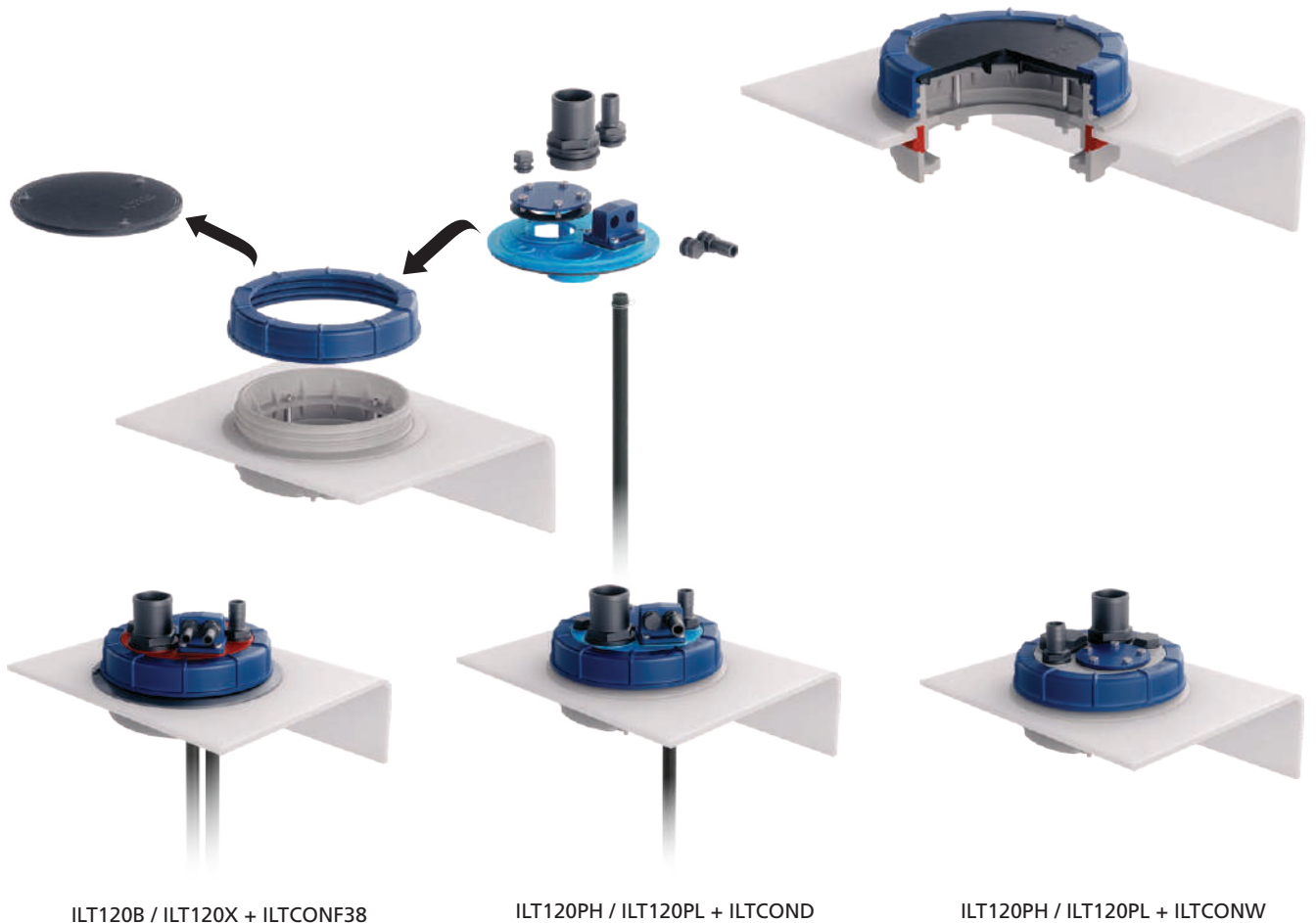
VETUS' advice is to install as many inspection lids as necessary to check, rinse, and clean the tank thoroughly as part of an annual maintenance schedule. As bacteria growth increases exponentially with time, regular preventative servicing is key to ensure these critical systems remain reliable.

The unique clamp design facilitates fast installation, easy opening, simple inspections, and cleaning of the tank. Even after being closed for a long time, the lid will open easily because there is no rotational friction to overcome. Additionally, depending on how the tank is positioned, it's even possible to inspect the inside of the tank without disconnecting the hose connections, resulting in reduced maintenance time and potentially labor cost savings.

The inspection port has a counter flange and a rubber seal which are inserted into a Ø 6¼" (159 mm) hole in the tank. To make the hole, we highly recommend using the VETUS hole saw VSAW159, which is available separately at a very attractive price. The only requirement is to tighten the 4 supplied bolts which compress the rubber seal to ensure perfect sealing. The 'clamp and seal' design simplifies installation, with the drilling of a Ø 6¼" (159 mm) hole the hardest task. Following the clear installation steps will guarantee the connections are strong and leak free. The lids come with pre-installed connections for the most common use situations. Extra connections and plugs are also supplied in the kit.

*ISO 21487 Small craft - Permanently installed fuel systems: This ISO standard requires a 4¾" (120 mm) inspection lid on your fuel tank. This is not only regulated by law, but also a sensible fixture given the problems that possible fuel contamination can cause.

This mandatory standard for fuel tanks includes a stringent fire test, which the ILT120B (for diesel) and ILT120X (for diesel and petrol) passed with ease. This is a unique quality, as VETUS is the only company with a certificate for a standalone ILT120 (B & X) unit.



Fuel systems

Inspection ports

Universal inspection port for tanks type ILT120B and ILT120X

Innovative inspection port with robust design

The VETUS ILT is an innovative inspection port which facilitates easy opening, inspecting and cleaning the tank, even after being closed for a long time. The ILT120 is available in two ISO approved models: the ILT120B and the ILT120X. By improving the design of the cover and reinforcing the material with fiberglass, they now meet both the ISO 21487 and ISO 10088 standards.

ISO 10088 Small craft - Permanently installed fuel systems

This ISO standard requires a 4¾" (120 mm) inspection port in the fuel tank. This is not only regulated by law but is also a sensible fixture given the problems that possible fuel contamination can cause.

ISO 21487 Small craft - Permanently installed petrol and diesel fuel tanks

This mandatory standard for fuel tanks includes a stringent fire test, which both the ILT120B and ILT120X passed with ease! A unique performance, as we are the only company with a certificate for a standalone inspection port.

Customers who use our certified VETUS tanks together with one of these inspection ports will have an instantly approved system.

Both inspection ports have a counter flange and a rubber seal which are inserted into a Ø 6¼" (159 mm) hole in the tank. All that needs to be done is tighten the four supplied bolts which compresses the rubber seal to ensure perfect sealing. The "clamp and seal" design simplifies installation, making the drilling of a Ø 6¼" (159 mm) hole the hardest part of the installation! The black blind plate can be replaced with connection kit ILTCONF38.

ILT120B

Suitable for (up to 10% bio)diesel, fresh and waste water tanks.

- Internal aperture: 4¾" (120 mm) - Cut-out dimensions: Ø 6¼" (159 mm)
- Suitable for G.R.P., stainless steel and plastic tanks with different wall thicknesses
- A hole saw is available separately. Article code: VSAW159

ILT120X

Suitable for petrol or (>10% bio) diesel fuel tanks.

- Viton gasket set for use with petrol or (>10% bio)diesel fuel
- Internal aperture: 4¾" (120 mm) - Cut-out dimensions: Ø 6¼" (159 mm)
- Suitable for G.R.P., stainless steel and plastic tanks with different wall thicknesses
- A hole saw is available separately. Article code: VSAW159



ILT120B

ILT120X

Fuel connection kit type ILTCONF38

This fuel connection disc will take care of all fuel related connections

- Ø 1½" (38 mm) fuel fill connection
- Ø 5/16" / 3/8" (8 / 10 mm) fuel suction connection
- Ø 5/16" / 3/8" (8 / 10 mm) fuel return connection
- Ventilation connection Ø 5/8" (16 mm)
- 5 hole SAE flange tank level sensor connection
- Ø 5/16" (8 mm) suction connection for marine diesel heaters



ILTCONF38

WRILT - ILT lid opener

To make the opening and closing of ILT lids easy and hassle-free, we have developed the WRILT, a well-designed lid opener to facilitate the motion of stubborn lids.



WRILT

Type	Description	Diameter inches (mm)	Diameter hole inches (mm)
ILT120B	Inspection port with counter flange (ISO 10088 and ISO 21487 compliant)	4¾" (120)	6¼ (159)
ILT120X	Inspection port with counter flange and Viton ring, suitable for petrol and 10% >(bio)diesel (ISO 10088 and ISO 21487 compliant)	4¾" (120)	6¼ (159)
VSAW159	Ø 6¼" hole saw for plastic, G.R.P. or metal tanks		6¼ (159)
ILTCONF38	Fuel connection kit		
ILTCON90	Ø 1½" (38 mm) 90-degree fill connection elbow for ILTCONF38		
WRILT	Wrench for ILT120		



No-smell filters

No-smell filters for diesel tanks type NSFD/S

Remedy for escaping diesel fuel odors

With these filters, diesel fuel smells can no longer escape through the breather line, which is required for all fuel tanks on boats. The no-smell filters are easy to install and contain activated carbon material to absorb odors. To avoid diesel fuel and froth entering the filter housing and its element, it is imperative to install in combination with a Splash-Stop (page 163). A VETUS no-smell filter should not be used for petrol tanks.

Specifications

- Model NSFD: l 5¹³/₁₆" x w 5¹⁵/₁₆" x h 6³/₈" (148 x 150 x 162 mm)
- Suitable for Ø 5/8", 3/4" or 1" (16, 19 or 25 mm) connectors
- Model NSFDS: l 4⁷/₃₂" x w 4⁹/₁₆" x h 4⁹/₁₆" (107 x 111 x 111 mm)
- Only suitable for Ø 5/8" (16 mm) breather hose

Please note

The filter element is replaceable. Replacement can be done with traditional carbon filters or with the improved solution: the dual function filter canister type NSFCAN. It should be renewed once a year.



NSF.D

NSF16DS

Type	Description	L x W x H inches (mm)	Hose Ø inches (mm)
NSF16D	Large no-smell filter	5 ¹³ / ₁₆ x 5 ²⁹ / ₃₂ x 6 ³ / ₈ (148 x 150 x 162)	5/8 (16)
NSF19D	Large no-smell filter	5 ¹³ / ₁₆ x 5 ²⁹ / ₃₂ x 6 ³ / ₈ (148 x 150 x 162)	3/4 (19)
NSF25D	Large no-smell filter	5 ¹³ / ₁₆ x 5 ²⁹ / ₃₂ x 6 ³ / ₈ (148 x 150 x 162)	1 (25)
NSF16DS	Small no-smell filter	4 ⁷ / ₃₂ x 4 ³ / ₈ x 4 ³ / ₈ (107 x 111 x 111)	5/8 (16)
NSF16FES	Spare filter element for small no-smell filters		
NSF16FE	Spare filter element for large no-smell filters		

No-smell filters element type NSFCAN

Revolutionary dual function

Type NSFCAN is a pre-filled canister with a measured quantity of activated carbon and special gel granules. The combination of gel granules and carbon provides a perfect dual function. Traditional carbon filters often lose efficiency due to humidity and condensation. The gel granules in this filter absorb the moistures which cause the efficiency loss and also ensure significantly less airborne moisture allowed into the fuel tank.

Specifications

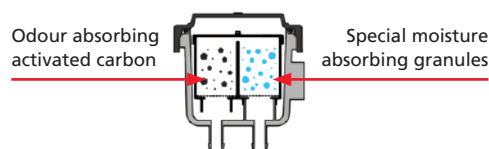
- Suitable for new and existing VETUS no-smell filters type NSFD
- Transparent cover so you can easily see when the special gel is saturated and replacement of the canister is necessary
- The filters reduce the risk of mould and 'diesel bug' in the tank (moisture in diesel fuel can be a perfect breeding ground for mould and bacteria)
- The smaller version type NSFCANS can be used with no-smell filter NSF16DS



NSFCAN

NSFCANS

Type	Description
NSFCAN	Dual function no-smell filter canister for type NSF_D filters
NSFCANS	Dual function no-smell filter canister for type NSF_DS filters



Fuel systems

Accessories

Hole saw type VSAW

Type	Description
VSAW114	Ø 4 ^{31/64} " (114 mm) hole saw for FTL. For synthetic, G.R.P. or metal tanks
VSAW159	Ø 6 ^{1/4} " (159 mm) hole saw for ILT120. For synthetic, G.R.P. or metal tanks

VSAW114

VSAW159



FUELSAFE

No more fuel pumped out of the tank

Type FUELSAFE is made of petrol and diesel resistant synthetic material. No dismantling is required which makes installation of this safety device very simple. The plastic packaging sleeve can be used to insert the device.

Specifications

- Dimensions Ø 2^{11/64}" x 2^{53/64}" (55 x 72 mm)
- Suitable for hoses with internal diameters of Ø 1^{1/2}" (38 mm) and 2" (51 mm)

Type	Description
FUELSAFE	Fuel theft security device



FUELSAFE

Fuel filling hose type FFHOSE

Extremely flexible!

This type of hose, made of NBR rubber with spiraled steel inlay, is suitable for petrol and diesel fuels. Type FFHOSE meets requirements of SAE J 1527 and the standard ISO 7840 marine fuel A1 and is resistant to temperatures of -22° and +212°F (-30° and up to 100°C).



FFHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight kg/m	Max. pressure bar	Bending radius inches (mm)	Roll length (m)	HCHDS clamp	HCS clamp
FFHOSE38	1 ^{1/2} (38)	1 ^{5/16} (50)	1.1	4	3 (76)	20	HCHDS047	HCS40
FFHOSE51	2 (51)	2 ^{1/2} (63)	1.5	4	4 (102)	20	HCHDS063	HCS60

Type FHA115

Especially suitable for use with petrol because of its low permeability of less than 15 gr/m²/ 24 hour. The lining is translucent nylon for fuel and permeation resistance to 212°F (100°C). These fuel hoses have been successfully subjected to a fire test for 2.5 minutes.

Suitable for diesel fuel, bio diesel (up to B100), petrol fuel, oil and ethanol.

Meets the highest standards: ISO 7840 marine fuel A1-15 and ISO 10088, ABYC, CARB, EPA, SAE J 1527 A1-15, NMMA Type Accepted (2618936 and 2618937), USCG A1.



FHA115

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight kg/m	Max. pressure bar	Bending radius inches (mm)	Roll length (m)	HCS clamp
FHA11508A	5/16 (8)	5/8 (16)	0.19	7	2 ^{1/2} (63.5)	76	HCS16
FHA11510A	3/8 (10)	1 ^{1/16} (17)	0.23	7	2 ^{1/2} (63.5)	76	HCS16



Accessories

Fuel hose type FUHOSEA

For transportation of petrol and diesel fuels

The inside is made of NBR rubber and the outside is CR rubber. This hose can also be used as a ventilation line. Available as quality type A1, which means that these fuel hoses have been successfully subjected to a fire test for 2.5 minutes and have a maximum permeability of 100 grams/m²/ 24 hour.

Meets the standard: ISO 7840 marine fuel A1.



FUHOSEA

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight kg/m	Max. pressure bar	Bendingradius inches (mm)	Roll length (m)	HCHDS clamp	HCS clamp
FUHOSE05A	3/16 (5)	7/16 (11)	0.13	10	7/8 (22)	30		HCS08
FUHOSE06A	1/4 (6)	1/2 (13)	0.16	10	1 (25)	30		HCS12
FUHOSE08A	5/16 (8)	5/8 (16)	0.24	10	1 3/16 (30)	30		HCS12
FUHOSE10A	3/8 (10)	1 1/16 (18)	0.28	10	1 3/8 (35)	30		HCS16
FUHOSE13A	1/2 (13)	7/8 (22)	0.39	10	1 5/16 (50)	30		HCS20
FUHOSE16A	5/8 (16)	1 (25)	0.45	10	2 3/8 (60)	30		HCS25
FUHOSE19A	3/4 (19)	1 1/8 (28)	0.52	10	3 1/8 (80)	30		HCS25
FUHOSE25A	1 (25)	1 3/8 (35)	0.73	10	4 5/16 (110)	30	HCHDS034	HCS32

For a complete overview of our range of hoses see page 466. HCHDS (heavy duty) and HCS clamps are made of stainless steel (AISI 316). For a complete overview of our range of hose clamps see page 440.

Ultrasonic level sensors

Accurate, contactless tank monitoring

The VETUS SENSORA and SENSORB are advanced ultrasonic level sensors designed to monitor tank contents without moving parts or direct contact with the liquid. These sensors can be used in diesel or petrol tanks, water tanks, or wastewater tanks (black and grey water) of almost any shape and size - up to 3.9 ft. (120 cm) in depth. Maximum tank capacity: 1320 gal. (5000 L.). Ideal for modern boats and yachts, they offer easy installation and high reliability. Once installed, the sensor can be calibrated on site using the built-in LED and wire. No additional tools are needed.



SENSORA

SENSORB

Specifications

SENSORA - Analogue output sensor

- Contactless ultrasonic measurement for high reliability
- Compatible with all VETUS analog level gauges and WWCP panel
- Easy onboard calibration with LED and calibration wire
- Ideal for diesel or petrol, water, blackwater, greywater tanks
- Not suitable for use in metal tanks

Specifications

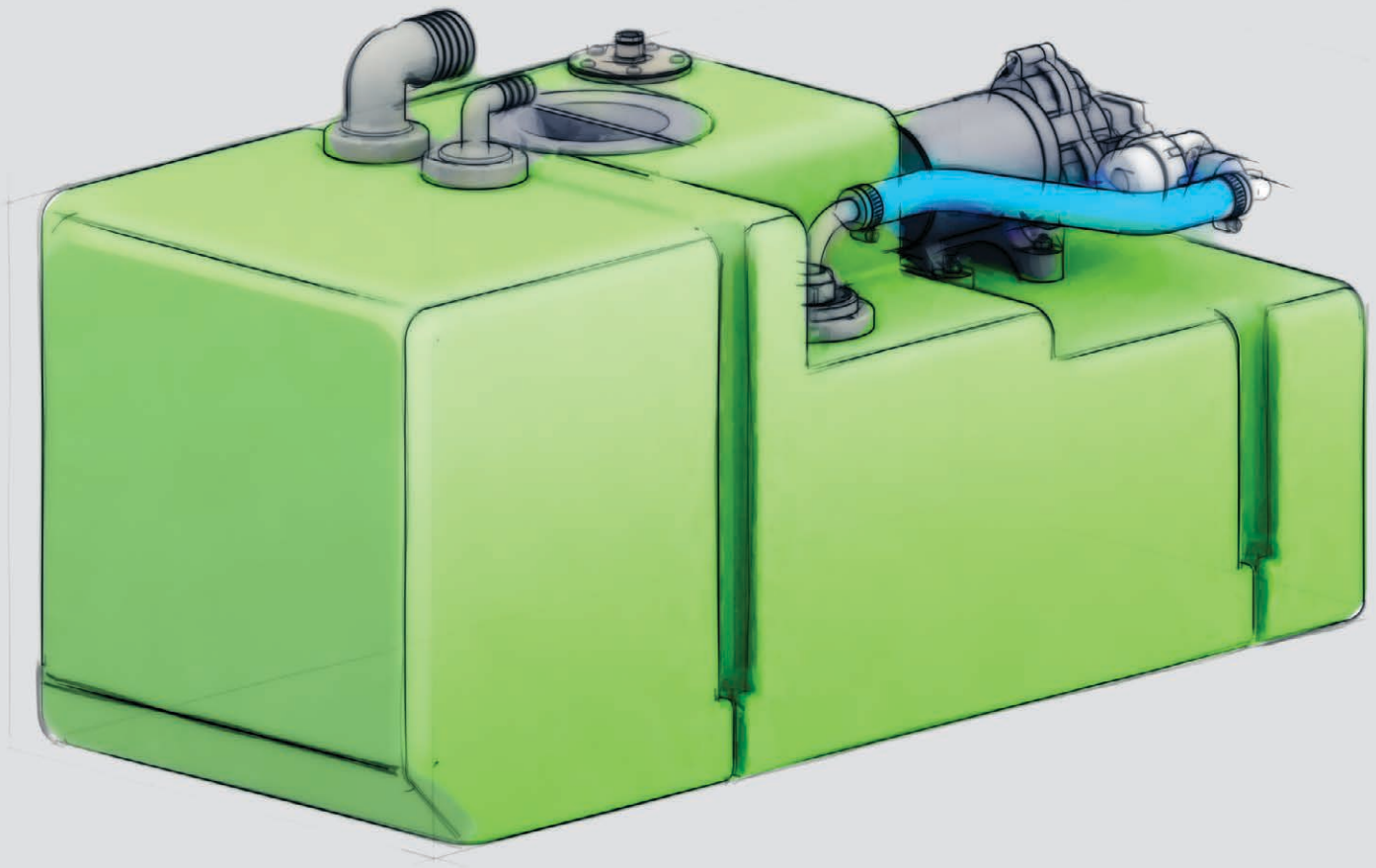
SENSORB - CANbus sensor

- Uses RS485 bus interface (CANbus type)
- Designed for integration with VETUS SENSORD digital display
- Contactless, reliable, and easy to calibrate
- Ideal for advanced digital installations
- Not suitable for use in metal tanks

Using an RS485 interface, data can be transmitted over long distances without signal loss, with greater immunity to interference and support for up to eight sensors connected to a single SENSORD panel.

Feature	SENSORA	SENSORB
Output interface	Analogue	RS485 Bus (CANbus)
Voltage	12 / 24 VDC	12 / 24 VDC
Current draw	35 mA	35 mA
Max. tank depth	3.9 ft. (120 cm)	3.9 ft. (120 cm)
Accuracy	±5%	±5%
Temperature range	-4 to 158°F (- 20 to + 70°C)	-4 to 158°F (- 20 to + 70°C)
Mounting flange	SAE, 5-hole	SAE, 5-hole
Dimensions	Ø 3 1/32" x 2 9/32" (77 x 23 mm)	Ø 3 1/32" x 2 9/32" (77 x 23 mm)
Compatibility	Analogue gauges, WWCP panel	SENSORD digital display
Suitable for	Fuel, water, black/grey water tanks	Fuel, water, black/grey water tanks
Not suitable for	Metal tanks	Metal tanks





Fresh water systems

Overview VETUS Fresh water systems

Rigid tanks see page 177 - 180



APT

WTANKC



DWSC

Flexible tanks see page 181



TANKW

Water heaters see page 182 - 183



WHT



WHD

Pressurized water systems

see page 184



PFWS..08



PFWS..19



Pressurized water system pumps

see page 185



WP

Accumulator tank

see page 185



EXPAT075

Accessories see page 186 - 189



DWHOSEB



HWHOSE



WTK02



WTIKIT



SENSOR



SENSORA
SENSORB



WTKIT



ILT120



ILTCOND

Accessories for hot water systems see page 190



WTS44513B



WHEL



WHMIXER



Fresh water systems

Fresh water systems - Safe, efficient, and easy to install

Clean fresh water is essential on board, whether you're cruising for a weekend or living aboard long-term. VETUS offers a complete and modular fresh water system that ensures long-lasting water quality, quiet operation, and simple installation. From tanks and heaters to pumps and accessories, every component is engineered for marine use and ease of maintenance.

Why choose a VETUS fresh water system?

- Wide variety of tanks: Our tanks are available in both rigid and flexible designs, made from high-quality materials that resist contamination and odors
- Easy access for cleaning: Large inspection covers make tank maintenance straightforward
- Durable design: Rigid tank with wall thickness of $\frac{3}{16}$ "- $\frac{5}{16}$ " (5-8 mm) to withstand onboard conditions
- Complete systems: Choose from a range of pressure systems with integrated pumps
- Electronic components are available in multiple voltage options
- Wide capacity range: Rigid and flexible tanks available in various sizes
- Corrosion-resistant: High-quality polyethylene materials avoid the issues found with metal tanks, such as corrosion

Components of the VETUS fresh water system

Rigid tanks

Made from robust high-quality polyethylene materials and available in many shapes and capacities. Designed for durability and hygiene.

Ready-to-install tanks

Preassembled units that include an electric pump, inspection lid, level sensor, and hose connections.

Flexible tanks

Ideal for tight spaces or irregular areas; these tanks are lightweight and conform to their environment. Made with durable, multi-layered construction.

Water heaters

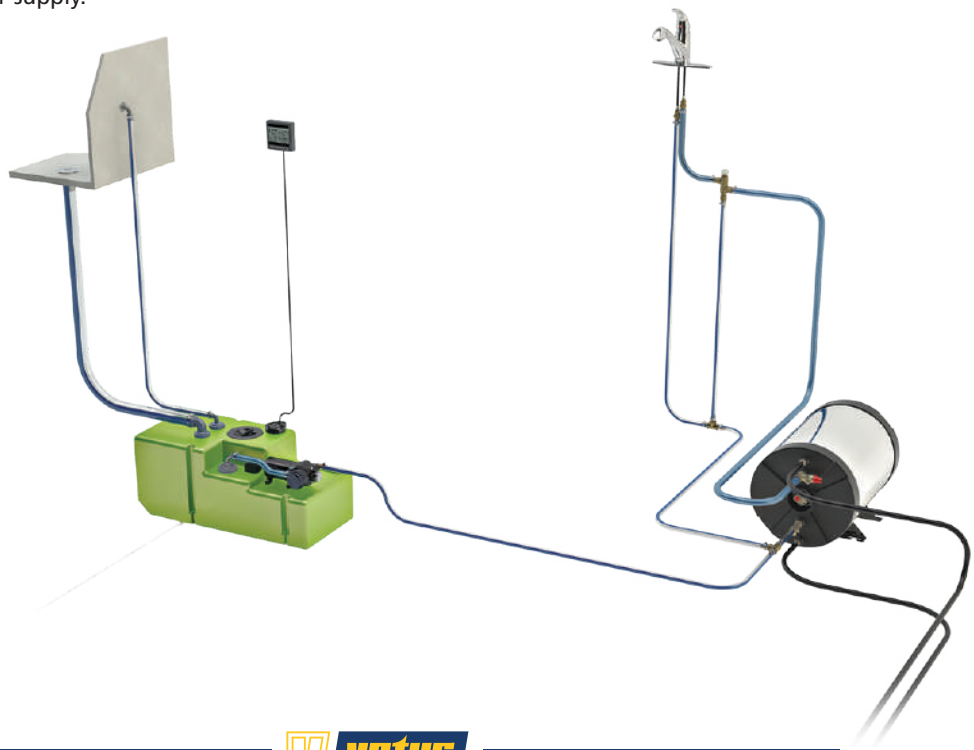
Efficient heating using either engine heat, electric elements, or even the onboard heating system (WHT calorifiers). Our advanced designs heat water faster and maintain temperature longer.

Pressurized water systems

Ensure a consistent water flow similar to household plumbing, thanks to integrated pressure tanks with diaphragm systems and pumps.

Accessories

From high-quality hoses and level sensors to connection kits and inspection ports, VETUS provides all necessary components for a reliable and hygienic fresh water supply.





Rigid tanks for fresh water

ATANK Series

Versatile and durable

The ATANK is a strong, multi-purpose tank designed to hold fresh water, waste water (both black and gray), or diesel fuel. It is made from thick high-quality polyethylene, which makes it more resistant to pressure. Unlike metal tanks, it does not corrode and produces less condensation. You can install an inspection lid and fittings wherever needed (sold separately). Labels for different contents like fresh water are included.

Specifications

- Available in 11, 16, 23, 29, 36, 44.9, 56.8, 88.5 and 103 gal. (42, 61, 88, 110, 137, 170, 215, 335 and 390 L)
- Light blue translucent polyethylene
- Durable: Thick-walled construction
- Corrosion-resistant: Ideal for long-term use in tough environments
- Multi-purpose: Suitable for fresh water, waste water (black water and gray water), and diesel fuel
- Flexible installation: Fittings can be placed where needed

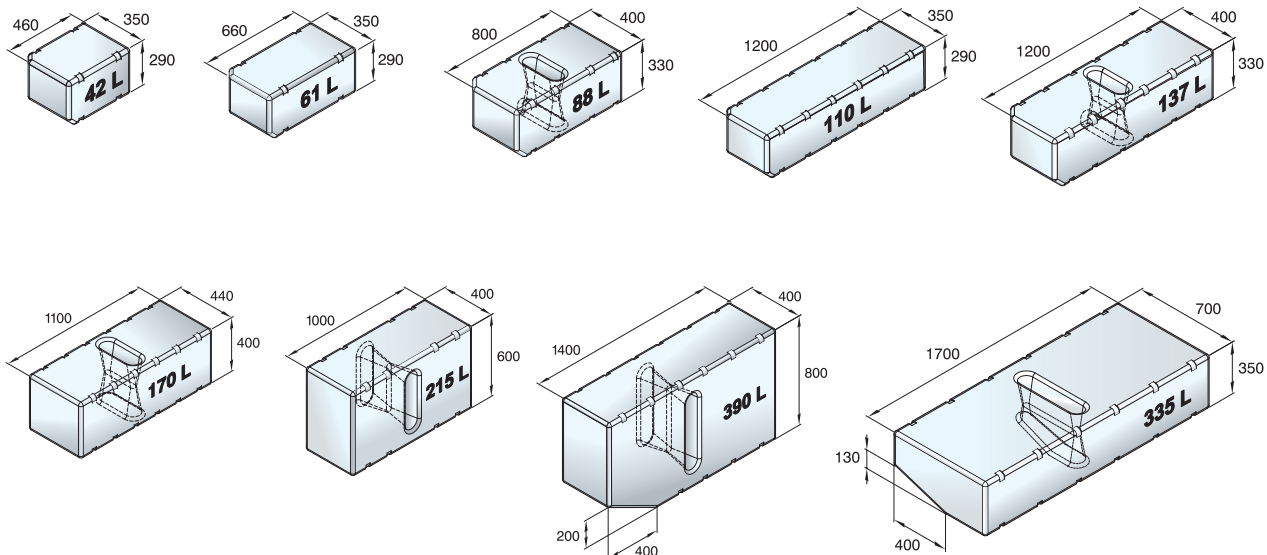
Some ATANK models include an integrated baffle that reduces liquid movement inside the tank during sailing. This improves stability and reduces noise.



ATANK

Type	Suitable for	Capacity gallon (ltr)	Wall thickness inches (mm)	Baffle integrated	Color
ATANK042	Fresh water (waste water or diesel)	11 (42)	$\frac{3}{16}$ (5)		Light blue translucent
ATANK061	Fresh water (waste water or diesel)	16 (61)	$\frac{3}{16}$ (5)		Light blue translucent
ATANK088	Fresh water (waste water or diesel)	23 (88)	$\frac{15}{64}$ (6)	✓	Light blue translucent
ATANK110	Fresh water (waste water or diesel)	29 (110)	$\frac{15}{64}$ (6)		Light blue translucent
ATANK137	Fresh water (waste water or diesel)	36 (137)	$\frac{15}{64}$ (6)	✓	Light blue translucent
ATANK170	Fresh water (waste water or diesel)	44.9 (170)	$\frac{1}{4}$ (6.5)	✓	Light blue translucent
ATANK215	Fresh water (waste water or diesel)	56.8 (215)	$\frac{1}{4}$ (6.5)	✓	Light blue translucent
ATANK335	Fresh water (waste water or diesel)	88.5 (335)	$\frac{9}{32}$ (7)	✓	Light blue translucent
ATANK390	Fresh water (waste water or diesel)	103 (390)	$\frac{9}{32}$ (7)	✓	Light blue translucent

Dimensions: plus or minus 2%



Fresh water systems

Rigid tanks for fresh water

Rigid all-purpose tanks for fresh water - APT Series

Fresh water, waste water or diesel: this tank can handle it

The APT tanks are designed for storing fresh water, wastewater, and diesel fuel. They are made of high-quality polyethylene with an antibacterial additive. All tanks come with a large inspection lid and are prepared for the ILTCOND connection kit. A 1 1/2" (38 mm) hose connection at the bottom can be drilled open for interconnection or drainage.

Specifications

- Available in 13.2, 19.8, 26.4, 39.6, 52.8 and 72.6 gal. (50, 75, 100, 150, 200, and 275 L)
- Made of high-quality polyethylene with an antibacterial additive
- Suitable for fresh water, wastewater, or diesel fuel
- Large inspection lid (suitable diameter +/- 5 1/8" (130 mm)) to meet ISO 21487 (fuel tank standard)
- 1 1/2" (38 mm) bottom hose connection (can be drilled open if needed) for interconnection or draining
- Ready for ILTCOND connection kit
- Easy to clean and inspect thanks to the wide access lid
- Strong and durable for long-term marine use due to design and wall thickness
- Clear identification: supplied with labels for all contents



Type	Tank capacity gallon (ltr)	Maximum tank pressure (bar)	Wall thickness inches (mm)	Connection (mm)	Color
APT050	13.2 (50)	0,3	5/16 (8)	Ø 1 1/2 (38) mm bottom outlet*, ILTCOND-ready	Light blue translucent
APT075	19.8 (75)	0,3	5/16 (8)	Ø 1 1/2 (38) mm bottom outlet*, ILTCOND-ready	Light blue translucent
APT100	26.4 (100)	0,3	5/16 (8)	Ø 1 1/2 (38) mm bottom outlet*, ILTCOND-ready	Light blue translucent
APT150	39.6 (150)	0,3	5/16 (8)	Ø 1 1/2 (38) mm bottom outlet*, ILTCOND-ready	Light blue translucent
APT200	52.8 (200)	0,3	5/16 (8)	Ø 1 1/2 (38) mm bottom outlet*, ILTCOND-ready	Light blue translucent
APT275	72.6 (275)	0,3	5/16 (8)	Ø 1 1/2 (38) mm bottom outlet*, ILTCOND-ready	Light blue translucent

* can be drilled open if needed.

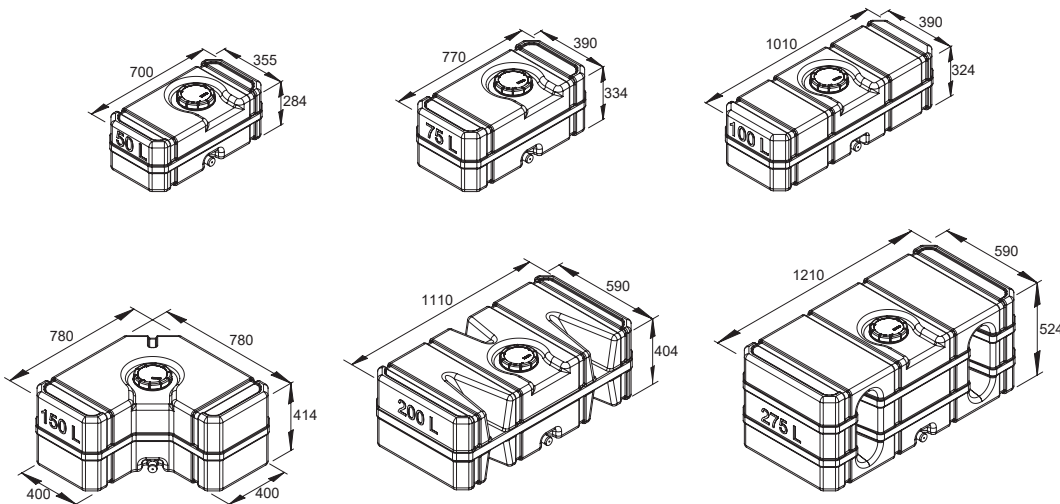
Recommended Accessories – VTSTRAP Lashing Straps & WRILT Lid Opener

For secure installation of your APT tank, we recommend the VTSTRAP lashing strap set. Each set includes two straps, each measuring 9.8 ft. (3 m) long and 1" (25 mm) wide.

For easy and hassle-free lid handling, we recommend the WRILT opener (see page 186).



ILTCOND (Fresh water)





Rigid tanks for fresh water

WTANKC Series

Quick installation with included fittings

The WTANKC tanks are designed to simplify installation and save time. They are made of green translucent high-quality polyethylene, allowing you to check liquid levels from the outside. All models are prepared with a blind hole in the standard SAE pattern for a level sensor (not included). Each tank includes fittings, an inspection lid, and mounting straps. All connections are located on top to avoid leaks.

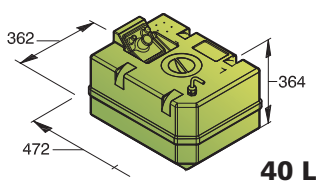
Specifications

- Tank capacities of 10.5 gal. (40 L), 15.9 gal. (60 L) or 21 gal. (80 L)
- Translucent high-quality polyethylene
- Wall thickness 1/4" (7 mm), resists pressure and deformation
- Quick installation: fittings and mounting straps included
- Easy level sensor installation: pre-molded blind holes in SAE pattern

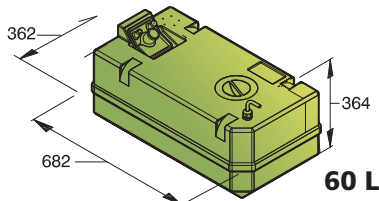


WTANKC

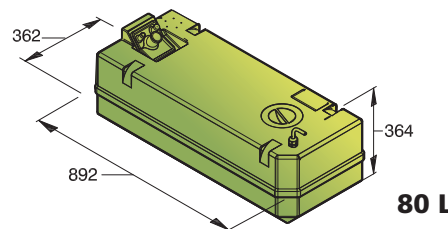
Type	Capacity gal. (liter)	Max pressure (bar)	Fill line connection inches (mm)	Vent connection inches (mm)	Suction line connection inches (mm)	SAE flange ready	Color
WTANK40C	10.5 (40)	0,3	Fixed Ø 1½ (38)	Fixed Ø 5/8 (16)	Rotating Ø ½ (13)	Yes	Green translucent
WTANK60C	15.9 (60)	0,3	Fixed Ø 1½ (38)	Fixed Ø 5/8 (16)	Rotating Ø ½ (13)	Yes	Green translucent
WTANK80C	21 (80)	0,3	Fixed Ø 1½ (38)	Fixed Ø 5/8 (16)	Rotating Ø ½ (13)	Yes	Green translucent



40 L



60 L



80 L

Height dimension includes connectors



Fresh water systems

Rigid tanks for fresh water

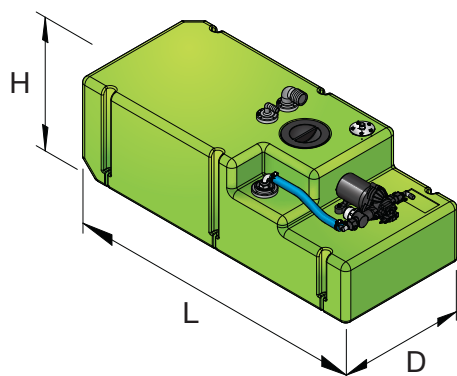
Fresh water system type DWSC

Comfort 'ready to go' system

This high grade synthetic tank for fresh water is supplied with an electric pump which automatically switches on when the pressure in the system drops (for example when a tap is opened).

Specifications

- Tank capacity of 11 gal. (42 L), 16 gal. (61 L)
- Wall thickness is 1/4" 6,5 mm
- System is available for 12 or 24 VDC
- Pump capacity 3.5 gal./min (13.2 L/min) at zero head
- Connections for filling line Ø 1 1/2" (38 mm), outlet line Ø 1/2" (13 mm) and ventilation line Ø 5/8" (16 mm)
- Also supplied with inspection cover, float sensor, connectors and filter in suction line



DWSC

Type	Tank capacity gal. (L)	Voltage (DC)	Ø Filler connection inches (mm)	Ø Breather connection inches (mm)	Ø Outlet connection inches (mm)	Pump capacity g/min (l/min)	Pump pressure PSI (Bar)	L Length inches (mm)	D Depth inches (mm)	H Height inches (mm)
DWSC04212	11.1 (42)	12	1 1/2 (38)	5/8 (16)	1/2 (13)	3.49 (13.2)	44.96 (3.1)	24 (610)	13 3/4 (350)	15 3/4 (400)
DWSC04224	11.1 (42)	24	1 1/2 (38)	5/8 (16)	1/2 (13)	3.49 (13.2)	44.96 (3.1)	24 (610)	13 3/4 (350)	15 3/4 (400)
DWSC06112	16.11 (61)	12	1 1/2 (38)	5/8 (16)	1/2 (13)	3.49 (13.2)	44.96 (3.1)	30 11/16 (780)	13 3/4 (350)	15 3/4 (400)
DWSC06124	16.11 (61)	24	1 1/2 (38)	5/8 (16)	1/2 (13)	3.49 (13.2)	44.96 (3.1)	30 11/16 (780)	13 3/4 (350)	15 3/4 (400)
DWSC08812	23.25 (88)	12	1 1/2 (38)	5/8 (16)	1/2 (13)	3.49 (13.2)	44.96 (3.1)	36 5/8 (930)	15 3/4 (400)	15 3/4 (400)
DWSC08824	23.25 (88)	24	1 1/2 (38)	5/8 (16)	1/2 (13)	3.49 (13.2)	44.96 (3.1)	36 5/8 (930)	15 3/4 (400)	15 3/4 (400)
DWSC12012	31.7 (120)	12	1 1/2 (38)	5/8 (16)	1/2" (13)	3.49 (13.2)	44.96 (3.1)	41 5/16 (1050)	17 11/16 450	15 3/4 (400)
DWSC12024	31.7 (120)	24	1 1/2 (38)	5/8 (16)	1/2" (13)	3.49 (13.2)	44.96 (3.1)	41 5/16 (1050)	17 11/16 450	15 3/4 (400)



Flexible tanks for fresh water

Type TANKW

Easy installation

These tanks are lightweight and can be installed easily and quickly; they adapt to the shape of the space they are placed in. They can often be used in difficult or hard-to-reach locations. All fittings are supplied as standard. The only task is to install the outlet fitting and connect the inlet and outlet hoses.

Standard supplied with

- Right angle connector for filling pipe \varnothing 1 1/2" (38 mm) (is fitted to the top of the tank)
- Right angle connector for the pump hose \varnothing 3/8" (16 mm) (loose)

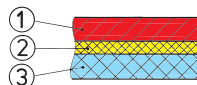
Additional nipples can be supplied as an option.



TANKW

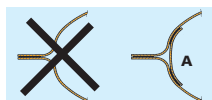
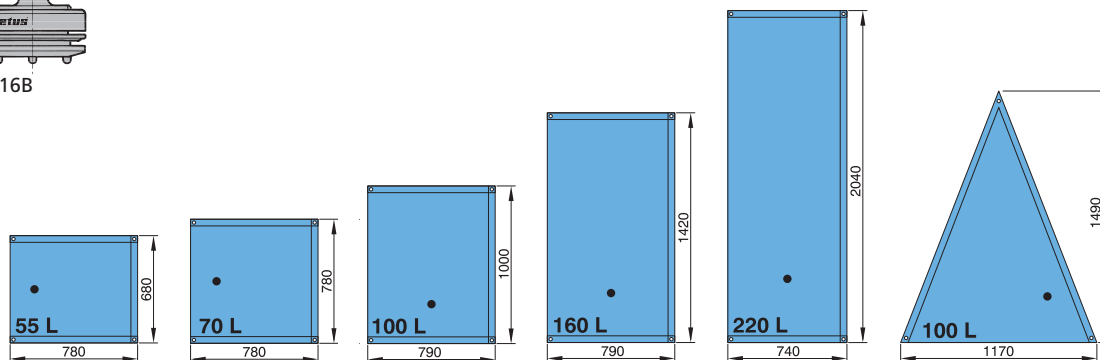
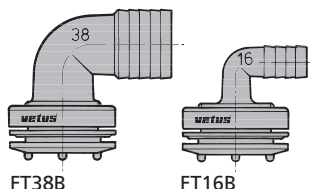
The VETUS flexible water tanks consists of three layers

1. A wear resistant layer
2. A reinforcement layer
3. A layer suitable for contact with fresh water



A repair kit is available (REPSETWT).

Type	Capacity (appr.) gallon	Dimensions (appr.) inches (mm)	Height filled (appr.) inches (mm)
TANKW55	14.5 gal. (55 L)	26 ⁴⁹ / ₆₄ x 30 ⁴⁵ / ₆₄ (680 x 780)	9 ²⁷ / ₃₂ (250)
TANKW70	18.49 gal. (70 L)	30 ⁴⁵ / ₆₄ x 30 ⁴⁵ / ₆₄ (780 x 780)	10 ⁵ / ₈ (270)
TANKW100	26.42 gal. (100 L)	31 ⁷ / ₆₄ x 39 ³ / ₈ (790 x 1000)	10 ⁵ / ₈ (270)
TANKW160	42.27 gal. (160 L)	31 ⁷ / ₆₄ x 55 ²⁹ / ₃₂ (790 x 1420)	10 ⁵ / ₈ (270)
TANKW220	58.12 gal. (220 L)	29 ⁹ / ₆₄ x 80 ⁵ / ₁₆ (740 x 2040)	10 ⁵ / ₈ (270)
TANKW1003	26.42 gal. (100 L) (Δ)	46 ¹ / ₁₆ x 58 ²¹ / ₃₂ (1170 x 1490)	9 ²⁹ / ₆₄ (240)



We not only weld the seams, but in addition we also weld an extra strip (see drawing A). This makes the VETUS flexible tank resistant against much higher pressures, especially if the contents are moving when the boat is rolling or pitching.

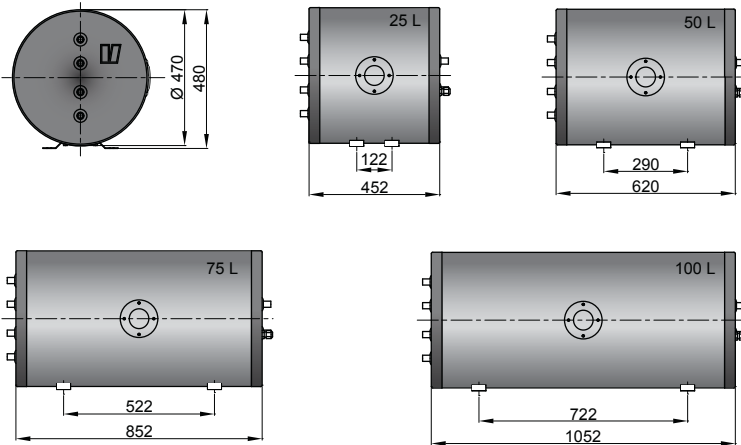


Fresh water systems

Water heaters

Standard twin coil water heater type WHT

This twin coiled calorifier range will double your comfort on board when it comes to hot water. One heating coil can be connected to the engine cooling circuit to make use of surplus engine heat. The other coil can be connected to an on board heating system. All water heaters are supplied with; a 1500 Watt electric heating element, six hose connectors $\frac{5}{8}$ " (16 mm) and a 6 bar pressure relief/non return valve.



WHT

Type	Contents of fresh water gal. (L)	Contents of coolant gal. (L)
WHT025	6.6 (25)	0.13 (0.5)
WHT050	13.21 (50)	0.13 (0.5)
WHT075	19.81 (75)	0.13 (0.5)
WHT100	26.42 (100)	0.13 (0.5)

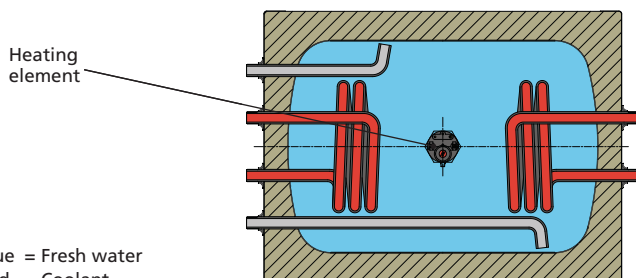
Specifications WHT

Construction

Tank	Duplex stainless steel
Insulation	Polyurethane foam, 1 $\frac{3}{32}$ " (50 mm) thickness Supplied with white painted steel outer jacket

Connections

Engine coolant	G $\frac{1}{2}$
On-board heating system	G $\frac{1}{2}$
Fresh water	G $\frac{1}{2}$
Heating element	G $1\frac{1}{4}$, 1500 Watt, 230 V
Pressure relief valve setting	6 bar (87 lb / sq.inch)



Blue = Fresh water
Red = Coolant



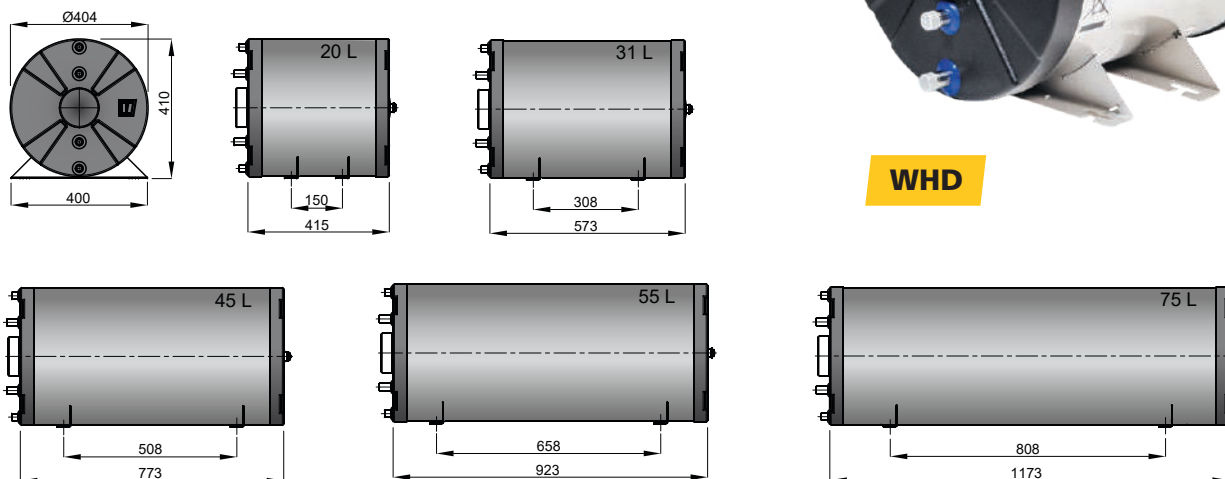
Water heaters

Premium double wall water heater type WHD

While conventional water heaters use a spiral tube to heat the water, these water heaters use a very efficient double wall principle. Thanks to this double wall principle, the VETUS double wall calorifiers have a heating surface, which is much greater than that of a conventional heating spiral tube. This means that the double walled water heaters will heat the water significantly faster than conventional calorifiers. All calorifiers are supplied with; a 1500 Watt electric heating element, 4 x 5/8" (16 mm) hose connectors and a 6 bar pressure relief/non return valve.



WHD



Type	Contents of fresh water gal. (L)	Contents of coolant gal. (L)
WHD020	5.28 (20)	0.53 (2)
WHD031	8.19 (31)	0.79 (3)
WHD045	11.89 (45)	1.32 (5)
WHD055	14.53 (55)	1.85 (7)
WHD075	19.81 (75)	2.38 (9)

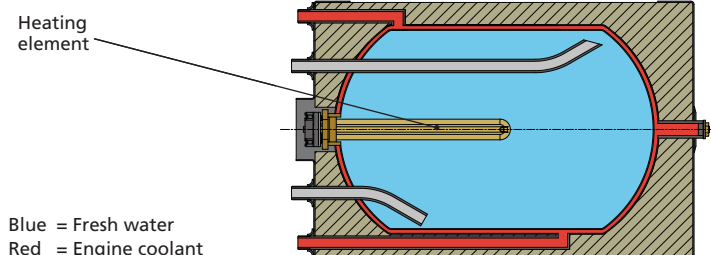
Specifications WHD

Construction

Inner + outer tank	Stainless steel, AISI 316L
Insulation	Polyurethane foam, 1 3/8" (35 mm) thickness Supplied with high gloss finished stainless steel outer jacket

Connections

Engine coolant	G 1/2
Fresh water	G 1/2
Heating element	G 1 1/4, 1500 Watt, 230 V
Pressure relief valve setting	6 bar (87 lb / sq.inch)



Blue = Fresh water
Red = Engine coolant



Fresh water systems

Pressurized water systems

Pressurized water system type PFWS

Provides consistent water flow

This PFWS pressurized water system provides a constant flow in the boat's fresh water system. It is comparable to a household plumbing system. The pressure tank with a rubber diaphragm prevents the pump motor from starting each time water is needed. The diaphragm is suitable for fresh water and can be replaced. This system ensures consistent water flow, energy savings, and minimal noise.

PFWS systems are equipped with an adjustable pressure switch, a pressure gauge, and a check valve. All VETUS pressurized water systems meet EMC requirements.

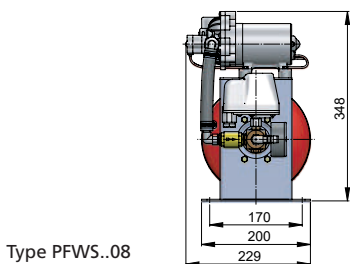


PFWS..08

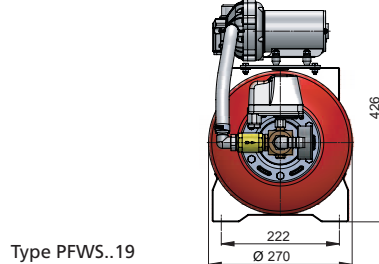
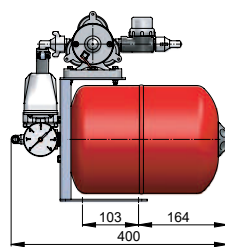


PFWS..19

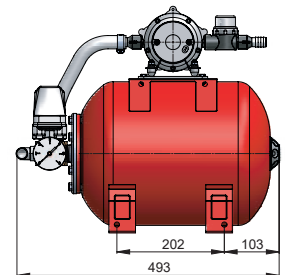
Water system	Type PFWS1208 - PFWS2408	Type PFWS1219 - PFWS2419
Pressure tank content	2.11 gal. (8 L)	5.02 gal. (19 L)
Available in	12 VDC (3.9 A) 24 VDC (2.0 A)	12 VDC (6 A) 24 VDC (2.5 A)
Hose connection	Ø 1/2 inch (13 mm)	Ø 3/4 inch (19 mm)
Weight	18.74 lb (8.5 kg)	20.94 lb (9.5 kg)
Capacity	3.48 gpm (13.2 L/min.)	5.28 gpm (20 L/min.)
Max. pressure	3.1 bar (45 psi)	4.2 bar (61 psi)
Max. suction height	5.9 ft (1.8 m)	5.9 ft (1.8 m)



Type PFWS..08



Type PFWS..19





Pressurized water systems

Pressurized water system pump type WP

Silent running and smooth operation

These pumps are designed for pressurized water systems, washing, liquid transfer etc. Type WP is noiseless, low in energy consumption and can run dry without damage. It is well equipped with a thermal overload protection, built-in check valve and is auto demand with built-in pressure switch. This pump is supplied with two straight and two angled 1/2" (13 mm) hose connections and inlet filter.



WP..08B

WP..13B

Type	Voltage (DC)	Flow	Pressure	Max Current (A)	L x W x H inch (mm)
WP1208B	12	2 gpm (7.6 lpm)	30.5 PSI (2.1 Bar)	5	8 ^{11/32} x 5 ^{1/8} x 4 ^{27/32} (212 x 130 x 123)
WP2408B	24	2 gpm (7.6 lpm)	30.5 PSI (2.1 Bar)	3	8 ^{11/32} x 5 ^{1/8} x 4 ^{27/32} (212 x 130 x 123)
WP1213B	12	3.5 gpm (13.2 lpm)	45 PSI (3.1 Bar)	7	8 ^{11/32} x 5 ^{1/8} x 4 ^{27/32} (212 x 130 x 123)
WP2413B	24	3.5 gpm (13.2 lpm)	45 PSI (3.1 Bar)	4	8 ^{11/32} x 5 ^{1/8} x 4 ^{27/32} (212 x 130 x 123)
WP1220B	12	5.3 gpm (20 lpm)	61 PSI (4.2 Bar)	15	9 x 5 ^{25/32} x 5 ^{13/64} (229 x 147 x 132)
WP2420B	24	5.3 gpm (20 lpm)	61 PSI (4.2 Bar)	8	9 x 5 ^{25/32} x 5 ^{13/64} (229 x 147 x 132)



WP..20B

Accumulator tank type EXPAT075

Steady water pressure in the system

Made from high grade polyamide, this compact small capacity accumulator with rubber membrane provides a constant flow in the vessels water circuit. The pressure in the accumulator prevents the water pump motor being started each time a supply of water is required and the butyl rubber membrane is suitable for fresh water. Connecting is easy as there is no preferred IN or OUT connection on this accumulator.

The EXPAT075 ensures a constant water flow, saves energy and minimizes noise. The accumulator is set to a pre-charge pressure of 10.15 psi (0.7 bar), but can be adjusted to optimal settings for your fresh water system (to a maximum of 123.2 psi (8.5 bar)). Overall dimensions are 8^{3/4} x 7^{5/8} x 4^{1/2}" (223 x 194 x 114 mm) and the accumulator is supplied with two angled and two straight 1/2" (13 mm) hose barbs.

Specifications

- Smooths water flow
- Extends the lifespan of your fresh water pump
- Tank is suitable for confined spaces
- Dampens pulsation in the system
- Volume: 2 gal. (0.75 liter)
- Temperature range: 32 to 122°F (0 to 50°C)
- Connections: 1/2" NPT Male
- Hose barbs: 1/2" NPT - 1/2" (13 mm) hose
- Weight: 0.36 kg



EXPAT075

Typ	Capacity gal. (L)	Max. pressure psi (bar)	Connections inches (mm)	Dimensions l x b x h inches (mm)
EXPAT075	2 (0.75)	123.2 (8.5)	1/2 (13) hose	8 ^{3/4} x 7 ^{5/8} x 4 ^{1/2} (223 x 194 x 114)



Fresh water systems

Accessories

Hose type DWHOSEB

Temperature resistant between 23 and 149 °F (-5 and +65 °C)

This hose is made of transparent PVC with spiral inlay and is suitable for transportation of fresh water on board, both suction and pressure.



DWHOSEB

Type	Internal Ø inch (mm)	External Ø inch (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inch (mm)	Roll length (m)	HCHDS clamp	HCS clamp
DWHOSE10B	3/8 (10)	5/8 (16)	0.16	7	25/32 (20)	30		HCS12
DWHOSE12B	1/2 (12)	11/16 (18)	0.18	7	1 (25)	30		HCS12
DWHOSE16B	5/8 (16)	7/8 (22)	0.24	6	1 3/8 (35)	30		HCS20
DWHOSE19B	3/4 (19)	1 (26)	0.32	5	1 31/32 (50)	30		HCS20
DWHOSE25B	1 (25)	1 5/16 (33)	0.53	5	2 3/8 (60)	30		HCS32
DWHOSE28B	1 1/8 (28)	1 7/16 (36)	0.57	4,5	2 5/8 (66)	30	HCHDS034	HCS32
DWHOSE30B	1 3/16 (30)	1 1/2 (38)	0.60	4,5	2 3/4 (70)	30	HCHDS037	HCS32
DWHOSE32B	1 1/4 (32)	1 9/16 (40)	0.56	4,5	2 15/16 (75)	30	HCHDS040	HCS40
DWHOSE35B	1 3/8 (35)	1 3/4 (44)	0.73	4	3 1/8 (80)	30	HCHDS043	HCS40
DWHOSE38B	1 1/2 (38)	1 7/8 (47)	0.80	4	3 9/16 (90)	30	HCHDS047	HCS40
DWHOSE40B	1 9/16 (40)	1 15/16 (49)	0.87	3	3 3/4 (95)	10	HCHDS047	HCS40
DWHOSE45B	1 3/4 (45)	2 3/16 (55)	1.10	3	4 1/8 (105)	10	HCHDS055	HCS50
DWHOSE50B	1 15/16 (50)	2 3/8 (60)	1.20	3	4 15/16 (125)	10	HCHDS059	HCS50

Hose type HWHOSE

Ideal for use with calorifier and hot water systems

Type HWHOSE is made of EPDM rubber with an inlay of woven synthetic fabric. This hose is suitable for drinking water and is temperature resistant between -22 and 320 °F (-30 and + 160 °C).



HWHOSE

Type	Internal Ø inch (mm)	External Ø inch (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inch (mm)	Roll length (m)	HCS clamp
HWHOSE13	1/2 (13)	29/32 (23)	0.36	8	3 3/4 (95)	10	HCS20
HWHOSE16	5/8 (16)	1 (26)	0.40	8	4 11/32 (110)	10	HCS25

For a complete overview of our range of hoses see page 466. HCHDS (heavy duty) and HCS clamps are made of stainless steel AISI 316. For a complete overview of our range of hose clamps see page 440.

VSAW159 - 6 1/4 " (159 mm) diameter hole saw

- Hole saw for making the correct tank opening
- Suitable for plastic, G.R.P., or metal tanks
- Highly recommended for accurate installation of the ILT120 serie



VSAW159

WRILT - ILT lid opener

- Ergonomic tool for easily opening and closing ILT120 lids
- Easy to use and ensures a tight, secure seal



WRILT

Type	Description
VSAW159	6 1/4 " (159 mm) diameter hole saw
WRILT	Lid opener tool for ILT120 series



Accessories

Universal inspection port for fresh water tanks ILT120PL / ILT120PH

Easy access for cleaning and inspection

These innovative VETUS inspection ports are designed for easy access to your fresh water tank. With a reliable clamp-and-seal design, they ensure a watertight fit and can be installed in both thin- and thick-walled tanks. The ILT120PL is suitable for wall thicknesses up to $\frac{5}{32}$ " (4 mm). The ILT120PH handles wall thicknesses from $\frac{5}{32}$ " to $\frac{3}{8}$ " (4-10 mm), ideal for VETUS ATANK models. Both versions have a modular design, allowing additional connection kits (such as ILTCOND) to be added for a complete fresh water system upgrade.



ILT120

Specifications

- Universal inspection port for fresh water tanks
- Watertight "clamp and seal" design with silicone gasket
- Suitable for synthetic, G.R.P., or metal tanks
- Quick and simple installation using VETUS hole saw (VSAW159)
- Compatible with ILTCOND connection kit for tank upgrades
- Robust construction with counter flange and five-bolt locking system

Specification	ILT120PL	ILT120PH
Suitable wall thickness	$\frac{1}{32}$ - $\frac{5}{32}$ " (0.8 to 4 mm)	$\frac{5}{32}$ - $\frac{3}{8}$ " (4 to 10 mm)
Suitable diameter	4 $\frac{3}{4}$ " (120 mm)	4 $\frac{3}{4}$ " (120 mm)
Required hole diameter	6 $\frac{1}{4}$ " (159 mm)	6 $\frac{1}{4}$ " (159 mm)
Material	Synthetic, corrosion-proof	Synthetic, corrosion-proof
Compatible with ILTCOND	Yes	Yes
Application	Fresh water, waste water tanks	Fresh water, waste water tanks

ILTCOND - Fresh water connection kit

All-in-one upgrade for your inspection port

The VETUS ILTCOND is a complete fresh water connection kit that transforms your ILT inspection port (ILT120PL or ILT120PH) into a fully functional connection hub.

Specifications

- Converts ILT120 inspection ports into a complete connection hub
- Includes:
 - Ø 1 $\frac{1}{2}$ " (38 mm) fresh water fill connection
 - Ø $\frac{1}{2}$ " (13 mm) fresh water suction connection
 - Ø $\frac{5}{8}$ " (16 mm) ventilation connection
- SAE 5-hole pattern for level sensor
- Made from corrosion-resistant materials
- Optional: 1 $\frac{1}{2}$ " (38 mm) 90-degree connection elbow (ILTCON90) available



ILTCOND

Specification	ILTCOND
Compatible with	ILT120PL / ILT120PH
Application	Fresh water tanks

ILTCON90 - 90° elbow adapter

- 90-degree 1 $\frac{1}{2}$ " (38 mm) connection for ILTCONW
- Perfect for tight spaces



ILTCON90

Type	Description
ILTCON90	1 $\frac{1}{2}$ " (38 mm) diameter elbow for ILTCOND Without counter flange

Fresh water systems

Accessories

Inspection lid type WTK02

For (waste) water tanks only!

Without counter flange.

Specifications

- Overall diameter 6 ⁹/₆₄" (156 mm)
- Cut out diameter 4 ¹⁷/₃₂" (115 mm)
- Not suitable for fuel tanks
- Ideal for metal tanks



WTK02

Type	Description
WTK02	Inspection lid only, for rigid fresh water tanks
ILT120PL / ILT120PH	See page 187 for inspection port ILT120PL / ILT120PH

Inspection lid kit type WTIKIT

Complete with gasket, counter flange and fastenings

Specifications

- Overall diameter 6 ⁹/₆₄" (156 mm)
- Cut out diameter 4 ¹⁷/₃₂" (115 mm)
- Not suitable for fuel tanks



WTIKIT

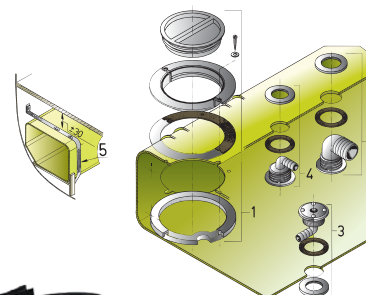
Type	Description
WTIKIT	Inspection lid for rigid fresh water tanks
ILT120PL / ILT120PH	See page 187 for inspection port ILT120PL / ILT120PH

Installation kit type WTKIT

With inspection lid and angled connectors

The installation kit consists of

1. One inspection lid (WTIKIT)
2. One right angle connector (RT38B) for filling hose Ø 1½" (38 mm)
3. One right angle connector (RT16B) for water pump Ø 5/8" (16 mm)
4. One right angle connector (RT16B) for ventilation Ø 5/8" (16 mm)
5. Two lashing straps
6. T-piece for interconnecting two tanks Ø 5/8" (16 mm)



WTKIT

Type	Description
WTKIT	Installation kit for fresh water tanks



Accessories

Universal sender for fresh water, petrol/gasoline and diesel fuel

Universal tank sender for drinking water, petrol and diesel fuel (type SENSOR). Available in seven different lengths: 11", 12^{39/64}", 15", 18^{57/64}", 22^{27/32}", 26^{3/4}" or 30^{45/64}" (280, 320, 380, 480, 580, 680 or 780 mm). The VETUS universal tank sender indicates the difference in fluid level in steps of 2.5 inch (cm). Just compare this with other systems which can only show three positions (full - about half full - empty).

Specifications

- Empty 300 Ω
- Full 10 Ω
- For 12 and 24 VDC

Type	Length inches (mm)	Voltage (DC)
SENSOR280	11 (280)	12/24
SENSOR320	12 ^{19/32} (320)	12/24
SENSOR380	15 (380)	12/24
SENSOR480	18 ^{57/64} (480)	12/24

Type	Length inches (mm)	Voltage (DC)
SENSOR580	22 ^{53/64} (580)	12/24
SENSOR680	26 ^{49/64} (680)	12/24
SENSOR780	30 ^{45/64} (780)	12/24

SENSOR



Each tube length contains the maximum number of reed contacts (electronic switches), instead of the bare minimum of just three (full, half full, empty). Because of this, your tank gauges will read with maximum accuracy. The reed contacts are sealed "fluid-tight".

Ultrasonic level sensors

Accurate, contactless tank monitoring

The VETUS SENSORA and SENSORB are advanced ultrasonic level sensors designed to monitor tank contents without moving parts or direct contact with the liquid. These sensors can be used in fresh water, waste water (black and gray), diesel, or gasoline tanks of almost any shape and size - up to 3.9 ft. (120 cm) in depth. Maximum tank capacity: 1320 gal. (5000 L.). Ideal for modern boats and yachts, they offer easy installation and high reliability. Once installed, the sensor can be calibrated on site using the built-in LED and wire. No additional tools are needed.



SENSORA

SENSORB

Specifications

SENSORA - Analogue output sensor

- Contactless ultrasonic measurement for high reliability
- Compatible with all VETUS analog level gauges and WWCP panel
- Easy onboard calibration with LED and calibration wire
- Ideal for fresh water, black/grey water, diesel, or gasoline tanks
- Not suitable for use in metal tanks

Specifications

SENSORB - CANbus sensor

- Uses RS485 bus interface (CANbus type)
- Designed for integration with VETUS SENSORD digital display
- Contactless, reliable, and easy to calibrate
- Ideal for advanced digital installations
- Not suitable for use in metal tanks

Using an RS485 interface, data can be transmitted over long distances without signal loss, with greater immunity to interference and support for up to eight sensors connected to a single SENSORD panel.

Feature	SENSORA	SENSORB
Output interface	Analogue	RS485 Bus (CANbus)
Voltage	12 / 24 VDC	12 / 24 VDC
Current draw	35 mA	35 mA
Max. tank depth	3.9 ft. (120 cm)	3.9 ft. (120 cm)
Accuracy	±5%	±5%
Temperature range	-4 to 158°F (- 20 to + 70°C)	-4 to 158°F (- 20 to + 70°C)
Mounting flange	SAE, 5-hole	SAE, 5-hole
Dimensions	Ø 3 ^{1/32} " x 2 ^{9/32} " (77 x 23 mm)	Ø 3 ^{1/32} " x 2 ^{9/32} " (77 x 23 mm)
Compatibility	Analogue gauges, WWCP panel	SENSORD digital display
Suitable for	Water, black/grey water, fuel tanks	Water, black/grey water, fuel tanks
Not suitable for	Metal tanks	Metal tanks



Fresh water systems

Accessories

Suction pipe type WTS44513B

Fitted to the top of fixed tanks

This suction pipe can be fitted to the top of most of the fixed tanks with a maximum depth of \varnothing 1 ft 4 $\frac{9}{64}$ " (410 mm) and is suitable for \varnothing $\frac{1}{2}$ " (13 mm) drinking water systems.



WTS44513B

Type	Description
WTS44513B	Suction pipe for fresh water tanks

Accessories for water heaters

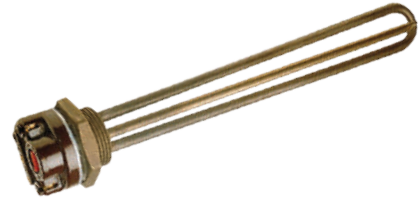
Heating element type WHEL

Adjustable thermostat 104 - 176 °F (40 - 80 °C). Male thread size, ISO 228/1 G1¼. Screw-in length of element is 11 $\frac{13}{16}$ " (300 mm).

Electric heating elements

- 500 Watt, 230 VAC
- 1000 Watt, 120 VAC
- 1000 Watt, 230 VAC
- 1500 Watt, 230 VAC

VETUS heating elements type WHEL meet the low voltage requirements.



WHEL

Type	Voltage (AC)	Watt (W)
WHEL22500	230	500
WHEL220	230	1000
WHEL110	120	1000
WHEL1500	230	1500

Thermostatic mixer for water heaters

Water heaters which are heated by the engine coolant, can deliver their fresh water contents at temperatures of more than 194 °F (90 °C). There is always a risk that these high temperatures could cause scalding when washing or showering. Using a mixer tap can take too long to find a suitable temperature, with high water usage as a consequence.

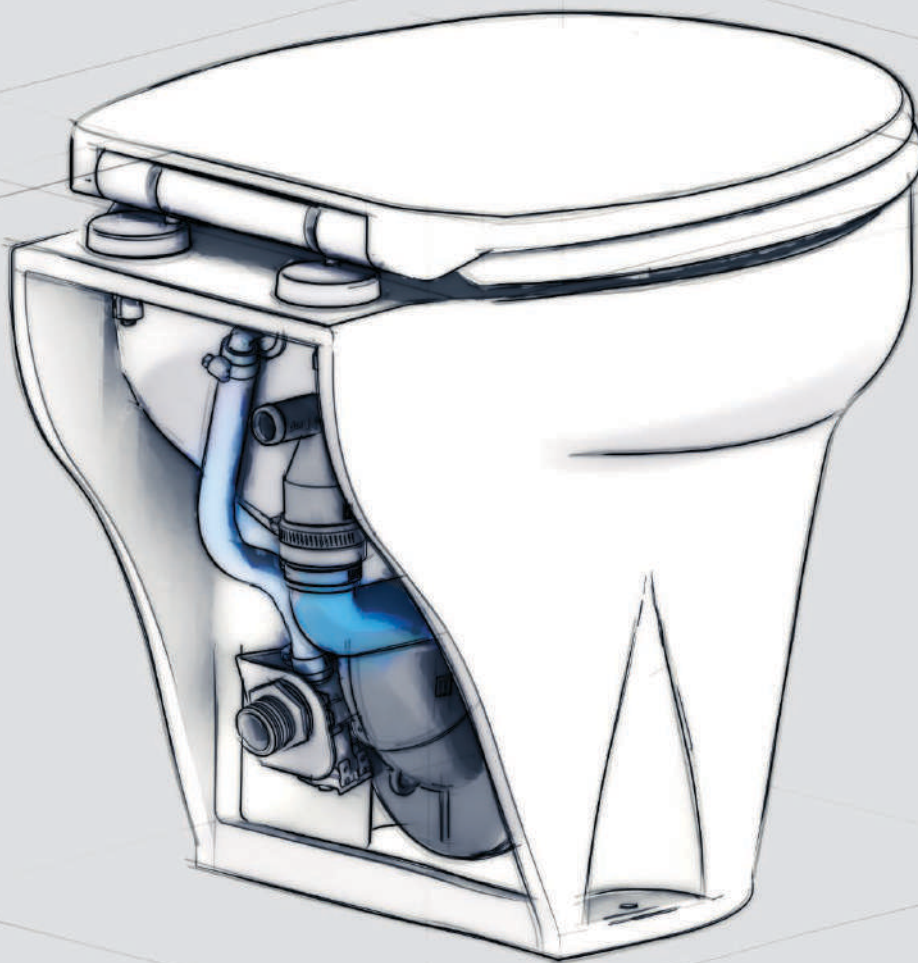
By fitting a thermostatic mixer, the risk of scalding is eliminated and a safe and comfortable temperature for each requirement is easily selected. So, no more hot water wastage, a constant safe temperature at the tap and energy saving.

The thermostatic mixer is provided with G½ thread. The temperature is infinitely adjustable between 86 and 158°F (30 and 70°C).



WHMIXER

Type	Description
WHMIXER	Thermostatic mixer for water heaters



Waste water systems

Overview

Electric marine toilets see page 195



TMSQ



TMWQ

Electric toilet control panels see page 196



TMWBP



TMWBS

Sani-processors see page 199 - 200



SAPRO



GWDS

Rigid tanks for waste water see page 201 - 204



ATANK



BTANKC



WWS



WW



All Purpose Tank

see page 205



APT

Flexible waste water tanks

see page 206



TANKV

TankFresh

see page 207



TFRESH

Accessories for waste water holding tanks see page 208 - 216



WWSensorA



WWCP



EMP140



RT



VRF56A



HA



ILT120



MV



Y3C



ILTCONW



Waste water systems

Efficient, low-maintenance systems for onboard sanitation

VETUS offers a complete and reliable wastewater system designed for marine environments. Whether you're building a new vessel or upgrading an existing one, our modular systems make it easy to manage all onboard wastewater with minimal maintenance and maximum performance.

Wastewater onboard is divided into two types

- Black water: waste from toilets, including human waste and flush water. This must always be collected in a holding tank and discharged at a pump-out station.
- Gray water: wastewater from showers and sinks. Though less hazardous, gray water may still need to be collected depending on local regulations.

Together, these form the total wastewater load on a vessel. VETUS systems are engineered to handle both black and gray water effectively, either separately or combined, using high-quality polyethylene tanks, quiet and powerful pumps, secure fittings, and advanced ventilation and odor-control solutions.

Key advantages of the VETUS system

- Compact and easy-to-install components
- ISO 8099* certified for wastewater handling
- Odor-free operation with no-smell filters and TankFresh
- Compatible with a wide range of electric toilets, tanks, pumps and sensors
- Designed for long-term marine use

Electric marine toilets - comfort and performance onboard (1)

VETUS electric toilets are designed for quiet operation, efficient flushing, and low water consumption. Each model features a durable porcelain bowl, a soft-close, quick-release seat, and a powerful macerator pump with stainless steel blades. The standard discharge hose connection is $\frac{3}{4}$ " (19 mm). The advantage of a $\frac{3}{4}$ " (19 mm) discharge hose is that it takes up less space and is easier to conceal within walls or floors. It also promotes faster wastewater flow, contributing to a more efficient flush. Available in a range of sizes and styles, from compact to full-size, wall-mounted to floor-standing, VETUS toilets are designed to fit any layout.

WWS complete tank system - all-in-one wastewater solution (2)

The WWS series offers a ready-to-install wastewater tank system, including a built-in EMP140 pump, level sensor, inspection lid and fittings. Made from high-quality polyethylene, they are fully compliant with ISO 8099.

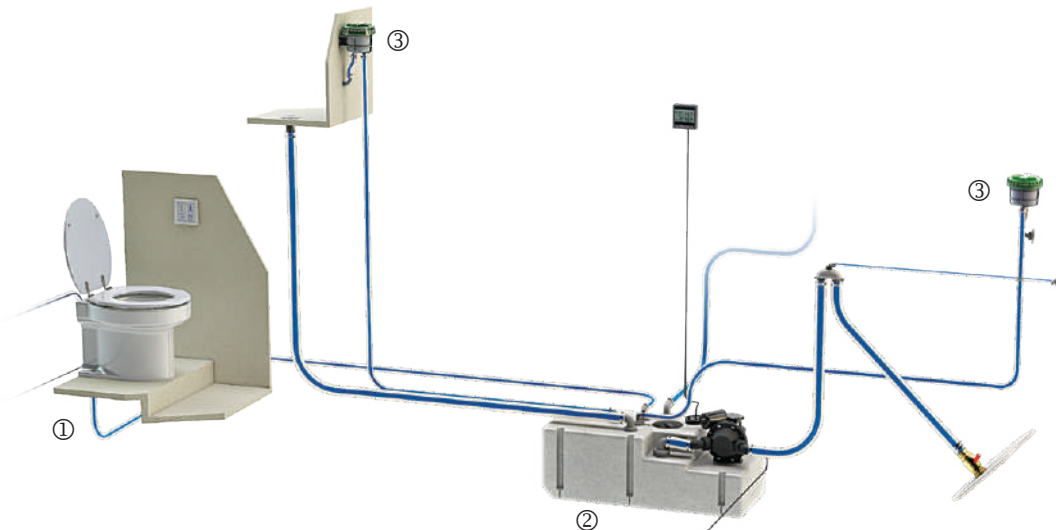
Odor control - filters and treatment for a fresh system (3)

Keep your onboard wastewater system fresh all season long with VETUS odor control solutions. The VETUS no-smell filters, filled with activated carbon, effectively prevent unpleasant smells from escaping through the breather line. Easy to install, they offer immediate and long-lasting results. Two ventilation lines ensure adequate airflow, which helps in breaking down waste more effectively and reduces the risk of unpleasant smells. Complementing this, the TankFresh additive is a powerful, organic, bacteria-based concentrate that naturally breaks down waste without producing odors. Just one bottle is enough to maintain a clean, fresh-smelling system throughout the entire boating season.

Recommended maintenance for your wastewater system

- Check and replace filter element/canister yearly
- Flush hoses regularly
- Use TankFresh consistently
- Ensure proper ventilation

* ISO 8099 is an international standard for the design and installation of wastewater holding tanks on recreational vessels.





Electric marine toilets

Comfort, efficiency and compact installation for every vessel

VETUS electric toilets combine hygiene, durability and convenience in a compact design. Whether you're upgrading from a manual pump toilet or outfitting a new yacht, there's a model to fit your space, voltage and comfort requirements. All models are designed for quiet operation, low power consumption and low water consumption.

Each toilet comes with a powerful macerator pump with stainless steel cutting blades, and a soft-close seat for optimal on-board sanitation. Options are available for both floor and wall mounting, compact or full-size bowls.

Toilet model comparison table

Type	Mounting	Size	Control type	Voltage	Special features	Noise level (dBA)	Weight lbs (kg)
TMSQ	Floor mount	Compact	Switch or control panel	12 V / 24 V DC	Includes Ø ¾" (19 mm), 1" (25 mm) and 1½" (38 mm) adapters	± 60	44.1 (20)
TMWQ	Floor mount	Compact	Switch or control panel	12 V / 24 V DC	Includes Ø ¾" (19 mm), 1" (25 mm) and 1½" (38 mm) adapters	± 60	39.7 (18)
SMTQ	Floor mount	Extra compact	Control panel	12 V / 24 V DC	Lightweight and small footprint	± 60	38.6 (17.5)
SMTOS	Floor mount	Extra compact	Switch	12 V / 24 V DC	Lightweight and small footprint	± 60	38.6 (17.5)
WCP	Floor mount	Extra compact	Control panel	12 V / 24 V DC	External control box	± 60	38.6 (17.5)
WCPS	Floor mount	Extra compact	Switch	12 V / 24 V DC	Lightweight and small footprint	± 60	38.6 (17.5)
WCS	Floor mount	Full-size	Control panel or push button	12 V / 24 V DC / 110/230 V AC	Home-style design, comfortable seat height	± 60	50.7 (23)
HATO	Wall mount	Regular	Control panel or push button	12 V / 24 V DC / 230 V AC	No floor contact, sleek design	± 60	83.8 (38)

TMSQ / TMWQ - Compact floor mounted electric toilet

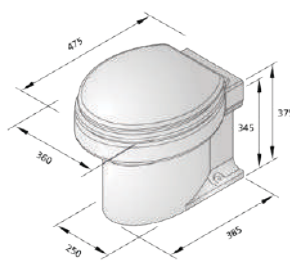
Specifications

- A welcome alternative for manual pump toilets
- Compact size
- Floor mount
- Quiet macerator operation
- Soft-close and quick-release toilet seat
- Includes adapters for Ø ¾" (19 mm), 1" (25 mm) and 1½" (38 mm) discharge hose
- Control via rocker switch or control panel
- Available in 12 V or 24 V DC
- Low water consumption

Type	Control type	Voltage (V DC)	Consumption (A)	External Ø discharge inches (mm)	Water inlet connection	Noise level (dBA)	Weight lbs (kg)
TMW12Q	Switch or control panel	12	25	Includes Ø ¾" (19), 1 (25) and 1½" (38) adapters	Female G¾" / ½" / 13 mm	± 60	39.7 (18)
TMW24Q	Switch or control panel	24	12,5	Includes Ø ¾" (19), 1 (25) and 1½" (38) adapters	Female G¾" / ½" / 13 mm	± 60	39.7 (18)
TMS12Q	Switch or control panel	12	25	Includes Ø ¾" (19), 1 (25) and 1½" (38) adapters	Female G¾" / ½" / 13 mm	± 60	44.1 (20)
TMS24Q	Switch or control panel	24	12,5	Includes Ø ¾" (19), 1 (25) and 1½" (38) adapters	Female G¾" / ½" / 13 mm	± 60	44.1 (20)



TMSQ



TMWQ



Waste water systems

Electric toilet control panels

Control switch for TMWQ + TMSQ toilet

Full control over the flush

A simple and effective 2 functions switch to fill or empty the bowl.

Specifications

- Switch dimensions 3 5/64" x 1 27/32" (78 mm x 47 mm)
- Build-in depth 1 9/16" (40 mm)
- Complete installation package including 9.8 ft (3 m) cable
- Suitable for 12 or 24 VDC
- Waterproof IP65



TMWBS

Control panel for TMWQ + TMSQ toilet

Pre-programmed comfort

The panel is easy to operate with just 4 functions. It has an eco (± 0,3 gal (1,2L)) and normal flush (± 0,6 gal (2.2 L)) button and a fill or empty bowl button. Using a marine toilet was never this easy, just touch the button!

Specifications

- Panel dimensions 4 21/64" x 4 21/64" (110 mm x 110 mm)
- Build-in depth 1 31/32" (50 mm), hole size Ø 3" (76 mm)
- Complete installation package including 9.8 ft (3 m) cable
- Suitable for 12 or 24 VDC
- Waterproof IP65



TMWBP

Electric marine toilets

SMTO - Ultra compact electric toilet

Specifications

- Quiet electric macerator
- Soft-close and quick-release toilet seat
- Floor mount
- Extra compact size
- Lightweight for easier handling and installation
- 12 V or 24 V DC operation

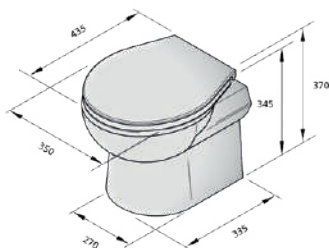


Incl. with SMT02



Incl. with SMT02S

Type	Control type	Voltage (V DC)	Consumption (A)	External Ø discharge inches (mm)	Water inlet connection	Noise level (dBA)	Weight lbs (kg)
SMT0212	Control panel (included)	12	25	3/4 (19)	Female G3/4	± 60	38.6 (17.5)
SMT0224	Control panel (included)	24	12,5	3/4 (19)	Female G3/4	± 60	38.6 (17.5)
SMT0S12	Switch (included)	12	25	3/4 (19)	Female G3/4	± 60	38.6 (17.5)
SMT0S24	Switch (included)	24	12,5	3/4 (19)	Female G3/4	± 60	38.6 (17.5)



SMTO





Electric marine toilets

WCP - Compact electric toilet with external control box

Specifications

- Compact design
- Soft-close and quick-release toilet seat
- Floor mount
- Extra compact size
- Ø 3/4 (19 mm) discharge
- Available in 12 V and 24 V DC

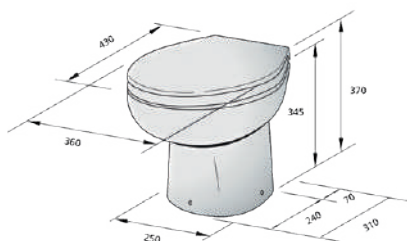


Incl. with
WCP



Incl. with
WCPS

Type	Control type	Voltage (V DC)	Consumption (A)	External Ø discharge inches (mm)	Water inlet connection	Noise level (dBA)	Weight lbs (kg)
WCP12	Control panel (included)	12	25	3/4 (19)	Female G3/4	± 60	38.6 (17.5)
WCP24	Control panel (included)	24	12,5	3/4 (19)	Female G3/4	± 60	38.6 (17.5)
WCPS12	Switch (included)	12	25	3/4 (19)	Female G3/4	± 60	38.6 (17.5)
WCPS24	Switch (included)	24	12,5	3/4 (19)	Female G3/4	± 60	38.6 (17.5)



WCP



WCS - Full-size floor-mounted electric toilet

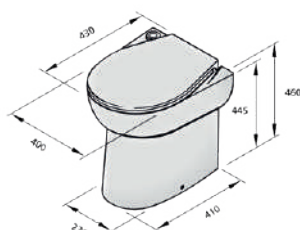
Specifications

- Traditional full-size toilet with standard seat height
- Soft-close and quick-release toilet seat
- Floor mount
- Powerful and quiet macerator pump
- Available in DC and AC versions (12 V, 24 V, 110/230 V)
- Operation via control panel or push button
- Quiet and reliable flushing system



Incl. with
WCS 12 / 24 V

Type	Control type	Voltage (V DC)	Consumption (A)	External Ø discharge inches (mm)	Water inlet connection	Noise level (dBA)	Weight lbs (kg)
WC12S2	Control panel (included)	12	25	3/4 (19)	Female G3/4	± 60	50.7 (23)
WC24S2	Control panel (included)	24	12,5	3/4 (19)	Female G3/4	± 60	50.7 (23)
WC110S	Push button (included)	110 V AC	5	3/4 (19)	Female G3/4	± 60	50.7 (23)
WC220S	Push button (included)	230 V AC	2,5	3/4 (19)	Female G3/4	± 60	50.7 (23)



WCS



Waste water systems

Electric marine toilets

HATO - Wall-Mounted Electric Toilet

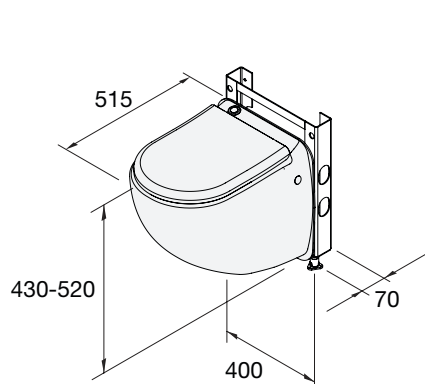
Specifications

- Soft-close and quick-release toilet seat with full-sized ceramic bowl
- No floor contact: hygienic and easy to clean
- Wall mounted
- Available in 12 VDC and 24 VDC
- Operation via control panel or push button
- Flexible mounting height
- Excellent fit for contemporary yacht interiors



Incl. with
HATO 12 / 24 V

Type	Control type	Voltage (V DC)	Consumption (A)	External Ø discharge inches (mm)	Water inlet connection	Noise level (dBA)	Weight lbs (kg)
HATO12C	Control panel (included)	12	25	3/4 (19)	Female G3/4	± 60	83.8 (38)
HATO24C	Control panel (included)	24	12	3/4 (19)	Female G3/4	± 60	83.8 (38)





Sani-processor

Compact Sani-Processor for black and grey water

The comfort and style of home

On larger boats owners want to have the comfort and looks of their toilet at home. Therefore VETUS has developed the Sani-Processor with an electric macerator and a powerful pump in order to use an ordinary gravity flow, domestic toilet on board. When flushing the toilet, the Sani-Processor collects the contents, macerates and pumps the slurry into a holding tank. The whole process takes only 10 to 30 seconds and is very quiet. The unit can be easily cleaned by removing the inspection lid. We recommend using the VETUS sanitary connecting hoses, type SAHOSE, to ensure an odour-tight process.

Specifications

- Processor dimensions 16 1/2" x 4 3/4" x 14 1/4" (420 x 120 x 360 mm) (l x w x h)
- Holding tank placement max. 13 ft (4 m) higher than Sani-Processor
- Macerator diameter 3 7/8" (98 mm)
- Weight 10.5 lbs (4.8 kg)
- Pump capacity approx. 13.2 gal. (50 l/min) at 13 ft. (4 m) head
- Power consumption approx. 370W (12 VDC), 435W (24 VDC), 400W (230 VAC)
- Available for 12 or 24 VDC, 230 VAC/50Hz or 120 VAC/60Hz
- Maximum permissible water temperature 95°F (35°C)
- Noise level 61dB(A)

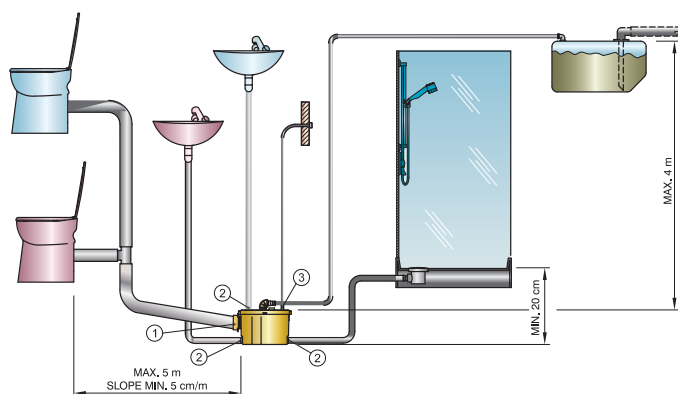
Connections

- Hose from toilet to Sani-Processor: Ø 4" (102 mm), max. length 13 ft. (4 m)
- Hose from Sani-Processor to holding tanks: Ø 3/4" (19 mm), max. length 65 ft (20 metres)
- Washbasin/bidet connections: Ø 1 9/16" (40 mm)

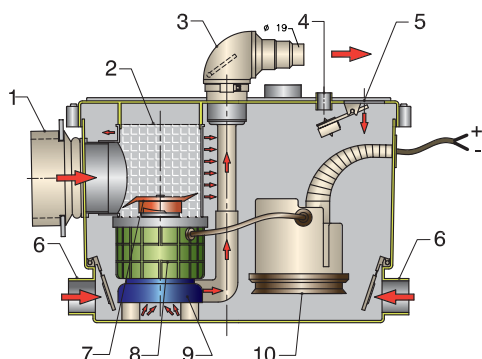


SAPRO

Type	Voltage (DC)
SAPRO12	12
SAPRO24	24
SAPRO220	230 VAC / 50 Hz



1. Hose connection 4" (102 mm) (SLVBR100K)
2. Hose connection Ø 1 9/16" (40 mm) (SLVBR40K or HA3060)
3. Hose connection HA1338



1. Toilet connection, Ø 4" (102 mm)
2. Protective grille
3. Waste discharge connections: male Ø 3/4 (19) o.d. and female Ø 1" (25) / 1 1/8" (28) / 1 1/4" (32) mm i.d
4. Breather connection, Ø 3/4 (19)
5. Washbasin / bidet connection, Ø 1 9/16" (40 mm)
6. Washbasin or shower connection, Ø 1 9/16" (40 mm)
7. Stainless steel (AISI 316) blades
8. Electric macerator motor
9. Discharge pump
10. Float switch



Waste water systems

Sani-processor

Discharge system to transport waste water into holding tank

Pumping water automatically from the shower tray or wash basin into a waste water tank is possible with the VETUS grey water discharge system (GWDS). It has a watertight housing with a low noise discharge pump, automatic flow switch and a non-return valve in the discharge line. You can easily pump the water into the holding tank.

Specifications

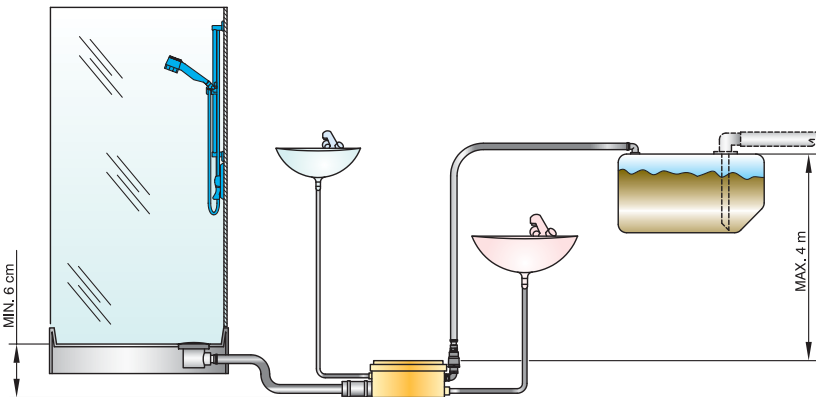
- Dimensions tank
11¹³/₁₆" (300 mm) x 6¹/₂" (165 mm) x 5¹/₁₆" (145 mm)
(l x w x h)
- Waste water tank location up to 13 ft. (4 m) above GWDS unit or up to 65 ft. (20 m) away from it
- Bottom of GWDS unit must be placed at least 2³/₈" (6 cm) below shower tray or washbasin
- Weight 7.7 lbs (3.5 kg)
- Pump output approx. 11.6 gal. (44 L/min)
- Power consumption approx. 340 W (12 VDC), 350 W (24 VDC), 600 W (120 VAC), 250 W (230 VAC)
- Available for 12 or 24 VDC, 230 VAC / 50Hz
- Not suitable for water temperature above 104°F (40°C)
- Noise level 46dB (A)

Connections

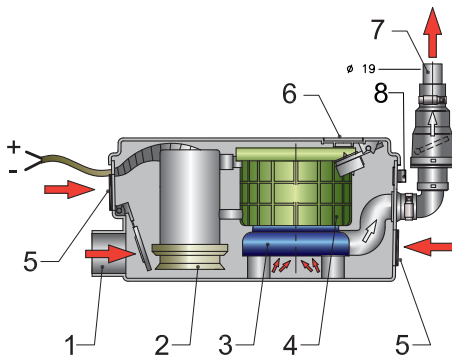
- Outlet discharge to holding tank: Ø 3/4 (19)
- Inlet connections from shower or washbasin:
Ø 1 1/4" (32 mm) or 1 9/16" (40 mm)



Type	Voltage (DC)
GWDS12	12
GWDS24	24
GWDS220	230 VAC / 50 Hz



Hose connectors (1) HA1338 and (2) HA3060 are shown on page 215.



1. Shower or washbasin connection Ø 1 9/16" (40 mm)
2. Float switch
3. Discharge pump
4. Electric motor
5. Washbasin connection, Ø 1 1/4" (32 mm) or 1 9/16" (40 mm)
6. Breather
7. Waste water discharge connection: male Ø 3/4 (19) o.d
8. Air conditioner connection, Ø 1/2" (12 mm)



Rigid tanks for waste water

ATANK series

Versatile and durable

The ATANK is a strong, multi-purpose tank designed to hold waste water (both black and grey), fresh water, or diesel fuel. It is made from thick, odor-proof, high-quality polyethylene, making it more resistant to pressure. Unlike metal tanks, it does not corrode and produces less condensation. An inspection lid and fittings can be installed wherever needed (sold separately). Labels for different contents, such as waste water, are included.

Specifications

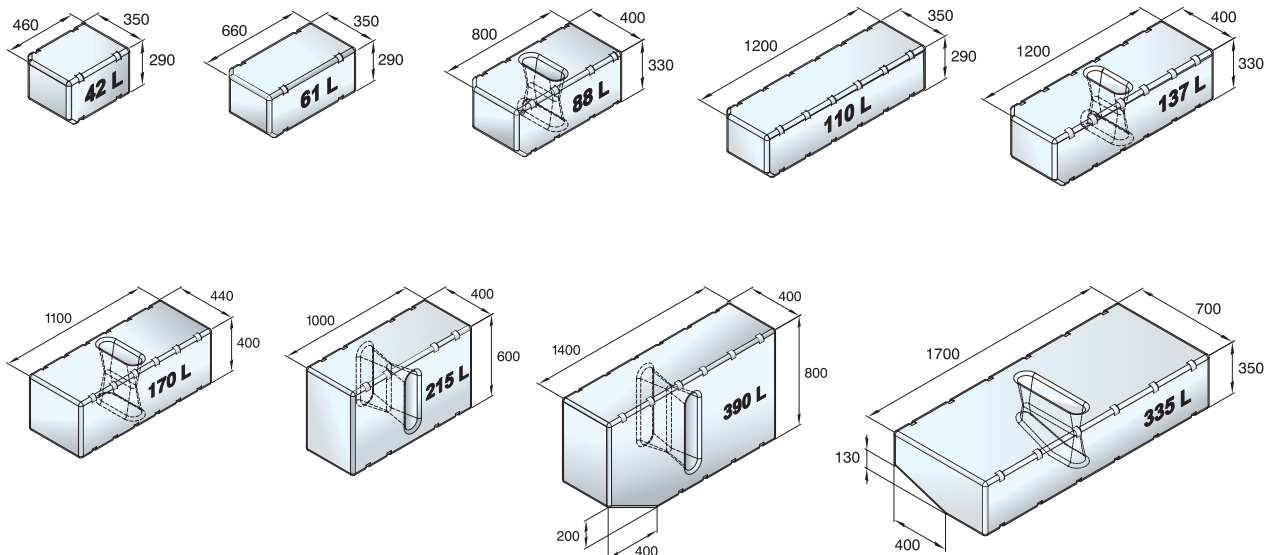
- Available in 11, 16, 23, 29, 36, 44.9, 56.8, 88.5 and 103 gal. (42, 61, 88, 110, 137, 170, 215, 335 and 390 L)
- Light blue translucent polyethylene
- Durable: thick-walled construction
- Corrosion-resistant: ideal for long-term use in tough environments
- Multi-purpose: suitable for waste water (black water and grey water), fresh water, and diesel fuel
- Flexible installation: fittings can be placed where needed

Some ATANK models include an integrated baffle that reduces liquid movement inside the tank during sailing. This improves stability and reduces noise.



Type	Suitable for	Capacity gallon (ltr)	Wall thickness inches (mm)	Baffle integrated	Color
ATANK042	Waste water (fresh water, or diesel)	11 (42)	$\frac{3}{16}$ (5)		Light blue translucent
ATANK061	Waste water (fresh water, or diesel)	16 (61)	$\frac{3}{16}$ (5)		Light blue translucent
ATANK088	Waste water (fresh water, or diesel)	23 (88)	$\frac{15}{64}$ (6)	✓	Light blue translucent
ATANK110	Waste water (fresh water, or diesel)	29 (110)	$\frac{15}{64}$ (6)		Light blue translucent
ATANK137	Waste water (fresh water, or diesel)	36 (137)	$\frac{15}{64}$ (6)	✓	Light blue translucent
ATANK170	Waste water (fresh water, or diesel)	44.9 (170)	$\frac{1}{4}$ (6.5)	✓	Light blue translucent
ATANK215	Waste water (fresh water, or diesel)	56.8 (215)	$\frac{1}{4}$ (6.5)	✓	Light blue translucent
ATANK335	Waste water (fresh water, or diesel)	88.5 (335)	$\frac{9}{32}$ (7)	✓	Light blue translucent
ATANK390	Waste water (fresh water, or diesel)	103 (390)	$\frac{9}{32}$ (7)	✓	Light blue translucent

Dimensions: plus or minus 2%



Waste water systems

Rigid tanks for waste water

BTANKC series

Quick to install with connectors included

The BTANKC tanks are designed to simplify installation and save time. They are made from odor-proof, translucent high-quality polyethylene, allowing the fluid level to be checked from the outside. All models (except the 25-liter version) come pre-formed with a blind hole SAE pattern for a level sensor. Each tank includes connectors, an inspection lid, and securing straps. The inlet fitting (type RT..B) should be ordered separately. All connections are made at the top to avoid leaks.

Specifications

- Available in 6.6 gal. (25 L), 10.5 gal. (40 L), 15.8 gal. (60 L) or 21.2 gal. (80 L)
- Odor-proof translucent high-quality polyethylene
- Thick-walled, 1/4" (7 mm), resists pressure and deformation
- Quick setup: connectors and securing straps included
- Easy installation level sensor: blind hole SAE pattern pre-molded (except 6.5 gal. (25 L) model)
- Clear monitoring: translucent wall shows fluid level
- Complies with the ISO 8099 standard

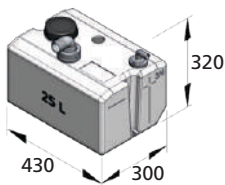
Type	Suitable for	Capacity (gallon)	Pressure max. (bar)	Connections Breather Ø inches (mm)	Connections Suction Ø inches (mm)	SAE flange ready	Color
BTANK25C	Waste water	6.5	0.3	Rotating 1 1/2 (38)	Rotating 1 1/2 (38)	No	Light grey translucent
BTANK40C	Waste water	10.5	0.3	Fixed 3/4 (19)	Rotating 1 1/2 (38)	Yes	Light grey translucent
BTANK60C	Waste water	15.8	0.3	Fixed 3/4 (19)	Rotating 1 1/2 (38)	Yes	Light grey translucent
BTANK80C	Waste water	21.2	0.3	Fixed 3/4 (19)	Rotating 1 1/2 (38)	Yes	Light grey translucent



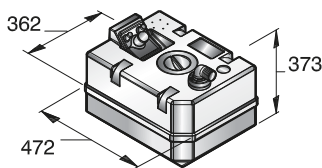
BTANK25C



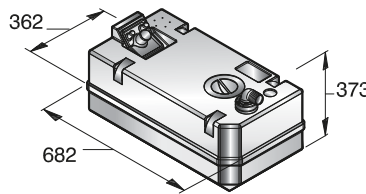
BTANK80C



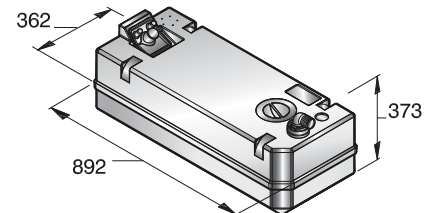
6.5 gallon



10.5 gallon



15.8 gallon



21.2 gallon

Dimensions: plus or minus 2%.
Height dimensions includes connectors



Rigid tanks for waste water

WW series

Bulkhead mounted tank

The WW tanks are designed to be wall-mounted under the side decks, above the waterline. Their translucent construction lets you check the level at a glance. These tanks can be emptied without a pump thanks to the gravity discharge setup. All versions come with an inspection cover, hose connectors, and an opening for the inlet fitting (RT.B sold separately).

Specifications

- Available in 6.6 gal. (25 L) (vertical and horizontal), 15.8 gal. (60 L) or 21.2 gal. (80 L)
- Odor-proof translucent high-quality polyethylene
- Mountable on bulkhead above waterline
- No pump needed: gravity discharge via angled hose connection
- Fast setup: pre-fitted hose connectors and inspection lid
- Ventilation ready: includes angled vent connector
- Complies with the ISO 8099 standard

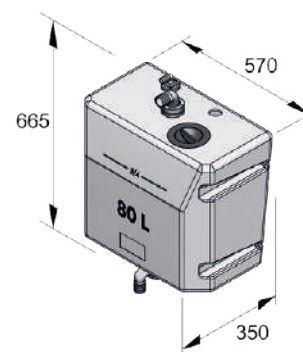
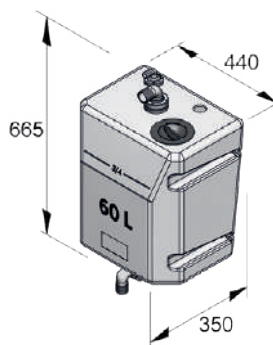
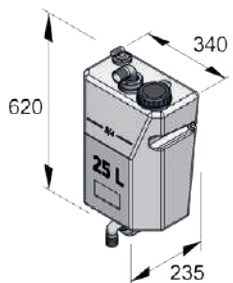
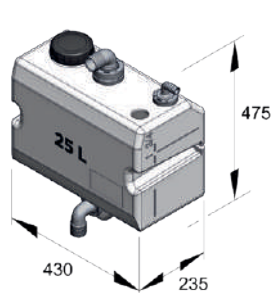
Type	Capacity (gallon)	Pressure max. (bar)	Wall thickness inches (mm)	Connections Breather Ø inches (mm)	Connections Suction Ø inches (mm)	Connection discharge Ø inches (mm)	Color
WW25WH	6.5	0.3	1 ⁵ / ₆₄ (6)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WW25W	6.5	0.3	1 ⁵ / ₆₄ (6)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WW60W	15.8	0.3	1 ⁵ / ₆₄ (6)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WW80W	21.2	0.3	1 ⁵ / ₆₄ (6)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent



WW25WH



WW..W



Dimensions: plus or minus 2%
Height dimensions includes connectors



Waste water systems

Rigid tanks for waste water

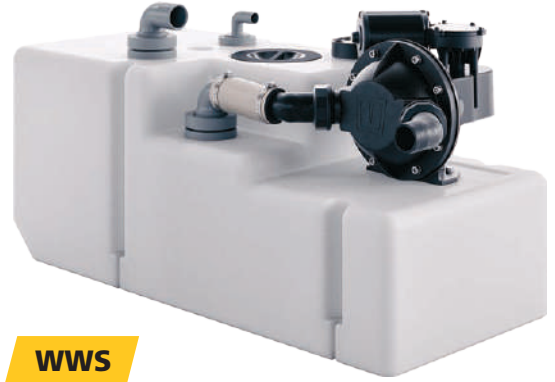
WWS series

Complete system with pump and sensor

The WWS tanks are fully equipped units designed for waste water (black water and grey water). These translucent tanks come complete with an EMP140 pump, level sensor, inspection cover, and fittings. Only the level gauge and inlet fitting need to be ordered separately. All connections are located at the top to avoid leaks. All versions include an opening for the inlet fitting (RT..B sold separately). The tank can be emptied using the pump or from the shore via the extraction pipe.

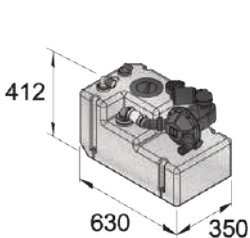
Specifications

- Available in 11.1 gal. (42 L), 16.1 gal. (61 L), 23.2 gal. (88 L) or 31.7 gal. (120 L)
- Includes 12 V or 24 V waste water pump
- Odor-proof translucent high-quality polyethylene
- Ready to use: all major components pre-installed
- Easy to maintain: top-mounted access and connections
- Complies with the ISO 8099 standard

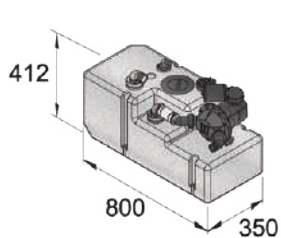


Type	Capacity (gallon)	Pressure max. (bar)	Wall thickness inches (mm)	Connections breather Ø inches (mm)	Connections suction Ø inches (mm)	Connections pump inches (mm)	Color
WWS4212B	11.1	0.3	1/4 (6.5)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WWS4224B	11.1	0.3	1/4 (6.5)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WWS6112B	16.1	0.3	1/4 (6.5)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WWS6124B	16.1	0.3	1/4 (6.5)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WWS8812B	23.2	0.3	1/4 (6.5)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WWS8824B	23.2	0.3	1/4 (6.5)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WWS12012B	31.7	0.3	1/4 (6.5)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent
WWS12024B	31.7	0.3	1/4 (6.5)	Angled, rotating 3/4 (19)	Angled, rotating 1 1/2 (38)	Angled, rotating 1 1/2 (38)	Light grey translucent

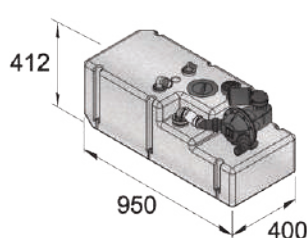
Type	Pump Voltage (VDC)	Pump Current (A)	Capacity, at 0 m head (L/min)	Max. suction height (m)	Max. head (m)	Weight lbs (kg)
WWS4212B	12	6	27	3	5	27.6 (12.5)
WWS4224B	24	4	27	3	5	27.6 (12.5)
WWS6112B	12	6	27	3	5	30.9 (14)
WWS6124B	24	4	27	3	5	30.9 (14)
WWS8812B	12	6	27	3	5	35.3 (16)
WWS8824B	24	4	27	3	5	35.3 (16)
WWS12012B	12	6	27	3	5	39.7 (18)
WWS12024B	24	4	27	3	5	39.7 (18)



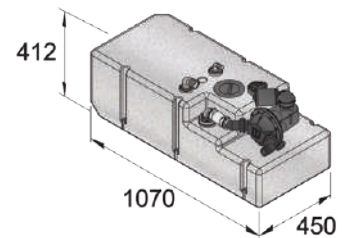
11.1 gallon



6.1 gallon



32.2 gallon



31.7 gallon

Height dimensions includes connectors



Rigid tanks for waste water

Rigid all-purpose tanks for waste water - APT series

Waste water, fresh water or diesel: this tank can handle it

The APT tanks are designed to store waste water, fresh water, and diesel fuel. They are made from odor-proof, high-quality polyethylene with an antibacterial additive. All tanks come with a large inspection lid and are prepared for the ILTCONW connection kit. A 1½" (38 mm) hose connection at the bottom can be drilled open for interconnection or drainage.

Specifications

- Available in 13.2, 19.8, 26.4, 39.6, 52.8 and 72.6 gal. (50, 75, 100, 150, 200, and 275 L)
- Made from high-quality polyethylene with an antibacterial additive
- Suitable for waste water, fresh water, or diesel fuel
- Large inspection lid (suitable diameter +/- 5 1/8" (130 mm)) to meet ISO 21487 (fuel tank standard)
- Ø 1½" (38 mm) bottom hose connection (can be drilled open if needed) for interconnection or draining
- Ready for ILTCONW connection kit
- Easy to clean and inspect thanks to a wide access lid
- Strong and durable for long-term marine use due to design and wall thickness
- Clear identification: supplied with labels for all contents



APT

Type	Tank capacity gallon (ltr)	Maximum tank pressure (bar)	Wall thickness inches (mm)	Connection (mm)	Color
APT050	13.2 (50)	0.3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONW-ready	Light blue translucent
APT075	19.8 (75)	0.3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONW-ready	Light blue translucent
APT100	26.4 (100)	0.3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONW-ready	Light blue translucent
APT150	39.6 (150)	0.3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONW-ready	Light blue translucent
APT200	52.8 (200)	0.3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONW-ready	Light blue translucent
APT275	72.6 (275)	0.3	5/16 (8)	Ø 1½ (38) mm bottom outlet*, ILTCONW-ready	Light blue translucent

* can be drilled open if needed.

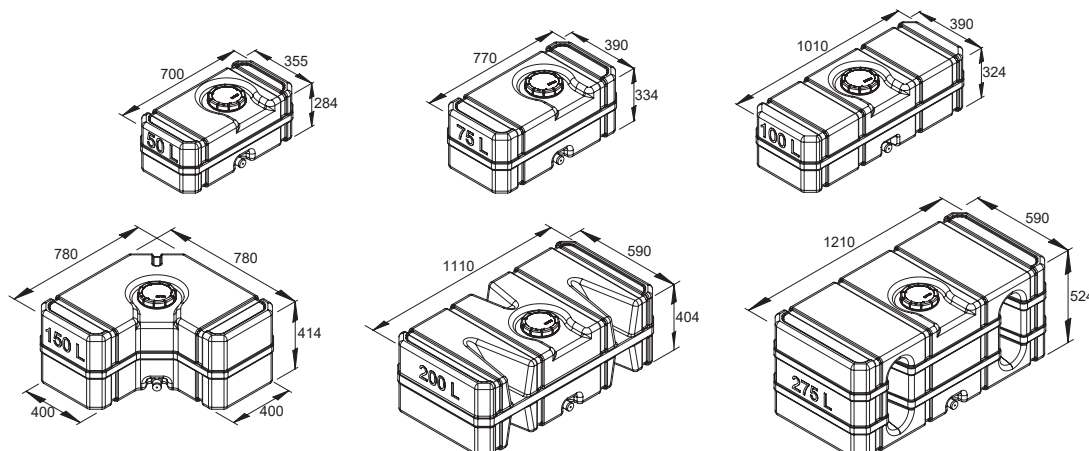
Recommended accessory - VTSTRAP lashing straps & WRILT lid opener

For secure installation of your APT tank, we recommend adding the VTSTRAP lashing strap set. A set includes two straps, each measuring 9.8 ft. (3 m) long and 1" (25 mm) wide.

For easy and hassle-free lid handling, we recommend the WRILT opener (see page 212).



ILTCONW (Waste water)



Dimensions: plus or minus 2%



Waste water systems

Flexible tanks for toilet and waste water

VETUS flexible tank type TANKV

These flexible tanks are ideal for short-term storage of waste water. They are lightweight, easy to install, and perfect for boats with limited space.

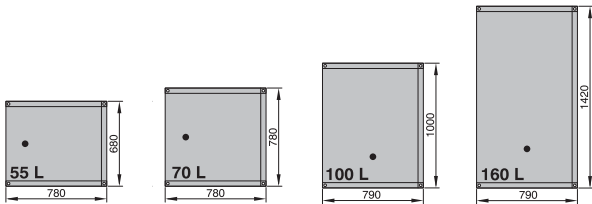
These flexible tanks are constructed in the same robust way as the flexible drinking water tanks (see page 181). However, the material used is suitable to store waste water. These tanks should be pumped and flushed after a day's boating. Available in several dimensions and capacities.

A repair kit is available (REPSETOT).

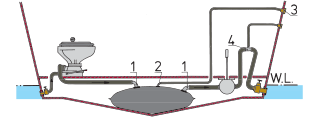
Type	Capacity (appr.) (gallon)	Dimensions (appr.) (inch)	Height filled (appr.) (inch)
TANKV55	14.5	26 ⁴⁹ / ₆₄ x 30 ⁴⁵ / ₆₄ "	9 ²⁷ / ₃₂ "
TANKV70	18.5	30 ⁴⁵ / ₆₄ x 30 ⁴⁵ / ₆₄ "	10 ⁵ / ₈ "
TANKV100	26.4	31 ⁷ / ₆₄ x 39 ³ / ₈ "	10 ⁵ / ₈ "
TANKV160	42.3	31 ⁷ / ₆₄ x 55 ²⁹ / ₃₂ "	10 ⁵ / ₈ "



TANKV



- 2 angled hose connectors Ø 1½ (38) (supplied with each tank)
- Angled breather nipple Ø 5/8" (16 mm), already fitted
- Breather nipple Ø 5/8" (16 mm) (not included)
- Air vent for anti-siphoning, see page 127. When discharge of the tank through a deck plate is required, a Ø1½ (38) tank connector type FT38B is available as an option, see the price-list



No-smell filters

Filter types NSF and NSFS

Fresh air

Allowing fresh air into a waste tank reduces anaerobic growth and the build up of gas. However, unpleasant odours can also escape through this air breather line. This can be prevented by the installation of a VETUS no-smell filter. The no-smell filter is easy to install and contains activated carbon material to absorb odours. Add the VETUS waste water breather hose made of reinforced PVC for a proper operating system.

Please note: The filter element is replaceable and should be renewed once a year.

A new filter element is available, but we recommend choosing the pre-filled canisters from the NFSCAN series. These canisters not only absorb odors, but also effectively capture moisture, see next page.

Type	Description	L x W x H inches (mm)	Hose Ø inches (mm)
NSF16S	Small no-smell filter	4 ³ / ₁₆ " (107) x 4 ³ / ₈ " (111) x 4 ³ / ₈ " (111)	5/8 (16)
NSF16	Large no-smell filter	5 ¹³ / ₁₆ " (148) x 5 ¹⁵ / ₁₆ " (150) x 6 ³ / ₈ " (162)	5/8 (16)
NSF19	Large no-smell filter	5 ¹³ / ₁₆ " (148) x 5 ¹⁵ / ₁₆ " (150) x 6 ³ / ₈ " (162)	¾ (19)
NSF25	Large no-smell filter	5 ¹³ / ₁₆ " (148) x 5 ¹⁵ / ₁₆ " (150) x 6 ³ / ₈ " (162)	1 (25)
NSF38	Large no-smell filter	5 ¹³ / ₁₆ " (148) x 5 ¹⁵ / ₁₆ " (150) x 6 ³ / ₈ " (162)	1½ (38)
NSF16FES	Spare filter element for small no-smell filters		
NSF16FE	Spare filter element for large no-smell filters		



NSF



NSFS

Waste water systems

Accessories for waste water tanks

Vacuum operated vent valve type VRF

Indispensable safety factor

To prevent the possibility of insufficient air entering through the vent line during pump out operations causing the tank to implode, VETUS has developed a valve according to the ISO8099 standard. In case of significantly reduced pressure in the holding tanks, the valve will open automatically to let air into the tank. By using this valve, fitting of a large diameter vent line is no longer necessary. The valve is made from synthetic materials and therefore absolutely corrosion-free. Hole size in the tank is 2^{13/64}" (56 mm).



VRF56A

Type	Description
VRF56A	Vacuum valve for waste water tank, requires Ø 2 13/64" (56 mm) hole

Ultrasonic level sensors

Accurate, contactless tank monitoring

The VETUS SENSORA and SENSORB are advanced ultrasonic level sensors designed to monitor tank contents without any moving parts or direct contact with the liquid. These sensors can be used in waste water (black and grey water), fresh water, diesel fuel, or petrol tanks of almost any shape and size - up to 3.9 ft. (120 cm) deep. Maximum tank capacity: 1320 gal. (5000 L.). Perfect for modern boats and yachts, they offer easy installation and high reliability. Once installed, the sensor can be calibrated on the spot using a built-in LED and wire. No extra tools are required.



SENSORA

SENSORB

Specifications

SENSORA - Analogue output sensor

- Contactless ultrasonic measurement for high reliability
- Compatible with all VETUS analogue tank level gauges and WWCP panel
- Easy onboard calibration with LED and a calibration wire
- Ideal for black, grey, fresh water, petrol, and diesel fuel tanks
- Not suitable for use with metal tanks

Specifications

SENSORB - CANbus sensor

- Uses RS485 bus interface (CANbus type)
- Designed for integration with digital VETUS display SENSORD
- Contactless, reliable, and easy to calibrate
- Ideal for high-end digital installations
- Not suitable for use with metal tanks

By using an RS485 user interface, data can be transmitted over long distances without signal loss, providing a higher degree of noise immunity and support for up to eight sensors connected to one SENSORD panel.

Feature	SENSORA	SENSORB
Output interface	Analogue	RS485 Bus (CANbus)
Voltage	12 / 24 VDC	12 / 24 VDC
Current consumption	35 mA	35 mA
Max. tank depth	3.9 ft. (120 cm)	3.9 ft. (120 cm)
Accuracy	±5%	±5%
Temperature range	-4 to 158°F (20 to + 70 °C)	-4 to 158°F (20 to + 70 °C)
Mounting flange	SAE, 5-hole	SAE, 5-hole
Dimensions	Ø 3 1/32" x 2 9/32" (77 x 23 mm)	Ø 3 1/32" x 2 9/32" (77 x 23 mm)
Compatibility	Analogue gauges, WWCP panel	SENSORD digital display
Suitable for	Black/grey water, water, fuel tanks	Black/grey water, water, fuel tanks
Not suitable for	Metal tanks	Metal tanks



Accessories for waste water tanks

Waste water tank sensor type WWSENSORA

Easy measurement

Simple to fit, reliable waste water tank sensor.
The arm length is adjustable between 7⁷/₈" (200 mm) and 16¹/₄" (412 mm).

Specifications

- Empty 300 Ω
- Full 0 Ω
- For 12 and 24 VDC

Type	Description	Voltage (DC)
WWSENSORA	Waste water sensor	12/24

WWSENSORA



Waste water control panel type WWCP

Integrated tank level monitoring

This easy-to-use control panel with security lock can be used manually or automatically to control the full tank pump-out and manage the complete waste water system. The WWCP panel is connected to a VETUS level sensor (type WSENSORA or SENSORA) and indicates the content level in the tank using LED's, it will ignore brief maximum level peaks caused by boat movements.

A motorised ball valve can also be connected to the panel. In either manual or automatic mode, the valve will open before the pump starts. Once the tank is empty, the pump will switch off and the valve will close automatically.

A switched outlet on the panel, connected to a relay in the toilet power supply, makes it possible to prevent the toilet(s) from being flushed if the tank is full.

Specifications

- Panel dimensions 3³/₈" x 3³/₈" (85 x 85 mm)
- Build-in depth 1⁹/₁₆" (40 mm)
- Suitable for 12 or 24 VDC
- Usage in stand-by mode 4mA, electric pump 10A max, remotely controlled ball valve 5A max and external alarm 1A max.
- Valve and level sensor are not included

WWCP



Feature	Specification
Panel Dimensions	3 ³ / ₈ " x 3 ³ / ₈ " (85 x 85 mm)
Built-in Depth	1 ⁹ / ₁₆ " (40 mm)
Voltage	12 / 24 VDC
Stand-by Current	4 mA
Max Current - Electric Pump	10 A
Max Current - Motorised Valve	5 A
Max Current - External Alarm	1 A
Control Modes	Manual or automatic
Level Indication	LED indicator (ignores short spikes due to motion)
Additional Features	Lock function, full-tank toilet block option
Compatible Sensors	SENSORA, WWSENSORA (not included)
Compatible Valves	Motorised ball valve (not included)
Application	Black and grey water tank systems



Waste water systems

Accessories for waste water tanks

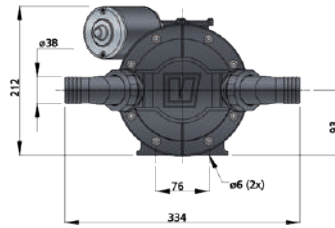
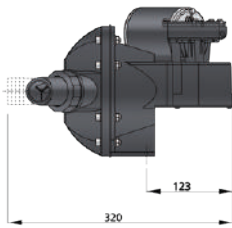
Waste water pump - EMP140

High-capacity diaphragm pump with rotatable connectors

The EMP140 is a robust and quiet diaphragm pump designed for waste water (black water and grey water) applications. It features rotatable hose connectors, which greatly reduce installation time and provide flexibility in tight spaces. The pump is self-priming and fitted with internal duck-bill valves for reliable non-return flow control.

Specifications

- Self-priming diaphragm pump with internal duck-bill valves
- Capacity: 7.1 gal (27 L/min)
- Rotatable hose connectors 1 1/2" (38 mm) for easy installation
- Quiet operation and low maintenance



EMP140

Type	Voltage (VDC)	Current (A)	Connection inches (mm)	Weight lbs (kg)	Capacity, at 0 m head (L/min)	Max. suction height (m)	Max. head (m)
EMP14012B	12	6	Angled, rotating Ø 1 1/2 (38)	15.4 (7)	27	3	5
EMP14024B	24	4	Angled, rotating Ø 1 1/2 (38)	15.4 (7)	27	3	5

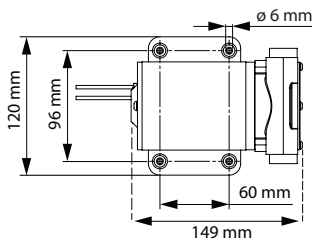
General purpose self-priming pump - EIP12

Compact utility pump for bilge or deck wash

The EIP12 is a lightweight and compact self-priming electric pump designed for general use on board, such as bilge pumping or deck washing.

Specifications

- Self-priming
- Compact design
- 12 V DC only



EIP12

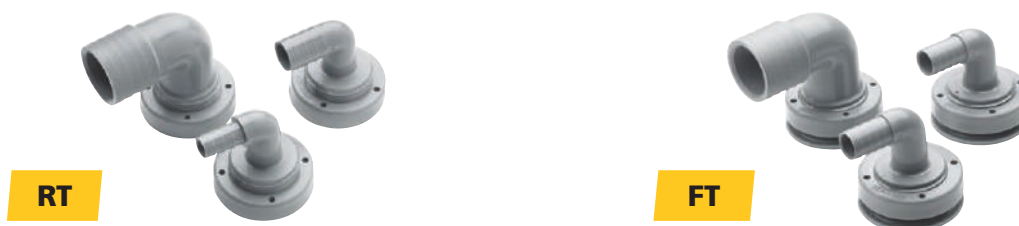
Type	Suitable for	Voltage (DC)	Max pressure (bar)	Capacity (L/min)	Suction head (m)	Connection type	Weight lbs (kg)
EIP12	Bilge water / deck wash	12	1	30	1	G1/2 internal thread	5.4 (2.48)



Accessories for waste water tanks

Angled fittings

Synthetic fittings for VETUS flexible tanks (type FT) or rigid tanks (type RT). Suitable for hoses with an internal diameter of $\frac{1}{2}$ " (13 mm), $\frac{5}{8}$ " (16 mm), $\frac{3}{4}$ " (19), 1" (25 mm) or $1\frac{1}{2}$ " (38). The required hole size for flexible tank is $\frac{1}{2}$ " (42 mm) and for rigid tanks $\frac{11}{16}$ " (43 mm).



Type	Hose Ø inches (mm)	Angle
RT13B	$\frac{1}{2}$ (13)	right angle
RT16B	$\frac{5}{8}$ (16)	right angle
RT19B	$\frac{3}{4}$ (19)	right angle
RT25B	1 (25)	right angle
RT38B	$1\frac{1}{2}$ (38)	right angle

Type	Hose Ø inches (mm)	Angle
FT13B	$\frac{1}{2}$ (13)	right angle
FT16B	$\frac{5}{8}$ (16)	right angle
FT19B	$\frac{3}{4}$ (19)	right angle
FT25B	1 (25)	right angle
FT38B	$1\frac{1}{2}$ (38)	right angle

Anti-siphoning air vent

For more information and available types see page 127.



Universal inspection port for waste water tanks - ILT120PL / ILT120PH

Easy access for cleaning and inspection

These innovative VETUS inspection ports are designed for easy access to your waste water tank. With a reliable clamp-and-seal design, they ensure a watertight fit and can be installed on both thin- and thick-walled tanks. The ILT120PL is suitable for tank walls up to $\frac{5}{32}$ " (4 mm). The ILT120PH handles wall thicknesses from $\frac{5}{32}$ - $\frac{3}{8}$ " (4 to 10 mm), ideal for VETUS ATANK models. Both versions feature a modular design, allowing additional connection kits (such as ILTCONW) to be added for a complete waste water system upgrade.



ILT120

Specifications

- Universal inspection port for waste water tanks
- Watertight "clamp and seal" design using silicone gasket
- Suitable for synthetic, G.R.P., or metal tanks
- Quick and simple installation using the VETUS hole saw (VSAW159)
- Compatible with ILTCONW connection kit for tank upgrades
- Robust construction with counter flange and five-bolt locking system

Specification	ILT120PL	ILT120PH
Suitable wall thickness	$\frac{1}{32}$ - $\frac{5}{32}$ " (0,8 to 4 mm)	$\frac{5}{32}$ - $\frac{3}{8}$ " (4 to 10 mm)
Suitable diameter	$4\frac{3}{4}$ " (120 mm)	$4\frac{3}{4}$ " (120 mm)
Required hole diameter	$6\frac{1}{4}$ " (159 mm)	$6\frac{1}{4}$ " (159 mm)
Material	Synthetic, corrosion-proof	Synthetic, corrosion-proof
Compatible with ILTCONW	Yes	Yes
Application	Waste water, fresh water tanks	Waste water, fresh water tanks



Waste water systems

Accessories for waste water tanks

ILTCONW - Waste water connection kit

All-in-one upgrade for your tank inspection port

The VETUS ILTCONW is a complete waste water connection kit that transforms your ILT inspection port (ILT120PL or ILT120PH) into a fully functional connection hub. It includes multiple inlet, discharge, and ventilation ports - all integrated into a single interchangeable disc.

Specifications

- Turns ILT120 inspection ports into a full connection hub
- Includes:
 - Ø 1½" (38 mm) straight discharge connection (convertible to extraction pipe using a standard Ø 40 mm PVC pipe)
 - Ø 1½" (38 mm) inlet connection
 - Ø 1" (25 mm) inlet connection
 - Ø ¾" (19 mm) inlet connection
 - Ø ¾" (19 mm) ventilation port
 - Includes blind plugs to seal unused ports
- SAE 5-hole pattern for level sensor (SENSORA/SENSORB)
- Made from corrosion-resistant materials
- Optional a 1½" (38 mm) connection elbow 90 degrees (ILTCON90) is available



ILTCONW

Specification	ILTCONW
Compatible with	ILT120PL / ILT120PH
Application	Waste water tanks

ILTCON90 - 90° elbow adapter

- Provides a 90-degree 1½" (38 mm) connection for ILTCONW
- Perfect for tight spaces



ILTCON90

VSAW159 - 6¼" (159 mm) diameter hole saw

- Hole saw for making the correct tank opening
- Suitable for plastic, G.R.P., or metal tanks
- Highly recommended for accurate installation of the ILT120 serie



VSAW159

WRILT - ILT lid opener

- Ergonomic tool for easily opening and closing ILT120 lids
- Easy to use and ensures a tight, secure seal



WRILT

Type	Description
ILTCON90	1½" (38 mm) diameter elbow for ILTCONW Without counter flange
VSAW159	6¼" (159 mm) diameter hole saw
WRILT	Lid opener tool for ILT120 series

Inspection lid type WTK02

For (waste) water tanks only!

Without counter flange.

Specifications

- Overall diameter 6 9/64" (156 mm)
- Cut out diameter 4 17/32" (115 mm)
- Not suitable for fuel tanks
- Ideal for metal tanks



WTK02

Type	Description
WTK02	Inspection lid only, for rigid water tanks



Accessories for waste water tanks

Installation kit type BTKIT

Consisting of one inspection lid with counter-flange and fastenings, two securing straps, and one wrench for angled fittings.

Specifications

- Overall diameter Ø 6⁹/₆₄" (156 mm)
- Cut out diameter Ø 4¹⁷/₃₂" (115 mm)

Type	Description
BTKIT	Fitting kit for waste water tanks



BTKIT

WTS - Extraction pipes for rigid waste water tanks

The WTS extraction pipes are designed for reliable waste water removal from rigid tanks. Whether connected to an electric or manual diaphragm pump, or directly to a deck plate, these pipes ensure smooth waste discharge.

Specifications

- Designed for black and grey water extraction
- 30¹¹/₁₆" (780 mm) long and can be shortened to fit your tank
- Available with straight or right-angle hose connectors

Type	Length inches (mm)	Hose Ø inches (mm)	Angle
WTS780385	30 ¹¹ / ₁₆ (780)	1 ¹ / ₂ (38)	straight
WTS78038B	30 ¹¹ / ₁₆ (780)	1 ¹ / ₂ (38)	right angle



WTS

Lockable ball valve type BV1½L

This stainless steel (AISI 316) ball valve with G1½ thread is in some countries a legal requirement to prevent the accidental discharge of black water in port. This valve can be padlocked (padlock itself is not supplied).

For more information and available types see page 430.

Type	Description
BV1½	Stainless steel (AISI 316) ball valve



BV1½



Waste water systems

Accessories for waste water tanks

Remotely controlled ball valves type MV

Simple manual override

These motorised stainless steel (AISI 316) valves with a powder coated aluminium actuator housing enable any skin fitting/through hull to be electrically opened or closed from a remote location. Also suitable for every type of fuel, ignition protected. The G-threading meets the requirements of ISO 228-1 and 9093-1. IP rating: IP67. The valves can be powered fully opened or closed in approximately 12 to 25 seconds. The powerful motors have a maximum torque of 40 or 220Nm.

Type	MV12A	MV24A	MV24B
Power supply range	11-13 VDC	18-24VDC	20-24VDC
Operating current @ max. torque	1000±10% mA @12VDC	500±10% mA @24VDC	2000±5% mA @24VDC
Static current	50±5 mA	25±5 mA	60±5 mA
Opening and closing	✓	✓	✓
Max. operation Torque	40Nm	40Nm	220Nm
Manual over-ride tool	Hex Key	Hex Key	Wrench
Ambient temp.	-4°F (20 °C) to +113°F (45 °C)	-4°F (20 °C) to +113°F (45 °C)	-4°F (20 °C) to +113°F (45 °C)
ISO 8846 certified	Yes	Yes	Yes

Control panels*	MV12A	MV24A	MV24B
ELVPAN12	✓	-	-
ELVPAN24	-	✓	✓
WWCP (page 209)	✓	✓	✓

*Ordered separately



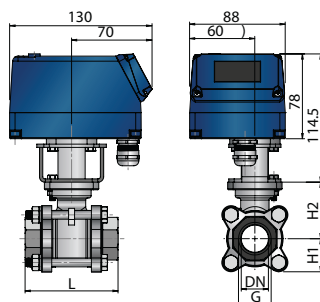
MV



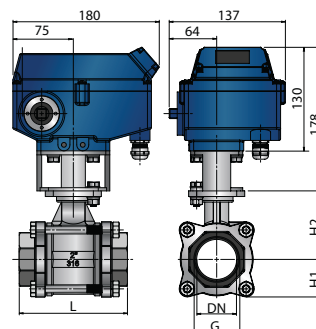
ELVPAN

(12 V)	Type (24 V)	G inches (ISO 228)	DN inches (mm)	H1 inches (mm)	H2 inches (mm)	L inches (mm)	Weight lbs (kg)
MV12A1/2	MV24A1/2	1/2	19 ³² / ₃₂ (15)	5 ⁷ / ₆₄ (22.5)	1 ²¹ / ₃₂ (42)	2 ⁵³ / ₆₄ (72)	4.9 (2.2)
MV12A3/4	MV24A3/4	3/4	2 ⁵ / ₃₂ (20)	5 ⁷ / ₆₄ (22.5)	1 ⁵⁷ / ₆₄ (48)	3 ⁵ / ₃₂ (80)	5.3 (2.4)
MV12A1	MV24A1	1	1 (25)	1 ³ / ₁₆ (30)	2 ¹¹ / ₆₄ (55)	3 ¹¹ / ₃₂ (85)	6.2 (2.8)
MV12A11/4	MV24A11/4	1 ¹ / ₄	1 ¹⁷ / ₆₄ (32)	1 ⁷ / ₁₆ (36.5)	2 ²³ / ₆₄ (60)	4 ⁹ / ₆₄ (105)	7.5 (3.4)
MV12A11/2	MV24A11/2	1 ¹ / ₂	1 ¹ / ₂ (38)	1 ⁹ / ₁₆ (40)	2 ³ / ₄ (70)	4 ²⁹ / ₆₄ (113)	9.3 (4.2)
	MV24B2	2	1 ³¹ / ₃₂ (50)	1 ¹³ / ₁₆ (46.5)	3 ¹¹ / ₃₂ (85)	5 ¹³ / ₆₄ (132)	17.2 (7.8)

MV..A



MV..B



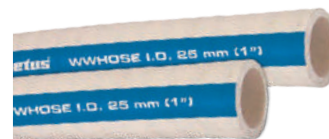


Accessories for waste water tanks

Waste water hose type WWHOSE..B

For transportation of grey waste water

This type of hose is made of white PVC with a steel spiral inlay. It is recommended for the transportation of grey waste water (not toilet waste).



WWHOSE..B

Type	Internal Ø inch (mm)	External Ø inch (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inch (mm)	Roll length (m)	HCHDS clamp	HCS clamp
WWHOSE16B	5/8 (16)	7/8 (22)	0.23	6	1 3/8 (35)	30		HCS20
WWHOSE19B	3/4 (19)	1 1/32 (26)	0.32	5	1 15/16 (50)	30		HCS20
WWHOSE25B	1 (25)	1 5/16 (33)	0.53	5	2 3/8 (60)	30		HCS32
WWHOSE38B	1 1/2 (38)	1 7/8 (47)	0.80	4	3 9/16 (90)	30	HCHDS047	HCS40
WWHOSE45B	1 3/4 (45)	2 3/16 (55)	1.10	3	4 1/8 (105)	10	HCHDS055	HCS50

Impermeable sanitary no-smell hoses type SAHOSE

An absolute must for toilets

These hoses are made of SBR rubber with inlays of woven synthetic fabric and steel spiral. Recommended especially for transportation of biological waste from (marine) toilets (black water).



SAHOSE

Type	Internal Ø inch (mm)	External Ø inch (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inch (mm)	Roll length (m)	HCHDS clamp	HCS clamp
SAHOSE16	5/8 (16)	1 1/32 (26)	0.45	3	1 15/16 (50)	20		HCS20
SAHOSE19	3/4 (19)	1 1/8 (29)	0.55	3	2 9/16 (65)	20		HCS25
SAHOSE25	1 (25)	1 7/16 (36)	0.72	3	2 15/16 (75)	20	HCHDS034	HCS32
SAHOSE38	1 1/2 (38)	1 7/8 (48)	1.15	3	3 15/16 (100)	20	HCHDS047	HCS40
SAHOSE51	2 (51)	2 7/16 (62)	1.51	3	4 15/16 (125)	20	HCHDS051	HCS50

For a complete overview of our range of hoses see page 466. HCHDS (heavy duty) and HCS clamps are made of stainless steel (AISI 316). For a complete overview of our range of hose clamps see page 440.

Synthetic hose adapters type HA

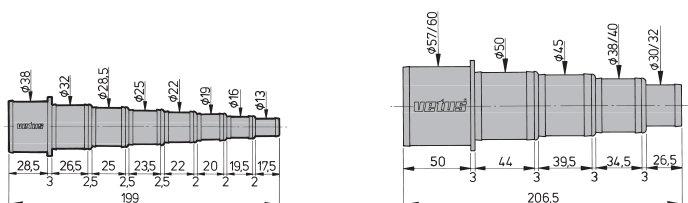
These synthetic hose adapters can be cut to the appropriate hose sizes.

Type	Ø Dim. inches (mm)
HA1338	1/2 - 1 1/2 (13 - 38)
HA3060	1 3/16 - 2 23/64 (30 - 60)



HA1338

HA3060



Waste water systems

Accessories for waste water tanks

The waste water connector line-up consists of a three-way valve, a Y connector, a non-return valve and the additional hose connectors. These hose connectors are fully rotatable and are ordered separately to fit your existing hoses. Made entirely from high grade nylon, these products are strong and durable. With connectors variations from 19 mm up to 38 mm, it's plug-and-play on every boat.

This line-up allows you to professionally connect or expand your waste water system. With the three-way valve and the Y-connector you can create as many connections as needed, while the non-return valve prevents contaminated water from flowing back. Hose connectors are sold individually or in 2-packs, giving you the flexibility to mix and match. The three-way valve can be padlocked in one position (for example, when harbors require that waste water is directed to the tank instead of discharged overboard). Both the three-way valve and the Y-connector come equipped with a bracket for easy mounting on wall or floor.

Plastic three-way valve

(without hose connections)

Max. pressure 1 bar.

Rotatable hose connections should be ordered separately (five different sizes available).



Y3V

Type	Description
Y3V	Plastic three-way valve

Plastic Y-connector

(without hose connections)

Rotatable hose connections should be ordered separately (five different sizes available).



Y3C

Type	Description
Y3C	Plastic Y-connector

Plastic in-line non-return valve

(without hose connections)

Rotatable hose connections should be ordered separately (five different sizes available).



YNRE

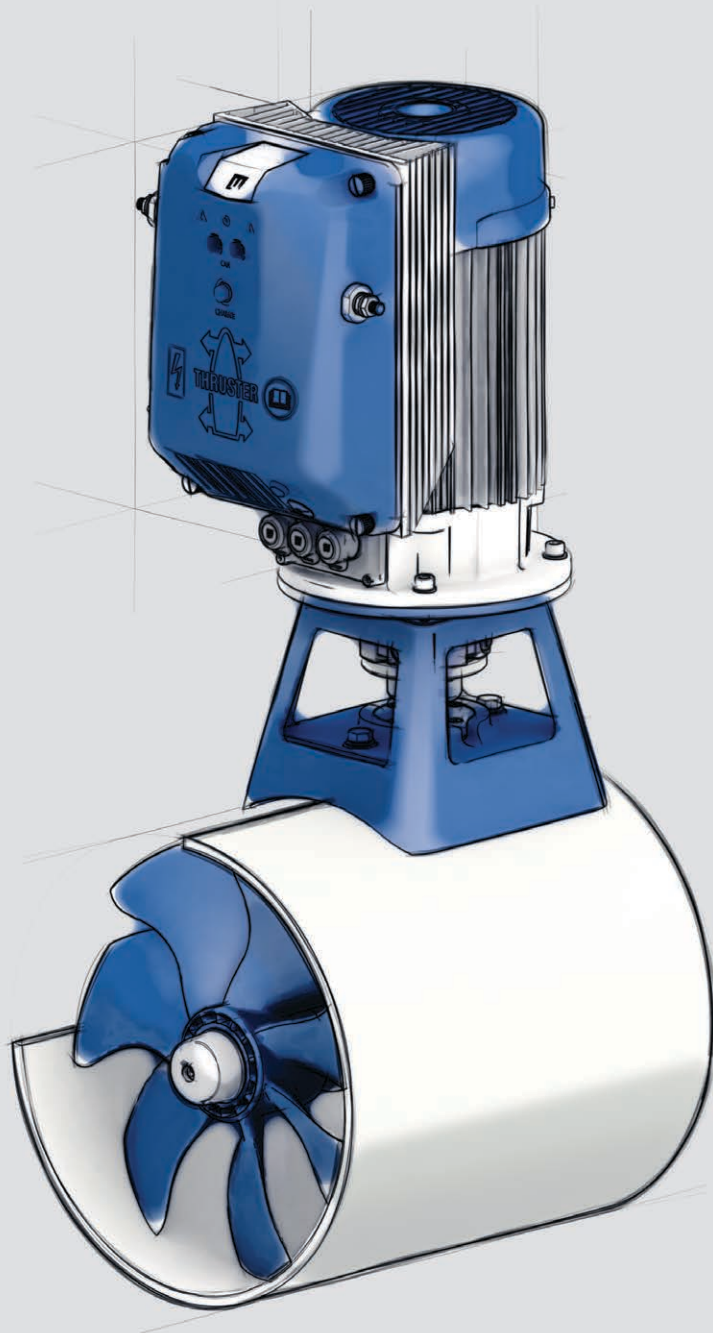
Type	Description
YNRE	Plastic in-line non-return valve (duck bill)

Plastic hose connections for Y3V, Y3C and YNRE

Type	Description
YPA38P2	Hose connector 1 1/2 inch (38 mm) (2pcs.)
YPA38P1	Hose connector 1 1/2 inch (38 mm) (1pcs.)
YPA32P2	Hose connector 1 1/4 inch (32 mm) (2pcs.)
YPA32P1	Hose connector 1 1/4 inch (32 mm) (1pcs.)
YPA28P2	Hose connector 1 1/8 inch (28 mm) (2pcs.)
YPA28P1	Hose connector 1 1/8 inch (28 mm) (1pcs.)
YPA25P2	Hose connector 1 inch (25 mm) (2pcs.)
YPA25P1	Hose connector 1 inch (25 mm) (1pcs.)
YPA19P2	Hose connector 3/4 inch (19 mm) (2pcs.)
YPA19P1	Hose connector 3/4 inch (19 mm) (1pcs.)



YPA



Thruster systems

The world of VETUS thrusters



BOW PRO proportional brushless bow and stern thrusters

The new leading edge of thruster development, utilizing well proven components and technology. For boats ranging from 20 to 130 feet.

- Proportional control allows you to vary the power output of the thruster for more precise control
- Digitally controlled by a (patented) VETUS V-CAN CAN bus motor controller
- Resistant to damage from misuse and overuse, with heat sensing and self-regulating electronics
- Simple and intuitive to operate, with a small self learning curve on adjusting the thrust
- Control panel with lock and hold function to make single handed docking much easier
- A range of more than twenty thrusters, from 30 kgf to 420 kgf
- Battery powered at 12, 24 and 48 VDC
- Longer run time: 10 minutes (minimum) at full power and even longer runtimes at reduced power, ultimately limited by battery capacity and recharge rate
- Motor technology: efficient, sealed, brushless induction motors giving maximum run time on a charged battery bank

Turn to page 222 for detailed information.

DC bow and stern thrusters

The original recreational boat thruster, developed and refined over 40 years of hard work on boats ranging from 20 to 80 feet. These DC thrusters have been a proven concept and affordable thruster solution for many years.

- On-off, port-starboard controls
- Simple and intuitive to operate
- Lowest cost, simplest installation, easy retrofit
- A range of nineteen thrusters, with thrust outputs ranging from 25 kgf to 285 kgf
- Battery powered at 12, 24 and 48 VDC
- Run time: 2-4 minutes continuous or combined in one hour
- Motor technology: direct current, series wound with carbon brushes

Turn to page 228 for detailed information.



RIMDRIVE proportional permanent magnet thrusters

If you treasure perfect peace on calm waters or need to move with stealth on rough waters, the world's quietest thrusters are for you. For boats ranging from 40 to 65 feet.

- Proportional control allows you to vary the power output of the thruster for more precise control
- Extremely quiet thruster due to its unique design without gears
- Digitally controlled by a (patented) VETUS V-CAN CAN bus motor controller
- Resistant to damage from misuse and overuse, with heat sensing and self-regulating electronics
- Simple and intuitive to operate, with a small learning curve on adjusting the thrust
- Control panel with lock and hold function to make single handed docking much easier
- A thruster with a power output of 160 kgf
- Battery powered at 48 VDC
- Longer runtime: 10 minutes (minimum) at full power and even longer runtime at reduced power, on minimum recommended battery bank, but easily extended by increasing battery capacity
- Motor technology: highly efficient permanent magnet motors giving maximum run time on a charged battery bank

Turn to page 231 for detailed information.



Ignition protected DC bow and stern thrusters

An extension of the well-known DC thruster, which makes this the only electric thruster type suitable for use in compartments containing gasoline / petrol engines, tanks and fuel lines, propane tanks and lines, jet skis / pwc's or outboard engines and their fuel tanks, as the motor is encased to prevent explosive fumes reaching its interior. For boats ranging from 20 to 60 feet.

- Ten models with power outputs ranging from 25 kgf to 160 kgf
- Battery powered at 12 and 24 VDC
- Run times 2-4 minutes continuous or combined in one hour
- Motor technology: direct current, series wound with carbon brushes

Turn to page 232 for detailed information.

Retractable BOW PRO thrusters

Perfect for shallow-draft boats where conventional tunnel thrusters cannot be fully submerged, this thruster is built on the proven BOW PRO platform. It features a swing-out mechanism that deploys below the hull during use and retracts afterward. Suitable for vessels between 25 and 50 feet in length.

- Proportional controls with automatic deployment and retraction
- Simple and intuitive operation
- Four models with power outputs ranging from 57 kgf to 90 kgf
- Battery powered at 12 and/or 24 VDC
- Unlimited runtime
- Motor technology: brushless induction motor with zero maintenance

Turn to page 233 for detailed information.

COMING SOON!



Hydraulic thrusters

Thrust whenever you need it, for as long as you need it, is the defining characteristic of these powerful machines and their systems. Built with industrial grade components and ideal for commercial and recreational heavy-duty applications. For boats ranging from 35 to 150 feet.

- Controls can be simple on-off port-starboard, dual stage with half power or proportional control to full power
- Made for very hard work - long lived, reliable, accustomed to abuse and highly resistant to damage
- Seven models with power outputs ranging from 55 kgf to 550 kgf
- Powered by propulsion engine(s) or generator
- Continuous runtime with proper setup
- Motor technology: hydraulic

Turn to page 235 for detailed information.



Thruster systems

Thrusters take the stress out of docking and maneuvering by giving you transverse control over the bow and stern of your boat. They work by rotating a propeller in a submerged tunnel or a housing mounted athwartships and located near the bow and/or the stern. A control panel allows you to push the bow and/or stern sideways to resist the force of a crosswind and cross current while you are manoeuvring in close quarters.

What thrusters will do for you and your boat

- Allow you to maintain control while docking and maneuvering, even into a very tight slip in a crowded marina
- Allow a single crew member to pick up and secure the dock lines while you move the boat sideways from one piling or mooring buoy to the next - slowly, carefully, quietly and with very little pushing, pulling or shouting
- Allow you and your one-person crew to handle and control a much bigger and more comfortable boat
- Avoid the possibility of hitting another boat, dock, or piling that might cause expensive damage to your boat, another boat, or the marina facilities
- Minimize the risk of a crew member being injured during docking maneuvers in difficult conditions
- Allow you to handle your boat with the same expertise, grace, and panache as the other captains whose boats are equipped with VETUS thrusters

How to choose the correct bow and stern thruster

After you have selected your type of thruster, the following tools can be used to calculate and select the required thrust force for your boat.

The influence of the wind

The force applied to the boat by the wind is determined by the wind speed, wind angle, and lateral wind draft area of the boat. If the wind blows at right angles to the boat, this wind pressure is most difficult to counter. However, this is seldom the case and, as most boat superstructures are fairly streamlined, a reduction factor of 0.75 is generally applied when calculating the wind pressure.

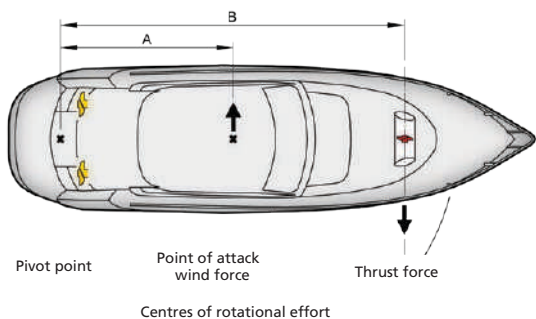
The turning moment

The turning moment is calculated by multiplying the wind force by the distance (A) between the centre of effort of the wind and the pivot point. In order to simplify this: for the vast majority of boats, a rule of thumb may be applied that the turning moment is calculated by multiplying the wind force by half of the boat's overall length.

The thrust force

It is the thrust force which is the true measure of a bow thrusters usefulness - not the output of the electric or hydraulic motor in kW or HP. The nominal thrust force is a combination of the motor power, shape of the propeller, and efficiency losses inside the tunnel. VETUS electrical bow thrusters have a very high thrust of between 17 and 23 kgf per kW motor power.

The required thrust force to counter the effects of the wind is calculated by dividing the turning moment by the distance (B) between the centre of the bow thruster tunnel and the pivot point of the boat.



Wind force Beaufort	Description	Wind speed m/s (ft/s)	Wind pressure N/m ² - (kgf/m ²)
4	moderate breeze	5.5 to 7.9 (17 - 27)	20 to 40 - (2.0 to 4.1)
5	fresh breeze	8.0 to 10.7 (27 - 37)	41 to 74 - (4.2 to 7.5)
6	strong breeze	10.8 to 13.8 (37 - 47)	75 to 123 - (7.7 to 12.5)
7	near gale	13.9 to 17.1 (47 - 57)	125 to 189 - (12.7 to 19.2)
8	gale	17.2 to 20.7 (57 - 67)	191 to 276 - (19.4 to 28.2)

Calculation example

The boat has an overall length of 36 ft. (11 m) and the lateral wind draft measures 194 ft.² (18 m²). It is required that the bow can be controlled easily when wind force Beaufort 5 applies.

At wind force Beaufort 5, the wind pressure is: $p = 41$ to 74 N/m², i.e. ρ (average) = 60 N/m².

The required torque is

$T = \text{wind pressure} \times \text{wind draft} \times \text{reduction factor} \times \text{distance centre of effort to pivot point, (=approx. half the ship's length)}$

$T = 60 \text{ N/m}^2 \times 18 \text{ m}^2 \times 0.75 \times (11 \times 0.5) \text{ m} = 4455 \text{ Nm}$

The required thrust force is calculated as follows

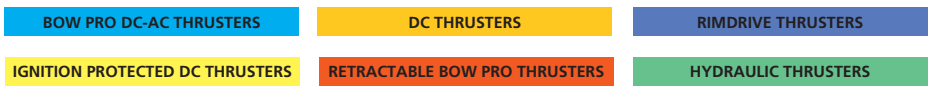
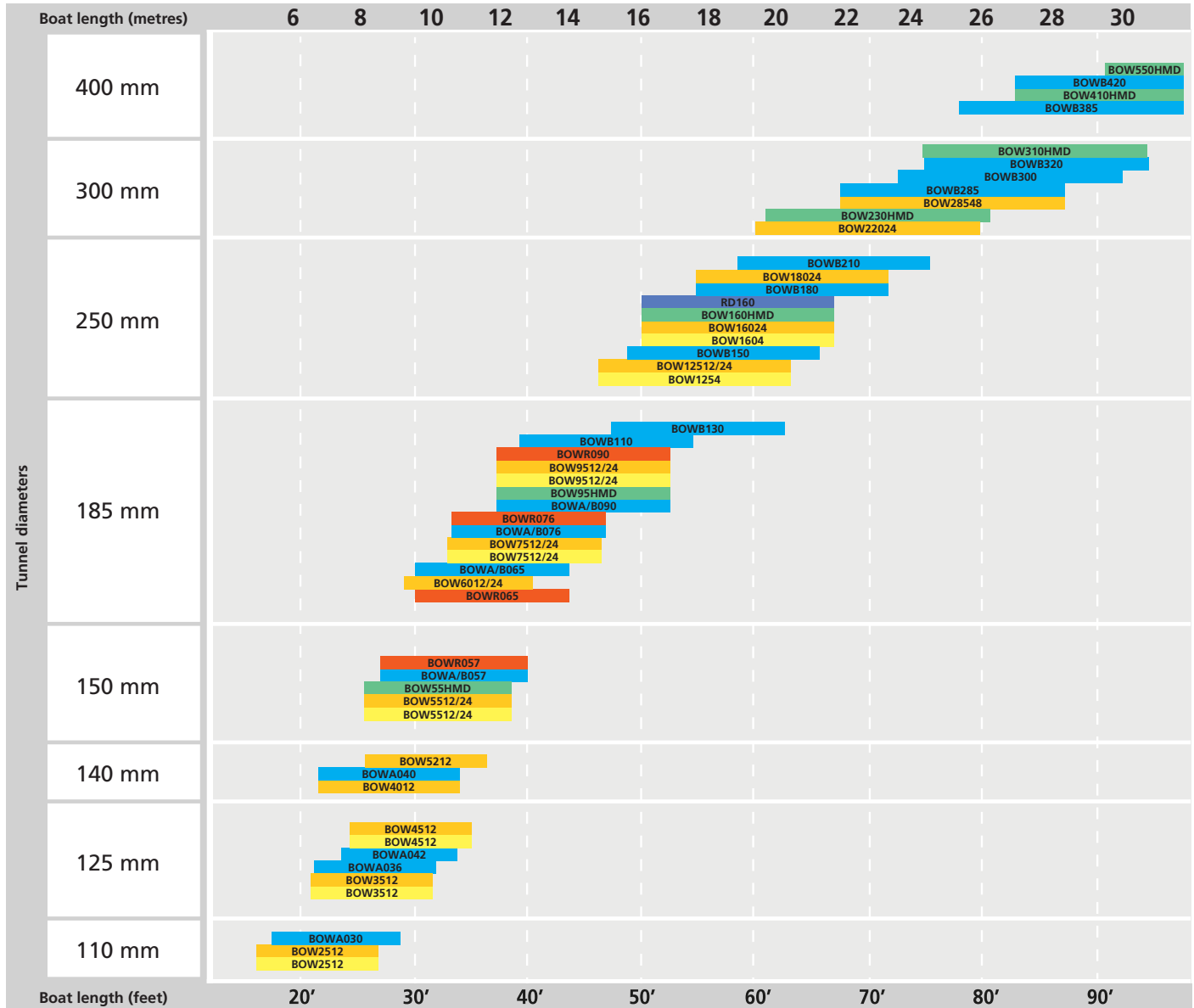
$$F = \frac{\text{torque}}{\text{distance between centre of bow thruster and the pivot point of the boat (with the transom as pivot of the boat)}} = \frac{4455 \text{ Nm}}{10,5 \text{ m}} = 420 \text{ N (42 kgf)}$$

The most suitable VETUS bow thruster for this vessel with a wind force of Beaufort 5 is our 99 lbf (45 kgf) unit. For a wind force of Beaufort 4, the 55 lbf (25 kgf) can be used. A wind force of Beaufort 6 would require our 156 lbf (75 kgf) thruster. Always bear in mind that the effective performance of a bow thruster will vary with each particular boat as the displacement, shape of the underwater section, and positioning of the bow thruster will always remain variable factors. As a rule of thumb, it can be assumed that the stern thruster may be "one model smaller" than the bow thruster model, as it has been calculated. Therefore, in this case, a stern thruster type 77 lbf (35 kgf) will be the correct model with a wind force of Beaufort 5.

On the next page there is a selection table of all VETUS thruster models against recommended boat length. Please note that this table is given for general guidance only and the calculation shown above prevails.



Overview per tunnel



Specifications	BOW PRO THRUSTERS	DC THRUSTERS	RIMDRIVE THRUSTERS	IGNITION PROTECTED DC THRUSTERS	RETRACTABLE BOW PRO THRUSTERS	HYDRAULIC THRUSTERS
Sound	dB	dB	dB	dB	dB	dB
Commercial use						
Proportional	✓	✗	✓	✗	✓	✓
Maintenance						



Thruster systems

BOW PRO proportional bow and stern thrusters

Revolutionary concept matched with proven technology

Our new BOW PRO is a one of a kind thruster which is standard fully proportional controlled. This thruster is equipped with brushless induction motors. Therefore, the bow / stern thruster motor is maintenance-free and has much longer runtimes compared to conventional DC thrusters.

The BOW PRO thruster is V-CAN CAN bus controlled by the patented VETUS motor controller (MCV) which features built-in over temp and low battery protection. Those built-in safeties combined with the brushless induction motor make the BOW PRO thruster series perfectly suitable for intensive use and hence ideal for every boater in the most difficult maneuvering situations.

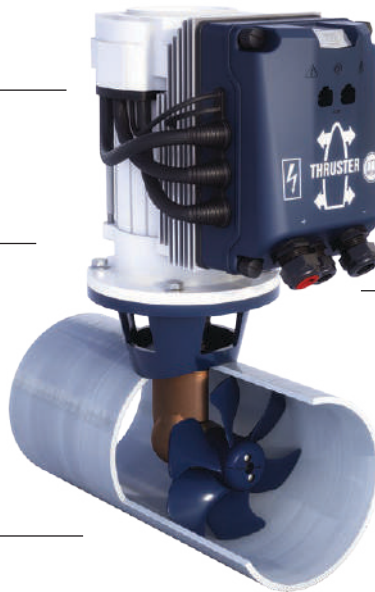
BOW PRO thrusters utilize the same propellers and gearboxes proven in VETUS thrusters for over 40 years. Upgrading a boat with an existing thruster to a BOW PRO thruster is easily accommodated as the BOW PRO thruster was made to share tunnel sizes with current VETUS thrusters as well as many other brands.

Fully proportional control

Digitally controlled by (patented) MCV motor controller

Maintenance-free brushless induction motor

Built-in over-temp and low battery protection



Unlimited runtimes*

Connectivity to devices with canbus carrying signals possible

Available with lock-and-hold controls

Highly efficient thruster system

Interchangeable with existing thrusters (shared tunnel sizes)

* BOW PRO thrusters will run continuously for 6 or 10 minutes (dependent on thruster model) at full power, after that the power may reduce. At less than full power setting, run time is greatly enhanced. To achieve these results, installation instructions must be adhered.

V-CAN control panels

The BOW PRO thruster is digitally controlled by proprietary CAN bus protocol V-CAN. There are three fully proportional control panels available for the BOW PRO thruster series; a basic paddle panel, a panel with lock-and-hold function, and a double control panel with lock-and-hold function. With the press of a button, you are able to lock the thrust at any desired speed, freeing you to step away from the control panel to tie up your boat. A feature that makes single handed docking much easier.



VETUS also offers a double control panel with lock-and-hold function which controls the bow and stern thruster simultaneously. See page 240 for detailed information.

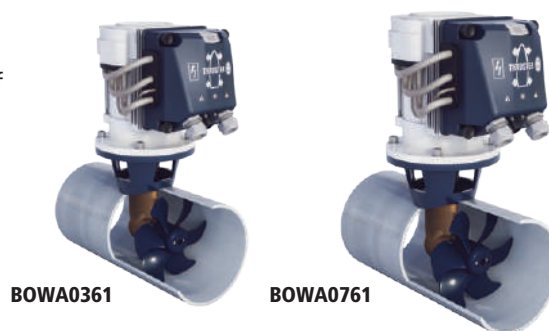


BOW PRO series: BOWA

The complete BOW PRO thrusters range starts with the BOWA series.

- A range of thrusters with thrust outputs ranging from 30 kgf to 76 kgf
- Battery powered at 12 VDC
- Runtime of 10 minutes at full power and even longer runtimes at reduced power

Battery state of charge, battery cable size, ambient temperature and other factors can affect thruster performance. Advice for battery cable length per model see page 237.



BOW PRO series - Type	BOWA0301	BOWA0361	BOWA0401	BOWA0421	BOWA0571	BOWA0651	BOWA0761
Thrust at 12/24 VDC (kgf)*	30	36	40	42	57	65	76
Power (kw-hp)	1,2 - 1,6	1,2 - 1,6	2,7 - 3,7	2,7 - 3,7	2,7 - 3,7	2,7 - 3,7	2,7 - 3,7
Brushless AC motor	✓	✓	✓	✓	✓	✓	✓
Advised boat length (ft - m)	<24' / <7	20'-30'/6-10	23'-36'/7-11	26'-37'/8-11,5	26'-39'/8-12	27'-40'/8-12,5	30'-45'/10-14
Tunnel diameter (mm - inch)	110 - 4,33"	125 - 4,92"	140 - 5,5"	125 - 4,92"	150 - 5,9"	185 - 7,3"	185 - 7,3"
Weight excl. tunnel (kg)	24	24	31	35	35	35	35
Operating time, continuously max per hour in minutes**	10	10	10	10	6	10	6
For DC system V	12	12	12	12	12	12	12
Battery main switch: model BATSW / type BPMMAIN	250/12	250/12	250/12	250/12	250/12	250/12	250/12
Internal thruster fuse (Amp)	200	300	300	300	300	250	300
Battery Ah value (C20)	90	170	145	145	185	170	200

BOW PRO series: BOWA 48 VDC

The increasing popularity of environmentally friendly boats with 48 VDC electric propulsion required the development of thrusters running at the same voltage, and these BOW PROs are designed to meet that need. The 48 VDC BOW PRO thrusters offers all the advantages of the standard BOW PRO; available in several propeller and tunnel diameters and are more than powerful enough to turn your runabout in the desired direction.

- A range of smaller thrusters with thrust outputs ranging from 30 kgf to 76 kgf
- Battery powered at 48 VDC
- Runtime of 10 minutes at full power and even longer runtimes at reduced power

BOW PRO series - Type	BOWA0304	BOWA0364	BOWA0574	BOWA0764
Thrust at 48 VDC (kgf)*	30	36	57	76
Power (kw-hp)	1,2 - 1,6	1,2 - 1,6	3,1 - 4,2	3,1 - 4,2
Brushless AC motor	✓	✓	✓	✓
Advised boat length (ft - m)	<24' / <7	20'-30'/6-10	26'-39'/8-12	30'-45'/10-14
Tunnel diameter (mm - inch)	110 - 4,33"	125 - 4,92"	150 - 5,9"	185 - 7,3"
Weight excl. tunnel (kg)	24	24	35	35
Operating time, continuously max p/h in minutes full power**	10	10	10	10
For DC system (Volt)	48	48	48	48
Battery main switch: model BATSW / type BPMMAIN	250	250	250	250
Internal thruster fuse (Amp)	80	100	100	100
Battery Ah value (C20)	60	60	60	60

* When the BOW PRO is operating within the set boundaries, the thrust output is not affected by voltage drop (10.5-15V, 21-30V, 41-60V).

** BOW PRO thrusters will run continuously for 6 or 10 minutes (dependent on thruster model) at full power, after that the power may reduce. At less than full power setting, run time is greatly enhanced. To achieve these results, installation instructions must be adhered.

Thruster systems

BOW PRO Boosted series: BOWB



BOWB150



BOWB180



BOWB300

All the features of the phenomenal BOWA series with a bonus. All BOW PRO Boosted (BOWB) include an exclusive built in DC-to-DC smart charger function that allows 24 VDC thruster battery banks to be charged by a 12 VDC power supply and in the case of 48 VDC BOWB, to be charged from an existing 24 VDC power supply. BOWB thrusters do this through a third charge connection on the thruster. This charge connection is constantly monitored and is only activated once the voltage level of the charging source reaches a suitable level. This feature prevents the charging source from being depleted, such as the engine starting bank. They then boost that input to a higher voltage and regulate it in a smart way to charge the thruster supply bank. In practice, this means you are able to connect the 24 VDC BOW PRO Boosted with a 12 VDC power supply to charge its battery bank. The built in smart three stage charging process ensures that the thruster batteries are kept at their optimum level.

Connecting the BOW PRO Boosted directly to a 24 or 48 VDC power supply is also possible.

- A range of thrusters with thrust outputs ranging from 57 kgf to 420 kgf
- Battery powered at 24 VDC (or 48 VDC)
- Runtime of 10 minutes at full power and even longer runtimes at reduced power
- Patented MCV motor controller with integrated boost charger 12/24 VDC (or 24/48 VDC)



BOWB420

BOW PRO Boosted - Type	BOWB057	BOWB065	BOWB076	BOWB090	BOWB110	BOWB130
Thrust at 12/24 VDC (kgf)*	57	65	76	90	110	130
Power (kw-hp)	3,1 - 4,1	3,1 - 4,1	3,1 - 4,1	5,7 - 8	5,7 - 8	5,7 - 8
Brushless ac motor	✓	✓	✓	✓	✓	✓
Advised boat length (ft - m)	26'-39"/8-12	27'-40"/8-12,5	30'-45"/10-14	36'-55"/11,5-17	36'-56"/11,5-18	40'-60"/12,5-18
Tunnel diameter (mm - inch)	150 - 5,9"	185 - 7,3"	185 - 7,3"	185 - 7,3"	185 - 7,3"	185 - 7,3"
Weight excl. tunnel (kg)	28	29	29	33	33	33
Operating time, continuously max per hour in minutes**	10	10	10	10	10	10
For DC system (Volt)	12/24	12/24	12/24	12/24	12/24	12/24
Battery main switch: model BATSW / type BPMAN	250/24	250/24	250/24	250/24	250/24	250/24
Internal thruster fuse (Amp)	200	160	200	200	300	300
Battery Ah value (C20)	90	90	90	145	170	185

BOWHPCK

High power connection kit

The BOWHPCK is a connection kit for bow thrusters in the VETUS BOW PRO series. This connection kit is used to simplify the implementation of big diameter supply wires. When using diameters 95 mm² (AWG 0) or above this kit is required. Only applicable for BOW PRO models up to BOWB210.





BOW PRO Boosted series: BOWB

BOW PRO Boosted - Type	BOWB150	BOWB180	BOWB210	BOWB285	BOWB300	BOWB320
Thrust at 12/24 VDC (kgf) ¹⁾	150	180	210	285	300	320
Power (kw-hp)	5,7 - 8	11 - 15	11 - 15	18,4 - 25	18,4 - 25	18,4 - 25
Brushless ac motor	✓	✓	✓	✓	✓	✓
Advised boat length (ft - m)	40'-60'/12,5-18	44'-68'/15-20	50'-75'/16-22	65'-90'/20-28	80'-100'/25-30	80'-105'/25-32
Tunnel diameter (mm - inch)	250 - 9,8"	250 - 9,8"	250 - 9,8"	300 - 11,8"	300 - 11,8"	300 - 11,8"
Weight excl. tunnel (kg)	38	45	45	95	95	95
Operating time, continuously max per hour in minutes ²⁾	6	10	10	10	10	10
For DC system (Volt)	12/24	24/48	24/48	24/48	24/48	24/48
Battery main switch: model BATSW / type BPMMAIN	250/24	250	250	600	600	600
Internal thruster fuse (Amp) ³⁾	300	250	250	425	425	425
Battery Ah value (C20)	170	185	185	220	220	220

BOW PRO Boosted - Type	BOWB385	BOWB420
Thrust at 12/24 VDC (kgf) ¹⁾	385	420
Power (kw-hp)	18,4 - 25	18,4 - 25
Brushless ac motor	✓	✓
Advised boat length (ft - m)	100'-120'/30-35	110'-130'/33-40
Tunnel diameter (mm - inch)	400 - 15,7"	400 - 15,7"
Weight excl. tunnel (kg)	120	120
Operating time, continuously max per hour in minutes ²⁾	6	6
For DC system (Volt)	24/48	24/48
Battery main switch: model BATSW / type BPMMAIN	600	600
Internal thruster fuse (Amp) ³⁾	500	500
Battery Ah value (C20)	220	220

¹⁾ When the BOW PRO is operating within the set boundaries, the thrust output is not affected by voltage drop (10.5-15V, 21-30V, 41-60V).

²⁾ BOW PRO thrusters will run continuously for 6 or 10 minutes (dependent on thruster model) at full power, after that the power may reduce. At less than full power setting, run time is greatly enhanced. To achieve these results, installation instructions must be adhered.

³⁾ For models BOWB285 / 300 / 320 / 385 / 420, the fuse is mounted externally

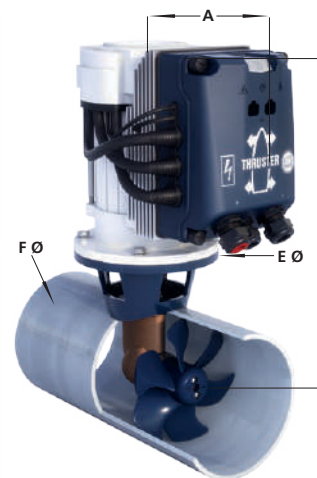
Battery state of charge, battery cable size, ambient temperature, and other factors can affect thruster performance. Advise for battery cable length per model see page 237.

Dimensions of all BOW PRO's (in inch)

SERIES	BOWA	BOWA	BOWA	BOWA BOWB	BOWA BOWB
Output	30 kgf	36 kgf	42 kgf	57 kgf	65 kgf
A	8 ¹⁷ / ₆₄ "	8 ¹⁷ / ₆₄ "	8 ¹⁷ / ₆₄ "	8 ¹⁷ / ₆₄ "	8 ¹⁷ / ₆₄ "
B	13 ²⁵ / ₃₂ "	14 ³ / ₃₂ "	14 ⁷ / ₈ "	17 ³ / ₃₂ "	16 ¹⁷ / ₆₄ "/17 ²³ / ₃₂ "
E Ø	7 ⁷ / ₈ "	7 ⁷ / ₈ "	7 ⁷ / ₈ "	7 ⁷ / ₈ "	7 ⁷ / ₈ "
F Ø	4 ²¹ / ₆₄ "	4 ⁵⁹ / ₆₄ "	4 ⁵⁹ / ₆₄ "	5 ²⁹ / ₃₂ "	7 ⁹ / ₃₂ "

SERIES	BOWA BOWB	BOWA BOWB	BOWB	BOWB	BOWB
Output	76 kgf	90 kgf	110 kgf	130 kgf	150 kgf
A	8 ¹⁷ / ₆₄ "	11 ⁷ / ₆₄ "	11 ⁷ / ₆₄ "	11 ⁷ / ₆₄ "	11 ⁷ / ₆₄ "
B	17 ²³ / ₃₂ "	17 ⁵¹ / ₆₄ "	17 ⁵¹ / ₆₄ "	17 ⁵¹ / ₆₄ "	19 ⁶¹ / ₆₄ "
E Ø	7 ⁷ / ₈ "	7 ⁷ / ₈ "	7 ⁷ / ₈ "	7 ⁷ / ₈ "	7 ⁷ / ₈ "
F Ø	7 ⁹ / ₃₂ "	7 ⁹ / ₃₂ "	7 ⁹ / ₃₂ "	7 ⁹ / ₃₂ "	9 ²⁷ / ₃₂ "

SERIES	BOWB	BOWB	BOWB	BOWB	BOWB	BOWB	BOWB
Output	180 kgf	210 kgf	285 kgf	300 kgf	320 kgf	385 kgf	420 kgf
A	11 ⁷ / ₆₄ "	11 ⁷ / ₆₄ "	9 ²⁷ / ₃₂ "	9 ²⁷ / ₃₂ "	9 ²⁷ / ₃₂ "	11 ¹³ / ₁₆ "	11 ¹³ / ₁₆ "
B	20 ²⁵ / ₃₂ "	20 ²⁵ / ₃₂ "	29 ⁹ / ₆₄ "	29 ⁹ / ₆₄ "	29 ⁹ / ₆₄ "	32 ¹¹ / ₁₆ "	32 ¹¹ / ₁₆ "
E Ø	9 ²⁹ / ₆₄ "	9 ²⁹ / ₆₄ "	10 ⁵ / ₃₂ "	10 ⁵ / ₃₂ "	10 ⁵ / ₃₂ "	10 ⁵ / ₃₂ "	10 ⁵ / ₃₂ "
F Ø	9 ²⁷ / ₃₂ "	9 ²⁷ / ₃₂ "	11 ¹³ / ₁₆ "	11 ¹³ / ₁₆ "	11 ¹³ / ₁₆ "	15 ³ / ₄ "	15 ³ / ₄ "



Thruster systems

BOW PRO: Seamless integration with leading joystick systems



VETUS BOW PRO thrusters are designed for smooth, proportional control and easily integrate with advanced joystick systems such as Yamaha Helm Master® EX, Mercury Joystick Piloting for Outboards (JPO), Honda Outboards & Ultraflex Controls, and YANMAR. Through CAN bus integration, the thruster responds precisely to joystick commands, providing intuitive 360-degree maneuverability in any condition. Whether your vessel runs on inboard or outboard engines, BOW PRO becomes a fully integrated part of your helm.

Fully compatible with both inboard and outboard engine installations, BOW PRO seamlessly fits into new builds as well as retrofit projects, ensuring flexible and efficient integration across various configurations.

Integration with YANMAR latest joystick systems

The latest YANMAR Inboard Joystick Control System delivers superior maneuvering and docking performance by combining easy and intuitive joystick control for both single and twin inboard engine installations. When paired with a VETUS BOW PRO thruster, this joystick system makes it easier to control your boat - even in challenging conditions.

Integrating a VETUS BOW PRO thruster into a boat equipped with a Yanmar joystick significantly improves low-speed control and docking simplicity, enhancing safety and overall functionality. This level of combined control provides unparalleled confidence, especially in previously difficult maneuvering situations.



Integration with YAMAHA HELM MASTER® EX

Yamaha Helm Master® EX is a fully integrated boat control system that makes navigation and travel easier - and once you arrive, it provides a whole new level of precision control to maneuver your boat exactly where you want it. Adding a VETUS BOW PRO thruster to a Yamaha Helm Master® EX-equipped boat dramatically improves low-speed authority and berthing ease, increasing both safety and vessel usability. Nothing compares to the confidence this integrated control provides during what were once the most stressful moments of boat handling.

All BOW PRO thrusters are suitable for integration with both single and multi-engine boats using Yamaha's upgraded Helm Master® EX control system.



Integration with MERCURY MARINE® JPO

VETUS and Mercury Marine® have partnered to integrate all BOW PRO thrusters with Mercury Joystick Piloting for Outboards (JPO). This compatibility ensures a seamless connection between systems, delivering a superior joystick piloting experience with enhanced control for any vessel equipped with single or multiple Mercury Verado outboards.

The integration between VETUS and Mercury Marine® allows boaters to take full advantage of the unique capabilities of the VETUS BOW PRO thruster range. Thanks to the NMEA 2000-certified CAN bus interface, a single joystick provides intuitive, simultaneous control of both engines and thrusters.



Integration with HONDA Outboards & ULTRAFLEX Controls

To further enhance the boating experience for more users, VETUS is now partnering with Honda Marine and Ultraflex to enable full integration of BOW PRO thrusters with Honda outboard engines and Ultraflex controls.

This collaboration introduces an optimized communication system that seamlessly connects your engine, steering, and bow thruster into a single, easy-to-use joystick control. It transforms docking and close-quarters maneuvering into a smooth, effortless process. Boaters can now maneuver with complete confidence and precision in any docking situation. The integration of VETUS BOW PRO thrusters, Honda outboards, and Ultraflex controls ensures effortless boat handling - even in the most demanding docking conditions - and is suitable for both single and multi-engine installations.



Integration with Suzuki Marine

VETUS and Suzuki Marine have joined forces to ensure full compatibility between all BOW PRO and RIMDRIVE thrusters and Suzuki's advanced integrated steering models, the 300BMD and 350AMD. This collaboration introduces a cutting-edge communication system that elevates the boating experience by enhancing safety, simplifying operation, and optimizing overall vessel performance. The system seamlessly connects engine, steering, and bow thruster controls through a streamlined joystick interface. With this partnership, VETUS and Suzuki Marine reaffirm their shared commitment to making boating easier and more enjoyable - especially in challenging docking situations where precision and control are essential.

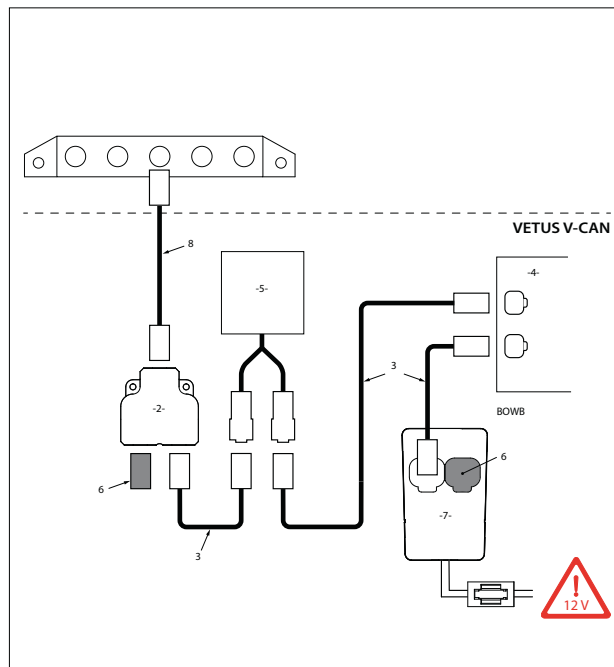
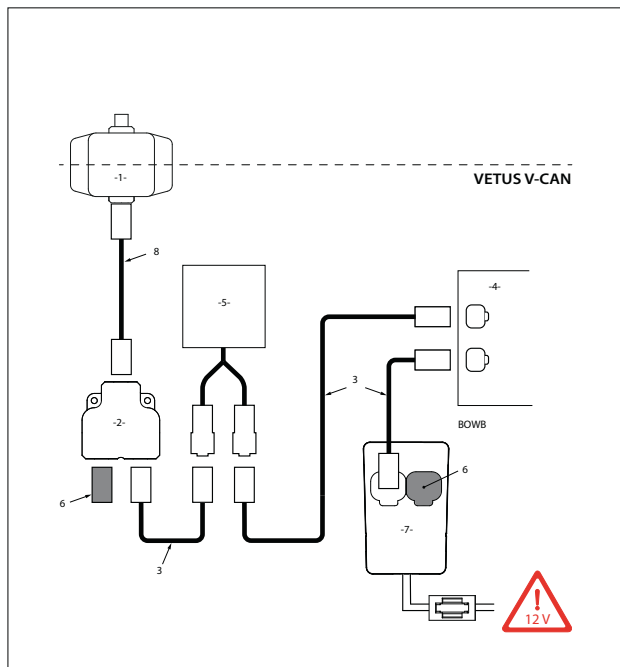
More official integrations are coming soon - stay tuned!



BOW PRO: Seamless integration with leading joystick systems

Connection Diagrams

Each of the integrations mentioned functions differently. Some require the use of a VETUS CANverter, while others may need additional components from the engine or control system manufacturer. For more information, please contact VETUS or your authorized engine dealer.



Label	Type	Description
1	CANV2N2	CANverter bi-directional NMEA2000 to V-CAN
2	CANVHUB	V-CAN bus 3-point hub
3	BPCABxxHF	V-CAN cable, halogen-free
4	BOW PRO	BOW PRO thruster
5	BPPA / BPPJA	Proportional control for BOW PRO (CAN bus) / Proportional control for BOW PRO with lock and hold function (CAN bus)
6	CANVT	V-CAN terminating resistor
7	CANVPS	V-CAN power supply incl. safety
8	CANVM12A	CANverter M12 adapter cable (included with CANverter)

CANVERTER

The CANverter is a plug-and-play gateway that enables communication between different CAN (Controller Area Network) protocols. The NMEA 2000 / J1939-certified CAN bus interface (CANVERTER) allows all BOW PRO thrusters to integrate with third-party controls that transmit CAN bus signals. This compatible system provides a seamless solution that enhances docking performance and overall vessel control by linking engine, steering, and thruster controls with external control devices.



Type	Description
CANV2N2	CANverter bi-directional NMEA2000 to V-CAN
CANV2Y2	CANverter bi-directional J1939 to V-CAN
CANV2N1	CANverter mono-directional V-CAN to NMEA2000
CANR	CANrepeater
CANVM12A	CANverter M12 adapter cable



CANVERTER



Thruster systems

DC bow and stern thrusters

Proven concept, optimum flow

These original VETUS DC bow and stern thrusters are the base of an extensive range of DC electric thrusters such as the standard DC thrusters, extended runtime thrusters and ignition protected thrusters. They have been developed and refined over 40 years of hard work, installed on boats world wide, and operating in every possible condition.

The advantages of VETUS bow thrusters are endless, however below we highlight the most important characteristics.

Minimal noise because of its unique six blade propeller design, spiral gears and flexible coupling

Optimum flow due to the streamlined tailpiece

Eliminated corrosion and reduced weight with the synthetic propeller

Easy installation and clear instructions



High quality control panels made of aluminum and interchangeable with older panels

Integrated thermal switch to prevent overheating

High performance, efficient and reliable series wound carbon brushed electric DC motor

Simple and intuitive to operate

The standard VETUS DC thruster comes in a range of fourteen thrusters for boats from 15 to 90 feet and has become a proven concept and affordable solution in the thruster market.

- On / off, port-starboard controls
- Lowest costs, simplest installation, easy retrofit
- A range of fourteen thrusters with thrust outputs ranging from 25 kgf to 285 kgf
- Battery powered at 12, 24 and 48 VDC
- Run time of 2-4 minutes continuous or combined in one hour
- Motor technology: direct current, series wound with carbon brushes

A complete overview with technical specifications and dimensions of the DC bow and stern thrusters are shown on the next page.

Bow thruster control panels

VETUS has different bow thruster panels available in both deluxe or compact versions. All of these control panels easily fit in a 52 mm diameter cut-out and are waterproof to IP 66.



A complete overview and more information on control panels for DC bow and stern thrusters are shown on page 241.



DC bow and stern thrusters



BOW2512



BOW3512



BOW4012



BOW6012

DC series - Type	BOW2512E(I)**	BOW3512E(I)**	BOW3512F(I)**	BOW4012**	BOW4512D(I)
Thrust at 12/24 VDC (kgf)*	25	35	35	40	45
Available ignition protected (I)	✓	✓	✓	✓	✓
Power (kw-hp)	1,5 - 2	1,5 - 2	1,5 - 2	1,5 - 2	3 - 4
Motor DC	12	12	12	12	12
Advised boat length (ft - m)	<24' / <7	20'-30'/6-10	20'-30'/6-10	26'-34'/ 8-10,5	26'-37'/8-11,5
Tunnel diameter (mm - inch)	110 - 4,33"	150 - 5,9"	125 - 4,92"	140 - 5,5"	125 - 4,92"
Weight excl. tunnel (kg)	10	12	12	12	16
For DC system V	12	12	12	12	12
Battery main switch: model BATSW / type BPMAN	250/12	250/12	250/12	250/12	250/12
Battery CCA value EN (min / max)	333 / 667	367 / 733	367 / 733	367 / 733	625 / 1250

DC series - Type	BOW5212	BOW5512D(I)	BOW5524D(I)	BOW6012D	BOW6024D
Thrust at 12/24 VDC (kgf)*	52	55	60	65	70
Available ignition protected (I)	✓	✓	✓	-	-
Power (kw-hp)	3 - 4	3 - 4	3 - 4	3 - 4	3 - 4
Motor DC	12	12	24	12	24
Advised boat length (ft - m)	26'-39'/8-12	26'-39'/8-12	26'-39'/8-12	27'-40'/8-12,5	27'-40'/8-12,5
Tunnel diameter (mm - inch)	140 - 5,5"	150 - 5,9"	150 - 5,9"	185 - 7,3"	185 - 7,3"
Weight excl. tunnel (kg)	17	17	17	17	17
For DC system V	12	12	24	12	24
Battery main switch: model BATSW / type BPMAN	250/12	250/12	250/24	250/12	250/24
Battery CCA value EN (min / max)	625 / 1250	625 / 1250	342 / 683	500 / 1000	275 / 550

DC series - Type	BOW7512D(I)	BOW7524D(I)	BOW9512D(I)	BOW9524D(I)	BOW12512D
Thrust at 12/24 VDCV (kgf)*	80	85	95	105	125
Available ignition protected (I)	✓	✓	✓	✓	✓
Power (kw-hp)	4,4 -6	4,4 -6	5,7 - 8	5,7 - 8	5,7 - 8
Motor DC	12	24	12	24	12
Advised boat length (ft - m)	30'-45'/10-14	30'-45'/10-14	36'-55'/11,5-17	36'-55'/11,5-17	40'-60'/12,5-18
Tunnel diameter (mm - inch)	185 - 7,3"	185 - 7,3"	185 - 7,3"	185 - 7,3"	250 - 9,8"
Weight excl. tunnel (kg)	19	19	26	26	32
For DC system V	12	24	12	24	12
Battery main switch: model BATSW / type BPMAN	250/12	250/24	600/12	250/24	600/12
Battery CCA value EN (min / max)	917 / 1833	525 / 1050	1083 / 2166	533 / 1067	1400 / 2800

* All VETUS DC thrusters are rated at a battery voltage of 10,5 or 21 VDC. This takes into account the voltage drop caused by the thruster.

** Fuse is supplied as standard.

Battery state of charge, battery cable size, ambient temperature and other factors can affect thruster performance and operating time. For advice on battery cable length per model, see page 237.



Thruster systems

DC bow and stern thrusters

DC series - Type	BOW12524D(I)	BOW16024D(I)	BOW18024D	BOW22024D	BOW28548D
Thrust at 12/24 VDCV (kgf)*	140	160	180	220	285 (48V)
Available ignition protected (I)	✓	✓	-	-	-
Power (kw-hp)	5,7 - 8	7 - 9,5	7 - 9,5	11 - 15	17,5 - 23,5
Motor DC	24	24	24	24	48
Advised boat length (ft - m)	40'-60'/12,5-18	44'-68'/15-20	46'-70'/14-22	50'-75'/16-22	60'-100'/20-30
Tunnel diameter (mm - inch)	250 - 9,8"	250 - 9,8"	250 - 9,8"	300 - 11,8"	300 - 11,8"
Weight excl. tunnel (kg)	32	38	38	68	68
For DC system V	24	24	24	24	48***
Battery main switch: model BATSW / type BPMAN	250/24	600/24	600/24	600/24	600/24
Battery CCA value EN (min / max)	783 / 1567	933 / 1866	668 / 1336	1267 / 2533	933 / 1866

* All VETUS DC thrusters are rated at a battery voltage of 10,5 or 21 VDC. This takes into account the voltage drop caused by the thruster.

*** Thruster model BOW28548D is supplied as standard with a series/parallel switch to permit connection to a 24 VDC battery bank.

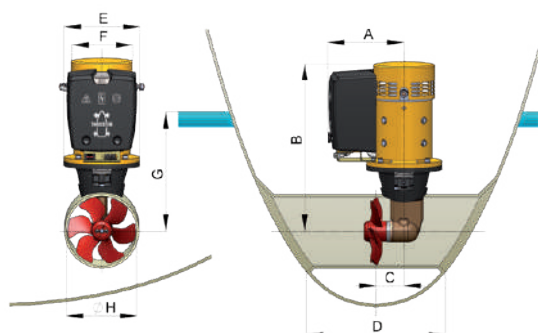
Battery state of charge, battery cable size, ambient temperature and other factors can affect thruster performance and operating time.

For advice on battery cable length per model, see page 237.

Dimensions of DC bow and stern thrusters (in inches)

Code	BOW2512E	BOW3512E	BOW3512F	BOW4012	BOW4512D	BOW5512D	BOW5524D	BOW6012D BOW6024D
A	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁵ / ₈	5 ⁵ / ₈	5 ⁵ / ₈	5 ⁴ / ₁₆
B	11 ¹¹ / ₁₆	13 ¹ / ₂	13	13 ⁵ / ₁₆	14 ³ / ₈	14 ²⁷ / ₃₂	14 ²⁷ / ₃₂	15 ⁵ / ₈
C	2 ⁷ / ₈	3 ⁷ / ₆₄	3 ⁷ / ₆₄	3 ⁷ / ₆₄	3 ⁷ / ₆₄	3 ⁷ / ₆₄	3 ⁷ / ₆₄	3 ¹ / ₃₂
D min./max.	8 ²¹ / ₃₂ / 17 ² / ₆₄	11 ¹³ / ₁₆ / 23 ⁵ / ₈	11 ¹³ / ₁₆ / 23 ⁵ / ₈	11 ¹³ / ₁₆ / 23 ⁵ / ₈	9 ²⁷ / ₃₂ / 19 ¹¹ / ₁₆	11 ¹³ / ₁₆ / 23 ⁵ / ₈	11 ¹³ / ₁₆ / 23 ⁵ / ₈	14 ⁹ / ₁₆ / 29 ¹ / ₈
E	5 ⁵⁵ / ₆₄	5 ⁵⁵ / ₆₄	5 ⁵⁵ / ₆₄	5 ⁵⁵ / ₆₄	6 ¹⁹ / ₆₄	6 ¹⁹ / ₆₄	6 ¹⁹ / ₆₄	6 ¹⁹ / ₆₄
F Ø	4 ¹³ / ₃₂	4 ¹³ / ₃₂	4 ¹³ / ₃₂	4 ¹³ / ₃₂	5 ¹ / ₈	5 ¹ / ₈	5 ¹ / ₈	5 ¹ / ₈
G min.	4 ² / ₆₄	5 ²⁹ / ₃₂	4 ⁵⁹ / ₆₄	4 ⁵⁹ / ₆₄	4 ⁵⁹ / ₆₄	5 ²⁹ / ₃₂	5 ²⁹ / ₃₂	7 ⁹ / ₃₂
H Ø	4 ² / ₆₄	5 ²⁹ / ₃₂	4 ⁵⁹ / ₆₄	4 ⁵⁹ / ₆₄	4 ⁵⁹ / ₆₄	5 ²⁹ / ₃₂	5 ²⁹ / ₃₂	7 ⁹ / ₃₂

Code	BOW7512D BOW7524D	BOW9512D BOW9524D	BOW12512D BOW12524D	BOW16024D	BOW18024D	BOW22024D	BOW28548D
A	9 ³ / ₈	9 ³ / ₈	5 ²³ / ₆₄	8 ⁴⁷ / ₆₄	9 ²³ / ₃₂	9 ²³ / ₃₂	9 ²³ / ₃₂
B	18 ⁷ / ₆₄	18 ⁷ / ₆₄	12 ⁵³ / ₆₄	21 ³⁷ / ₆₄	23 ⁵ / ₈	24 ¹¹ / ₁₆	24 ¹¹ / ₁₆
C	3 ¹ / ₃₂	3 ¹ / ₃₂	2 ⁷ / ₈	4 ¹ / ₄	4 ¹ / ₄	5 ²³ / ₆₄	5 ²³ / ₆₄
D min./max.	14 ⁹ / ₁₆ / 29 ¹ / ₈	14 ⁹ / ₁₆ / 18 ¹ / ₂	8 ²¹ / ₃₂ / 39 ³ / ₈	19 ¹¹ / ₁₆ / 39 ³ / ₈	19 ¹¹ / ₁₆ / 39 ³ / ₈	23 ⁵ / ₈ / 47 ¹ / ₄	23 ⁵ / ₈ / 47 ¹ / ₄
E	11 ²¹ / ₃₂	11 ²¹ / ₃₂	7 ¹ / ₈	9 ²⁹ / ₆₄	10 ⁵ / ₃₂	10 ⁵ / ₃₂	10 ⁵ / ₃₂
F Ø	9 ²⁹ / ₆₄	9 ²⁹ / ₆₄	6 ³ / ₁₆	7 ⁹ / ₃₂	8 ¹¹ / ₃₂	8 ¹¹ / ₃₂	8 ¹¹ / ₃₂
G min.	7 ⁹ / ₃₂	7 ⁹ / ₃₂	4 ²¹ / ₆₄	9 ²⁷ / ₃₂	9 ²⁷ / ₃₂	11 ¹³ / ₁₆	11 ¹³ / ₁₆
H Ø	7 ⁹ / ₃₂	7 ⁹ / ₃₂	4 ²¹ / ₆₄	9 ²⁷ / ₃₂	9 ²⁷ / ₃₂	11 ¹³ / ₁₆	11 ¹³ / ₁₆





RIMDRIVE thrusters

The RD160

Peaceful power at your fingertips

The RIMDRIVE is unique in its design; when operating, this thruster is *extremely quiet!* The propeller forms the rotating part of the electric motor (rotor), and the fixed winding (stator) is mounted in the tunnel. Therefore, gears are not used in this design. Secondly, a ring mounted around the propeller prevents the propeller from cavitating.

The RIMDRIVE is available with 160 kgf of thrust and requires a 48 VDC power supply. The control panel must be ordered separately.

Unique features

- Permanent magnet induction motor design, no carbon brushes
- Quiet operation due to a virtually cavitation free propeller and no use of gears
- Proportional control as standard via V-CAN
- Runtime only limited by the supply bank
- Easy to install
- Maintenance free
- IP67 top cover / ISO 8846 ignition protection compliant
- Lock the thruster at any speed and hold the boat alongside the dock
- Can be used as a stern thruster
- Suitable for aluminum, steel and GRP boats
- Suitable for V-CAN integrations (see page 15).

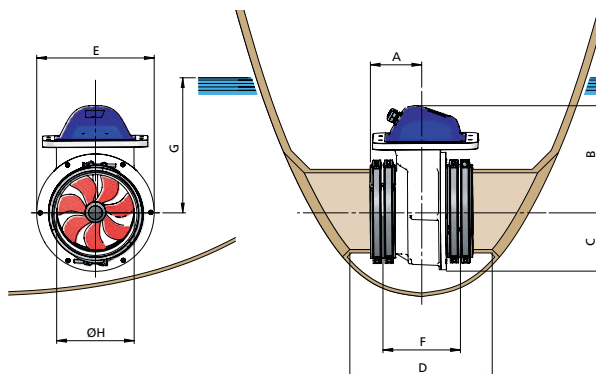


RIMDRIVE series	RD160
Thrust at 48 VDC (kgf)*	160
Power (kw-hp)	9,5 -12,9
Motor DC	48
Advised boat length (ft - m)	44'-65'/15-20
Tunnel diameter (mm - inch)	250 - 9,8"
Weight excl. tunnel (kg)	37
For DC system (Volt)	48
Battery main switch: model BATSW / type BPMAIN	250
Internal thruster fuse (Amp)	250
Battery Ah value (C20)	145

* When the RIMDRIVE is operating within the set boundaries, the thrust output is not affected by voltage drop (41-60 VDC).

Battery state of charge, battery cable size, ambient temperature and other factors can affect thruster performance. Advise for battery cable length per model see page 237.

Model number (dimensions in inches)	RD160
A	6 ¹¹ / ₁₆ " (170)
B	13 ²⁷ / ₆₄ " (341)
C	7 ³¹ / ₆₄ " (190)
D min./max.	15 ³ / ₄ " (400) / 39 ³ / ₈ " (1000)
E	14 ⁶¹ / ₆₄ " (380)
F	9 ²³ / ₃₂ " (247)
G min.	9 ²⁷ / ₃₂ " (250)
H	9 ²⁷ / ₃₂ " (250)



The RIMDRIVE is V-CAN controlled and uses the same control wiring and panels as the BOW PRO series. See page 15 for detailed information.

VETUS strongly advises the use of original V-CAN connection cables to ensure optimal connection between controls and thruster.

Thruster systems

Ignition protected DC bow and stern thrusters

Watertight and ignition protected motor housing

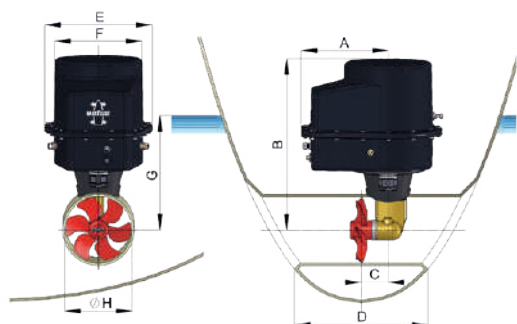
In compartments with a gasoline/petrol engine, tank or fuel line, or propane gas storage, a thruster must be ignition protected to avoid the possibility of fumes or gas reaching the internal mechanism of the thruster and creating the risk of a fire. All models come with the required seals, electrical connectors, fastening components and an automatic fuse which can be reset externally without having to open the housing. Furthermore, the housing is an excellent protection against corrosion.

Characteristics

- The housing enables thrusters to comply with ISO 8846 Marine 'Ignition protection' standard
- Can be used as a stern thruster in combination with the appropriate kit
- Supplied with all the required seals, electrical connectors and fastening components
- Has an automatic fuse for the control loom that can be reset from the outside



Model nr (dim. in inches)	BOW 2512EI	BOW 3512EI	BOW 3512FI	BOW 4512DI	BOW5512DI BOW5524DI	BOW7512DI BOW7524DI	BOW9512DI BOW9524DI	BOW 1254DI	BOW 1604DI
A	5 ²³ / ₆₄	5 ²³ / ₆₄ "	5 ²³ / ₆₄ "	7 ⁴³ / ₆₄ "	7 ⁴³ / ₆₄ "	9 ³ / ₈ "	9 ³ / ₈ "	9 ³ / ₈ "	10"
B	12 ⁵³ / ₆₄	13 ³⁷ / ₆₄ "	13 ²⁵ / ₃₂ "	15 ³ / ₄ "	16 ⁷ / ₃₂ "	18 ⁷ / ₆₄ "	18 ⁷ / ₆₄ "	20 ²³ / ₂₄ "	23 ⁵ / ₆₄ "
C	2 ⁷ / ₈	3 ⁷ / ₆₄ "	3 ⁷ / ₆₄ "	3 ⁷ / ₆₄ "	3 ⁷ / ₆₄ "	3 ¹ / ₃₂ "	3 ¹ / ₃₂ "	4 ¹ / ₄ "	4 ¹ / ₄ "
D min./max.	8 ²¹ / ₃₂	11 ¹³ / ₁₆ "	11 ¹³ / ₁₆ "	9 ²⁷ / ₃₂ "	11 ¹³ / ₁₆ "	14 ⁹ / ₁₆ "	14 ⁹ / ₁₆ "	19 ¹¹ / ₁₆ "	19 ¹¹ / ₁₆ "
E	7 ¹ / ₈	7 ¹ / ₈ "	5 ⁷ / ₈ "	9 ²⁷ / ₃₂ "	9 ²⁷ / ₃₂ "	11 ²¹ / ₃₂ "	11 ²¹ / ₃₂ "	11 ²¹ / ₃₂ "	12 ³³ / ₆₄
F	6 ³ / ₁₆	6 ³ / ₁₆ "	4 ¹³ / ₃₂ "	7 ⁴³ / ₆₄ "	7 ⁴³ / ₆₄ "	9 ²⁹ / ₆₄ "	9 ²⁹ / ₆₄ "	9 ²⁹ / ₆₄ "	11 ¹ / ₃₂ "
G min.	4 ²¹ / ₆₄	5 ²⁹ / ₃₂ "	4 ⁵⁹ / ₆₄ "	4 ⁵⁹ / ₆₄ "	5 ²⁹ / ₃₂ "	7 ⁹ / ₃₂ "	7 ⁹ / ₃₂ "	9 ²⁷ / ₃₂ "	9 ²⁷ / ₃₂ "
H Ø	4 ²¹ / ₆₄	5 ²⁹ / ₃₂ "	4 ⁵⁹ / ₆₄ "	4 ⁵⁹ / ₆₄ "	5 ²⁹ / ₃₂ "	7 ⁹ / ₃₂ "	7 ⁹ / ₃₂ "	9 ²⁷ / ₃₂ "	9 ²⁷ / ₃₂ "





BOW PRO retractable thruster

The BOW PRO Boosted Series now includes retractable technology

COMING SOON!

Giving you total control at your fingertips, even when your hull is too shallow for a tunnel thruster

For optimal performance, the thruster's propeller and tunnel must be properly submerged. If not, the thruster may create a whirlpool on the suction side of the boat, drawing in a mix of air and water instead of solid water flow - dramatically reducing thrust.

Designed for vessels where traditional tunnel thrusters aren't an option, the BOW PRO Boosted Retractable Series delivers award-winning proportional control, enhancing maneuverability without adding drag when retracted. With improved safety mechanisms, it provides efficient, maintenance-free operation and extended run times - ideal for all hull types.

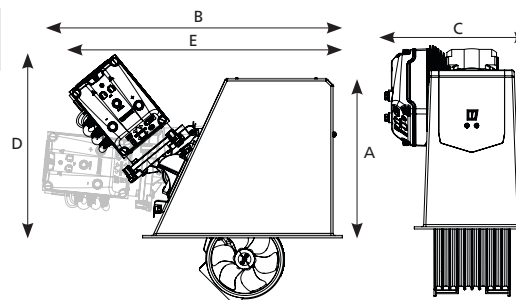
Advantages of a VETUS BOW PRO Retractable Thruster:

- Can be installed in shallow-draft vessels, including sailboats with a cutaway forefoot and raised stern
- Unlimited runtime**
- Built around the high-performance, proven VETUS BOW PRO platform
- Swing mechanism with minimal moving parts - the thruster pivots on a permanently lubricated, heavy-duty bearing
- Propeller spins in a short duct, creating a focused flow with minimal energy loss
- The hull bottom plate (lid) is directly attached to the propeller duct, eliminating the need for extra or complex open/close mechanisms - it swings in and out with the thruster
- When retracted and closed, the thruster produces significantly less drag than a standard tunnel thruster - especially valuable for sailboats
- Fiberglass housing and electronic control mechanism (excluding control panel and cables) included in the base package
- Thruster deploys and retracts automatically when the control panel is deactivated - no additional controls required
- Automatically retracts after a period of inactivity
- Enhanced electronic sensors protect the actuator and swing mechanism
- Thruster and control panels are V-CAN connected



Retractable series - Type	BOWAR0571	BOWAR0651	BOWAR0761	BOWBR090
Thrust at 12/24 VDC (kgf)*	57	65	76	90
Power (kw-hp)	2,7 - 3,7	2,7 - 3,7	2,7 - 3,7	5,7 - 8
Brushless ac motor	✓	✓	✓	✓
Advised boat length (ft - m)	26'-39'/8-12	27'-40'/8-12,5	30'-45'/10-14	36'-55'/11,5-17
Tunnel diameter (mm - inch)	150 -5,9"	185 -7,3"	185 -7,3"	185 -7,3"
Weight excl. tunnel (kg)	35	35	35	33
Operating time, continuously max per hour in minutes**	6	10	6	10
For DC system (Volt)	12	12	12	12/24
Battery main switch: model BATSW / type BPMAIN	250/12	250/12	250/12	250/24
Battery main fuse (amp)	355	355	425	250
Battery Ah value (C20)	185	170	200	145

Dimensions (mm)	BOWAR0571	BOWAR0651	BOWAR0761	BOWBR090
A	397	432	432	432
B	737	769	769	810
C	349	357	357	389
D	451	462	462	496
E	672,9	712	712	737



* When the BOW PRO is operating within the set boundaries, the thrust output is not affected by voltage drop (10.5-15V, 21-30V, 41-60V).

** BOW PRO thrusters will run continuously for 6 or 10 minutes (dependent on thruster model) at full power, after that the power may reduce. At less than full power setting, run time is greatly enhanced. To achieve these results installation instructions must be adhered.

Thruster systems

Hydraulic bow and stern thrusters

Type BOW..HMD

These are the thrusters for the most demanding of work situations and are available in power outputs of 55 Kilograms Force (Kgf), 95 Kgf, 160 Kgf, 230 Kgf, 310 Kgf, 410 Kgf and 550 Kgf. They operate in hydraulics systems delivering flow rates ranging from 13 L / 3.4 U.S gallons per minute to 91 L / 24 U.S. gallons per minute, at pressures ranging from 165 bar/ 2393 p.s.i to 280 bar / 4061 p.s.i., all depending on thruster model selected.

VETUS hydraulic thrusters are able to run continuously, although not as primary propulsion units. They delivery high power and great reliability, with no electrical connections at the thruster or pump(s) and they need little routine maintenance. These thrusters are available with several control heads, in three control regimens, including proportional control.

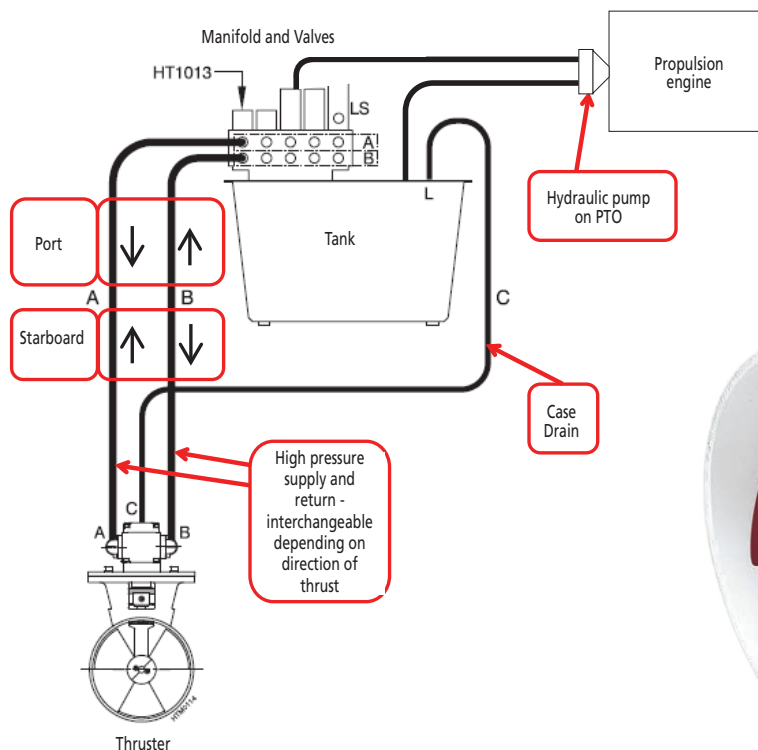
The skill and knowledge set required to plan, integrate and implement a hydraulic installation work is extensive, and includes all of the skills required to install electric thrusters and a lot more. Such work should not be undertaken by persons, however generally experienced in boat work, who have not received formal training in power hydraulics theory and practice. Access to local hydraulic hose and fitting suppliers is also essential for a well-organized and successful installation.

If an existing hydraulic system can deliver the flow and allows the working pressure required by the thruster(s) appropriate for your vessel, it is often possible to add VETUS thrusters to the system, but VETUS also offers complete hydraulic systems as described in this catalog section.

Whether you buy a complete hydraulic system from VETUS, or just the thrusters, a VETUS customer support team member will review the entire system with you to ensure that your thrusters work according to our specifications after installation.

See next page for specifications.

The connections and flow of oil for a thruster

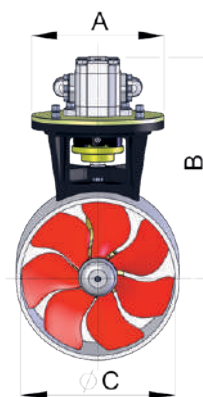




Hydraulic bow and stern thrusters

Type BOW...HMD

Specifications	BOW55HMD	BOW95HMD	BOW160HMD	BOW230HMD	BOW310HMD
Thrust N (kgf) (power output)	550 (55)	950 (95)	1600 (160)	2300 (230)	3100 (310)
Hydraulic motor power kW	3.5	6.0	9.5	12.5	20
Hydraulic motor speed rpm	3000	4100	3300	1900	2000
Hydraulic motor capacity cm ³ /rev	4.2	4.2	7	16.8	26.4
Flow rate l/min	13	18	28	40	70
Operating pressure bar	165	230	250	230	225
Internal tunnel diameter inches (mm)	5 ²⁹ / ₃₂ (150)	7 ⁹ / ₃₂ (185)	9 ⁷ / ₈ (250)	11 ¹³ / ₁₆ (300)	11 ¹³ / ₁₆ (300)
A inches (mm) Ø	6 ⁵ / ₁₆ (160)	7 ⁷ / ₈ (200)	9 ⁷ / ₁₆ (240)	10 ⁵ / ₃₂ (258)	10 ⁵ / ₃₂ (258)
B inches (mm)	10 ⁵ / ₃₂ (258)	10 ⁷ / ₈ (276)	13 ¹⁹ / ₃₂ (345)	17 (431)	17 ²⁹ / ₃₂ (455)
C inches (mm) Ø	5 ²⁹ / ₃₂ (150)	7 ⁹ / ₃₂ (185)	9 ⁷ / ₈ (250)	11 ¹³ / ₁₆ (300)	11 ¹³ / ₁₆ (300)
Connection kit*	HT3057	HT3057	HT3056	HT3061	HT3058



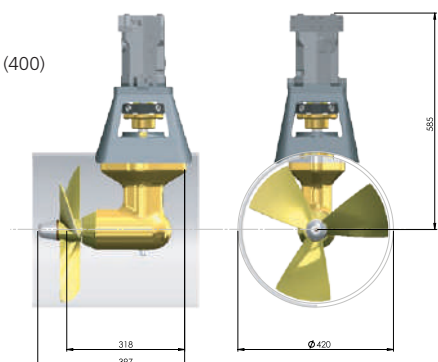
* The connection kit consists of couplings required for the correct size hydraulic hoses.

Type	Specifications	Tunnel diam. inches (mm)
BOW55HMD	Hydraulic bow thruster 121 lbf (55 kgf) incl. hydraulic motor 3.5 kW	5 ²⁹ / ₃₂ (150)
BOW95HMD	Hydraulic bow thruster 210 lbf (95 kgf) incl. hydraulic motor 6.0 kW	7 ⁹ / ₃₂ (185)
BOW160HMD	Hydraulic bow thruster 352 lbf (160 kgf) incl. hydraulic motor 12.3 kW	9 ⁷ / ₈ (250)
BOW230HMD	Hydraulic bow thruster 507 lbf (230 kgf) incl. hydraulic motor 16.4 kW	11 ¹³ / ₁₆ (300)
BOW310HMD	Hydraulic bow thruster 665 lbf (310 kgf) incl. hydraulic motor 26.8 kW	11 ¹³ / ₁₆ (300)
BP1053	Bronze propeller for BOW22024D / BOW230HM	
BP1182	Bronze propeller for BOW310HM	

Type BOWH410 - BOWH550

Type	Specifications
BOWH410	Hydraulic bow thruster 410 kgf, incl. hydro motor 29,5 kW, for tunnel diam. 15 ³ / ₄ " (400)
BOWH550	Hydraulic bow thruster 550 kgf, incl. hydro motor 39 kW, for tunnel diam. 15 ³ / ₄ " (400)
BP1259	Bronze propeller for BOWH410
BP1260	Bronze propeller for BOWH550

Specifications	BOWH410	BOWH550
Thrust N (kgf) (power output)	4100 (410)	5500 (550)
Hydraulic motor power hp (kW)	29,5	39
Hydraulic motor speed rpm	2650	2900
Hydraulic motor capacity in ³ /rev (cm ³ /rev)	24	35,6
Flow rate gal./min (l/min)	63,6	103
Operating pressure psi (bar)	250	250
Internal tunnel diameter inch (mm)	15 ³ / ₄ " (400)	15 ³ / ₄ " (400)



BOWH410
BOWH550



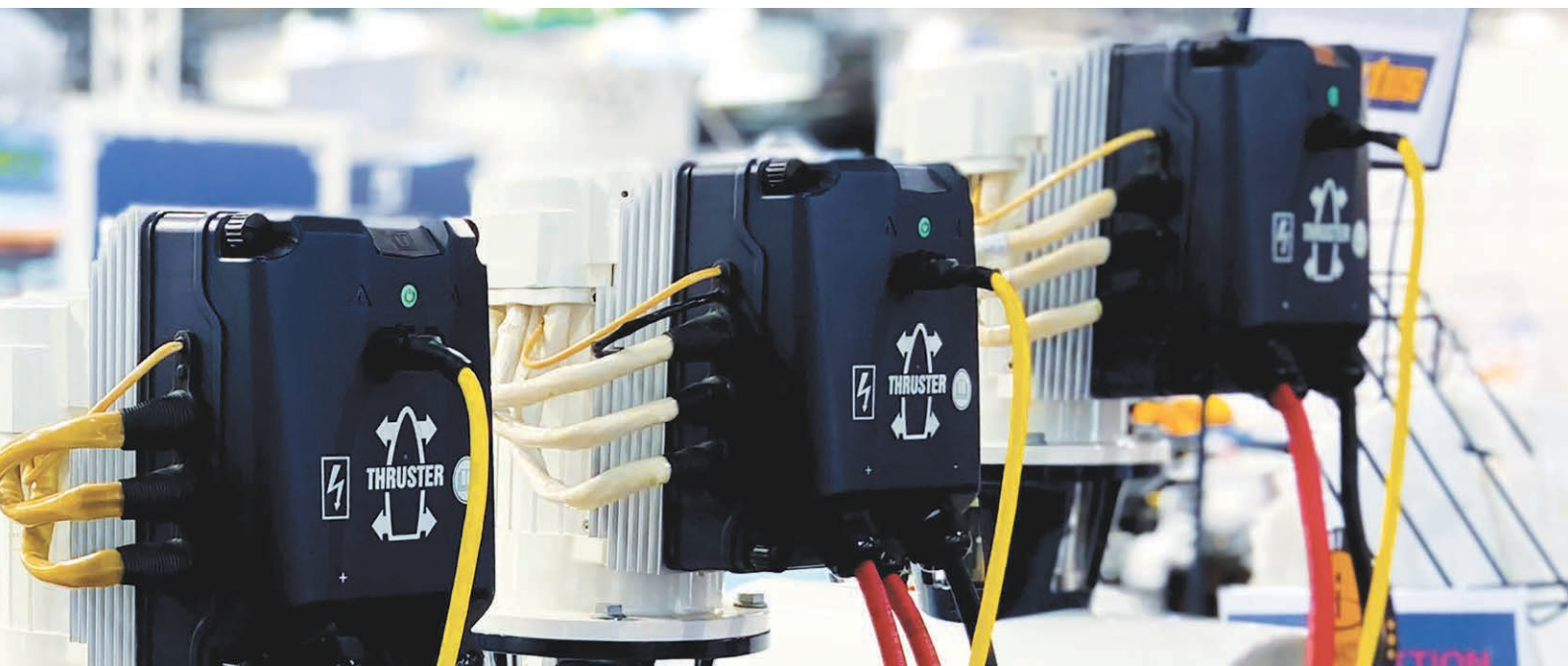
Thruster systems

Electrical installation specifications for bow and stern thrusters

For the VETUS DC thrusters and IP DC thrusters, a battery advise is given based on the fact that all DC thrusters have a big inrush current when initiated. For this reason, the Cold Cranking Amperage value (CCA) of a battery is the most important characteristic. The battery must be able to handle these big currents. The VETUS SMF, AGM and deep cycle batteries all have the CCA value indicated regarding the batteries. Choose the correct one for your thruster on page 274 - 275.

The max. advised CCA values are stated also, since the window of operation for a DC thruster is always around 10.5/21.0/42 VDC under full load. Using batteries with greater capacities will cause the thruster to operate outside the window of operation, have greater wear, and heat up faster!

Thruster	Current min.	Voltage (DC)	Min. batt	Max. batt	Total length of positive and negative cables (m)										
			CCA	CCA	25 mm ²	35 mm ²	50 mm ²	70 mm ²	95 mm ²	120 mm ²	2x 70 mm ²	150 mm ²	2x 95 mm ²	2x 120 mm ²	2x 150 mm ²
BOW2512	200	12	333	667	4,2m	6m	8,5m	12m	16m	20,5m	24m	25,7m	30,8m	41,1m	51,4m
BOW3512	220	12	367	733	3,8m	5,5m	7,7m	10,9m	14,8m	18,7m	21,8m	23,4m	29,6m	37,4m	46,8m
BOW4512	375	12	625	1250	2,3m	3,2m	4,5m	6,4m	8,7m	11m	12,8	13,7m	17,3m	22m	27,4m
BOW5512	375	12	625	1250	2,3m	3,2m	4,5m	6,4m	8,7m	11m	12,8	13,7m	17,3m	22m	27,4m
BOW5212	370	12	625	1250	2,3m	3,2m	4,5m	6,4m	8,7m	11m	12,8	13,7m	17,3m	22m	27,4m
BOW5524	205	24	342	683	8,4m	11,7m	16,7m	23,4m	31,7m	40,1m	46,8m	50,2m	63,5m	80,3m	100m
BOW6012	300	12	500	1000	2,9m	4m	5,7m	8m	10,8m	13,7m	16m	17,2m	21,7m	27,4m	34,3m
BOW6024	165	24	275	550	10,3m	14,5m	20,8m	29m	39,5m	49,8m	58m	62,3m	79m	99,7m	124,6m
BOW7512	550	12	917	1833	NA	NA	3,1m	4,4m	5,9m	7,5m	8,7m	9,4m	11,8m	14,9m	18,7m
BOW7524	315	24	525	1050	5,4m	7,6m	10,9m	15,2m	20,6m	26,1m	30,5m	32,6m	41,3m	52,2m	65,3m
BOW9512	650	12	1083	2166	NA	NA	2,6m	3,7m	5m	6,3m	7,4m	7,9m	10m	12,7m	15,8m
BOW9524	320	24	533	1067	5,4m	7,5m	10,8m	15,m	20,5m	26m	30,4m	32,5m	41,2m	52,1m	65,2m
BOW12512	840	12	1400	2800	NA	NA	2m	2,9m	3,9m	4,9m	5,7m	6,4m	7,8m	9,8m	12,8m
BOW12524	470	24	783	1567	NA	NA	7,3m	10,2m	13,9m	17,5m	20,4m	21,9m	27,7m	35m	43,8m
BOW16024	560	24	933	1866	NA	NA	6,2m	8,6m	11,6m	14,7m	17,1m	18,4m	23,2m	29,3m	36,7m
BOW1804	400	24	668	1336	NA	NA	8,5m	12m	16,2m	20,5m	24m	25,7m	32,6m	41,1m	51,4m
BOW2204	760	24	1267	2533	NA	NA	4,5m	6,3m	8,6m	10,9m	12,6m	13,5m	17,1m	21,6m	27,1m
BOW285	560	48	933	1866	NA	NA	6,2m	8,6m	11,6m	14,7m	17,1m	18,4m	23,2m	29,3m	36,7m
BOW95DE	680	12	1133	2267	NA	NA	2,5m	3,5m	4,8m	6m	7m	7,6m	9,6m	12,1m	30,3m
BOW954DE	340	24	567	1133	5m	7m	10m	14,1m	19,2m	24,2m	28,2m	30,3m	38,3m	48,4m	60,5m
BOW125DE	470	24	783	1567	NA	NA	7,3m	10,2m	13,9m	17,5m	20,4m	21,9m	27,7m	35m	43,8m
BOW160DE	400	24	667	1333	NA	NA	8,5m	12m	16,2m	20,5m	24m	25,7m	32,6m	41,1m	51,4m
BOW220DE	680	24	1133	2267	NA	NA	5m	7m	9,5m	12,1m	14,1m	15,1m	19,2m	24,2m	30,3m





Electrical installation specifications for bow and stern thrusters

For the VETUS BOW PRO and RIMDRIVE thrusters, battery advice is given based on the fact that these thrusters have no inrush current, but an endurance run capability. For this reason, the batteries Ah (C20) value is the most important characteristic. The battery must be able to handle longer endurance runs.

The CCA value is important since the max. current should still be delivered, but these CCA values are less important compared to the DC thrusters. The VETUS SMF, AGM and deep cycle batteries all have the AH C20 value indicated regarding the batteries. Choose the correct one for your thruster on page 274 - 275.

For these thrusters no maximum battery capacity is advised. Extra capacity (C20) allows the thrusters to operate longer.

Thruster	Current min.	Min. batt Ah (C20)	Total length of positive and negative cables (m)											Internal thruster fuse	Battery switch
			25 mm ²	35 mm ²	50 mm ²	70 mm ²	95 mm ²	120 mm ²	2x 70 mm ²	150 mm ²	2x 95 mm ²	2x 120 mm ²	2x 150 mm ²		
BOWA0301	199	(1x) 90Ah	NA	6m	8,6m	12m	16,4m	20,6m	24m	25,8m	32,7m	41,3m	51,6m	200A	250A
BOWA0304	50	(4x)60Ah	48,2m	67,6m	96m	135m	183m	231m	---	---	---	---	---	80A	150A
BOWA0361	273	(1x)170Ah	NA	NA	6,3m	8,8m	11,9m	15m	17,6m	18,8m	23,8m	30m	37,6m	300A	250A
BOWA0364	71	(4x)60Ah	42m	60m	91m	120m	162	211m	---	---	---	---	---	100A	150A
BOWA0401	260	(1x) 145Ah	NA	5m	7m	10m	12,5m	17m	18m	19m	24m	31m	39m	300A	250A
BOWA0421	250	(1x) 145Ah	NA	4,8m	6,9m	9,6m	13m	16,5m	19,2m	20,5m	26m	33m	41,1m	300A	250A
BOWA0571	337	(1x) 185Ah	NA	NA	5m	7,1m	9,7m	12,2m	14,2m	15,2m	19,3m	24,4m	30,5m	300A	250A
BOWA0574	90	(4x) 60Ah	38m	53,3m	76,2m	106,7m	144,8m	182,9m	213,3m	---	---	---	---	100A	150A
BOWA0651	271	(1x) 125Ah	NA	NA	6,3m	8,9m	11,9m	15,1m	17,6m	18,9m	23,9m	30m	37,9m	250A	250A
BOWA0761	368	(1x) 200Ah	NA	NA	4,5m	6,5m	8,7m	11,1m	12,8m	13,9m	17,4m	22m	27,9m	300A	250A
BOWA0764	93	(4x)60Ah	37,7m	53,1m	76m	106,3m	144,4m	182,5m	213m	---	---	---	---	100A	150A
BOWB057	189	(2x)90Ah	NA	7m	9m	13m	17m	22m	25m	27m	34m	43m	53m	200A	250A
BOWB065	137	(2x)90Ah	NA	17,5m	25m	35m	47,5m	60m	70m	75m	95m	120m	150m	160A	150A
BOWB076	184	(2x) 108Ah	NA	7m	9m	13m	17m	22m	25m	27m	34m	43m	53m	200A	250A
BOWB090	220	(2x) 145Ah	NA	NA	8m	11m	15m	18m	22m	24m	31m	36m	47m	200A	250A
BOWB110	330	(2x) 170Ah	NA	NA	5m	7,1m	9,7m	12,2m	14,2m	15,2m	19,3m	24,4m	30,5m	300A	250A
BOWB130	350	(2x) 185Ah	NA	NA	4,9m	6,8m	9,3m	11,8m	13,7m	14,7m	18,6m	23,5m	29,4m	300A	250A
BOWB150	276	(2x) 170Ah	NA	NA	6,3m	8,7m	11,8m	14,7m	17,4m	18,7m	23,5m	29,2m	37,6m	300A	250A
BOWB180	289	(4x) 185Ah	NA	NA	6m	8m	11m	14m	17m	18m	23m	30m	37,6m	250A	250A
BOWB210	300	(4x) 185Ah	NA	NA	5,5m	7,5m	10m	13m	15m	16m	21m	25m	31m	250A	250A
BOWB285	415	(4x) 220Ah	NA	NA	4m	6m	8m	10,5m	11,5m	13m	16m	20m	24m	425A ²⁾	600A
BOWB300	432	(4x) 220Ah	NA	NA	3,5	5m	7m	9m	11m	12,5m	15m	19m	23m	425A ²⁾	600A
BOWB320	445	(4x) 220Ah	NA	NA	NA	4,5m	6m	8m	10,5m	12m	14m	18m	22m	425A ²⁾	600A
BOWB385	540	(4x) 220Ah ¹⁾	NA	NA	NA	NA	NA	NA	2m	2m	6m	8m	10m	500A ²⁾	600A
BOWB420	595	(4x) 220Ah ¹⁾	NA	NA	NA	NA	NA	NA	2m	2m	6m	8m	10m	500A ²⁾	600A
BOWB boost charge															
12V	80	NA	40m	55m	80m	103m	140m	190m	--	--	--	--	--	100A ²⁾	150A
24V	80	NA	40m	55m	80m	103m	140m	190m	--	--	--	--	--	100A ²⁾	150A
BOWB XL boost charge 24V ³⁾	120	NA	20m	45m	60m	80m	100m	120m	--	--	--	--	--	125A ²⁾	150A
RIMDRIVE															
RD160	225	4x 145Ah	NA	5,2 m	7,8 m	10,5 m	14,2 m	19 m	21,8 m	23 m	30 m	39 m	48 m		

¹⁾ Minimum capacity. For full S2 runtime, increase capacity.

²⁾ Fuse mounted externally.

³⁾ Applicable to BOWB285 / 300 / 320 / 385 / 420

Conversion table mm² to AWG

MM ²	AWG	MM ²	AWG	MM ²	AWG	MM ²	AWG
25	4	50	0 (1/0)	95	000 (3/0)	150	300 MCM
35	2	70	00 (2/0)	120	0000 (4/0)	185	350 MCM



Thruster systems

Tunnels for bow and stern thrusters

Our tunnels are available in several lengths and diameters and purpose built for all VETUS thrusters. They are available in GRP, steel and aluminum and provide ultimate strength and accuracy to easily install the tunnel for your VETUS thruster system. An overview of all available tunnels is shown below.

Important note: Installer must measure actual external diameter of the tunnel before cutting the hull.

Glassfibre reinforced polyester

Type	Internal diameter and length inches (mm)
BP110G75	4 ²¹ / ₆₄ X 29 ¹⁷ / ₃₂ (110 x 750)
BP110G10	4 ²¹ / ₆₄ X 39 ³ / ₈ (110 x 1000)
BP110G15	4 ²¹ / ₆₄ X 59 ¹ / ₁₆ (110 x 1500)
BP110G20	4 ²¹ / ₆₄ X 78 ⁴⁷ / ₆₄ (110 x 2000)
BP110G30	4 ²¹ / ₆₄ X 118 ⁷ / ₆₄ (110 x 3000)
BP125G75	4 ⁵⁹ / ₆₄ X 29 ¹⁷ / ₃₂ (125 x 750)
BP125G10	4 ⁵⁹ / ₆₄ X 39 ³ / ₈ (125 x 1000)
BP125G15	4 ⁵⁹ / ₆₄ X 59 ¹ / ₁₆ (125 x 1500)
BP125G20	4 ⁵⁹ / ₆₄ X 78 ⁴⁷ / ₆₄ (125 x 2000)
BP125G30	4 ⁵⁹ / ₆₄ X 118 ⁷ / ₆₄ (125 x 3000)
BP140G75	5 ²³ / ₆₄ X 29 ¹⁷ / ₃₂ (140 x 750)
BP140G10	5 ²³ / ₆₄ X 39 ³ / ₈ (140 x 1000)
BP140G15	5 ²³ / ₆₄ X 59 ¹ / ₁₆ (140 x 1500)
BP150G75	5 ²⁹ / ₃₂ X 29 ¹⁷ / ₃₂ (150 x 750)
BP150G10	5 ²⁹ / ₃₂ X 39 ³ / ₈ (150 x 1000)
BP150G15	5 ²⁹ / ₃₂ X 59 ¹ / ₁₆ (150 x 1500)
BP150G20	5 ²⁹ / ₃₂ X 78 ⁴⁷ / ₆₄ (150 x 2000)
BP150G30	5 ²⁹ / ₃₂ X 118 ⁷ / ₆₄ (150 x 3000)
BP185G75	7 ⁹ / ₃₂ X 29 ¹⁷ / ₃₂ (185 x 750)
BP185G10	7 ⁹ / ₃₂ X 39 ³ / ₈ (185 x 1000)
BP185G15	7 ⁹ / ₃₂ X 59 ¹ / ₁₆ (185 x 1500)
BP185G20	7 ⁹ / ₃₂ X 78 ⁴⁷ / ₆₄ (185 x 2000)
BP185G30	7 ⁹ / ₃₂ X 118 ⁷ / ₆₄ (185 x 3000)
BP250G10	9 ²⁷ / ₃₂ X 39 ³ / ₈ (250 x 1000)
BP250G15	9 ²⁷ / ₃₂ X 59 ¹ / ₁₆ (250 x 1500)
BP250G20	9 ²⁷ / ₃₂ X 78 ⁴⁷ / ₆₄ (250 x 2000)
BP250G30	9 ²⁷ / ₃₂ X 118 ⁷ / ₆₄ (250 x 3000)
BP300G10	11 ¹³ / ₁₆ X 39 ³ / ₈ (300 x 1000)
BP300G15	11 ¹³ / ₁₆ X 59 ¹ / ₁₆ (300 x 1500)
BP300G20	11 ¹³ / ₁₆ X 78 ⁴⁷ / ₆₄ (300 x 2000)
BP300G30	11 ¹³ / ₁₆ X 118 ⁷ / ₆₄ (300 x 3000)
BP400G20	15 ³ / ₄ X 78 ⁴⁷ / ₆₄ (400 x 2000)
BP400G25	15 ³ / ₄ X 98 ²⁷ / ₆₄ (400 x 2500)

Steel

Type	Internal diameter and length inches (mm)
BP110S75	4 ²¹ / ₆₄ X 29 ¹⁷ / ₃₂ (110 x 750)
BP110S10	4 ²¹ / ₆₄ X 39 ³ / ₈ (110 x 1000)
BP110S15	4 ²¹ / ₆₄ X 59 ¹ / ₁₆ (110 x 1500)
BP110S30	4 ²¹ / ₆₄ X 118 ⁷ / ₆₄ (110 x 3000)
BP125S10	4 ⁵⁹ / ₆₄ X 39 ³ / ₈ (125 x 1000)
BP125S15	4 ⁵⁹ / ₆₄ X 59 ¹ / ₁₆ (125 x 1500)
BP125S30	4 ⁵⁹ / ₆₄ X 118 ⁷ / ₆₄ (125 x 3000)
BP150S10	5 ²⁹ / ₃₂ X 39 ³ / ₈ (150 x 1000)
BP150S15	5 ²⁹ / ₃₂ X 59 ¹ / ₁₆ (150 x 1500)
BP150S20	5 ²⁹ / ₃₂ X 78 ⁴⁷ / ₆₄ (150 x 2000)
BP150S30	5 ²⁹ / ₃₂ X 118 ⁷ / ₆₄ (150 x 3000)
BP185S10	7 ⁹ / ₃₂ X 39 ³ / ₈ (185 x 1000)
BP185S15	7 ⁹ / ₃₂ X 59 ¹ / ₁₆ (185 x 1500)
BP185S20	7 ⁹ / ₃₂ X 78 ⁴⁷ / ₆₄ (185 x 2000)
BP185S30	7 ⁹ / ₃₂ X 118 ⁷ / ₆₄ (185 x 3000)
BP250S10	9 ²⁷ / ₃₂ X 39 ³ / ₈ (250 x 1000)
BP250S15	9 ²⁷ / ₃₂ X 59 ¹ / ₁₆ (250 x 1500)
BP250S20	9 ²⁷ / ₃₂ X 78 ⁴⁷ / ₆₄ (250 x 2000)
BP250S25	9 ²⁷ / ₃₂ X 98 ²⁷ / ₆₄ (250 x 2500)
BP250S30	9 ²⁷ / ₃₂ X 118 ⁷ / ₆₄ (250 x 3000)
BP300S10	11 ¹³ / ₁₆ X 39 ³ / ₈ (300 x 1000)
BP300S15	11 ¹³ / ₁₆ X 59 ¹ / ₁₆ (300 x 1500)
BP300S20	11 ¹³ / ₁₆ X 78 ⁴⁷ / ₆₄ (300 x 2000)
BP300S25	11 ¹³ / ₁₆ X 98 ²⁷ / ₆₄ (300 x 2500)
BP300S30	11 ¹³ / ₁₆ X 118 ⁷ / ₆₄ (300 x 3000)
BP400S20	15 ³ / ₄ X 78 ⁴⁷ / ₆₄ (400 x 2000)
BP400S25	15 ³ / ₄ X 98 ²⁷ / ₆₄ (400 x 2500)

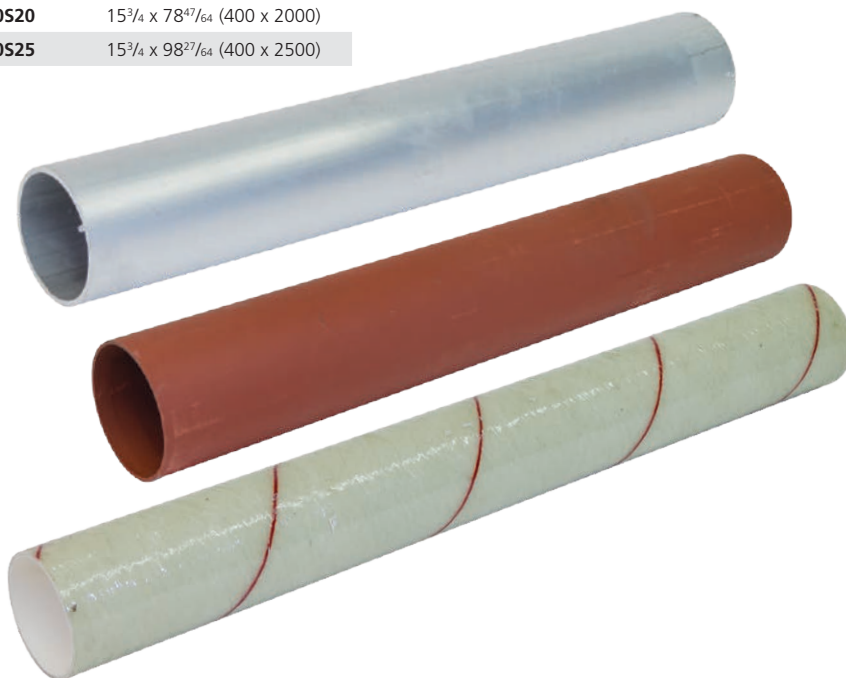
Aluminium

Type	Internal diameter and length inches (mm)
BP110A75	4 ²¹ / ₆₄ X 29 ¹⁷ / ₃₂ (110 x 750)
BP110A10	4 ²¹ / ₆₄ X 39 ³ / ₈ (110 x 1000)
BP110A15	4 ²¹ / ₆₄ X 59 ¹ / ₁₆ (110 x 1500)
BP110A30	4 ²¹ / ₆₄ X 118 ⁷ / ₆₄ (110 x 3000)
BP125A75	4 ⁵⁹ / ₆₄ X 29 ¹⁷ / ₃₂ (125 x 750)
BP125A10	4 ⁵⁹ / ₆₄ X 39 ³ / ₈ (125 x 1000)
BP125A15	4 ⁵⁹ / ₆₄ X 59 ¹ / ₁₆ (125 x 1500)
BP125A20	4 ⁵⁹ / ₆₄ X 78 ⁴⁷ / ₆₄ (125 x 2000)
BP125A30	4 ⁵⁹ / ₆₄ X 118 ⁷ / ₆₄ (125 x 3000)
BP150A10	5 ²⁹ / ₃₂ X 39 ³ / ₈ (150 x 1000)
BP150A15	5 ²⁹ / ₃₂ X 59 ¹ / ₁₆ (150 x 1500)
BP150A20	5 ²⁹ / ₃₂ X 78 ⁴⁷ / ₆₄ (150 x 2000)
BP150A30	5 ²⁹ / ₃₂ X 118 ⁷ / ₆₄ (150 x 3000)
BP185A10	7 ⁹ / ₃₂ X 39 ³ / ₈ (185 x 1000)
BP185A15	7 ⁹ / ₃₂ X 59 ¹ / ₁₆ (185 x 1500)
BP185A30	7 ⁹ / ₃₂ X 118 ⁷ / ₆₄ (185 x 3000)
BP250A10	9 ²⁷ / ₃₂ X 39 ³ / ₈ (250 x 1000)
BP250A15	9 ²⁷ / ₃₂ X 59 ¹ / ₁₆ (250 x 1500)
BP250A30	9 ²⁷ / ₃₂ X 118 ⁷ / ₆₄ (250 x 3000)
BP300A10	11 ¹³ / ₁₆ X 39 ³ / ₈ (300 x 1000)
BP300A15	11 ¹³ / ₁₆ X 59 ¹ / ₁₆ (300 x 1500)
BP300A30	11 ¹³ / ₁₆ X 118 ⁷ / ₆₄ (300 x 3000)

BP...A..

BP...S..

BP...G..



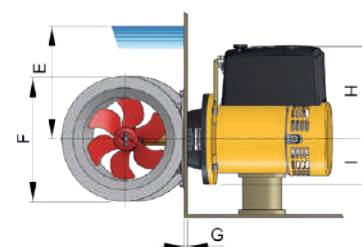
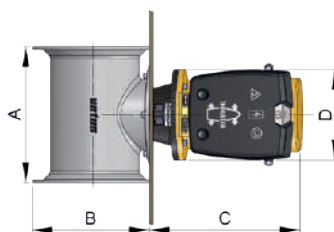


Stern thruster tunnels for transom mounting

Combining a VETUS stern thruster with a VETUS bow thruster, will provide an even greater maneuverability of your boat in slips and harbors. By placing a side-directional thruster in the bow and another one at the transom, docking, sailing away, finding a spot on the dock or marina, becomes child's play! Even the effects of wind and current can be effectively countered. Installation of a VETUS stern thruster is simple, the electric motor and other electric components are fitted internally to the transom of the boat. The stern thruster tunnel and the propeller are installed externally on the transom.



Type	Tunnel Ø inches (mm)	
STERN110P	4 ¹¹ / ₃₂	(110)
STERN125P	4 ⁵⁹ / ₆₄	(125)
STERN150P	5 ²⁹ / ₃₂	(150)
STERN185P	7 ⁹ / ₃₂	(185)
STERN250P	9 ⁷ / ₈	(250)
STERN300P	11 ¹³ / ₁₆	(300)
STERN400P	15 ³ / ₄	(400)
STERN250R*	9 ²⁷ / ₃₂	(250)



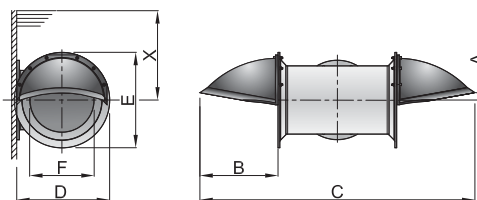
* RIMDRIVE thruster

	STERN110P	STERN125P	STERN150P			STERN185P				STERN250P			STERN300P			
COMBINED WITH																
Model number (dim. in mm)	BOW25	BOW35F BOW45 BOWA0361 BOWA0364 BOWA0421	BOW35E / BOW55 BOW55HYDR. BOWB0571 BOWB057			BOW60 / BOW75 / BOW95 BOW95HYDR. / BOWA0651 BOWA0761 / BOWA0764 BOWB065 / BOWB076 BOWB090 / BOWB110 BOWB130				BOW125 / BOW160 BOW160HYDR. BOWB150 BOWB180 BOWB210 / BOWB250			BOW220 / BOW230HYDR. BOW285 / BOWB285 / BOWB300 / BOW310HYDR. BOWB320			
A	9 ¹ / ₁₆ "	9 ²⁷ / ₃₂ "	10 ⁵ / ₈	10 ⁵ / ₈	10 ⁵ / ₈	11 ¹³ / ₁₆	11 ¹³ / ₁₆	11 ¹³ / ₁₆	11 ¹³ / ₁₆	18 ⁷ / ₆₄	18 ⁷ / ₆₄	18 ⁷ / ₆₄	21 ¹⁷ / ₆₄	21 ¹⁷ / ₆₄	21 ¹⁷ / ₆₄	21 ¹⁷ / ₆₄
B	6 ⁷ / ₆₄ "	7 ⁹ / ₁₆ "	8 ¹⁵ / ₃₂	8 ¹⁵ / ₃₂	8 ¹⁵ / ₃₂	10 ³⁵ / ₆₄	10 ³⁵ / ₆₄	10 ³⁵ / ₆₄	10 ³⁵ / ₆₄	14 ¹¹ / ₆₄	14 ¹¹ / ₆₄	14 ¹¹ / ₆₄	17 ¹³ / ₆₄	17 ¹³ / ₆₄	17 ¹³ / ₆₄	17 ¹³ / ₆₄
C	9 ⁹ / ₆₄ "	10 ⁵³ / ₆₄ "	8 ⁵ / ₈	11 ⁷ / ₆₄	6 ²⁷ / ₆₄	10 ³³ / ₆₄	12	12 ²¹ / ₆₄	5 ¹⁵ / ₁₆	12 ²¹ / ₆₄	14 ¹¹ / ₁₆	6 ³⁹ / ₆₄	16 ³ / ₈	9 ¹⁷ / ₃₂	16 ³ / ₈	9 ¹⁷ / ₃₂
D	5 ⁵⁵ / ₆₄ "	6 ¹⁹ / ₆₄ "	5 ⁵⁵ / ₆₄	6 ¹⁹ / ₆₄	6 ¹⁹ / ₆₄	6 ¹⁹ / ₆₄	7 ⁷ / ₈	7 ⁷ / ₈	7 ⁷ / ₈	7 ⁷ / ₈	9 ²⁹ / ₆₄	9 ²⁹ / ₆₄	10 ⁹ / ₃₂	10 ⁹ / ₃₂	10 ⁵ / ₃₂	10 ⁵ / ₃₂
E min.	4 ²¹ / ₆₄ "	4 ⁵⁹ / ₆₄ "	5 ²⁹ / ₃₂	5 ²⁹ / ₃₂	5 ²⁹ / ₃₂	7 ⁹ / ₃₂	7 ⁹ / ₃₂	7 ⁹ / ₃₂	7 ⁹ / ₃₂	9 ²⁷ / ₃₂	9 ²⁷ / ₃₂	9 ²⁷ / ₃₂	11 ¹³ / ₁₆	11 ¹³ / ₁₆	11 ¹³ / ₁₆	11 ¹³ / ₁₆
F Ø	7 ³ / ₃₂ "	8 ⁵ / ₆₄ "	9 ²⁹ / ₆₄	9 ²⁹ / ₆₄	9 ²⁹ / ₆₄	10 ⁵³ / ₆₄	10 ⁵³ / ₆₄	10 ⁵³ / ₆₄	10 ⁵³ / ₆₄	14 ⁹ / ₁₆	14 ⁹ / ₁₆	14 ⁹ / ₁₆	17 ²³ / ₃₂	17 ²³ / ₃₂	17 ²³ / ₃₂	17 ²³ / ₃₂
G max.	1"	1 ⁹ / ₁₆ "	¾	¾	¾	1 ¹⁹ / ₆₄	1 ¹ / ₃₂	1 ¹ / ₃₂	1 ¹ / ₃₂	2 ⁹ / ₃₂	3 ³ / ₈	3 ⁵ / ₈	1 ³¹ / ₃₂	1 ³¹ / ₃₂	1 ³¹ / ₃₂	1 ³¹ / ₃₂
H	5 ⁷ / ₁₆ "	5 ⁵ / ₈ "	5 ⁵ / ₈	5 ⁵ / ₈	3 ⁵ / ₃₂	5 ⁵ / ₈	6 ⁷ / ₆₄	8 ¹⁵ / ₆₄	3 ¹⁵ / ₁₆	8 ¹⁵ / ₆₄	8 ⁴⁷ / ₆₄	4 ²³ / ₃₂	9 ²¹ / ₆₄	5 ⁵ / ₆₄	9 ²¹ / ₆₄	5 ⁵ / ₆₄
I	3 ²⁷ / ₆₄ "	4 ³⁹ / ₆₄ "	4 ³⁹ / ₆₄	4 ³⁹ / ₆₄	4 ³⁹ / ₆₄	4 ³ / ₈	4 ³ / ₈	4 ³ / ₈	4 ³ / ₈	4 ³ / ₈	6 ¹ / ₁₆	6 ¹ / ₁₆	6 ⁴⁹ / ₆₄	6 ⁴⁹ / ₆₄	6 ⁴⁹ / ₆₄	6 ⁴⁹ / ₆₄

Extension kit for stern thruster tunnels

If the openings of the stern thruster are too close to the waterline, then it will suck air and considerable loss of thrust will occur. This can be prevented by using an extension kit which ensures both tunnel openings are adequately submerged. By installing these deflector shells, the flow of water can also be directed away from transom mounted obstructions including outriggers, trim tabs and swim-platform brackets, maintaining stern thruster effectiveness. The kit consists of two fiberglass shells and stainless steel (AISI 316) fastenings. It can easily be retrofitted to existing installations. The SDKIT is available for stern thrusters tunnels of Ø 4⁵⁹/₆₄, 5²⁹/₃₂, 7⁹/₃₂, 9²⁷/₃₂ or 11¹³/₁₆" (125, 150, 185, 250 or 300 mm).

Type	A	B	C	D	E	F Ø	X (= ½ F + A) inches (mm)
SDKIT125	²⁵ / ₆₄ (10)	4 ⁷ / ₃₂ (107)	18 ¹⁷ / ₆₄ (464)	7 ³¹ / ₆₄ (190)	8 ⁵ / ₆₄ (205)	4 ⁵⁹ / ₆₄ (125)	Min. 2 ⁷ / ₈ (73)
SDKIT150	1 (27)	7 ⁴³ / ₆₄ (195)	25 ¹⁹ / ₃₂ (650)	8 ²¹ / ₃₂ (220)	9 ⁹ / ₆₄ (232)	5 ²⁹ / ₃₂ (150)	Min. 4 (102)
SDKIT185	⁴³ / ₆₄ (17)	9 ²¹ / ₆₄ (237)	30 ¹ / ₂ (774)	10 ³⁵ / ₆₄ (268)	10 ⁵³ / ₆₄ (275)	7 ⁹ / ₃₂ (185)	Min. 4 ⁵ / ₁₆ (110)
SDKIT250	1 ¹ / ₈ (28)	12 (303)	42 (1066)	14 ¹¹ / ₆₄ (360)	14 ⁹ / ₁₆ (370)	9 ²⁷ / ₃₂ (250)	Min. 6 ¹ / ₃₂ (153)
SDKIT300	1 ¹⁷ / ₃₂ (39)	14 ³ / ₈ (365)	50 (1270)	17 ¹³ / ₆₄ (437)	17 ²³ / ₃₂ (450)	11 ¹³ / ₁₆ (300)	Min. 9 (189)



Thruster systems

Control panels for bow and stern thrusters

Control panels for BOW PRO thrusters

The BOW PRO thruster is digitally controlled by proprietary CAN bus protocol V-CAN. There are three fully proportional control panels available for the BOW PRO thruster series; one paddle panel and one panel with lock-and-hold function. With the press of a button, you are able to lock the thrust at any desired speed, freeing you to step away from the control panel to tie up your boat - a feature that makes single handed docking much easier.

VETUS also offers a double control panel with lock-and-hold function which controls the bow and stern thruster either individually or simultaneously. Rotating the joystick will operate them in opposite directions to rotate the boat on its axis.

Specifications

- Compact design and high quality materials
- Safe and easy proportional control of your vessel
- Aluminium bezel
- Quick installation in $\varnothing 2^{61/64}$ " (75 mm) cut-out hole
- Waterproof housing IP65
- V-CAN CAN bus protocol compliant
- Twin connector for multiple stations
- Status indicator
- Can be flush mounted
- With thruster lock and hold function (BPPJA and DBPPJA)



BPPJA



BPPPA



DBPPJA



BPPJACV.

Type	Description	Voltage (DC)	Front panel (inches)	Bezel	Ingression protected	Built-in depth (inches)	Cut-out size (inches)	Child protection	Control Panel Cover
BPPJA	Proportional control for the BOW PRO with lock and hold function (CAN BUS)	12 V (V-CAN)	3 ^{11/32} x 3 ^{11/32}	Aluminium	IP65	4 ^{23/32}	$\varnothing 2^{61/64}$	✓	BPPJACV3
BPPPA	Proportional control for the BOW PRO (CAN BUS)	12 V (V-CAN)	3 ^{11/32} x 3 ^{11/32}	Aluminium	IP65	3 ^{35/64}	$\varnothing 2^{61/64}$	✓	BPPJACV2
DBPPJA	Double thruster panel (proportional, CAN)	12 V (V-CAN)	3 ^{11/32} x 3 ^{11/32}	Aluminium	IP65	4 ^{23/32}	$\varnothing 2^{63/64}$	✓	BPPJACV1

CANVXCSP - CANVXCJP

The CANVXCSP and CANVXCJP modules allow for more discreet and modern control of VETUS BOW PRO and RIMDRIVE thrusters. The CANVXCSP enables push-button control (e.g. integrated into an engine control lever) for full power after a short ramp-up, while the CANVXCJP connects a frameless proportional joystick for smooth and precise thrust control.

Type	Specifications
CANVXCSP	BOW PRO pushbutton control interface
CANVXCJP	BOW PRO joystick control interface



CANVXCSP

CANVXCJP



Control panels for bow and stern thrusters

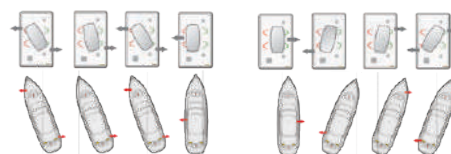
Control panels for DC thrusters

Control panels type BPSR, BPJR, BPAS and BPAJ can be easily fitted in a 2³/₆₄" (52 mm) diameter hole. The panels are waterproof to IP65 and provided with a switched outlet (max. 3A) to connect extra equipment. All panels are backwards compatible with other VETUS bow thruster panels and shut down automatically after thirty minutes of inactivity. The thruster switches off after continuous running for more than two minutes and resets itself after five seconds.

Control panels type 2 (EZDOCK2, BPSE2, BPJE2 & BPJDE2) are protected against accidental or unauthorised operation and circuit overload. They have a panel power indicator and warning LED and buzzer in case of continuous running for more than two minutes. These panels are easily interconnected and can be fitted at any helm position.

The EZDOCK2 combines twin joysticks into one easy operating knob, see the picture on the right.

Note: For optimum safety and performance we recommend using VETUS control panels with VETUS thrusters.



Type	Description	Voltage	Front panel (inches)	Bezel	Ingression protected	Built-in depth (inches)	Cut-out size (inches)	Child protection
BPSR	Thruster touch panel with time delay	12 / 24 V	Ø 2 ³¹ / ₆₄	White/Black/Chrome	IP65	3 ³⁵ / ₆₄	Ø 3 ³ / ₆₄	✓
BPJR	Thruster panel with joy-stick and time delay	12 / 24 V	Ø 2 ³¹ / ₆₄	White/Black/Chrome	IP65	3 ³⁵ / ₆₄	Ø 3 ³ / ₆₄	✓
BPAS	Thruster touch panel with time delay	12 / 24 V	3 ¹³ / ₁₆ x 3 ⁴⁷ / ₆₄	Aluminium	IP65	3 ³⁵ / ₆₄	Ø 3 ³ / ₆₄	✓
BPAJ	Joystick with time delay	12 / 24 V	3 ¹³ / ₁₆ x 3 ⁴⁷ / ₆₄	Aluminium	IP65	3 ³⁵ / ₆₄	Ø 3 ³ / ₆₄	✓
BPJSTA	Joystick without time delay device (excl. connection cable)	12 / 24 V	N/A	N/A	IP65	1 ³¹ / ₃₂	Ø 5 ⁵ / ₆₄	-
EZDOCK2	Easy docking system for thrusters, incl. time delay	12 / 24 V	3 ¹¹ / ₃₂ x 5 ⁷ / ₁₆	Synthetic	IP65	3 ³⁵ / ₆₄	5 ¹ / ₈ x 2 ⁶¹ / ₆₄	✓
BPSE2	Thruster touch panel with time delay	12 / 24 V	3 ¹¹ / ₃₂ x 3 ¹¹ / ₃₂	Synthetic	IP65	3 ³⁵ / ₆₄	Ø 2 ⁶¹ / ₆₄	✓
BPJE2	Thruster panel with joy-stick and time delay	12 / 24 V	3 ¹¹ / ₃₂ x 3 ¹¹ / ₃₂	Synthetic	IP65	3 ³⁵ / ₆₄	Ø 2 ⁶¹ / ₆₄	✓
BPJDE2	Thruster panel with two joy-sticks & time delay,	12 / 24 V	3 ¹¹ / ₃₂ x 5 ⁷ / ₁₆	Synthetic	IP65	1 ³¹ / ₆₄	5 ¹ / ₈ x 2 ⁶¹ / ₆₄	✓
BPA	Adapter plate to replace the old BPS/BPJ panels with the new BPSE2/BPJE2 panels							

Thruster systems

Control panels for hydraulic bow and stern thrusters

Two stage controls

The BPJ5B model has 5 positions - Off, and first/second step to port or starboard. The first detent allows continuous hands-free operation at partial power; the second delivers full power. The DBPJ5B is a dual joystick model with 5 positions.

Fully proportional control

Model HT1034 is a fully proportional joystick with a twistlock and must be used in conjunction with proportional valves HT1032 or HT1035.

Single stage controls

Model BPJSTA is a single-stage On/Off control.

Specifications

- Type BPJ5B and DBPJ5B: Hydraulic thruster control panels with single or dual joysticks for bow and stern thrusters (5 positions).
- Type BPJSTA: Joystick without time delay device

Note: All models are watertight to IP65.



BPJ5B



DBPJ5B



HT1034



BPJSTA

Type	Specification
BPJ5B	Hydraulic thruster control panel with joystick (5 positions)
DBPJ5B	Hydraulic thruster control panel with dual joystick (5 positions)
HT1034	Proportional bow thruster panel with twistlock for HT1032 and HT1035
BPJSTA	Joystick without time delay device





Control panels for bow and stern thrusters

Electric remote control

Type RECON can be used for the operation of DC and DC extended runtime bow and stern thrusters, anchor windlasses, remote controlled gangways, electric cranes, hydraulic steering systems etc. This electric remote control has a stainless steel (AISI 316) hanger loop which is fitted on the back.

Specifications

- Suitable for 12 or 24 VDC
- Max switching capacity of 6A
- Supplied with three-core spiralled wire of 11.5 feet (3.5 m)
- Complete with watertight plug and socket



Type	Specifications
RECON	Hand held remote control for operation of bow and stern thrusters, windlasses, etc.

Wireless remote control

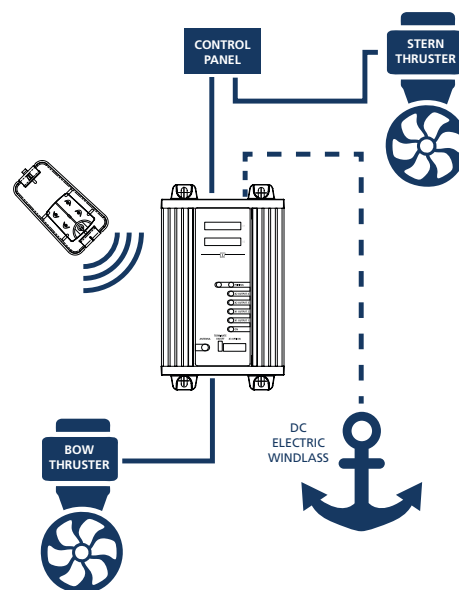
The CANVWRC is designed for operation with on/off devices but is also compatible with VETUS V-CAN devices, which can also be controlled in on/off mode. It allows for flexible configurations: DC-connected and V-CAN devices combined, DC-only, or V-CAN-only setups.

Specifications receiver

- Receiver accepts 12 or 24 VDC power supply
- Connections for one or two DC electric or hydraulic thrusters, or for one DC electric or hydraulic thruster and one DC electric or hydraulic windlass
- Maximum five hand-held remote transmitters
- Detachable antenna
- Protection class IP40 (for use in dry locations only)

Specifications hand-held remote control transmitter

- Power supply - 3 V battery type CR2032
- Maximum distance to receiver 32.8 - 82 feet (10 - 25 m)
- Protection class IP66 (resistant to high pressure water from any direction)



Type	Description	Dimensions
CANVWRC	Base unit for wireless remote control + hand held remote control also suitable for V-CAN	8 ³ / ₁₆ x 4 ⁷ / ₈ x 1 ³¹ / ₃₂ (208 mm x 124 mm x 50 mm)
WRCKF	Additional hand held remote control	1 ²¹ / ₃₂ x 3 ⁵ / ₆₄ x 5 ⁵ / ₈ (42 mm x 78 mm x 16 mm)



Thruster systems

Accessories for bow and stern thrusters

Bow thruster control panel for DC thrusters

For side mounting - ideal for sailing boats.

Specifications

- With on/off switch and rocker switch
- Diameter 4¹/₆₄" (102 mm)
- Build-in depth 3⁷/₆₄" (79 mm)
- Watertight to IP 65
- Without time delay device

Type	Description
BPSM	Bow thruster control panel for side mounting with toggle switch Ø 4 ¹ / ₆₄ " (102 mm)



BPSM

Time delay device

Eliminates the risk of the bow thruster being switched over too quickly. It is highly recommended for rental craft to prevent motor damage. Applicable for external switches, or BPJSTA and BPSM panels only. Standard VETUS DC thruster panels are already equipped with a time delay.

Type	Description
BPTD12	Time delay unit for 12 VDC bow thruster panel BPSM and BPJSTA
BPTD24	Time delay unit for 24 VDC bow thruster panel BPSM and BPJSTA



BPTD..

Panel connection cables

These panel connection cables are supplied with multi-plugs and available in five different lengths. They can be used with all VETUS electric thrusters except BOW PRO, RIMDRIVE and retractable thrusters.

Type	Description
BP29	20 ft (6 m) control panel/bow thruster
BP2910	33 ft (10 m) control panel/bow thruster
BP2916	53 ft (16 m) control panel/bow thruster
BP2918	59 ft (18 m) control panel/bow thruster
BP2920	66 ft (20 m) control panel/bow thruster



BP29..

V-CAN connection cables

Available in six different lengths for use with BOW PRO and RIMDRIVE installations.

Type	Description
BPCAB1HF	CAN cable 3 ft (1 m) Halogen free
BPCAB5HF	CAN cable 16 ft (5 m) Halogen free
BPCAB10HF	CAN cable 33 ft (10 m) Halogen free
BPCAB15HF	CAN cable 49 ft (15 m) Halogen free
BPCAB20HF	CAN cable 66 ft (20 m) Halogen free
BPCAB25HF	CAN cable 82 ft (25 m) Halogen free



BPCAB..HF



Accessories for bow and stern thrusters

Installation set BPROSET*

When installing a BOW PRO, several components are required to enable V-CAN communication. These components are bundled in an installation set, which includes the following items:

Type	Description
CANVPS	V-CAN power supply incl. safety
CANVT	2x CAN bus terminating resistors
BPCAB1HF	CAN cable 1 m – halogen-free

* When installing an older BOWPRO unit with only one V-CAN connection, a V-CAN HUB (CANVHUB) and an additional CAN cable (BPCAB1HF) are required for installation.



BPROSET

In addition, a V-CAN connection cable between the thruster unit and control panel is required. These cables are listed on page 244.

Battery main switches type BATSW

May be connected to either the positive or the negative electric cable. Two positions: "ON" and "OFF". In the "OFF" position the key may be removed (except models 150 and 600). Provided with two M10 connectors. Model 250T is a twin pole switch to make/break both the positive and negative cables. Model 600 is watertight according to IP 67.



BATSW075



BATSW100



BATSW150R



BATSW250



BATSW250T



BATSW600

Type	BATSW075	BATSW100	BATSW150R	BATSW250	BATSW250T	BATSW600
Nominal operational (V)	max. 48	max. 48	max. 48	max. 48	max. 48	max. 48
Current max.:						
- Continuous operation	75 A	100 A	150 A	250 A	2 x 250 A	450 A
- 3 minutes' load						800 A
- 5 seconds' load	350 A	500 A	1000 A	2500 A	2 x 2500 A	3500 A

Fuses and fuse holder type ZE

Type ZEHC is suitable for VETUS fuses of 40 - 500 Amp. The fuses to match are encapsulated in glass to prevent splatter and fire. The fuse holder comes with a protector cover. **Note:** Can be used in combination with strip fuses type ZE (slow-blow fuse).

Type	Description	Amp.
ZE040	Strip fuse C20	40
ZE050	Strip fuse C20	50
ZE063	Strip fuse C20	63
ZE080	Strip fuse C20	80
ZE100	Strip fuse C20	100
ZE125	Strip fuse C20	125
ZE160	Strip fuse C20	160
ZE200	Strip fuse C20	200

Type	Description	Amp.
ZE250	Strip fuse C20	250
ZE300	Strip fuse C20	300
ZE355	Strip fuse C20	355
ZE425	Strip fuse C20	425
ZE500	Strip fuse C20	500
ZE700	Strip fuse C20	700
ZEHC100	Fuse holder, type C100 including cover	



ZE



ZEHC100





STABILITY WITHOUT LIMITS

GYRO STABILIZATION FOR BOATS 45 TO 95 FEET



Smartgyro has revolutionized marine stabilization with one key innovation: **full onboard serviceability.**

Even the most complex tasks can be done directly onboard, reducing downtime and operational costs, while keeping you on the water.

Why Smartgyro?

- Powerful roll reduction — up to 95%
- Full onboard serviceability
- Easy installation, both new builds and refits
- Smooth, stable cruising — at anchor and underway

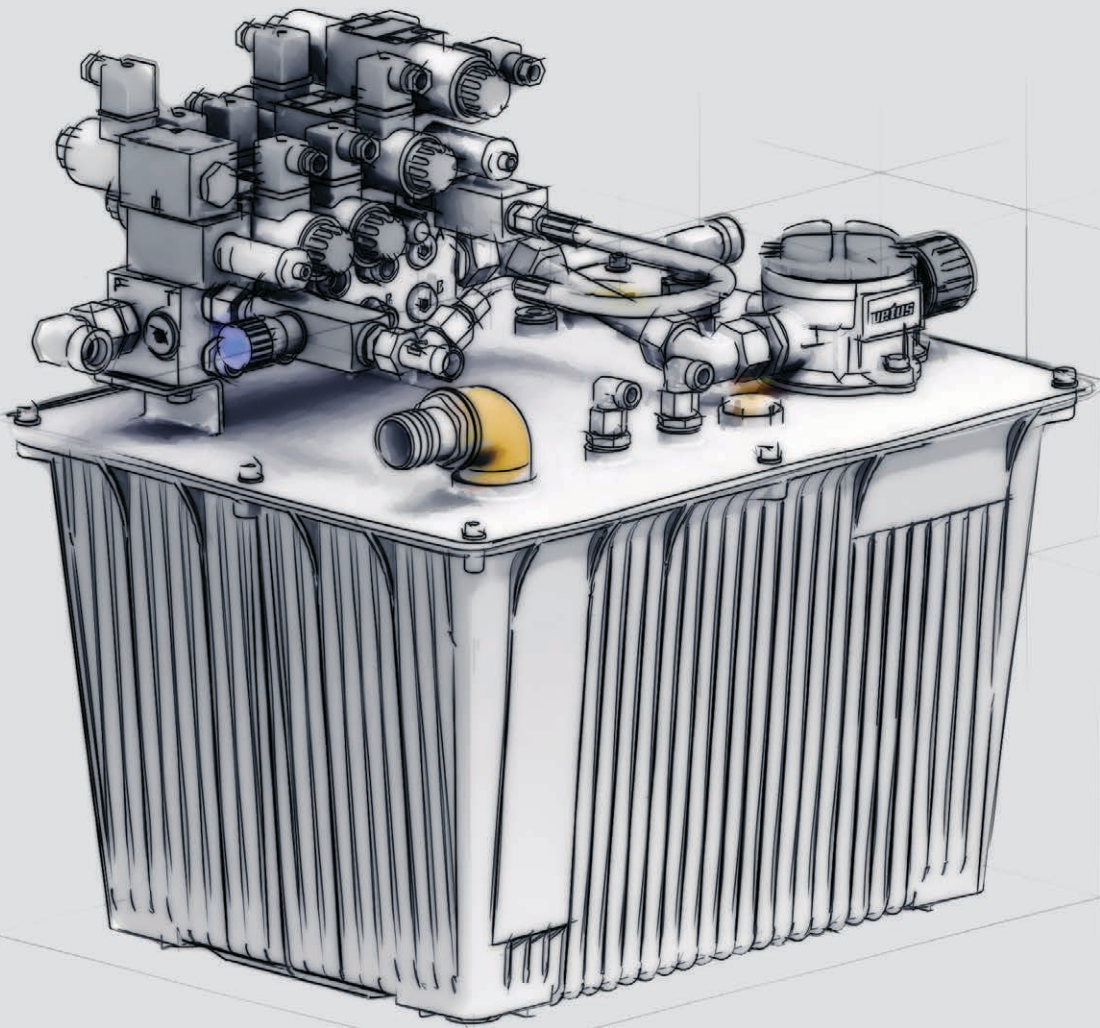


FEEL THE MAGIC

www.smartgyro.com | info@smartgyro.com



SMART
GYRO



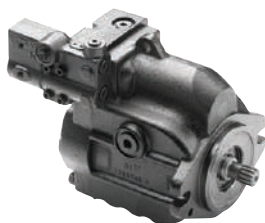
Power hydraulics

Overview

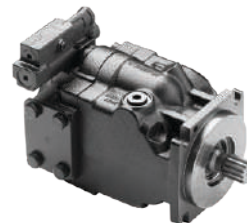
Hydraulic pumps see page 251



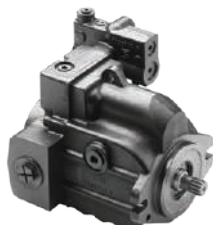
HT1015E62



HT1015SD2



HT1022SD



HT1017SD

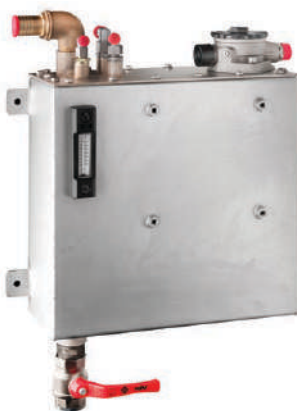


HT1016SD

Hydraulic tanks see page 252



HT1028B



HPTANK



HT1010BS

Hydraulic bow and stern thrusters see page 257 - 258



BOW..HMD



BOWH



Stabilizers see page 258



STAFIN..B

Hydraulic power steering see page 260



HT1038

Hydraulic propulsion see page 262



Hydraulic windlasses see page 265



VWC SERIES



VWCLP SERIES



VC SERIES



Power hydraulics

Power hydraulics in general

Power where you need it, for as long as you need it

VETUS Hydraulic Systems are an excellent way to move the power of a “Prime Mover” engine to user devices around the boat, by means of the controlled flow of high pressure fluid moving through flexible hoses or rigid tubes. The prime mover may be a main propulsion engine, the engine of a diesel generator, or a “powerpack” engine dedicated to powering the hydraulic system. A user device is any item or system of mechanical equipment, including bow and stern thrusters, windlasses, capstans, winches, cranes, hatch lifters, roll stabilizers and power steering.

Hydraulic systems are complex and require a lot of expertise but the results are well worth the effort. A VETUS customer support team member is available by email, to discuss your boat configuration and usage and to recommend hydraulic user devices and central system equipment.

You will receive our recommendations for your Power Hydraulic system within 48 hours of all information being received and finalized. Remember that in some cases it is difficult or impossible to retrofit a power take-off and it is therefore recommended to order a power take-off when purchasing an engine or gearbox.

Hydraulic Pumps

VETUS hydraulic pumps are variable volume, load sensing, piston pumps and are able to provide full hydraulic flow and pressure at all PTO/ prime-mover engine speeds, providing the engine is producing enough power at those speeds. These pumps adjust themselves to meet the requirement of the activated user devices, and when no hydraulic flow is required, stop pumping and freewheel, so no clutch is required at the Power Take Off (PTO) on which the pump is mounted.

Standard hydraulic pumps stocked by VETUS

Non-standard pumps are made to order.

Part Code	Pump capacity (cc) (fluid pumped in one revolution)	Direction of Rotation	Shaft	Weight lbs (kg) approx	Torque in Newton Meters for each bar of operating pressure*	Suction and pressure port location	Available SAE flange	Max cont rpm
HT1015SD2	45	LH - anticlockwise	13 spline	59.5 (27)	0.72	rear	SAE B 2 bolt	2800
HT1015E62	62	LH - anticlockwise	13 spline	53 (24)	1	rear	SAE B 2 bolt	2600
HT1016SD1	30	LH - anticlockwise	13 spline	53 (24)	0.48	side	SAE B 2 bolt	3200
HT1016SD2	45	LH - anticlockwise	13 spline	59.5 (27)	0.72	side	SAE B 2 bolt	2800
HT1017E62	62	RH - clockwise	13 spline	53 (24)	1	rear	SAE B 2 bolt	2600
HT1017SD1	30	RH - clockwise	13 spline	53 (24)	0.48	side	SAE B 2 bolt	3200
HT1017SD2	45	RH - clockwise	13 spline	59.5 (27)	0.72	side	SAE B 2 bolt	2650
HT1022SD	75	LH - anticlockwise	14 spline	59.5 (27)	1.2	side	SAE C 4 bolt	2400
HT1023SD	75	RH - clockwise	14 spline	59.5 (27)	1.2	side	SAE C 4 bolt	2400
HT1016SD3	100	LH - anticlockwise	17 spline	123 (56)	1.6	side	SAE C 4 bolt	2450
HT1016SD4	130	LH - anticlockwise	17 spline	123 (56)	2.1	side	SAE C 4 bolt	2200
HT1027**	45	RH - clockwise	13 spline	59.5 (27)	0.72	side	SAE B 2 bolt	2800

* It may be necessary to reduce pump pressure to avoid exceeding the maximum allowed torque for the PTO, even if that means reduced power for the user device.

** This pump is configured to mount on the PTO of a John Deere diesel engine.

All pumps come standard with a connection kit.

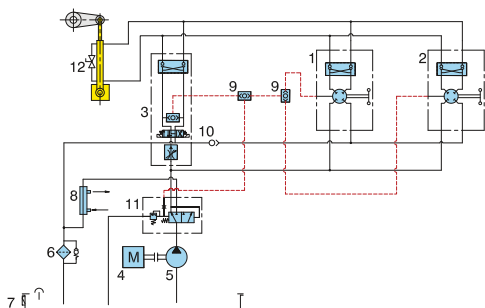


Diagram of a single hydraulic drive

It is possible to connect various equipment devices to one hydraulic pump.

1. Steering pump
2. Second steering position
3. Autopilot
4. Engine
5. Hydraulic pump
6. Return filter
7. Hydraulic fluid tank
8. Oil cooler
9. Shuttle valve
10. Non-return valve
11. Priority valve
12. Steering cylinder with bypass



Hydraulic pumps (Load-sensing)

Specifications

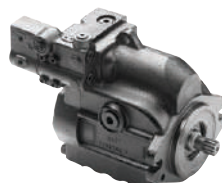
- Capacity: 3.78 cu.inch (62 cc)
- Rotation: Counterclockwise viewed from end of shaft
- Connection: SAE-B flange, 13 spline shaft
Rear connection for suction and pressure
Fits VETUS DEUTZ engines and PRM gearboxes
- Maximum r.p.m.: 2.880



HT1015E62

Specifications

- Capacity: 2.75 cu.inch (45 cc)
- Rotation: Counterclockwise viewed from end of shaft
- Connection: SAE-B flange, 13 spline shaft
Rear connection for suction and pressure
- Fits VETUS DEUTZ engines and PRM gearboxes
- Maximum r.p.m.: 2.800
- Displacement limiter



HT1015SD2

- Capacity: 3.78 cu.inch (62 cc)
- Rotation: Clockwise viewed from end of shaft
- Connection: SAE-B flange, 13 spline shaft
Rear connection for suction and pressure
- Maximum r.p.m.: 2.880



HT1017E62

Specifications

- Capacity: 1.83 or 2.75 cu.inch (30 cc (SD1) or 45 cc (SD2))
- Rotation: Counterclockwise viewed from end of shaft
- Connection: SAE-B flange, 13 spline shaft
Side connection for suction and pressure
- Maximum r.p.m.: 3.600 SD1. / 2.800 SD2
- Displacement limiter



HT1016SD1

HT1016SD2

Specifications

- Capacity: 4.57 cu.inch (75 cc)
- Rotation: Counterclockwise (HT1022SD), clockwise (HT1023SD) viewed from end of shaft
- Connection: SAE-C flange, 14 spline shaft
Side connection for suction and pressure
- Maximum r.p.m.: 2.880



HT1022SD

HT1023SD

Specifications

- Capacity: 1.83 or 2.75 cu.inch (30 cc (SD1) or 45 cc (SD2))
- Rotation: Clockwise viewed from end of shaft
- Connection: SAE-B flange, 13 spline shaft
Side connection for suction and pressure
- Maximum r.p.m.: 3.600 SD1. / 2.800 SD2
- Displacement limiter



HT1017SD1

HT1017SD2

For John Deere engines, pump type HT 1027 has an extension shaft, for connection to the water pump.

Specifications

- Capacity: 6.1 cu.inch (100 cc) (SD3) or 7.93 cu.inch (130 cc) (SD4)
- Rotation: Counterclockwise viewed from end of shaft
- Connection: SAE-C flange, 17 spline shaft
Side connection for suction and pressure
- Maximum r.p.m.: 2.800 SD3
2.600 SD4



HT1016SD3

HT1016SD4



Power hydraulics

Hydraulic tanks

Hydraulic systems require the installation of a hydraulic tank, as a collection point for hot hydraulic fluid returning from all of the user devices in the system, and as a reservoir from which the pump or pumps can draw the hydraulic fluid and re-pressurize it for re-use. The returning hydraulic fluid foams when it reaches the tank and returns to atmospheric pressure. So the tank must be sized so that the fluid is in the tank long enough for the foam to “boil out”, returning the fluid to a completely liquid state, able to maintain its volume as it is re-pressurized by the pump(s).

The table shown on the next page provides guidance for tank selection for systems driving thrusters. All other device will be covered if the system is adequately sized for the thrusters.

Hydraulic reservoir tanks

Examples of hydraulic reservoir tanks.

HT1010 comes with a NG6 (D03) 5 fold manifold and one HT1013 on/off directional valve as standard. A HT1011 single step or HT1012 dual step load sensing device should be ordered separately.



HT1028B



HPTANK



HT1010



HT1010BS

Tank type	HT1028B	HPTANK	HT1010	HT1010BS
Tank capacity gallon (L)	5 (20)	10 (38)	9 (35)	4 (17)
Weight lbs (kg)	75 (34)	150 (68)	64 (29)	53 (24)
Total height inches (mm)	19 ¹⁹ / ₆₄ (490)	22 ²³ / ₆₄ (580)	22 ¹ / ₄ (565)	16 ¹¹ / ₃₂ (415)
Wide inches (mm)	24 ¹³ / ₃₂ x 18 ²⁷ / ₆₄ (620 x 480)	28 ⁴⁷ / ₆₄ x 23 ⁵ / ₈ (730 x 600)	20 ⁵⁵ / ₆₄ x 8 ¹⁷ / ₆₄ (530 x 210)	18 ¹ / ₂ x 12 ¹³ / ₆₄ (470 x 310)
Volt	24 (12 on request)	24 (12 on request)	24 (12 on request)	24 (12 on request)
Vibration dampers (ordered separately)	HT3010 (set of 4)	HT3010 (set of 4)	HT3010 (set of 4)	HT3020 (set of 4)
Height inches (mm)	1 ⁹ / ₃₂ (15)	1 ³ / ₁₆ (30)	1 ³ / ₁₆ (30)	1 ³ / ₁₆ (30)
Material body	aluminium alloy	stainless steel (AISI 316)	aluminium alloy	stainless steel (AISI 316)



Hydraulic tanks

The chart below provides a guideline for tank types for systems including thrusters, although this will be reviewed by your VETUS Power Hydraulics support engineer in developing the equipment list for your system. In most circumstances, all other devices will be covered if the tank is big enough for the thrusters.

Tank specifier for thruster systems

Tank type	One thruster				Two thrusters				
	HT1028B	HPTANK	HT1010	HT1010BS	HT1028B	HPTANK	HT1010	HT1010BS	
Tank Capacity gallon (L)	5 (20)	10 (38)	18 (70)	34 (130)	5 (20)	10 (38)	18 (70)	34 (130)	
Maximum oil contents gallon (L)	4 (18)	9 (35)	16 (63)	30 (117)	4 (18)	9 (35)	16 (63)	30 (117)	
Approx. weight of oil in lbs (kg)	37.5 (17)	70.5 (32)	128 (58)	236 (107)	37.5 (17)	70.5 (32)	128 (58)	236 (107)	
Dry (empty) weight of tank in lbs (kg)	53 (24)	64 (29)*	75 (34)	150 (68)**	53 (24)	64 (29)*	75 (34)	150 (68)**	
Approx weight of full tank in lbs (kg)	90 (41)	134 (61)	203 (92)	386 (175)	90 (41)	134 (61)	203 (92)	386 (175)	
Approx height overall including valves and dampers inches (mm)	16 ^{59/64} (430)	22 ^{1/4} (565)*	26 ^{49/64} (680)	24 ^{1/64} (610)**	16 ^{59/64} (430)	22 ^{1/4} (565)*	26 ^{49/64} (680)	24 ^{1/64} (610)**	
Approx length inches (mm)	18 ^{1/2} (470)	20 ^{55/64} (530)	24 ^{13/32} (620)	28 ^{47/64} (730)**	18 ^{1/2} (470)	20 ^{55/64} (530)	24 ^{13/32} (620)	28 ^{47/64} (730)**	
Approx depth overall including valves inches (mm)	12 ^{13/64} (310)	16 ^{59/64} (430)***	18 ^{57/64} (480)	23 ^{5/8} (600)**	12 ^{13/64} (310)	16 ^{59/64} (430)***	18 ^{57/64} (480)	23 ^{5/8} (600)**	
Additional minimum clearance required at top for filling and filter maintenance	250	300	250	350	250	300	250	350	
Thruster type	Single thruster flow rate gallon (L) per minute								
BOW55HMD	3 (13)	✓	✓	✓	✓	x	✓	✓	✓
BOW95HMD	4 (18)	✓	✓	✓	✓	x	✓	✓	✓
BOW160HMD	7 (28)	x	✓	✓	✓	x	x	✓	✓
BOW230HMD	11 (40)	x	✓	✓	✓	x	x	✓	✓
BOW310HMD	18 (70)	x	x	✓	✓	x	x	x	✓
BOWH410	24 (92)	x	x	x	✓	x	x	x	✓
BOWH550	24 (92)	x	x	x	✓	x	x	x	✓

* No manifold/valve block or valves can be mounted on the top of the HP tank

** This weight or dimension does not include valves, blocks or manifolds, as these are assembled to each customer's order

*** It is possible, with a mounting plate, to install a manifold and valves on the front of the HP tank, but those dimensions are not included here

The weights and dimensions provided in this chart are approximate and will vary with each tank, manifold and valve assembly, but for a successful installation, it is essential that adequate space and support is planned and designed into the engine room for the tank assembly and hydraulic pumps.

Manifold for additional control units

An extension of the basic manifold block. Required if more than 5 solenoid control devices are installed. Includes additional electrical connection box.



HT1026



Hydraulic oil

We recommend the use of the following hydraulic fluids: VETUS Hydraulic oil HT (HLP ISO-VG46).

Type	Specification
VHT1	1 L ISO VG 46
VHT4	4 L ISO VG 46
VHT20	20 L ISO VG 46



VHT

Power hydraulics

Hydraulic load sensing and control devices

In order to direct the oil flow from the hydraulic pump to the equipment to be driven, load sensing and control devices, which are built up in modular construction segments, are used. These ensure the correct speed and sense of rotation of the equipment to be driven. Supplied as standard for 24 VDC electric installations, 12 VDC on request.

HT1011

Single step load sensing device (24 VDC). Gives zero or full flow rate, depending on whether a load is sensed or not. Used for e.g. bow and stern thrusters. Includes electrical connection box.

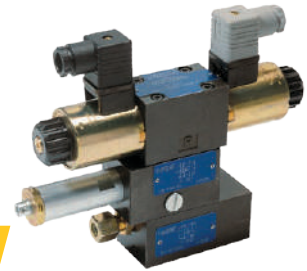


HT1011

HT1012

Dual step load sensing device (24 VDC). Gives zero, partial or full flow rate, dependent on load sensed. Used for e.g. bow and stern thrusters. Includes electrical connection box.

Not compatible for systems with a fixed displacement pump.



HT1012

HT1013

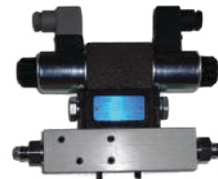
Solenoid control unit (24 VDC) for bow and stern thrusters.



HT1013

HT1014

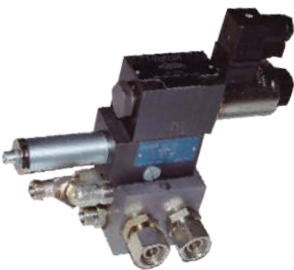
Solenoid control unit (24 VDC) with counterbalance, for e.g. mast lowering, hinged radar support (or any other hydraulic cylinder for numerous applications).



HT1014

HT1024

Solenoid control unit (24 VDC) for use with a set of stabilisers.



HT1024

HT102311

Control unit for anchor winches, capstans and other applications which are driven by a hydromotor with a flow rate of up to 60 L/minute. Pressure and oil flow separately adjustable.

HT102312

Control unit for anchor winches, capstans and other applications which are driven by a hydromotor with a flow rate of up to 60 L/minute. Only the oil flow is adjustable.



HT102311



HT102312



Hydraulic thruster control joysticks

BPJSTA

Joystick (3-positions) for operation, with full thrust only, of a hydraulic bow- or stern thruster. Only suitable for a single step load-sensing device (HT1011). Intended for dashboard mounting, without panel, without on/off switch.

Watertight to IP 65.

BPJSTA



BPJ5B

Joystick (5-positions) for operation, with full or half thrust, of a hydraulic bow- or stern thruster in combination with a dual step load-sensing device (HT1012).

Watertight to IP 65.

BPJ5B



DBPJ5B

Dual joystick (5-positions) for operation, with full or half thrust, of a hydraulic bow- or stern thruster in combination with a dual step load-sensing device (HT1012).

Watertight to IP 65.

DBPJ5B



BPJE2

Control panel with built in time delay when reversing the direction of rotation. For operation of a bow thruster at full thrust, in combination with a single step load sensing device (HT1011). Panel suitable for 12 or 24 V.

Watertight to IP 65.

BPJE2



BPJDE2

Control panel with two joysticks and built in time delay when reversing the direction of rotation. For operation of bow and stern thrusters at full thrust, in combination with two single step load sensing devices (HT1011). Panel suitable for 12 or 24 V.

Watertight to IP 65.

BPJDE2



HT5034

This electrical connection box is supplied with type HT1011, HT1012 and HT1026.

HT5034



Type	Specification
HT1011	Single step load sensing device, incl. electrical connection box
HT1012	Dual step load sensing device, incl. electrical connection box
HT1013	Solenoid control unit 24 VDC, for bow and stern thrusters, (12 VDC available to special order)
HT102311	Control unit 24 VDC, for anchor windlass, (12 VDC available to special order)
HT102312	Control unit 24 VDC, for anchor windlass, (12 VDC available to special order)
BPJSTA	Joystick switch only for dashboard mounting
BPJ5B	Hydraulic thruster control panel with a joystick (5 positions)
DBPJ5B	Hydraulic thruster control panel with dual joystick (5 positions)
BPJE2	Control panel with built in time delay and single joystick
BPJDE2	Control panel with built in time delay and two joysticks
HT5034	Electrical connection box



Power hydraulics

Proportional valves

HT1032/35

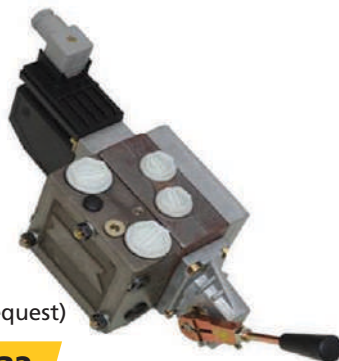
Proportional valve assemblies. HT1032 for one thruster or windlass HT1035 for two thrusters or a thruster and a windlass. These valves can be mounted on a HT1010 tank.



0 - 10 VDC

HT1032EU

HT1035EU



24 VDC (12 VDC on request)

HT1032



24 VDC (12 VDC on request)

HT1035

If the system incorporates two thrusters with proportional control, then a HT1035 dual valve assembly will be supplied, rather than two HT1032s.

Model HT1034 Proportional control joystick

Single joystick control.

A LED lights up when the joystick opens the proportional valve. The LED will go out when the joystick is in neutral.

The LED can be installed in one of the mounting holes of the joystick.

If more than 1 steering position is required, a MSCOBX must be ordered for every extra steering position to let the joysticks communicate.



HT1034

Thruster type	Valve type	Valve Assembly or Part Number	
		on/off-directional	Two stage, Load sensing
BOW55HMD	Direct operating	HT1013	HT1012
	Proportional	HT1032	Not applicable
BOW95HMD	Direct operating	HT1013	HT1012
	Proportional	HT1032	Not applicable
BOW160HMD	Direct operating	HT1013	HT1012
	Proportional	HT1032	Not applicable
BOW230HMD	Direct operating	HT1013	HT1012
	Proportional	HT1032	Not applicable
BOW310HMD	Direct operating	HT1013	HT1012
	Proportional	HT1032	Not applicable
BOWH410	Direct operating	Not applicable	Not applicable
	Proportional	HT1032	Not applicable
BOWH550	Direct operating	Not applicable	Not applicable
	Proportional	HT1032	Not applicable

Note: HT1011 single stage and HT1012 two stage, load-sensing valve set is supplied standard with an HT5034 electrical junction box.

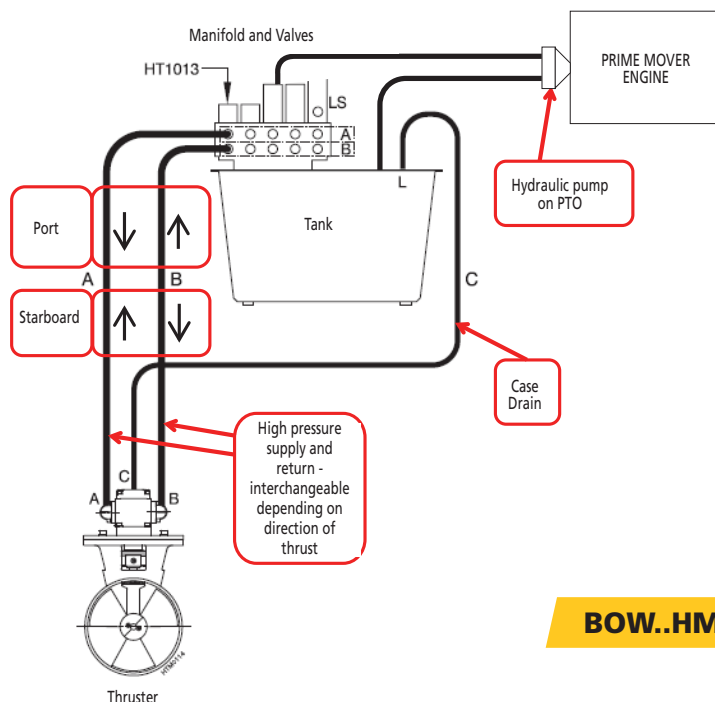


Hydraulic bow and stern thrusters

Type BOW..HMD

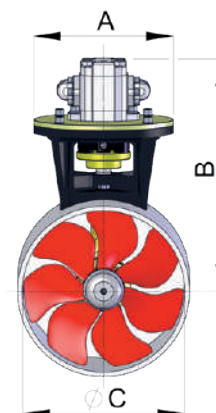
VETUS hydraulic thrusters are able to run continuously, although not as primary propulsion units. They deliver high power and great reliability, with no electrical connections at the thruster or pump(s) and they need little routine maintenance. These thrusters are available with several control heads, in three control regimes, including proportional control.

The connections and flow of oil for a thruster



BOW..HMD

Type	Specifications	Connection kit
BOW55HMD	Hydraulic bow thruster 121 lbf (55 kgf) incl. hydro motor 3.5 kW, for tunnel diam. 5 ²⁹ / ₃₂ " (150 mm)	HT3057
BOW95HMD	Hydraulic bow thruster 210 lbf (95 kgf) incl. hydro motor 6.0 kW, for tunnel diam. 7 ⁹ / ₃₂ " (185 mm)	HT3057
BOW160HMD	Hydraulic bow thruster 352 lbf (160 kgf) incl. hydro motor 12.3 kW, for tunnel diam. 9 ⁷ / ₈ " (250 mm)	HT3056
BOW230HMD	Hydraulic bow thruster 507 lbf (230 kgf) incl. hydro motor 16.4 kW, for tunnel diam. 11 ¹³ / ₁₆ " (300 mm)	HT3061
BOW310HMD	Hydraulic bow thruster 665 lbf (310 kgf) incl. hydro motor 26.8 kW, for tunnel diam. 11 ¹³ / ₁₆ " (300 mm)	HT3058
BP1053	Bronze propeller for BOW22024/BOW230HM	
BP1182	Bronze propeller for BOW300HM/310HM	



Note: The connection kit consists of couplings specially selected for the desired hydraulic hoses.

Specifications	BOW55HMD	BOW95HMD	BOW160HMD	BOW230HMD	BOW310HMD
Thrust N (kgf)	550 (55)	950 (95)	1600 (160)	2300 (230)	3100 (310)
Hydraulic motor power kW	3.5	6.0	12.3	16.4	26,8
Hydraulic motor speed rpm	3000	4100	3730	2540	2760
Hydraulic motor capacity cm ³ /rev	4,2	4,2	8,4	16,8	27
Flow rate l/min	13	18	28	40	70
Operating pressure bar	165	230	260	245	230
Internal tunnel diameter inches (mm)	5 ²⁹ / ₃₂ (150)	7 ⁹ / ₃₂ (185)	9 ²⁷ / ₃₂ (250)	11 ¹³ / ₁₆ (300)	11 ¹³ / ₁₆ (300)
A Ø inches (mm)	6 ⁵ / ₁₆ (160)	7 ⁷ / ₈ " (200)	9 ⁷ / ₁₆ (240)	10 ⁵ / ₃₂ (258)	10 ⁵ / ₃₂ (258)
B inches (mm)	10 ⁵ / ₃₂ (258)	10 ⁷ / ₈ (276)	13 ¹⁹ / ₃₂ (345)	17 (431)	17 ²⁹ / ₃₂ (455)
C Ø inches (mm)	5 ²⁹ / ₃₂ (150)	7 ⁹ / ₃₂ (185)	9 ⁷ / ₈ (250)	11 ¹³ / ₁₆ (300)	11 ¹³ / ₁₆ (300)



Power hydraulics

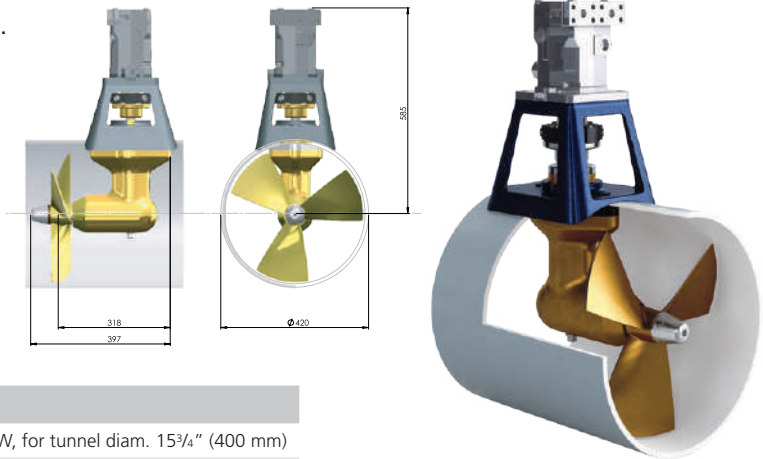
Hydraulic bow and stern thrusters

Type BOWH410 - BOWH550

Newly designed tailpiece for types BOWH410 and BOWH550.

Specifications	BOWH410	BOWH550
Thrust, N (kgf)	4100 (410)	5500 (550)
Hydraulic motor power, hp (kW)	29,5	39
Hydraulic motor speed, rpm	2650	2900
Hydraulic motor capacity, in ³ /rev (cm ³ /rev)	24	35,6
Flow rate, gal/min	63,6	103
Operating pressure, psi (bar)	250	250
Internal tunnel diameter inches (mm)	400	400

Type	Specifications
BOWH410	Hydraulic bow thruster 410 kgf, incl. hydro motor 29,5 kW, for tunnel diam. 15 ³ / ₄ " (400 mm)
BOWH550	Hydraulic bow thruster 550 kgf, incl. hydro motor 39 kW, for tunnel diam. 15 ³ / ₄ " (400 mm)
BP1259	Bronze propeller for BOWH410
BP1260	Bronze propeller for BOWH550



BOWH410

BOWH550

Stabilizers (hydraulic) 10 - 24 m

What are fin stabilizers?

Fin stabilizers are fins mounted beneath the waterline of a yacht which are installed on both sides of the vessel at a downward angle.

The VETUS stabilizer fins are computer controlled and have the ability to change their angle via a hydraulic system to counteract roll caused by waves or wind.

- "Plug and Play" installation for steel, GPR and aluminum vessels
- Greatly reduces pitch and roll
- Available as a stand alone system
- Easy to install in an existing hydraulic system
- Automatic centering
- Fully automatic operation
- The fin movement is automatically adjusted according to the degree of damping selected, the speed of the vessel and the sea state
- All electronic components are solid state
- Also suitable for refit projects



STAFIN..B

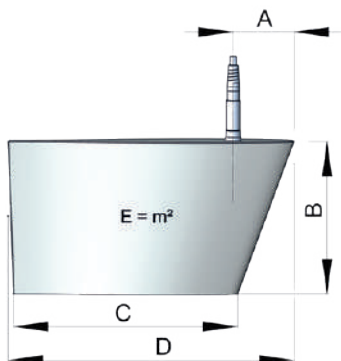
Technical specifications

Standard fin sizes : 0.3 m² - 0.4 m² - 0.5 m² - 0.6 m² - 0.7 m²

Fin material : AISI 316 Stainless steel

System voltage : 24 VDC

NB: a converter (12 VDC to 24 VDC) is required when the boat has a 12 VDC power supply (code: STA12/24)



	03	04	05	06	07
A	142 mm 5 ⁹ / ₁₆ "	176 mm 6 ¹⁵ / ₁₆ "	215 mm 8 ⁷ / ₁₆ "	250 mm 9 ¹³ / ₁₆ "	291 mm 11 ⁷ / ₁₆ "
B	431 mm 16 ¹⁵ / ₁₆ "	497 mm 19 ⁹ / ₁₆ "	554 mm 21 ¹³ / ₁₆ "	600 mm 23 ⁵ / ₈ "	605 mm 23 ¹³ / ₁₆ "
C	620 mm 24 ⁷ / ₁₆ "	716 mm 28 ³ / ₁₆ "	801 mm 31 ⁹ / ₁₆ "	873 mm 34 ³ / ₈ "	1021 mm 40 ³ / ₁₆ "
D	798 mm 31 ⁷ / ₁₆ "	921 mm 36 ¹ / ₄ "	1024 mm 40 ⁹ / ₁₆ "	1125 mm 44 ⁵ / ₁₆ "	1318 mm 51 ⁷ / ₈ "
E	0.3 m ² 3.2 sq.ft	0.4 m ² 4.3 sq.ft	0.5 m ² 5.4 sq.ft	0.6 m ² 6.5 sq.ft	0.7 m ² 7.5 sq.ft



Stabilizers (hydraulic)

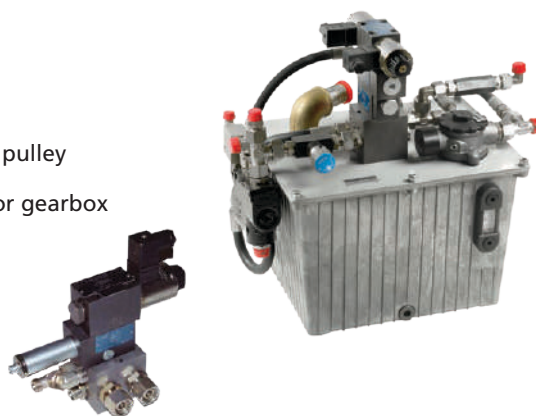
Installation options

Available as a stand alone system

- Connected to a belt driven hydraulic pump with bearing support and pulley
- OR
- Connected to a hydraulic pump fitted to a SAE-A PTO on the engine or gearbox

Our stabilizers are also easy to integrate into existing systems

- By adding a VETUS hydraulic control unit (HT1024) between the current hydraulic system and the VETUS stabilizers



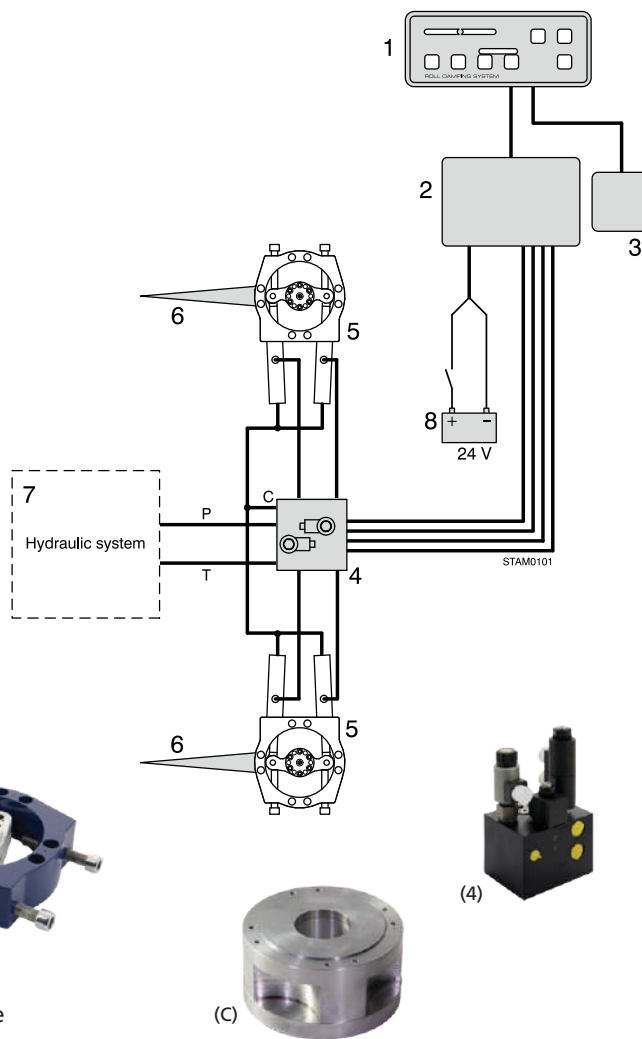
Scope of supply

The following parts are included:

- A Basic set (code: STA24VA), consisting of:
 - Control panel (1)
 - Junction box (2)
 - Roll sensor ('solid state' gyroscope) (3)
 - Hydraulic valve block (4)
 - Two actuator units with hydraulic cylinders (5)
- B Set of two AISI 316 stainless steel fins:
 - Set of fins with surface area of 0,3 m² - 0.7 m² (6)
- C Two bushes (to install fins through hull):
 - Welding bushes, steel (code: STATHS)
 - Welding bushes, aluminium (code: STATHA)
 - Laminated bushes (code: STATHG)

Also required:

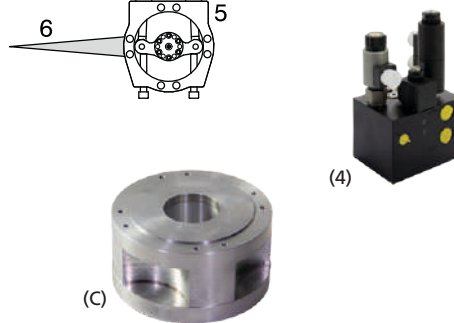
- Hydraulic pump(s) (7)
- Hydraulic tank (7)
- Hydraulic control unit (code: HT1024) (7)



(1)



(5)



(4)

(C)

Automatic centering

Putting the gearbox in neutral or astern, the fins will center automatically. This reduces drag and makes maneuvering in the marina a lot easier.

VETUS CAN DESIGN AND SUPPLY THE COMPLETE HYDRAULIC SYSTEM IF REQUIRED



Power hydraulics

Hydraulic power steering

For larger boats, VETUS hydraulic power steering is a most comfortable and extremely safe steering system. The effort required at the helm is only about 10% of a non-powered steering system. In other words: the boat can be steered literally with one finger. Because of this, the steering wheel diameter can be considerably smaller than normal; a wheel diameter of just 14^{11/64}" (360 mm) will usually suffice.

Steering pumps

The VETUS steering pump has a closed mid position, ensuring that there will be no oil flow as long as the wheel remains untouched.

To connect one or more VETUS steering pumps and/or an automatic pilot to a VETUS hydraulic system, a control unit model HT1019 must be used.

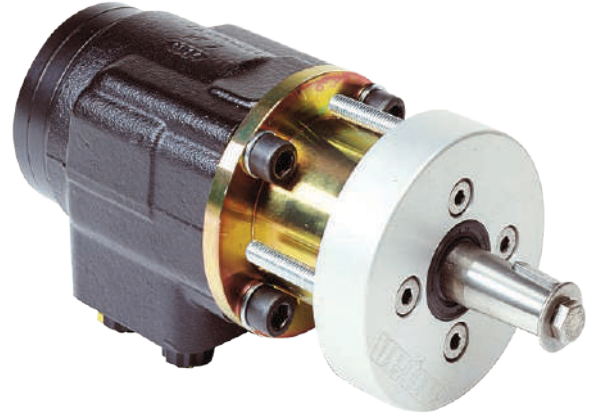
The external flange of the steering pump is made of seawater resistant aluminium, hand polished and anodised. The steering wheel shaft is made of stainless steel, type I-4462, Ø 3/4" (19 mm), taper 1:12.

HT1018

HT1020

HT1025

HT1038

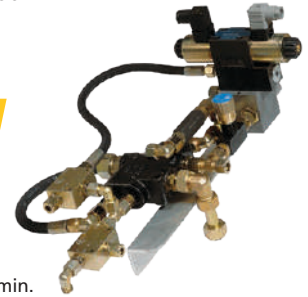


Type	Specifications
HT1020	Hydraulic power steering 4.6 in ³ /rev for cylinders up to MTC17510
HT1018	Hydraulic power steering 5.8 in ³ /rev for cylinders up to MT0230B
HT1025	Hydraulic power steering 8.8 in ³ /rev for cylinders up to MT0345B
HT1038	Hydraulic power steering 11.3 in ³ /rev for cylinders up to MT0455B
HT1019	Steering and control unit for hydraulic power steering and autopilot
HT1021	Dual non-return valve for hydraulic power steering

HT1019

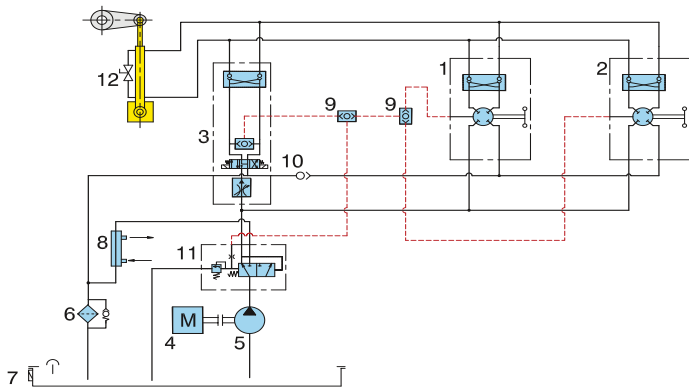
Solenoid control unit (24 VDC) for use with a hydraulically powered steering system or an automatic pilot.

HT1019



* Standard: Max. 75 l/min.

Schematic based on Fixed Pump



1. Steering pump with non-return valve
2. Steering pump with non-return valve (second steering position)
3. Control unit
4. Propulsion engine
5. Hydraulic pump
6. Filter
7. Hydraulic tank
8. Oil cooler
9. Shuttle valve
10. Non-return valve
11. Priority valve
12. Cylinder with by-pass

Pump type Assuming 4 - 6 steering wheel revolutions from port to starboard	Cylinder volume in in ³	VETUS cylinder model	Oil flow to steering pump gallon/min.	Pipe diameter mm	Bypass kit
HT1020 (4.6 in ³ /rev.)	18.3 to 27.5	up to MTC17510	7.9	Ø 10	HT3013
HT1018 (5.8 in ³ /rev.)	23.2 to 34.8	up to MT0230B	7.9	Ø 18	HT5598
HT1025 (8.8 in ³ /rev.)	35.4 to 53.1	up to MT0345B	7.9	Ø 18	HT5599
HT1038 (11.3 in ³ /rev.)	45.1 to 67.7	up to MT0455B	7.9	Ø 18	HT5611

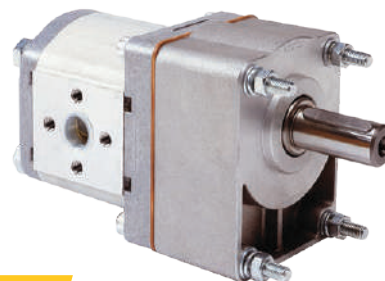


Hydraulic power steering

Hydraulic pump type HT1029

VETUS offers a fixed volume hydraulic pump, which is belt driven off the main engine. This pump can be used in conjunction with our hydraulic power steering. This pump has a built in bearing block. Its dimensions are small and are comparable with those of the alternator. The pump has a power take-off of approximately 1 kW (1.5 hp).

- Dimensions (l x w x h): 8^{21/32}" x 3^{9/16}" x 4^{7/16}" (220 x 90 x 112 mm)
- Weight: 11 lbs (5 kg)
- Shaft diameter: 5^{5/64}" (22 mm)
- Maximum shaft speed: 3,500 rpm
- Suction and pressure connections are included
- Direction: HT1029 Clockwise
HT1029CCW Counter clockwise



HT1029

HT1029CCW

If an existing engine driven pump is to be used, the hydraulic flow rate must be minimum 1.8 gal./min (7 l/min) and maximum 10.5 gal./min (40 l/min), with a maximum working pressure of 1015 psi.

Oil cooler type HT3011MP - 2 KW

If a pump with a fixed swept volume, or a high capacity is installed, or if the ambient temperature is high, a lot of heat can be generated. In these cases, the installation of an oil cooler in the return line will be required. Cooling water hose diameter Ø 2" thread.

Specifications

- Max oil flow: 40 L/min.
- Working pressure: 25 bar
- Connections for the hydraulic side 3/4" BSP, two straight screw-in fittings included
- Connections for the cooling water side 2" BSP
- Length: 13 5/16" (338 mm)



HT3011MP

Oil cooler type HPCOOLER 10 - KW

Large capacity oil cooler. Couplings for the oil connections are supplied.

Specifications

- Max oil flow: 90 L/min.
- Working pressure: 20 bar
- Connections for the hydraulic side 3/4" BSP, two straight screw-in fittings included
- Connections for the cooling water side 1 1/2" BSP
- Length: 17 3/8" (442 mm)



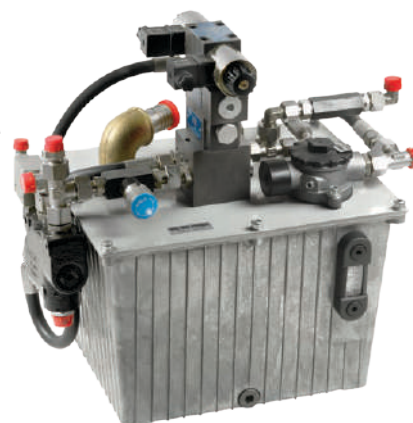
HPCOOLER

Small hydraulic tank type HT1028

VETUS power steering can be connected to an existing on board hydraulic system. However, if one is not fitted and only power steering is required, this small hydraulic tank (contents about 18 L) will be sufficient. The tank comes complete with all the necessary control components mounted on the top.

Dimensions of the tank

- Length 18^{7/64}" (460 mm)
- Width 11^{13/16}" (300 mm)
- Height 18^{1/2}" (470 mm)



HT1028

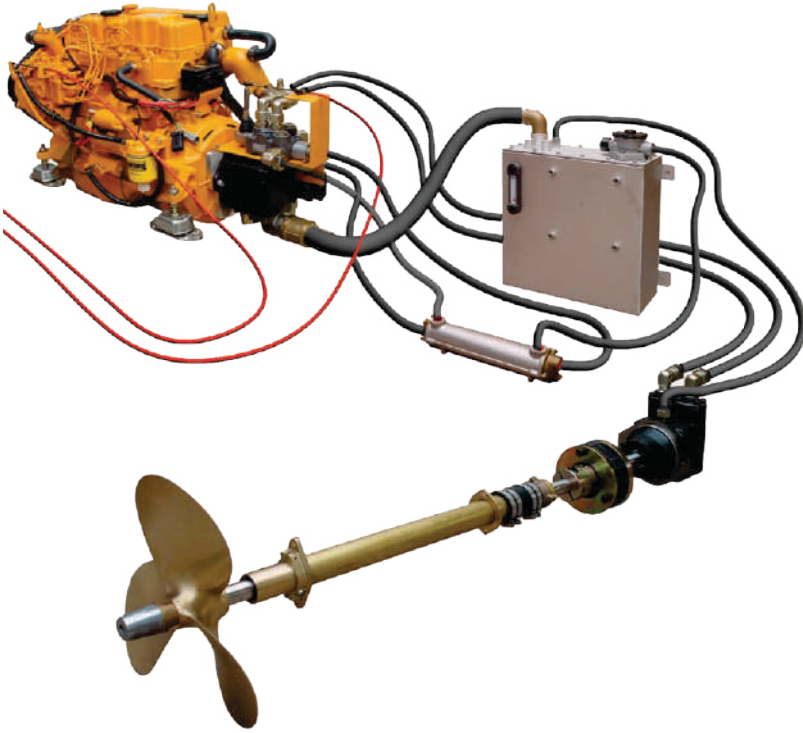
Type	Specifications
HT1028	Hydraulic tank for power steering (complete)
HT1029	Hydraulic pump with bearing block, 11.3 cm ³ /rev
HT301132	Hydraulic oil cooler for hose ID Ø 1 ^{7/64} " (32 mm)
HT3011MP	Oil cooler, 2" BSP



Power hydraulics

Hydraulic propulsion

In many cases it may be preferable to drive the propeller shaft by means of a hydraulic motor, instead of using the conventional set up of engine and gearbox.



How it works

A hydraulic vane pump is fitted to the engine in place of the gearbox. This pump draws hydraulic fluid from a storage tank and delivers it under pressure to the speed and direction control valve. The control valve determines the direction and volume of hydraulic flow to the hydraulic vane motor, which can then rotate clockwise or counter clockwise as selected. This hydraulic motor drives the propeller shaft via a flexible coupling.

The VETUS system uses a hydraulic pump and motor with fixed swept volumes. The transmission ratios (reduction) in the propulsion system are achieved by the difference in volume between the vane pump and the hydraulic motor.

The reduction between the engine RPM and the shaft RPM is 2:1 for models HPM4.35, HPM4.45 and HPM4.56 and 1.9:1 for model HPH4.65. The maximum permissible engine power is 50 kW (67 HP), with a maximum engine speed of 3.000 RPM. In most cases a shaft diameter \varnothing 1" (25 mm) will suffice. The output flange of the VETUS hydraulic motor fits all VETUS flexible couplings.

Scope of supply

VETUS hydraulic propulsion is available in four versions:
Model HPM4.35 has a VETUS M4.35 marine diesel engine of 24.3 kW (33 hp).
Model HPM4.45 has a VETUS M4.45 marine diesel engine of 30.9 kW (42 hp).

Model HPM4.56 has a VETUS M4.56 marine diesel engine of 38 kW (52 hp).

Model HPH4.65 has a VETUS VH4.65 marine diesel engine of 48 kW (65 hp).

VETUS hydraulic vane motor



Stainless steel storage tank

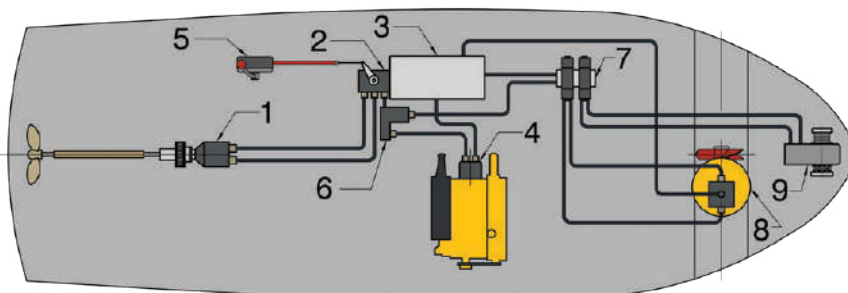


VETUS hydraulic vane pump



All versions include

- VETUS marine diesel engine as selected
- Hydraulic vane pump
- Adapter flange and coupling to fit the pump to the relevant engine
- Hydraulic vane motor
- 9.25 gal. hydraulic oil tank
- Oil cooler
- Control valve
- Flexible engine mounts
- Engine instrument panel and loom



Example System

1. Hydraulic vane motor
2. Mechanically operated control valve
3. Stainless steel storage tank
4. Hydraulic vane pump
5. Remote control handle with cable
6. Connection for ancillary devices
7. Control unit for ancillary devices
8. Bow thruster
9. Anchor windlass



Powerpack

Hydraulic powerpack

A stand-alone diesel engine with a hydraulic pump, dedicated to driving a hydraulic system

A VETUS powerpack will consist of an M or VH series diesel engine with an appropriately sized hydraulic pump (variable volume, load-sensing or vane type depending upon the application) mounted on an adapter plate in place of a gearbox.

VETUS diesel engines meet all European emission requirements. If the powerpack is entirely devoted to propulsion, then its diesel engine will be controlled by a throttle lever, but in a multiple user-device system with a load sensing pump an electronic control will be fitted to the powerpack engine.

As with all VETUS hydraulic systems, a customer support engineer will work with you to configure the powerpack and related systems to suit your vessel and its needs. There are three VETUS powerpack models available.



Model	Power engine	Max rpm	Hydr. pump
PPM435	24.3 kW / 33 HP	3000	30 cm ³ / rpm
PPM445	30.9 kW / 42 HP	3000	30 cm ³ / rpm
PPH465	48 kW / 65 HP	3000	30 cm ³ / rpm

Accessories included as standard with a VETUS Powerpack



Four flexible engine mounts.

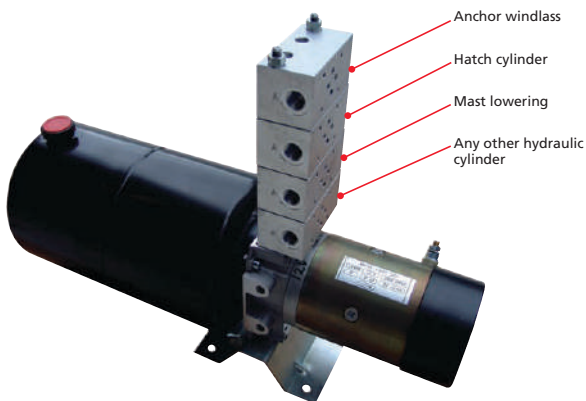


Engine instrument panel type MPA22KBS2. Including 4 m cable. A flybridge panel is available as an option.

Electric powerpacks, 12 and 24 VDC

For multiple applications

Most VETUS power hydraulic systems are designed to run from an engine driven hydraulic pump. With such a system on board, there will be enough power to operate various pieces of hydraulic equipment such as anchor windlasses, capstans, gangways etc. However, these devices can only operate when the main engine or generator is running, depending on where the pump is powered from. In certain circumstances though, it may be desirable to operate the hydraulic systems without a running engine or generator. In these cases, a VETUS electric powerpack will provide the answer: either as a stand alone system or as an additional power source in the main power hydraulics system.



These powerpacks can be supplied in various configurations: 12 or 24 VDC and with power capacities from 800 watt up to 3 kW, pump outputs, tank capacities, etc. The powerpack can be used to operate a maximum of four functions. In the example shown here, the powerpack is equipped with four NG6 base plates, to which standard VETUS solenoid control units may be connected (HT1014, HT102311, HT102312).

For the electrical operation of the powerpack and the control units, the VETUS junction box HT5034 is required together with one or more switches.

Contact your VETUS representative to discuss the configuration options.

*The electric powerpacks meets the EMC requirements.

To prevent overheating, VETUS recommends the installation of a forced air cooler for DC Powerpacks. Available in 12V DC (VENT12PP) and 24V DC (VENT24PP).



Power hydraulics

Electric powerpacks, 12 and 24 VDC

Type EHP...R2

Opening a heavy hatch was never this easy

Due to the built-in check valve and short-circuit valve, the VETUS EHP's can be used for many purposes, such as: hatch lifters, gangways, mast lowering systems, swim platforms etc.

These powerpacks are available in various executions: 12 or 24 VDC and with different pump outputs. All variants are standard supplied with a relay and wiring for reversing the direction of rotation of the pump. A set of couplings for $\frac{5}{16}$ and $\frac{3}{8}$ " (8 and 10 mm) pipes (EHPRSET..) must be ordered separately. Standard supplied with connections for 6 mm tubes.

Type	Voltage (DC)	Volume gal./min. (l/min.)	Power consumption	Max. working pressure
EHPA12R2	12	0.08 (0.35)	6.5 - 12 A	40 bar
EHPA24R2	24	0.08 (0.35)	5 - 6.5 A	40 bar
EHPB12R2	12	0.15 (0.70)	7.5 - 13.5 A	40 bar
EHPB24R2	24	0.15 (0.70)	5.5 - 7 A	40 bar
EHPC12R2	12	0.21 (0.95)	10 - 15 A	40 bar
EHPC24R2	24	0.21 (0.95)	5.7 - 10 A	40 bar

* Tank capacity 0.04 gal. (0,2 l)



Electric remote control type RECON

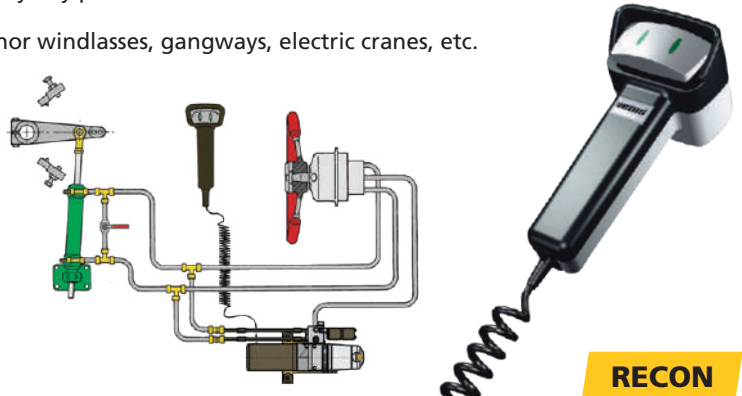
Conventional wheel operated hydraulic systems equipped with a hydraulic powerpack (e.g. the VETUS EHP) can be easily equipped with this electrically operated remote control unit from virtually any point on board. Suitable for 12/24 VDC.

Also suitable for the operation of bow or stern thrusters, anchor windlasses, gangways, electric cranes, etc.

Type RECON consists of

- A rocker switch
- 11.5 ft (3.5 m) spiraled wire with a watertight plug
- Deck connector

Type	Description
RECON	Hand held remote control for operation of: bow and stern thrusters, windlasses, etc.



Set of limit switches

To avoid damage to the steering system components, the action of any electronic or electrical steering system should be tempered by limit switches located at the rudder stops.

Type	Description
EHPESET	Set of limit switches (2 pieces)

EHPESET





Hydraulic windlasses

These hydraulic windlasses and capstans are powered by a Gerotor-type hydraulic motor with a two high pressure ports. No separate case drain is required. No electrical connections are required at the windlass or capstan. All electrical control connections are made at the control valves, most frequently located at the hydraulic reservoir tank, in or near the engine room.

Hydraulic port sizes and hydraulic hose type and diameters will be provided by your VETUS hydraulic support engineer. As with all Maxwell windlasses, the maximum pull should equal or exceed three times the total weight of the ground tackle (chain and anchor).

Please see the Maxwell windlass section of this catalogue for details of the chainwheel and warping drums, as these are common to both electric and hydraulic windlasses. In that catalogue section you will also find information about bow rollers, chain stoppers, anchors, chains, rodes and many other anchoring system components.



VWCLP

Maxwell hydraulic windlasses and capstans

Type Windlass	Maximum Pull		Chain size if applicable inch - mm	Rope size if applicable inch - mm	Hydraulic Flow		Hydraulic Pressure		Weight - topworks, gearbox, motor	
	Kg	Pounds			L/minute	US. Gallons/minute	bar	psi	Kg	Pounds
RC8-8	600	1320	5/16 - 8	5/8 - 16	20	5.3	138	2000	10.5	23
RC10-8	700	1540	5/16 - 8	5/8 - 16	20	5.3	138	2000	13.6	30
RC10-10	850	1870	3/8 - 10	5/8 - 16	20	5.3	138	2000	14	31
RC12-10	1134	2500	3/8 - 10/11	5/8 - 3/4-16/20	42	11	138	2000	26	57
RC12-12	1590	3500	1/2 - 12/13	3/4 - 20	42	11	138	2000	26	57
HRC10-8	700	1540	5/16 - 8	5/8 - 16	20	5.3	138	2000	13	28.5
HRC10-10	850	1870	3/8 - 10	5/8 - 16	20	5.3	138	2000	13	28.5
VC1000	700	1540	N/A		20	5.3	100	1450	11	24
VW1000	700	1540	1/4 to 3/8 - 6- 10		20	5.3	100	1450	15	33
VW1500	850	1870	1/4 to 3/8 - 6- 10		20	5.3	138	2000	15	33
VW2500	1135	2500	5/16 to 3/8 -9-11		36	9.5	138	2000	32	70.5
VW3500	1590	3500	3/8 to 1/2 -10-13		42	11	138	2000	40	88
VWC1000	700	1540	1/4 to 3/8 - 6- 10		20	5.3	100	1450	17	37
VWC1500	850	1870	1/4 to 3/8 - 6- 10		20	5.3	138	2000	17	37
VWC2500	1135	2500	5/16 to 3/8 -9-11		36	9.5	138	2000	32	70.5
VWC2500 Tall Drum	1135	2500	5/16 to 3/8 -9-11		36	9.5	138	2000	32	70.5
VWC3500	1590	3500	3/8 to 1/2 -10-13		42	11	138	2000	40	88
HWC2500	1135	2500	5/16 to 3/8 -9-11		36	9.5	138	2000	48.5	107
HWC3500	1590	3500	3/8 to 1/2 -10-13		40	10.6	138	2000	49	108

Check the Maxwell section page 345.



VWC



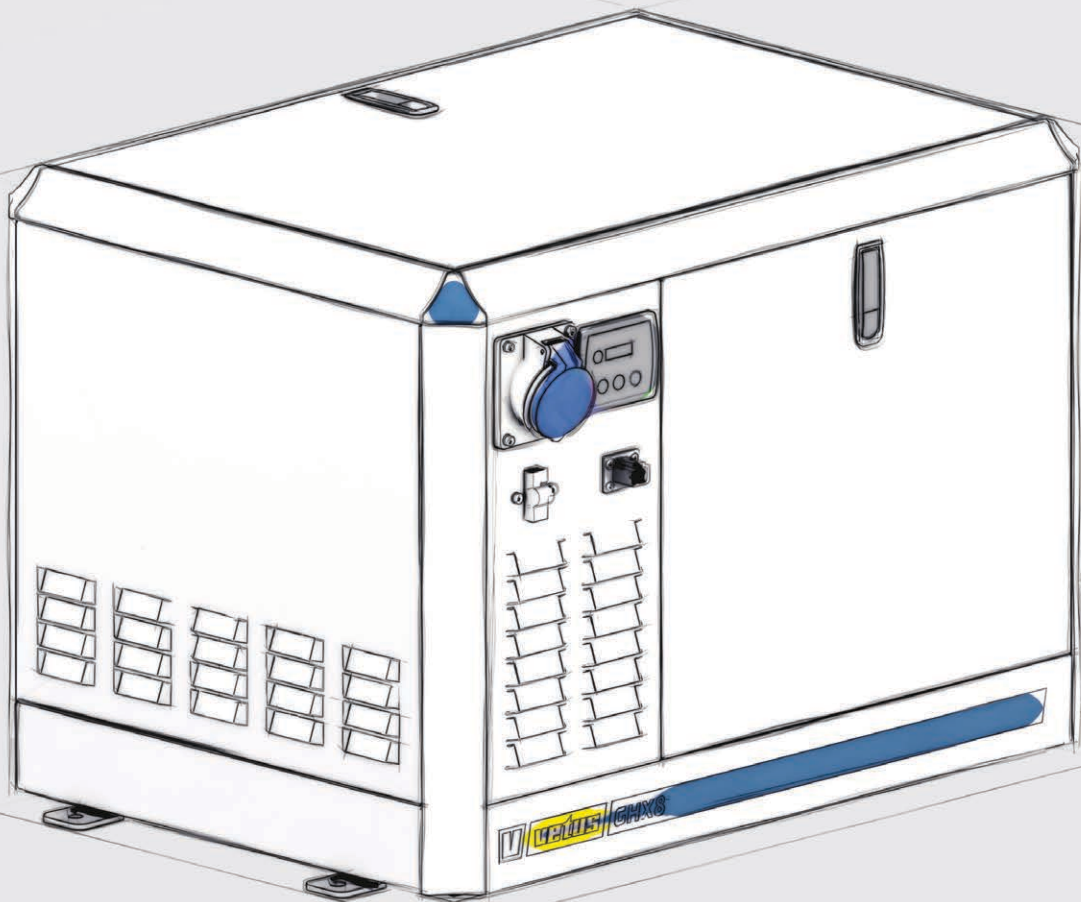
VWCLP



VC







Power on board

Overview

Diesel generator sets see page 270 - 271



GX

Battery chargers see page 272



BC

Battery splitters see page 272



BS150..C

Converters see page 273



Battery charger/maintainer see page 273



BC120517

Batteries see page 274 - 275



SMF

AGM

VEDC110TC

Accessories see page 276 - 278



ACCUSCH



BATSW250T



BATSW250



AFST1512D



BATT



Shore power see page 279 - 280



EOCABC5M



EOQSPW16S



EOQ1RCBO

Power on board

Power on board not only has an important role in creating comfortable living conditions, but also plays a vital part in safe operations. A pleasant stay on board is dependent on reliable electrical power. VETUS supplies a wide range of products that will exceed your expectations when it comes to power on board. Whenever you need power, you can rely on VETUS.

VETUS offers the following electrical system components

Generator sets

Generator sets can be used whenever a high-capacity power supply is required. All VETUS generator sets are supplied as standard with a complete exhaust system, water intake system, and a remote control panel.

Batteries

VETUS offers three different types of batteries: SMF (Sealed Maintenance Free), AGM (Absorbed Glass Mat), and the Deep Cycle Marine series. Deep Cycle Marine batteries have a very low self-discharge rate and are designed to meet varying seasonal demands.

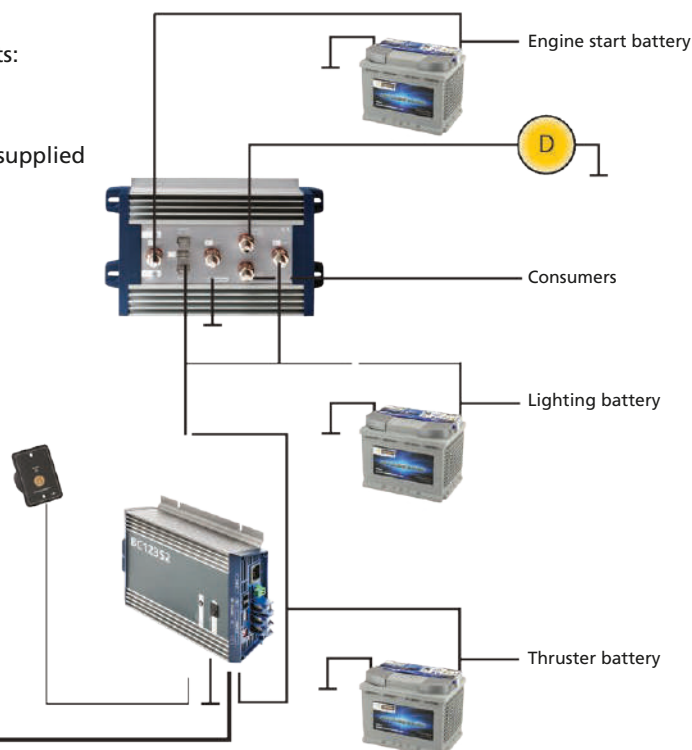
Battery chargers and splitters

Provide optimum simultaneous charging with lower cost, faster installation time, fewer cables and more space.

Why VETUS power on board

Reasons to install VETUS power on board products:

- All VETUS power on board products meet the EMC requirements
- Exceptionally quiet generators with auto-start supplied as standard



Power on board

Diesel generator sets

GX series

Reliable, easy to maintain and exceptionally quiet!

VETUS GX generators range from 6,5 kVA to 24 kVA and are available in 50 or 60 Hertz. The base engines are carefully selected for power output and fuel economy, depending on the speed and output of the generator.

These high or low fixed speed gensets can be placed even in the most confined spaces because of their compact dimensions and lower weight. The high quality of design, insulation and finish of the generators used in this range, guarantee a long reliable life time and are especially designed for marine applications.

Characteristics

- Reliable, highly efficient, engines used are all marinised in-house
- Sturdy aluminum, water-cooled engine top cover that acts as both a sound barrier and thermal insulator
- Very stable sine wave with a low signal noise < 3% and overload protection
- Easy installation and maintenance - high serviceability!
- Pre-installed connections for battery cables, fuel supply / return, exhaust, raw water and airvent
- Remote control panel (MPRGEN), including an 8 m cable, supplied as standard



MPRGEN

Specifications

- Gensets from 6,5 kVA to 24 kVA
- 50 or 60 Hertz output
- High speed (3000 / 3600 rpm) and low speed (1500 / 1800 rpm) models available
- Single phase (120 - 230 VDC) and three phase (240 - 400 VDC)
- Maximum voltage variance: plus or minus 2%
- Protection: IP55
- Max. ambient temperature: 104°F (40°C)
- Max. raw water temperature: 86°F (30°C)
- Noise level (GLX) with sound-proof box: 57 dB(A)
- Noise level (GHX) with sound-proof box: 65 dB(A) / 68 dB(A)
- Max. cont. angle of inclination:
fore and aft: 15° athwartships: 25°

All GX gensets are supplied with a digital control panel. An auto-start function to start (and stop) the generator via external devices is included as standard.



Intercooling/keelcooling

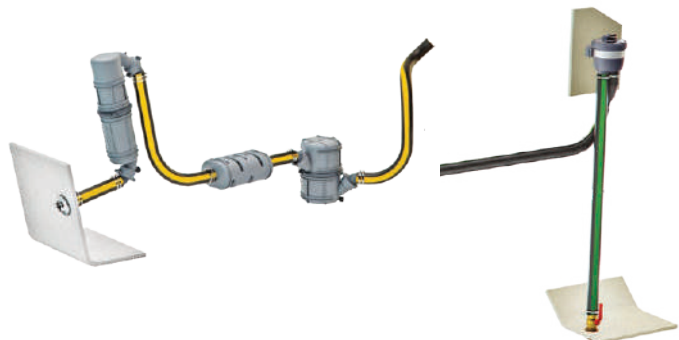
VETUS generator sets are supplied as standard in an intercooled version. As an option, our 14 and 20 kVA generator sets can be supplied in a keel-cooled version, suitable for operation in shallow or dirty waters.

Standard scope of supply

All VETUS generator sets meet EMC, Low Voltage, and Machinery Directive requirements when installed in a soundproof enclosure.

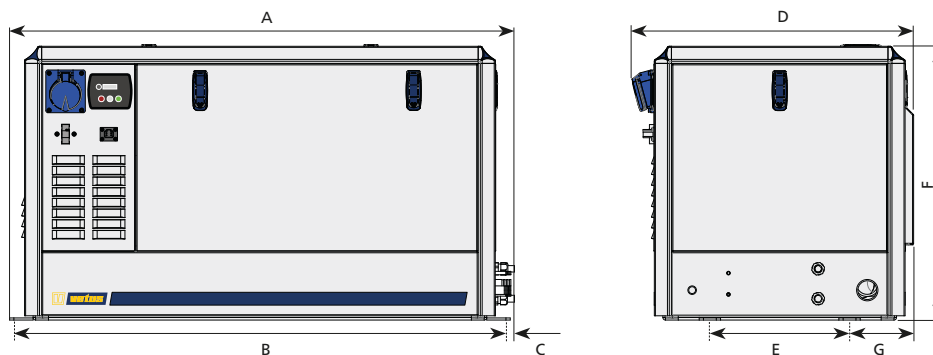
The around-the-engine package consists of: a water-lock, muffler, goose neck, transom connection, 9.8 ft. (3 m) exhaust hose, ten hose clamps, water filter type FTR330, water filter kit WKIT, and remote control panel MPRGEN.

Keel-cooled generator sets are supplied only with a remote control panel.





Diesel generator sets



Dimensions

	GLX 6/7 SIC/TIC	GHX 8/9 SIC/TIC	GHX 14/17 SIC	GHX 14/17 TIC	GLX 14/17 SIC	GLX 14/17 TIC	GLX 20/24 TIC
A (mm)	927	884	1082	1082	1172	1172	1332
B (mm)	887	844	1042	1042	1132	1132	1292
C (mm)	20	20	20	20	20	20	20
D (mm)	657	659	659	659	659	659	739
E (mm)	297	327	327	327	327	327	407
F (mm)	644	571	641	641	641	641	694
G (mm)	165	150	150	150	150	150	150

Type	Power (kVA)	Engine speed (rpm)	Frequency (Hz)	Phase	Voltage (DC)	Weight lb (kg)	Engine type
50 Hertz							
GHX8SIC	8	3000	50	Single	230	408 (185)	M2.18
GHX14SIC	14	3000	50	Single	230	630 (295)	M3.29
GHX14TIC	14	3000	50	Three	3 x 230/400	630 (295)	M3.29
GLX6,5SIC	6	1500	50	Single	115 or 230	540 (245)	M3.29
GLX14SIC	14	1500	50	Single	115 or 230	871 (395)	M4.45
GLX14TIC	14	1500	50	Three	3 x 230/400	871 (395)	M4.45
GLX14TKC	14	1500	50	Three	3 x 230/400	871 (395)	M4.45
GLX20TIC	20	1500	50	Three	3 x 230/400	025 (465)	VH4.65
GLX20TKC	20	1500	50	Three	3 x 230/400	025 (465)	VH4.65

Other frequencies and voltages on request.



Power on board

Battery chargers

Type BC

Especially designed for marine use

These battery chargers have a four stage IUoU charge program: In the first bulk charge stage, the battery receives a continuous maximum current charge. Once the battery is recharged to approximately 75% of its full capacity, the charger switches automatically to a constant voltage absorption stage for the remaining 25%.

When the battery is fully charged, the charger will maintain this charge phase for 15 minutes (providing the charge is under 6.25 % of the full charge current) and then switches over to the float charge stage. In this stage the battery charger maintains the full charge without overloading the battery. It compensates for self-discharge and "floats" any loads on the battery.

After the float stage of twelve days, the charger performs a final reconditioning stage. In this stage, the charger switches to the bulk stage for 85 minutes to ensure that the battery remains in optimum condition. The maximum charge voltage can be adjusted for all battery types via easily accessible DIP switches. These chargers are suitable for all AC power sources from 90 V to 265 V. The active Power Factor Correction (PFC) feature prevents unwanted line disturbances.

These chargers are compatible with Lead Acid, Li-ion, Gel, AGM, and Deep Cycle batteries. They include a separate alarm contact and variable fan speed for comfort. Models BC12151, BC12252, and BC12352 include a trickle charger with a maximum output of 2A.

Specifications

- Universal AC input with active PFC (90 - 264 VAC)
- Compatible with Lead Acid, Li-ion, Gel, and Deep Cycle batteries
- Voltage/temperature compensation
- High efficiency and high reliability
- Protection against short circuit, over-voltage, and over-temperature

Options

- Remote control panel type BCRC
- Battery temperature sensor BCTS

BC12...

BC24...



Type	Dimensions W x H x D inches (mm)	Standard Boost Charge Voltage (DC)	Standard Float Charge Voltage (DC)	Max Rated Current (A)	Single Output Current Limit (A)	Number of Outputs
BC12252	8 ¹ / ₁₆ x 3 ⁵ / ₁₆ x 10 ³ / ₁₆ (205 x 84 x 259)	14.4 / 14.7	13.8 / 13.5	25	25	2 (1)
BC12352	8 ¹ / ₁₆ x 3 ⁷ / ₁₆ x 11 (205 x 87 x 279)	14.4 / 14.7	13.8 / 13.5	35	35	2 (1)
BC12503	9 ⁵ / ₁₆ x 3 ⁹ / ₁₆ x 11 ⁵ / ₁₆ (237 x 90 x 288)	14.4 / 14.7	13.8 / 13.5	50	40	3
BC24253	9 ⁵ / ₁₆ x 3 ⁹ / ₁₆ x 11 ⁵ / ₁₆ (237 x 90 x 288)	28.8 / 29.4	27.6 / 27	25	25	3
BC12803	9 ⁵ / ₁₆ x 3 ⁹ / ₁₆ x 11 ⁵ / ₁₆ (237 x 90 x 288)	14.4 / 14.7	13.8 / 13.5	80	40	3
BC24403	9 ⁵ / ₁₆ x 3 ⁹ / ₁₆ x 11 ⁵ / ₁₆ (237 x 90 x 288)	28.8 / 29.4	27.6 / 27	40	40	3

Battery splitter

For optimal charging and maintenance

VETUS battery splitters charge two or three battery banks simultaneously from any charging source, with negligible voltage drop thanks to the use of MOSFET transistors instead of diodes. One discharged battery cannot discharge another battery. This battery splitter ensures automatic distribution of charging current from the alternator and/or battery charger. When the engine starts, the alternator will automatically recharge all battery banks. VETUS battery splitters also feature an auxiliary connection that provides feedback to voltage-sensing alternators.

Specifications

- Suitable for 12 and 24 VDC installations, two to three battery banks, and one or two alternators
- Maximum charging current 150A
- Input 8-30 VDC

Type	Number of inputs	Number of outputs	Maximum charging current (A)	Input voltage (DC)	Weight (kg)
BS1502C	1	2	150	8-30	1,0
BS1503C	1	3	150	8-30	1,2
BS15032C	2	3	150 (2x)	8-30	1,3



BS1502C

BS1503C

BS15032C



Converters

Type IV2412360 - IV4812360

Specifically designed for the demands of V-CAN and NMEA2000 Lines

VETUS converters are developed to convert the 24 or 48 V DC from the battery bank to a stable 12 V DC output, ensuring that the low-voltage communication lines of your vessel are properly powered by the correct voltage. Through a flawless integration, VETUS converters will meet the technical requirements of other VETUS products, such as Thrusters and E-propulsion systems, in all operating conditions.

Specifications

- Nominal Input voltage: 24 VDC and 48 VDC
- Stable 12 VDC output for CAN-bus power supply
- Easy installation with Faston .25 inch (6.3 mm) terminals
- Protected against high temperatures thanks to fan cooling
- Wide operating temperature range, from 14°F up to 104°F (-10°C up to 40°C)
- Compatible with other equipment brands up to 360 Watts
- Output of 360 Watts (15A); compatible with other equipment brands



IV2412360

IV4812360

Type	Nominal input (VDC)	Output range (VDC)	Max output power (W) / current (A)	Continuous output power (W) / current (A)	Dimensions inches (mm)
IV2412360	20 - 35	12	360 / 30	360 / 30	3 1/4 x 7 1/2 x 5 1/4 (83 x 190 x 133)
IV4812360	30 - 60	12	360 / 30	360 / 30	3 1/4 x 7 1/2 x 5 1/4 (83 x 190 x 133)
IV1224360	9 - 18	24	360 / 15	360 / 15	3 1/4 x 7 1/2 x 5 1/4 (83 x 190 x 133)
IV2424360	20 - 35	24	360 / 15	360 / 15	3 1/4 x 7 1/2 x 5 1/4 (83 x 190 x 133)

Trickle charger / battery maintainer

Type BC120517

Intelligent charging in seven stages

BC120517 controls the battery charging in seven stages ensuring optimal performance from your batteries. It has an Ingress Protection Rating IP65, so it is dust, splash and rainproof. The charger is supplied with two connection leads, terminated with either crocodile clips or ring terminals.

Stage 1 Desulfation; reduces battery sulfation

Stage 2 Soft start

Stage 3 Bulk charge

Stage 4 Absorption

Stage 5 Battery test

Stage 6 Recondition

Stage 7 Float

Specifications

- Dimensions L 6 19/64" x W 3 25/32" x H 2 1/8" (160 x 960 x 540 mm)
- Weight 1.9 lb (0,85 kg)
- Ambient temperature -20° to +50°C
- AC Voltage input 220-240 VAC, 50/60Hz
- DC output 12 VDC - 5.0 A



BC120517

Type	Description
BC120517	7-stage battery charger/maintainer



Power on board

VETUS batteries

Specially designed for use in pleasure craft

VETUS batteries are designed for seasonal use. They have a very low self-discharge rate and will therefore start easily when the new boating season begins. We strongly recommend using a float charger during winter storage. VETUS batteries can deliver both small constant loads as well as heavy but short-duration loads, such as powering a bow thruster. VETUS offers three different marine battery models, each with its own characteristics. To help you choose the right battery for your application, please consult the battery selection chart.

Battery selection chart

Application	SMF Marine Battery	AGM Marine Battery	VEDC110TC Marine Battery
Engine starting	✓✓✓✓	✓✓✓✓	✓✓✓✓
Generator starting	✓✓✓✓	✓✓✓✓	✓✓✓✓
Bow thruster	✓✓✓	✓✓✓	✓✓✓✓
Anchor windlass	✓✓✓✓	✓✓✓✓	✓✓✓✓
Pumps	✓✓✓	✓✓✓	✓✓✓✓
Use with inverter	✓	✓✓✓	✓✓✓✓
Refrigeration	✓	✓✓✓	✓✓✓✓
Air conditioning	✓	✓✓✓	✓✓✓✓
Lighting	✓	✓✓✓	✓✓✓✓
Electric propulsion	✓	✓✓✓✓	✓✓✓✓

✓ - Not recommended ✓✓ - Suitable ✓✓✓ - Recommended ✓✓✓✓ - Highly recommended



Battery selection chart

	SMF Marine Battery	AGM Marine Battery	VEDC110TC Marine Battery
General			
Maintenance free	✓	✓	✓
Deep discharge	-	✓	✓✓
Average life span	5-6 years	6-8 years	5-6 years
Number of cycles - % of discharge	350 - 35%	500 - 75%	+400 - 75%
Self discharge	< 3% per month	< 3% per month	< 3% per month
Electrolyte	Wet acid	Absorbed glass mat	Wet acid
Plate materials	Lead - calcium	Lead - calcium	Lead - calcium
VRLA (pressure relief vent)	-	✓	-
Series connection allowed	✓	✓	✓
Parallel connection allowed	✓	✓	✓
Safe transportation	-	✓	-
Maximum angle in use	55°	55°	55°
Maximum installation angle	0°	0°	0°
Charging with standard charger	✓	✓	✓

The SMF (Sealed Maintenance Free) series

Maintenance free, no need to be refilled!

- Sealed and maintenance free
- Lids which internally re-generate any gas that occurs during use or charging
- Construction based on use of lead-calcium plates which reduce water usage
- Models VESMF60, 70, 85 and 105 are equipped with a 'magic eye' which indicates the state of charge
- Manufactured in the EU





VETUS batteries

The AGM (Absorbed Glass Mat) series

Multipurpose marine batteries with long life spans

- Sealed VRLA (Valve Regulated Lead Acid) and maintenance free (does not contain any free electrolyte)
- Electrolyte is absorbed by glass fiber mat separators between battery plates
- Leakage-free even when the battery is dropped and the casing is damaged
- Battery can even be shipped by airfreight
- Manufactured in the EU



Specifications VETUS SMF batteries

Type	VESMF60	VESMF70	VESMF85	VESMF105	VESMF125	VESMF145	VESMF165	VESMF200	VESMF220
Voltage (DC)	12	12	12	12	12	12	12	12	12
Capacity C20	60 Ah	70 Ah	85 Ah	105 Ah	125 Ah	150 Ah	170 Ah	200 Ah	230 Ah
Cold Cranking Amps CCA (EN)	540 A	640 A	700 A	750 A	800 A	900 A	1050 A	1200 A	1300 A
Reserve capacity in minutes at 25A	96	116	138	160	210	250	315	400	445
Dimensions LxBxH inches	9 1/2" x 6 7/8" x 6 7/8"	10 15/16" x 6 7/8" x 6 7/8"	13 7/8" x 6 7/8" x 6 7/8"	13 9/16" x 6 7/8" x 9 1/16"	20 3/16" x 7 1/16" x 8 1 1/16"	20 3/16" x 8 3/4" x 8 3/4"	20 3/16" x 8 3/4" x 8 3/4"	20 1/4" x 10 7/8" x 9 1/2"	20 1/4" x 10 7/8" x 9 1/2"
Weight (kg)	13.9	16.3	19.8	24	33.2	38.7	42.2	54.2	56.2
BATBOX	S	M	L	L	-	-	-	-	-

Specifications VETUS AGM marine batteries

Type	VEAGM60	VEAGM70	VEAGM90	VEAGM100	VEAGM140	VEAGM170	VEAGM185	VEAGM220
Voltage (DC)	12	12	12	12	12	12	12	12
Capacity C20	60 Ah	70 Ah	90 Ah	100 Ah	135 Ah	170 Ah	195 Ah	220 Ah
Capacity C5	45 Ah	52 Ah	67 Ah	85 Ah	110 Ah	130 Ah	145 Ah	170 Ah
Cold Cranking Amps CCA (EN)	640 A	760 A	860 A	760 A	1000 A	1100 A	1200 A	1400 A
Reserve capacity in minutes at 25A	110	130	175	180	260	300	350	430
Dimensions LxBxH inches	9 1/2" x 6 7/8" x 7 1/2"	10 15/16" x 6 7/8" x 7 1/2"	13 7/8" x 6 7/8" x 7 1/2"	13 9/16" x 6 7/8" x 9 1/16"	20 3/16" x 7 1/16" x 8 3/4"	20 3/16" x 8 3/4" x 8 3/4"	20 1/4" x 10 7/8" x 9 1/2"	20 1/4" x 10 7/8" x 9 1/2"
Weight (kg)	18.6	21.2	27.8	26.8	40.7	46.6	56.2	60.7
BATBOX	S	M	L	L	-	-	-	-

VETUS Deep Cycle battery

Deep cycle batteries are ideal for applications such as electric propulsion. The VEDC110TC is a "Deep Cycle / Semi-traction" battery featuring two different types of connections: one set of conventional tapered battery clamp connections and one set of threaded connections (5/16") for cable lugs. Thicker plates inside the battery allow deeper discharging (up to 75%) compared to conventional batteries, making it suitable for cyclic applications and therefore ideal for electric boating. The VEDC110TC battery is based on a Sealed Maintenance Free battery, so the same battery chargers are applicable.



Specifications VEDC110TC

Type	
Voltage (DC)	12
Capacity C20	110 Ah
Capacity C5	90 Ah
Cold Cranking Amps CCA (EN)	700 A
Reserve capacity in minutes at 25A	200
Dimensions LxBxH inches	13 x 6 7/8 x 9 1/4
Weight (kg)	28
BATBOX	L

Specifications

- Suitable for heavy use over a longer period of time
- Two different connections
- Thicker battery plates
- Dischargeable up to 75%
- Compact
- Very suitable for electric propulsion or as a service battery
- Manufactured in the EU



Power on board

Accessories

Battery boxes type BATBOX

For all VETUS batteries

VETUS battery boxes are made of polypropylene and are available in three different sizes.

Type		Internal dimensions LxBxH inches (mm)	Recommended battery box by battery
BATBOXS	Battery box - small	10 ³ / ₆₄ " x 7 ³ / ₃₂ " x 7 ⁴³ / ₆₄ " (255 x 180 x 195)	VESMF60 - VEAGM60
BATBOXM	Battery box - medium	13 ²⁵ / ₃₂ " x 7 ³ / ₃₂ " x 7 ⁴³ / ₆₄ " (350 x 180 x 195)	VESMF70 - VEAGM70
BATBOXL	Battery box - large	9 ²⁷ / ₃₂ " x 13 ²⁵ / ₃₂ " x 6 ¹ / ₂ " (360 x 175 x 230)	VESMF85 - VESMF105 - VEAGM90 - VEAGM100



BATBOX

Battery selector switch type ACCUSCH

Famous for its multifunctional use

Depending on the switch pattern, battery 1, or battery 1 and 2, or only battery 2 will be enabled from the OFF position. The ACCUSCH switch is suitable for batteries in both single and parallel installations and can be selected and secured by turning the red knob. The ACCUSCH allows you to choose which battery will be used for which service. If one battery is discharged or defective, the other can be selected. The battery switch is suitable for use and charging of both starter and service batteries. The switch is "make before break," allowing battery selection even with the engine running (without passing through the "Off" position).

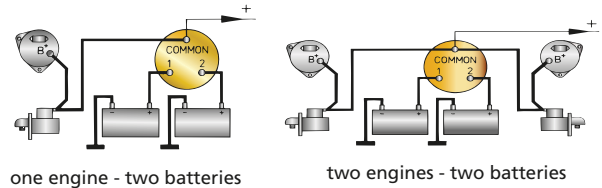


ACCUSCH

Specifications

- Capacity at 6, 12, 24 or 32 VDC
- Continuous 175A / interval 300A
- Dimensions 5⁵/₁₆" x 5⁵/₁₆" x 2⁶¹/₆₄" (135x135x75 mm)

Type	Description
ACCUSCH	Battery selector switch



Battery main switches type BATSW

Twin pole switching

BATSW can be connected to either the positive or the negative electrical cable. Two positions: "on" and "off." In the "off" position, the key can be removed (except models 150 and 600). Supplied with two M10 connectors. Model 250T is a twin-pole switch to make/break both the positive and negative cables. Model 600 is watertight in accordance with IP 67.



BATSW075

BATSW100

BATSW150R

BATSW250

BATSW250T

BATSW600

Type	BATSW075	BATSW100	BATSW150R	BATSW250	BATSW250T	BATSW600
Nominal operational (VDC)	max. 48	max. 48	max. 48	max. 48	max. 48	max. 48
Current max.:						
- Continuous operation	75 A	100 A	150 A	250 A	2 x 250 A	450 A
- 3 minutes' load						800 A
- 5 seconds' load	350 A	500 A	1000 A	2500 A	2 x 2500 A	3500 A



Accessories

Fuses and fuse holder type ZE

ZEHC is a fuse holder suitable for VETUS fuses (ZE) rated 40–500A, which use glass encapsulation to prevent splatter and fire. The fuse holder is supplied with a protective cover.

Note: ZEHC can also be used in combination with strip fuses type ZE (slow-blow fuse).



ZEHC100



ZE

Type	Description
ZEHC100	Fuse holder, type C100 including cover

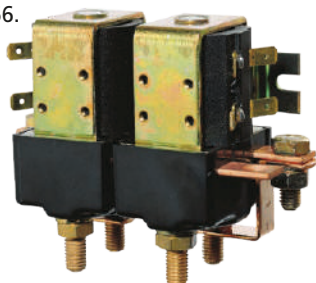
Type	Description	Amp.
ZE040	Strip fuse C20	40
ZE050	Strip fuse C20	50
ZE063	Strip fuse C20	63
ZE080	Strip fuse C20	80
ZE100	Strip fuse C20	100
ZE125	Strip fuse C20	125
ZE160	Strip fuse C20	160

Type	Description	Amp.
ZE200	Strip fuse C20	200
ZE250	Strip fuse C20	250
ZE300	Strip fuse C20	300
ZE355	Strip fuse C20	355
ZE425	Strip fuse C20	425
ZE500	Strip fuse C20	500

Make/break relay - solenoid type AFSTD and SOL

Two models of make/break relays, AFSTD and SOL, can be used to reverse the rotation direction of an electric motor (e.g., windlass) with a maximum output of 1.5 kW at 12 VDC, 3 kW at 24 VDC, and 6 kW at 24 VDC (type AFST624D).

* Type SOL is watertight to IP66.



AFST1512D

SOL1512D*

SOL324D*

AFST324D

AFST624D

Type	Description	VDC / Watt	Terminals
AFST1512D	Dual make/break relay	12 / 1500	M8
SOL1512D	Dual make/break relay	12 / 1500	M6
SOL324D	Dual make/break relay	24 / 3000	M6
AFST324D	Dual make/break relay	24 / 3000	M8
AFST624D	Dual make/break relay	24 / 6000	M10

Single relay - solenoid type AFSTS and SOL

If an electric motor has two field windings, two single relays can be used to operate the motor in either direction.

* Type SOL is watertight to IP66.



AFST1512S

SOL1512S*

SOL324S*

AFST324S

AFST624S

Type	Description	VDC / Watt	Terminals
AFST1512S	Single relay	12 / 1500	M8
SOL1512S	Single relay	12 / 1500	M6
SOL324S	Single relay	24 / 3000	M6
AFST324S	Single relay	24 / 3000	M8
AFST624S	Single relay	24 / 6000	M10



Power on board

Accessories

Battery cables type BATC

VETUS battery cables are extremely flexible and feature a PVC insulation jacket with a temperature range of -20° to +85°C. Battery cables are available in black for negative and red for positive direct current, with cross-sectional areas of 6, 10, 35, 50, 70, 95, or 120 mm².

Note: Matching battery cable tags should be ordered separately (type BATCC).



Type	Cross sectional area (mm ²)	Colour
BATC06M	6	Black
BATC10M	10	Black
BATC35	35	Black
BATC50	50	Black
BATC70	70	Black
BATC95	95	Black
BATC120	120	Black

Type	Cross sectional area (mm ²)	Colour
BATC06RM	6	Red
BATC10RM	10	Red
BATC35R	35	Red
BATC50R	50	Red
BATC70R	70	Red
BATC95R	95	Red
BATC120R	120	Red

Cable lugs for battery cables type BATCC



Type	For cable cross sections (mm ²)	Hole	Qty per set
BATCC0606	6	M6	10
BATCC0608	6	M8	10
BATCC0610	6	M10	10
BATCC1006	10	M6	10
BATCC1008	10	M8	10
BATCC1010	10	M10	10
BATCC3506	35	M6	2
BATCC3508	35	M8	2
BATCC3510	35	M10	2
BATCC5006	50	M6	2
BATCC5008	50	M8	2

Type	For cable cross sections (mm ²)	Hole	Qty per set
BATCC5010	50	M10	2
BATCC7006	70	M6	2
BATCC7008	70	M8	2
BATCC7010	70	M10	2
BATCC9508	95	M8	2
BATCC9510	95	M10	2
BATCC9512	95	M12	2
BATCC1210	120	M10	2
BATCC1212	120	M12	2
BATCC1510	150	M10	2
BATCC1512	150	M12	2

Battery terminal sets type BATT

Suitable for cables with cross sections of $\frac{1}{32}$ (16 mm²) - $\frac{3}{64}$ in² (35 mm²) $\frac{1}{64}$ in² (50 mm²) - $\frac{9}{64}$ in² (95 mm²) and up to $\frac{15}{64}$ in² (150 mm²). Supplied with a M10 bolt for a cable up to $\frac{15}{64}$ in² (150 mm²). Made of tinned brass with a stainless steel nut and bolt.

Type	Description
BATT1635	Terminal set for cable $\frac{1}{32}$ - $\frac{3}{64}$ in ² (16 - 35 mm ²), set of 2
BATT5095	Terminal set for cable $\frac{5}{64}$ - $\frac{9}{64}$ in ² (50 - 95 mm ²), set of 2
BATT150	Terminal with M10 bolt, for cable up to $\frac{15}{64}$ in ² (150 mm ²), set of 2





Shore power

The shore connection system consists of two sets of similar accessories: the first includes products to ensure a high-quality shore connection, and the second includes quick-connection parts to minimize installation time when fitting a shore connection on your boat. To save time, please select only quick-connect parts.

Shore connection parts

Shore cables

Type	Description	Length ft (m)	Max. rating
EOCABC5M	CEE shore power cable IP44, H07BQ-F 3G 2.50 mm ² PUR	16.4 (5)	16A
EOCABC15M	CEE shore power cable IP44, H07BQ-F 3G 2.50 mm ² PUR	49.2 (15)	16A
EOCABX15M	CEE-CEE extension power cable, H07BQ-F 3G 2.50 mm ² PUR	49.2 (15)	16A



EOCABX15M



EOCABC5M

EOCABC15M

Adapter cord set

Type	Description
EOADAP	CEE-Schuko EURO adapter cable 16A, cable length 3.3' (0,3 m)



EOADAP

Shore power cord dock / rail clip

Type	Description
EOCLDSET	Dock clip shore power 16A cable (set of 6 pieces) incl. mounting screws
EOCLRSET	Rail clip shore power 16A cable (set of 6 pieces)



EOCLDSET



EOCLRSET

Shore power inlets

Type	Description
EOSPW16S	Shore power wall inlet 16A, polished IP56, flush mounted Stainless steel AISI 316
EOSPW16W	Shore power wall inlet 16A, white IP56, flush mounted Polyamide



EOSPW16S



EOSPW16W

Shore power inlets quick connect system

Type	Description
EOQSPW16S	Quick connect - Shore power wall inlet 16A, polished IP56, flush mounted Stainless steel AISI 316
EOQSPW16W	Quick connect - Shore power wall inlet 16A, white IP56, flush mounted Polyamide



EOQSPW16S



EOQSPW16W

RCBO Cabinet

Type	Description
EO1RCBO	Electrical Cabinet RCBO single Schuko wall socket 30mA/16A Housing IP65



EO1RCBO



Power on board

Shore power

RCBO Cabinet quick connect

Type	Description
EOQ1RCBO	Quick connect - Electrical Cabinet RCBO, 30mA/16A Housing IP65

EOQ1RCBO



Galvanic isolator quick connect

Type	Description
EOQISOLA	Quick connect - Galvanic isolator. Max. rating 16A

EOQISOLA



Splitter quick connect

Type	Description
EOQSPLIT	Quick connect system splitter 1 to 3. Max. rating 16A

EOQSPLIT



Extension cables quick connect

Type	Description	Length ft (m)	Max. rating
EOQCABX1M	Quick connect system extension cable 1 meter 20A, H07RN-F 3G 2.50 mm ²	3.3 (1)	20A
EOQCABX3M	Quick connect system extension cable 3 meter 20A, H07RN-F 3G 2.50 mm ²	10.8 (3)	20A
EOQCABX5M	Quick connect system extension cable 5 meter 20A, H07RN-F 3G 2.50 mm ²	16.4 (5)	20A

EOQCABX1M



Wall socket

Type	Description
EOW1RFS	Schuko wall socket 16A, polished steel

EOW1RFS



Wall sockets quick connect

Type	Description
EOQW1NFW	Quick connect - Schuko wall socket 16A, white flush mounted
EOQW1NFB	Quick connect - Schuko wall socket 16A, black flush mounted

EOQW1NFW



EOQW1NFB



Type	Description
EOQW1RFS	Quick connect - Schuko wall socket 16A, polished IP56, flush mounted, Stainless steel AISI 316

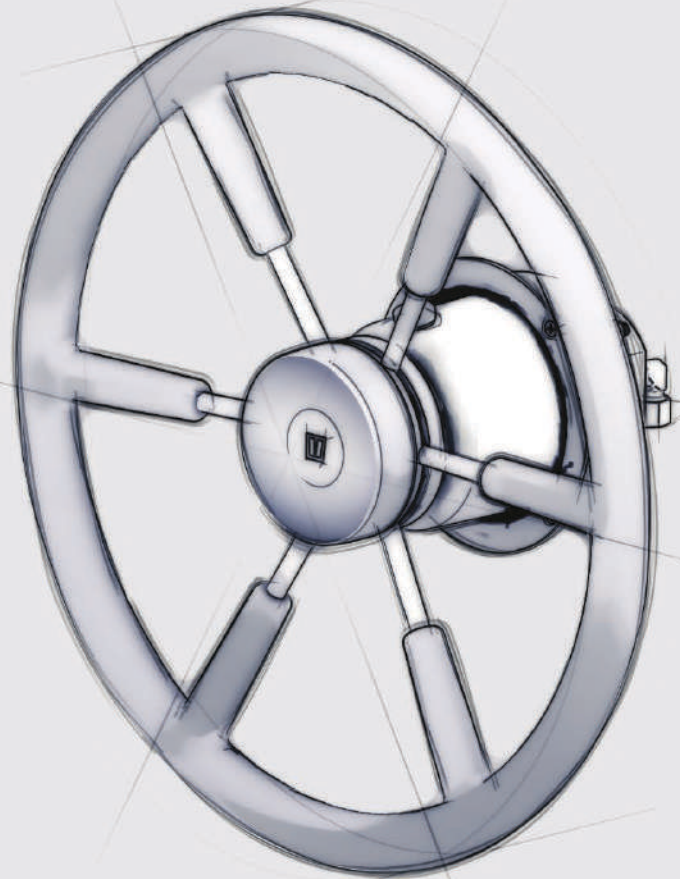
EOQW1RFS



Type	Description
EOQW2NSG	Quick connect - Schuko wall socket 16A, grey IP55, wall mounted

EOQW2NSG

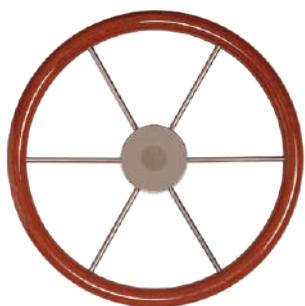




Steering systems

Overview

Steering wheels see page 284 - 288



KW



KWL



PRO40P



PRO40T



KS38



KS36



SWALB



SWCRUISER

Steering pumps see page 291

HTP.B



HTP



Steering cylinders see page 292 - 297

MTC5210



MT0230B



OBC115A - OBC250A





Accessories see page 299 - 300



K30/140B



BYPASS



HHOSE



HS10131



HS145S



COPPER

Rudders see page 300 - 301



RUDS



HELM



HENKO



Steering systems

Steering wheels

Mahogany steering wheels - Type KW / KWL

This mahogany steering wheel range now has five models from 14^{15/16}" (380 mm) to 31^{7/8}" (810 mm) diameter.

The spokes and hubcap are made from stainless steel (AISI 316). The hub itself is made from seawater resistant aluminium. The beautiful rim is constructed from high gloss lacquered mahogany. Type KWL also features lacquered mahogany spoke sleeves.

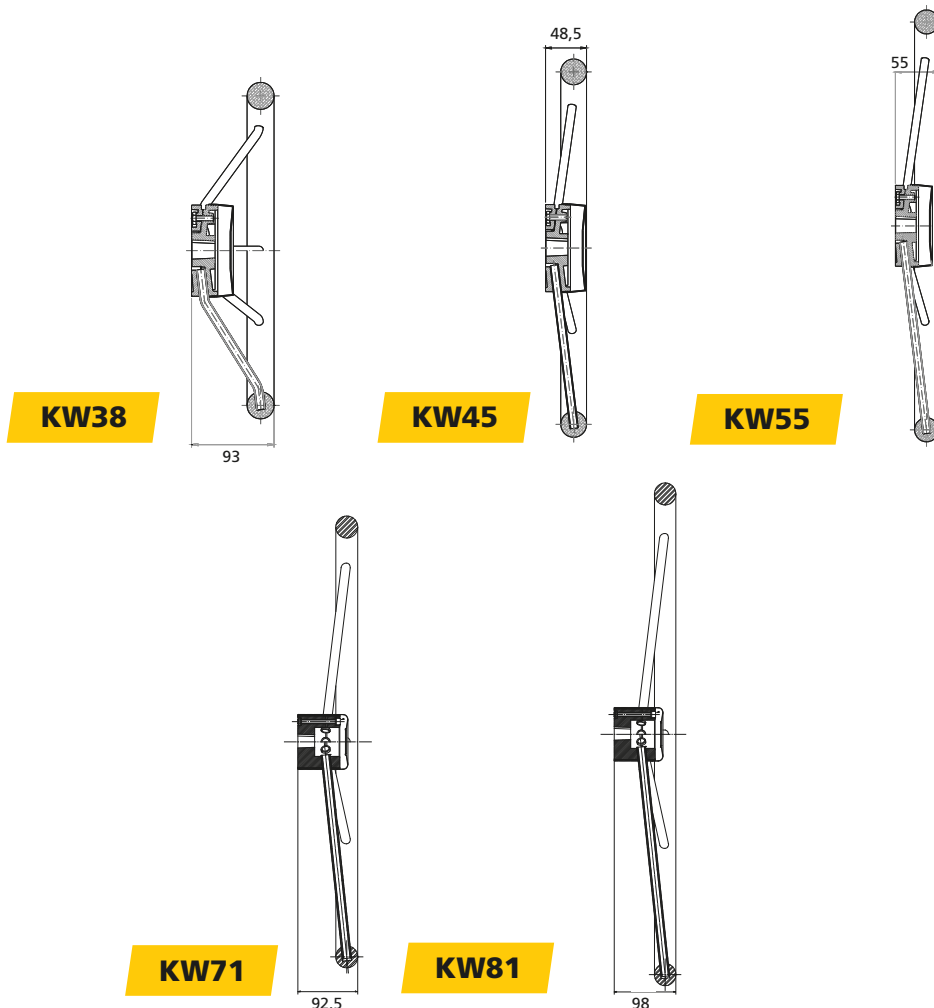
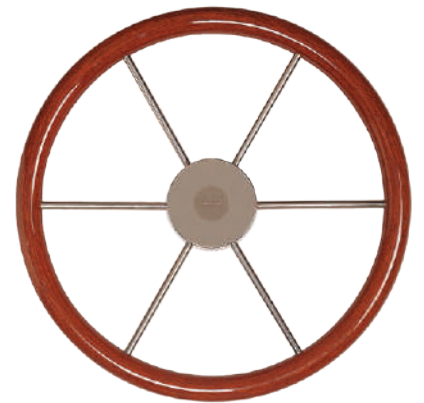
Characteristics

- KW series are available in the following diameters: 14^{15/16}", 17^{11/16}", 21^{5/8}", 27^{15/16}" and 31^{7/8}" (380, 450, 550, 710 and 810 mm)
- High-quality mahogany rim paired to stainless steel (AISI 316) spokes and hubcap
- Aluminium hub bored 3/4" (19 mm) with 1:12 taper as standard

An alternative hub to suit older VETUS steering pumps with a Ø 1" hole shaft and 3½:12 taper is also available. Product code: SETKS1*.

***Note:** Not suitable for steering wheel KW71 and KW81.

Type	Description	Ø inches (mm)	Ø shaft inches (mm)	Tapered
KW38	Steering wheel with mahogany rim	14 ^{15/16} (380)	¾ (19)	1:12
KW45	Steering wheel with mahogany rim	17 ^{11/16} (450)	¾ (19)	1:12
KW55	Steering wheel with mahogany rim	21 ^{5/8} (550)	¾ (19)	1:12
KW71	Steering wheel with mahogany rim	27 ^{15/16} (710)	¾ (19)	1:12
KW81	Steering wheel with mahogany rim	31 ^{7/8} (810)	¾ (19)	1:12



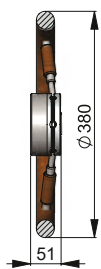


Steering wheels

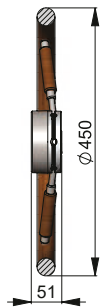
Type KWL

With a mahogany rim

Type	Description	Ø inches (mm)	Ø shaft inches (mm)	Tapered
KWL38	Steering wheel with mahogany rim and spokes	14 ¹⁵ / ₁₆ (380)	¾ (19)	1:12
KWL45	Steering wheel with mahogany rim and spokes	17 ¹¹ / ₁₆ (450)	¾ (19)	1:12
KWL55	Steering wheel with mahogany rim and spokes	21 ⁵ / ₈ " (550)	¾ (19)	1:12



KWL38



KWL45



KWL55



Steering systems

Steering wheels

Type PRO

The perfect match for traditional and modern boats

Type PRO has two models. Type 'T' with a satin-gloss varnished teak rim and type 'P' with a semi-hard polyurethane rim which will keep your hands warm. Both models have substantial spokes and a hub cover made of high-gloss polished stainless steel (AISI 316). The hub itself is made of synthetic material and bored for a $\varnothing \frac{3}{4}$ " shaft with 1:12 taper which will fit most steering systems. These steering wheels are according to the CE and ABYC directives.

Specifications

- Available with overall diameters of 16", 20" or 24" (400, 500 or 600 mm)
- Outer rim $\varnothing 1\frac{1}{4}$ " (32 mm)

Note: An alternative hub to suit older steering pumps with a $\varnothing 1$ " hole shaft and $3\frac{1}{2}$:12 taper is also available (product code: SETPS1).

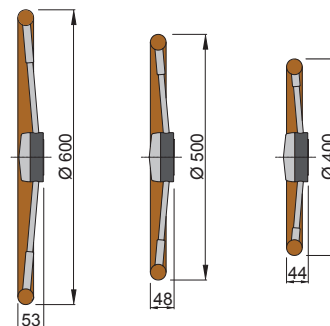


PRO..P



PRO..T

Type	Description	\varnothing inches (mm)	\varnothing Outer rim inches (mm)
PRO40P	Polyurethane rim steering wheel	16 (400)	1 $\frac{1}{4}$ (32)
PRO50P	Polyurethane rim steering wheel	20 (500)	1 $\frac{1}{4}$ (32)
PRO60P	Polyurethane rim steering wheel	24 (600)	1 $\frac{1}{4}$ (32)
PRO40T	Teak steering wheel	16 (400)	1 $\frac{1}{4}$ (32)
PRO50T	Teak steering wheel	20 (500)	1 $\frac{1}{4}$ (32)
PRO60T	Teak steering wheel	24 (600)	1 $\frac{1}{4}$ (32)



PASBUS

All VETUS wheels and steering pumps have a $\varnothing \frac{3}{4}$ " bore, with a 1:12 taper. The PASBUS is a tapered bushing that can be applied to the $\frac{3}{4}$ " shaft of a steering pump so that it can receive a wheel with a 1" bore. This allows wheels made by others to be installed on our pumps.



PASBUS



Steering wheels

Type KS

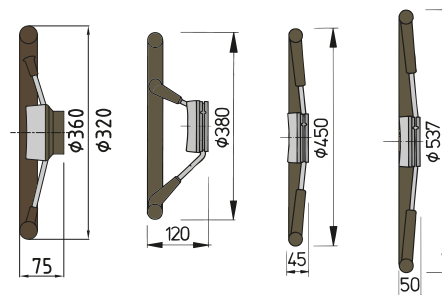
No more cold hands

Model KS has stainless steel (AISI 316) rims, spokes, and cap. The rims have a layer of semi-hard PU-foam with a smooth surface. These soft-feel wheels are resistant to all weather conditions.

Specifications

- Available with overall diameters of 12⁵/₈" , 14³/₁₆" , 14¹⁵/₁₆" and 21⁵/₈" (320, 360, 380, 450 and 550 mm)
- All type KS wheels are supplied in the colours gray (RAL 7040) or black
- Bored for Ø ¾" shaft, tapered 1:12

Type	Description	Ø inches (mm)	Ø shaft inches (mm)	Tapered
KS32G	Grey	2 ⁵ / ₈ (320)	¾ (19)	1:12
KS32Z	Black	2 ⁵ / ₈ (320)	¾ (19)	1:12
KS36G	Grey	14 ³ / ₁₆ (360)	¾ (19)	1:12
KS36Z	Black	14 ³ / ₁₆ (360)	¾ (19)	1:12
KS38G	Grey	14 ¹⁵ / ₁₆ (380)	¾ (19)	1:12
KS38Z	Black	14 ¹⁵ / ₁₆ (380)	¾ (19)	1:12
KS45G	Grey	17 ¹¹ / ₁₆ (450)	¾ (19)	1:12
KS45Z	Black	17 ¹¹ / ₁₆ (450)	¾ (19)	1:12
KS55G	Grey	21 ⁵ / ₈ " (550)	¾ (19)	1:12
KS55Z	Black	21 ⁵ / ₈ " (550)	¾ (19)	1:12



Note: An alternative hub to suit older steering pumps with a Ø 1" hole shaft and 3/2:12 taper is also available (product code: SETKS1).



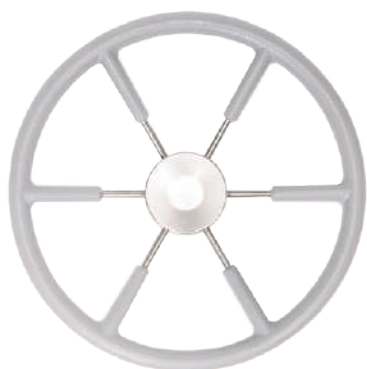
KS32G **KS32Z**



KS36G **KS36Z**



KS38G **KS38Z**



KS45G **KS45Z**



KS55G **KS55Z**



Steering systems

Steering wheels

SW Series

Made from high-quality polyurethane rubber, leather, wood and polished aluminium, these six steering wheels each emit their own vibe. From the classic wooden Tectona, to the futuristic Argentus and the minimalistic Ravus: all styles are represented. Dimensions are kept small to maximize feel and enforce the sporty image, ranging from 11¹³/₁₆ to 13³/₄" (310 to 350 mm). All steering wheels feature a classy chromed ABS centre cap with the distinctive 'V' logo. Upgrade your interior with one of these stylish steering wheels.

The purpose-built and sporty appearance of the steering wheels complements your boat and with the materials used, they are built to last.

Specifications

- SW series is available in the following diameters: 11¹³/₁₆", 12⁵/₈", 13 and 13³/₄" (300, 320, 330 and 350 mm)
- Six models in different colors to suit all vessels
- High-quality polyurethane rim paired to polished aluminium spokes and hubcap
- High-quality wooden rim paired to polished aluminium spokes and hubcap
- Bored for Ø 3/4" shaft, tapered 1:12.

Type	Description	Diameter inches (mm)	Colour / Material
SWALB30	Steering wheel "Albus"	12 ³ / ₁₆ (310)	White leather
SWTEC35	Steering wheel "Tectona"	13 ³ / ₄ (350)	Wood
SWALT33	Steering wheel "Alter"	13 (330)	Black polyurethane rubber
SWRAV33	Steering wheel "Ravus"	13 (330)	Gray polyurethane rubber
SWARG32	Steering wheel "Argentus"	12 ⁵ / ₈ (320)	Black p.u. rubber w/ chrome inserts
SWNOC35	Steering wheel "Noctis"	13 ³ / ₄ (350)	Black p.u. rubber w/ chrome inserts



SWALB30



SWTEC35



SWALT33



SWRAV33



SWARG32



SWNOC35

Type SWCRUISER

Cruiser steering wheel

A three-spoke steering wheel finished in silver aluminium accents and a diameter of 350 mm. Bored for Ø 3/4" shaft, tapered 1:12.

Type	Ø inches (mm)
SWCRUISER	13 ³ / ₄ (350)

SWCRUISER





How to determine the correct VETUS steering

Various combinations of boat speed, rudder blade surface area and balance sections apply a variety of forces on steering systems. Furthermore the dynamic influences of wind and currents cause steering systems to be continuously used under sometimes harsh conditions.

A skipper is dependent on the steering system and therefore it must be reliable under all circumstances. The design of the steering system determines how rapidly the vessel responds to helm movements. Fast light boats react quickly to small rudder movements, while a slow, heavy displacement boats will usually be set up to require more wheel movement for a given change of course. A thoughtful calculation of a steering system is therefore essential.

This section explains how the appropriate steering system can be determined for any boat. Make your choice from a wide range of steering wheels and steering systems.

Rudder torque

The choice of the correct cylinder is determined by the rudder torque in Nm (or kg). The rudder torque is the determining factor (Torque = force x lever). To ascertain the correct rudder torque, only the maximum speed of the boat, the surface area of the rudder blade and the maximum rudder angle (in degrees) are of importance. Information such as length of boat and engine power are irrelevant. With a few exceptions, the rudder performs best with a maximum rudder angle of 35° to either side. Contrary to what is sometimes claimed for rudders with normal dimensions, a larger rudder angle does not enhance the maneuvering capabilities of a boat.

We will be pleased to provide you with recommendations for all steering system components, based on the maximum speed of the boat and a dimensioned sketch or the rudder (provided by you).

The formula to determine the rudder torque:

M (torque) = F x b (per rudder)

In other words: the force F, which is applied to the rudder (given in Newton = N), is being multiplied by the lever "b", being the distance between the center line of the rudder stock and the centre of pressure which lies on the line X-Y.

F (the force applied to the central line XY) – taking into consideration a maximum rudder angle of 2 x 35° – is constituted in the following manner:

F = 23.3 x A x v² in Newton (N), or: F = 2.33 x A x v² in kgf.

A = total surface area of rudder blade in m².

v = speed in km/hour.

A rudder **without** balance section requires the formula:

b = 0.37 (1.21 ft.) x c (in metres);

A rudder **with** balance section calls for the formula:

b = (0.37 (1.21 ft.) x c) - e (in metres).

Calculation example of one rudder with balance section

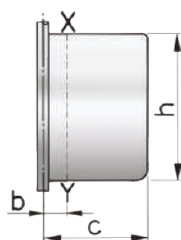
The maximum speed of the boat is 16 km/hour (v); the total width of the rudder blade is 57 cm (c); the width of the balance section is 9 cm (e); the height of the rudder blade is 100 cm (h).

F = 23.3 (1.67 lbf) x 0.57 (1.9 lbf) x 1.00 (3.3 lbf) x 16² (92 lbf) = 3400 N (340 kgf)

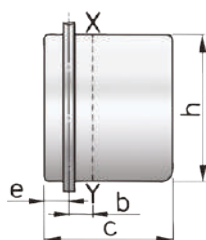
b = (0.37 (1.21 ft.) x 0.57 (1.87 ft.)) - 0.09 (0.3 ft.) = 0.12 (0.39 ft.) m.

Therefore, the rudder torque amounts to 3400 x 0.12 = 408 Nm (41 kgm) (848 x 0.403 = 342 ft.lb.). So, the hydraulic steering to be selected in this case is model MTC52. With a twin rudder installation, the required torque is 2 x 408 Nm = 816 Nm, which makes model MTC125 the one to choose. We recommend that you consult us for an accurate calculation. We also calculate the effects of the propeller wash, as well as the torque when going astern. Because smaller boats tend to respond quite sharply to the rudder commands, the maximum rudder torque is not used and a reduction of 10 to 20% off the calculated maximum torque is quite acceptable most of the time. Be careful: some manufacturers of hydraulic steering have already taken such reduction into account when stating their capacity (torque). We are of the opinion however, that the choice of whether or not such reduction should be applied, is exclusively the option of the naval architect.

All VETUS steering systems meet the CE ISO 8848 standard



Rudder without balance section



Rudder with balance section



Steering systems

Steering system configurations

Below you will find examples of steering systems with one or two steering positions and one or two rudders, with or without non return valves.

Single steering position base system components

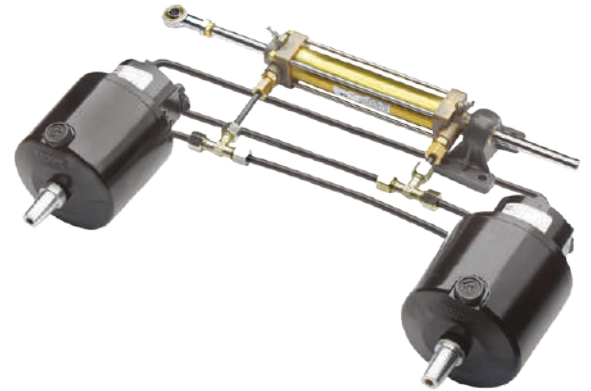
One steering pump with or without built-in non-return valves

- One cylinder
- One steering pump
- Hydraulic tubing (with end fittings) and fluid
- Optional: Separate dual non-return valve or by-pass valve (see below)



Dual steering positions base system components

- Two steering pumps with built-in non-return valves
- Alternatively: two steering pumps without non-return valves, in which case a separate dual non-return valve block must be fitted
- One cylinder
- Two T- pieces
- Hydraulic tubing (with end fittings) and fluid
- Optional: By-pass valves (see below)



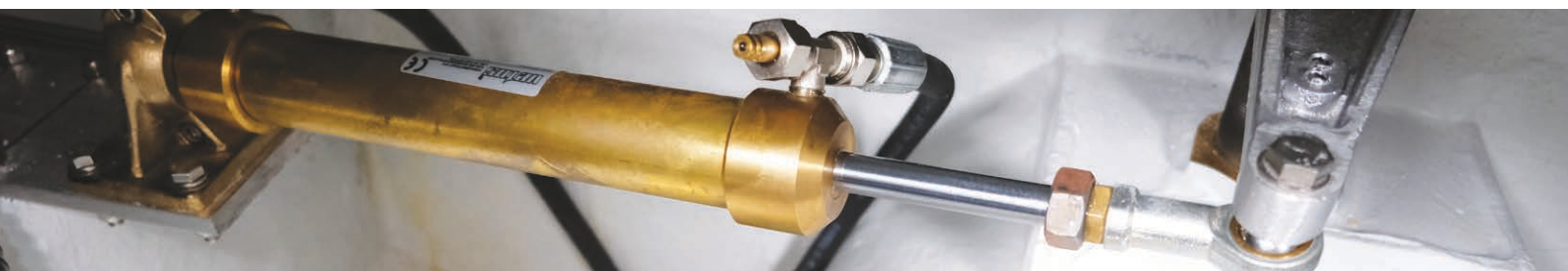
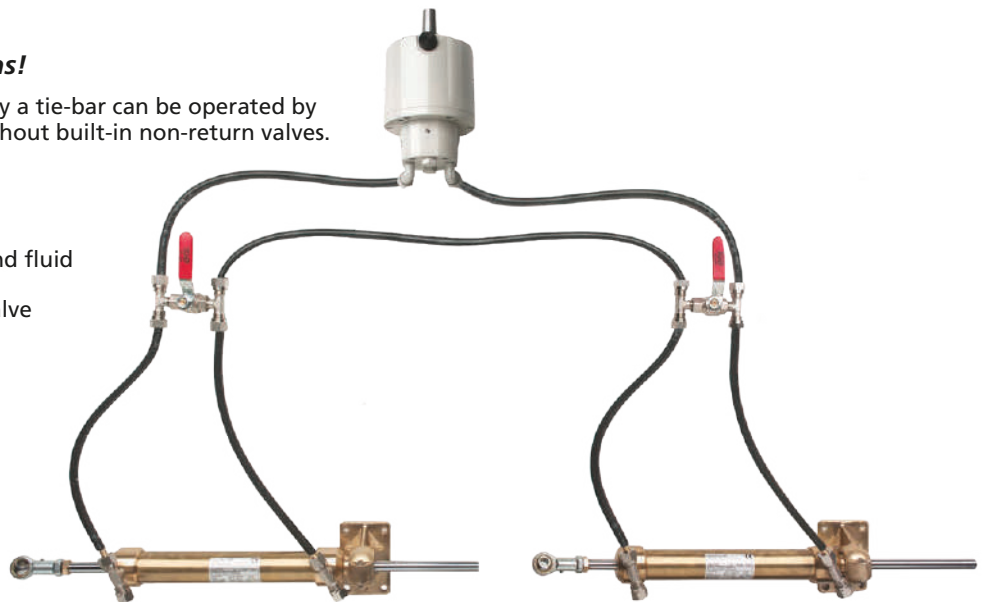
Dual rudder steering

Specifically suitable for catamarans!

Dual rudders which are not connected by a tie-bar can be operated by two cylinders and one pump with or without built-in non-return valves.

Specifications

- Two cylinders
- One steering pump
- Hydraulic tubing (with end fittings) and fluid
- Two by-pass valves
- Optional: Separate dual non-return valve





Steering pumps

HTP and HTPR

These hydraulic steering pumps are suitable for almost all steering wheels (see pages 284 - 288) and have a $\varnothing 3/4"$ shaft, tapered 1:12. Available in black or white.

Both types are supplied with

- Compression fittings (for the pressure lines) and a balance pipeline port
- Mounting studs, nuts and washers
- One vented and one un-vented filler plug

Type HTPR has in addition

- An integrated non-return valve with continuous air bleeding system
- An integrated pressure relief valve for protection against over pressurization of the system



HTP.B

HTP

VETUS offers two different types of steering pumps

Types HTP 20/30/42

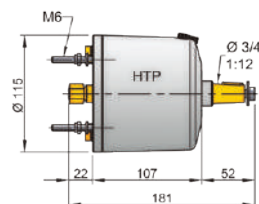
A steering pump without non-return valves.



HTP20

HTP30

HTP42



HTP

Steering pumps without non return valves

Type	Color	Ø inches (mm) tubing	Capacity in ³ (cm ³)/rev.	Number of pistons	Weight without valve lb (kg)	Min/Max. steering wheel diameter*
HTP2010	White	3/8 (10)	1.2 (19.7)	5	7.2 (3.3)	14/28 inches
HTP3010	White	3/8 (10)	1.8 (30.0)	5	7.2 (3.3)	14/28 inches
HTP4210	White	3/8 (10)	2.5 (42.0)	7	7.2 (3.3)	18/28 inches
HTP2010B	Black	3/8 (10)	1.2 (19.7)	5	7.2 (3.3)	14/28 inches
HTP3010B	Black	3/8 (10)	1.8 (30.0)	5	7.2 (3.3)	14/28 inches
HTP4210B	Black	3/8 (10)	2.5 (42.0)	7	7.2 (3.3)	18/28 inches

* Smaller steering wheels may always be installed, although this will increase steering effort.

Type HTPR 20/30/42

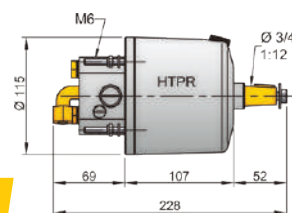
A steering pump with integrated non-return valve and pressure relief valves.



HTP20R

HTP30R

HTP42R



HTPR

Steering pumps with non return valves

Type	Color	Ø inches (mm) tubing	Capacity in ³ (cm ³)/rev.	Number of pistons	Weight without valve lb (kg)	Min/Max. steering wheel diameter*
HTP2010R	White	3/8 (10)	1.2 (19.7)	5	90.3 (4.1)	14/28 inches
HTP3010R	White	3/8 (10)	1.8 (30.0)	5	90.3 (4.1)	14/28 inches
HTP4210R	White	3/8 (10)	2.5 (42.0)	7	90.3 (4.1)	18/28 inches
HTP2010RB	Black	3/8 (10)	1.2 (19.7)	5	90.3 (4.1)	14/28 inches
HTP3010RB	Black	3/8 (10)	1.8 (30.0)	5	90.3 (4.1)	14/28 inches
HTP4210RB	Black	3/8 (10)	2.5 (42.0)	7	90.3 (4.1)	18/28 inches

* Smaller steering wheels may always be installed, although this will increase steering effort.

Steering systems

Cylinders

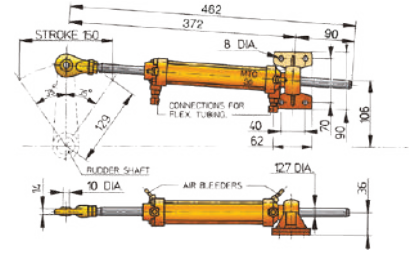
The cylinders below are supplied as standard with zinc plated steel rod ends. Stainless steel (AISI 316) rod ends are available as an option.

Type MTC3008



Type	Ø inches (mm) tubing
MTC3008	5/16 (8)

MTC3008

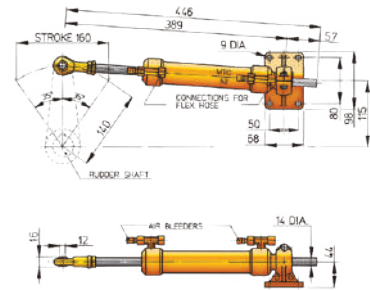


Type MTC5210



Type	Ø inches (mm) tubing
MTC5210	3/8 (10)

MTC5210



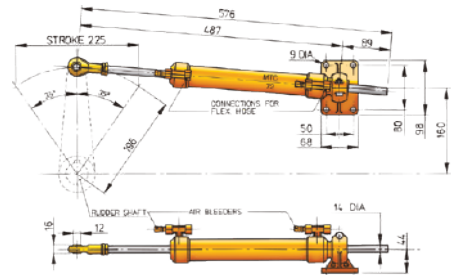
Type MTC7210



Type	Ø inches (mm) tubing
MTC7210	3/8 (10)
MTC7210SL	3/8 (10)

MTC7210

MTC7210SL

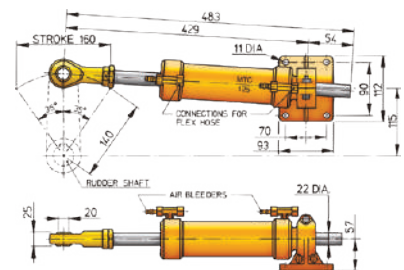


Type MTC12510



Type	Ø inches (mm) tubing
MTC12510	3/8 (10)

MTC12510

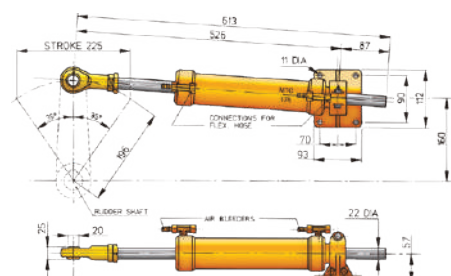


Type MTC17510



Type	Ø inches (mm) tubing
MTC17510	10









MTC17510





Steering pumps and cylinders

This table shows combination of pumps and cylinders.

			
	Pump type 20	Pump type 30	Pump type 42
Cylinder type MTC3008	Wheel turns 3.4		
<ul style="list-style-type: none"> Stroke 6¹⁹/₆₄" (160 mm) Volume 4.0 cu.inch (67 cm³) Length of tiller arm 5¹/₂" (140 mm) Weight 3.9 lb (1.8 kg) 	<ul style="list-style-type: none"> Max. Torque 294Nm (30kgm) (216ft.lbs). Torque at 35° and 56kg/cm² 241Nm (24,6kgm) (178ft.lbs) Tubing nylon hose Ø 1/4" (6 mm) x Ø 5/16" (8 mm) 	N/A	N/A
Cylinder type MTC5210	Wheel turns 5.3	Wheel turns 3.5	
<ul style="list-style-type: none"> Stroke 6¹⁹/₆₄" (160 mm) Volume 6.3 cu.inch (104 cm³) Length of tiller arm 7³/₄" (196 mm) Weight 7.4 lb (3.4 kg) 	<ul style="list-style-type: none"> Max. Torque 510Nm (52kgm) (376ft.lb). Torque at 35° and 56kg/cm² 412Nm (42kgm) (304ft.lb) Tubing nylon hose Ø 1/4" (6 mm) x Ø 3/8" (10 mm) copper Ø 5/16" (8 mm) x Ø 3/8" (10 mm) 	<ul style="list-style-type: none"> Max. Torque 510Nm (52kgm) (376ft.lb). Torque at 35° and 56kg/cm²: 412Nm (42kgm) (304ft.lb) Tubing: nylon hose Ø 1/4" (6 mm) x Ø 3/8" (10 mm) or Ø 5/16" (8 mm) x Ø 1/2" (12 mm) copper Ø 5/16" (8 mm) x Ø 3/8" (10 mm) 	N/A
Cylinder type MTC7210	Wheel turns 7.5	Wheel turns 4.9	Wheel turns 3.5
<ul style="list-style-type: none"> Stroke 8⁷/₈" (225 mm) Volume 8.9 cu.inch (146 cm³) Length of tiller arm 7³/₄" (196 mm) Weight 8.4 lb (3.8 kg) 	<ul style="list-style-type: none"> Max. Torque: 706Nm (72kgm) (521ft.lb). Torque at 35° and 56kg/cm²: 589Nm (60kgm) (434ft.lb) Tubing: nylon hose Ø 1/4" (6 mm) x Ø 3/8" (10 mm) copper Ø 5/16" (8 mm) x Ø 3/8" (10 mm) 	<ul style="list-style-type: none"> Max. Torque 706Nm (72kgm) (521ft.lb). Torque at 35° and 56kg/cm²: 589Nm (60kgm) (434ft.lb) Tubing: nylon hose Ø 1/4" (6 mm) x Ø 3/8" (10 mm) or Ø 5/16" (8 mm) x Ø 1/2" (12 mm) copper Ø 5/16" (8 mm) x Ø 3/8" (10 mm) 	<ul style="list-style-type: none"> Max. Torque 706Nm (72kgm) (521ft.lb). Torque at 35° and 56kg/cm²: 589Nm (60kgm) (434ft.lb) Tubing: nylon hose Ø 1/4" (6 mm) x Ø 3/8" (10 mm) or Ø 5/16" (8 mm) x Ø 1/2" (12 mm) copper Ø 5/16" (8 mm) x Ø 3/8" (10 mm)
Cylinder type MTC12510		Wheel turns 8.5	Wheel turns 6.1
<ul style="list-style-type: none"> Stroke 6⁵/₁₆" (160 mm) Volume 15.5 cu.inch (253 cm³) Length of tiller arm 5¹/₂" (140 mm) Weight 15.7 lb (7.1 kg) 	N/A	<ul style="list-style-type: none"> Max. Torque 1226Nm (125kgm) (904ft.lb). Torque at 35° and 56kg/cm²: 981Nm (100kgm) (723ft.lb) Tubing: nylon hose Ø 1/4" (6 mm) x Ø 3/8" (10 mm) or Ø 5/16" (8 mm) x Ø 1/2" (12 mm) copper Ø 5/16" (8 mm) x Ø 3/8" (10 mm) 	<ul style="list-style-type: none"> Max. Torque 1226Nm (125kgm) (904ft.lb). Torque at 35° and 56kg/cm²: 981Nm (100kgm) (723ft.lb) Tubing: nylon hose Ø 1/4" (6 mm) x Ø 3/8" (10 mm) or Ø 5/16" (8 mm) x Ø 1/2" (12 mm) copper Ø 5/16" (8 mm) x Ø 3/8" (10 mm)
Cylinder type MTC17510			Wheel turns 8.5
<ul style="list-style-type: none"> Stroke 8⁷/₈" (225 mm) Volume 21.7 cu.inch (356 cm³) Length of tiller arm 7³/₄" (196 mm) Weight 17.6 lb (8 kg) 	N/A	N/A	<ul style="list-style-type: none"> Max. Torque 1717Nm (175kgm) (1266ft.lb). Torque at 35° and 56kg/cm²: 1373Nm (140kgm) (1013ft.lb) Tubing: nylon hose Ø 1/4" (6 mm) x Ø 3/8" (10 mm) or Ø 5/16" (8 mm) x Ø 1/2" (12 mm) copper Ø 5/16" (8 mm) x Ø 3/8" (10 mm)



Steering systems

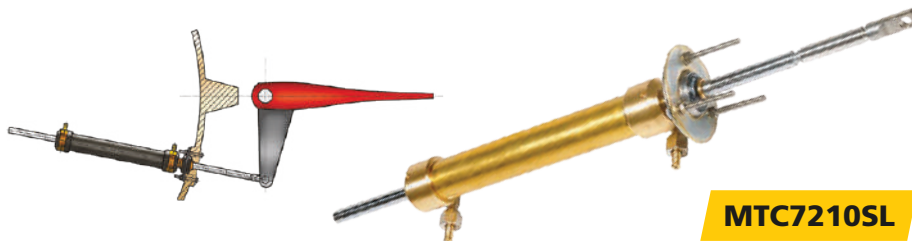
Cylinders

Hydraulic steering cylinder

For transom hung rudders

Specifications

- Stroke 8⁷/₈" (225 mm)
- Volume 8.9 cu.inch (146 cm³)
- Length of arm 7³/₄" (196 mm)



MTC7210SL

Type

MTC7210SL Cylinder type MTC72SL for transom hung rudders

Hydraulic steering kit

An attractive solution for smaller boats

This kit includes:

- Pump type HTP2010 (white)
- Cylinder type MTC3008
- Nylon hose 49 feet (15 m) type HS04N
- Hydraulic steering oil 1 L type VHS1
- All required fittings

Specifications

- Max. torque 294Nm (30 kgm, 216 ft.lb)
- Wheel turns 3.4
- Stroke 5²⁹/₃₂" (150 mm)
- Volume 4.1 cu.inch (67 cm³)
- Length of tiller arm 5¹/₁₆" (129 mm)



MTC30KIT

Type

MTC30KIT Hydraulic steering kit including cylinder (MTC30), pump (HTP2010), nylon tubing (15 metres), fittings and oil

Hydraulic steering oil type VHS1

Optimal functioning in all temperatures

For more information see page 471.

VHS



Steering systems for outboard engines

An outboard engine steering system consists of a steering pump with non-return and pressure relief valves and a cylinder. The cylinder is connected to the pump with nylon hydraulic hose. We offer the OBC hydraulic cylinder suitable for outboard motors with an output of 84 kW (115hp) up to 220 kW (300hp).

Cylinder types OBC115A - OBC250A - MTC100Z

Specifications

- OBC115/250A: Balanced cylinder
- MTC100Z: Unbalanced cylinder (132 cc / 163 cc)
- Supplied with combined \varnothing 3³/₈" (10 mm) hose connections and bleed nipples
- Piston rod with scraper seals preventing damage from salt and dirt and T-pieces to connect the cylinders



OBC...A



Steering systems for outboard engines

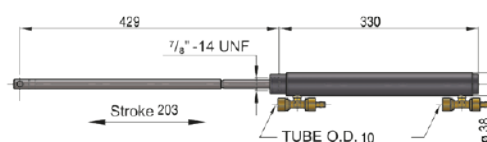
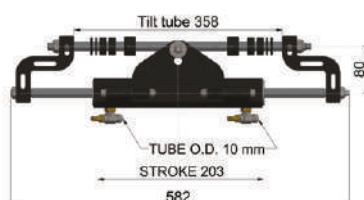
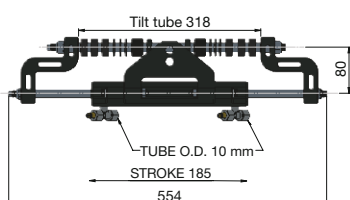
Required components to order separately

- One or two steering pumps with built-in non-return valves, type HTPR
- Length of hydraulic hose $\varnothing \frac{5}{16}'' \times \frac{1}{2}''$ (8 x 12 mm), type HHOSE8
- Straight or right angle hose connectors
- Hydraulic fluid
- T-pieces for $\varnothing \frac{3}{8}''$ (10 mm) pipe (when more than one pump or cylinder is installed)



MTC100Z

Cylinder	OBC115A	OBC250A	MTC100Z
Max. HP	115	250	300
Cylinder stroke	7 $\frac{1}{4}''$ / 185 mm	8'' / 203 mm	8'' / 203 mm
Cylinder volume	5.19 cu. in / 85 cc	7.44 cu. in / 122 cc	8 cu. in / 9.95 cu. in - 132 cc / 163 cc
Max. pressure	70 bar	70 bar	70 bar



Specifications

- Maximum operating pressure 70 bar
- Connections G $\frac{1}{4}'' - \varnothing \frac{3}{8}''$ (10 mm)
- Nylon hose $\varnothing \frac{5}{16}''$ (8 mm) x $\varnothing \frac{1}{2}''$ (12 mm)

- Capacity 1.2 in³/rev.
- Number of pistons 5
- Weight 9.4 lb (4.1 kg)



HTP2010R.

- Capacity: 1.8 in³/ rev.
- Number of pistons 5
- Weight 9.4 lb (4.1 kg)



HTP3010R.

OBC115A

- 7 $\frac{1}{4}''$ / 184 mm
- Volume 5.19 cu. in/ 85 cm³
- Workload 330 kgf
- Max. engine output 115 hp

Wheel turns
port - starboard: 4.3

N/A

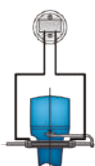
OBC250A

- 7 $\frac{1}{4}''$ / 184 mm
- Volume 5.19 cu. in/ 85 cm³
- Workload 330 kgf
- Max. engine output 115 hp

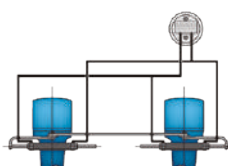
Wheel turns
port - starboard: 6.2

Wheel turns
port - starboard: 4.1

A single cylinder can operate a **twin** outboard motor installation. If both propellers rotate in the same direction, the total engine output may not exceed the maximum capacity of the selected cylinder. If the motors have handed (counter-rotating) propellers, the total combined output may be twice the rated capacity of the chosen cylinder.



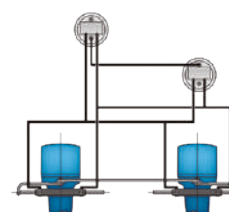
Single steering position
for one engine



Single steering position
for two engines



Dual steering position
for one engine



Dual steering position
for two engines

Steering systems

Heavy Duty Steering systems

Type MT0230B / MT0345B / MT0455B / MT0600B / MT0900B / MT1200B

The best possible combination

Choosing the right combination of pump and cylinder can be a challenge. VETUS pumps and cylinders are fully compatible, enabling the builder and owner to choose the best combination of price and number of wheel turns lock to lock. The smaller the pump unit, the lower the price but also the higher the number of turns. However, the choice of cylinder is always determined by the rudder torque. Please see the tables below for determination of the wheel turns.

Specifications

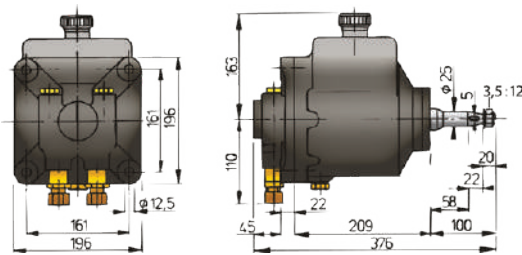
- Available for single and dual station control
- Cylinders are supplied with flexible hose tails, bleed nipples (which accept a quick-release coupling for rapid bleeding) and a base plate with universal joint and a swiveling rod end
- Axial plunger pumps with seven plungers
- 1" (25 mm) diameter Stainless steel (AISI 316) steering wheel shaft (extra strong for large steering wheels)
- Cylinder and pump can be supplied separately



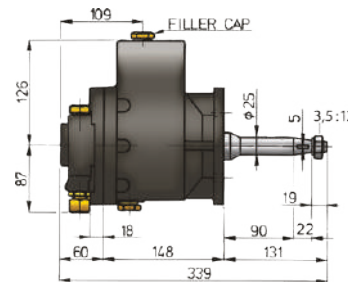
MTP151B

MTP191B

MTP089B



MTP0151B
MTP191B



MTP089B

Specifications pump units	MTP089B	MTP151B	MTP191B
Capacity of pump unit	(5 ⁷ / ₁₆ cu.inch/rev) / 89 cm ³ /rev.	(9 ⁷ / ₃₂ cu.inch/rev) / 151 cm ³ /rev.	(11 ²¹ / ₃₂ cu.inch/rev) / 191 cm ³ /rev.
Number of pistons	7	7	7
Maximum pressure	63 kg/cm ² (6178 kPa) (896 lb/sq. inch)		
Dimensions of tubes	Ø 18 mm x 15 mm		
Connections	G 1/2 female pipe thread		
Weight of pump unit	20 lb (9.1 kg)	50.7 lb (23 kg)	50.7 lb (23 kg)
Min/Max steering wheel diameter*	25.5/39.7" (70/101 cm)	39.3/47.6" (100/121 cm)	39.3/47.6" (100/121 cm)

* Smaller steering wheels may always be mounted, although this will increase steering effort.

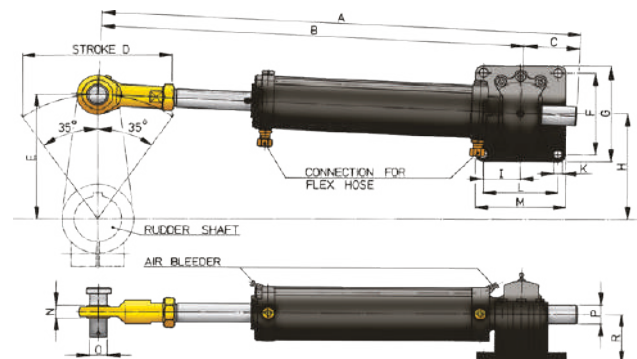
Cylinders



MT0230B

MT0345B

MT0455B





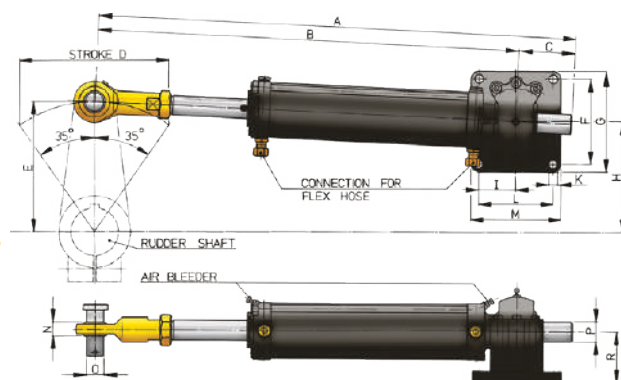
Heavy Duty Steering systems



MT1200B



MT0230B



MT0230B -MT1200B

Cylinder	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	R
MT0230B	733 (28 9/16")	607 (23 7/16")	127 (5")	200 (7 7/8")	175 (6 5/8")	112 (4 13/32")	140 (5 1/2")	143 (5 5/8")	36 (1 13/32")	11 (7/16")	72 (2 7/32")	100 (3 15/16")	31 (1 7/32")	25 (1")	28 (1 7/16")	55 (2 1/32")
MT0345B	933 (36 5/16")	757 (29 5/16")	177 (7")	300 (11 13/16")	260 (10 15/16")	112 (4 13/32")	140 (5 1/2")	215 (8 13/32")	36 (1 13/32")	11 (7/16")	72 (2 7/32")	100 (3 15/16")	31 (1 7/32")	25 (1")	28 (1 7/16")	55 (2 1/32")
MT0455B	1133 (44 39/64")	907 (35 45/64")	227 (8 15/16")	400 (15 3/4")	350 (13 25/32")	112 (4 13/32")	140 (5 1/2")	286 (11 1/4")	36 (1 13/32")	11 (7/16")	72 (2 7/32")	100 (3 15/16")	31 (1 7/32")	25 (1")	28 (1 7/16")	55 (2 1/32")
MT0600B	735 (29")	695 (27 23/64")	40 (1 9/16")	200 (7 7/8")	175 (6 7/8")	160 (6 3/8")	198 (7 31/32")	143 (5 5/8")	71,5 (2 13/16")	18,5 (23/32")	143 (5 5/8")	182 (7 1/8")	25 (1")	35 (1 3/8")	40 (1 5/8")	102 (4")
MT0900B	935 (36 13/16")	845 (33 17/64")	90 (3 39/64")	300 (11 13/16")	260 (10 1/4")	160 (6 3/8")	198 (7 31/32")	215 (8 13/32")	71,5 (2 13/16")	18,5 (23/32")	143 (5 5/8")	182 (7 1/8")	25 (1")	35 (1 3/8")	40 (1 5/8")	102 (4")
MT1200B	1135 (44 3/8")	995 (39 11/64")	140 (5 1/2")	400 (15 3/4")	350 (13 3/4")	160 (6 3/8")	198 (7 31/32")	286 (11 1/4")	71,5 (2 13/16")	18,5 (23/32")	143 (5 5/8")	182 (7 1/8")	25 (1")	35 (1 3/8")	40 (1 5/8")	102 (4")

Theoretical number of steering wheel turns from starboard to port

Pump unit	Cylinder					
	MT0230B	MT0345B	MT0455B	MT0600B	MT0900B	MT1200B
MTP089B	5.6	8.4	11.2	14.8	22.2	29.6
MTP151B	3.3	5.0	6,6	8.8	13.1	17.5
MTP191B	2.6	3.9	5.2	6.9	10.4	13.8

Technical data cylinders

	MT0230B	MT0345B	MT0455B	MT0600B	MT0900B	MT1200B
Max torque at 35° rudder angle	1628 ft. lb. 2207 Nm (225 kgm)	2460 ft. lb 3335 Nm (340 kgm)	3256 ft. lb 4415 Nm (450 kgm)	4341 ft. lb 5886 Nm (600 kgm)	6512 ft. lb 8829 Nm (900 kgm)	8683 ft. lb 11772 Nm (1200 kgm)
Cylinder stroke	7 7/8" (200 mm)	11 13/16" (300 mm)	15 3/4" (400 mm)	7 7/8" (200 mm)	11 13/16" (300 mm)	15 3/4" (400 mm)
Max. pressure	6178 kPa (63 kg/cm ²) (896 lb/sq.inch)					
Cylinder volume	30 1/2 cu.inch ³ (500 cm ³)	45 49/64 u.inch ³ (750 cm ³)	61 cu.inch ³ (1000 cm ³)	80 1/2 cu.inch ³ (1319 cm ³)	120 45/64 cu.inch ³ (1978 cm ³)	161 cu.inch ³ (2638 cm ³)
Total rudder angle	70°					
Length of tiller arm	6 7/8" (175 mm)	10 15/64" (260 mm)	13 25/32" (350 mm)	6 7/8" (175 mm)	10 15/64" (260 mm)	13 25/32" (350 mm)
Weight of cylinder	30.4 lb (13.8 kg)	35 lb (15.9 kg)	40 lb (18 kg)	77.4 lb (35.1 kg)	85.5 lb (38.8 kg)	93.5 lb (42.5 kg)
Dimensions of tubes	Ø 18 mm x 15 mm					
Connections	All connections are provided with G 1/2 female pipe thread.					

Also available for single and dual steering

Type	Description
HS81B	Dual non-return valve (G1/2) (incl. tube connectors Ø 18 mm)
HS74B	Single non-return valve (G1/2) with by-pass valve (incl. tube connectors Ø 18 mm) (suitable for single and dual station)
HS42B	Pressure relief valve (G1/2) (incl. tube connectors Ø 18 mm)

Steering systems

Accessories for steering systems

OB1000 Tie bar

For connecting two outboard motors up to 300 hp each

The tie bar has adjustable ends and connection bolts (3/8" UNF). The maximum centre-to-centre distance between the steering arms is 915 mm. The bar can be easily cut to the required length. All components of the tie bar are made of stainless steel (AISI 316).



OB1000

Type	Description
OB1000	Tie bar for outboard engines

Pump flanges type HTPF

Embellishment for your pump

These polished stainless steel (AISI 316) flanges can be used to fit pump type HTP (or to replace older type MTP) and to recess your pump by 1 1/2" (38 mm) (type HTPF) or 2 15/16" (74 mm) (type HTPF2). It can also be used to give your pump a more refined look.

On an outside helm station, with a pump mounted on an inclined bulkhead or sloping dashboard, the housing of the telescopic wheel adjuster may catch water. To prevent this water entering the boat, a seal set is recommended (Type HTPF3).

Type	Description
HTPF	Adaptor flange, stainless steel (AISI 316) for HTP pump, 1 1/2" (38 mm) depth
HTPF2	Adaptor flange, stainless steel (AISI 316) for HTP pump, 2 15/16" (78 mm) depth
HTPF3	Waterproof seal kit for HTP pump in a HTPF flange



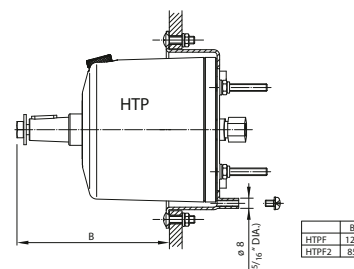
HTPF



HTPF2



HTPF3



	B
HTPF	121
HTPF2	85

Hydraulic fluid header tank type HTANK

This transparent tank can be installed with all VETUS steering pumps up to 5.4 cu.inch (89 cm³) per revolution. It is also recommended for electro-hydraulic hatch lifters when operating more than one cylinder. By installing this reservoir tank, the breather plug in the steering pump can be replaced with the supplied solid plug, eliminating the possibility of steering fluid dribbling from the breather in big seas.

Specifications

- Capacity 12.2 cu.inch (200 cm³)
- Supplied with a large mounting bracket
- Comes with 1mtr of Ø 5/16" (8 mm) hose, two matching hose clips, one G 1/4 and one G 3/8 nylon hose pillar

Type	Description
HTANK	Expansion tank kit for hydraulic steering systems



HTANK



Accessories for steering systems

Dual non-return valve

This dual non-return valve block has to be installed when dual station steering is required and the pumps do not have integrated non-return valves. Alternatively, you can use two steering pumps with built-in non-return valves type HTPR. This is also the case when an electro-hydraulic pump needs to be installed when fitting an autopilot and the installed steering pumps do not have integrated non-return valves.

The connection kit must be ordered separately and is not included with the K30/140B.

Type	Description
K30/140B	Dual non-return valve block without fittings used with cylinders MTC3008 to MTC17510
KITK30	Connection kit, 5/16" (8 mm), to be used with K30/140B and MTC3008
KITK52175	Connection kit, 3/8" (10 mm), to be used with K30/140B and MTC5210 - MTC17510



K30/140B

KITK30

KITK52175



By-pass valve

If a quick change-over to tiller steering has to be done in case of an emergency, installation of a by-pass valve is necessary.

Type	Tubing Ø inches (mm)
BYPASS8	5/16 (8)
BYPASS10	3/8 (10)



BYPASS

Nylon hose

Suitable for cylinders MTC52-175.



HHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Length in rolls of feet (m)	Required connection parts
HS04N	1/4 (6)	5/16 (8)	49 (15)	HS1011S Sleeve insert (20 pieces)
HHOSE6015	1/4 (6)	3/8 (10)	49 (15)	HS145S Sleeve insert (20 pieces)
HHOSE6030	1/4 (6)	3/8 (10)	98 (30)	HS145S Sleeve insert (20 pieces)
HHOSE6050	1/4 (6)	3/8 (10)	164 (50)	HS145S Sleeve insert (20 pieces)
HHOSE6100	1/4 (6)	3/8 (10)	328 (100)	HS145S Sleeve insert (20 pieces)
HHOSE8015	5/16 (8)	1/2 (12)	49 (15)	HS1031MS (straight, set of 2 pieces) / HS1037MS (angled, set of 2 pieces)
HHOSE8030	5/16 (8)	1/2 (12)	98 (30)	HS1031MS (straight, set of 2 pieces) / HS1037MS (angled, set of 2 pieces)
HHOSE8050	5/16 (8)	1/2 (12)	164 (50)	HS1031MS (straight, set of 2 pieces) / HS1037MS (angled, set of 2 pieces)
HHOSE8100	5/16 (8)	1/2 (12)	328 (100)	HS1031MS (straight, set of 2 pieces) / HS1037MS (angled, set of 2 pieces)

Copper tubing

Copper tubing is available per roll in two different sizes.

Type	Internal Ø inches (mm)	External Ø inches (mm)	Length feet (m)	Required connection parts
COPPER10	5/16" (8)	3/8" (10)	65 (20)	MTC810 Flexible hose tail set
COPPER18	9/16" (15)	1 1/16" (18)	32 (10)	N/A



COPPER



Steering systems

Accessories for steering systems

Connection parts

When using compression fittings supplied as standard with non-commercial pumps and cylinders, a brass sleeve must be inserted into each end of the nylon hose in order to maintain hose circularity. An alternative connection method for 8 x 12 mm nylon hose is to use barbed connections HS1031MS and HS1037MS.

Type	Description
HS213	Union tee coupling $\frac{3}{8}$ "
HS10131	Sleeve insert $\text{Ø } \frac{1}{4}$ " and olive, $\text{Ø } \frac{5}{16}$ " for use with HS04N nylon hose, pack of 10 pieces
HS1011S	Sleeve insert, $\text{Ø } \frac{1}{4}$ ", for use with HS04N, set of pack of 20 pieces
HS145S	Sleeve insert, $\text{Ø } \frac{1}{4}$ ", for use with nylon hose (HHOSE6...), pack of 20 pieces
HS1031MS	Straight brass hose connector for nylon hose $\text{Ø } \frac{5}{16}$ " x $\frac{1}{2}$ " (HHOSE8...), pack of 2 pieces
HS1037MS	Right angle brass hose connector for nylon hose $\text{Ø } \frac{5}{16}$ " x $\frac{1}{2}$ " (HHOSE8...), pack of 2 pieces



HS10131



HS213



HS1011S



HS145S



HS1031MS



HS1037MS

Rudders

Type RUDS

These rudders with stainless steel (AISI 316) blade come complete with a rudder arm to which a VETUS hydraulic steering cylinder can be connected. The blade sides are polished and need no additional finishing. The stainless steel (AISI 316) rudder stock is provided with a hole to facilitate the fitting of an emergency tiller. Type RUDS comes in two heights.

Includes a HELM rudder arm. Connection kit (HSET) must be ordered separately.

Specification type RUDS4040

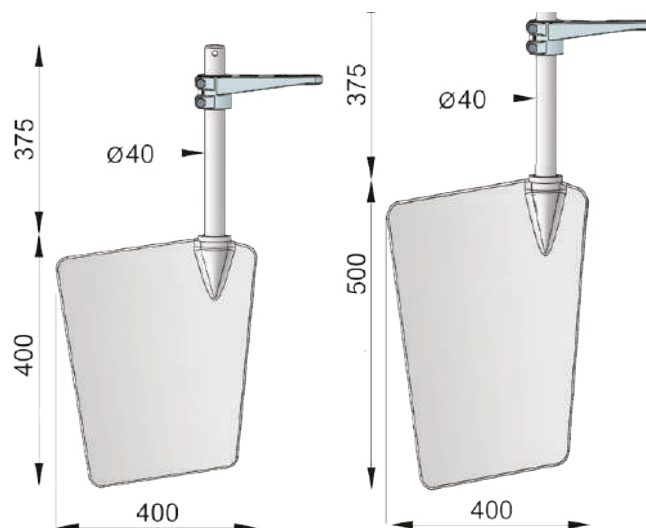
- Dimensions w $15\frac{3}{4}$ " x h $15\frac{3}{4}$ " (400 x 400 mm) (excl. rudder arm)

Specification type RUDS5040

- Dimensions w $15\frac{3}{4}$ " x h $19\frac{11}{16}$ " (400 x 500 mm) (excl. rudder arm)

A rudder gland may be supplied as an extra (type HENKO only).

Type	Width inches (mm)	Height inches (mm)
RUDS4040	$15\frac{3}{4}$ (400), excl. rudder arm	$15\frac{3}{4}$ (400)
RUDS5040	$15\frac{3}{4}$ (400), excl. rudder arm	$19\frac{11}{16}$ (500)



RUDS4040

RUDS5040

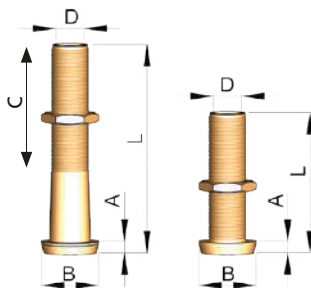


Rudders

Rudder gland type HENKO

This bronze rudder gland is available in two different lengths for $\varnothing 1\frac{3}{16}$ " (30 mm) or $\varnothing 1\frac{9}{16}$ " (40 mm) rudder stocks.

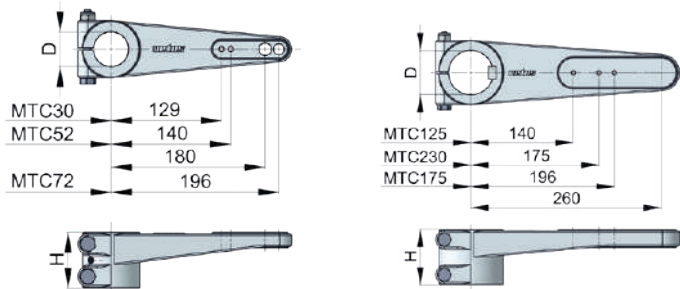
Type	$\varnothing D$	L	A	$\varnothing B$	C
HENKO30	$1\frac{3}{16}$ "	$6\frac{5}{64}$ "	$\frac{19}{32}$ "	$2\frac{9}{16}$ "	-
HENKO30L	$1\frac{3}{16}$ "	$10\frac{53}{64}$ "	$\frac{19}{32}$ "	$2\frac{9}{16}$ "	$5\frac{5}{16}$ "
HENKO40	$1\frac{9}{16}$ "	$8\frac{5}{64}$ "	$\frac{43}{64}$ "	$3\frac{5}{32}$ "	-
HENKO40L	$1\frac{9}{16}$ "	12"	$\frac{43}{64}$ "	$3\frac{5}{32}$ "	$5\frac{5}{16}$ "



Aluminium rudder arms type HELM

These rudder arms are available for $\varnothing 1\frac{3}{16}$ ", $1\frac{9}{16}$ ", 2" or $2\frac{3}{8}$ " (30, 40, 50 or 60 mm) rudder stocks. They are connected by two clamp bolts. The $\varnothing 1\frac{3}{16}$ " (30 mm) and $1\frac{9}{16}$ " (40 mm) rudder arms have two locking grub screws onto the shaft and feature four attachment points for the steering cylinder making them suitable for VETUS hydraulic cylinders type MTC30/52 and 72. The 2" (50 mm) and $2\frac{3}{8}$ " (60 mm) rudder arms have a stainless steel (AISI 316) key and feature three attachment points which match type MTC125/175 and 230. For connecting VETUS cylinder types MTC30/175 matching bolt sets are available.

Type	$\varnothing D$	H	Type	$\varnothing D$	H
HELM30	$1\frac{3}{16}$ "	$2\frac{3}{16}$ "	HELM50	$1\frac{15}{16}$ "	$2\frac{5}{8}$ "
HELM40	$1\frac{9}{16}$ "	$2\frac{5}{8}$ "	HELM60	$2\frac{3}{8}$ "	3"



HELM

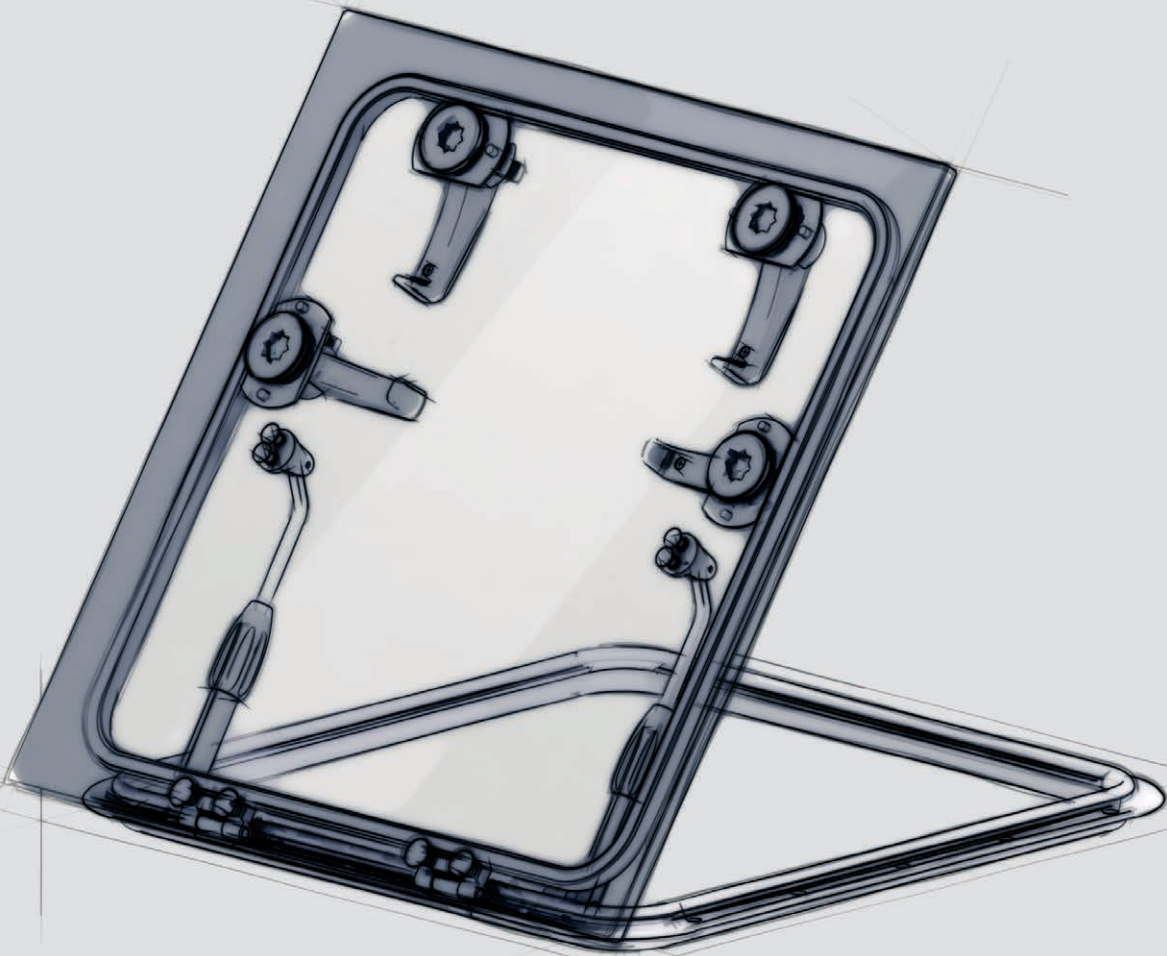


HSET

Type	Description
HSET10	Connection kit M10, for rudder arm to cylinder MTC30
HSET12	Connection kit M12, for rudder arm to cylinders MTC52-72
HSET20	Connection kit M20, for rudder arm to cylinders MTC125-175







Glazing systems

Overview

Portholes / Portlights see page 307 - 311



PL



PW



PM



PZ



PA



PX



PMS



PWS



PQ

Escape and ventilation hatches see page 311 - 316



PLA



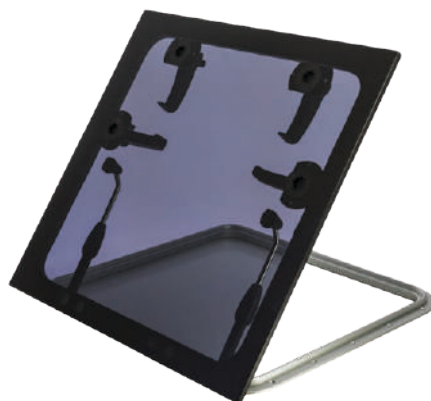
ALT



LIB



FGH



FGHF



MAG



Escape and ventilation hatches

see page 317

NEW!



LING

Hatch trims with mosquito screen

see page 318



HCM



HMB

Custom made glazing products see page 319 - 323

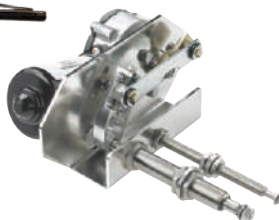


FBH

Windscreen wipers, arms and blades see page 324 - 329



WBB



HDM



ORW12SET

Clear view screens

see page 327



SLR

Accessories see page 329 - 330



HDS



WPANEL



RWPANEL2



Glazing systems

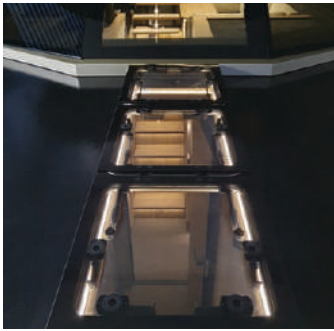
VETUS has produced glazing products for almost 60 years. Over these years we have gained a huge amount of knowledge and experience, giving us the ability to offer the best quality at the most competitive price. To maintain this leadership position we are constantly monitoring and improving the production processes.

Whether you need a windscreen wiper system, a flush hatch or a custom window, our dedicated glazing team will be there to provide you with solid advice and excellent after-sales service.



Why use VETUS glazing products?

- We provide a complete solution to all your marine glazing requests
- Competitive price/quality ratio
- We offer a wide range of standard and custom made windows, portholes and hatches
- All portholes are delivered with a mosquito screen as a standard
- High quality marine wipers featuring a powerful electric motor and separate worm wheel transmission
- Uniform appearance of all glazing components
- All hatches and portholes are CE marked in accordance with the Recreational Craft Directive
- All windows, doors and cabin entries have been tested according to ISO 12216



CE marking

VETUS hatches and portlights are certified and CE marked in accordance with the European Recreational Craft Directive (2013/53/EU). The conformity assessment is based on ISO 12216, which sets specific requirements for components such as hatches and portlights.



For specific information about the appliance location area we refer to the ISO standard



Portholes / Portlights

Aluminium portholes / portlights

VETUS offers a wide range of aluminium portholes / portlights in categories AI and AIII. The 3/8" (10 mm) 'smoke' colored opening pane is set in a satin anodized or a black powder coated aluminium frame. The clamp fixing ensures that no fasteners are visible from either inside or outside. The portholes can be held open in any position due to the friction type hinges.

The portlight can be fitted in a surface with a minimum thickness of 1/16" (2 mm) and a maximum thickness of 45/64" (18 mm). As standard, a mosquito screen is supplied. Replacement knobs (2 pieces) suitable for type PL, PM, PZ, PW, and PX (VP000044) available.

The frequently requested options are listed below the porthole types.

Portlight type PL Series (AI)

Ultra-low profile portlights

PL series portlights are so flush that they resemble fritted glass and are suitable to be installed into a variety of materials. Despite their slimness, they are still location area AI CE approved, which means they are usable for all areas listed in the ISO standard! These ultra slim portlights can handle panel thicknesses ranging from 1/16" up to 25/32" (2 up to 20 mm).



PL

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Replacement mosquito screen
PL711	11 ¹⁵ / ₁₆ x 6 ¹ / ₈ (303 x 156)	12 ¹¹ / ₁₆ x 6 ¹⁵ / ₁₆ (323 x 176)	HOR711
PL721	13 ¹¹ / ₁₆ x 6 ³ / ₄ (347 x 171)	14 ⁷ / ₁₆ x 7 ¹ / ₂ (367 x 191)	HOR721
PL731	16 ⁷ / ₈ x 6 ³ / ₄ (429 x 171)	17 ¹¹ / ₁₆ x 7 ¹ / ₂ (449 x 191)	HOR731
PL741	24 ⁵ / ₈ x 6 ³ / ₄ (626 x 171)	25 ⁷ / ₁₆ x 7 ¹ / ₂ (646 x 191)	HOR741
PL751	16 ⁷ / ₈ x 9 ⁵ / ₈ (429 x 244)	17 ¹¹ / ₁₆ x 10 ³ / ₈ (449 x 264)	HOR751

Special order only

Type	Code	Example PL711
Clear anodized	Type code + A	PL711A
Fixed	Type code - 1 + F	PL71F
Clear anodized fixed	Type code - 1 + F + A	PL71FA

Porthole type PW (AI)



PW

Type	Cut-out dimensions B inches (mm) Ø	External dimensions A inches (mm) Ø	Replacement mosquito screen
PW201	6 ⁷ / ₈ (174)	7 ¹³ / ₁₆ (198)	HOR2013
PW211	7 ¹¹ / ₁₆ (196)	8 ¹¹ / ₁₆ (220)	HOR2113
PW221	9 ³ / ₁₆ (236)	10 ¹ / ₄ (260)	HOR2213

Special order only

Type	Code	Example PW201
Black powder coated	Type code + P	PW201P
Fixed	Type code - 1 + F	PW20F
Black powder coated fixed	Type code - 1 + F + P	PW20FP

Glazing systems

Portholes / Portlights

Portlight type PM (AI)



PM

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Cut-out radius R inches (mm)	Replacement mosquito screen
PM111	8 ¹¹ / ₁₆ x 4 ¹³ / ₁₆ (220 x 122)	9 ⁵ / ₈ x 5 ³ / ₄ (244 x 146)	2 ³ / ₈ (61)	HOR11
PM121	10 ⁵ / ₈ x 5 ¹³ / ₁₆ (270 x 148)	11 ⁹ / ₁₆ x 6 ³ / ₄ (294 x 172)	2 ¹⁵ / ₁₆ (74)	HOR12
PM131	12 ⁵ / ₈ x 6 ⁷ / ₈ (320 x 174)	13 ⁹ / ₁₆ x 7 ¹ / ₁₆ (344 x 198)	3 ⁷ / ₁₆ (87)	HOR13
PM141	13 ⁵ / ₁₆ x 4 ¹³ / ₁₆ (338 x 122)	14 ¹ / ₄ x 5 ³ / ₄ (362 x 146)	2 ³ / ₈ (61)	HOR14
PM151	14 ⁷ / ₁₆ x 7 ¹¹ / ₁₆ (366 x 196)	15 ³ / ₈ x 8 ¹¹ / ₁₆ (390 x 220)	3 ⁷ / ₈ (98)	HOR15
PM161	14 ³ / ₄ x 6 ⁵⁷ / ₆₄ (375 x 175)	15 ⁴⁵ / ₆₄ x 7 ⁵³ / ₆₄ (399 x 199)	3 ⁷ / ₁₆ (87)	HOR16
PM171	23 ³⁵ / ₆₄ x 6 ¹³ / ₁₆ (598 x 173)	24 ¹ / ₂ x 7 ³ / ₄ (622 x 197)	3 ³ / ₈ (86)	HOR17

Special order only

Type	Code	Example PM111
Black powder coated	Type code + P	PM111P
Fixed	Type code - 1 + F	PM11F
Black powder coated fixed	Type code - 1 + F + P	PM11FP



Portlight type PZ (AI)



PZ

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Cut-out radius R inches (mm)	Replacement mosquito screen
PZ611	10 ⁷ / ₈ x 5 ¹ / ₂ (277 x 140)	11 ⁷ / ₈ x 6 ⁷ / ₁₆ (301 x 164)	2 ¹ / ₈ (54)	HOR61
PZ621	13 ⁹ / ₁₆ x 6 ¹ / ₈ (344 x 155)	14 ¹ / ₂ x 7 ¹ / ₁₆ (368 x 179)	2 ³ / ₈ (61)	HOR62
PZ631	23 ⁹ / ₁₆ x 6 ¹³ / ₁₆ (598 x 173)	24 ¹ / ₂ x 7 ³ / ₄ (622 x 197)	2 ³ / ₈ (61)	HOR63
PZ641	14 ¹¹ / ₁₆ x 6 ¹³ / ₁₆ (373 x 173)	15 ⁵ / ₈ x 7 ³ / ₄ (397 x 197)	2 ³ / ₈ (61)	HOR64
PZ651	14 ³ / ₄ x 6 ⁹ / ₁₆ (375 x 166)	15 ¹¹ / ₁₆ x 7 ¹ / ₂ (399 x 190)	2 ¹ / ₈ (54)	HOR65
PZ661	14 ³ / ₄ x 8 ¹ / ₄ (375 x 210)	15 ¹¹ / ₁₆ x 9 ³ / ₁₆ (399 x 234)	2 ¹ / ₈ (54)	HOR66
PZ671	16 ¹³ / ₁₆ x 9 ¹³ / ₁₆ (427 x 250)	17 ³ / ₄ x 10 ¹³ / ₁₆ (451 x 274)	2 ¹ / ₈ (54)	HOR67

Special order only

Type	Code	Example PZ611
Black powder coated	Type code + P	PZ611P
Fixed	Type code - 1 + F	PZ61F
Black powder coated fixed	Type code - 1 + F + P	PZ61FP





Portholes / Portlights

Portlight type PA (AIII)

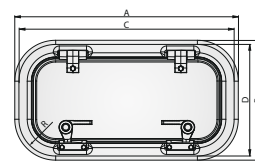
The low profile portlights

The ergonomic closures are easy to open and close and with the included interior trim you can have the same level of finish as our other products. On the outside the beautiful anodized aluminum frame gives the PA series a premium look and feel, with a slightly different finish compared to other portholes. The portlights come with a stylish 3/8" (10 mm) 'smoke' coloured, unframed opening pane. Fasteners are invisible from inside or outside and the windows are held open by friction type hinges. The portlights are suitable for installation location Area III.



PA

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Cut-out radius R inches (mm)	Replacement mosquito screen	Replacement white trim
PA3016	11 ¹¹ / ₁₆ x 6 ³ / ₈ (297 x 162)	12 ³ / ₈ x 7 ¹ / ₈ (315 x 180)	2 ¹ / ₄ (57)	WSP00K	WTP00W
PA3517	13 ³ / ₄ x 6 ⁷ / ₈ (350 x 175)	14 ¹ / ₂ x 7 ⁵ / ₈ (368 x 193)	2 ¹ / ₄ (57)	WSP01K	WTP01W
PA4116	16 ¹ / ₁₆ x 6 ³ / ₈ (407 x 162)	16 ⁷ / ₈ x 7 ¹ / ₈ (425 x 180)	2 ¹ / ₄ (57)	WSP02K	WTP02W
PA4317	17 ¹ / ₈ x 6 ⁷ / ₈ (435 x 175)	17 ⁵ / ₈ x 7 ⁵ / ₈ (453 x 193)	2 ¹ / ₄ (57)	WSP03K	WTP03W
PA6317	24 ¹⁵ / ₁₆ x 6 ⁷ / ₈ (634 x 175)	25 ¹ / ₂ x 7 ⁵ / ₈ (652 x 193)	2 ¹ / ₄ (57)	WSP04K	WTP04W



Portlight type PX and PXF (AIII)

Medium duty portlights

These portholes are suitable for use in the coachroof side. They come with a 3/8" (10 mm) 'smoke' colored, unframed opening pane.



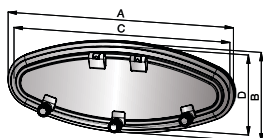
PX

PXF

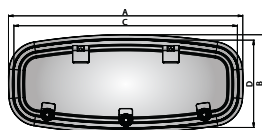
Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Replacement mosquito screen
PX45	16 ⁷ / ₁₆ x 6 ¹ / ₈ (417 x 155)	17 ³ / ₈ x 7 ¹ / ₁₆ (441 x 179)	HOR45
PX46	18 ⁷ / ₁₆ x 6 ³ / ₄ (468 x 172)	19 ³ / ₈ x 7 ¹¹ / ₁₆ (492 x 196)	HOR46
PX47	20 ¹ / ₂ x 7 ⁵ / ₈ (520 x 193)	21 ⁷ / ₁₆ x 8 ⁹ / ₁₆ (544 x 217)	HOR47
PXF	19 ⁵ / ₈ x 7 ¹¹ / ₁₆ (498 x 195)	20 ⁹ / ₁₆ x 8 ⁵ / ₈ (522 x 219)	HORPXF

Special order only

Type	Code	Example PX45
Black powder coated	Type code + P	PX45P
Fixed	Type code + F	PX45F
Black powder coated fixed	Type code + F + P	PX45FP



PX



PXF



Glazing systems

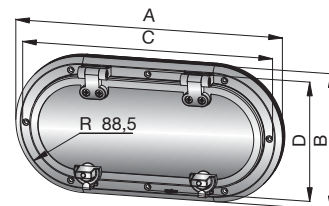
Portholes / Portlights

Stainless steel (AISI 316) portholes / portlights

VETUS offers a range of stainless steel (AISI 316) portholes / portlights in categories AI and AII. They come with a stainless steel (AISI 316) inner frame, "smoke" coloured $\frac{3}{16}$ " (8 mm) acrylic and a mosquito screen.

Portlight type PMS (AI)

These AISI 316 portlights are suitable for a panel thickness from $\frac{1}{8}$ " up to $\frac{11}{16}$ " (3 - 18 mm). Screws for different wall thicknesses can be ordered separately. Comes with an anodised aluminium mosquito screen as standard.

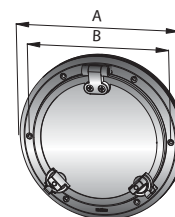


PMS

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Replacement mosquito screen
PMS23A1	12 $\frac{11}{16}$ x 6 $\frac{15}{16}$ (322 x 177)	13 $\frac{5}{8}$ x 7 $\frac{13}{16}$ (346 x 199)	HOR23S

Porthole type PWS (AI)

These portlights (AISI 316) are suitable for a panel thickness from $\frac{1}{8}$ " up to $\frac{11}{16}$ " (3-18 mm). Screws for different wall thicknesses can be ordered separately. Comes with an anodised aluminium mosquito screen as standard.



PWS

Type	Cut-out dimensions B inches (mm) Ø	External dimensions A inches (mm) Ø	Replacement mosquito screen
PWS31A1	7 $\frac{13}{16}$ (198)	8 $\frac{11}{16}$ (220)	HOR31S
PWS32A1	9 $\frac{3}{8}$ (238)	10 $\frac{1}{4}$ (260)	HOR32S



Portholes / Portlights

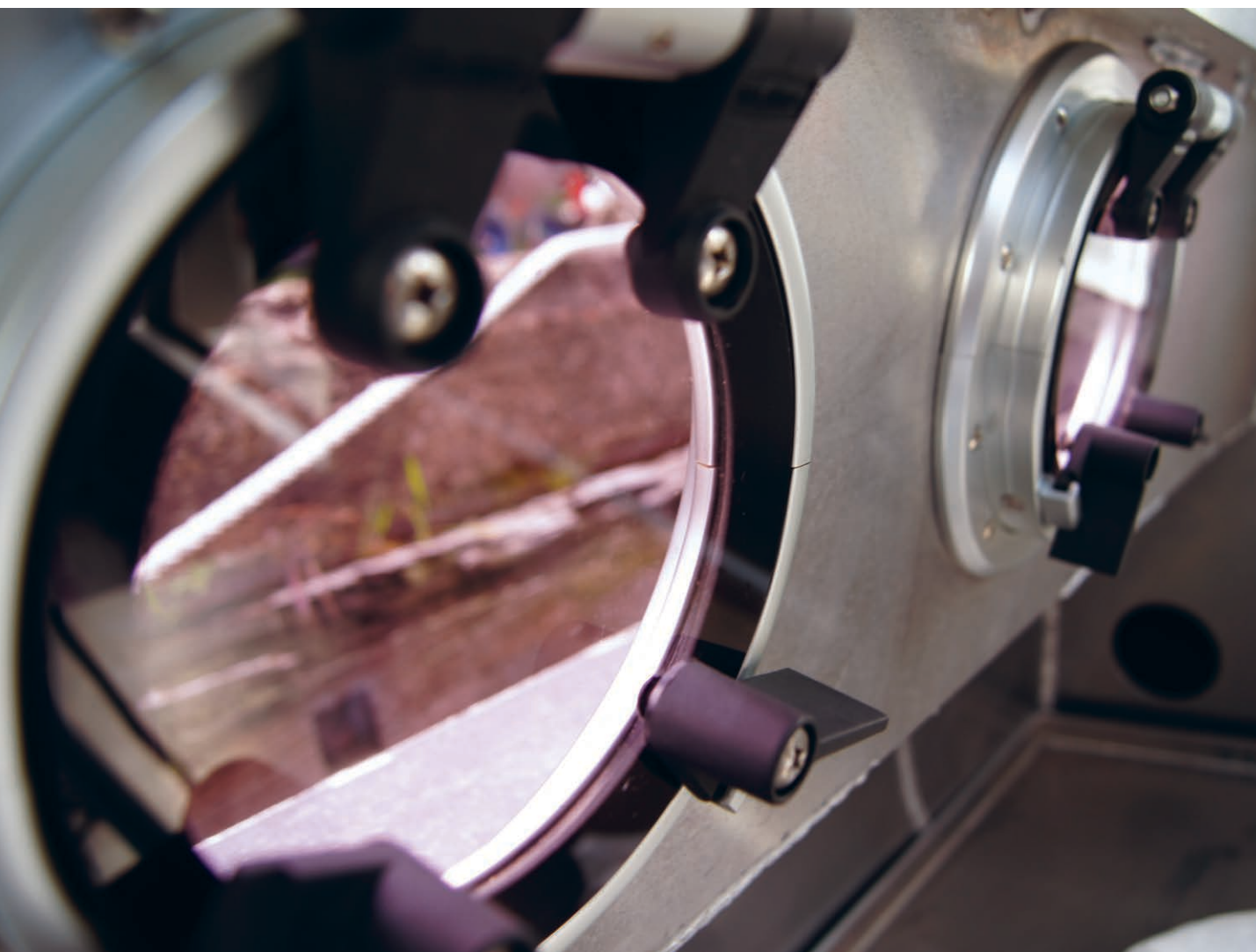
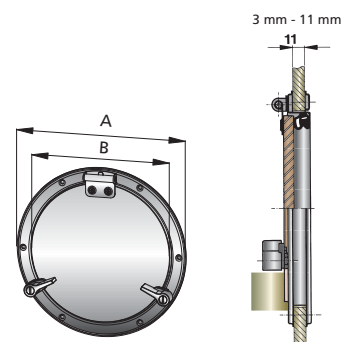
Porthole type PQ (AII)

These (AISI 316) portholes are suitable for a panel thickness from $\frac{1}{8}$ " up to $\frac{7}{16}$ " (3–11 mm) and include a counter flange.



PQ

Type	Cut-out dimensions B inches (mm) Ø	External dimensions A inches (mm) Ø	Replacement mosquito screen
PQ51	4 $\frac{9}{16}$ (126)	6 $\frac{1}{4}$ (158)	HORPQ51
PQ52	5 $\frac{9}{16}$ (151)	7 $\frac{1}{4}$ (184)	HORPQ52
PQ53	6 $\frac{9}{16}$ (176)	8 $\frac{1}{4}$ (210)	HORPQ53



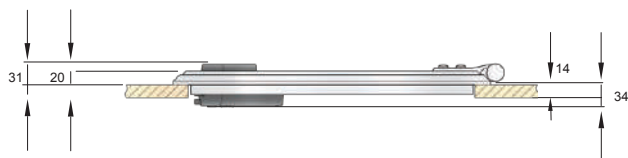
Glazing systems

Escape and ventilation hatches

Type PLANUS (AII)

Stylish budget model

These hatches have a satin sheen anodized aluminum frame with a 3" (75 mm) corner radius and a 3/8" (10 mm) 'dark smoke' colored acrylic lid. A friction hinge allows the hatch to remain open at any angle up to 180°. Type PLANUS is suitable for appliance location area AII.



PLA

Escape hatches

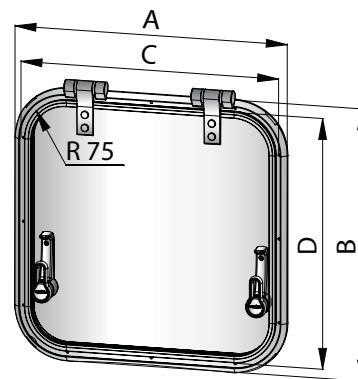
Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Number of handles
PLA50L	18 ⁹ / ₁₆ x 18 ⁹ / ₁₆ (471 x 471)	20 ¹ / ₂ x 20 ¹ / ₂ (521 x 521)	2
PLA45L	16 ¹¹ / ₁₆ x 16 ¹¹ / ₁₆ (424 x 424)	18 ¹¹ / ₁₆ x 18 ¹¹ / ₁₆ (474 x 474)	2

Deck hatches

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Number of handles
PLA40L	14 ³ / ₄ x 14 ³ / ₄ (374 x 374)	16 ¹¹ / ₁₆ x 16 ¹¹ / ₁₆ (424 x 424)	2
PLA32L	16 ¹¹ / ₁₆ x 11 ⁹ / ₁₆ (424 x 294)	18 ¹¹ / ₁₆ x 13 ⁹ / ₁₆ (474 x 344)	2

Ventilation hatches

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Number of handles
PLA34L	13 ³ / ₈ x 8 ¹ / ₄ (340 x 210)	15 ³ / ₈ x 10 ¹ / ₄ (390 x 260)	1
PLA30L	8 ¹ / ₄ x 9 ¹ / ₁₆ (300 x 230)	13 ³ / ₄ x 11 (350 x 280)	1
PLA23L	9 ¹ / ₁₆ x 9 ¹ / ₁₆ (230 x 230)	11 x 11 (280 x 280)	1





Escape and ventilation hatches

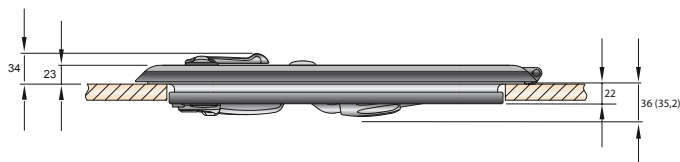
Type ALTUS (AII)

One of the best midrange hatches

ALTUS is made of a sturdy aluminium profile (height $1\frac{3}{16}$ " (21 mm)) with a satin sheen anodised frame and is suitable for design category A and appliance location area II. The acrylic has a thickness of $\frac{3}{8}$ " (10 mm) and is 'dark smoke' coloured. These hatches come with adjusters which are stylish and easy to operate, allowing the lid to be held open at almost any angle up to 90°. Type ALTUS can be fitted on deck and opened from the inside or outside. It has a ventilation position and can be locked completely watertight.



ALT



Escape hatches

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Model	Number of handles
ALT6363SL	24 $\frac{11}{16}$ x 24 $\frac{11}{16}$ (627 x 627)	27 $\frac{5}{8}$ x 27 $\frac{5}{8}$ (701 x 701)	1	2
ALT5151SL	19 $\frac{5}{16}$ x 19 $\frac{5}{16}$ (507 x 507)	22 $\frac{7}{8}$ x 22 $\frac{7}{8}$ (581 x 581)	1	2
ALT4747SL	18 $\frac{1}{2}$ x 18 $\frac{1}{2}$ (470 x 470)	21 $\frac{7}{16}$ x 21 $\frac{7}{16}$ (544 x 544)	1	2
ALTR520SL	20 $\frac{3}{8}$ (518)	23 $\frac{5}{16}$ (592)	3	2

Deck hatches

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Model	Number of handles
ALT4242SL	16 $\frac{9}{16}$ x 16 $\frac{9}{16}$ (421 x 421)	19 $\frac{1}{2}$ x 19 $\frac{1}{2}$ (495 x 495)	1	2
ALT5038SL	9 $\frac{5}{16}$ x 14 $\frac{13}{16}$ (507 x 377)	22 $\frac{14}{16}$ x 17 $\frac{3}{16}$ (581 x 451)	1	2
ALT4633SL	18 x 12 $\frac{7}{8}$ (457 x 327)	20 $\frac{14}{16}$ x 15 $\frac{3}{16}$ (531 x 401)	1	2
ALTR420SL	16 $\frac{7}{16}$ (417)	19 $\frac{5}{16}$ (491)	3	2

Ventilation hatches

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Model	Number of handles
ALT2626SL	10 $\frac{1}{4}$ x 10 $\frac{1}{4}$ (260 x 260)	13 $\frac{1}{8}$ x 13 $\frac{1}{8}$ (334 x 334)	1	1
ALA3520L	13 $\frac{11}{16}$ x 7 $\frac{5}{16}$ (347 x 202)	16 $\frac{7}{16}$ x 10 $\frac{7}{8}$ (421 x 276)	1	1

Trapezium hatch

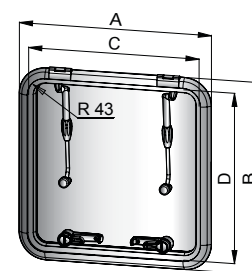
Type	Cut-out dimensions C x D x F inches (mm)	External dimensions A x B x E inches (mm)	Model	Number of handles
ALA46TL	18 $\frac{1}{4}$ x 23 $\frac{7}{8}$ x 14 $\frac{7}{8}$ 464 x 607 x 378	21 $\frac{3}{8}$ x 26 $\frac{13}{16}$ x 17 $\frac{5}{8}$ (543 x 681 x 447)	4	2

Trapezium hatch special order

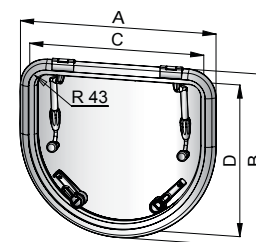
Type	Cut-out dimensions C x D x F inches (mm)	External dimensions A x B x E inches (mm)	Model	Number of handles
ALA41TL	17 $\frac{1}{16}$ x 20 $\frac{13}{16}$ x 14 $\frac{1}{4}$ 434 x 528 x 362	20 $\frac{3}{16}$ x 23 $\frac{11}{16}$ x 16 $\frac{5}{16}$ 513 x 602 x 431	4	2
ALA56TL	21 $\frac{15}{16}$ x 23 $\frac{1}{8}$ x 17 $\frac{3}{16}$ 557 x 588 x 436	25 $\frac{1}{16}$ x 25 $\frac{15}{16}$ x 19 $\frac{11}{16}$ 636 x 659 x 500	4	2
ALA80TL*	31 $\frac{5}{8}$ x 25 $\frac{3}{8}$ x 19 $\frac{9}{16}$ 804 x 644 x 497	35 $\frac{3}{8}$ x 28 $\frac{1}{4}$ x 19 $\frac{11}{16}$ 898 x 718 x 500	4	2

* Black powder coated

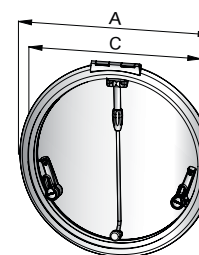
Model 1



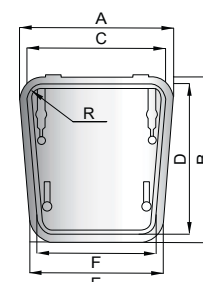
Model 2



Model 3



Model 4



Glazing systems

Escape and ventilation hatches

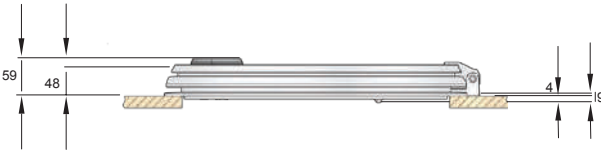
Type LIBERO (AII)

The classic

These hatches have a hand polished and anodised aluminium frame with a $1\frac{1}{4}$ " or $2\frac{3}{16}$ " (32 or 55 mm) corner radius and a $\frac{3}{8}$ " (10 mm) 'dark smoke' coloured acrylic lid. The escape and deck hatches come with adjusters allowing the lid to be held open at almost any angle up to 90°. A special friction hinge allows the ventilation hatches to remain open at any angle up to 180°. Type LIBERO is suitable for design category A, Area II.



LIB



Escape hatches with adjusters up to 90°

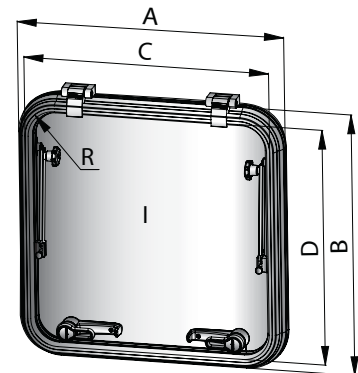
Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Cut-out radius R inches (mm)	Number of handles
LIB6232L	24 ⁷ / ₁₆ x 24 ⁷ / ₁₆ (620 x 620)	26 ³ / ₄ x 26 ³ / ₄ (680 x 680)	1 ¹ / ₄ (32)	2
LIB6255L	24 ⁷ / ₁₆ x 24 ⁷ / ₁₆ (620 x 620)	26 ³ / ₄ x 26 ³ / ₄ (680 x 680)	2 ³ / ₁₆ (55)	2
LIB5032L	19 ¹ / ₁₆ x 19 ¹ / ₁₆ (500 x 500)	22 ¹ / ₁₆ x 22 ¹ / ₁₆ (560 x 560)	1 ¹ / ₄ (32)	2
LIB5055L	19 ¹ / ₁₆ x 19 ¹ / ₁₆ (500 x 500)	22 ¹ / ₁₆ x 22 ¹ / ₁₆ (560 x 560)	2 ³ / ₁₆ (55)	2

Deck hatches with adjusters up to 90°

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Cut-out radius R inches (mm)	Number of handles
LIB3732L	19 ¹ / ₁₆ x 14 ⁹ / ₁₆ (500 x 370)	22 ¹ / ₁₆ x 16 ¹⁵ / ₁₆ (560 x 430)	1 ¹ / ₄ (32)	2
LIB3755L	19 ¹ / ₁₆ x 14 ⁹ / ₁₆ (500 x 370)	22 ¹ / ₁₆ x 16 ¹⁵ / ₁₆ (560 x 430)	2 ³ / ₁₆ (55)	2
LIB3232L	17 ¹¹ / ₁₆ x 12 ⁵ / ₈ (450 x 320)	20 ¹ / ₁₆ x 14 ¹⁵ / ₁₆ (510 x 380)	1 ¹ / ₄ (32)	2
LIB3255L	17 ¹¹ / ₁₆ x 12 ⁵ / ₈ (450 x 320)	20 ¹ / ₁₆ x 14 ¹⁵ / ₁₆ (510 x 380)	2 ³ / ₁₆ (55)	2
LIB4155L	16 ¹ / ₈ x 16 ¹ / ₈ (410 x 410)	18 ¹ / ₂ x 18 ¹ / ₂ (470 x 470)	2 ³ / ₁₆ (55)	2

Ventilation hatches with friction hinge up to 180°

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Cut-out radius R inches (mm)	Number of handles
LIB3432L	13 ³ / ₈ x 7 ⁴³ / ₆₄ (340 x 195)	15 ³ / ₄ x 10 ¹ / ₁₆ (400 x 255)	1 ¹ / ₄ (32)	1
LIB2032L	7 ⁷ / ₈ x 7 ⁷ / ₈ (200 x 200)	10 ¹ / ₄ x 10 ¹ / ₄ (260 x 260)	1 ¹ / ₄ (32)	1



Different colors available. Consult your VETUS dealer.



Escape and ventilation hatches

FGH(F) Series (AII)

Stylish flush hatches

The FGH and the FGHF are specifically designed for new boats. Both are suitable for new builds because the need of a recess in the deck. After fitting the FGH(F), the hatch is completely recessed into the deck creating a smooth and flush look.

The FGHF differs from the FGH by its fully flush bolts and handles. Larger sizes FGHF hatches are equipped with a socket in the handle, so they can be opened from the outside with the help of a winch handle.

Type FGH (appliance location area AII) hatch is available in six sizes, while the fully flush type FGHF (also location area AII) hatch is available in four sizes. Both FGH and FGHF are made of 1/2" (12 mm) thick 'dark smoke' acrylic with a maintenance-free polished and anodized aluminum frame.

FGH Escape hatches

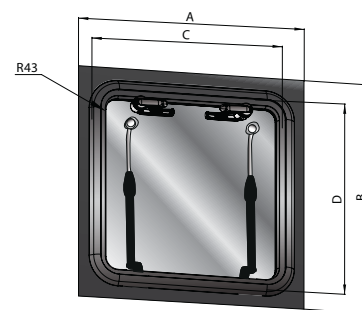
Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Number of handles
FGH6363	24 ¹¹ / ₁₆ x 24 ¹¹ / ₁₆ (627 x 627)	27 ⁹ / ₁₆ x 27 ⁹ / ₁₆ (700 x 700)	5
FGH5151	19 ⁵ / ₁₆ x 19 ⁵ / ₁₆ (507 x 507)	22 ¹³ / ₁₆ x 22 ¹³ / ₁₆ (580 x 580)	4
FGH4633	18 x 12 ⁷ / ₈ (457 x 327)	20 ³ / ₄ x 15 ⁵ / ₈ (527 x 397)	2
FGH5139	19 ⁵ / ₁₆ x 15 ⁷ / ₁₆ (507 x 392)	22 ¹³ / ₁₆ x 18 ⁵ / ₁₆ (580 x 465)	2

FGH Deck hatches

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Number of handles
FGH2626	10 ¹ / ₄ x 10 ¹ / ₄ (260 x 260)	13 x 13 (330 x 330)	1
FGH4444	17 ³ / ₈ x 17 ³ / ₈ (442 x 442)	20 ¹ / ₄ x 20 ¹ / ₄ (515 x 515)	3

FGHF Deck hatches

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Number of handles
FGHF2626	10 ¹ / ₄ x 10 ¹ / ₄ (260 x 260)	13 x 13 (330 x 330)	1
FGHF4444	17 ³ / ₈ x 17 ³ / ₈ (442 x 442)	20 ¹ / ₄ x 20 ¹ / ₄ (515 x 515)	3
FGHF5151	19 ⁵ / ₁₆ x 19 ⁵ / ₁₆ (507 x 507)	22 ¹³ / ₁₆ x 22 ¹³ / ₁₆ (580 x 580)	4
FGHF6363	24 ¹¹ / ₁₆ x 24 ¹¹ / ₁₆ (627 x 627)	27 ⁹ / ₁₆ x 27 ⁹ / ₁₆ (700 x 700)	5



FGH



FGHF



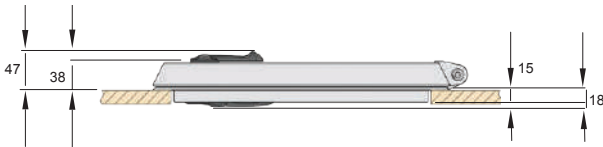
Glazing systems

Escape and ventilation hatches

Type MAGNUS (AI)

Heavy duty ocean hatch

MAGNUS hatches have a satin sheen anodised frame profile with a $\frac{3}{8}$ " (10 mm) thick 'dark smoke' coloured acrylic and are designed for ocean use, design category A, area I. Because of the friction hinges, these hatches can remain open at any angle up to 180°. They have a ventilation position and can be locked completely watertight from the inside and outside.



Escape hatches

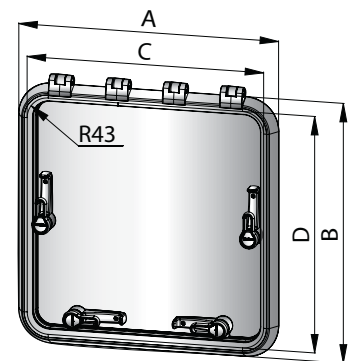
Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Number of handles
MAG6363SL	24 ¹¹ / ₁₆ x 24 ¹¹ / ₁₆ (627 x 627)	26 ³ / ₄ x 26 ³ / ₄ (679 x 679)	4
MAG5151SL	19 ¹⁵ / ₁₆ x 19 ¹⁵ / ₁₆ (507 x 507)	22 x 22 (559 x 559)	4
MAG4747SL	18 ¹ / ₂ x 18 ¹ / ₂ (470 x 470)	20 ⁹ / ₁₆ x 20 ⁹ / ₁₆ (522 x 522)	4

Deck hatches

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Number of handles
MAG4242SL	16 ⁹ / ₁₆ x 16 ⁹ / ₁₆ (421 x 421)	18 ⁵ / ₈ x 18 ⁵ / ₈ (473 x 473)	2
MAG5038SL	19 ¹⁵ / ₁₆ x 14 ¹³ / ₁₆ (507 x 377)	22 x 16 ⁷ / ₈ (559 x 429)	2
MAG4633SL	18 x 12 ⁷ / ₈ (457 x 327)	20 ¹ / ₁₆ x 14 ¹⁵ / ₁₆ (509 x 379)	2

Ventilation hatches

Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	Number of handles
MAG2626SL	10 ¹ / ₄ x 10 ¹ / ₄ (260 x 260)	12 ⁵ / ₁₆ x 12 ⁵ / ₁₆ (312 x 312)	1
MAA3520L	13 ¹¹ / ₁₆ x 7 ¹⁵ / ₁₆ (347 x 202)	15 ¹¹ / ₁₆ x 10 (399 x 254)	2



VETUS strongly advises against using MAGNUS hatches as an A1 escape hatch in the underside of a multihull. Due to the flexible nature of these type of vessels, water tightness cannot be guaranteed unless the hatch is installed on a flat and inflexible structure.

Different colors available. Consult your VETUS dealer.



Escape and ventilation hatches

Sliding hatch type LINGUA (AII a)

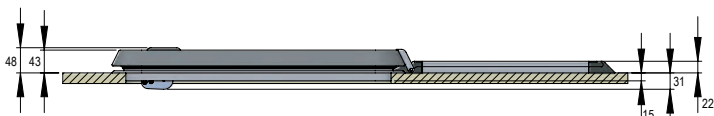
With this new VETUS sliding hatch, you approach the ultimate convertible feeling. These aluminum sliding hatches are available in four sizes up to a size of 28 3/8" x 30 5/16" (720 x 770 mm).

They are designed for use on the wheelhouse and ensure ventilation and light entry. The "dark smoke" colored acrylic has a thickness of 3/8" (10 mm) and is located in a black anodized frame. Operation is done by a single bar. Type LINGUA is suitable for installation location Area II a.

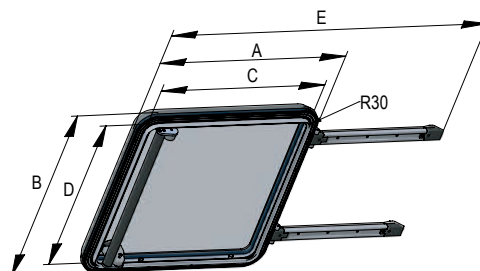
NEW!



LING



Type	Cut-out dimensions C x D inches (mm)	External dimensions A x B inches (mm)	E inches (mm)
LING7277	28 3/8 x 30 5/16 (720 x 770)	30 7/16 x 32 13/32 (773 x 823)	54 5/8 (1388)
LING6060	23 5/8 x 23 5/8 (600 x 600)	25 11/16 x 25 11/16 (653 x 653)	45 3/16 (1148)
LING5670	22 1/6 x 27 9/16 (560 x 700)	24 1/8 x 29 5/8 (613 x 753)	42 1/16 (1068)
LING5050	19 3/4 x 19 3/4 (501 x 501)	21 13/16 x 21 13/16 (554 x 554)	37 3/8 (950)



Glazing systems

Hatch trims

Type HCM - Hatch trims with mosquito screen

Neat finish and protection against insects

The complete range of hatches can be supplied with an adjustable depth trim complete with mosquito screen. These white synthetic trims are designed to cover the space between the hatch and the headlining inside the boat. The depth of the flange can be cut to size to suit the thickness of the deck. An integral and hinged mosquito screen is included.

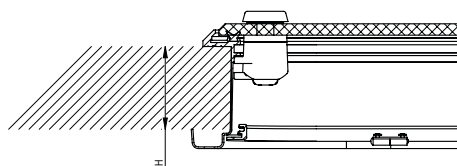
Type	Hatch
HCM23	PLA23L
HCM30	PLA30L
HCM32	PLA32L
HCM34	PLA34L
HCM40	PLA40L
HCM45	PLA45L
HCM50	PLA50L

Type	Hatches		
HCM2626	MAG2626SL	ALT2626SL	FGH(F)2626
HCM4242	MAG4242SL	ALT4242SL	
HCM4444			FGH(F)4444
HCM4633	MAG4633SL	ALT4633SL	FGH4633
HCM4747	MAG4747SL	ALT4747SL	
HCM5038	MAG5038SL	ALT5038SL	
HCM5139			FGH5139
HCM5151	MAG5151SL	ALT5151SL	FGH(F)5151
HCM6363	MAG6363SL	ALT6363SL	FGH(F)6363

Type	Hatch
HCMD420	ALTD420SL
HCMD520	ALTD520SL
HCMR420	ALTR420SL
HCMR520	ALTR520SL

Type	Hatch
HCM2020	LIB2032L
HCM3420	LIB3432L
HCM4141	LIB4155L
HCM4532	LIB3255L
HCM5037	LIB3755L
HCM5050	LIB5055L
HCM6262	LIB6255L

Deck thickness H (mm)	
PLANUS	40 - 64
ALTUS	44 - 72
FGH(F)	78 - 105
MAGNUS	24 - 65
LIBERO	15 - 54



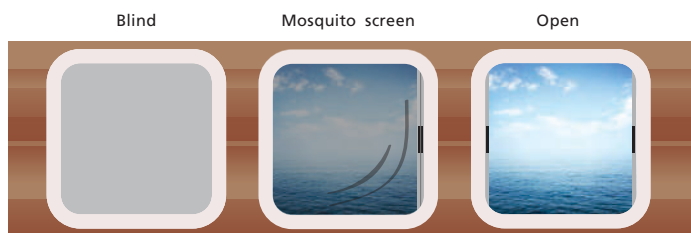
HCM

Type HMB

Swipe to your ideal cabin condition

The HMB is a mosquito screen and roller blind in-one. Designed to go unnoticed on your hatch and fitted with an easily adjustable spring to manually reset the tension of the screens. Suitable for the hatches mentioned in the overview.

Type	Suitable for hatch
HMB2626	ALT2626SL / MAG2626SL / FGH(F)2626
HMB4242	ALT4242SL / MAG4242SL
HMB4444	FGH(F)4444
HMB4633	ALT4633SL / MAG4633SL / FGH4633
HMB5038	ALT5038SL / MAG5038SL
HMB5139	FGH5139





Custom-made boat glazing



Marex is a brand long associated with high-quality, custom-made marine glazing products. The aluminum frames withstand a 1000-hour salt spray test without any observable damage. In addition, verification tests, according to ISO 12216, Design Category A and Area IIa, were performed on samples of each window type during the design process. This all ensures that your glazing will look like new for a long time.

To meet your needs, we offer three different window profiles: screw-on, comfort and exclusive. In addition we can provide cabin entries and doors. All products are made to measure.

The following frame finishes are available: Clear anodized, powder coated in black (RAL 9005) or white (RAL 9010). Other colors are available on special order.

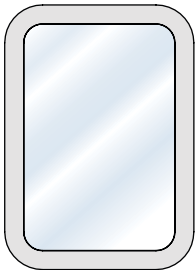
Sliding and half-drop type windows can be provided with a mosquito screen.



Supplied with a strip to cover the screws.

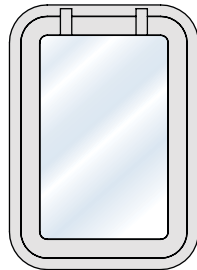


Exclusive double glass
Comfort single glass and double glass
Screw-on single glass
Fritted glass



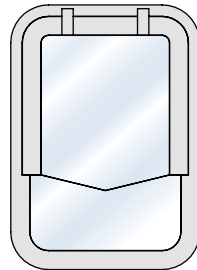
FIXED

Exclusive double glass
Comfort single glass and double glass
Screw-on single glass



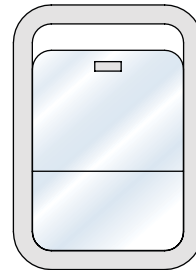
HINGED

Comfort single glass



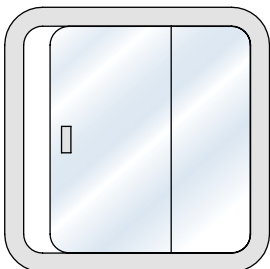
HALF HINGED

Comfort single glass
Screw-on single glass



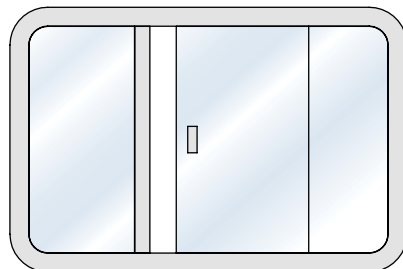
HALF DROP

Screw-on single glass
Comfort single glass



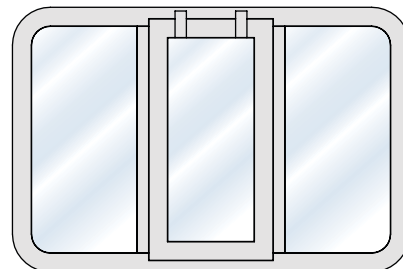
SLIDING

Screw-on single glass
Comfort single glass



COMBINATION FIXED/SLIDING

Comfort single and double glass
Exclusive double glass



COMBINATION FIXED/HINGED



Glazing systems

Custom made boat glazing

MAREX

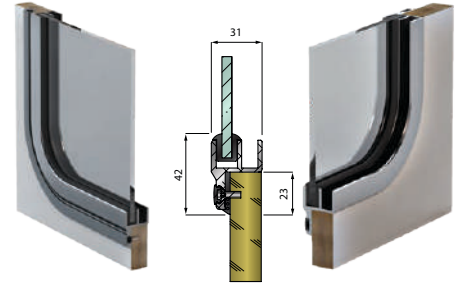


Screw-on range

Specifications

- Particularly suitable for wooden superstructures
- Suitable for all panel thicknesses
- Supplied with a black, white or grey strip to cover the screws
- With corner radii $2^{9/16}$ ", $2^{15/16}$ ", $3^{9/16}$ ", or $4^{1/8}$ " (65, 75, 90 or 105 mm) or mitred corners
- Glass thickness: $1/4$ " (6 mm) or $5/16$ " (8 mm)

Cover strip



outside

Screw-on range

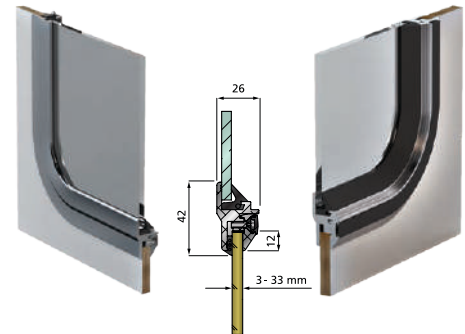
inside

Comfort range

Specifications

- Uses an aluminium clamp profile, fastened from inside by screws through the supplied aluminium counter flange (therefore no screws are visible from the outside of the boat)
- Suitable for panel thicknesses between $1/8$ " and $1^{5/16}$ " (3 and 33 mm) (fixed glass), $1/8$ " and $1^{7/16}$ " (3 and 37 mm) (sliding glass) or $1/8$ " and $1^{5/8}$ " (3 and 42 mm) (double glass)
- Supplied with a black, white or grey strip to cover the screws
- With corner radii $2^{9/16}$ ", $2^{15/16}$ ", $3^{9/16}$ ", or $4^{1/8}$ " (65, 75, 90 or 105 mm) or mitred corners
- Available glass thicknesses: $1/4$ ", $5/16$ " and $3/8$ " (6, 8 and 10 mm for single glass or combined for double glass)

Cover strip



outside

Comfort range

inside

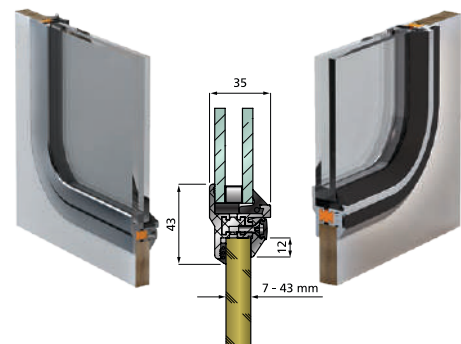
Exclusive range

Specifications

- Uses an aluminium clamp profile, fastened from inside by screws through the supplied aluminium counter flange (therefore no screws are visible from the outside of the boat)
- Suitable for panel thicknesses of $1/4$ " to $1^{11/16}$ " (7 to 43 mm)
- Supplied with a black, white or grey strip to cover the screws and a seal for fitting
- To prevent condensation on the inside glass pane and window frame, the Exclusive range uses an (insulation bridge) insulated edge seal
- Available as fixed or fully hinged versions with double glass only
- With corner radii $2^{15/16}$ "*, $3^{9/16}$ ", or $4^{1/8}$ " (75*, 90 or 105 mm) or mitred corners
- Available glass thicknesses $1/4$ ", $5/16$ " and $3/8$ " (6, 8 and 10 mm) can be combined for the double glass. The standard is two panes, each $1/4$ " (6 mm) thick

*Except hinged windows

Cover strip



outside

Exclusive range

inside



Custom made boat glazing

MAREX

Hopper Windows

Fresh air without a catch

These round windows with removable double-glazed panes are designed in mind of canal boats that are particularly cozy, with almost no room to spare. The round design of the hopper blends in perfectly with the traditional look of authentic canal boats.

Available in two diameters of 14¹⁵/₁₆" (380 mm) or 18¹/₁₆" (459 mm), our double glazed hopper porthole is easy to clean and provides an unimpeded view. Ergonomic clamps press the window firmly into the rubber seal, making it suitable for design area III locations.

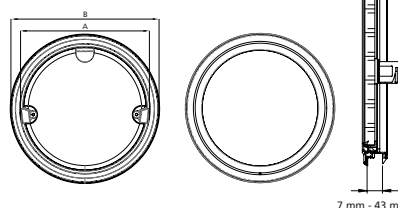


HOP

Features

- Polished and anodized aluminum frame with thermal break
- Sturdy aluminium tab at the top of the glass panel can be used to wall-mount it
- Easy to clean and maintenance-free design
- Suitable for design AIII locations

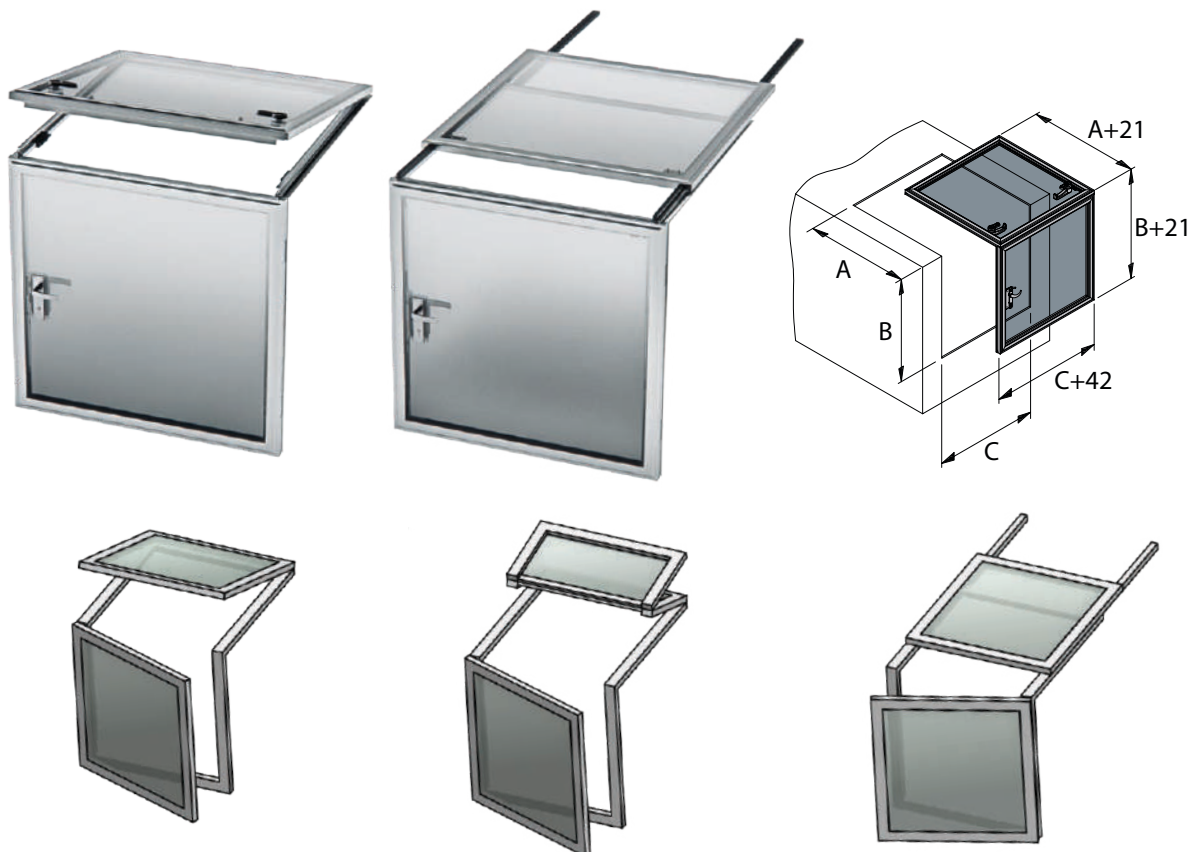
Type	Description	A Cut-out dimensions inches (mm)	B External dimensions inches (mm)
HOP380	Round 14 ¹⁵ / ₁₆ " (380 mm) double glass hopper with anodized aluminium frame and rubber seal	14 ¹⁵ / ₁₆ (380)	16 ⁷ / ₈ (410)
HOP459	Round 18 ¹ / ₁₆ " (459 mm) double glass hopper with anodized aluminium frame and rubber seal	18 ¹ / ₁₆ (459)	19 ¹ / ₄ (489)



Cabin entries

Made to your dimensions

Both the hinged door and the top cover (hinged or sliding) are made to order to your required dimensions. The cabin entries can also be supplied without a door and the doors can be ordered without a hatch. Max. size 59¹/₁₆ x 39³/₈" (1500 x 1000 mm) per part (A or B x C).



Glazing systems

Custom made boat glazing



Sliding cabin entry

Easy sliding!

Equipped with bearing runners this single unit cabin entry opens and shuts very easily. In order to keep the sliding door in its open position an end-lock is mounted. Available with mitred corners, acrylic pane and angles from 90-180 degrees.

All cabin entries are suitable for appliance location area AIV.



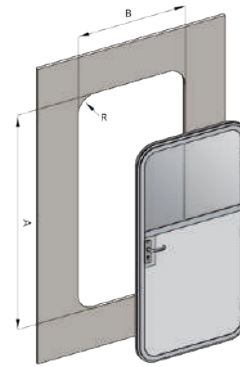
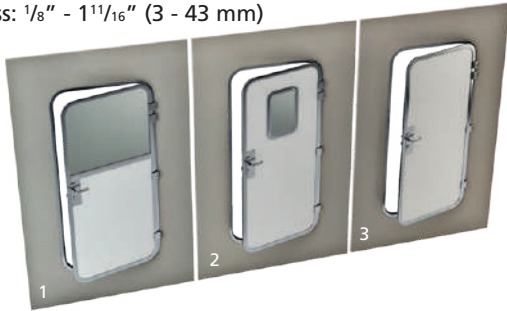
Hinged doors

For boating in heavy weather, these hinged doors are fitted with a double seal for protection against flooding. The doors' upper section can be double glazed (picture 1), with an aluminum framed window with single or double glass (picture 2) or just white honeycomb panel (picture 3). Available with mitred or rounded corners.

All doors are suitable for appliance location area AIII.

Specifications

- Corner radius: $5\frac{1}{8}$ " (130 mm)
- Door thickness: $2\frac{5}{32}$ " (20 mm)
- Panel thickness: $\frac{1}{8}$ " - $1\frac{1}{16}$ " (3 - 43 mm)



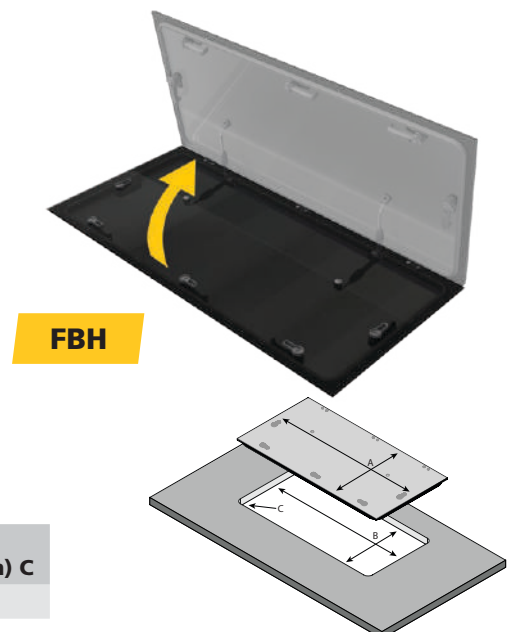
Type FBH - Fly Bridge Hatch

Slim and sleek design

To cover the opening between the deck and fly bridge we offer you: the FBH (Fly Bridge Hatch). The slim and sleek design of the FBH fits perfectly on modern type boats. This FBH can be tailor-made up to $24\frac{13}{16}$ " (630 mm) width and $51\frac{3}{16}$ " (1300 mm) long and features $\frac{1}{2}$ " (12 mm) dark smoke acrylic on a polished and anodised aluminium frame. With style and flair it merges flawlessly on the fly bridge of your vessel.

Specifications

- Privacy tinted fly bridge hatch
- $\frac{1}{2}$ " (12 mm) thick 'dark smoke' acrylic
- Polished and anodised high grade aluminium frame
- Ergonomic and precision engineered handles
- Hatches are available in both rectangular and square shapes
- Easy to clean and maintenance-free design
- Suitable for design category A, Area II



Type	Cut-out dimensions inches (mm) B	External dimensions inches (mm) A	Radius inches (mm) C
FBH	up to $24\frac{13}{16}$ x $51\frac{3}{16}$ (630 x 1300)	up to $27\frac{1}{16}$ x $54\frac{1}{16}$ (703 x 1373)	$1\frac{1}{16}$ (43)



Custom made boat glazing

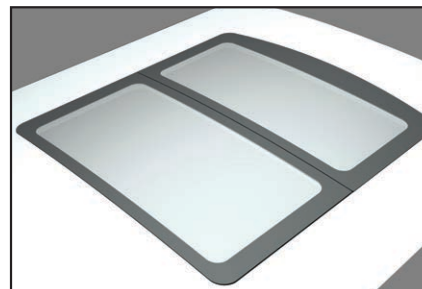
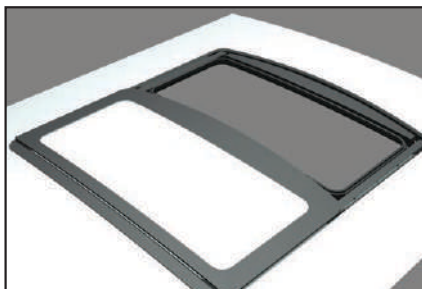
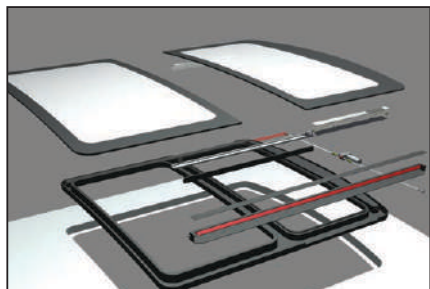
MAREX

Flush Panoramic Sunroof

Ultimate benefits of a solid glass roof

Our panoramic sunroof is produced using the latest state-of-the-art techniques, components and materials, operating both silently and smoothly.

You can enjoy the sun and the ocean breeze by opening the panoramic roof (measuring 78³/₄" x 84⁵/₈" (2000 x 2150 mm)) or keep the weather out by simply closing it.



Model	Flush Panoramic Sunroof
Outside dimensions	78 ³ / ₄ " x 84 ⁵ / ₈ " (2000 x 2150 mm)
Roof radius	12 m
Weight (excl. glass)	85 kg
Weight (incl. glass)	175 kg
Voltage	230 V / 260 W



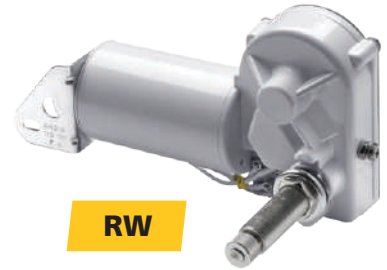
Glazing systems

Windscreen wiper, arms and blades

Windscreen wiper motor type RW and DIN

Ideal wiping for almost any window shape and size

These high quality marine windscreen wipers feature a powerful but quiet two speed electric motor and a worm gear transmission. The wiping angle can be adjusted to eight different settings. Type RW has a parallel, knurled connection. Type DIN has a tapered and knurled connection with a securing nut providing a stronger connection between the wiper arm and the motor drive shaft resulting in a longer life span for both parts. Both types are self-parking and meet the EMC requirements.



RW

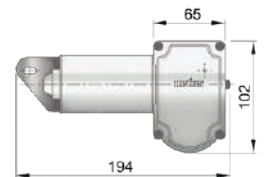
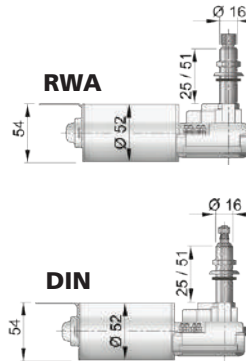


DIN

Specifications

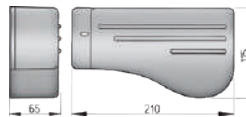
- Available for 12 or 24 VDC supply
- Output 30 Watt
- Suitable for panel thickness from 1/8" (3 mm) to 1/2" (13 mm) (short shaft) or 1/8" (3 mm) to 1 1/2" (38 mm) 3 to 38 mm (long shaft)
- Type RW with parallel knurled stainless steel shaft end of Ø 9/16" (13.5 mm), 72 teeth
- Type DIN with tapered and knurled stainless steel shaft according to DIN 72783
- Optional: screen washer kit, 3-position switch, protective synthetic cover, control panel

Type	Description
RW01A	Wiper motor 12 VDC, 2" (51 mm) shaft with parallel end
RW02A	Wiper motor 24 VDC, 2" (51 mm) shaft with parallel end
RW08A	Wiper motor 12 VDC, 1" (25 mm) shaft with parallel end
RW09A	Wiper motor 24 VDC, 1" (25 mm) shaft with parallel end
DIN1250	Wiper motor 12 VDC, 2" (51 mm) shaft with DIN tapered end
DIN2450	Wiper motor 24 VDC, 2" (51 mm) shaft with DIN tapered end
DIN1225	Wiper motor 12 VDC, 1" (25 mm) shaft with DIN tapered end
DIN2425	Wiper motor 24 VDC, 1" (25 mm) shaft with DIN tapered end



Plastic cover for wiper type RW and DIN

By installing the plastic cover, you will reduce the indicated panel thickness by 1/8" (3 mm), complete with bottom plate.

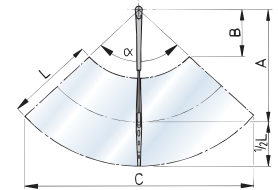


RWCG



How to choose wiper arms and blades (single arm)

When ordering, the voltage, shaft length and shaft end type must be stated. The table below shows the required wiping angle for almost any window. Wiper arms and blades should be ordered separately (see page 326).



Single arm adjustable from 11 to 14 7/16" inch

α°	L: 12" L: 16 1/8" L: 20"						
	Min.	Max.	Min.	Max.	Min.	Max.	
40	A:	11 14 7/16	11 14 7/16	11 14 7/16	11 14 7/16		
	B:	4 3/8	7 7/16	2 1/8	5 1/8	1 1/2	
	C:	11 1/8	14	13 1/8	15 5/8	14 3/8	16 1/8
50	A:	11 14 7/16	11 14 7/16	11 14 7/16	11 14 7/16		
	B:	4 3/8	7 7/16	2 1/8	5 1/8	1 1/2	4
	C:	14 7/16	17 1/4	16 1/8	19	17 1/4	20 3/8
60	A:	11 14 7/16	11 14 7/16	11 14 7/16	11 14 7/16		
	B:	4 3/8	7 7/16	2 1/8	5 1/8	1 1/2	3 1/8
	C:	17 1/8	20 1/8	19 1/8	22 1/2	21	24 1/8
70	A:	11 14 7/16	11 14 7/16	11 14 7/16	11 14 7/16		
	B:	4 3/8	7 7/16	2 1/8	5 1/8	1 1/2	3 3/8
	C:	19 1/2	23 1/8	21 1/8	25 3/8	24 1/8	28
80	A:	11 14 7/16	11 14 7/16	11 14 7/16	11 14 7/16		
	B:	3 3/8	6 1/8	2 1/8	4 1/8	1 1/2	3 3/8
	C:	21 1/8	26 1/4	24 1/8	28 3/8	27	31 3/8
90	A:	11 14 7/16	11 14 7/16	11 14 7/16	11 14 7/16		
	B:	3 3/8	5 1/8	2 1/8	4 1/8	1 1/2	3 1/8
	C:	24 1/8	28 1/8	27	31 1/8	29 3/4	34 1/2
100	A:	11 14 7/16	11 14 7/16	11 14 7/16	11 14 7/16		
	B:	3 3/8	5 1/8	1 7/8	4 1/8	1 1/2	2 7/16
	C:	26 1/8	31 1/4	29 1/4	34 1/8	32 3/8	36 7/16
110	A:	11 14 7/16	11 14 7/16	11 14 7/16	11 14 7/16		
	B:	2 7/8	4 3/8	1 1/2	3 3/8	1 1/2	1 7/16
	C:	27 1/8	33 1/8	31 3/8	36 3/8	34 7/8	36 7/8

Single arm adjustable from 15 1/16 to 18 1/16 inch

α°	L: 12" L: 16 1/8" L: 20"						
	Min.	Max.	Min.	Max.	Min.	Max.	
40	A:	15 1/16	18 1/16	15 1/16	18 1/16	15 1/16	18 1/16
	B:	9	12 1/16	7 1/16	10 1/16	5 1/16	8 1/16
	C:	14 1/4	17 1/8	16 1/8	19 1/8	17 1/8	19 3/8
50	A:	15 1/16	18 1/16	15 1/16	18 1/16	15 1/16	18 1/16
	B:	8 1/16	11 1/16	6 1/16	9 1/16	5 1/16	8 1/16
	C:	18 1/4	21 1/8	19 1/8	22 1/8	21 3/8	24 1/8
60	A:	15 1/16	18 1/16	15 1/16	18 1/16	15 1/16	18 1/16
	B:	8 1/16	11 1/16	6 1/16	9 1/16	4 13/16	7 3/8
	C:	21 1/16	24 1/8	23 3/8	27	25 3/8	28 1/8
70	A:	15 1/16	18 1/16	15 1/16	18 1/16	15 1/16	18 1/16
	B:	7 13/16	10 1/16	6 1/8	8 1/8	4 1/16	186
	C:	24 1/4	28 1/8	27 1/8	31	29 3/8	843
80	A:	15 1/16	18 1/16	15 1/16	18 1/16	15 1/16	17 1/16
	B:	7 7/16	9 13/16	5 3/4	8 1/8	4 1/4	5 1/2
	C:	27 1/16	32 1/8	30 3/8	34 1/4	32 3/8	34 1/16
90	A:	15 1/16	18 1/16	15 1/16	18 1/16		
	B:	6 1/4	9 1/8	5 1/4	7 1/16		
	C:	30 1/2	35 1/4	33 1/8	38 1/8		
100	A:	15 1/16	18 1/16	15 1/16	18 1/16		
	B:	6 1/8	8 1/8	4 13/16	5 1/16		
	C:	33 1/16	38 1/4	36 1/8	38 3/8		
110	A:	15 1/16	18 1/16	15 1/16			
	B:	5 1/2	7 3/8	4 1/2			
	C:	35 1/16	40 1/8	38 1/16			

Single arm adjustable from 18 1/8 to 22 inch

α°	L: 12" L: 16 1/8" L: 20"						
	Min.	Max.	Min.	Max.	Min.	Max.	
40	A:	18 1/8	22	18 1/8	22	18 1/8	22
	B:	11 1/8	15 1/8	9 1/8	13 1/8	8 1/8	11 1/8
	C:	16 1/8	19 1/8	18 1/8	20 1/8	19 1/8	21 1/8
50	A:	18 1/8	22	18 1/8	22	18 1/8	22
	B:	11 1/8	14 1/2	9 1/8	12 3/8	7 1/8	10 1/8
	C:	20 1/8	23 1/8	22 1/8	25 1/8	24 1/8	27 1/8
60	A:	18 1/8	22	18 1/8	22	18 1/8	22
	B:	10 1/8	13 1/8	9 1/8	12 1/8	7 1/2	10 1/8
	C:	24 1/8	28 1/8	26 1/8	30 1/8	28 3/8	32
70	A:	18 1/8	22	18 1/8	22	18 1/8	19 1/16
	B:	10 1/8	13 1/8	8 1/8	11 1/8	7 1/8	7 1/8
	C:	28 1/4	32 1/8	30 3/8	34 1/8	32 1/8	34 1/16
80	A:	18 1/8	22	18 1/8	21 1/16		
	B:	9 1/16	12 1/4	8 1/16	10 1/8		
	C:	31 1/8	36	34 1/8	37 1/8		
90	A:	18 1/8	22	18 1/8	19		
	B:	8 13/16	11 1/16	7 1/2	7 1/16		
	C:	34 1/16	39 3/8	37 1/4	38 1/4		
100	A:	18 1/8	22				
	B:	8 1/8	10 1/4				
	C:	37 1/16	42 1/8				
110	A:	18 1/8	20 1/8				
	B:	7 1/4	8 3/8				
	C:	40 3/8	44				



Windscreen wiper, arms and blades

How to choose wiper arms and blades (dual arm)

When ordering, the voltage, shaft length and shaft end type must be stated. The table below shows the required wiping angle for almost any window. Wiper arms and blades should be ordered separately (see following page).

Dual arm, adjustable from 12¹/₁₆ to 15¹/₂ inch 1³/₄+

α°	L: 305		L: 410		L: 508	
	Min.	Max.	Min.	Max.	Min.	Max.
40	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂
	B:	7 ³ / ₁₆ 10 ⁹ / ₁₆	5 ⁷ / ₁₆ 8 ³ / ₁₆	3 ¹ / ₁₆ 6 ¹ / ₁₆	8 ³ / ₁₆ 10 ⁹ / ₁₆	8 ³ / ₁₆ 10 ⁹ / ₁₆
	C:	8 ⁷ / ₁₆ 10 ⁹ / ₁₆	8 ⁷ / ₁₆ 10 ⁹ / ₁₆	8 ⁷ / ₁₆ 10 ⁹ / ₁₆	8 ⁷ / ₁₆ 10 ⁹ / ₁₆	8 ⁷ / ₁₆ 10 ⁹ / ₁₆
50	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂
	B:	6 ¹ / ₁₆ 9 ¹³ / ₁₆	4 ¹ / ₁₆ 7 ¹¹ / ₁₆	2 ¹ / ₁₆ 5 ⁹ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆
	C:	10 ¹ / ₁₆ 13 ¹³ / ₁₆	10 ¹ / ₁₆ 13 ¹³ / ₁₆	10 ¹ / ₁₆ 13 ¹³ / ₁₆	10 ¹ / ₁₆ 13 ¹³ / ₁₆	10 ¹ / ₁₆ 13 ¹³ / ₁₆
60	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂
	B:	6 ¹ / ₁₆ 9 ⁷ / ₁₆	4 ³ / ₁₆ 7 ¹ / ₁₆	2 ⁵ / ₁₆ 5 ³ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆
	C:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂
70	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂
	B:	5 ¹ / ₁₆ 8 ⁷ / ₁₆	3 ³ / ₁₆ 6 ⁹ / ₁₆	1 ¹¹ / ₁₆ 4 ⁷ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆
	C:	13 ¹³ / ₁₆ 17 ¹³ / ₁₆	13 ¹³ / ₁₆ 17 ¹³ / ₁₆	13 ¹³ / ₁₆ 17 ¹³ / ₁₆	13 ¹³ / ₁₆ 17 ¹³ / ₁₆	13 ¹³ / ₁₆ 17 ¹³ / ₁₆
80	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂
	B:	5 ¹ / ₁₆ 3	5 ¹ / ₁₆ 5 ⁹ / ₁₆	1 ¹ / ₁₆ 3 ³ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆
	C:	15 ⁹ / ₁₆ 19 ⁹ / ₁₆	15 ⁹ / ₁₆ 19 ⁹ / ₁₆	15 ⁹ / ₁₆ 19 ⁹ / ₁₆	15 ⁹ / ₁₆ 19 ⁹ / ₁₆	15 ⁹ / ₁₆ 19 ⁹ / ₁₆
90	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂
	B:	4 ¹ / ₁₆ 6 ¹ / ₁₆	2 ⁷ / ₁₆ 4 ⁹ / ₁₆	1 ⁷ / ₁₆ 2 ¹ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆
	C:	17 ¹³ / ₁₆ 21 ¹³ / ₁₆	17 ¹³ / ₁₆ 21 ¹³ / ₁₆	17 ¹³ / ₁₆ 21 ¹³ / ₁₆	17 ¹³ / ₁₆ 21 ¹³ / ₁₆	17 ¹³ / ₁₆ 21 ¹³ / ₁₆
100	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂
	B:	3 ⁷ / ₁₆ 5 ¹ / ₁₆	1 ¹ / ₁₆ 3 ³ / ₁₆	0	10 ⁹ / ₁₆ 13 ¹³ / ₁₆	10 ⁹ / ₁₆ 13 ¹³ / ₁₆
	C:	18 ⁹ / ₁₆ 23 ¹³ / ₁₆	18 ⁹ / ₁₆ 23 ¹³ / ₁₆	19 ⁹ / ₁₆ 21 ¹³ / ₁₆	18 ⁹ / ₁₆ 23 ¹³ / ₁₆	18 ⁹ / ₁₆ 23 ¹³ / ₁₆
110	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂			
	B:	2 ¹ / ₁₆ 4 ⁷ / ₁₆	1 ¹ / ₁₆ 2 ⁹ / ₁₆			
	C:	19 ⁹ / ₁₆ 25 ⁹ / ₁₆	19 ⁹ / ₁₆ 25 ⁹ / ₁₆			

Dual arm, adjustable from 12¹/₁₆ to 15¹/₂ inch 1³/₄-

α°	L: 305		L: 410		L: 508	
	Min.	Max.	Min.	Max.	Min.	Max.
40	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂
	B:	3 ³ / ₁₆ 6 ¹ / ₁₆	1 ⁹ / ₁₆ 4 ¹¹ / ₁₆	0	2 ¹ / ₁₆	2 ¹ / ₁₆
	C:	8 ⁷ / ₁₆ 10 ⁹ / ₁₆	8 ⁷ / ₁₆ 10 ⁹ / ₁₆	8 ⁷ / ₁₆ 10 ⁹ / ₁₆	8 ⁷ / ₁₆ 10 ⁹ / ₁₆	8 ⁷ / ₁₆ 10 ⁹ / ₁₆
50	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	13	15 ¹ / ₂	
	B:	3 ¹ / ₁₆ 6 ¹ / ₁₆	1 ¹ / ₁₆ 4 ³ / ₁₆	0	2 ¹ / ₁₆	
	C:	10 ¹ / ₁₆ 13 ¹³ / ₁₆	10 ¹ / ₁₆ 13 ¹³ / ₁₆	11	13 ¹³ / ₁₆	
60	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	13 ⁹ / ₁₆	15 ¹ / ₂	
	B:	2 ¹ / ₁₆ 5 ⁹ / ₁₆	1 ¹ / ₁₆ 3 ³ / ₁₆	0	1 ⁹ / ₁₆	
	C:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	13 ⁹ / ₁₆	15 ¹ / ₂	
70	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	14 ³ / ₁₆	15 ¹ / ₂	
	B:	2 ¹ / ₁₆ 4 ⁷ / ₁₆	1 ¹ / ₁₆ 2 ¹³ / ₁₆	0	7 ¹ / ₁₆	
	C:	13 ¹³ / ₁₆ 17 ¹³ / ₁₆	13 ¹³ / ₁₆ 17 ¹³ / ₁₆	16 ¹ / ₂	17 ¹³ / ₁₆	
80	A:	12 ¹ / ₁₆ 15 ¹ / ₂	12 ¹ / ₁₆ 15 ¹ / ₂	15 ¹ / ₁₆	15 ¹ / ₂	
	B:	1 ¹ / ₁₆ 4 ¹ / ₁₆	0	2	1 ¹ / ₁₆	
	C:	15 ⁹ / ₁₆ 19 ⁹ / ₁₆	16 ¹ / ₂ 19 ⁹ / ₁₆	19 ¹ / ₄	19 ⁹ / ₁₆	
90	A:	12 ¹ / ₁₆ 15 ¹ / ₂	13 ⁹ / ₁₆ 15 ¹ / ₂			
	B:	1 ¹ / ₁₆ 3 ¹ / ₁₆	0	1 ¹ / ₁₆	3 ¹ / ₁₆	
	C:	17 ¹³ / ₁₆ 21 ¹³ / ₁₆	19 ¹ / ₄ 21 ¹³ / ₁₆			
100	A:	12 ¹ / ₁₆ 15 ¹ / ₂	15 ¹ / ₁₆ 15 ¹ / ₂			
	B:	0	2 ⁷ / ₁₆	0	1 ¹ / ₁₆	
	C:	18 ⁹ / ₁₆ 23 ¹³ / ₁₆	23 ¹³ / ₁₆ 23 ¹³ / ₁₆			
110	A:	12 ¹ / ₁₆ 15 ¹ / ₂				
	B:	0	1 ¹ / ₁₆			
	C:	19 ⁹ / ₁₆ 25 ⁹ / ₁₆				

Dual arm, adjustable from 15¹/₂ to 18⁹/₁₆ inch 1³/₄+

α°	L: 305		L: 410		L: 508	
	Min.	Max.	Min.	Max.	Min.	Max.
40	A:	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆
	B:	10 ¹ / ₁₆ 13 ¹³ / ₁₆	8	11 ¹ / ₈	6 ¹ / ₁₆ 9 ⁷ / ₁₆	10 ¹ / ₁₆ 12 ¹³ / ₁₆
	C:	10 ¹ / ₁₆ 12 ¹³ / ₁₆	10 ¹ / ₁₆	12 ¹³ / ₁₆	12 ¹³ / ₁₆ 12 ¹³ / ₁₆	12 ¹³ / ₁₆ 12 ¹³ / ₁₆
50	A:	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆
	B:	9 ¹ / ₂ 12 ¹³ / ₁₆	7 ¹ / ₂	10 ¹ / ₂	5 ⁹ / ₁₆ 8 ⁷ / ₁₆	10 ¹ / ₁₆ 12 ¹³ / ₁₆
	C:	12 ¹³ / ₁₆ 15 ¹ / ₁₆	12 ¹³ / ₁₆	12 ¹³ / ₁₆	12 ¹³ / ₁₆ 12 ¹³ / ₁₆	12 ¹³ / ₁₆ 12 ¹³ / ₁₆
60	A:	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆
	B:	8 ³ / ₁₆ 11 ¹ / ₁₆	6 ⁷ / ₁₆	9 ¹ / ₄	4 ¹ / ₁₆ 7 ¹ / ₁₆	10 ¹ / ₁₆ 12 ¹³ / ₁₆
	C:	15 ⁹ / ₁₆ 18 ⁹ / ₁₆	15 ⁹ / ₁₆ 18 ⁹ / ₁₆	15 ⁹ / ₁₆ 18 ⁹ / ₁₆	15 ⁹ / ₁₆ 18 ⁹ / ₁₆	15 ⁹ / ₁₆ 18 ⁹ / ₁₆
70	A:	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆
	B:	8 ¹ / ₄ 10 ¹³ / ₁₆	6 ¹ / ₈ 8 ¹ / ₈	4 ¹ / ₁₆ 6 ¹ / ₈	4 ¹ / ₁₆ 6 ¹ / ₈	10 ¹ / ₁₆ 12 ¹³ / ₁₆
	C:	17 ¹³ / ₁₆ 21 ¹³ / ₁₆	17 ¹³ / ₁₆ 21 ¹³ / ₁₆	17 ¹³ / ₁₆ 21 ¹³ / ₁₆	17 ¹³ / ₁₆ 21 ¹³ / ₁₆	17 ¹³ / ₁₆ 21 ¹³ / ₁₆
80	A:	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆
	B:	7 ¹ / ₈ 9 ¹³ / ₁₆	5 ³ / ₁₆ 7 ¹³ / ₁₆	3 ³ / ₁₆ 4 ¹¹ / ₁₆	3 ³ / ₁₆ 4 ¹¹ / ₁₆	10 ¹ / ₁₆ 12 ¹³ / ₁₆
	C:	19 ¹ / ₂ 23 ¹³ / ₁₆	19 ¹ / ₂ 23 ¹³ / ₁₆	19 ¹ / ₂ 23 ¹³ / ₁₆	19 ¹ / ₂ 23 ¹³ / ₁₆	19 ¹ / ₂ 23 ¹³ / ₁₆
90	A:	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆
	B:	8 ³ / ₁₆ 8 ¹ / ₈	4 ¹ / ₁₆ 6 ¹³ / ₁₆	2 ¹ / ₂ 2 ¹ / ₈	2 ¹ / ₈ 2 ¹ / ₈	10 ¹ / ₁₆ 12 ¹³ / ₁₆
	C:	15 ⁹ / ₁₆ 26 ¹ / ₁₆	15 ⁹ / ₁₆ 26 ¹ / ₁₆	15 ⁹ / ₁₆ 26 ¹ / ₁₆	15 ⁹ / ₁₆ 26 ¹ / ₁₆	15 ⁹ / ₁₆ 26 ¹ / ₁₆
100	A:	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆	15 ¹ / ₁₆ 18 ⁹ / ₁₆
	B:	5 ⁹ / ₁₆ 7 ¹ / ₁₆	3 ³ / ₁₆ 4 ¹¹ / ₁₆	4 ¹¹ / ₁₆	4 ¹¹ / ₁₆	10 ¹ / ₁₆ 12 ¹³ / ₁₆
	C:	23 ^{13</}				

Glazing systems

Windscreen wipers

Wiper arm types RWA and DINP

Adjustable single / dual wiper arms

These wiper arms are made of high-gloss polished stainless steel and black components of top-grade synthetic materials. Both types are available in several sizes (see below). All dual wiper arms are supplied with an idle shaft and connection set.

Single wiper

- Sizes: S from 11" to 14⁷/₁₆" (280 to 366 mm) / L from 15⁹/₁₆" to 18¹⁵/₁₆" (395 to 481 mm) / X from 18⁵/₈" to 22" (473 to 559 mm)
- Bayonet ⁹/₃₂" x ³/₃₂" (7.2 x 2.5 mm)

Dual wiper

- Sizes: D from 12¹/₈" to 15¹/₂" (308 to 393 mm) / DX from 15³/₁₆" to 18⁹/₁₆" (386 to 471 mm)
- Shaft centers 1³/₄" (45 mm)
- Bayonet ⁹/₃₂" x ³/₃₂" (7.2 x 2.5 mm)

Type	Arm	Length inches (mm)	Motor type
RWAS	Black single arm	11 - 14 ⁷ / ₁₆ (280 - 366)	RW
RWAL	Black single arm	15 ⁹ / ₁₆ - 18 ¹⁵ / ₁₆ (395 - 481)	RW
RWAX	Black single arm	18 ⁵ / ₈ - 22 (473 - 559)	RW
RWAD	Black dual arm set	12 ¹ / ₈ - 15 ¹ / ₂ (308 - 393)	RW
RWADX	Black dual arm set	15 ³ / ₁₆ - 18 ⁹ / ₁₆ (386 - 471)	RW
DINPS	Black single arm	11 - 14 ⁷ / ₁₆ (280 - 366)	DIN
DINPL	Black single arm	15 ⁹ / ₁₆ - 18 ¹⁵ / ₁₆ (395 - 481)	DIN
DINPX	Black single arm	18 ⁵ / ₈ - 22 (473 - 559)	DIN
DINPD	Black dual arm set	12 ¹ / ₈ - 15 ¹ / ₂ (308 - 393)	DIN
DINPDX	Black dual arm set	15 ³ / ₁₆ - 18 ⁹ / ₁₆ (386 - 471)	DIN

RWA

With parallel, knurled connection

DINP

With tapered knurled connection



Wiper blade type WBB and WBS

Fit almost all makes and types of wiper arms with a ⁹/₃₂" x ³/₃₂" (7.2 x 2.5 mm) bayonet

The metal parts of these blades are made of AISI 316 stainless steel, either high-gloss polished or black coated. These blades will fit almost all makes and types of wiper arms with a ⁹/₃₂" x ³/₃₂" (7.2 x 2.5 mm) bayonet. They are available in lengths of 12", 16¹/₈" or 20" (305, 410 or 508 mm).

Type	Wiper blade	Finish	Length inches (mm)
WBB30	Stainless steel	Coated black	12 (305)
WBB41	Stainless steel	Coated black	16 ¹ / ₈ (410)
WBB51	Stainless steel	Coated black	20 (508)
WBS30	Stainless steel	Gloss polished	12 (305)
WBS41	Stainless steel	Gloss polished	16 ¹ / ₈ (410)
WBS51	Stainless steel	Gloss polished	20 (508)

WBB

WBS



Wiper arm type SSA and DINS

Strong, durable and stylish!

These arms are entirely made of strong and durable high-gloss polished stainless steel (AISI 316). In combination with VETUS polished wiper blades they will enhance the appearance of any boat!

Type	Arm	Length inches (mm)	Motor type
SSAS	Single arm, stainless steel	11 - 14 ⁷ / ₁₆ (280 - 366)	RW
SSAL	Single arm, stainless steel	15 ⁹ / ₁₆ - 18 ¹⁵ / ₁₆ (395 - 481)	RW
SSAX	Single arm, stainless steel	18 ⁵ / ₈ - 22" (473 - 559)	RW
SSAD	Dual arm set, stainless steel	12 ¹ / ₈ - 15 ¹ / ₂ (308 - 393)	RW
SSADX	Dual arm set, stainless steel	15 ³ / ₁₆ - 18 ⁹ / ₁₆ (386 - 471)	RW
DINSS	Single arm, stainless steel	11 - 14 ⁷ / ₁₆ (280 - 366)	DIN
DINSL	Single arm, stainless steel	15 ⁹ / ₁₆ - 18 ¹⁵ / ₁₆ (395 - 481)	DIN
DINSX	Single arm, stainless steel	18 ⁵ / ₈ - 22" (473 - 559)	DIN
DINSD	Dual arm set, stainless steel	12 ¹ / ₈ - 15 ¹ / ₂ (308 - 393)	DIN
DINSDX	Dual arm set, stainless steel	15 ³ / ₁₆ - 18 ⁹ / ₁₆ (386 - 471)	DIN

SSA

With parallel, knurled connection

DINS

With tapered knurled connection





Windscreen wipers

Wiper type ORW12SET

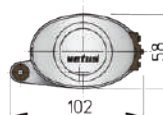
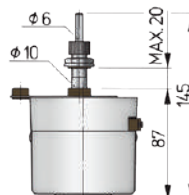
Supplied as a complete set comprising motor, arm and blade

The arm length is adjustable from 11" to 14⁷/₁₆" (280 to 366 mm). The motor is self-parking, has a single speed and a wiping angle of 80° or 110°. The wiper blade is made of black synthetic and also fits other makes of wiper arms with a 9/32" x 3/32" (7.2 x 2.5 mm) bayonet. Type ORW12SET meets all the EMC requirements.

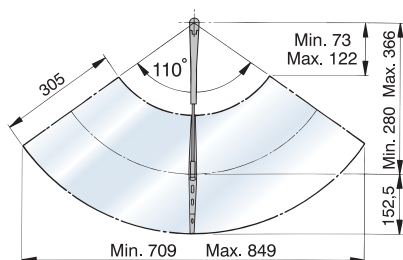
Specifications

- Available for 12 VDC
- Max. current consumption 2A
- Max. panel thickness 1³/₁₆" (20 mm)
- Blade length 12" (305 mm)

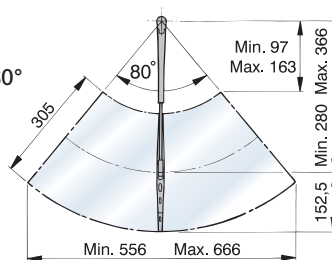
Type	Description
ORW12SET	Wiper motor set, incl. wiper motor, arm and blade (12 VDC)
WBB30	Replacement wiper blade, stainless steel, black coated
ORW12WA	Replacement wiper arm



ORW12SET



Wiping angle: standard 110°, adjustable to 80°



Clear view screens type SLR

Completely clear vision at all times

The centrifugal force caused by the rotating toughened glass, which reaches its maximum revolutions per minute within 25 seconds, instantly clears the screen from rain, snow and spray. Even dirt and salt will not cause any smears. Type SLR is available in two sizes and meets all the EMC requirements.

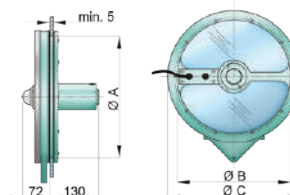
Specifications

- Type 300 (screen Ø 11¹³/₁₆" (300 mm)) / type 350 (screen Ø 13³/₄" (350 mm))
- Both types available for 12 or 24 VDC
- Max. current consumption 2,7A (12 VDC) / 1,4A (24 VDC)

Type	Description
SLR30012	Clear view screen Ø 300 mm o.a. 12 VDC
SLR30024	Clear view screen Ø 300 mm o.a. 24 VDC
SLR35012	Clear view screen Ø 350 mm o.a. 12 VDC
SLR35024	Clear view screen Ø 350 mm o.a. 24 VDC



SLR



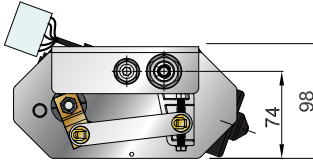
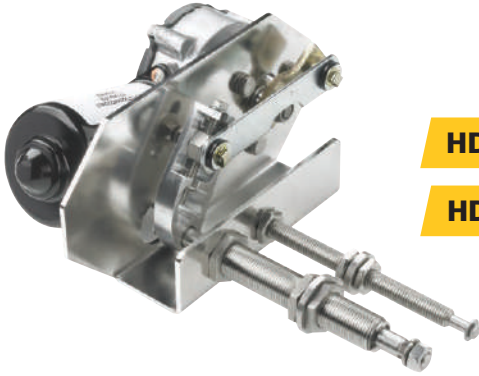
Type	Dimensions		
	Cut-out Ø A inches (mm)	Ø B inches (mm)	Ø C inches (mm)
Type 300	10 ¹³ / ₁₆ " (275)	9 ¹³ / ₁₆ " (250)	11 ¹³ / ₁₆ " (300)
Type 350	12 ¹³ / ₁₆ " (326)	11 ¹³ / ₁₆ " (300)	13 ³ / ₄ " (350)

Windscreen wipers heavy duty (HDM)

This quiet windscreen wiper is interchangeable with previous models HDM (A, B and C). It has a thermal cut-out which will protect the electric motor in case of excessive operating temperature. Type HDM is self-parking on either side, has two speeds and is available with two different shaft lengths. The wiping angle is fully adjustable between 62° and 92°. To determine the optimum wiping surface of each specific window, please see tables below for detailed specifications. All visible parts of the mechanism are made of stainless steel and meet the EMC requirements.

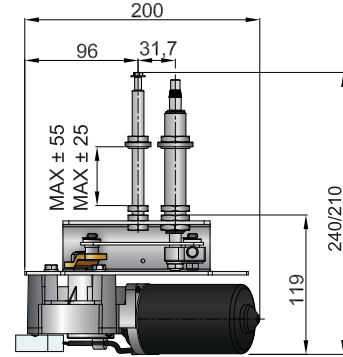
Specifications

- Available for 12 or 24 VDC
- Power 75 Watt
- Weight (without arm and blade) 5 1/2 lb (2.5 kg)



HDM..DS Short shafts

HDM..DL Long shafts



HDMCOVER



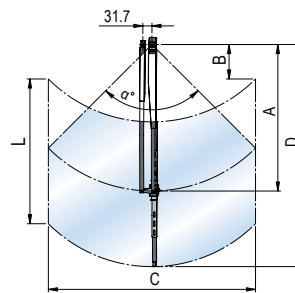
Type	Description
HDM12DL	Heavy duty wiper motor, long shaft, adjustable wipe angle, 12 VDC
HDM24DL	Heavy duty wiper motor, long shaft, adjustable wipe angle, 24 VDC
HDM12DS	Heavy duty wiper motor, short shaft, adjustable wipe angle, 12 VDC
HDM24DS	Heavy duty wiper motor, short shaft, adjustable wipe angle, 24 VDC
HDMCOVER	Plastic cover for HDM motors

Type	Description	Length inches (mm)
SHDA400	Stainless steel AISI 316 dual wiper arm	15 ²⁵ / ₃₂ - 19 ⁹ / ₆₄ (401 - 486)
SHDA500	Stainless steel AISI 316 dual wiper arm	20 - 23 ¹¹ / ₃₂ (508 - 593)
SHDA760	Stainless steel AISI 316 dual wiper arm	26 ⁵ / ₈ - 30 (677 - 762)

Wiped areas of heavy duty windscreen wiper assemblies with HDM motors

SHDA760

α°		L: 18 1/8"		L: 22 1/16"		L: 26"	
		Min.	Max.	Min.	Max.	Min.	Max.
62	A	26 3/8"	30"	26 3/8"	30"	26 3/8"	30"
	B	13 3/4"	16 1/2"	11 13/16"	14 11/16"	9 13/16"	12 11/16"
	C	27 7/16"	30 3/8"	27 7/16"	30 3/8"	27 7/16"	30 7/16"
	D	35 11/16"	39 3/8"	37 11/16"	41"	39 3/8"	43"
92	A	26 3/8"	30"	26 3/8"	30"	26 3/8"	30"
	B	9 7/16"	11 1/4"	7 1/2"	9 11/16"	5 1/2"	7 11/16"
	C	38 3/8"	43 3/8"	38 3/8"	43 3/8"	38 3/8"	43 3/8"
	D	35 11/16"	39 3/8"	37 11/16"	41"	39 3/8"	43"



SHDA500

α°		L: 18 1/8"		L: 22 1/16"		L: 26"	
		Min.	Max.	Min.	Max.	Min.	Max.
62	A	20"	23 3/8"	20"	23 3/8"	20"	23 3/8"
	B	8 1/4"	10 13/16"	6 3/8"	9"	4 1/4"	7"
	C	20 3/8"	24 1/8"	20 3/8"	24 1/8"	20 3/8"	24 1/8"
	D	29 1/8"	32 3/8"	31"	34 3/8"	33"	36 3/8"
92	A	20"	23 3/8"	20"	23 3/8"	20"	23 3/8"
	B	4 13/16"	7 3/16"	2 3/8"	5 3/16"	1 3/8"	3 1/4"
	C	28 3/8"	33 3/8"	28 3/8"	33 3/8"	28 3/8"	33 3/8"
	D	29 1/8"	32 3/8"	31"	34 3/8"	33"	36 3/8"

SHDA400

α°		L: 18 1/8"		L: 22 1/16"		L: 26"	
		Min.	Max.	Min.	Max.	Min.	Max.
62	A	15 13/16"	19 1/8"	15 13/16"	19 1/8"	15 13/16"	19 1/8"
	B	4 1/2"	7 3/8"	2 1/2"	5 3/8"	1 3/8"	3 3/16"
	C	16 1/4"	19 3/4"	16 1/4"	19 3/4"	16 1/4"	19 3/4"
	D	24 13/16"	28 3/8"	26 13/16"	30 3/16"	28 3/8"	32 1/8"
92	A	15 13/16"	19 1/8"	15 13/16"	19 1/8"	15 13/16"	19 1/8"
	B	1 13/16"	4 1/4"	-13/16"	2 3/16"	-2"	3/16"
	C	22 11/16"	27 1/2"	22 11/16"	27 1/2"	22 11/16"	27 1/2"
	D	24 13/16"	28 3/8"	26 13/16"	30 3/16"	28 3/8"	32 1/8"



SHDA..



Windscreen wipers

Wiper arms and blades type WB and SHDA

Heavy-duty stainless steel wiper arms and blades for wiper motor HDM

These heavy duty wiper arms and blades are made from AISI 316 stainless steel, ensuring a long and trouble free life. They are available in a high gloss polished finish or coated black.

Type	Description	Length inches (mm)
WBS46H	Wiper blade, made of high-gloss polished stainless steel 316	18 ⁷ / ₆₄ (460)
WBS56H	Wiper blade, made of high-gloss polished stainless steel 316	22 ³ / ₆₄ (560)
WBS66H	Wiper blade, made of high-gloss polished stainless steel 316	26 (660)
WBB46H	Wiper blade, made of stainless steel 316, coated black	18 ⁷ / ₆₄ (460)
WBB56H	Wiper blade, made of stainless steel 316, coated black	22 ³ / ₆₄ (560)
WBB66H	Wiper blade, made of stainless steel 316, coated black	26 (660)

WBS..H

WBB..H



Accessories

Complete screen washer kit type WWFR

Always a clear view

Type WWFR includes a reservoir with integral pump, tubing with non-return valve, rotary switch and a unique long double spray nozzle to reach over thick windscreen frame profiles and wiper blades. An extension kit (code HDSXTB) consisting of a second double spray nozzle, additional tubing and a T-piece is available and recommended to maintain sufficient flow and pressure.

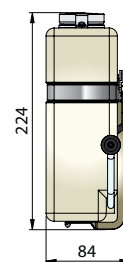
Specifications

- Available in 12 or 24 VDC
- Max. current consumption 1,8A (12 VDC) / 0,9A (24 VDC)
- Tubing length 10' (3 meter)
- Reservoir capacity 51 oz (1.5 liter)
- Pump output 30 oz/min (0.88 liter/min)

WWFR..



Type	Description	Voltage (DC)	Current (A)	Capacity (L/min)
WWFR12	Screen washer kit complete, including reservoir (1,5L)	12	1.8	0.88
WWFR24	Screen washer kit complete, including reservoir (1,5L)	24	0.9	0.88
HDSXTB	Extension screen washer kit for additional windscreen			



Three-position switch

For two-speed wiper motors

Available as rotary or rocker type switch. Suitable for two-speed wiper motors RWS, DIN and HDM. Not suitable for type ORW.

Type	Max. panel thickness inches (mm)	Max. switch current (A)
HDMSW	⁹ / ₃₂ " (7)	20
HDMSW2	¹ / ₄ " (6)	20



HDMSW



HDMSW2



Glazing systems

Accessories

Screen washer

Suitable for all VETUS wiper types

This screen washer is fed by a pressurized, potable water system. The screen washer comes with a hose, solenoid valve (12 or 24 VDC) and switch, hose barbs, spray nozzles and skin fittings and is easy to install.

Type	Description	Voltage (DC)
HDS12B	Screen washer kit	12
HDS24B	Screen washer kit	24
HDSXTB	Extension screen washer kit for additional windscreen	

HDS



Type WPANEL

Completely pre-wired motor wipe panel for up to five windscreen wipers

Type WPANEL can control up to five wiper motors to run synchronously at high or low speed. Each wiper motor is individually switched, so you can select which wipers are operational. They also feature a combination switch for screen wash/wipe activation, speed selection and interval wipe delay. The wiper motors to be connected must have a two speed motor and an automatic parking position. It is optional to connect up to three MARBO (1 x MARBO and 2 x MARBO2) rain sensors to the control unit. The rain sensor function can be activated by the supplied switch panel and can activate all connected wipers simultaneously.

Type WPANEL is supplied with

- One control unit with electronic overload protection (can be DIN rail mounted)
- Five wiper motor switches
- One combined switch for wash/wipe and speed selection
- One mounting plate with room for six switches and two blind plates

Specifications

- Available for 12 or 24 VDC supply
- Power consumption in stand-by mode approx. 10 mA
- Maximum power per wiper motor 120 W
- Internal fuses 10 A each wiper motor, 5 A for screen wash pump or solenoid valve
- Dimensions control panel 1¹⁵/₁₆" x 1⁵/₁₆" x 1¹⁵/₃₂" (49 x 24 x 37.5 mm), control unit 6¹/₄" x 3⁹/₁₆" x 2⁵/₁₆" (159 x 90 x 58 mm)

Type	Description
WPANEL	Windshield wiper control panel for up to five wipers, 12/24 VDC, incl. switches



WPANEL



Automatic rain-sensor for wiper activation

(Not suitable for double glass)

Type	Description
MARBO	Rain sensor incl. switch, suitable for WPANEL
MARBO2	Additional rain sensor, suitable for WPANEL/RWPANEL2



MARBO



MARBO2

Type RWPANEL

Control panel for up to three windscreen wipers

This panel will control up to three switched windscreen wipers synchronously and also activate a screen wash system. The wipers can be set to run at high or low speed at one of five interval wipes and will self-park when they are switched off. It is possible to connect up to three rain sensors (type MARBO2) for automatic operation of the wipers.

Specifications

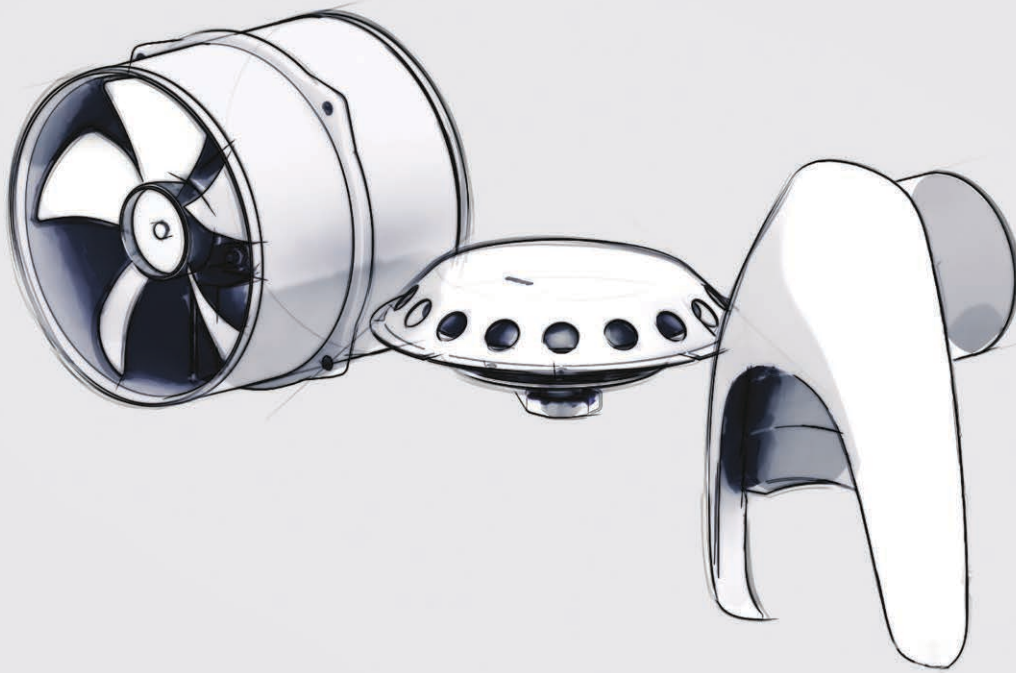
- Panel is suitable for 12 or 24 VDC supply
- Dimensions control panel 3³/₈" x 3³/₈" (85 x 85 mm), control unit 6¹/₄" x 3⁹/₁₆" x 2⁵/₁₆" (159 x 90 x 58 mm)
- Built-in depth 1⁹/₁₆" (40 mm)

Type	Description
RWPANEL2	Windscreen wiper control panel for up to three wipers, 12/24 VDC, incl. control panel



RWPANEL2





Ventilation

Overview

Deck ventilators see page 334 - 335



UFO



UFOPCB



ATHOS1



PORTOSB

Shell ventilators see page 336



TYPHOON



SCIROCCO

Cowl ventilators see page 337 - 338



SAMOEN



CHINOOKS



YOG316R



TOM316WR



TRAMON



TRAMONS



DON316R

Accessories see page 338 - 339



BOX



BOXS



YBOX



Louvered air suction vents see page 340 - 341



ASV



SSVL



ASVREC

Extraction ventilators see page 342 - 344



TWINLINE



VENT76A



VENT102



VENTKIT



VENT178B



Ventilation

Sufficient ventilation on your boat is very important if you have enclosed areas. It can help prevent mold and bad odors and can save lives by taking carbon monoxide or petrol fumes out of the boat. When it comes down to providing the best options for ventilation, VETUS has a wide range of choices, developed for even the harshest conditions, offering products both safe and stylish. We at VETUS understand that ventilation isn't just a hole in your boat. When done correctly it can be a breath of fresh air!

There are two types of ventilation systems

1. Passive ventilators

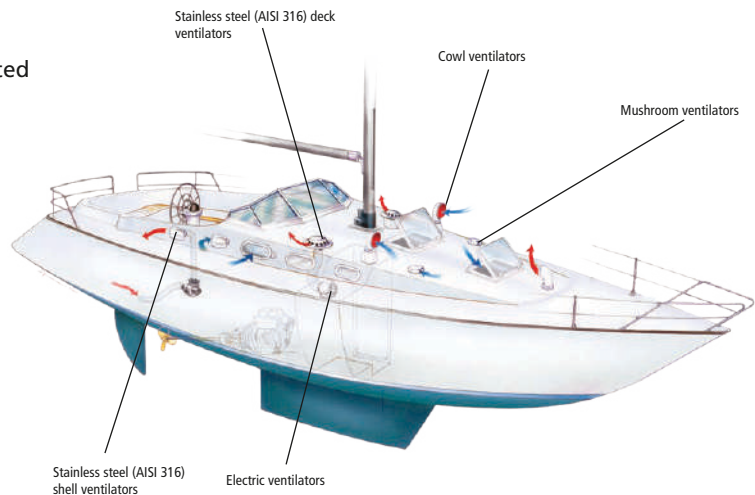
Consists of vents, cowls and other permanent openings in the boat, designed to let air enter or exit using wind power or the boat's motion to move the air. Primarily used for living spaces.

2. Electric (extraction) ventilators

Specifically designed to clear fumes from closed compartments. VETUS power extraction ventilators are ignition protected to prevent sparks and are built to resist overheating and corrosion.

Why choose VETUS ventilation

- One stop shop for a complete range to ensure a healthy onboard climate
- We put safety first! Offering only certified ignition protected electric fans
- VETUS has ventilation products for any compartment, from engine room to sleeping quarters, from mushroom ventilators to extraction ventilators for the engine room
- VETUS UFO ventilators provide permanent boat ventilation, day and night, rain and splash proof, but also fully closeable for the harshest conditions
- VETUS cowl ventilators are available in different designs, sizes and materials; the choice is yours!



Passive ventilators

Small cabins aboard boats must be ventilated adequately. It is very important, when the temperature drops, to keep the indoor and outdoor air humidity as similar as possible to prevent condensation and its consequences, such as mold.

Open ventilators type UFO, UFOTRANS and UFOPCB

Reliable, easy to maintain and good looking

These stainless steel (AISI 316) models with high-gloss polished shell cannot be closed thus ensuring permanent ventilation. They are rain and splash proof and can be used in combination with our electric extraction ventilators (see page 342). For dimensions please see diagram below.

Characteristics

- Free flow area 3.72 sq. inch (24 cm²)
- TRANS (UFOTR) version is translucent
- Supplied with mosquito screen and interior finishing ring
- UFOPCB version is black powder-coated with a matte finish



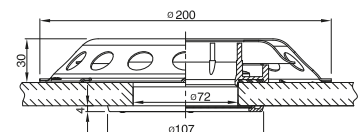
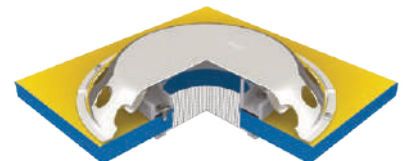
UFO



UFOTR



UFOPCB





Passive ventilators

Closeable deck ventilator type UFO2

Low profile deck ventilator with integral mushroom ventilator

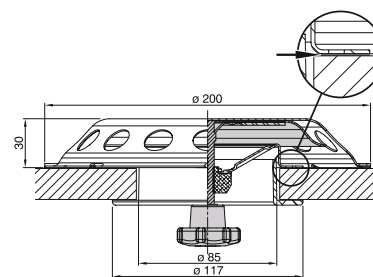
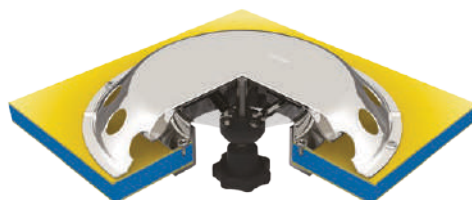
This deck ventilator can be closed and made absolutely watertight. When opened the UFO2 ensures constant ventilation and still remains rain and splash proof. Its cover is made of high-gloss polished stainless steel (AISI 316) as is the internal mushroom ventilator. ISO 12216, Area AII (for information regarding the location area, see page 306).

Characteristics

- Free flow area 3.10 sq. inch. (20 cm²)
- Comes with an integral mosquito screen
- A synthetic finishing ring is supplied as standard



UFO2



Type	Description	Free flow area sq. inch (cm ²)
UFO	Deck ventilator (stainless steel AISI 316)	3.72 (24)
UFOTR	Deck ventilator (stainless steel AISI 316)	3.72 (24)
UFOPCB	Deck ventilator (stainless steel AISI 316 black powder-coated)	3.72 (24)
UFO2	Closeable deck ventilator (stainless steel AISI 316)	3.10 (20)

Mushroom ventilators type DARTAGN1, ATHOS1 and PORTOS1

High polished stainless steel (AISI 316) ventilators

These mushroom ventilators can be opened from the outside or from the inside using an integral knob. They include a mosquito screen and counter flange, both made of synthetic material. ISO 12216, Area AII (for information regarding the location area, see page 306).



DARTAGN1

DARTAGNB



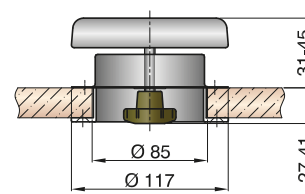
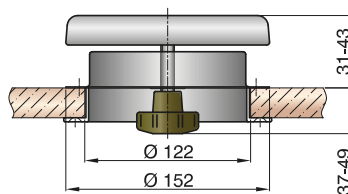
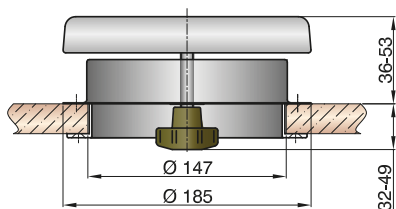
ATHOS1

ATHOSB



PORTOS1

PORTOSB



Type	Description	Free flow area sq. inch (cm ²)
DARTAGN1	Mushroom ventilator (stainless steel AISI 316)	12.9 (83)
DARTAGNB	Mushroom ventilator (stainless steel AISI 316 black powder coated)	12.9 (83)
ATHOS1	Mushroom ventilator (stainless steel AISI 316)	8.0 (52)
ATHOSB	Mushroom ventilator (stainless steel AISI 316 black powder coated)	8.0 (52)
PORTOS1	Mushroom ventilator (stainless steel AISI 316)	3.2 (21)
PORTOSB	Mushroom ventilator (stainless steel AISI 316 black powder coated)	3.2 (21)



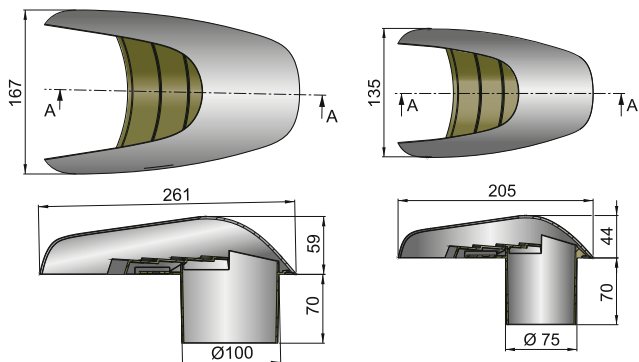
Ventilation

Passive ventilators

Shell ventilator type TYPHOON

A redefined and updated 'traditional' shell ventilator

The outer cover of this shell ventilator is made of high-gloss polished stainless steel (AISI 316) and all other parts are of synthetic materials. When installed, no screws are visible. This intake or outlet ventilator is available in two sizes and suitable for horizontal or vertical use.



TYP75

TYP100

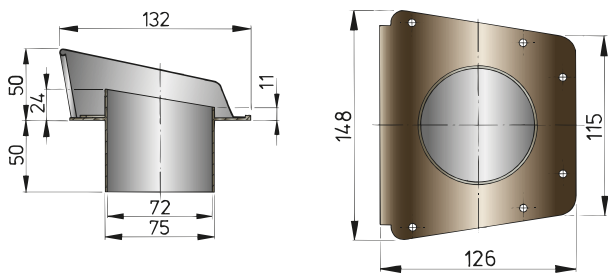


Type	Description	Free flow area sq. inch (cm ²)	Hose connection Ø inches (mm)
TYP75	Shell ventilator	4.7 (30)	3 (75)
TYP100	Shell ventilator	6.4 (41)	4 (100)

Ventilator type SCIROCCO

The ideal solution for ventilation openings to the engine room

This stainless steel (AISI 316) intake or outlet ventilator can be screwed directly on to hull or superstructure. A synthetic base plate with water guard and hose connection is standard supply. This type can be installed horizontally or vertically.



SCIROCCO



Type	Description	Free flow area sq. inch (cm ²)	Hose connection Ø inches (mm)
SCIROCCO	Shell ventilator	6 (38.5)	3 (75)



Passive ventilators

Silicone cowl ventilators

Guaranteed to withstand the test of time!

These cowl ventilators are made of silicone. Silicone rubber is a very flexible synthetic material with a service temperature range between -100 °C and +200 °C. It is resistant to UV light and does not discolor, so it will always look like it's brand new. The cowl ventilators are removable. The ring and deck flange are made of a rigid synthetic material. The internal color is red (RAL 3020). A mosquito screen and a stainless steel (AISI 316) cover plate for closing off the cowl ventilator can be supplied as an option. Available in three sizes with a vertical opening and one with a horizontal opening.

Models with the suffix 'S' feature a synthetic ring that is securely fastened to the deck using fasteners.

Optionally, a RING set can be supplied. These models can be upgraded by replacing their synthetic deck flange and/or ring with a stainless steel (AISI 316) version. Different sizes are available.



SAMOENS

CHINOOKS

LIBECS



SAMOEN

CHINOOK

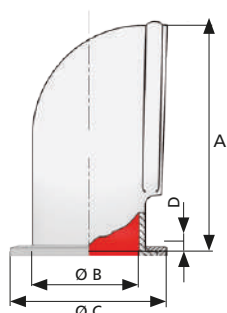
LIBEC



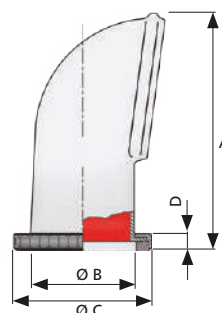
TRAMONS



TRAMON



Fixed



Removable and rotatable

Type	Replaces	Dimensions inch (mm)				Free flow area sq. inch (cm ²)	Material	Ring* stainless steel (AISI 316)	Mosquito screen and cover plate* stainless steel (AISI 316)
		A	B	C	D				
TRAMON	DONALD2	4 1/2 (115)	2 15/16 (75)	4 15/16 (125)	1 (25)	8.79 (44.2)	Silicone	RING75	SET75
TRAMONS	DONALDS	3 15/16 (100)	2 15/16 (75)	5 (127)	7/16 (11)	8.79 (44.2)	Silicone	RING75	SET75
LIBEC	JERRY2	8 1/16 (205)	2 15/16 (75)	4 15/16 (125)	1 (25)	8.79 (44.2)	Silicone	RING75	SET75
LIBECS	JERRYS	7 9/16 (192)	2 15/16 (75)	5 (127)	7/16 (11)	8.79 (44.2)	Silicone	RING75	SET75
CHINOOK	TOM2	9 5/8 (244)	3 15/16 (100)	6 (152)	1 (25)	12.2 (78.6)	Silicone	RING100	SET100
CHINOOKS	TOMS	9 1/16 (230)	3 15/16 (100)	6 (152)	7/16 (11)	12.2 (78.6)	Silicone	RING100	SET100
SAMOEN	YOGI2	11 5/8 (295)	4 15/16 (125)	6 15/16 (176)	1 (25)	19 (122.8)	Silicone	RING125	SET125
SAMOENS	YOGIS	11 1/8 (282)	4 15/16 (125)	7 1/16 (179)	7/16 (11)	19 (122.8)	Silicone	RING125	SET125

* Optional parts see page 338

Ventilation

Passive ventilators

Stainless steel (AISI 316) cowl ventilators

Stylish appearance

Both the cowls and rings are made of cast stainless steel (AISI 316). The cowls rotate and are removable and the clamping ring can be tightened by hand. A threaded ring nut and deck ring are supplied as standard. A mosquito screen and a stainless steel (AISI 316) cover plate for closing off the cowl ventilator are optional. Available in three sizes with a vertical opening and one with a horizontal opening and with red or white interior.



YOG316R

TOM316R

JER316R



YOG316WR

TOM316WR

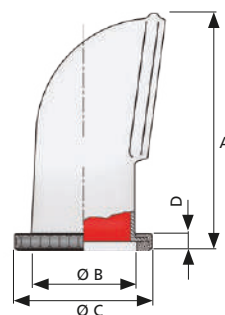
JER316WR



DON316R



DON316WR



Removable and rotatable

Type	Dimensions inch (mm)				Free flow area sq. inch (cm ²)	Material
	A	B	C	D		
DON316R	4 ³ / ₈ (111)	2 ¹⁵ / ₁₆ (75)	4 ¹³ / ₁₆ (123)	7 ⁷ / ₈ (22)	8.79 (44.2)	Stainless steel (AISI 316)
DON316WR	4 ³ / ₈ (111)	2 ¹⁵ / ₁₆ (75)	4 ¹³ / ₁₆ (123)	7 ⁷ / ₈ (22)	8.79 (44.2)	Stainless steel (AISI 316)
JER316R	8 ⁷ / ₁₆ (205)	2 ¹⁵ / ₁₆ (75)	4 ¹³ / ₁₆ (123)	7 ⁷ / ₈ (22)	8.79 (44.2)	Stainless steel (AISI 316)
JER316WR	8 ⁷ / ₁₆ (205)	2 ¹⁵ / ₁₆ (75)	4 ¹³ / ₁₆ (123)	7 ⁷ / ₈ (22)	8.79 (44.2)	Stainless steel (AISI 316)
TOM316R	9 ¹³ / ₁₆ (250)	3 ¹⁵ / ₁₆ (100)	6 (153)	7 ⁷ / ₈ (22)	12.2 (78.6)	Stainless steel (AISI 316)
TOM316WR	9 ¹³ / ₁₆ (250)	3 ¹⁵ / ₁₆ (100)	6 (153)	7 ⁷ / ₈ (22)	12.2 (78.6)	Stainless steel (AISI 316)
YOG316R	11 ⁵ / ₈ (296)	4 ¹⁵ / ₁₆ (125)	7 ¹ / ₈ (181)	7 ⁷ / ₈ (22)	19 (122.8)	Stainless steel (AISI 316)
YOG316WR	11 ⁵ / ₈ (296)	4 ¹⁵ / ₁₆ (125)	7 ¹ / ₈ (181)	7 ⁷ / ₈ (22)	19 (122.8)	Stainless steel (AISI 316)

Accessories for cowl ventilators

Ring and nut type RING

Complete set

This set consists of a stainless steel (AISI 316) ring nut, a male deck ring and fastening key. A ring nut set is available for each size of synthetic cowl ventilator and can be retrofitted to existing cowls.

Type	Description
RING75	Ring and nut, AISI 316, for cowl ventilator TRAMON / LIBEC
RING100	Ring and nut, AISI 316, for cowl ventilator CHINOOK
RING125	Ring and nut, AISI 316, for cowl ventilator SAMOEN

RING...

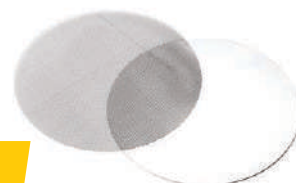


Cover plate and mosquito screen type SET

This set contains the cover plate and mosquito screen for all cowl ventilators.

Type	Description
SET75	Cover plate and mosquito screen, AISI 316, for all cowl ventilators Ø 2 ¹⁵ / ₁₆ " (75 mm)
SET100	Cover plate and mosquito screen, AISI 316, for all cowl ventilators Ø 3 ¹⁵ / ₁₆ " (100 mm)
SET125	Cover plate and mosquito screen, AISI 316, for all cowl ventilators Ø 4 ¹⁵ / ₁₆ " (125 mm)

SET...



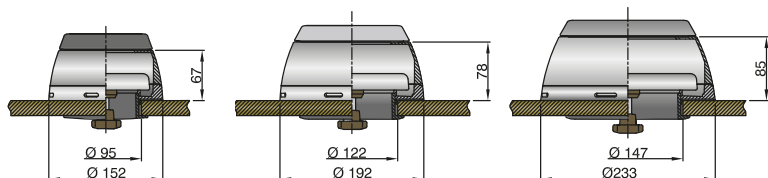


Accessories for cowl ventilators

Dorade box type BOX and BOXS

Prevents water from entering the ventilator

This box drains off any water entering the interior of the boat from the cowl ventilator and can be closed off entirely by means of the incorporated stainless steel (AISI 316) mushroom ventilator. Available in synthetic material or stainless steel (AISI 316), maximum deck thickness 1" (25 mm). Choose the same size BOX as the diameter (B) of the cowl ventilator. CE marking: Area AII (for information regarding the location area, see page 306).



Bottom

Top

BOX



Bottom

Top

BOXS

Type	Ø inch (mm)	Max. deck thickness inches (mm)	Material
BOX75	2 ¹⁵ / ₁₆ (75)	1 (25)	Synthetic
BOX100	3 ¹⁵ / ₁₆ (100)	1 (25)	Synthetic
BOX125	4 ¹⁵ / ₁₆ (125)	1 (25)	Synthetic
BOXS75	2 ¹⁵ / ₁₆ (75)	1 (25)	Stainless steel (AISI316)
BOXS100	3 ¹⁵ / ₁₆ (100)	1 (25)	Stainless steel (AISI316)

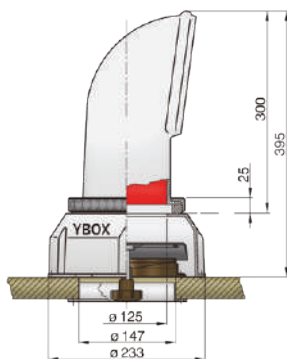
Dorade box type DJBOX, TBOX and YBOX

Synthetic boxes

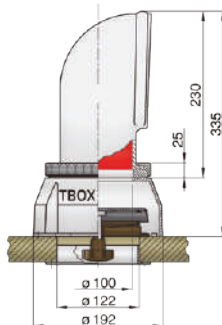
This synthetic box drains off any water entering the ventilator and can be closed off entirely by means of the incorporated stainless steel (AISI 316) mushroom ventilator. The screw down deck ring supplied with the cowl ventilator can be easily fitted to the dorade box using the supplied nuts and bolts.

Note: These boxes are not suitable for cowl ventilator type S.

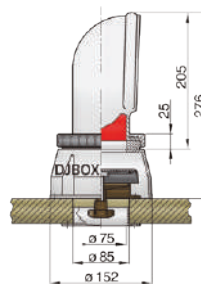
Type	Description
YBOX	Dorade box for YOGI / SAMOEN, including mushroom ventilator
TBOX	Dorade box for TOM / CHINOOK, including mushroom ventilator
DJBOX	Dorade box for DONALD / JERRY / TRAMON / LIBEC, including mushroom ventilator



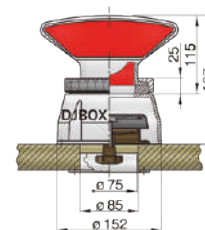
YBOX



TBOX



DJBOX



Ventilation

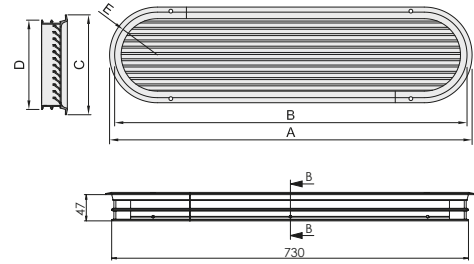
Passive ventilators

Louvered air suction vents

In addition to combustion air, an engine also requires sufficient ventilation air to dissipate the residual heat. The required volume of ventilation air is about the same as the combustion air needed which is approximately 6.1 m³ per kW (4.5 m³ per hp) per hour based on a maximum air velocity of 3 m/sec. The design of these VETUS air suction vents is based on these principles. The model numbers (see the tables below) relate to the engine horsepower for which they are suitable. So for example, a 40HP engine could use 1 x type 40, or 2 x type 20 vents.

Type ASV

This type has a polished anodised aluminium frame with grilles of anodised aluminium.

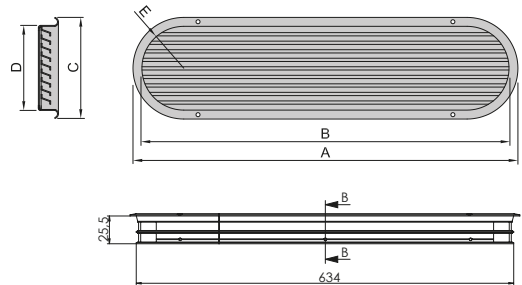


ASV

Type	A inch (mm)	B = Cutout inch (mm)	C inch (mm)	D = Cutout inch (mm)	E = Cutout radius inch (mm)	Free flow area in in ² (cm ²)*
ASV020A	11 ¹³ / ₁₆ (300)	11 (280)	4 ⁵ / ₈ (117)	3 ¹³ / ₁₆ (97)	R 1 ²⁹ / ₃₂ (48.5)	12.9 (83)
ASV025A	13 ¹³ / ₁₆ (350)	13 (330)	4 ⁵ / ₈ (117)	3 ¹³ / ₁₆ (97)	R 1 ²⁹ / ₃₂ (48.5)	15.5 (100)
ASV030A	14 ¹³ / ₁₆ (360)	13 ³ / ₈ (340)	5 ¹ / ₈ (130)	4 ³ / ₈ (110)	R 2 ³ / ₁₆ (55)	18.9 (122)
ASV040A	17 ³ / ₄ (450)	16 ¹⁵ / ₁₆ (430)	5 ¹ / ₈ (130)	4 ³ / ₈ (110)	R 2 ³ / ₁₆ (55)	24.7 (159)
ASV050A	19 ⁵ / ₁₆ (490)	18 ¹ / ₂ (470)	5 ³ / ₄ (146)	5 (126)	R 2 ¹ / ₂ (63)	31.3 (202)
ASV060A	22 ⁷ / ₁₆ (570)	21 ¹¹ / ₁₆ (550)	5 ³ / ₄ (146)	5 (126)	R 2 ¹ / ₂ (63)	37.4 (241)
ASV070A	23 ¹ / ₄ (590)	22 ⁷ / ₈ (570)	6 ¹ / ₄ (159)	5 ¹ / ₂ (139)	R 2 ³ / ₄ (69.5)	43.9 (283)
ASV080A	26 (660)	25 ³ / ₁₆ (640)	6 ¹ / ₄ (159)	5 ¹ / ₂ (139)	R 2 ³ / ₄ (69.5)	49.8 (321)
ASV090A	26 ³ / ₈ (670)	25 ⁵ / ₈ (650)	6 ³ / ₄ (172)	6 (152)	R3 (76)	56.2 (363)
ASV100A	28 ³ / ₄ (730)	28 (710)	6 ³ / ₄ (172)	6 (152)	R3 (76)	62 (400)
ASV125A	29 ¹ / ₂ (750)	28 ³ / ₄ (730)	7 ¹³ / ₁₆ (198)	7 (178)	R 3 ¹ / ₂ (89)	78 (503)
ASV150A	35 (890)	34 ¹ / ₄ (870)	7 ¹³ / ₁₆ (198)	7 (178)	R3 ¹ / ₂ (89)	94.2 (603)

Type SSVL

The frame and grilles of this type are made of high gloss polished stainless steel (AISI 316).



SSVL

Type	A inch (mm)	B = Cutout inch (mm)	C inch (mm)	D = Cutout inch (mm)	E = Cutout radius inch (mm)	Free flow area in in ² (cm ²)*
SSVL030	14 ³ / ₁₆ (360)	13 ³ / ₈ (340)	6 ¹ / ₄ (159)	5 ¹ / ₂ (139)	R 2 ³ / ₄ (69.5)	24.5 (158)
SSVL070	23 ¹ / ₄ (590)	22 ⁷ / ₈ (570)	6 ¹ / ₄ (159)	5 ¹ / ₂ (139)	R 2 ³ / ₄ (69.5)	43.9 (283)
SSVL080	26 (660)	25 ³ / ₁₆ (640)	6 ¹ / ₄ (159)	5 ¹ / ₂ (139)	R 2 ³ / ₄ (69.5)	49.8 (321)
SSVL090	26 ³ / ₈ (670)	25 ⁵ / ₈ (650)	6 ³ / ₄ (172)	6 (152)	R3 (76)	56.2 (363)
SSVL100	28 ³ / ₄ (730)	28 (710)	6 ³ / ₄ (172)	6 (152)	R3 (76)	62 (400)
SSVL125	29 ¹ / ₂ (750)	28 ³ / ₄ (730)	7 ¹³ / ₁₆ (198)	7 (178)	R 3 ¹ / ₂ (89)	78 (503)
SSVL150	35 (890)	34 ¹ / ₄ (870)	7 ¹³ / ₁₆ (198)	7 (178)	R3 ¹ / ₂ (89)	94.2 (608)



Dorade boxes

Type DBOX for louvered air suction vents

All standard air suction vents can be supplied with a synthetic dorade box as an option (except type ASVREC).



DBOX



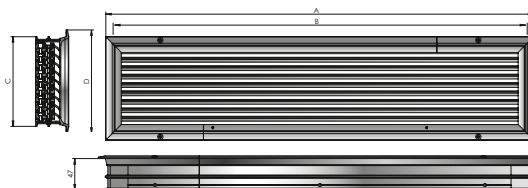
Type	Description	Type	Description
DBOX020	Dorade box for ASV020A	DBOX070	Dorade box for ASV070A and SSVL070
DBOX025	Dorade box for ASV025A	DBOX080	Dorade box for ASV080A and SSVL080
DBOX030	Dorade box for ASV030A	DBOX090	Dorade box for ASV090A and SSVL090
DBOX040	Dorade box for ASV040A	DBOX100	Dorade box for ASV100A and SSVL100
DBOX050	Dorade box for ASV050A	DBOX125	Dorade box for ASV125A and SSVL125
DBOX060	Dorade box for ASV060A	DBOX150	Dorade box for ASV150A and SSVL150

Louvered air suction vents

Type ASVREC

Rectangular Louvered air suction vent

The frames of this type are made of polished anodised aluminium and the grilles of anodised aluminium.



ASVREC

Type	A inch (mm)	B = Cutout inch (mm)	C inch (mm)	D = Cutout inch (mm)	Free flow area in in ² (cm ²)*
ASVREC20	11 ¹³ / ₁₆ (300)	11 (280)	4 ⁵ / ₈ (117)	3 ¹³ / ₁₆ (97)	43.9 (83)
ASVREC30	14 ¹³ / ₁₆ (360)	13 ³ / ₈ (340)	5 ¹ / ₈ (130)	4 ³ / ₈ (110)	49.8 (125)
ASVREC40	17 ³ / ₄ (450)	16 ¹⁵ / ₁₆ (430)	5 ¹ / ₈ (130)	4 ³ / ₈ (110)	56.2 (162)
ASVREC50	19 ⁹ / ₁₆ (490)	18 ¹ / ₂ (470)	5 ³ / ₄ (146)	5 (126)	62 (205)
ASVREC60	22 ⁷ / ₁₆ (570)	21 ¹¹ / ₁₆ (550)	5 ³ / ₄ (146)	5 (126)	72 (245)
ASVREC70	23 ¹ / ₄ (590)	22 ⁷ / ₈ (570)	6 ¹ / ₄ (159)	5 ¹ / ₂ (139)	78 (285)
ASVREC80	26 (660)	25 ³ / ₁₆ (640)	6 ¹ / ₄ (159)	5 ¹ / ₂ (139)	94.2 (325)

Note: VETUS can supply louvered air vents in other shapes and sizes to special order.

Round air suction vents

Type ERV

Air suction vent with rotating connector

Type ERV is made of stainless steel (AISI 316) and has a synthetic rotating connector which functions as a watertight dorade box. The free flow area is 10.2 sq.inch (66 cm²). A matching hose must be ordered separately.

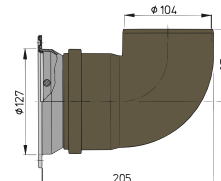
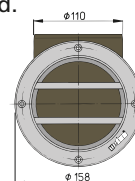
Rule of thumb: Use one ERV110A for every 16 horsepower (hp) of engine output.

This vent is suitable for up to 16 hp of engine power. For a 60 hp engine you would need four of these air suction vents of which two should be fitted to port and two to starboard.



ERV110A

Type	Description
ERV110A	Round air suction vent type 110, with stainless steel (AISI 316) grille and synthetic housing



Ventilation

Electric ventilators

Type FAN

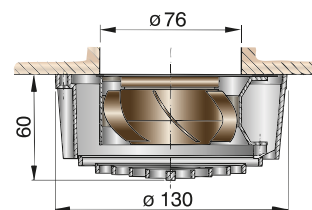
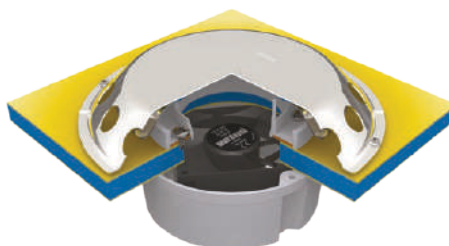
Extremely low energy consumption and noise level

This barely audible electric ventilator is specified for saloons, cabins, galleys and toilets and is also ideal for heat extraction near a refrigerator. It can be installed in both ceilings and bulkheads. It can be used in combination with VETUS deck ventilators UFO and UFOTR and UFOPCB (see page 334). With its long-life motor it can operate for at least 50.000 hours. VETUS recommends that every area should have an air-exchange rate of three to four times per hour.



FAN12

FAN24



Specifications

- Available in 12 or 24 VDC
- Capacity 72 m³/hour (42 cfm)
- Provided with a 2-speed switch

Type	Description	Voltage (DC)
FAN12	Electric ventilator	12 V - 0,15A
FAN24	Electric ventilator	24 V - 0,073A

Electric extraction ventilators

Type TWINLINE

The perfect heat extractor

The purpose of these ignition protected (ISO 8846) extraction ventilators is to extract the heat from the engine room when the engine is not running or, when a petrol/gasoline engine is installed, to extract any possible petrol/gasoline fumes prior to starting the engine(s).

Specifications

- Complies with ISO 9097 Marine Standard
- Hose may be connected to Scirocco or Typhoon Shell ventilators

Note: VETUS does NOT recommend using extraction ventilators to provide air to the main engine(s)!

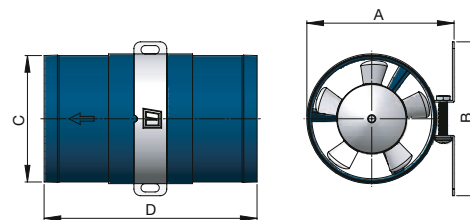


TWINLINEA

TWINLINEB

TWINLINEC

TWINLINED



Type	A inch (mm)	B inch (mm)	C inch (mm)	D inch (mm)	Capacity (m ³ /min)	I.D. hose Ø inch (mm)	Voltage (DC) - Amp*
TWINLINEA	3 1/2 (88.5)	3 5/8 (92.5)	3 (76)	5 1/16 (128)	5	3 (76)	12 - 2.8 A max.
TWINLINEB	4 9/16 (116)	4 11/16 (119)	4 (101.6)	7 1/16 (180)	7	4 (102)	12 - 8.0 A max.
TWINLINEC	3 1/2 (88.5)	3 5/8 (92.5)	3 (76)	5 1/16 (128)	5	3 (76)	24 - 1.6 A max.
TWINLINED	4 9/16 (116)	4 11/16 (119)	4 (101.6)	7 1/16 (180)	7	4 (102)	24 - 5.0 A max.

* When using hose 10 mtr.



Electric extraction ventilators

Type VENT76A and VENT102

Ideal for galley, toilet and engine room

These extraction ventilators are ignition protected (ISO 8846) and comply with the ISO 9097 Marine Standard. They include a mounting bracket.

Note: VETUS does NOT recommend using extraction ventilators to provide air to the main engine(s)!

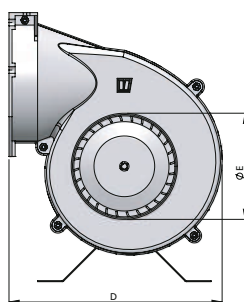
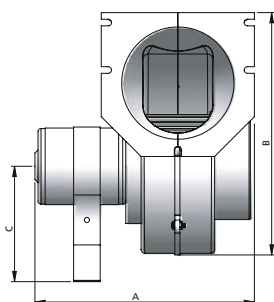
VENT7612A

VENT7624A



VENT10212

VENT10224

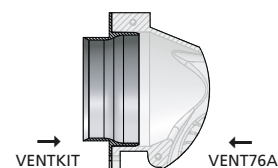


Type	Dimensions inch (mm)				Voltage (DC)	I.D.hose Ø inch (mm) (E)	Capacity per minute
	A	B	C	D			
VENT7612A	7 ⁵ / ₁₆ (186)	6 ⁵ / ₈ (168)	3 ⁷ / ₁₆ (88)	6 ³ / ₁₆ (157)	12 - 8 A	3 (76)	4 m ³
VENT7624A	7 ⁵ / ₁₆ (186)	6 ⁵ / ₈ (168)	3 ⁷ / ₁₆ (88)	6 ³ / ₁₆ (157)	24 - 4 A	3 (76)	4 m ³
VENT10212A	8 ⁷ / ₁₆ (215)	9 ⁹ / ₁₆ (237)	4 ⁷ / ₁₆ (113)	8 ¹ / ₄ (209)	12 - 9 A	4 (102)	8 m ³
VENT10224A	8 ⁷ / ₁₆ (215)	9 ⁹ / ₁₆ (237)	4 ⁷ / ₁₆ (113)	8 ¹ / ₄ (209)	24 - 4.5 A	4 (102)	8 m ³

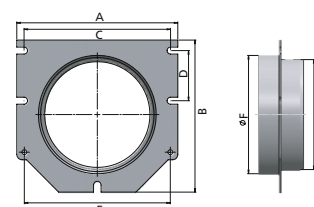
Connection flange

Connection flanges for VENT76A and VENT102.

VENTKIT



Type	Dimensions inch (mm)					I.D.hose Ø (mm) (F)	Ø G
	A	B	C	D	E		
VENTKITA	4 ³ / ₄ (120)	4 ¹ / ₂ (115)	4 ³ / ₁₆ (106.5)	1 ¹³ / ₁₆ (46.5)	4 ³ / ₁₆ (106)	3 ¹ / ₄ (83.3)	3 (76)
VENTKITB	5 ⁷ / ₈ (150)	5 ⁹ / ₁₆ (141)	5 ³ / ₈ (136.5)	1 ¹³ / ₁₆ (46.5)	5 ³ / ₈ (136)	4 ⁵ / ₁₆ (109.7)	4 (102)



Ventilation

Electric extraction ventilators

Type VENT178B

Suitable for bulkhead mounting and receiving air ducting hose

This extraction ventilator with NAVIDURIN®(*) housing is ignition-protected (ISO 8846) and complies with the ISO 9097 Marine Standard.

Specifications

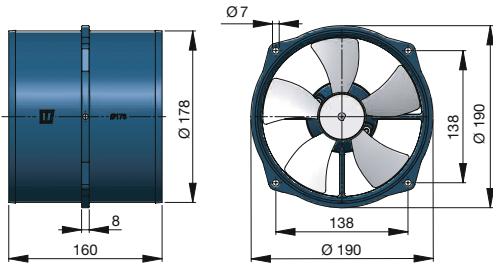
- Available in 12 VDC (6 A) or 24 VDC (3 A)
- Capacity 430.2 ft³ or 12.2 m³ per minute
- Suitable for receiving \varnothing 7" (178 mm) internal air ducting hose



Type	Description	Voltage (DC)	I.D.hose \varnothing inch (mm)
VENT178B2	Extraction ventilator	12	7 (178)
VENT178B4	Extraction ventilator	24	7 (178)

VENT178B2

VENT178B4



Note: VETUS does NOT recommend using extraction ventilators to provide air to the main engine(s)!

(*) For information regarding NAVIDURIN®, see page 122.

Ventilation hose

Type BLHOSE

For shell and extraction ventilators

Type BLHOSE is made from PVC-coated polyester, reinforced with a steel wire. Temperature resistant between -4° and + 212°F (-20° and +100°C). Available with internal diameters of 3" or 4" (76 or 102 mm).



BLHOSE

Type	Internal \varnothing inches (mm)	External \varnothing inches (mm)	Weight kg/m	Bending radius inches (mm)	Roll length (m)
BLHOSE310A	3 (76)	3 ³ / ₈ (85)	0.2	1 ⁷ / ₈ (47)	10
BLHOSE410A	4 (102)	4 ¹ / ₄ (108)	0.2	2 ³ / ₈ (61)	10

Type CCHOSE

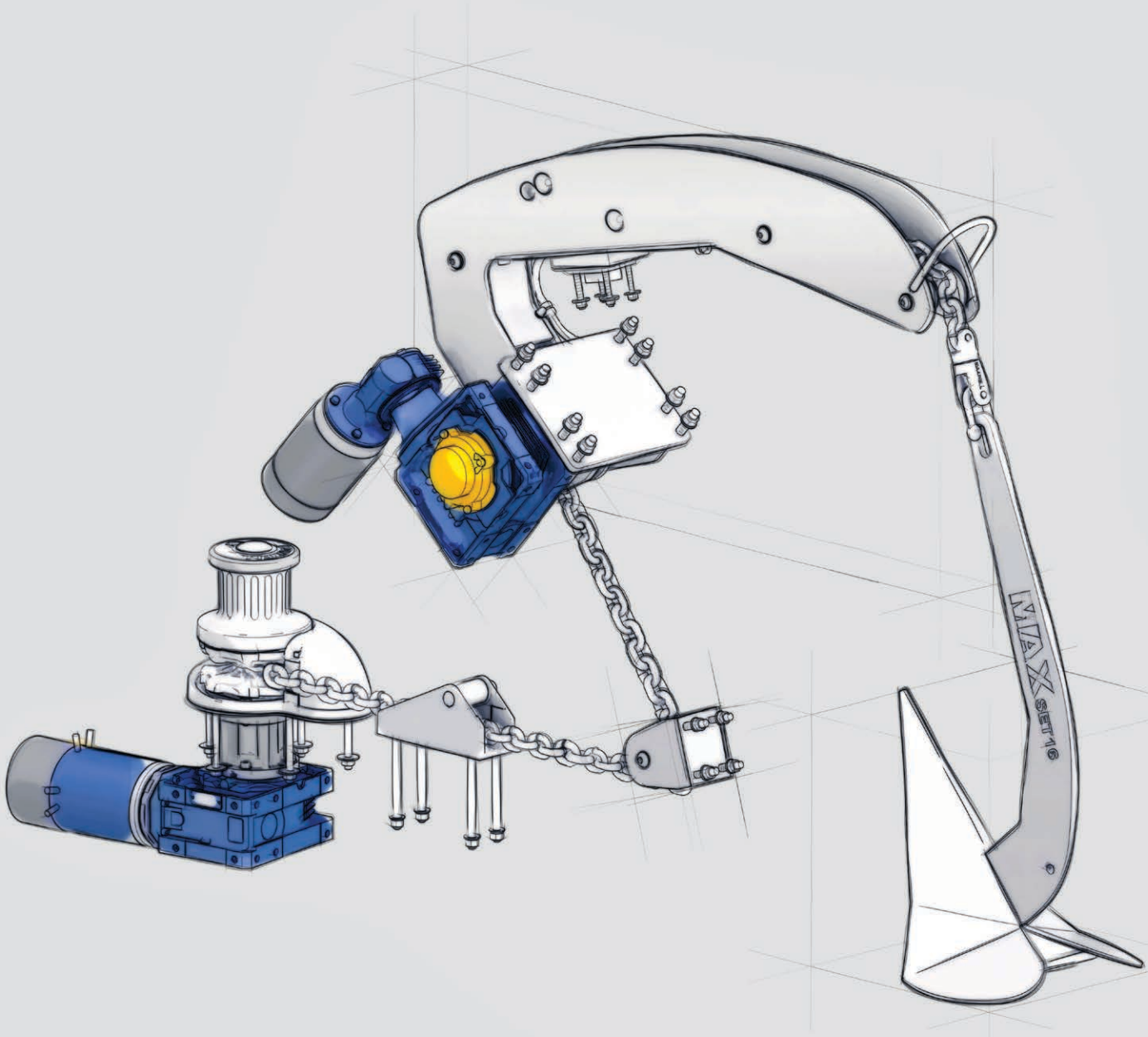
Excellent for fluids in air conditioning and central heating systems

Type CCHOSE is made of EPDM rubber with an inlay of woven reinforcement fabric. Temperature resistant between 37° and 176°F (+3° and 80°C). Suitable for fluids in closed heating and/or cooling systems.



CCHOSE

Type	Internal \varnothing inches (mm)	External \varnothing inches (mm)	Weight kg/m	Bending radius inches (mm)	Roll length (m)
CCHOSE16	⁵ / ₈ (16)	1 ³ / ₁₆ (30)	0.54	4 ⁷ / ₁₆ (112)	20



Maxwell Product Innovation

Maxwell equipment is born of innovation and backed by years of experience in the manufacture of the world's highest quality anchor windlasses, ancillary deck gear and stern handling products.

Maxwell's innovative approach to design resulted in the introduction of automatic rope/chain windlasses to the global marine market during the mid 1990's. These were a radical departure from all other windlasses, revolutionary in design and technical features. Building on the success of these products, Maxwell designed and developed an exciting RC range of automatic rope/chain windlasses. Maxwell broke the design barriers with the development of a vertical and horizontal rope/chain windlass range incorporating two unique and internationally patented features. The RC and HRC Series attest to Maxwell's ongoing commitment to innovative design and development.

Maxwell continues to evolve its existing range of proven windlasses and capstans. The RC12 is the culmination of Maxwell's evolution of a full range of automatic rope/chain windlasses suitable for use on vessels from 15 feet (4.5 meters) to over 75 feet (22 meters).

Maxwell's ongoing commitment to product development can also be seen in the upgrading of the 'traditional' and continually popular vertical VWC Series. Stalwarts since the early nineties, the VWC windlasses were always great performers and now, with advanced engineering features incorporated into our improved designs, they work even better. Maxwell recognises that boat owners not only want equipment that works flawlessly, they want products that look good as well. To this end, Maxwell designers spend countless hours improving the look, functionality and robustness of all Maxwell products.

With an ongoing commitment to excellence, product innovation, research and development, you can count on Maxwell to secure your investment!



HRCFF

The compact HRCFF6, HRCFF7 and HRCFF8 are Maxwell's horizontal versions of the innovative vertical RC Series automatic rope/chain windlasses. Packed with original and proven features, such as automatic 'Free Fall' and including the patented rode management technology developed by Maxwell, the HRCFF6, HRCFF7 and HRCFF8 have become industry icons.



RC12HD

The RC12HD has been designed to meet typical classification society requirements or regulations. This design is particularly well suited to vessels requiring high service speeds such as patrol vessels as the reduced weight of rope/chain combination rodes removes weight from the front of the vessel.



TASMAN

Our Tasman Series has a powerful motor and is highly reliable; ready for whatever situation or adventure you can throw at it. The gearbox, made from marine grade aluminum is anodized for optimal protection.

- Tasman features are: • All rode is contained on the drum, making setup more compact than a traditional windlass, eliminating the need for a large chain locker • Motor/gearbox can be fitted in fourteen different positions • Stainless-steel (AISI 316) gearbox hub • Independent mounting legs • Simple emergency operation



An Introduction to Maxwell's Products

To make the proper selection in anchor-handling equipment, it is important to give careful consideration to the style and size of boat, the anticipated anchoring conditions, and the weight and type of ground tackle. (Refer to "Which Winch" article on page 349). Maxwell has an extensive range of windlasses for all types of ground tackle, bow configurations, locker spaces and power requirements including:

- The vertical stainless-steel (AISI 316) RC Series and the horizontal HRC Series automatically handle rope/chain combination rodes and are suitable for boats from 15 feet (4.5 meters) up to approximately 75 feet (22 meters)
- The evolutionary RC12 Series automatically handles rope/chain combination rodes and is suitable for lighter displacement vessels up to approximately 80 feet (24 meters)
- The multipurpose VC (Vertical Capstan) Series can be used for all types of line handling
- The traditional rope and chain VW (Vertical Windlass) Series, designed for manually handling a rope and chain combination anchor rode joined by a conventional shackle and eye splice. The exception being the hybrid VW10. (See page 347)
- The VWC (Vertical Windlass/Capstan) and HWC (Horizontal Windlass/Capstan) Series handle chain-only rodes automatically
- Maxwell products are distributed and supported worldwide through an extensive service network

VERTICAL OR HORIZONTAL - MAXWELL OFFERS BOTH

Vertical Configuration

A vertical windlass or capstan features a main shaft oriented vertically, with the gearbox typically installed below deck. Vertical systems offer several advantages: they take up less space on deck and are easier to service. Chain or rope/chain alignment with the bow roller, while not as critical as with horizontal windlasses, should be within about +/- 2% for smooth retrieval of chain or rope/chain. Rode (rope/chain) alignment with RC Series winches is more critical (see Owner's Manual). With vertical systems, more chain stays in contact with the chainwheel, minimizing the chance of chain jumping. Line pull on the warping drum can be applied in any direction, unlike horizontal models where it is limited to fore and aft.

Horizontal Configuration

A horizontal windlass or capstan has its main shaft positioned horizontally. In this configuration, the gearbox is integrated into the housing. Horizontal models are better suited to applications where deck thickness is extreme (over 8"/200 mm), under-deck access is limited, or when two anchors need to be operated from a single windlass.

Each windlass is available with a circuit breaker of the appropriate size to provide electrical protection during normal operation. Maxwell capstan winches and anchor windlasses fitted with capstan drums are manufactured with Maxwell's fluted stainless steel (AISI 316) design, ensuring the best possible grip and control of rope lines or rodes.

"CHAIN" OR "ROPE AND CHAIN?"

The two options for use with windlasses:

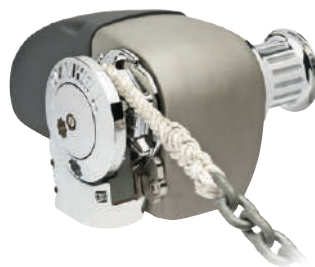
CHAIN ONLY

A rode consisting entirely of short-link anchoring chain provides the ultimate in holding security. Chafe resistance combined with excellent catenary effect ensure the best holding, suitable for use on all Maxwell anchoring windlasses, including those designed for use with rope/chain combination rodes.

ROPE AND CHAIN

A rode consisting of a combination of short-link chain and nylon rope provides a good compromise between holding security, weight and shock absorption. A length of chain attached to the anchor provides good chafe resistance for those portions of the rode often touching the sea floor, the remainder of the rode being nylon rope, which significantly reduces the weight of the rode and also provides some shock absorbing and noise cancelling. This type of rode is only suitable for use with Maxwell windlasses designed specifically for rope/chain combination rodes.

The length of the chain or rope is only limited by chain-locker size, so it is possible to have, for example, 197 feet (60 meters) of chain (used for most anchoring) and 328 feet (100 meters) of rope (for those times where it is required to anchor in deep water). It is not recommended to leave a vessel anchored on the rope portion of the rode for extended periods without monitoring of the rope condition to ensure chafe does not become an issue.



WHICH WINCH? (Italicised items - refer to glossary, page 391)

There are a number of important criteria to be considered in selecting the correct anchor *winch*. These include the vessel size, displacement, windage, anchor size and *rode* selection. Practicalities, such as locker space and depth of fall for the rode, also play a part in deciding which *windlass* is ideal for you.

Maxwell Marine's range of windlasses and capstans is extensive, with models to suit boats up to over 390 feet (120 meters). This section aims to simplify the selection process by taking you step by step through all the criteria that needs to be considered when choosing a windlass or capstan.

WHAT SIZE WINDLASS OR CAPSTAN FOR MY BOAT?

Consider the overall length and displacement (either light or heavy) of your boat and use the chart on the opposite page to identify the most suitable windlass or capstan for your vessel.

VERTICAL OR HORIZONTAL CONFIGURATION?

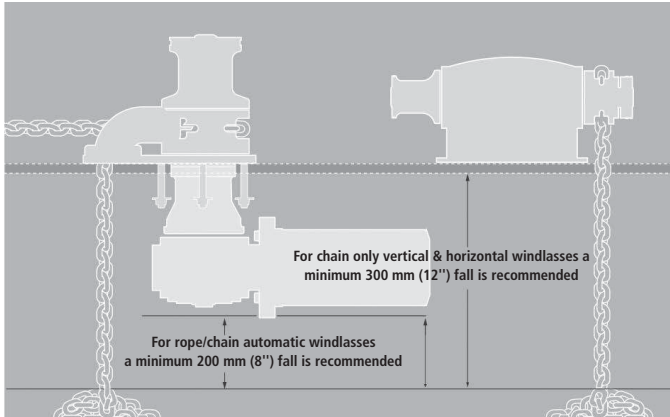
The two basic types of windlasses are differentiated by the drive-shaft orientation. Deck thickness and underdeck space are the two main considerations when deciding which of the two types to fit.

Vertical windlasses make up the majority of anchor winch sales. They are characterized by situating the *capstan* and/or *gypsy* (topworks) above the deck and the motor and gearbox below. Vertical windlasses provide a 180° wrap of the anchor rode around the chainwheel giving optimal chain control, minimizing slippage and jumping.

Horizontal windlasses are mounted completely above deck with the gypsy and capstan located to either side. They provide a 90° wrap of the anchor rode around the chainwheel.

HOW MUCH SPACE DO I NEED IN MY CHAIN LOCKER?

Deck thickness and locker space play an important role in deciding whether to install a *vertical* or *horizontal* windlass. Estimating or measuring the depth of fall of the rode into the anchor locker may dictate which type of windlass is most suitable for your vessel. Calculating the depth of fall differs for horizontal chain-only windlasses and for vertical chain or rope/chain windlasses (see diagram below).



Recommended minimum fall distances are measured from the top of rode pile (chain or rope/chain) after complete retrieval of the anchor.

ROPE SELECTION

Rope and particularly chain selection is extremely important. Deciding on the right anchor winch for your boat depends on the size, not only of the boat, but also the ground tackle. Maxwell anchor winches and capstans are designed to take chain only, rope only or a combination of both. Automatic rope/chain systems are now commonly used on boats up to 75 feet (22 meters). Consequently, Maxwell's HRCFF6, HRCFF7, HRCFF8, HRC10, RC6, RC8, RC10 and the evolutionary RC12 automatic rope/chain systems have become increasingly popular, as they offer the added benefit of less weight in the bow with the ability to carry an increased amount of rode. Chain-only systems remain popular on heavier displacement sail and motor yachts. There are two main types of anchor chain. Short-link chain is most commonly used on small- and medium-sized boats, while stud-link is generally used on much larger vessels such as superyachts.

The latter is characterised by a stud (bar) joining the two sides of the link preventing them from deforming when overloaded. High-test or calibrated short-link chain should always be used. Long- or regular-link chain should not be used with anchor windlasses.

There are a wide variety of both imperial (in) and metric (mm) chain sizes available, and these will have bearing on your final windlass decision. It is important that the right size and right grade of chain is used to ensure a correct fit of the links to the gypsy. If the chain is not matched to the chainwheel, problems may occur, such as the chain jumping off the gypsy or the chain jamming as it will not feed smoothly through the chain pipe. As, chain-to-chainwheel compatibility is so important, Maxwell Marine supplies chainwheels to fit just about every known chain available on today's international market.

DC, AC OR HYDRAULIC?

The wattage of a DC electric motor is not the important factor. Rather it is the efficiency of the whole winch, including the gearbox and motor, which counts. With the increasing popularity of powerful and compact on-board generators, AC powered winches are becoming a practical consideration for bigger boats. Hydraulic systems provide another power source well worth considering as they have the advantage of constant speed under all load conditions and can be run almost constantly while coupled with safe guards, such as pressure-relief valves. Modern hydraulic systems offer an integrated, low-maintenance and efficient, centrally managed, power pack.

WHAT PULL CAPABILITY WILL I NEED?

The only meaningful way to rate anchor-winch performance is by looking at what it will lift and at what speed. The two things to consider are (a) the maximum pull capability and (b) the working load of the winch. Maximum pull (sometimes referred to as stall load) is the maximum short-term or instantaneous pull of the winch. Working load is generally rated at about one third of the maximum pull and is usually considered to be the load that the winch is pulling once the anchor is off the bottom. To determine your required maximum-pull capability, complete the calculation below.

1. Calculate ground tackle weight (anchor + chain + rope = ground tackle)

$$\text{eg: ANCHOR } 30 \text{ kg/66 lbs} + 18 \text{ m/60 ft CHAIN } 45 \text{ kg/100 lbs} + 61 \text{ m/200 ft ROPE } 12 \text{ kg/ 26 lbs} = \text{GROUND TACKLE } 87 \text{ kg/192 lbs}$$

2. Calculate the maximum pull (total ground tackle x 3 = Maximum pull)

Safety guidelines suggest that the pulling capacity of the windlass should not be less than 3 times the total weight of the ground tackle.

$$\text{eg: GROUND TACKLE } 87 \text{ kg/192 lbs} \times 3 = \text{MAXIMUM PULL } 261 \text{ kg/576 lbs}$$

In this instance an **HRC8, HRC10, RC8, RC10, or VW1000** would be suitable, providing the chain and rope size is applicable to the windlass being considered. The maximum pull of 261 kg/576 lbs is well within the capability of all these anchor winches.

SAFETY AND SECURITY TIPS

Circuit breaker/isolators are used in the installation of any DC electric windlass to provide protection to motor and cables should the windlass be overloaded. Accessories, such as chain stoppers or chain snubbers, must be used for safe anchoring, the avoidance of unintentional self-launching of the anchor and for the prevention of damage to your anchor winch. You should never anchor off your winch or use your winch to pull your boat to the anchor spot. The anchor winch is designed to lift a dead weight and should not be subjected to the strain of your boat riding at anchor. If you think the winch you are considering may be too small, then go to the next size up. It's better to have excess lifting capacity than not enough!

Maxwell Marine and their agents or distributors offer free and helpful advice should you have any questions. Alternatively, refer to Maxwell's website: www.maxwellmarine.com





Vertical Rope/Chain Series RC6

The stainless-steel (AISI 316) RC6 automatic rope/chain anchor winch is Maxwell's smallest version in the highly successful vertical RC Series Windlass Range.



RC6 Low-Profile



RC6 showing, 'fast install,' in-line vertical gearbox and motor

Features and benefits

- The stainless-steel (AISI 316) RC6 Series incorporates a chromed bronze chainwheel suitable for use with 6 mm/7 mm (1/4") chain spliced to 12 mm (1/2") 8-plait Brait rope
- The RC6 features Maxwell's revolutionary and patented Wave Design™ chainwheel; refer below for more information about this innovative feature
- Providing most of the features of the larger RC8 (refer to pages 334 - 335), the RC6 has been designed with the smaller, trailer-boat market in mind
- The in-line, vertical gearbox and motor means quick and easy installation by either the boat yard or the DIY aftermarket customer
- An inexpensive, high performance and great looking windlass; the RC6 is built for durability and years of trouble-free use
- The RC6 is a low-profile unit (no optional capstan drum)

STANDARD EQUIPMENT REQUIRED FOR DUAL DIRECTION CONTROL

- Dual Direction Solenoid (included)
- Emergency "free fall" activation lever (included)
- Up/Down remote control panel (not included)
- Circuit breaker/isolator panel (not included)

OPTIONS

- | | |
|--------------------------|------------------|
| 1. AutoAnchor™ Equipment | 4. Chain Stopper |
| 2. Compact Remote | 5. Chain Snubber |
| 3. Foot Switches | |

Every Maxwell RC6 automatic rope/chain windlass comes with top works, gearbox, motor and dual-direction solenoid. Switches and circuit breaker are available and need to be ordered separately. Refer to the chart on page 390.

All standard and optional control accessories can be found on pages 379 - 381.

3 YEAR
Limited Warranty



Maxwell's smallest version of the rope/chain anchor winch

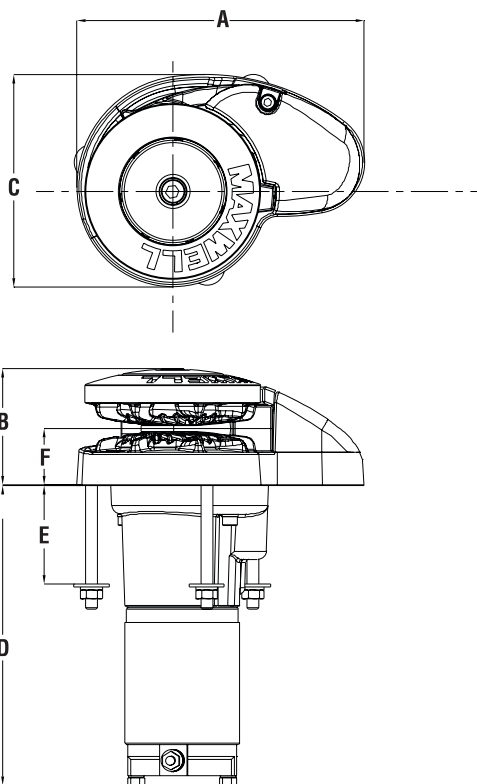
SPECIFICATIONS

Model	RC6
Maximum Pull/Lift	350 kg / 770 lb
Static Hold	700 kg / 1540 lb
Chain Short Link	6 mm/7 mm / 1/4"
Rope Size (Nylon)* (8 plait recommended)	12 mm / 1/2"
Chain Speed (Anchor Retrieval)	24 m/min / 79 ft/min
Rope Speed (Anchor Retrieval)	21 m/min / 69 ft/min
Power Supply (DC)	12 or 24 VDC
Motor Power	500 W
Net Weight	8.5 kg / 18.7 lb

* Refer to owner's manual for rope size variations

DIMENSIONS

Model	RC6
A	196 mm / 7 3/4"
B	80 mm / 3 1/16"
C	145 mm / 5 3/4"
D	209 mm / 8 3/4"
E	65 mm / 2 1/2"
F	39 mm / 1 9/16"

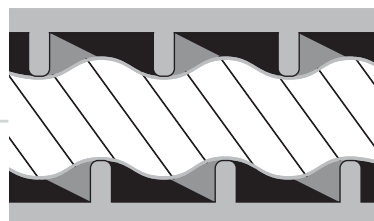


Important: Maxwell windlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.

MAXWELL'S REVOLUTIONARY CHAINWHEEL

Maxwell lead the market yet again in innovative thinking when they introduced the Wave Design™ chainwheel. This patented rope/chain wheel incorporates two unique design concepts that greatly improve the handling and control of the rope/chain spliced rode. The outer ribs of the chainwheel are angled slightly forward ensuring that the rope and the chain are smoothly guided in the wheel during anchor retrieval.

As the rope pulls into the wheel, the opposite-facing inner ribs grip the rope in an undulating manner, securing the rope more firmly in a "wave pattern" action that is far superior to the traditional "jam cleat" manner of holding the rope compared to all other products on the market. Not only does this Wave Design™ hold the rope more securely, it is also kinder on the rope resulting in increased longevity of your anchor rode.





Vertical Rope/Chain Series RC8-6 • RC8-8

The stainless-steel (AISI 316) RC8 Series of automatic rope/chain anchor winches are Maxwell's mid-range models in the highly success RC Series Windlass Range.

Features and benefits

- The stainless-steel (AISI 316) RC8-6 Series incorporates a chromed bronze chainwheel, designed to effortlessly retrieve and deploy 6 mm/7 mm (1/4") chain spliced to 12 mm (1/2") 8-plait Brait rope
- The more powerful RC8-8 can be used with 8 mm (5/16") chain spliced to 14 mm or 16 mm (9/16" - 5/8") 8-plait Brait rope
- The ingenious Wave Design™ rope/chain gypsy (chainwheel) is able to accommodate a wide range of chain pitch differences within the specified chain size diameters suitable for use with the RC8 Series
- A sleek, low-profile version and a fluted stainless-steel (AISI 316) capstan drum version are available
- Simple two-piece installation saves time and money and allows easy retrofitting without disassembly of the windlass
- Unique spacer-tube design allows installation through virtually any deck thickness, and the multiple mounting positions and self-aligning gearbox ensure the optimal location of gearbox and motor in virtually all installation situations
- The RC8 features Maxwell's revolutionary and patented Wave Design™ chainwheel, refer to RC6 page 350 for more information about this innovative feature
- The heavy-duty stainless-steel (AISI 316) pressure arm is designed to effectively help grasp the rope/chain splice, giving the RC8 an unparalleled level of performance; in combination with a heavy-duty, large-wire-diameter stainless-steel (AISI 316) pre-loaded spring, the pressure arm always exerts maximum control pressure
- The RC8 works just as effectively with all-chain rodes
- Huge, through-deck, hawse-pipe throat ensures easy entry of the rope/chain rode into and out of the anchor locker
- Full disassembly capability of the topworks utilizing only the handle provided and an Allen key
- Manual override and "free fall" using the emergency crank/clutch handle provided
- Sealed oil bath and marine-grade hard-anodized, alloy gearbox provides maximum output via a precision worm and worm wheel



RC8 Low-Profile Version



RC8 Low-Profile Version

All standard and optional control accessories can be found on pages 379 - 381.



SPECIFICATIONS

Model	RC8 (6/7 mm-1/4")	RC8 (8 mm-5/16")
Maximum Pull/Lift	350 kg / 770 lb	600 kg / 1320 lb
Static Hold	1200 kg / 2640 lb	1200 kg / 2640 lb
Chain Short Link	6/7 mm - 1/4"	8 mm - 5/16"
Rope Size (Nylon)* (8 plait recommended)	12 mm - 1/2"	14 mm/16 mm - 9/16"-5/8"
Chain Speed (Anchor Retrieval)	28 m/min - 92 ft/min	32 m/min - 105 ft/min
Rope Speed (Anchor Retrieval)	24 m/min - 79 ft/min	28 m/min - 92 ft/min
Power Supply (DC)	12 or 24 VDC	12, 24 or 48 VDC
Motor Power	600 W	1000 W
Net Weight	12.5 kg / 27.5 lb	16.5 kg / 36.3 lb

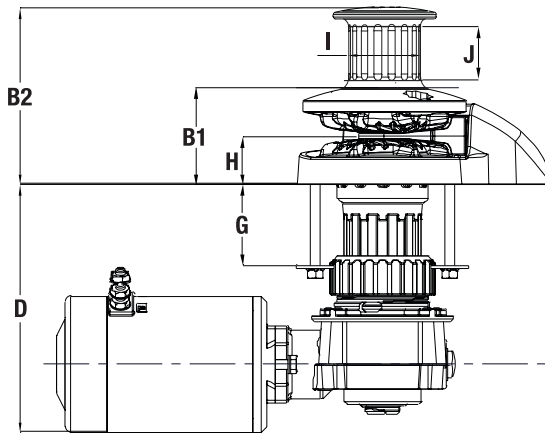
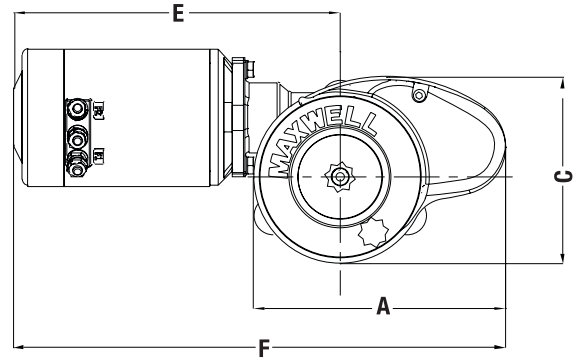
* Refer to the owner's manual for rope size variations

DIMENSIONS

Model	RC8 (6/7 mm-1/4")	RC8 (8 mm-5/16")
A	210 mm / 8 5/16"	210 mm / 8 5/16"
B1	83 mm / 3 5/16"	83 mm / 3 5/16"
B2 (with Capstan)	146 mm / 5 3/4"	146 mm / 5 3/4"
C	156 mm / 6 3/16"	156 mm / 6 3/16"
D	200 mm / 7 7/8"	208 mm / 8 1/4"
E	245 mm / 9 5/8"	272 mm / 10 3/4"
F	383 mm / 15"	410 mm / 16 1/4"
G (Std deck clearance) ^	65 mm / 2 1/2"	65 mm / 2 1/2"
H	40 mm / 1 5/8"	40 mm / 1 5/8"
I	66 mm / 2 5/8"	66 mm / 2 5/8"
J	44 mm / 1 3/4"	44 mm / 1 3/4"

^ Extra-deck-clearance models available. Contact your Maxwell dealer.

Mid-range rope/chain anchor winch



Important: Maxwell windlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.

STANDARD EQUIPMENT REQUIRED FOR DUAL DIRECTION CONTROL

- Dual Direction Solenoid (included)
- Emergency crank/clutch release handle lever (included)
- Up/Down remote control panel (not included)
- Circuit breaker/isolator panel (not included)

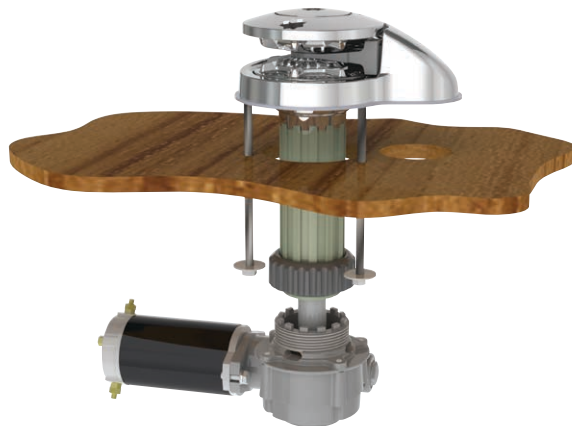
Every Maxwell RC8 automatic rope/chain windlass comes with the top works, gear box, motor and dual-direction solenoid. Switches and circuit breaker are available and need to be ordered separately. Refer to the chart on page 390.

HEIGHT-MATCHED CHAIN STOPPER

- For use with Maxwell's rope/chain vertical windlasses
- Height adjusted to most effectively align the chain with the chainwheel
- No height-adjustment plinth required
- Refer to page 386 for more information



Height-Matched Chain Stopper



OPTIONS

- | | |
|--------------------------|------------------|
| 1. AutoAnchor™ Equipment | 4. Chain Stopper |
| 2. Compact Remote | 5. Chain Snubber |
| 3. Foot Switches | 6. Capstan model |





Vertical Rope/Chain Series RC10-8 • RC10-10

The stainless-steel (AISI 316) RC10 Series of automatic rope/chain anchor winches are Maxwell's upper mid-range models in the highly successful RC Series Windlass Range.



RC10 Capstan Version



RC10 Low-Profile Version

Features and benefits

- The stainless-steel (AISI 316) RC10-8 Series incorporates a chromed bronze chainwheel, designed to effortlessly retrieve and deploy 8 mm (5/16") chain spliced to 14 mm (9/16") or 16 mm (5/8") 8-plait Brait rope
- The more powerful RC10-10 can be use with 10 mm (3/8") chain spliced to 16 mm (5/8") 8-plait Brait rope
- A sleek, low-profile version and a fluted stainless-steel (AISI 316) capstan drum version are available
- Simple two-piece installation saves time and money and allows easy retrofitting without disassembly of the windlass; unique spacer-tube design allows installation through virtually any deck thickness, and the multiple mounting positions and self-aligning gearbox ensure optimal location of the gearbox and motor in virtually all installation situations
- Full disassembly capability of the topworks utilizing only the handle provided and an Allen key
- The RC10 is manufactured from marine-grade 316 stainless-steel (AISI 316) and chromed bronze for long-term durability; the heavy-duty stainless-steel (AISI 316) pressure arm, coupled with the unique rope/chain gypsy, is designed to effectively grasp the splice between rope and chain, giving the RC10 an unparalleled level of performance
- The heavy-duty, stainless-steel (AISI 316) pressure arm combined with a large-wire-diameter stainless-steel (AISI 316) spring ensures consistent pressure on the rode and splice
- The RC10 works just as effectively with all chain rodes for those who desire a low-profile, elegantly styled windlass on their foredeck
- Huge, through-deck hawse-pipe throat ensures easy entry of the rope/chain rode into and out of the anchor locker
- Cone type clutch/brake mechanism permits manual "free fall" anchoring
- Sealed oil bath and marine-grade, hard-anodized, alloy gearbox provides maximum output via a precision worm and worm wheel

3 YEAR
Limited Warranty

SPECIFICATIONS

Model	RC10 (8 mm-5/16")	RC10 (10 mm-3/8")
Maximum Pull/Lift	700 kg 1540 lb	850 kg 1870 lb
Static Hold	1500 kg 3300 lb	1500 kg 3300 lb
Chain Short Link	8 mm 5/16"	10 mm 3/8"
Rope Size (Nylon)* (8 plait recommended)	14 mm - 16 mm 9/16" - 5/8"	16 mm 5/8"
Chain Speed (Normal Working load)	24 m/min 79 ft/min	24 m/min 79 ft/min
Rope Speed (Normal Working load)	20 m/min 65 ft/min	20 m/min 65 ft/min
Power Supply (DC)	12, 24 or 48 VDC	12, 24 or 48 VDC
Motor (Watt)	1000 W	1200 W
Net Weight	19 kg 42 lb	20 kg 44 lb
Hydraulic Pressure	138 bar 2000 PSI	138 bar 2000 PSI
Hydraulic Flow	20 l/min 5.3 USgal/min	20 l/min 5.3 USgal/min
Net Weight - Hydraulic	14 kg/ 42 lb 26 kg/ 57 lb	14 kg/ 42 lb 26 kg/ 57 lb

* Refer to the owner's for rope size variations.

DIMENSIONS

Model	RC10 (8 mm-5/16")	RC10 (10 mm-3/8")
A	230 mm 9 1/8"	230 mm 9 1/8"
B1	89 mm 3 1/2"	89 mm 3 1/2"
B2 (with capstan)	168 mm 6 5/8"	168 mm 6 5/8"
C	170 mm 6 3/4"	170 mm 6 3/4"
D	251 mm 10"	251 mm 10"
E	272 mm 10 3/4"	272 mm 10 3/4"
F	424 mm 16 3/4"	424 mm 16 3/4"
G (Std deck clearance) ^	100 mm 4"	100 mm 4"
H	43 mm 1 3/4"	43 mm 1 3/4"
I	66 mm 2 5/8"	66 mm 2 5/8"
J	44 mm 1 3/4"	44 mm 1 3/4"

^ Extra-deck-clearance models available. Contact your Maxwell dealer.

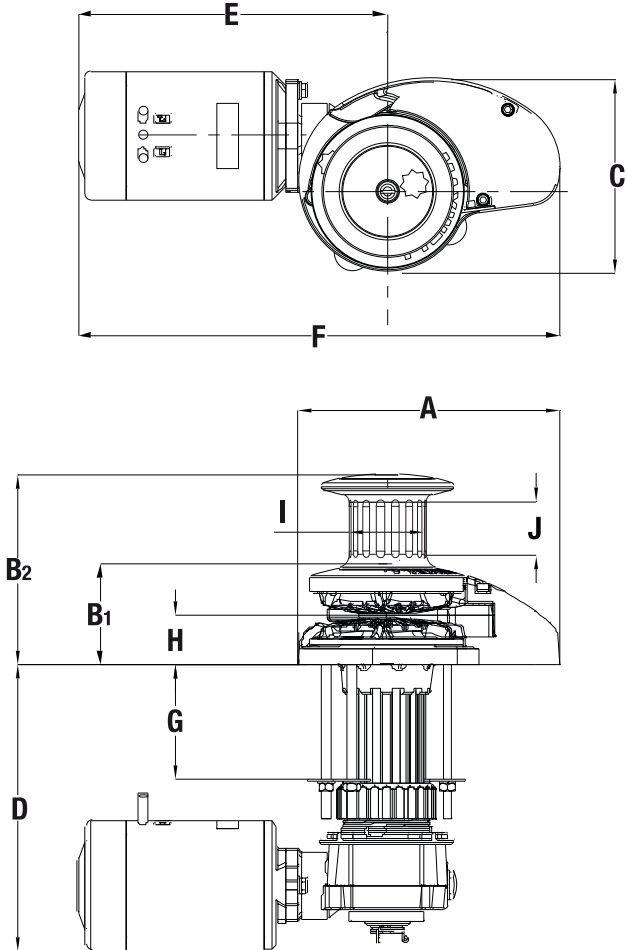
HEIGHT-MATCHED CHAIN STOPPER

- For use with Maxwell's rope/chain vertical windlasses
- Height adjusted to most effectively align the chain with the chainwheel
- No height-adjustment plinth required
- Refer to page 386 for more information

Height-Matched
Chain Stopper



All standard and optional control accessories can be found on pages 379 - 381.



Important: Maxwell windlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.

STANDARD EQUIPMENT REQUIRED FOR DUAL DIRECTION CONTROL

Dual Direction Solenoid (included)
Emergency crank/clutch release handle lever (included)
Up/Down remote control panel (not included)
Circuit breaker/isolator panel (not included)

OPTIONS

1. AutoAnchor™ Equipment
2. Compact Remote
3. Foot Switches
4. Chain Stopper
5. Chain Snubber
6. Capstan model

Every Maxwell RC10 automatic rope/chain windlass comes with top works, motor/gear box and dual-direction solenoid. Switches and circuit breaker are available and need to be ordered separately. Refer to the chart on page 390.





Vertical Rope/Chain Series RC12-10 • RC12-12

The RC12 Series incorporates Maxwell's latest stylish innovation in automatic rope/chain windlass technology. Retaining the classic open design styling more appropriate on larger boats, the RC12-10 and RC12-12 represent the next generation of rope/chain windlass evolution in every respect.



RC12 Capstan Model

Activation of the ratcheted mechanism lever ensures the windlass cannot backwind during emergency (manual) retrieval of the rode (rope and/or chain) and anchor.



Features and benefits

- The RC12 fully automatic windlass series is designed to effortlessly retrieve and deploy 10 to 13 mm (3/8" to 1/2") short-link chain combined with 16 to 22 mm (5/8" to 7/8") 8-plait Brait nylon rope
- Stainless-steel AISI 316
- With a maximum pull of 1590 kg (3500 lb) and an anchor-retrieval rate of 15 m/min (50ft/min), the RC12-12 is one of the fastest and gruntest windlasses in its class
- A sleek, low-profile version and a fluted stainless-steel (AISI 316) capstan drum version are available
- The RC12 is packed with patented innovative features combined with Maxwell's traditionally classic aesthetics, while reflecting the modern "form follows function" of the highly successful RC6, RC8 and RC10 series windlasses
- The elegantly designed deckplate and chainpipe cover are manufactured in polished marine-grade (AISI 316) stainless-steel (AISI 316), as are the heavy-duty pressure arm, stripper, chainwheel and fluted capstan drum
- The huge, through-deck, hawse-pipe throat ensures easy entry of the rope/chain rode into and out of the anchor locker
- Double cone-type brake/clutch mechanism permits "free fall" anchoring; cone clutches, unlike dog clutches, provide smooth, progressive engagement, ensuring safe and precise operator control
- The RC12 features Maxwell's revolutionary and patented Wave Design™ chainwheel; refer to RC6 page 350 for more information about this innovative feature
- Emergency manual retrieval is made simple and easy with Maxwell's unique "Active Latch Ratchet System" operation that prevents backwind of the windlass during manual hauling of the anchor
- The Maxwell-designed, all new and innovative black, hard anodized gearbox provides numerous advantages:
 - Fast and easy windlass installation
 - More corrosion resistant
 - Easy to maintain and service
 - Takes up less room in the anchor locker
 - 75:1 Ratio (RC12-10) or 100:1 Ratio (RC12-12), single-stage design with less moving parts for smoother and quieter operation
 - Allows for multi-positioning of the gearbox/motor



SPECIFICATIONS

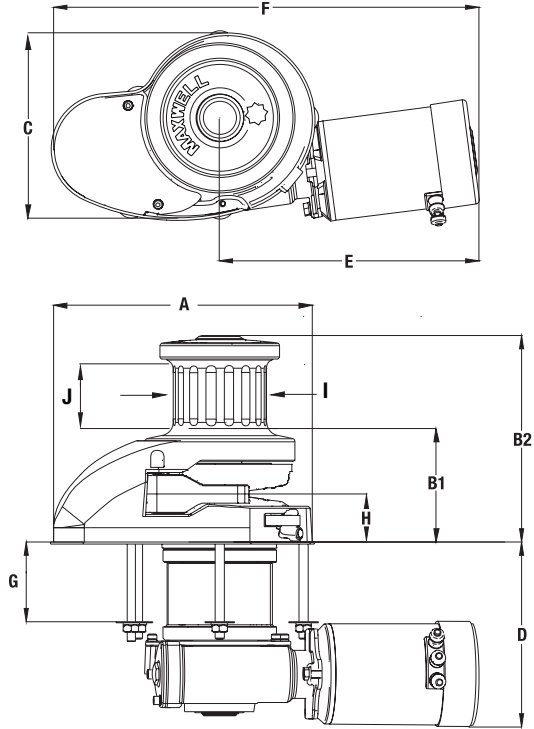
Model	RC12 (10/11 mm-3/8")	RC12 (12/13 mm-1/2")
Maximum Pull/Lift	1134 kg 2500 lb	1590 kg 3500 lb
Static Hold	2200 kg 4840 lb	2200 kg 4840 lb
Chain Short Link**	10/11 mm 3/8"	12/13 mm 1/2"
Rope Size (Nylon)** (8 plait recommended)	16-20 mm 5/8-3/4"	20-22 mm 3/4"-7/8"
Chain Speed (at normal working load)	24 m/min 79 ft/min	15 m/min 50 ft/min
Rope Speed (at normal working load)	20 m/min 65 ft/min	13 m/min 43 ft/min
Power Supply (DC)	12, 24 or 48 VDC	12, 24 or 48 VDC
Motor Power	1200 W	1200 W
Net Weight - DC (Capstan version)	32 kg 71 lb	32 kg 71 lb
Net Weight - DC (Low Profile version)	29 kg 64 lb	29 kg 64 lb
Hydraulic Pressure	138 bar 2000 PSI	138 bar 2000 PSI
Hydraulic Flow	40 l/min 11 USgal/min	40 l/min 11 USgal/min
Net Weight - Hyd (Low-profile) (Capstan version)	23 kg/ 51 lb 26 kg/ 57 lb	23 kg/ 51 lb 26 kg/ 57 lb

** When ordering, please specify your specific rope and chain, combination rope

DIMENSIONS

Model	RC12 (10 mm-3/8")	RC12 (12/13 mm-1/2")
A	293 mm 11 5/8"	293 mm 11 5/8"
B ¹ (Low-profile version)	128 mm 5 1/8"	128 mm 5 1/8"
B ² (Capstan version)	233 mm 9 1/4"	233 mm 9 1/4"
C	206 mm 8 1/8"	206 mm 8 1/8"
D (Std deck clearance)	210 mm 8 3/8"	210 mm 8 3/8"
E	294 mm 11 5/8"	294 mm 11 5/8"
F	482 mm 19"	482 mm 19"
G (Std deck clearance)	90 mm 3 5/8"	90 mm 3 5/8"
H	54 mm 2 1/4"	54 mm 2 1/4"
I	106 mm 4 1/4"	106 mm 4 1/4"
J	62 mm 2 1/2"	62 mm 2 1/2"

Stylish innovation in automatic rope/chain windlass technology



RC12 Low-Profile Model

Important: Maxwell windlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.

STANDARD EQUIPMENT REQUIRED FOR DUAL DIRECTION CONTROL

- Dual Direction Solenoid (included)
- Emergency (manual) retrieval handle (included)
- Clutch release handle (included)
- Up/Down remote control panel (not included)
- Circuit breaker/isolator panel (not included)

OPTIONS

1. AutoAnchor™ Equipment
2. Compact Remote
3. Foot Switches
4. Chain Stopper
5. Chain Snubber
6. Capstan model

HEIGHT-MATCHED CHAIN STOPPER

- For use with Maxwell's rope/chain vertical windlasses
- Height adjusted to most effectively align the chain with the chainwheel
- No height-adjustment plinth required
- Refer to page 386 for more information



Height-Matched Chain Stopper

Every Maxwell RC12 automatic rope/chain windlass comes with top works, motor/gear box and dual-direction solenoid. Switches and circuit breaker are available and need to be ordered separately. Refer to the chart on page 390.

All standard and optional control accessories can be found on pages 379 - 381.





Heavy Duty Rope/Chain Series RC12HD

Features and benefits

- The RC12HD is designed for use with 10 to 13 mm (3/8" to 1/2") short-link chain combined with 16 to 22 mm (5/8" to 7/8") nylon rope
- Classification Society approval available for specific cases; contact your Maxwell representative
- This design is particularly well suited to light-duty commercial vessels requiring high service speeds, e.g. patrol vessels, as the reduced weight of the rope/chain combination removes weight from the bow
- The 38 mm (1 1/2") mainshaft is manufactured in high-strength, corrosion-resistant 2205 Duplex stainless steel (AISI 316), and the above-deck components are manufactured in stainless steel (AISI 316), providing excellent corrosion resistance and a highly polished finish
- The RC12HD is available with either heavy-duty, fan-cooled 24 VDC, 48 VDC, 3-phase AC, hydraulic motors of various displacements or a single-phase AC motor (contact your distributor for specifications and applications); runtime and continuous pull varies between versions (see the specifications on the following page)
- Double cone-type brake/clutch mechanism permits "free fall" anchoring; cone clutches, unlike dog clutches, provide smooth, progressive engagement, ensuring safe and precise operator control
- The RC12HD features Maxwell's revolutionary and patented Wave Design™ chainwheel



RC12HD Capstan Version

Important: Maxwell windlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.

All standard and optional control accessories can be found on pages 379 - 381.

3 YEAR
Limited Warranty



RC12HD Low-Profile Model

SPECIFICATIONS

	24 VDC Electric (2000 W)	Hydraulic (Type 2)	Hydraulic GT (Type 1)	AC Electric
Maximum pull	1820 kg (4000 lb)	1200 kg (2640 lb)	1820 kg (4000 lb)	1820 kg (4000 lb)
Continuous Pull	300 kg (660 lb)	1200 kg (2640 lb)	1250 kg (2750 lb)	620 kg (1360 lb)
Line Speed at Continuous Pull	12 m/min (39 ft/min)	15 m/min (49 ft/min)	15 m/min (49 ft/min)	12 m/min (39 ft/min)
Working Load limit (10 min)	610 kg (1335 lb)	1200 kg (2640 lb)	1500 kg (3300 lb)	750 kg (1650 lb)
Maximum Line Speed	18 m/min (59 ft/min)	15 m/min (49 ft/min)	15 m/min (49 ft/min)	12 m/min (39 ft/min)
Static Hold	2200 kg (4840 lb)	2200 kg (4840 lb)	2200 kg (4840 lb)	2200 kg (4840 lb)
Net Weight (Capstan Version)	40 kg (88 lb)	31.5 kg (69 lb)	34 kg (75 lb)	54 kg (118 lb)
Power Supply	24 or 48 VDC	Hydraulic	Hydraulic	3Ph AC
Motor Power	2000 W	N/A	N/A	2200 W
Maximum Hydraulic Pressure	N/A	138 Bar (2000 PSI)	205 Bar (3000 PSI)	N/A
Recommended Hydraulic Flow	N/A	40 l/min (11 Gal/min)	28 l/min (7.5 Gal/min)	N/A

Accessories	Code	Voltage (DC)
Reversing Solenoid	SP5107	24 - 48 VDC
Circuit Breaker	P100791	135 Amp

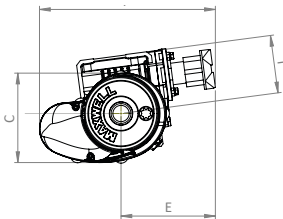
DIMENSIONS

	Hydraulic Type 2	Hydraulic Type 1	24 - 48 VDC Electric	3phase AC Electric
A	293 mm 11 5/8"	293 mm 11 5/8"	293 mm 11 5/8"	293 mm 11 5/8"
B ¹ (Low Profile version)	128 mm 5 1/8"	128 mm 5 1/8"	128 mm 5 1/8"	128 mm 5 1/8"
B ² (Capstan version)	233 mm 9 1/4"	233 mm 9 1/4"	233 mm 9 1/4"	233 mm 9 1/4"
C	206 mm 8 1/8"	206 mm 8 1/8"	206 mm 8 1/8"	206 mm 8 1/8"
D	241 mm 9 1/2"	243 mm 9 9/16"	241 mm 9 1/2"	270 mm 10 5/8"
E	218 mm 8 5/8"	228 mm 9"	361 mm 14 1/4"	423 mm 16 5/8"
F	406 mm 16"	416 mm 16 3/8"	549 mm 21 5/8"	611 mm 24"
G	95 mm 3 3/4"	95 mm 3 3/4"	95 mm 3 3/4"	69 mm 2 3/4"
H	54 mm 2 1/4"	54 mm 2 1/4"	54 mm 2 1/4"	54 mm 2 1/4"
I	134 mm 5 1/4"	156 mm 6 1/8"	139 mm 5 1/2"	175 mm 6 7/8"

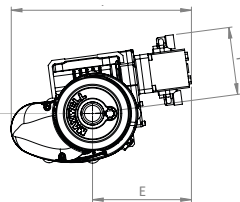
Extra Deck Clearance available, add 100m to dimensions D & G.

Refer to pages 379 - 381 for additional electrical accessories.

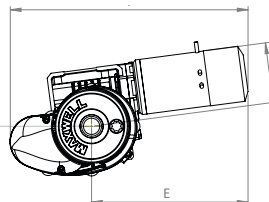
Hydraulic
(Motor Type 2)



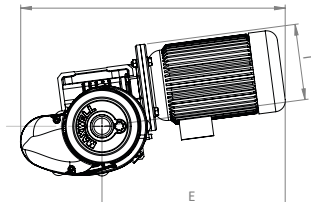
Hydraulic GT
(Motor Type 1)



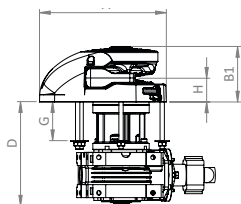
24 - 48 VDC Electric



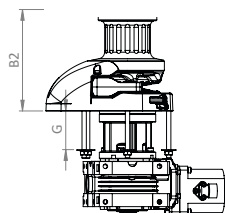
AC 3Phase Electric



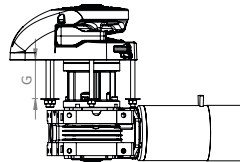
Low-Profile Versions



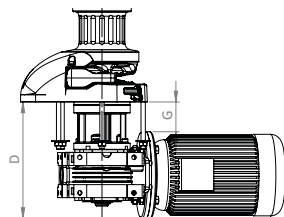
Capstan Versions



Low-Profile Versions



Capstan Versions





**Vertical Windlass
VW1000 • VW1500 • VW3500**

The VW Series anchor windlasses offer more flexibility for chain routing and allow for manual transfer of anchor rode from chainwheel to drum (for rope and chain combination).

Features and benefits

- Allows easy removal of anchor rode from the windlass
- Permits use of traditional shackle and thimble rope and chain connection
- Also suitable for horizontal installation on a fore and aft bulkhead inside chain locker
- High-quality finish on above deck components, manufactured from marine grade stainless steel (AISI 316) and chromed bronze chainwheel, for long term durability
- Cone type brake/clutch mechanism permits manual 'Free Fall' anchor deployment and independent operation of the warping drum
- Simplified through deck installation by modular design and precise alignment of gearbox to the topworks
- Hard anodized aluminum gearbox and spacer tube for added corrosion resistance
- Heavy duty, dual direction motor, designed for marine environment
- Easily disassembled for servicing



WW1000 Capstan Version

STANDARD EQUIPMENT REQUIRED FOR DUAL DIRECTION CONTROL

- Dual Direction Solenoid (not included)
- Emergency crank handle/clutch control lever (included)
- Chainwheel to suit chain specified chain size (included)
- Circuit breaker/isolator panel (not included)
- Windlass electrical controls (not included)

OPTIONS

- | | |
|-------------------------------|-----------------------------------|
| 1. Chain counters | 6. Extra deck clearance kit |
| 2. Foot Switches | 7. Hydraulic motor |
| 3. Hand held pendant controls | 8. Up/Down remote control panel |
| 4. Chain Stopper | 9. Circuit breaker/isolator panel |
| 5. Chain Snubber | |

All standard and optional control accessories can be found on pages 379 - 381.

**Ideal for use in sailing
boat anchor lockers with
little available space**

SPECIFICATIONS

MODEL	VW1000	VW1500	VW3500
Maximum Pull/ Lift	700 kg 1540 lb	850 kg 1870 lb	1590 kg 3500 lb
Static Hold	1500 kg 3300 lb	1500 kg 3300 lb	2200 kg 4840 lb
Chain Short Link	6-10 mm 1/4" -3/8"	6-10 mm 1/4" -3/8"	10-13 mm 3/8" -1/2"
Line Speed** (Normal Working)	18 m/min 59 ft/min	18 m/min 59 ft/min	15 m/min 50 ft/min
Power Supply (DC)	12, 24 or 48 VDC	12, 24 or 48 VDC	12, 24 or 48 VDC
Motor (Watt)	1000 W	1200 W	1200 W
Net Weight (Electric)	22 kg 50 lb	22 kg 50 lb	48 kg 105 lb
Hydraulic Pressure	100 bar 1450 psi	138 bar 2000 psi	138 bar 2000 psi
Hydraulic Flow	20 l/min 5.3USgal/min	20 l/min 5.3USgal/min	42 l/min 11USgal/min
Net Weight (Hyd)	15 kg 34 lb	15 kg 34 lb	40 kg 88 lb

** Winch performance when hauling rope with capstan. Chain speed may vary depending on size of chain and gypsy.

DIMENSIONS

MODEL	VW1000	VW1500	VW3500
A	165 mm 6 1/2"	165 mm 6 1/2"	239 mm 9 1/2"
B1	198 mm 7 3/4"	198 mm 7 3/4"	149 mm 5 3/4"
B2	100 mm 4"	100 mm 4"	280 mm 11"
C	165 mm 6 1/2"	165 mm 6 1/2"	225 mm 8 7/8"
D	252 mm 10"	252 mm 10"	208 mm 11 1/8"
E	272 mm 10 3/4"	272 mm 10 3/4"	281 mm 11 1/8"
F	357 mm 14"	357 mm 14"	415 mm 16 3/8"
G (Std deck clearance)**	100 mm 4"	100 mm 4"	85 mm 3 11/32"
G (Extra deck clearance) ^	150 mm 6"	150 mm 6"	190 mm 7 1/2"
H	59 mm 2 3/8"	59 mm 2 3/8"	83 mm 3 1/4"
I	80 mm 3 1/8"	80 mm 3 1/8"	110 mm 4 5/16"
J (working height of drum for rope warping)	44 mm 1 3/4"	44 mm 1 3/4"	55 mm 1 3/4"

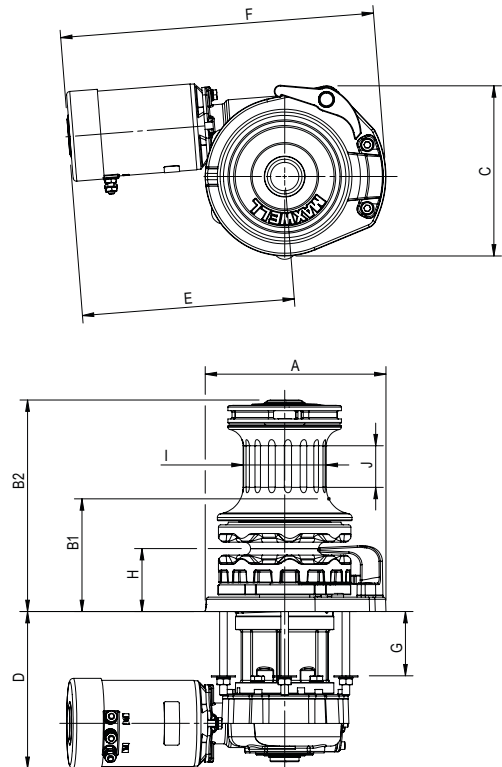
**For VW1000 and VW1500 shorter deck clearance version also available at 50 mm (2")

^ A deck clearance increase will also increase the 'D' measurement by the same increment.



VWCLP1500

Important: Maxwell winlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the winlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position.





**Vertical/Horizontal
Rope-Chain Windlass
VVRC10 • VVRC12 • VVRC12HD**
The VVRC Series anchor windlasses offer more flexibility for chain routing on deck, including an option of horizontal installation. The chainwheels are capable of handling both chain and rope.



VVRC12

Features and benefits

- Permits windlass location further away from chain locker inlet
- Permits use of traditional shackle and thimble rope and chain connection
- Also suitable for horizontal installation on a fore and aft bulk-head inside chain locker
- High-quality finish on above deck components, manufactured from marine grade stainless steel (AISI 316) and chromed bronze chainwheel, for long term durability
- Cone type brake/clutch mechanism permits manual 'Free Fall' anchor deployment and independent operation of the warping drum
- Simplified through deck installation by modular design and precise alignment of gearbox to the topworks
- Hard anodized aluminium gearbox and spacer tube for added corrosion resistance
- Heavy duty, dual direction motor, designed for marine winches
- Easily disassembled for servicing

STANDARD EQUIPMENT REQUIRED FOR SINGLE DIRECTION CONTROL

- Dual Direction Solenoid (not included)
- Emergency crank handle/clutch control lever (included)
- Chainwheel to suit specified chain size (included)
- Circuit breaker/isolator panel (not included)
- Windlass electrical controls (not included)

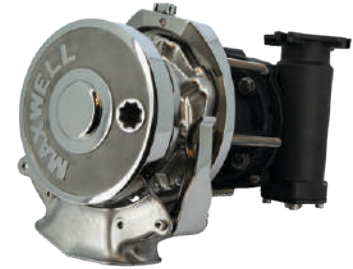
OPTIONS

1. Chain counters
2. Foot Switches
3. Hand held pendant controls
4. Chain Stopper
5. Chain Snubber
6. Extra deck clearance kit
7. Hydraulic motor
8. Up/Down remote control panel
9. Circuit breaker/isolator panel

All standard and optional control accessories can be found on pages 379 - 381.

SPECIFICATIONS

MODEL	VWRC10-8	VWRC10-10	VWRC12-10	VWRC12-12	VWRC12-10HD	VWRC12-12HD
Maximum Pull/ Lift	700 kg 1540 lb	850 kg 1870 lb	1134 kg 2500 lb	1590 kg 3500 lb	1820 kg 4000 lb	1820 kg 4000 lb
Static Hold	1500 kg 3300 lb	1500 kg 3300 lb	2200 kg 4840 lb	2200 kg 4840 lb	2200 kg 4840 lb	2200 kg 4840 lb
Chain Short Link	8 mm 5/16"	10 mm 3/8"	10-11 mm 3/8"	12/13 mm 1/2"	10-11 mm 3/8"	12-13 mm 1/2"
Line Speed** (Normal Working)	24 m/min 79 ft/min	25 m/min 82 ft/min	24 m/min 79 ft/min	15 m/min 50 ft/min	15 m/min 50 ft/min	15 m/min 50 ft/min
Power Supply (DC)	12/24/48V Hyd	12/24/48V Hyd	12/24/48V Hyd	12/24/48V Hyd	24/48V Hyd, 3ph AC	24/48V Hyd, 3ph AC
Motor (Watt)	1000 W	1200 W	1200 W	1200 W	2000 W	2000 W
Net Weight (Electric)	20 kg 43 lb	21 kg 46 lb	32 kg 71 lb	32 kg 71 lb	37 kg 82 lb	37 kg 82 lb
Hydraulic Pressure	138 bar 2000 psi	138 bar 2000 psi	138 bar 2000 psi	138 bar 2000 psi	138 bar 2000 psi	138 bar 2000 psi
Hydraulic Flow	20 l/min 5.3 USgal/min	20 l/min 5.3 USgal/min	40 l/min 11 USgal/min	40 l/min 11 USgal/min	47 l/min 12.5 USgal/min	47 l/min 12.5 USgal/min
Net Weight (Hyd)	13 kg 29 lb	13 kg 29 lb	26 kg 57 lb	26 kg 57 lb	31 kg 68 lb	31 kg 68 lb



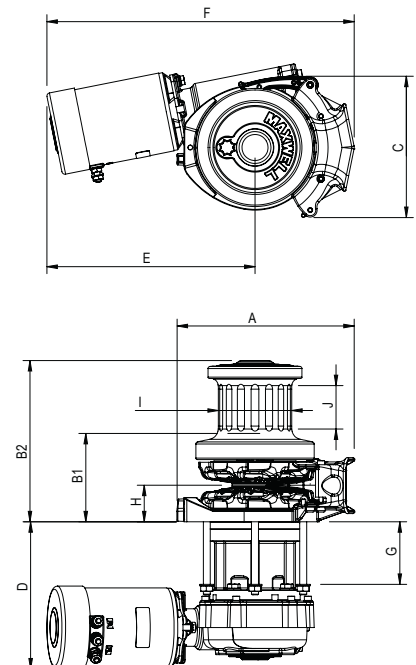
Important: Maxwell winlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the winlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position.

** Winch performance when hauling rope with capstan. Chain speed may vary depending on size of chain and gypsy.

DIMENSIONS

MODEL	VWRC10-8	VWRC10-10	VWRC12-10	VWRC12-12	VWRC12-10HD	VWRC12-12HD
A	172 mm 6 7/8"	172 mm 6 7/8"	254 mm 10"	254 mm 10"	254 mm 10"	254 mm 10"
B1	89 mm 3 1/2"	89 mm 3 1/2"	126 mm 5"	126 mm 5"	126 mm 5"	126 mm 5"
B2 (with Capstan)	168 mm 6 8/8"	168 mm 6 8/8"	232 mm 9 1/4"	232 mm 9 1/4"	232 mm 9 1/4"	232 mm 9 1/4"
C	140 mm 5 5/8"	140 mm 5 5/8"	200 mm 8"	200 mm 8"	200 mm 8"	200 mm 8"
D	251 mm 9 7/8"	251 mm 9 7/8"	212 mm 8 3/8"	212 mm 8 3/8"	243 mm 9 1/2"	243 mm 9 1/2"
E	272 mm 10 3/4"	272 mm 10 3/4"	280 mm 11"	280 mm 11"	368 mm 14 1/2"	368 mm 14 1/2"
F	424 mm 16 3/4"	424 mm 16 3/4"	407 mm 16"	407 mm 16"	495 mm 19 1/2"	495 mm 19 1/2"
G (Std)**	100 mm 4"	100 mm 4"	90 mm 3 5/8"	90 mm 3 5/8"	90 mm 3 5/8"	90 mm 3 5/8"
G (Extra) ^	-	-	190 mm 7 1/2"	190 mm 7 1/2"	190 mm 7 1/2"	190 mm 7 1/2"
H (Chain line)	43 mm 1 3/4"	43 mm 1 3/4"	53 mm 2"	53 mm 2"	53 mm 2"	53 mm 2"
I	66 mm 2 5/8"	66 mm 2 5/8"	105 mm 4 1/4"	105 mm 4 1/4"	105 mm 4 1/4"	105 mm 4 1/4"
J	44 mm 1 3/4"	44 mm 1 3/4"	62 mm 2 1/2"	62 mm 2 1/2"	62 mm 2 1/2"	62 mm 2 1/2"

^ A deck clearance increase will also increase the 'D' measurement by the same increment.





Vertical Windlass and Chain Pipe VWC1000 • VWC1500 • VWC3500

The VWC Series is designed for automatic vertical handling of chain-only anchor rodes while offering an independent capstan for the retrieval of a secondary rope and chain rode or to assist with docking procedures.



VWC3500 Low-Profile Version

STANDARD EQUIPMENT REQUIRED FOR DUAL-DIRECTION CONTROL

- Dual-Direction Solenoid (included)
- Emergency crank handle/clutch control lever (included)
- Chainwheel to suit chain specified chain size (included)
- Up/Down remote control panel (not included)
- Circuit breaker/isolator panel (not included)

OPTIONS

1. AutoAnchor™ Equipment
2. Foot Switches
3. Chain Stopper
4. Up/Down remote control panel
5. Extra deck-clearance kit
6. Hydraulic motor
7. Compact Remote
8. Roving remote

Features and benefits

- Fully automatic single- or dual-direction chainwheel operation
- High-quality finish on above-deck components, manufactured from marine-grade stainless-steel (AISI 316), for long term durability
- Integral chain pipe and stripper are aligned for virtually jam-free operation providing automatic feed of chain into and out of the anchor locker
- Port and starboard chain pipes for twin installations (Sizes 2500 and above only)
- Cone-type brake/clutch mechanism permits manual “free fall” anchoring; cone clutches, unlike dog clutches, provide smooth, progressive engagement ensuring safe and precise operator control
- Chainwheel locking pawl
- Optional Band Brake available for 3500 series model only
- Clutch disengagement of the chainwheel enables independent rope hauling from any direction, using the warping drum for positive control of all ropes
- Simple through-deck installation by modular design and precise alignment of gearbox to the topworks utilizing marine-grade stainless-steel (AISI 316) bolts
- Anodized aluminum gearbox and spacer tube on all models
- Heavy-duty, dual-direction motor designed for marine winches
- Low-profile configurations (no warping drum) are available



VWC3500 Capstan Version

All standard and optional control accessories can be found on pages 379 - 381.

Important: Maxwell windlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.

Fully automatic operation for chain-only installations

SPECIFICATIONS

MODEL	VWC1000	VWC1500	VWC3500
Maximum Pull/Lift	700 kg 1540 lb	850 kg 1870 lb	1590 kg 3500 lb
Static Hold	1500 kg 3300 lb	1500 kg 3300 lb	2200 kg 4840 lb
Chain Short Link	6-10 mm 1/4" - 3/8"	6-10 mm 1/4" - 3/8"	10-13 mm 3/8" - 1/2"
Line Speed (Normal Working)	18m/min 60 ft/min	18 m/min 60 ft/min	15 m/min 50 ft/min
Power Supply (DC)	12, 24 or 48 VDC	12, 24 or 48 VDC	12, 24 or 48 VDC
Motor (Watt)	1000 W	1200 W	1200 W
Net Weight - DC	24 kg 52 lb	24 kg 52 lb	48 kg 106 lb
Hydraulic Pressure	100 bar 1450 PSI	138 bar 2000 PSI	138 bar 2000 PSI
Hydraulic Flow	20 l/min 5.3 USgal/min	20 l/min 5.3 USgal/min	42 l/min 11 US gal/min
Net Weight - Hyd	17 kg 37 lb	17 kg 37 lb	40 kg 88 lb

DIMENSIONS

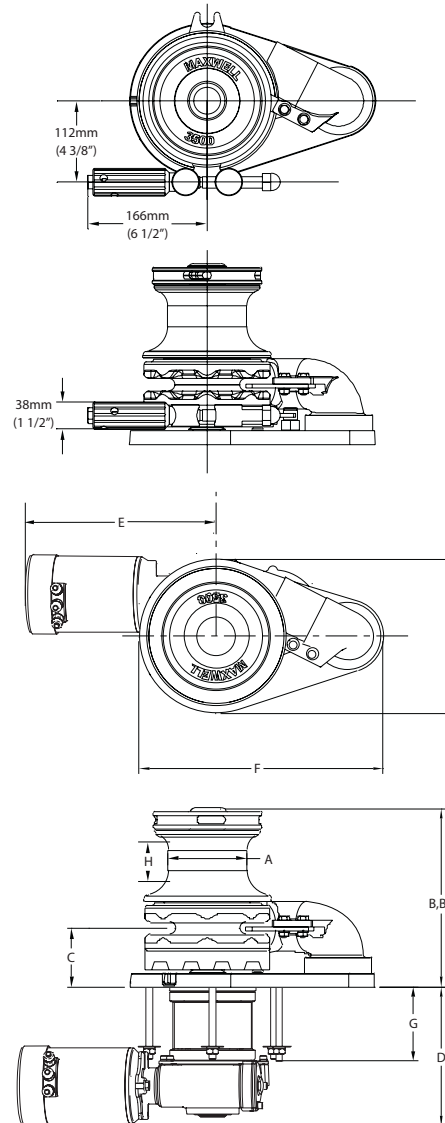
MODEL	VWC1000	VWC1500	VWC3500
A	80 mm 3 1/8"	80 mm 3 1/8"	110 mm 4 5/16"
B	195 mm 7 11/16"	195 mm 7 11/16"	254 mm 10"
B ¹ (Low Profile)	98 mm 3 7/8"	98 mm 3 7/8"	149 mm 5 7/8"
C	56 mm 2 7/32"	56 mm 2 7/32"	83 mm 3 9/32"
D	252 mm 9 5/16"	252 mm 9 5/16"	219 mm 8 5/8"
E	262 mm 10 11/32"	272 mm 10 23/32"	281 mm 11 1/8"
F	224 mm 8 27/32"	224 mm 8 27/32"	342 mm 13 7/16"
G (Std deck clearance)*	100 mm 3 11/32"	100 mm 3 11/32"	100 mm 4"
G (Extra deck clearance)^	150 mm 6"	150 mm 6"	190 mm 7 1/2"
H (Working height of drum for rope warping)	44 mm 1 3/4"	44 mm 1 3/4"	29 mm 1 1/8"
I	165 mm 6 1/2"	165 mm 6 1/2"	215 mm 8 15/32"

**For VWC1000 and VWC1500, a shorter-deck-clearance version is also available at 50 mm (2").
^ A deck-clearance increase will also increase the "D" measurement by the same increment.



VWC3500 Band Brake featuring Maxwell's innovative "stow-a-way" tensioning lever

VWC3500 without Band Brake



VWC3500 Low-Profile Version





Horizontal Rope/Chain Series HRCFF-6-7-8

The sleek, compact HRCFF 6-7-8 are Maxwell's horizontal versions of the latest innovative vertical RC6 and RC8 automatic rope/chain windlasses. The HRCFF Series are packed with original and proven features, including patented rode management technology developed by Maxwell.



Features and benefits

- Now incorporating Maxwell's automatic free-fall technology; simply activate the windlass "free fall" lever, operate your down control (helm station or footswitch) and the windlass will free fall your anchor; when you are ready to lift the anchor, activate the up control and the "free fall" device automatically disengages allowing you to power up your anchor
- Aesthetically pleasing above-deck design encapsulating the motor and drive in a watertight case, saving space below deck and allowing simple routine maintenance
- Die-cast, marine-grade, alloy case is hard anodized for unsurpassed marine protection
- Simple "bolt down" installation ensures effortless and rapid on-deck installation and set up
- Trouble-free rode transition from rope to chain by means of an innovative, proven and patented pressure arm system within a safe, enclosed design
- Integrated composite nylon, through-deck hawse pipe for ease of installation and smooth, snag-free operation
- High-efficiency spur gearbox incorporating a robust non-backwind mechanism
- High-speed, jam-free retrieval of rope and chain controlled from a remote panel mounted Up/Down switch
- Emergency "free fall" function in the event of an onboard power failure is activated by the supplied emergency "free fall" lever
- Revolutionary Wave Design™ chainwheel - see next page
- Heavy-duty, dual-direction motor incorporating new technology features, including integrated wiring for quick electrical installation

STANDARD EQUIPMENT REQUIRED FOR DUAL-DIRECTION CONTROL

- Dual-direction Solenoid (included)
- Clutch Release Handle (included)
- Up/Down remote-control panel (not included)
- Circuit breaker panel (not included)

OPTIONS

1. AutoAnchor™ Equipment
2. Compact Remote
3. Foot Switches
4. Chain Stopper
5. Chain Snubber

Every Maxwell HRCFF 6-7-8 windlass comes with top works, motor/gear box and dual-direction solenoid. Switches and circuit breaker are available and need to be ordered separately. Refer to the chart on page 390.

Important: Maxwell windlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.



Compact horizontal automatic rope/chain windlass

SPECIFICATIONS

Model	HRCFF6	HRCFF7	HRCFF8
Maximum Pull/Lift	410 kg 900 lb	410 kg 900 lb	410 kg 900 lb
Static Hold	700 kg 1540 lb	700 kg 1540 lb	700 kg 1540 lb
Chain Short Link	6 mm 15/64"	7 mm 1/4"	8 mm 5/16"
Rope Size (Nylon)* (8 plait recommended)	12 mm 1/2"	12 mm 1/2"	14 mm 9/16"
Line Speed** (Anchor Retrieval)	25 m/min 82 ft/min	25 m/min 82 ft/min	25 m/min 82 ft/min
Power Supply (DC)	12 VDC	12 VDC	12 or 24 VDC
Motor Power	600 W	600 W	600 W
Net Weight	11.5 kg 25 lb	11.5 kg 25 lb	11.5 kg 25 lb

* refer to owners manual for rope size variations

DIMENSIONS

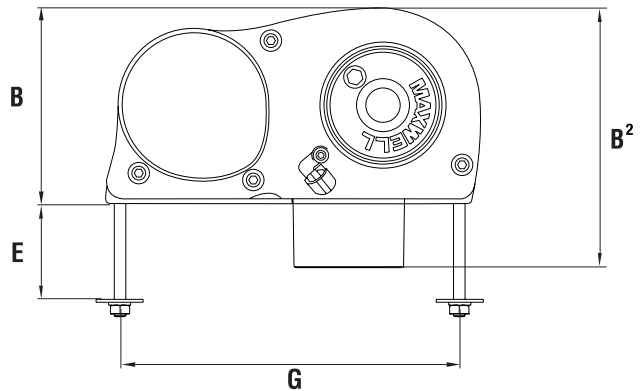
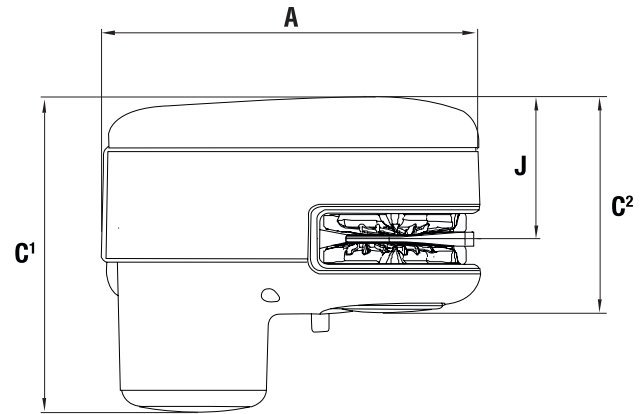
All Models	mm	inches
A	256	10 1/8
B	132	5 11/32
B ²	176	6 7/8
C ¹	214	8 7/16
C ²	147	5 3/4
E	65	2 1/2
G	230	9 1/16
J	96.4	3 7/8

All standard and optional control accessories can be found on pages 379 - 381.

MAXWELL'S REVOLUTIONARY CHAINWHEEL

Maxwell led the market yet again in innovative thinking when they introduced the Wave Design™ chainwheel. This patented rope/chain wheel incorporates two unique design concepts that greatly improve the handling and control of the rope/chain spliced rode.

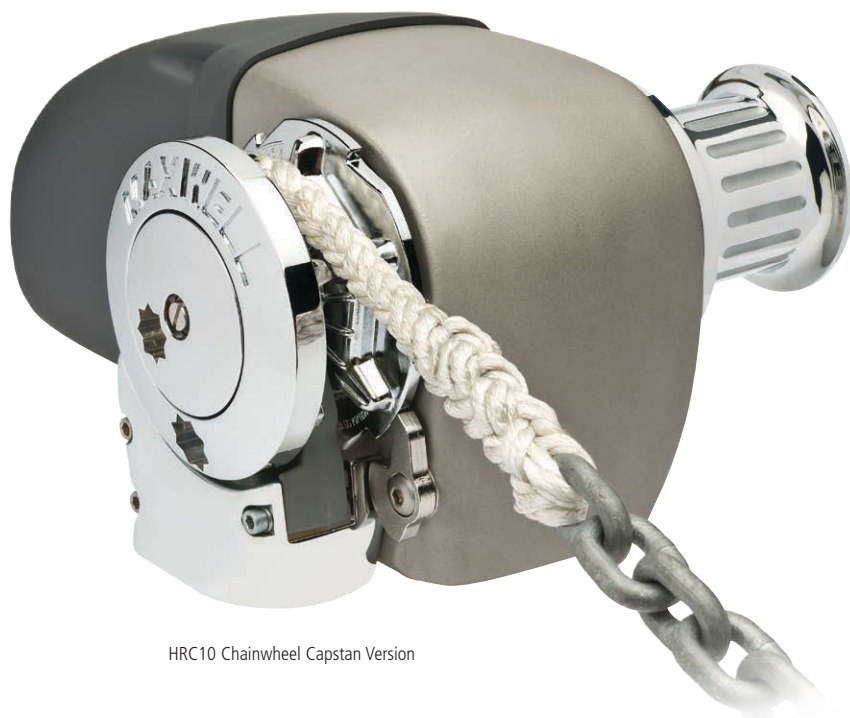
The outer ribs of the chainwheel are angled slightly forward ensuring that the rope and the chain are smoothly guided in the wheel during anchor retrieval. As the rope pulls into the wheel, the opposite-facing inner ribs grip the rope in an undulating manner, securing the rope more firmly in a "wave pattern" action that is far superior to the traditional "jam cleat" manner of holding the rope compared to all other products on the market. Not only does this Wave Design™ hold the rope more securely, it is also kinder on the rope resulting in increased longevity of your anchor rode.





Horizontal Rope/Chain Series HRC10-8 • HRC10-10

The HRC10 Horizontal Series windlasses proudly follow in the highly successful footsteps of Maxwell's previous, fully automatic rope/chain anchor winches.



HRC10 Chainwheel Capstan Version



HRC10 Non-Capstan Version

STANDARD EQUIPMENT REQUIRED FOR DUAL-DIRECTION CONTROL

Dual-Direction Solenoid (included)
Emergency crank/clutch release handle (included)
Up/Down remote-control panel (not included)
Circuit breaker/isolator panel (not included)

OPTIONS

1. AutoAnchor™ Equipment
2. Compact Remote
3. Foot Switches
4. Chain Stopper
5. Chain Snubber

Every Maxwell HRC10 windlass comes with top works, motor/gear box and dual-direction solenoid. Switches and circuit breaker are available and need to be ordered separately. Refer to the chart on page 390.

Features and benefits

- The HRC10 fully automatic horizontal windlass series is designed to effortlessly retrieve and deploy 8 mm (5/16") and 10 mm (3/8") short-link chain and 14 mm (9/16") and 16 mm (5/8") three-strand or 8-plait Brait rope
- The more powerful HRC10-10 can be use with 10 mm (3/8") chain spliced to 16 mm (5/8") 8-plait Brait rope
- The aesthetically pleasing above deck design, evolved from the philosophy of form follows function, encapsulates the motor and drive in a two-part watertight case, saving space below deck
- The two-part case consists of a die-cast, marine-grade hard-anodized alloy front section and a rugged and easily removable composite motor cover aft section
- This two-piece watertight case allows for quick and easy, on-deck routine maintenance
- Simple "bolt down" installation ensures effortless and rapid on-deck installation and set up
- The stainless-steel (AISI 316) pressure arm always exerts maximum control pressure on the rode (rope, splice or chain)
- The revolutionary patented Wave Design™ chainwheel is able to accommodate a wide range of chain pitch differences within the specified chain-size diameters, suitable for use with the HRC10 Series; refer to page 367 for more information about this innovative feature
- The unique Maxwell "wrap around" horizontal chainwheel ensures that more than 90° of the wheel is used, allowing greatly improved rope and chain handling compared with competitor designs
- The HRC10 works just as effectively with all-chain rodes for those who desire the added security and holding power of an all-chain anchor system
- The integral chain pipe and huge, through-deck hawse-pipe throat ensures easy entry of the rope/chain rode into and out of the anchor locker
- Cone-type clutch/brake mechanism permits manual, "free fall" anchoring and emergency crank recovery of the rode and anchor if required
- The sealed oil bath and marine-grade, hard-anodized alloy gearbox provides high-efficiency output drive via precision worm and wormwheel

Eye-catching fully automatic horizontal windlass with great capacities

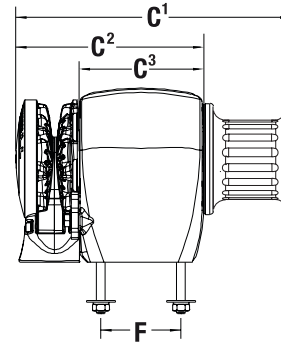
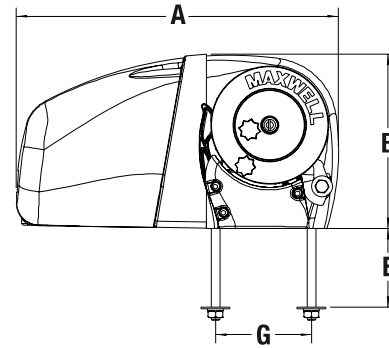
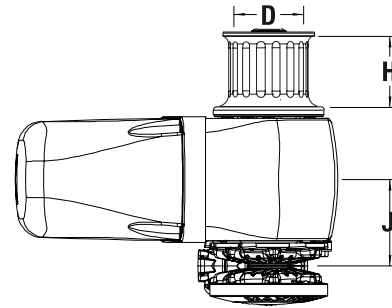
SPECIFICATIONS

Model	HRC10-8* 8 mm - 5/16"	HRC10-10* 10 mm - 3/8"
Maximum Pull/Lift	700 kg 1540 lb	850 kg 1870 lb
Static Hold	1500 kg 3300 lb	1500 kg 3300 lb
Chain Short Link	8 mm 5/16"	10 mm 3/8"
Rope Size	14 mm - 16 mm 9/16" - 5/8"	16 mm 5/8"
Chain Speed (Anchor Retrieval)	24 m/min 79 ft/min	24 m/min 79 ft/min
Rope Speed (Anchor Retrieval)	20 m/min 65 ft/min	20 m/min 65 ft/min
Power Supply (DC)	12, 24 or 48 VDC	12, 24 or 48 VDC
Motor (Watt)	1000 W	1200 W
Net Weight	19 kg 42 lb	20 kg 44 lb
Hydraulic Pressure	138 bar 2000 psi	138 bar 2000 psi
Hydraulic Flow	20 L/min 5.3 USgal/min	20 L/min 5.3 USgal/min
Net Weight - Hyd	13 kg 28 1/2 lb	13 kg 28 1/2 lb

Non-capstan-version weight is 2.2 lb (1 kg) less than indicated above.
*5/16" (8 mm) or 3/8" (10 mm) chainwheels can be used on either of the above models.

DIMENSIONS

Model	HRC10-8* 8 mm - 5/16"	HRC10-10* 10 mm - 3/8"
A	369 mm 14 9/16"	369 mm 14 9/16"
B	199 mm 7 7/8"	199 mm 7 7/8"
C ¹	316 mm 12 1/2"	316 mm 12 1/2"
C ²	225 mm 8 7/8"	225 mm 8 7/8"
C ³	140 mm 5 1/2"	140 mm 5 1/2"
D	80 mm 3 3/16"	80 mm 3 3/16"
E (standard deck clearance)	90 mm 3 9/16"	90 mm 3 9/16"
F	92 mm 3 9/16"	92 mm 3 9/16"
G	110 mm 4 3/8"	110 mm 4 3/8"
H	80 mm 3 3/16"	80 mm 3 3/16"
J	99 mm 4"	99 mm 4"



All standard and optional control accessories can be found on pages 379 - 381.

Important: Maxwell windlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.





Horizontal Windlass and Chain Pipe HWC3500 • HWVC3500

The HWC Series is designed for automatic horizontal handling of chain-only anchor rodes while offering an independent capstan for the retrieval of a secondary rope and chain rode or to assist with docking procedures.



HWC3500 Chainwheel Capstan Version

Features and benefits

- Fully automatic single- or dual-direction chainwheel operation, for use with chain-only rodes
- Functional rope hauling from fore and aft using independent fluted stainless-steel (AISI 316) snag-free warping drum with clutch disengagement of chainwheel for positive control of all ropes
- Optional dual-anchoring handling with smooth, independent control of each chainwheel via cone clutches
- Chain-pipe assembly supplied
- Cone-type clutch/brake mechanism permits manual "free fall" anchoring; cone clutches, unlike dog clutches, provide smooth, progressive engagement ensuring safe and precise operator control
- Chainwheel locking pawl to assist when using warping drum independently
- Simple deck-mounted installation with no under-deck parts
- Simplified maintenance with ability to strip the running gear (chainwheel and drum) from the windlass without disturbing the windlass mounting
- Heavy-duty, dual-direction motor designed for marine winches
- Chainwheel and warping drum of high-quality chrome finish over marine-grade bronze
- Marine-grade alloy casing pretreated, powder coated and finished with a two-component white polyurethane paint

STANDARD EQUIPMENT REQUIRED FOR DUAL-DIRECTION CONTROL

- Dual-Direction Solenoid (included)
- Chain pipe and chainwheel to suit chain size specified (included)
- Emergency crank/clutch release handle (included)
- Up/Down remote-panel (not included)
- Circuit breaker/isolator panel (not included)

OPTIONS

- | | |
|---------------------------------|--------------------|
| 1. AutoAnchor™ Equipment | 5. Hydraulic motor |
| 2. Foot Switches | 6. Compact Remote |
| 3. Chain Stopper* | 7. Roving remote |
| 4. Up/Down remote-control panel | |



HWC3500 Double Chainwheel Capstan Version



Horizontal handling for chain-only anchor rodes

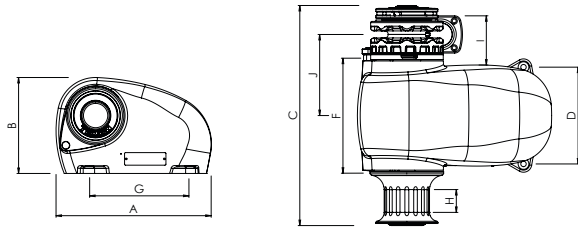
SPECIFICATIONS

MODEL	HWC3500	HWVC3500
Maximum Pull/Lift	1590 kg 3500 lb	1590 kg 3500 lb
Static Hold	2200 kg 4840 lb	2200 kg 4840 lb
Chain Short Link	8-13mm 3/8" - 1/2"	8-13mm 3/8" - 1/2"
Line Speed (Normal Working)	15 m/min 50 ft/min	10 m/min 33 ft/min
Power Supply (DC)	12, 24 or 48 VDC	12 or 24 VDC
Motor (Power)	1200 W	1200 W
Net Weight - DC	57 kg 125 lb	94.5 kg 208 lb
Hydraulic Pressure	138 bar 2000 psi	138 bar 2000 psi
Hydraulic Flow	40 l/min 11 USgal/min	40 l/min 11 USgal/min
Net Weight - Hyd	49 kg 107 lb	80 kg 176 lb

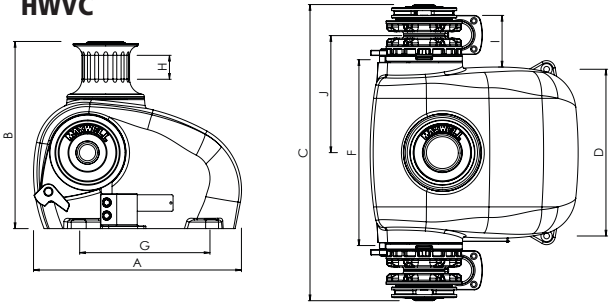
DIMENSIONS

MODEL	HWC3500	HWVC3500
A	470 mm 18 1/2"	480 mm 18 7/8"
B	290 mm 11 7/16"	431 mm 17"
C	532 mm 20 15/16"	682 mm 26 7/8"
D (Hole centres)	234 mm 9 3/16"	384 mm 15 1/8"
F (Hole centres)	278 mm 10 15/16"	428 mm 16 7/8"
G (Approximate hole centres)	300 mm 11 13/16"	300 mm 11 7/8"
H (Working height of drum for rope warping)	55 mm 2 3/16"	55 mm 2 3/16"
I	126 mm 4 15/16"	126 mm 4 15/16"
J	196 mm 7 11/16"	271 mm 10 11/16"

HWC



HWVC



Note: HWC single-chainwheel, single-drum version shown. HWC and HWVC are available with variants of chainwheel, chainwheel + drum, drum only on either side of case.

Important: Maxwell windlasses must be used in conjunction with a chain stopper or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.



KADEY KROGEN 58' FITTED WITH HWVC3500





Drum winch

NEW
TASMAN V2 8-8
TASMAN V2 8-6
TASMAN V2 6-6

Building on the proven success of the original TASMAN, the new TASMAN V2 retains all the trusted features - now with improved performance and durability.

Water-Tight Motor Cover

Engineered for superior protection, the new water-tight motor cover shields the motor from moisture intrusion. This not only extends motor life but also ensures greater reliability in demanding marine environments.

Dual-Speed Motor Design

The innovative dual-speed motor provides a 15–20% increase in retrieval speed without compromising torque. This means faster operation while maintaining the power required for secure anchoring.

Features

- Robust, reliable, high-performance drum winch
- Exceptional performance using Maxwell proven gearbox and motor
- Long life with stainless-steel (AISI 316) and marine-anodized construction
- Easy installation through separate legs and flexibility of motor positioning
- Simple emergency operation allows anchor deployment if power is lost
- Maxwell proprietary gearbox - custom ratio for optimized performance, direct fit to larger diameter shafts, large bearings and seals, robust design
- Proven Maxwell 1000-W motor on the TASMAN 8 and 600-W motor on TASMAN 6 series
- Large-diameter, high-strength shaft - higher holding load and improved resistance to bending
- Large-diameter plain bearings for a longer life, stronger and more robust in the harsh marine environment; non gearbox end is self-lubricated composite bearing for minimal maintenance
- MAXWarp - high strength combined with stretch for absorbing shock loads - optimized rope construction for maximum hold with enough stretch to minimize impact loads when anchored
- Engineered mounting design, optimized for strength, compact dimensions through integration with gearbox
- High-quality marine galvanised chain



Tasman 8



SP5104 12 VDC
(see page 380)



P105093
P105094
(see page 387)



P102938
(see page 379)

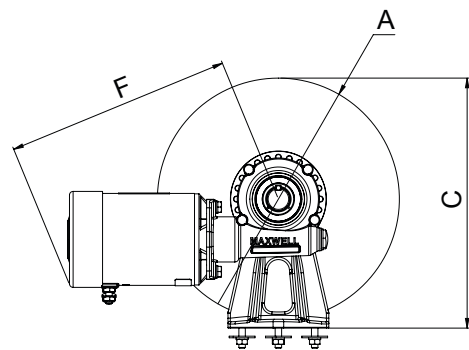
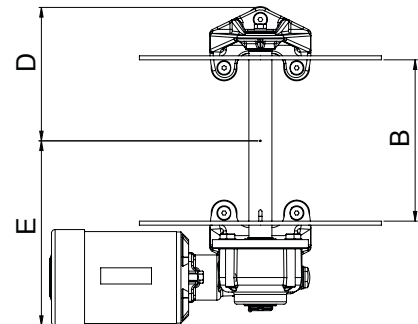


P100789
P100790
P100791
P102903
(see page 380)

Tasman winch, reel in true adventure

SPECIFICATIONS

MODEL	6-6	6-4	8-8	8-6
Electric motor	DC	DC	DC	DC
Motor power	600 W	600 W	1000 W	1000 W
Voltage (DC)	12 or 24 VDC	12 or 24 VDC	12, 24 or 48 VDC	12, 24 or 48 VDC
Max pulling force				
- 1 layer on drum	700 kg 1540 lb	700 kg 1540 lb	1000 kg 2200 lb	1000 kg 2200 lb
- Full drum	100 kg 220 lb	100 kg 220 lb	350 kg 770 lb	350 kg 770 lb
Haulage Speed				
- 1 layer on drum	7.5 m/min 25 ft/min	7.5 m/min 25 ft/min	13 m/min 43 ft/min	13 m/min 43 ft/min
- Full drum	50 m/min 164 ft/min	50 m/min 164 ft/min	60 m/min 196 ft/min	60 m/min 196 ft/min
Rope size	6 mm MAX warp x 70 m	4 mm UHM- WPE x 100 m + 6 mm MAX warp x 10 m	8 mm MAX warp x 100 m	6 mm MAX warp x 150 m
Chain size	6 mm Short Link DIN766 x 10 m	6 mm Short Link DIN766 x 10 m	8 mm Short Link DIN766 x 10 m	6 mm Short Link DIN766 x 10 m
Net weight (incl. rope/chain)	24 kg 53 lb	24 kg 53 lb	37 kg 81 lb	31 kg 68 lb



DIMENSIONS

MODEL	TASMAN 6		TASMAN 8	
	mm	inch	mm	inch
A	200	7 7/8	300	11 3/4
B	180	7 1/16	200	7 7/8
C	210	8 1/4	310	12 1/4
D	155	6 1/16	165	6 1/2
E	209	8 1/4	229	9
F	259	10 3/16	280	11

STANDARD EQUIPMENT REQUIRED FOR DUAL-DIRECTION CONTROL

- Dual-direction Solenoid (included)
- Up/Down remote-control panel (included)
- Circuit breaker/isolator panel (included)

OPTIONS

1. AutoAnchor™ Equipment
2. Foot Switches
3. Chain Stopper*
4. Compact Remote
5. Roving Remote



Tasman-8 V2





NEW Bulkhead Mounted Rope/Chain Series BH8

Designed for both bow and stern installations, the BH8 Series offers unmatched installation flexibility with a quick and easy bracket flip - ideally suited for the toughest marine environments.

The BH8 Winch Series is a high-performance, versatile solution engineered to handle anchoring with maximum efficiency and reliability. Designed for concealed installation in either the bow or stern, it offers flexibility across a wide range of vessel configurations.

The BH8 Series can manage both chain 15/64" (6 mm), 1/4" (7 mm) and 8 mm (5/16") and rope 1/2" to 5/8" (12 mm to 16 mm), depending on the chainwheel selected.

All-Chain Rode Compatibility: The BH8 efficiently manages both rope/chain combinations and all-chain rodes. It can also accommodate certain leaded ropes with its standard chainwheel, with optional chainwheels available to further extend its capability.

Sealed Oil Bath Gearbox: A marine-grade, hard-anodized alloy gearbox delivers maximum output through a precision worm and worm wheel system, ensuring high durability and reliability.

High-Speed Retrieval: Smooth, jam-free retrieval of rope and chain, remotely controlled with an Up/Down switch.

Available in 12 VDC, 24 VDC, and even 48 VDC for the 1200W model: The BH8 provides electrical flexibility, compatible with a wide range of vessel power systems, with motor options from 600W to 1200W.

Pulling Capacity of up to 900 kg and a static load hold of 1200 kg.

Features

- Automatic free-fall technology for a quick deploy
- Maxwell Wave design™ chainwheel for rope and chain handling
- Pulling capacity of up to 900 kg
- Static holding capacity 1200 kg
- Compatible with a wide range of power supplies - 12 VDC, 24 VDC, and 48 VDC, with motor power options from 600 W to 1200 W



STANDARD EQUIPMENT REQUIRED FOR DUAL-DIRECTION CONTROL

- Dual-Direction Solenoid (included)
- Emergency crank/clutch release handle lever (included)
- Up/Down remote control panel (not included)
- Circuit breaker/isolator panel (not included)

Every Maxwell BH8 Winch Series comes with the top works, gear box, motor and dual-direction solenoid. Switches and circuit breaker are available and need to be ordered separately. Refer chart on page 390.

OPTIONS

- | | |
|--------------------------|------------------|
| 1. AutoAnchor™ Equipment | 4. Chain Stopper |
| 2. Compact Remote | 5. Chain Snubber |
| 3. Foot Switches | |



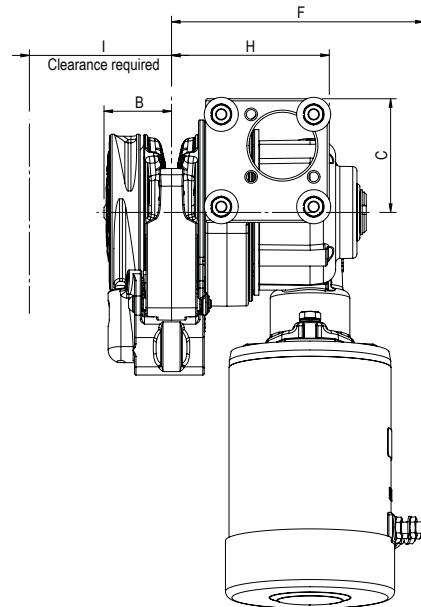
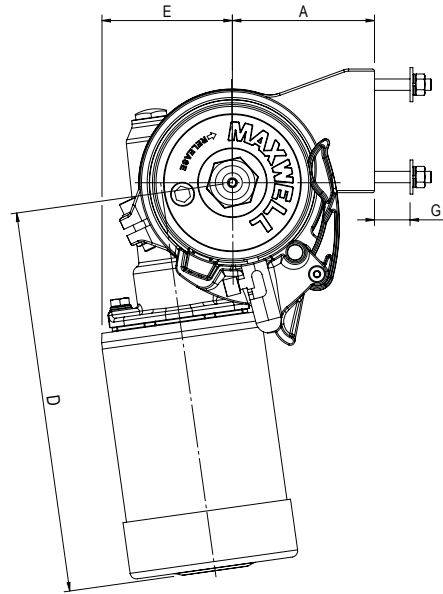
Bulkhead mounted windlass for installation below deck or at the stern

SPECIFICATIONS

MODEL	BH8-6	BH8-7	BH8-8
Maximum Pull/lift	410 kg 904 lbs	410 kg 904 lbs	900 kg 1984 lbs
Static Hold	1200 kg 2640 lbs	1200 kg 2640 lbs	1200 kg 2640 lbs
Chain Short Link	6 mm 15/64"	7 mm 1/4"	8 mm 5/16"
Rope Size (Nylon)* (8 Plait Recommended)	12 mm 1/2"	12 mm 1/2"	14-16 mm 9/16" - 5/8"
Chain Speed (Anchor Retrieval)	28 m/min - 92 ft/min	28 m/min - 92 ft/min	32 m/min 105 ft/min
Rope Speed (Anchor Retrieval)	24 m/min 79 ft/min	24 m/min 79 ft/min	28 m/min 92 ft/min
Power Supply (DC)	12 or 24 VDC	12 or 24 VDC	12, 24 or 48 VDC
Motor Power	600 W	600 W	1000 W
Net Weight	9.6 Kg 21.5 lbs	9.6 Kg 21.5 lbs	14 Kg 31 lbs

DIMENSIONS

MODEL	BH8-6	BH8-7	BH8-8
A	100 mm 4"	100 mm 4"	100 mm 4"
B	47.5 mm 1 7/8"	47.5 mm 1 7/8"	47.5 mm 1 7/8"
C	80 mm 3 1/8"	80 mm 3 1/8"	80 mm 3 1/8"
D	245 mm 9 5/8"	245 mm 9 5/8"	269 mm 10 9/16"
E	90 mm 3 1/2"	90 mm 3 1/2"	92 mm 3 5/8"
F	145 mm 5 3/4"	145 mm 5 3/4"	178 mm 7"
G (Std deck clearance)	25 mm 1"	25 mm 1"	25 mm 1"
H	111 mm 4 3/8"	111 mm 4 3/8"	111 mm 4 3/8"
I (Clearance Required)	100 mm 4"	100 mm 4"	100 mm 4"



P106474
Optional roller for through bulkhead installations





Vertical Capstans VC1000

The stainless-steel (AISI 316) fluted capstan VC Series is designed for simple, low-cost anchor recovery on smaller boats and rope hauling on larger vessels.

Features and benefits

- Vertical design suits smaller powerboats or sailboats and can be utilized for anchor rodes, as a docking capstan on larger craft, or auxiliary line hauling from any direction
- High-quality, hard-wearing, stainless-steel (AISI 316) above deck components
- Functional rope hauling from any direction using fluted, snag-free warping drum for positive control of all ropes
- Simplified through-deck installation by modular design and precise alignment of gearbox to the topworks
- Alternative gearbox/motor positions accommodate virtually all installation situations
- Compact, reliable gearbox made of corrosion resistant materials
- Anodized aluminum gearbox and spacer on VC500 and VC1000 models
- Heavy-duty, dual-direction motors designed for marine winches
- Easily disassembled for servicing
- Can be mounted horizontally for use as a pot hauler or davit winch



STANDARD EQUIPMENT REQUIRED FOR SINGLE-DIRECTION CONTROL

Circuit breaker/isolator panel (not included)
Single-direction solenoid (not included)

OPTIONS

Extra deck clearance
Hydraulic motor
Foot Switch

SPECIFICATIONS

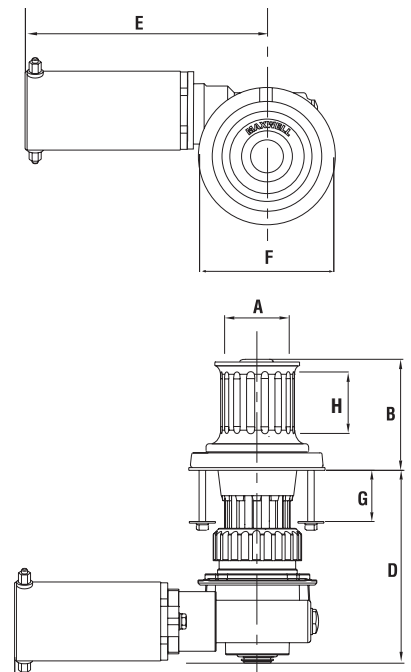
Model	1000
Maximum Pull/Lift	700 kg 1540 lb
Static Hold	N/A N/A
Line Speed (Normal Working)	20 m/min 65 ft/min
Power Supply (DC)	12, 24 or 48 VDC
Motor (Watt)	1000 W
Net Weight (Electric)	18 kg 40 lb
Hydraulic Pressure	100 bar 1450 psi
Hydraulic Flow	20 l/min 5.3 USgal/min
Net Weight - Hyd	11 kg 24 lb

DIMENSIONS

Model	1000
A	80 mm 3 1/8"
B	122.5 mm 4 5/6"
D (Std deck clearance)	252 mm 9 15/16"
E	272 mm 10 3/4"
F	160 mm 6 5/16"
G (Std deck clearance) OR**	100 mm 4"
G (Extra deck clearance) ^	150 mm 6"
H	44 mm 1 3/4"

**For VC1000, a shorter-deck-clearance version is also available at 50 mm (2").

^ A deck-clearance increase will also increase the "D" measurement by the same increment.



All standard and optional control accessories can be found on pages 379 - 381.

3 YEAR
Limited Warranty

ANCHORMAX™

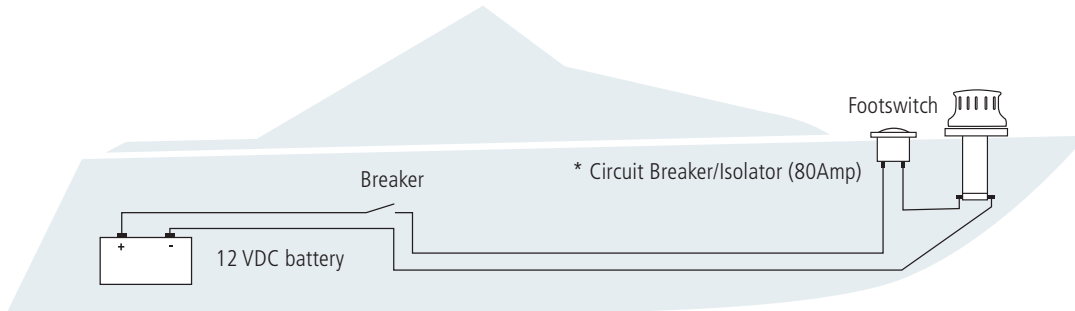


An extremely versatile vertical capstan or general-purpose electric winch for use as an anchor winch, pot hauler or davit winch.

The ANCHORMAX™ has an extremely high power-to-weight ratio. The compact, fully sealed gearbox is driven by a vertically mounted, permanent magnet motor. Intrusion below decks is minimized making the design ideal for boats from 16 feet (5 meters) to 32 feet (10 meters). Fitting to the boat is simplicity itself, as no dismantling of the winch is required.

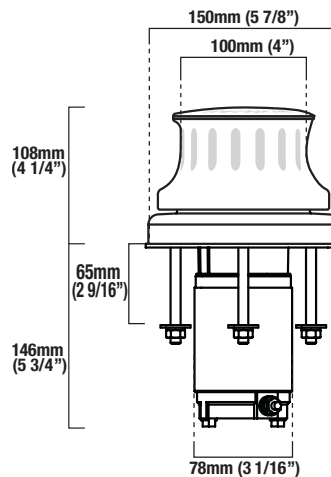
The ANCHORMAX™ gear housings are marine-grade alloy and the drum is stainless-steel (AISI 316). It is supplied as a single-direction (clockwise) unit, complete with deck foot switch, fastenings, template and fitting instructions.

The ANCHORMAX™ is not recommended for hauling halyards.



ANCHORMAX SPECIFICATIONS

Maximum Line Pull/Lift	386 kg (849 lb)
Speed @ nominal working load	24 m/min
(80 Amps with 75 kg/165 lb load)	(79' per min)
Voltage (DC)	12 VDC or 24 VDC
Power	500 W
Weight	5.7 kg (12.5 lb)
Maximum Boat LOA	10 m (33')
Maximum Boat Weight	4 tonnes



All standard and optional control accessories can be found on pages 379 - 381.



Retractable Vertical Capstan 1500 • 2500 • 4500 • 6000

The Maxwell Retractable Vertical Capstan (RVC) has been designed not only for superb functionality, but with the aim that aesthetics on board any yacht are also paramount. The top of the capstan drum is pleasing to the eye, with a mirror polished surface when flush with the deck in the fully retracted position.

The RVC is a great solution for clear decks on the bow of high-performance sailboats, cockpits without trip hazards on sportfishing boats, amidship capstans with clear companionways or hidden line handling on classic motoryachts.

Features

- Retracts flush with deck
- All stainless-steel (AISI 316) construction
- Robust design with environmental protection to withstand regular submersion on high-performance sailboat installations
- Great option to free up space on deck
- Easy operation
 - one button to raise and use
 - one button reverse to retract
- Available in DC (12 VDC / 24 VDC / 48 VDC) and hydraulic
- Larger versions with 4500 and 6000 pulling capacity are also available

STANDARD EQUIPMENT REQUIRED

Circuit breaker/isolator panel (not included)

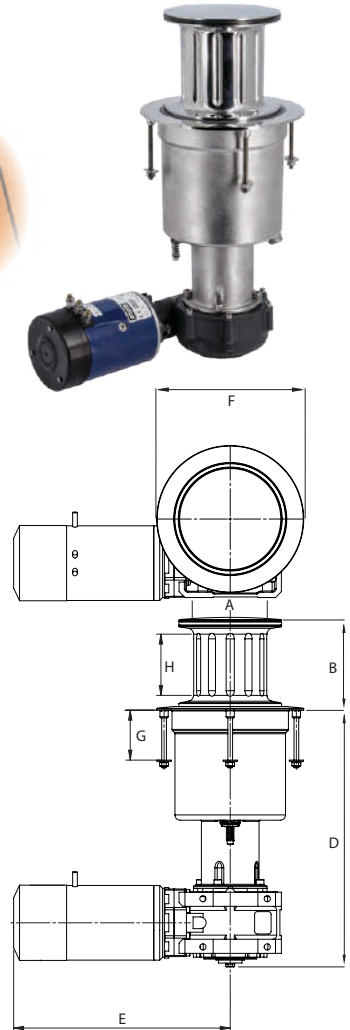
Dual-Direction Solenoid (not included)

OPTIONS

1. Hydraulic Motor
2. Foot Switch
3. Teak Insert

SPECIFICATIONS

Model	1500	2500	2500	2500
Power Supply	12, 24 or 48 VDC	12 VDC	24 VDC	Hydraulic
Maximum Pull/Lift	680 kg	1135 kg	1135 kg	1135 kg
	1500 lb	2500 lb	2500 lb	2500 lb
Static Hold	1750 kgf	2200 kgf	2200 kgf	2200 kgf
	3850 lb	4840 lb	4840 lb	4840 lb
Line Speed (Normal Working)	22 m/min	11 m/min (12 VDC)	20 m/min (24 VDC)	14 m/min (Hyd)
	72 ft/min	36 ft/min	65 ft/min	46 ft/min
Motor (Watt)	1200 W	1500 W	2000 W	N/A
Net Weight (Electric)	30 kg	37 kg	37 kg	37 kg
	66 lb	81 lb	81 lb	81 lb
Hydraulic Pressure	N/A	N/A	N/A	140 bar
	N/A	N/A	N/A	2470 psi
Hydraulic Flow	40 l/min	50 l/min	50 l/min	50 l/min
	11 USgal/min	13.2 USgal/min	13.2 USgal/min	13.2 USgal/min
Net Weight - Hyd	24 kg	31 kg	31 kg	31 kg
	53 lb	68 lb	68 lb	68 lb



DIMENSIONS

Model	1500	2500	2500	2500
A	124 mm	124 mm	124 mm	124 mm
	4 7/8"	4 7/8"	4 7/8"	4 7/8"
B	158 mm	158 mm	158 mm	158 mm
	6 1/4"	6 1/4"	6 1/4"	6 1/4"
D	401 mm	437 mm	437 mm	437 mm
	15 13/16"	17 13/16"	17 13/16"	17 13/16"
E	281 mm	323 mm (12 VDC)	368 mm (24 VDC)	240 mm (Hyd)
	11 1/16"	12 11/16"	14 1/2"	9 7/16"
F	250 mm	250 mm	250 mm	250 mm
	9 13/16"	9 13/16"	9 13/16"	9 13/16"
G	85 mm	85 mm	85 mm	85 mm
	3 5/16"	3 5/16"	3 5/16"	3 5/16"
H	104 mm	104 mm	104 mm	104 mm
	4 1/8"	4 1/8"	4 1/8"	4 1/8"

Accessories

CONTROL GEAR

When it comes to anchoring, Maxwell provides the ultimate anchoring solution backed by sound advice and after-sales service. A full range of anchoring accessory items are available. Please contact your nearest Maxwell office or local distributor for helpful advice and assistance.

Maxwell will supply not only your anchor winch or capstan, but also a complete anchoring package consisting of control gear, circuit protection, anchors, rope, chain, chain stoppers, chain snubbers, swivels, shackles, bow rollers, etc.

UP/DOWN CONTROLS

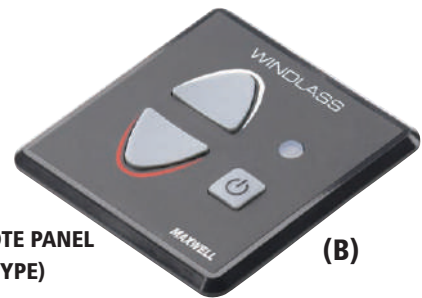
Easy-to-use, panel-mounted Up/Down switches for remote windlass operation from the helm, fly bridge or cockpit. Suitable for use with dual-directional solenoids.

- Manufactured from marine-grade materials
- Splash proof
- Suitable for 12 and 24 VDC use
- Includes on/off switch and power indicator light (B only)



UP/DOWN REMOTE PANEL (ROCKER TYPE) (P105584)

(A)



UP/DOWN REMOTE PANEL (PUSH BUTTON TYPE) (P102983)

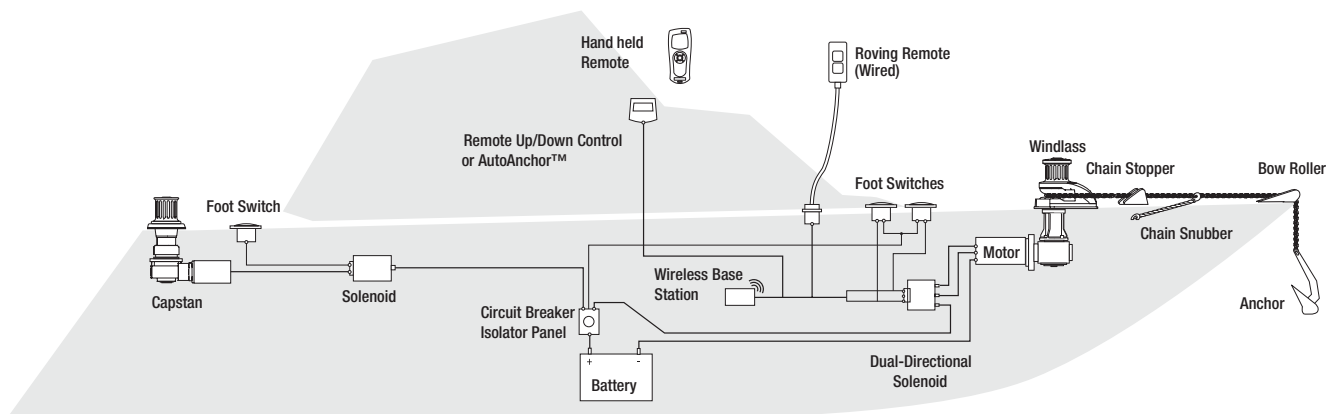
(B)

ACCESSORIES POSITIONING GUIDE

The correct installation of your Maxwell windlass or capstan and all associated anchoring equipment will ensure that you get years of trouble-free service. It is worth taking the time to install all accessories and electrical wiring or hydraulic connections carefully and professionally.

Your Maxwell Owner's Manual will provide you with all the information you, or your service agent, needs to properly set up your specific installation. The indicative diagram gives you some idea of what is involved and is a guide only.

Note: All the accessories shown are not necessarily available from every Maxwell warehouse. Please contact your nearest Maxwell office for availability.

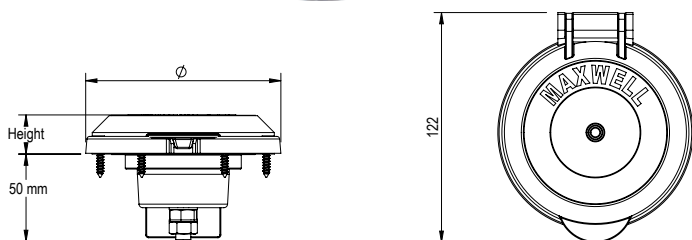


Accessories

HEAVY-DUTY FOOT SWITCH

Maxwell heavy-duty, weather-resistant units have a UV-stabilized, waterproof membrane and are supplied complete with mounting instructions and screws.

- Rated at 150 amps maximum current and suitable for 12- or 24-VDC applications
- Nickel-plated copper contacts ensure corrosion-free, reliable operation



Type	Description	Ø inch (mm)	Height inch (mm)
P19001	Foot switch, with stainless steel (AISI 316) bezel	4 1/4 (108)	1 1/16 (18)
P19006	Foot switch, with black cover	4 1/8 (104)	1 3/16 (21)
P19007	Foot switch, with white cover	4 1/8 (104)	1 3/16 (21)
P19008	Foot switch, black synthetic bezel	4 1/4 (108)	1 1/16 (18)
P100735	Foot switch, with stainless steel (AISI 316) cover	4 1/8 (104)	1 5/16 (24)

COMPACT FOOT SWITCH

Maxwell's, compact up and down foot switches now available in black, white and stainless steel cover versions. These 5 Amp rated switches are required to be operated via solenoids, which also allows for smaller diameter wiring.



Type	Description	Ø inch (mm)	Height inch (mm)
P104809	Compact Foot Switch with white cover	2 9/16 (65)	7/8 (22)
P104810	Compact Foot Switch with black cover	2 9/16 (65)	7/8 (22)
P105521	Compact Foot Switch with stainless steel (AISI 316) cover	3 1/8 (80)	1 (25)

CIRCUIT BREAKER/ISOLATOR PANELS

Maxwell circuit breaker/isolator panels are available to suit a wide range of windlasses and capstans.

- For protection of the branch conductor circuit for DC winches
- Enables the battery, or electrical supply, to be isolated when winch is not in use
- Ampere interrupt capacity
1500 Amp at 48V,
3000 Amp at 30V,
5000 Amp at 18V
- Suitable for 12, 24 or 48 VDC systems



P100789 40 AMP P100791 135 AMP
P100790 80 AMP P102903 70 AMP

DUAL- AND SINGLE-DIRECTION SOLENOIDS

Dual-Direction Solenoids are used in conjunction with remote Up/Down panel, AutoAnchor™ Rode Counters, roving handheld remote controls and/or foot switches to switch the motor in the required direction.

- Heavy-duty solenoids, suitably rated for our winch motors
- Available in 12- or 24-VDC control coil voltage
- Contacts suitable for voltages up to 48 VDC and configured for single-direction motors
single pole normally open <2 kW

2- and 4-terminal motors (PM/FW)
polarity reversing <1.2 kW
polarity reversing <2.5 kW

3-terminal motors (SW)
pole switching <2.5 kW

- IP66 rating
- Installation in a dry area is always recommended



Single-Direction Solenoids should be used where only single-direction motor rotation is necessary, e.g., capstan winches.

Single direction SP1393 12 VDC (PM/SW <1.5KW 40% Duty)
Single direction SP1394 24 VDC (PM/SW <3KW 40% Duty)

Dual direction SP5102 12 VDC (PM <1KW 40% Duty)
Dual direction SP5103 24 VDC (PM <2KW 40% Duty)
Dual direction SP5104 12 VDC (SW <1.5KW 40% Duty)
Dual direction SP5105 24 VDC (SW <3KW 40% Duty)
Dual direction SP5106 24 VDC (SW <3KW 100% Duty)
Dual direction SP5107 24 VDC (FW <3KW 40% Duty)

CONTROLLERS AND COUNTERS AA150 • AA560 • AA320 • AA342 • AA710 • AA730

PRODUCT FEATURES

- Windlass monitoring from the helm
- Simple Plug & Play sensor installation
- Accurate information for all-chain or combination rope/chain rodes
- Flexibility of magnet and sensor gap from 3 mm to 50 mm
- Easy set up
- Multiple unit installation options - combine with other Maxwell AA products for total windlass control
- Fits all DC, AC and hydraulic windlasses
- Inbuilt diagnostics for troubleshooting installation issues
- EMC protection to CE EN60945

MAXWELL AA710 WIRELESS, HAND HELD REMOTE WINDLASS CONTROLLER AND RODE COUNTER

All the features of the AA560 plus options to control a bow thruster or deck lights and anchor wash.

- High level wireless transmission security - 2.4GHz ISM band
- Hand held controller displays rode count plus signal strength and battery level
- Water resistant to IP67
- Console requires two AA batteries
- Rubber molding for grip and non-slip protection
- Ergonomic shape with wrist strap connector
- Console holder and protective cover
- Shockproof
- EEE 802.15.4 compliant



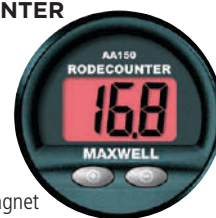
(P102981)

Kit includes: one hand held remote control and one base station, one sensor and one magnet.

Note: Two base stations can be operated by one remote to allow control of two windlasses. Plug and Play connectors, T-Connectors and Gender Adapters are also available. Contact your Maxwell Dealer.

MAXWELL AA150 WIRED PANEL MOUNT RODE COUNTER

- Docking alarm
- Standard 60 mm (2.36") marine instrument console
- Choice of feet or metre count readout
- Large, adjustable, backlit LCD display



(P102939)

MAXWELL AA560 WIRED PANEL MOUNT WINDLASS CONTROLLER AND RODE COUNTER

SPECIAL FEATURES

- Preset stopping point and docking alarm on retrieval
- One-touch function to deploy and retrieve a preset length of rode
- Adjustable back lit display in feet, meters or fathoms
- Graphic LCD screen featuring intuitive user interface for simple operation
- Displays windlass speed and direction
- Safety lock to help protect against accidental windlass deployment
- Logs windlass operation hours to help ensure regular windlass maintenance
- Weather cover and choice of black or gray console



Kit includes one console, one sensor and one magnet

(P102944)

SENSOR EXTENSION CABLE

Type	Description
SP4156	Sensor extension cable 6.5 m (21.3 ft)
SP5022	Sensor extension cable 10 m (33 ft)
SP4157	Sensor extension cable 15 m (50 ft)
SP4153	Sensor extension cable 20 m (65 ft)
SP5017	Sensor extension cable 35 m (115 ft)

AUTOANCHOR WIRED ROVING REMOTE CONTROL UNITS

ANCHOR LAUNCHING OR RETRIEVAL FROM THE BOW WHEN VISION FROM THE HELM STATION IS OBSTRUCTED

- Use for Windlasses, Davits, Thrusters and other Marine Equipment
- Electrical protection against back-emf
- Rubber over-molding for shock protection and grip
- Stowage cradle
- Operate in parallel with all AutoAnchor™ products, toggle switches, foot switches or other control equipment
- Connect to DC, AC and Hydraulic systems
- Rugged 4.5 m coiled cable and connectors
- All products are rated to IP67 including cables, plugs and sockets
- Deck socket with 2 m flying lead reduces potential for corrosion (excluding AA320 series)
- Other Maxwell AutoAnchor controllers are available, check with your local Maxwell distributor

AA730
With Rode Counter
(P102994)



AA342*
Dual Windlass Controller
(P102996)

* AA341 Model (P102995) is similar to AA342 but can be used as a general dual equipment controller (contact Maxwell for details).

All wires remotes are complete with moulded deck socket Rated to IP67.



Gender Adapter
Cable Connector
(SP4192)



Dual Installation
T Connector
(SP4155)



AA320
Windlass Control
(P102992)





MAXSET / MAXCLAW Deck Gear BOW ROLLERS • CHAIN STOPPERS

The MAXSET Bow Roller design guarantees that MAXSET stainless-steel (AISI 316) and galvanized anchors, along with similar competitor versions, are efficiently self-launched during anchor deployment. When the anchor is fully retrieved, the MAXSET bow roller ensures that the anchor fits securely into the roller and will not rattle around when the boat is under way.

MAXSET ANCHORS AND MAXSET BOW ROLLERS

See the chart below to select the most suitable bow roller for use with your MAXSET or MAXCLAW anchor.

MAXSET ANCHORS			TO SUIT APPROXIMATE BOAT LENGTH									MAXSET BOW ROLLERS	
Stainless Steel	Galvanized	Weight	4M (13')	6M (20')	8M (26')	10M (33')	12M (39')	14M (46')	16M (52')	18M (59')	Satin Finish	Polished Finish	
P105070	P105069	4 kg/9 lb	■								P105074	P105075	
P105055	P105000	6 kg/13 lb	■	■							P105074	P105075	
P105056	P105001	10 kg/22 lb	■	■	■						P105076	P105077	
P105057	P105002	16 kg/35 lb	■	■	■	■					P105078	P105079	
P105058	P105003	20 kg/44 lb	■	■	■	■	■				P105080	P105081	
P105059	P105004	25 kg/55 lb	■	■	■	■	■	■			P105082	P105083	
P105067	P105005	30 kg/66 lb	■	■	■	■	■	■	■		P105082	P105083	
P105068	P105006	40 kg/88 lb	■	■	■	■	■	■	■	■	P105082	P105083	
MAXCLAW ANCHORS			TO SUIT APPROXIMATE BOAT LENGTH										
P105060		5 kg/11 lb	■										
P105061		7.5 kg/17 lb	■	■									
P105062		10 kg/22 lb	■	■	■								
P105063		15 kg/33 lb	■	■	■	■							
P105064		20 kg/44 lb	■	■	■	■	■						
P105065		30 kg/66 lb	■	■	■	■	■	■					
P105066		40 kg/88 lb	■	■	■	■	■	■	■				

Deck Gear ANCHORS • ANCHOR ARM • SWIVELS • HANDLES

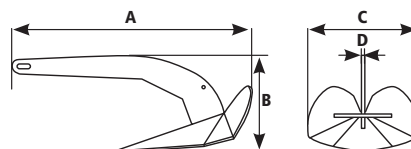
When it comes to anchoring, Maxwell provides the ultimate anchoring solution backed by sound advice and after sales service. A full range of anchoring accessory items are available. Please contact your nearest Maxwell office or local distributor for helpful advice and assistance.

MAXSET Anchors

The "MAXSET" galvanized and stainless-steel (AISI 316) anchor range, based on the proven "plough design," is available in eight different sizes to suit boats from approximately 15 feet (4 meters) to 58 feet (18 meters).

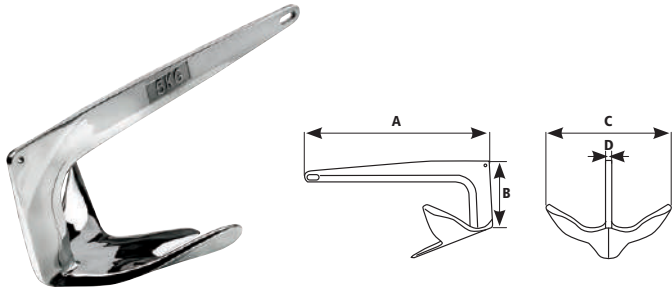


MAXSET ANCHORS STAINLESS STEEL	MAXSET ANCHORS GALVANISED	ANCHOR WEIGHTS	A	B	C	D
P105070	P105069	4 kg/9 lb	530 mm (20 7/8")	222 mm (8 3/4")	245 mm (9 5/8")	8 mm (5/16")
P105055	P105000	6 kg/13 lb	620 mm (24 1/2")	230 mm (9 1/8")	262 mm (10 3/8")	10 mm (3/8")
P105056	P105001	10 kg/22 lb	730 mm (28 3/4")	275 mm (10 7/8")	315 mm (12 1/2")	12 mm (1/2")
P105057	P105002	16 kg/35 lb	820 mm (32 3/8")	315 mm (12 1/2")	340 mm (13 1/2")	14 mm (9/16")
P105058	P105003	20 kg/44 lb	890 mm (35")	345 mm (13 5/8")	400 mm (15 3/4")	16 mm (5/8")
P105059	P105004	25 kg/55 lb	986 mm (38 7/8")	410 mm (16 1/8")	445 mm (17 1/2")	16 mm (5/8")
P105067	P105005	30 kg/66 lb	1050 mm (38 7/8")	445 mm (16 1/8")	465 mm (17 1/2")	20 mm (5/8")
P105068	P105006	40 kg/88 lb	1130 mm (44 1/2")	470 mm (18 1/2")	510 mm (20")	20 mm (3/4")



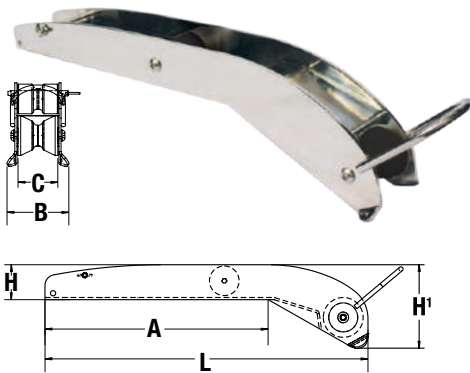
MAXCLAW Anchors

The "MAXCLAW" 316 stainless-steel anchor range, based on the proven "North Sea" claw design, is available in seven different sizes to suit boats from approximately 12 feet (4 meters) to 55 feet (17 meters).



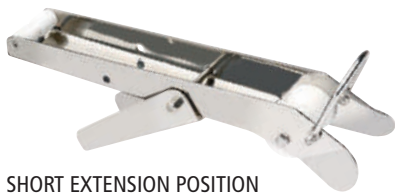
MAXCLAW STAINLESS STEEL	ANCHOR WEIGHTS	A	B	C	D
P105060	5 kg/11 lb	470 mm (18 5/8")	190 mm (7 1/2")	310 mm (12 1/4")	15 - 18 mm (5/8"-3/4")
P105061	7.5 kg/17 lb	530 mm (20 7/8")	210 mm (8 3/8")	360 mm (14 1/4")	15 - 18 mm (5/8"-3/4")
P105062	10 kg/22 lb	600 mm (23 5/8")	228 mm (9")	380 mm (15")	15 - 18 mm (5/8"-3/4")
P105063	15 kg/33 lb	670 mm (26 1/2")	265 mm (10 1/2")	450 mm (17 3/4")	15 - 18 mm (5/8"-3/4")
P105064	20 kg/44 lb	715 mm (28 1/4")	360 mm (14 1/4")	470 mm (18 5/8")	15 - 20 mm (5/8"-7/8")
P105065	30 kg/66 lb	815 mm (32 1/8")	425 mm (16 3/4")	550 mm (21 3/4")	18 - 25 mm (3/4"-1")
P105066	40 kg/88 lb	1000 mm (39 3/8")	440 mm (17 3/8")	675 mm (26 5/8")	18 - 30 mm (3/4"-1 1/4")

MAXSET BOW ROLLER



MAXSET (Delta Style Anchors)	Polished Finish				Satin Finish					
	P105075	P105077	P105079	P105081	P105083	P105074	P105076	P105078	P105080	P105082
4kg/9lb	•					•				
6kg/13lb	•					•				
10kg/22lb		•					•			
16kg/35lb			•					•		
20kg/44lb				•					•	
25kg/55lb					•					•
30kg/66lb					•					•
40kg/88lb					•					•

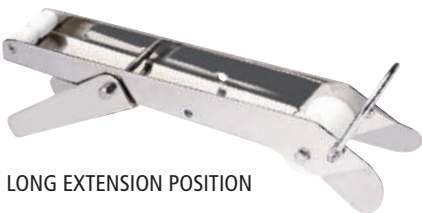
EXTENDABLE HINGED BOW ROLLER



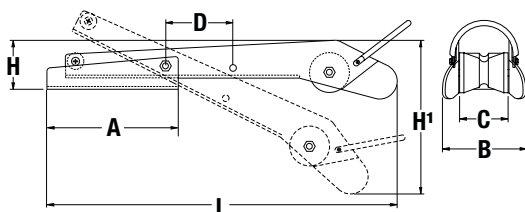
SHORT EXTENSION POSITION

MAXSET (Delta Style Anchors)	Standard Bow Roller Codes					
	P104331	P104332	P104333	P104334	P104340	P104345
4 kg/9 lb		•	•		•	•
6 kg/13 lb		•	•		•	•
10 kg/22 lb	•	•	•		•	•
16 kg/35 lb		•	•	•	•	•
20 kg/44 lb				•		
25 kg/55 lb				•		

P104340



LONG EXTENSION POSITION



MAXSET AND STANDARD BOW ROLLER DIMENSIONS

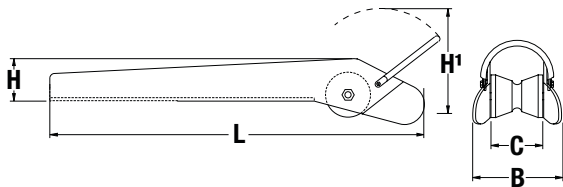
	Extendable P104340	P105074 P105075	P105076 P105077	P105078 P105079	P105080 P105081	P105082 P105083
A	198 mm (7 13/16")	315 mm (12 3/8")	414 mm (16 5/16")	480 mm (18 7/8")	510 mm (20")	560 mm (22")
B	125 mm (4 15/16")	84 mm (3 5/16")	112 mm (4 3/8")	112 mm (4 3/8")	114 mm (4 1/2")	153 mm (6")
C	73 mm (2 7/8")	62 mm (2 1/2")	78 mm (3")	78 mm (3")	78 mm (3")	105 mm (4 1/8")
D	101 mm (4")	N/A	N/A	N/A	N/A	N/A
H	75 mm (2 15/16")	55 mm (2 1/8")	65 mm (2 1/2")	72 mm (2 13/16")	78 mm (3")	95 mm (3 3/4")
H'	239 mm (9 3/8")	122 mm (4 13/16")	152 mm (6")	165 mm (6 1/2")	175 mm (6 7/8")	215 mm (8 1/2")
L	527 mm (20 1/4")	465 mm (18 5/16")	600 mm (23 5/8")	715 mm (28 1/8")	762 mm (30")	850 mm (33 1/2")



FIXED BOW ROLLER WITH ANCHOR LOOP



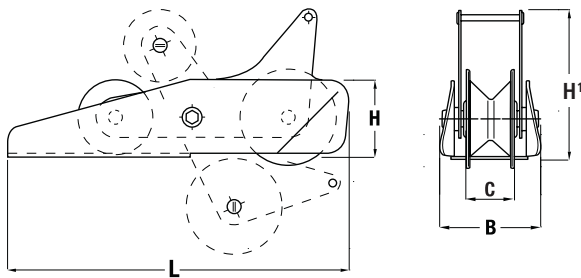
(P104345)



Standard Bow Roller Codes	P104331	P104332	P104333	P104334	P104340	P104345	P106439	P106453
MAXCLAW (Claw Style Anchors)								
5 kg/11 lb		•	•		•			
8 kg/18 lb		•	•		•	•		
10 kg/22 lb	•	•	•	•	•	•		
15 kg/33 lb				•	•	•	•	
20 kg/44 lb				•			•	
30 kg/66 lb								•
40 kg/88 lb								•

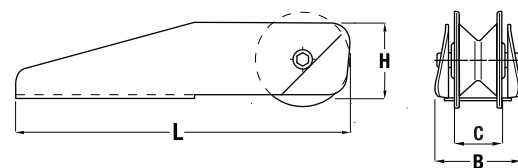
HINGED BOW ROLLER

Suitable for rope and chain anchor rodes utilising up to 13 mm (1/2") chain.



FIXED BOW ROLLER

Suitable for rope and chain anchor rodes utilising up to 13 mm (1/2") chain.

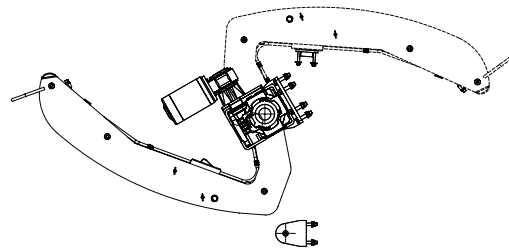


MAXSET AND STANDARD BOW ROLLER DIMENSIONS

	Fixed with Loop P104345	Hinged P104330	Hinged P104331	Fixed P104332	Fixed P104333	Fixed P104334
A	N/A	N/A	N/A	N/A	N/A	N/A
B	134 mm (5 1/4")	92 mm (3 5/8")	160 mm (5 5/16")	72 mm (2 7/8")	86 mm (3 7/16")	110 mm (4 3/8")
C	75 mm (3")	44 mm (1 3/4")	66 mm (2 11/16")	44 mm (1 3/4")	44 mm (1 3/4")	68 mm (2 11/16")
D	N/A	N/A	N/A	N/A	N/A	N/A
H	65 mm (2 9/16")	72 mm (2 7/8")	100 mm (4")	74 mm (3")	74 mm (3")	110 mm (4 3/8")
H'	155 mm (6 1/8")	133 mm (5 1/4")	190 mm (7 1/2")	N/A	N/A	N/A
L	460 mm (18 1/8")	320 mm (12 5/8")	430 mm (16 15/16")	205 mm (8 1/8")	320 mm (12 5/8")	444 mm (17 1/2")

RETRACTABLE ANCHOR ARM

The retractable anchor arm solution from Maxwell. A clean and elegant solution to keeping your deck clear and unobstructed.



Features

- Manufactured from stainless steel AISI 316
- Compatible with a wide range of Maxwell windlasses
- Suitable for all chain or rope/chain rodes
- Integrated chain stopper
- Sizes from 22 to 132 lbs (10 to 60 kg) anchors, other sizes on request
- The retractable arm and the windlass are operated with the same pendant
- Designed to maintain tension on the anchor for secure stowing of anchor when retracted

Options

1. Foot switches
2. Hatch opener (automatic)
3. Hatch opener control, making the whole process activated by a single press of a button
4. Wash down pipe and nozzle
5. Alternatives for surface finish available

EXTENDING BOW ROLLER

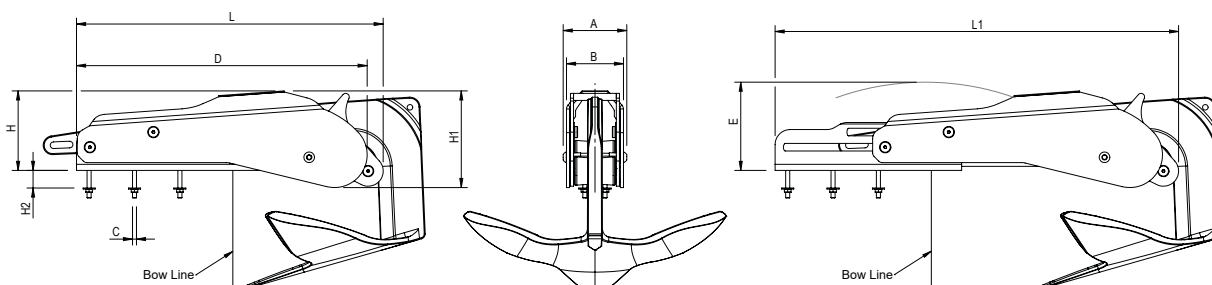
The extendable bow roller provides a solution for deploying the anchor further forward of the bow and protects the bow from potential damage during deployment or retrieval.



Features

- Provides for an elegant and compact solution for stowing anchor
- Prevents any anchor movement or vibration in stored position
- Manufactured in mirror polished stainless steel AISI 316
- Utilizes maintenance free bearings for smooth and quiet operation
- Suitable for Maxclaw anchor

	15 - 20 kg (P106439)	30 - 40 kg (106453)
L	610 mm 24 1/8"	780 mm 30 3/4"
L1	801 mm 31 1/2"	995 mm 39 1/8"
H	158 mm 6 1/4"	198 mm 7 3/4"
H1	192 mm 7 5/8"	233 mm 9 1/8"
H2	35 mm 1 3/8"	35 mm 1 3/8"
A	126 mm 5"	150 mm 6"
B	113 mm 4 1/2"	137 mm 5 3/8"
C	M8	M10
D	578 mm 22 7/8"	744 mm 29 1/4"
E (Shank path)	175 mm 6 7/8"	210 mm 8 1/4"
Stroke	190 mm 7 1/2"	215 mm 8 1/2"



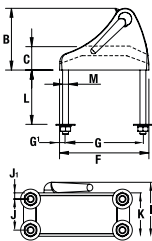
CHAIN STOPPERS

Taking the load off the windlass

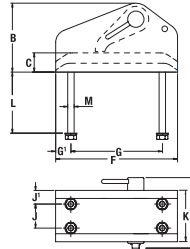
Chain stoppers hold the chain and take the load off the windlass. Always use a chain stopper to set and ride on the anchor, break free the anchor or to prevent accidental free fall of the anchor while under way. To suit any installation configuration of chain stoppers and windlass combinations, Maxwell offers three types of chain stoppers: Height Matched, Levered and Economy.



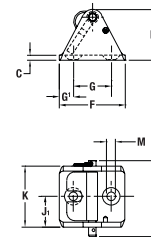
Height Matched



Levered



Economy



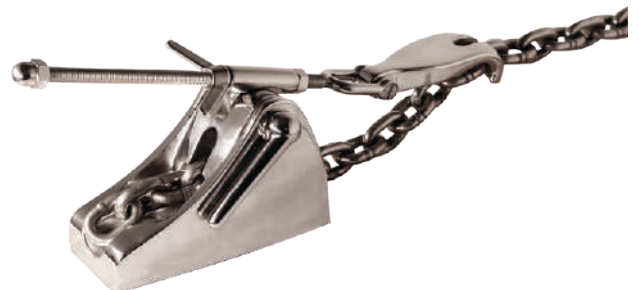
CHAIN STOPPER DIMENSIONS

	Height Matched		Levered			Economy
	RC8/10 (P104358)	RC12 (P104359)	8 mm (P104372)	10 mm (P104373)	13 mm (P104374)	8/10 mm (P104335)
B	105 mm (4 1/8")	127 mm (5")	72 mm (2 7/8")	86 mm (3 7/16")	105 mm (4 3/16")	62 mm (2 3/8")
C	40 mm (1 9/16")	48 mm (1 7/8")	20 mm (7/8")	20 mm (7/8")	26 mm (1 1/8")	6 mm (1/4")
F	150 mm (5 15/16")	182 mm (7 3/16")	152 mm (6")	190 mm (7 1/2")	219 mm (8 5/8")	80 mm (3 1/8")
G	130 mm (5 1/8")	159 mm (6 1/4")	92 mm (3 5/8")	130 mm (5 1/8")	159 mm (6 5/16")	46 mm (1 3/4")
G'	10 mm (7/16")	11.5 mm (1/2")	30 mm (1 3/16")	30 mm (1 3/16")	30 mm (1 3/16")	17 mm (5/8")
I	77 mm (3")	97 mm (3 13/16")	70 mm (2 7/8")	86 mm (3 1/2")	100 mm (4")	92 mm (3 5/8")
J	44 mm (1 3/4")	53 mm (2")	31.5 mm (1 1/4")	44 mm (1 3/4")	53 mm (2 1/8")	N/A
J'	8.8 mm (11/32")	12.5 mm (1/2")	10 mm (7/16")	10 mm (7/16")	12.5 mm (1/2")	37 mm (1 1/2")
K	61.5 mm (2 7/16")	78 mm (3")	51.5 mm (2 1/8")	64 mm (2 5/8")	78 mm (3 1/8")	74 mm (2 7/8")
L	90 mm (3 1/2")	125 mm (4 15/16")	95 mm (3 3/4")	95 mm (3 3/4")	130 mm (5 1/8")	N/A
M	M8	M10	M10	M10	M12	M10

STOPPER TENSIONER

Height matched chain stoppers are now available with integral anchor tensioners which are used to pull the stowed anchor tightly into the bow roller or anchor pocket preventing unwanted noise from the anchor moving in the anchor pocket. A retro-fit kit is available to fit the tensioner assembly onto existing Maxwell Height matched stopper bodies.

- P106401** - Stopper Tensioner 8 mm removable lever (RC8/10)
- P106402** - Stopper Tensioner 10 mm removable lever (RC12)
- P105257** - Stopper Tensioner 13 mm removable lever (RC12)
- P104757** - Stopper Tensioner Retrofit Kit for 8 mm Chainstopper
- P104758** - Stopper Tensioner Retrofit Kit for 10 mm Chainstopper
- P104740** - Stopper Tensioner Retrofit Kit for 13 mm Chainstopper



INTERMEDIATE ROLLER

Designed for use with Tasman drum windlasses.

P105093 130 mm wide for 6 or 8 mm chain

P105094 180 mm wide for 6 or 8 mm chain



ANCHOR SWIVEL SHACKLES

Improve your anchor retrieval

The use of a swivel and joining shackle for your anchor and rode will greatly improve anchor retrieval and help ensure that the rode lays neatly into your anchor locker.

Maxwell has multiple sizes available for use with its automatic rope/chain series windlasses to suit vessels up to 20 meters (65 feet):

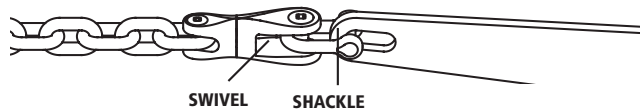
P104373 6 - 8 mm (1/4" - 5/16")

P104374 10 - 12 mm (3/8" - 1/2")

Kong swivels

SP4808 12 - 14 mm (1/2" - 9/16")

SP4817 16 - 20 mm (5/8" - 13/16")



EMERGENCY CRANK/CLUTCH RELEASE HANDLES AND BI-SQUARE EXTENSION DRIVES

Especially for RC and HRC Series

These handles are available in two different sizes to suit the constraints of most foredeck configurations. They are constructed of light weight, durable injection-molded plastic and will float if accidentally dropped overboard. Bi-square drives are also available in a 150 mm inline extension for use on windlasses mounted in recessed lockers. A Bi-square to 1/2" square drive adapter which can be used in conjunction with standard 1/2" ratchets and tools.

**BI-SQUARE
EXTENSION
AND 1/2" DRIVE**



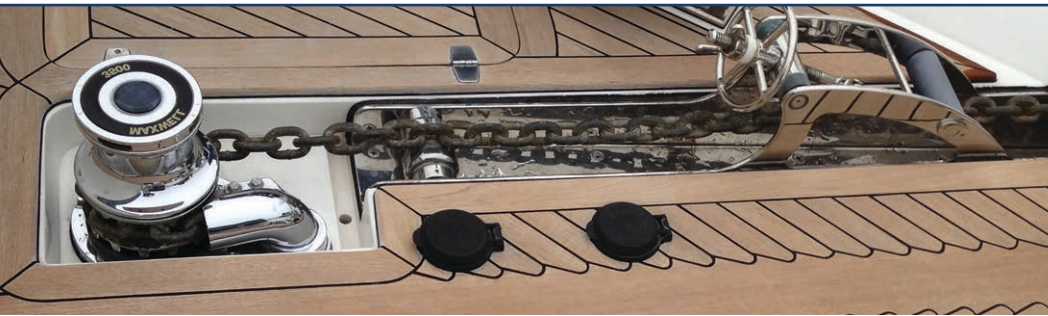
(7038) (7369)

10" (P103865)



8" (P103864)





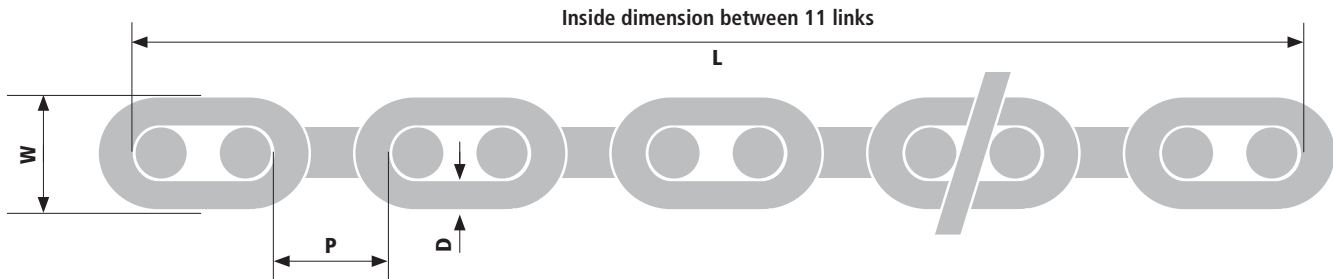
Accessories

Deck Gear

Rope and chain

CHAINWHEEL SELECTION GUIDE

There are various grades of short-link chain, relating to the raw metal quality, strength and finishing process. Both galvanized and stainless-steel (AISI 316) chains are available. In order for your windlass to retrieve and deploy the anchor and chain smoothly without jamming, it is of great importance that the chain and chainwheel (gypsy) match. Therefore, Maxwell has devised a global chain and chainwheel spreadsheet to help you to determine what kind of chainwheel you need to order.



P = pitch length inside link **D = chain wire diameter** **W = width outside the link** **L = inside dimension between 11 links**

Please take an 11 link section of your chain, lay it out in a stretched-out, straight line and measure the dimensions as indicated

Download the Maxwell Chainwheel Listing on the Technical documents section at www.maxwellmarine.com

CHAIN SELECTION GUIDE																			
CHAIN	DIN766		EN818	TO SUIT APPROXIMATE BOAT SIZE															
	HOT DIP GALVANISED	STAINLESS STEEL	HOT DIP GALVANISED	4M (15FT)	5M (16FT)	6M (19FT)	7M (22FT)	8M (26FT)	9M (30FT)	10M (32FT)	12M (38FT)	14M (45FT)	16M (52FT)	18M (58FT)	20M (65FT)	22M (72FT)	24M (78FT)		
6 mm	SP3105	SP4471	N/A																
7 mm	SP4049	N/A	N/A																
8 mm	SP4050	SP4207	N/A																
10 mm	SP4051	SP2514	SP4012																
12 mm	N/A	N/A	SP3666																
13 mm	SP4052	SP4474	N/A																

CHAIN INFORMATION

Chain Specification is the Standard a chain must be manufactured to in order to comply with a given International Standard. Outside of North America, the most common types of metric short-link chain are DIN766 and EN-818. Within North America, the most common imperial chains are BBB and G40. The important thing to keep in mind is to select a chain grade and specification that complies with recognized standards. In addition to the chains listed above, Maxwell can supply a variety of alternatives to meet any market demand. Please feel free to contact your nearest Maxwell dealer for assistance.

ROPE AND CHAIN

Maxwell can supply a full range of anchor rodes including chain-only, rope-only or a pre-spliced combination of rope and chain rodes. Chains are used for vessels up to 300 feet (100 meters), and 8-plait Brait nylon rope is used for vessels up to 65 feet (20 meters) in length, as well as for ropes and hawsers commonly used on superyachts.

Please see the pictures shown on this page for sizes and characteristics.



STANDARD COMBINATION ROPE CHAIN KITS						
CHAIN Ø	CHAIN LENGTH	ROPE Ø	ROPE LENGTH			
			50 m	100 m	150 m	200 m
6 mm	10 mtrs	12 mm	SP2627	SP2628	SP2629	SP2630
6 mm	20 mtrs	12 mm	N/A	SP2643	N/A	N/A
8 mm	10 mtrs	14 mm	SP2631	SP2632	SP2633	SP2634
8 mm	20 mtrs	14 mm	SP2644	SP2642	N/A	N/A
10 mm	10 mtrs	16 mm	SP2648	SP2649	N/A	N/A
10 mm	20 mtrs	16 mm	SP2645	SP2646	N/A	N/A

Custom lengths are available. Contact your Maxwell Dealer.

NYLON 8-PLAIT ROPE

**12MM (SP3167) 14MM (SP3168)
16MM (SP3169) 20MM (SP3170)**

CHAIN SNUBBERS

Alternative method of taking the load off your windlass

These snubbers are recommended to secure the anchor while under way. Available in rope version with chain clevis hook.



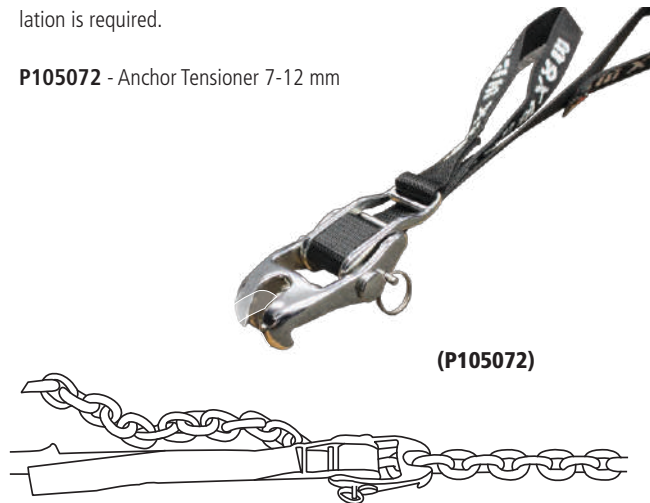
Type	Description
SP3174	6 mm chain hook 1.5 mtrs Ø12 mm Nylon 8 Plait rope
SP3175	8 mm chain hook 1.5 mtrs Ø14 mm Nylon 8 Plait rope
SP3176	10 mm chain hook 2 mtrs Ø16 mm Nylon 8 Plait rope
SP4211	13 mm chain hook 3 mtrs Ø16 mm Nylon 8 Plait rope

ANCHOR TENSIONER

Simple, easy to use and adjustable tensioner

This innovative anchor tensioner secures the anchor firmly into the bow roller, taking the weight off the windlass and preventing accidental deployment of the anchor. The tensioner is suitable for use with 7 mm (¼") to 12 mm (½") short-link chain and can be secured to an existing cleat or bollard so no installation is required.

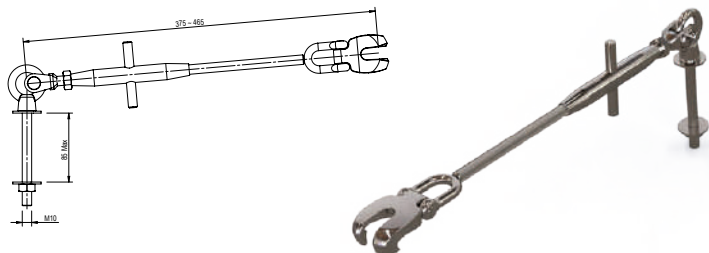
P105072 - Anchor Tensioner 7-12 mm



(P105072)

PADEYE TENSIONER

Type	Description
P106409	Anchor tensioner including Padeye 8 mm
P106410	Anchor tensioner including Padeye 10 mm
P105296	Anchor tensioner including Padeye 13 mm



Electrical Accessories Selection Guide

Use this guide to select the electrical accessories you require and to confirm that they are suitable for use with your chosen windlass or capstan unit. After identifying your winch, follow steps 1 through 5 below. See also additional information on page 348. **Note:** For 48-V applications, please contact your Maxwell dealer.

1. Select Solenoid (when required)

			HRCFF	TASMAN			BH8		RC6	RC8		RC10 & VWRC10		HRC10		RC12 & VWRC12		RC12HD			
	Windlass Model	Anchor Max	6/7/8	8-6 6-6	8-8	V2	8-6	8-8	RC6	8-6	8-8	10-8	10-10	10-8	10-10	12-10	12-12	all versions	1000	1500	3500
Part Number		500W	600W	600W	1000W	1000W	600W	1000W	500W	600W	1000W	1000W	1200W	1000W	1200W	1200W	1200W	2000W	1000W	1200W	1200W
Reversing Solenoids																					
SP5102	Reversing Solenoid 12 VDC	(*)	(*)	(*)			(*)		(*)	(*)											
SP5103	Reversing Solenoid 24 VDC	(*)	(*)	(*)			(*)		(*)	(*)											
SP5104	Reversing Solenoid 12 VDC				(*)	(*)		(*)		(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)		(*)	(*)	(*)
SP5105	Reversing Solenoid 24 VDC				(*)	(*)		(*)		(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)		(*)	(*)	(*)
SP5107	Reversing Solenoid 24 VDC																	(*)			
Single Direction Solenoids																					
SP1393	Single Direction 12 VDC	•																	•	•	•
SP1394	Single Direction 24 VDC	•																	•	•	•
																			Single Direction Solenoid may be used with windlass if dual direction operation is not required.		
(*) = part of the standard 12 VDC or 24 VDC windlass package • = optional extra																					

2. Select Circuit Breaker/Isolator (recommended)

			HRCFF	TASMAN			BH8		RC6	RC8		RC10 & VWRC10		HRC10		RC12 & VWRC12		RC12HD			
	Windlass Model	Anchor Max	6/7/8	8-6 6-6	8-8	V2	8-6	8-8	RC6	8-6	8-8	10-8	10-10	10-8	10-10	12-10	12-12	all versions	1000	1500	3500
Part Number		500W	600W	600W	1000W	1000W	600W	1000W	500W	600W	1000W	1000W	1200W	1000W	1200W	1200W	1200W	2000W	1000W	1200W	1200W
P100789	40 Amp circuit breaker	24 VDC	24 VDC				24 VDC		24 VDC	24 VDC											
P102903	70 Amp circuit breaker		12 VDC						12 VDC												
P100790	80 Amp circuit breaker	12 VDC		24 VDC	24 VDC	24 VDC		24 VDC		12 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC		24 VDC	24 VDC	24 VDC
P100791	135 Amp circuit breaker			12 VDC	12 VDC	12 VDC		12 VDC			12 VDC	12 VDC	12 VDC	12 VDC	12 VDC	12 VDC	12 VDC	24 VDC	12 VDC	12 VDC	12 VDC

3. Select Switch or Combination of Switches (as required)

			HRCFF	TASMAN			BH8		RC6	RC8		RC10 & VWRC10		HRC10		RC12 & VWRC12		RC12HD			
	Windlass Model	Anchor Max	6/7/8	8-6 6-6	8-8	V2	8-6	8-8	RC6	8-6	8-8	10-8	10-10	10-8	10-10	12-10	12-12	all versions	1000	1500	3500
Part Number		500W	600W	600W	1000W	1000W	600W	1000W	500W	600W	1000W	1000W	1200W	1000W	1200W	1200W	1200W	2000W	1000W	1200W	1200W
P19001	Foot Switch with Chrome Bezel	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
P19006	Foot Switch Covered (Black)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
P19007	Foot Switch Covered (White)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
P19008	Foot Switch Plastic Bezel	(*)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
P100735	Foot Switch Covered (AISI 316)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Compact Foot Switches																					
P104809	Foot Switch Covered (White)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
P104810	Foot Switch Covered (Black)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Remote Panel (Up/Down)																					
P105584	Rocker Switch	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
P102983	Push Button	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Hand Held Wired Roving Control																					
P102992	AA320 Roving Control Two Button	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
P102996	AA342 Roving Control Two Button	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

4. Select Rode Counters (when desired)

			HRCFF	TASMAN			BH8		RC6	RC8		RC10 & VWRC10		HRC10		RC12 & VWRC12		RC12HD			
	Windlass Model	Anchor Max	6/7/8	8-6 6-6	8-8	V2	8-6	8-8	RC6	8-6	8-8	10-8	10-10	10-8	10-10	12-10	12-12	all versions	1000	1500	3500
Part Number		500W	600W	600W	1000W	1000W	600W	1000W	500W	600W	1000W	1000W	1200W	1000W	1200W	1200W	1200W	2000W	1000W	1200W	1200W
P102939	AA150 Panel Mount Rode Counter Without Control Switch		•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
P102994	AA730 Wired Roving Control with Rode Counter		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

5. Select Sensor Cable Extension Packs for Rode Counters or Switches with Rode Counters (as required)

			HRCFF	TASMAN			BH8		RC6	RC8		RC10 & VWRC10		HRC10		RC12 & VWRC12		RC12HD			
	Windlass Model	Anchor Max	6/7/8	8-6 6-6	8-8	V2	8-6	8-8	RC6	8-6	8-8	10-8	10-10	10-8	10-10	12-10	12-12	all versions	1000	1500	3500
Part Number		500W	600W	600W	1000W	1000W	600W	1000W	500W	600W	1000W	1000W	1200W	1000W	1200W	1200W	1200W	2000W	1000W	1200W	1200W
SP4154	2 m (6.5 ft) Dual Installation Connection cable																				
SP4156	6.5 m (21 ft)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SP5022	10 m (33 ft)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SP4157	15 m (49 ft)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SP4153	20 m (65 ft)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SP5017	35 m (115 ft)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SP4155	Dual Installation "T" Connector		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SP4192	Gender Adapter (to join two sensor cables)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Additional Anchoring Accessories Selection Guide Information

MAXSET Anchors

Stainless Steel	Galvanised	Anchor Weight
P105070	P105069	4kg/9lb
P105055	P105000	6kg/13lb
P105056	P105001	10kg/22lb
P105057	P105002	16kg/35lb
P105058	P105003	20kg/44lb
P105059	P105004	25kg/55lb
P105067	P105005	30kg/66lb
P105068	P105006	40kg/88lb

MAXSET Bow Rollers

Polished Finish	Anchor Weight
P105075	4kg/9lb
P105075	6kg/13lb
P105077	10kg/22lb
P105079	16kg/35lb
P105081	20kg/44lb
P105083	25kg/55lb
P105083	30kg/66lb
P105083	40kg/88lb

MAXSET Bow Rollers

Satin Finish	Anchor Weight
P105074	4kg/9lb
P105074	6kg/13lb
P105076	10kg/22lb
P105078	16kg/35lb
P105080	20kg/44lb
P105082	25kg/55lb
P105082	40kg/88lb

Bow Rollers

Stainless Steel	
P104330	Hinged # 1 up to 8mm (5/16") chain
P104331	Hinged # 2 up to 13mm (1/2") chain
P104332	Fixed # 1 up to 8mm (5/16") chain
P104333	Fixed # 2 up to 8mm (5/16") chain
P104334	Fixed # 3 up to 13mm (1/2") chain
P104340	Extendable hinged up to 13mm (1/2") chain
P104345	Fixed with anchor loop up to 13mm (1/2") chain

MAXCLAW Anchors

Stainless Steel	Anchor Weight	Chain Stoppers
P105060	5kg/11lb	P104335 Economy 8mm -10mm (5/16"-3/8") chain
P105061	7.5kg/17lb	P104372 Removable Levered Pawl 8mm (5/16") chain
P105062	10kg/22lb	P104373 Removable Levered Pawl 10mm (3/8") chain
P105063	15kg/33lb	P104374 Removable Levered Pawl 13mm (1/2") chain
P105064	20kg/44lb	P104358 Height Matched 8mm/10mm (5/16"-3/8") chain
P105065	30kg/66lb	P104359 Height Matched 10mm/13mm (3/8"-1/2") chain
P105066	40kg/88lb	

Anchor Swivels

P104370	Stainless steel (AISI 316) 750 kg load 6mm-8mm (1/4"-5/16") chain
P104371	Stainless steel (AISI 316) 1500 kg load 10mm-13mm (3/8"-1/2") chain

Crank Handles

P103864	8 inch / 200mm RC8, RC10 and RC12 windlasses
P103865	10 inch / 250mm RC8, RC10 and RC12 windlasses

Chain Snubbers and Tensioners

SP3174	Snubbing Hook 6/7mm (1/4") chain
SP3175	Snubbing Hook 8mm (5/16") chain
SP3176	Snubbing Hook 10mm (3/8") chain
P105072	Webbing tensioner 7mm-12mm (1/4" to 1/2")

Installation and Maintenance

Maxwell provides a complete installation and maintenance manual with every windlass or capstan. This clear and detailed, step-by-step guide provides information on how and where to install your winch. Suggestions, practical tips and cautions provide a solid basis for usage and maintenance. These publications are available on the Maxwell website. A good installation could mean the difference between your winch performing as it should or ending up causing you problems. Please ensure that you carefully read the Owner's Manual before installing and using your winch. Simple guidelines and advice, such as greasing the clutch cones, using products, such as anti-corrosive and sealing spray, on the motor and electrical terminals, and bedding the winch to the deck with a top-quality marine sealant, will ensure that you get years of trouble free use from your Maxwell Marine products. If in doubt, contact your nearest Maxwell dealer.

Maxwell Three Year Warranty

Maxwell Marine provides a three-year limited warranty on all windlasses, capstans and accessories for pleasure-boat usage and a one-year limited warranty for those systems used on commercial or charter vessels. Warranty, service and parts are available world-wide.

Contact your nearest Maxwell Marine office or check out the Maxwell Marine website:

www.maxwellmarine.com for a complete list of service centres, agents and distributors.

3 YEAR
Limited Warranty

WWW.MAXWELLMARINE.COM

Maxwell's ongoing commitment to customer service and technological excellence can be viewed online at www.maxwellmarine.com

This fully interactive and constantly evolving website features Maxwell's easy-to-use winch selection guide, CAD drawings, product manual downloads and up-to-date technical information regarding the latest product developments and innovations. You can register warranties online, ask for technical advice, find out what boat shows we are attending and locate the Maxwell office, agent or distributor nearest you.

Glossary

Capstan Often referred to as a drum, rope drum, or warping drum. The capstan is primarily used for hauling rope.

Chain Stopper Similarly, chain compressor. Located between the winch and bow roller. Secures chain and anchor and takes the load off the winch/windlass. Highly recommended for systems utilizing all chain and for semi-automatic rope and chain systems.

Free Fall Release of the winch clutch mechanism allowing the anchor and rode (chain or rope and chain) to run out freely with no engagement of winch gearbox or motor.

Gypsy Often referred to as chainwheel or wildcat. A special wheel with pockets, to accommodate a specified chain size, for hauling up the chain and anchor. With automatic rope/chain systems, the gypsy is designed to haul both rope and chain.

Hauling Often referred to as weighing or lifting. The operation of lifting the anchor and rode.

Horizontal Pertaining to the winch or windlass. Drive shaft, capstan and gypsy are positioned horizontally to the deck.

Manual Override System Often referred to as emergency crank system. A means of manually cranking the winch to haul in the rode and anchor should a failure occur in the motor, gearbox or power supply.

Maximum Pull Sometimes referred to as rated lift, stall load, or simply lift/pull. The maximum pull or lift load of the winch.

Rode The line that secures the boat to the anchor. This may consist of all chain, all rope, or a combination of rope and chain.

Static Hold The maximum load that the windlass can hold before permanent damage is caused. It is not recommended that the windlass be used in this manner.

Vertical Pertaining to the winch or windlass. The drive shaft, capstan and gypsy are positioned vertically to the deck.

Winch A windlass driven by a hand or power-operated crank or gearbox. Often implies to pull or lift a weight by using a winch.

Windlass A machine for raising a weight by winding a rope and/or chain around a drum or chainwheel, driven by a crank, motor, etc.

Working Load Often referred to as the normal working load or the typical lift of the winch. This is usually somewhere between 25% to 35% of the maximum pull or rated lift. This workload should approximately correspond to the total weight of the anchor and rode on board the boat.



Superyacht Windlasses and Capstans



For well over five decades, Maxwell has been supplying anchoring solutions to the global marine market. The Superyacht industry poses unique challenges. Quality, reliability and style are a must. Owners and captains depend on the finest equipment aboard their luxurious vessels to see them safely around the world or cruising in their home waters. Maxwell has become the manufacturer of choice on many of the world's Superyachts.

The 21st century has presented Maxwell with new opportunities and challenges. Larger Superyachts mean larger windlasses and anchor-handling equipment. In response, Maxwell has continued to develop and expand its highly successful "SY" Series Superyacht windlasses. Complemented by new and innovative deck gear, such as integrated Roller-Stopper-Tensioners, Compressor-Roller-Tensioners and Chain Pipe-Rollers, Maxwell is able to meet the demands for a complete and integrated anchoring package for Megayachts.

All Superyacht products are manufactured to the stringent international requirements of ISO9001 and are covered under the European CE standard. Maxwell Superyacht products are, and can be, certified to any of the major classification societies, including LR, DNV-GL, ABS, BV, etc.

For more information about Maxwell's extensive range of Superyacht products and services, see the Superyacht catalog and information guide or visit www.maxwellmarine.com alternatively contact: superyacht@maxwellmarine.com

SY Series

Designed for vessels up to approximately 1395 feet (120 meters), the SY Series gives Maxwell the ability to offer customers highly competitive, top-quality anchoring equipment without over or under specifying power, strength, reliability or performance.

Developed and engineered in response to the demand for bigger and stronger anchor windlasses for today's larger Superyachts and Megayachts, Maxwell has once again set the standard for others to follow.





Boat seats

Seat pedestals

Tables

Deck equipment

Fittings

Anodes

and more

The best equipment for your boat!

- High quality and reliability
- Complementary to the VETUS systems
- 3 Year warranty

With the V-Quipment line, VETUS offers a number of products which makes its range of boat equipment more complete. VETUS focuses on creating boat systems such as wastewater, exhaust, maneuvering, and drinking water systems. For anchor windlasses, custom made windows, VETUS carries the brands Maxwell and Marex. To complement these brands and our primary boat systems V-Quipment program a range of carefully selected products that provide the remaining necessities for comfort and functionality for all boat owners/builders that is above all affordable. VETUS does not develop these products - which is the case for majority of VETUS systems - but selectively curates and markets them under the brand name V-Quipment. All V-Quipment products meet VETUS' high quality requirements.

VETUS standard 3-year warranty is valid for all products from the V-Quipment range.

The V-Quipment range is divided into a number of different categories.

Comfort

Within this section you will find an attractive range of boat seats and tables. These comfortable seats are upholstered in marine grade materials which are designed to withstand all weather. To complement these, we also supply a choice of seat and table pedestals and a range of cockpit tables.

Deck equipment

Here you will find a series of stainless-steel deck fittings, as well as horns, boarding ladders, stanchions, and a range of rub rails.

Locks and stays

This category includes our gas struts, hatch adjusters as well as push-button locks.

Accessories

Looking for Binoculars? This is the right spot.

Marine fittings

Every boat needs fittings of one type or another. Examples from this range include: breather nipples, skin fittings, hose connections, water scoops, ball valves and hose clamps. These are available in various sizes, designs and materials to suit most applications.

Pumps

Included here is our series of submersible electric bilge pumps available in various sizes with practical design features. Also available is a manual membrane pump and sturdy single action plunger pumps.

Outboard

Within this section of the V- Quipment brand there is a range of premium outboard steering kits. There are various models, cables and accessories available.

Materials

In this section you will find non-slip deck coverings and the versatile polymer sheet Poly-wood.

Anodes

To protect your under-water metal parts we provide a wide range of anodes. The materials (zinc and aluminium) of these anodes are of the highest possible standard. The program consists of a wide range of types and applications, including hull- rudder-, shaft- or stern anodes.

Boat seats

All seats and benches in this range are finished in maintenance free, water and UV resistant skai imitation leather and stainless steel (AISI 304) staples, which is ideal for marine use. The skai imitation leather can also be ordered in rolls of 5 m (16.4') to match the complete boat interior to your boat seats. See page 407 for more information.



Which pedestal?

Seats are supplied without pedestal. Please find the pedestal of your choice on page 409. The hole patterns (R or S) in the specification tables of the seat and pedestal should match. See the table on the right for the dimensions of the hole patterns.

Seat dimensions (inch)	Hole pattern (threaded) (inch)
	R= (for slides)
	S= (for swivels)

ABYC-H-31 - Seat structure recommendations

The ABYC-H-31 - Seat structure recommendations applies to permanently installed seats in cockpits, deck areas and all helm positions, including their fastenings and structures to which they are attached. It is a guide for the design, testing, construction and installations of these products.

These recommendations are divided into the so called type "A" and type "B" system.



Type "A" system

A seating system (seat and pedestal) designed for occupancy while vessel is underway at any boat speed.



Type "B" system

A seating system (seat and pedestal) designed for occupancy only at boat speed not exceeding 8 km/h (5 miles per hour).

The type "A" system is sub-divided into



Type "AO" operators system

Seat mounts must have a positive locking mechanism which shall withstand a torque of 205Nm (150 foot pounds). (Positive locking = by means of a pin lock)



Type "A" system

Seat mounts shall withstand a torque of 41Nm (30 foot pounds).



VETUS has symbolized these recommendations into the below mentioned classification logos, which are shown next to each individual seat mount within the VETUS comfort section of this catalogue.



Source: ABYC-H-31

Note: All seats are classified as type "A", a seat combined with a type "AO" seat mount is therefore usable as an operators system. A seat combined with a type "B" seat mount, has the above mentioned usage restrictions.

Comfort



CHCOMW



CHCOMB



CHCOMDBB



CHCOMCB



FOLDED

Commander

The Commander seat is designed for long cruising days, offering excellent back support and comfort. It has a flip-up front section for more space when standing or maneuvering.

Key features:

- High backrest design for comfort during extended use
- Flip-up seat for flexible positioning
- Available in luxury and classic upholstery
- Unupholstered version allows for fully customized trim
- Mounting hardware included
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHCOMW	Yes	Classic	Grey white	9002
CHCOMB	Yes	Classic	Cobalt blue	5013
CHCOMDBB	Yes	Luxury	Brown beige	1011
CHCOMCB	Yes	Classic	Orange brown (cognac)	8023
CHCOMU	No	-	-	-

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
26 ⁵ / ₆₄	18 ⁶ / ₆₄	27 ⁹ / ₁₆	23 ¹³ / ₁₆	24 ⁵ / ₆₄	16 ¹ / ₃₂	28 ¹¹ / ₃₂	R	33

Queen

The Queen seat is a practical and comfortable helmsman's seat with a flip-up front for easier standing or leaning.

Key features:

- Flip-up seat base for extra space
- Durable, marine-grade materials
- Also available without upholstery for custom finishes
- Includes mounting hardware
- UV- and weather-resistant seat cover (CCDS or CCSB) available
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHFUS	Yes	Classic	Grey white	9002
CHFUSBL	Yes	Classic	Cobalt blue	5013
CHFUSQU	No	-	-	-

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
28 ⁸ / ₃₂	19 ¹⁹ / ₆₄	23 ⁵ / ₁₆	20 ⁹ / ₆₄	22 ³ / ₆₄	18 ⁷ / ₆₄	31 ¹ / ₂	R	26.5



CHFUS



CHFUSBL



FOLDED

A seat in a different color? See page 407 for more information.



Comfort



CHFUSW



CHFUSB



FOLDED

CHFUSC

King

The King seat offers outstanding comfort and flexibility, ideal for long hours at the helm. It features an integrated headrest and a flip-up front, making it easy to transition between sitting and standing positions.

Key features:

- Integrated headrest for added comfort
- Flip-up seat for steering while standing or leaning
- Unupholstered version available for fully customized trim
- Mounting hardware compatible with slides
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHFUSW	Yes	Classic	Grey white	9002
CHFUSB	Yes	Classic	Cobalt blue	5013
CHFUSC	Yes	Classic	Light ivory	1015
CHFUSKU	No	-	-	-

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
28 ¹¹ / ₃₂	19 ⁹ / ₆₄	24 ¹³ / ₃₂	19 ¹ / ₁₆	22 ⁷ / ₁₆	17 ²³ / ₃₂	31 ¹ / ₂	R	28.5



CHFASDPW



CHFASC



CHFASB



CHFASW



CHFASCB



Master

The Master seat is a high-quality helm seat designed for both comfort and durability. With integrated armrests and a strong stainless steel frame, it is ideal for skippers needing support on longer journeys.

Key features:

- Integrated armrests for added comfort
- Stainless steel frame (AISI 304)
- Available in classic and luxury upholstery
- Unupholstered version allows for fully customized trim
- Mounting hardware included
- Optional UV-protected seat cover (CCMS or CCMB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHFASDPW	Yes	Luxury	Pure white	9010
CHFASC	Yes	Classic	Light ivory	1015
CHFASB	Yes	Classic	Cobalt blue	5013
CHFASW	Yes	Classic	Grey white	9002
CHFASCB	Yes	Classic	Orange brown (cognac)	8023
CHFASU	No	-	-	-

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
27 ¹ / ₆₄	19 ¹ / ₁₆	24 ⁵ / ₆₄	20 ⁹ / ₆₄	23 ²⁷ / ₆₄	20 ⁵ / ₆₄	29 ⁹ / ₆₄	R	33

A seat in a different color? See page 407 for more information.



Comfort



CHSAILW2



CHSAILB2

Sailor

The Sailor seat combines a classic look with durable materials, making it a reliable choice for any helm position. Stainless steel armrests (AISI 304) and marine-grade upholstery ensure comfort for long days on the water.

Key features:

- Classic design with clean lines
- Stainless steel armrests (AISI 304) for durability
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHSAILW2	Yes	Classic	Grey white	9002
CHSAILB2	Yes	Classic	Cobalt blue	5013

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
23 ³ / ₈	17 ² / ₆₄	24 ¹³ / ₃₂	21 ¹ / ₆₄	22 ⁷ / ₁₆	16 ⁵⁹ / ₆₄	27 ⁹ / ₁₆	R	18



CHCASW



CHCASB

Skipper

The Skipper seat blends timeless looks with comfort. Its sturdy aluminum frame and padded armrests provide stable support, ideal for various helm positions.

Designed to fit all pedestal types, the Skipper is a practical and dependable choice for both new builds and refits.

Key features:

- Classic design with anodized aluminum frame
- Comfortable armrests for relaxed steering
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHCASW	Yes	Classic	Grey white	9002
CHCASB	Yes	Classic	Cobalt blue	5013

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
23 ¹⁵ / ₆₄	16 ¹⁷ / ₃₂	21 ¹ / ₁₆	16 ¹¹ / ₃₂	23 ²⁷ / ₆₄	16 ⁵⁹ / ₆₄	26 ⁴⁹ / ₆₄	R / S	21

A seat in a different color? See page 407 for more information.



Comfort



FOLDED

CHLIEUTW



CHLIEUTB

Lieutenant

The Lieutenant seat is ideal for comfortable steering, offering support whether sitting, standing, or leaning. The flip-up front gives more room and flexibility at the helm.

Key features:

- Flip-up front for standing or leaning positions
- Streamlined and supportive seat shape
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHLIEUTW	Yes	Classic	Grey white	9002
CHLIEUTB	Yes	Classic	Cobalt blue	5013

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
27 ⁵ / ₆₄	20 ⁵ / ₆₄	21 ¹⁷ / ₆₄	16 ⁵ / ₆₄	23 ¹ / ₃₂	16 ³⁹ / ₆₄	27 ⁵ / ₆₄	R	17.5



CHSPORTTB



CHSPORTW



FOLDED

CHSPORTWB

Pilot

The Pilot seat is built for performance and style, offering excellent lateral support and comfort for fast cruising. Its flip-up front allows flexible use while steering, either sitting or leaning.

Key features:

- Sporty design with side support for dynamic handling
- Flip-up front for standing or leaning positions
- Available in several colors and stitching patterns
- Option without upholstery for fully customized finish
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHSPORTTB	Yes	Classic	Traffic black	9002
CHSPORTW	Yes	Classic	Grey white	5013
CHSPORTWB	Yes	Classic	Grey white with black	-
CHSPORTCB	Yes	Classic	Orange brown (cognac)	8023
CHSPORTU	No	-	-	-

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
26 ³ / ₈	18 ⁵ / ₆₄	23 ³ / ₈	20 ⁵ / ₆₄	19 ¹¹ / ₁₆	15 ⁵ / ₆₄	28 ¹¹ / ₃₂	R	17.5



CHSPORTCB

A seat in a different color? See page 407 for more information.



Comfort



CHDRIVEW



CHDRIVEWB



CHDRIVECB

Driver

The Driver seat offers strong lateral support and a design that makes it ideal for dynamic cruising or quick maneuvers. Its compact form provides comfort without sacrificing helm space.

Key features:

- Sporty look with ergonomic side supports
- Designed for compact helm stations
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHDRIVEW	Yes	Classic	Grey white	9002
CHDRIVEWB	Yes	Classic	Grey white with black	-
CHDRIVECB	Yes	Classic	Orange brown (cognac)	8023

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
25 ³ / ₆₄	17 ²³ / ₃₂	23 ³ / ₈	20 ³ / ₆₄	20 ¹³ / ₃₂	15 ⁵ / ₁₆	26 ⁷ / ₈	R	15.5

Admiral

The Admiral seat combines style and comfort with practical functionality. Designed for active boaters, it provides strong lateral support and a flip-up front for optimal space when steering while standing or leaning.

Key features:

- Sporty design with side support for stability
- Flip-up seat for versatile steering positions
- Marine-grade upholstery in two classic colors
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHADMW	Yes	Classic	Grey white	9002
CHADMB	Yes	Classic	Cobalt blue	5013

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
28 ⁴⁷ / ₆₄	20 ³ / ₆₄	24 ¹³ / ₃₂	21 ²¹ / ₃₂	22 ²³ / ₆₄	16 ⁵⁹ / ₆₄	28 ⁴⁷ / ₆₄	R	19



FOLDED

CHADMW



CHADMB



Comfort



FOLDED

CHMAJORW



CHMAJORB

Major

The Major seat offers a practical and comfortable solution for both seated and standing steering positions. With a flip-up front, it gives extra room to move and versatility while maneuvering. Perfect for mates who value comfort without compromising on functionality.

Key features:

- Flip-up front for standing or leaning positions
- Comfortable back and seat support
- Marine-grade upholstery for durability
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHMAJORW	Yes	Classic	Grey white	9002
CHMAJORB	Yes	Classic	Cobalt blue	5013

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
28 ³⁷ / ₆₄	20 ³ / ₆₄	25 ³⁶ / ₆₄	21 ²⁷ / ₃₂	23 ¹ / ₃₂	15 ³ / ₄	28 ³⁷ / ₆₄	R	21



CHSEAMPW



FOLDED

CHSEAMC

Seaman

The Seaman seat offers a spacious and comfortable design with a classic look. Perfect for long trips or relaxed cruising, this seat provides flexibility with its flip-up front and armrests. Made from marine-grade materials and corrosion-resistant components, it delivers both elegance and durability.

Key features:

- Elegant, spacious design for all-day comfort
- Flip-up front for steering while standing or leaning
- Flip-up armrests for extra versatility
- Corrosion-resistant aluminum hinges
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHSEAMPW	Yes	Classic	Pure white	9010
CHSEAMC	Yes	Classic	Light ivory	1015
CHSEAMMB	Yes	Classic	Mahogany brown	8016
CHSEAMCB	Yes	Classic	Orange brown (cognac)	8023

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
23 ⁸ / ₃₅	20 ³ / ₁₅	24 ¹ / ₆₄	19 ⁷ / ₂₄	23 ⁸ / ₃₅	17 ¹ / ₈	28 ³⁷ / ₆₄	R	30



CHSEAMMB



CHSEAMCB

A seat in a different color? See page 407 for more information.



Comfort



CHFLAGDGW



CHFLAGDCB

Flag Officer

The Flag series chairs are ergonomically designed, folding seats created for easy helm access and maximum comfort on long journeys. These compact chairs combine luxury and durability in elegant luxury gray-white or cobalt blue skai upholstery with a diamond-pressed pattern. They come ready to install, with the necessary mounting hardware included.

Key features:

- Forward-folding mechanism with integrated locking system
- High ergonomic backrest
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHFLAGDGW	Yes	Luxury	Cobalt blue	5013
CHFLAGDCB	Yes	Luxury	Grey white	9002

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
22 ²⁷ / ₃₂	16 ¹³ / ₁₆	23 ⁵ / ₈	18 ²⁹ / ₃₂	18 ²⁹ / ₃₂	18 ²⁹ / ₃₂	24 ⁷ / ₁₆	R / S	14.5



CHCR



CHCRDGW



CHCRDDG



Captain's rest

This boat seat is designed for comfort and everyday use on the water. The sturdy shell design provides good support and is resistant to water and sunlight. The seat comes with soft seat and back cushions for extra comfort but is also available without cushions - useful for applications where less seating comfort is required.

Key features:

- Compact and lightweight design
- Durable molded shell
- Made from high-quality plastic resistant to impact, UV rays, and marine conditions
- Easy to clean and designed to withstand repeated exposure to water and sunlight
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL	Mounting hole pattern
CHCR	No	-	Light grey	-	R
CHCRDGW	Yes	Luxury	Grey white	9002	R
CHCRDDG	Yes	Luxury	Dust grey	7037	R

* RAL equivalent

Type	D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Weight (lb)
CHCR	21 ⁷ / ₁₆	16 ⁹ / ₁₆	16 ¹⁵ / ₁₆	15 ³ / ₄	18 ⁷ / ₈	16 ⁹ / ₁₆	24 ⁷ / ₁₆	8
CHCRD..	21 ⁷ / ₁₆	15 ³ / ₄	16 ¹⁵ / ₁₆	13 ³ / ₄	18 ⁷ / ₈	16 ⁹ / ₁₆	24 ⁷ / ₁₆	9

A seat in a different color? See page 407 for more information.



Comfort



CAPTSEAT3



CAPTCSL



CAPTCSB

Captain

The Captain seat is a popular, ergonomically shaped base seat designed for durable comfort and versatility. Supplied without upholstery, it can be upgraded with optional cushion sets. Ideal for boat owners seeking a modular solution with flexibility in style and comfort.

Key features:

- Ergonomic shell for all-day comfort
- Optional cushion sets in two classic color combinations
- Lightweight and compact design
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CAPTSEAT3	No	-	Grey white	-
CAPTCSL	Yes	Classic	Signal grey	7004
CAPTCSB	Yes	Classic	Cobalt blue	5013

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
19 ³ / ₃₂	16 ⁵⁹ / ₆₄	19 ¹¹ / ₁₆	17 ²³ / ₃₂	20 ⁵⁵ / ₆₄	16 ⁵⁹ / ₆₄	20 ⁵⁵ / ₆₄	R	9

Crew

The Crew seat is a practical and lightweight seating solution designed for flexibility and ease of use. Ideal for a range of marine applications, it can be used with or without cushions and features a folding backrest to save space when needed.

Key features:

- Folding backrest for space-saving storage
- Versions with or without cushions
- Available in several durable upholstery finishes
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHCS	No	-	Light grey	-
CHCW	Yes	Classic	Grey white	9002
CHCBWB	Yes	Classic	Grey white with cobalt blue	9002 5013
CHCG	Yes	Classic	Traffic grey	7043

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
18 ³¹ / ₃₂	17 ¹ / ₈	17 ¹ / ₈	15 ¹⁵ / ₁₆	18 ¹ / ₄	18 ¹ / ₄	24 ⁴¹ / ₆₄	S	6.5



CHCS



CHCW



CHCBWB



CHCG



A seat in a different color? See page 407 for more information.



Comfort



CHFSWW



CHFSBW

Fisherman

The Fisherman seat is a simple and practical solution for small boats or occasional marine use. Its classic design includes a folding backrest for better access and flexibility on board. Built with anodized aluminum hinges, the Fisherman is lightweight yet durable, making it ideal for both saltwater and freshwater use.

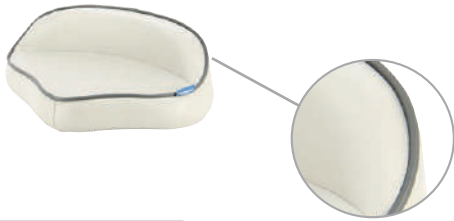
Key features:

- Classic and compact design for smaller boats
- Folding backrest for easier access or storage
- Durable anodized aluminum hinges
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHFSWW	Yes	Classic	Grey white	9002
CHFSBW	Yes	Classic	Cobalt blue	5013

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
18 ⁵⁷ / ₆₄	13 ²⁵ / ₃₂	17 ²³ / ₃₂	14 ¹¹ / ₆₄	15 ¹ / ₄	15 ³ / ₄	22 ⁴¹ / ₆₄	R / S	7



CHPRIVEL

Private seat

This seat is your reliable companion for fishing. Its compact and lightweight design provides just the right support when needed and is easy to clean and maintain. Perfect for boats where space is limited but comfort is still important.

Key features:

- Compact and lightweight for smaller boats
- Designed to provide support while fishing or on short cruises
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHPRIVEL	Yes	Classic	Light grey with dark grey seam	-

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
18 ⁵⁷ / ₆₄	13 ²⁵ / ₃₂	17 ²³ / ₃₂	14 ¹¹ / ₆₄	15 ¹ / ₄	15 ³ / ₄	22 ⁴¹ / ₆₄	S	2.6

A seat in a different color? See page 407 for more information.

Comfort



CHFSW



CHFSB



CHFSL



CHFSD



CHFDBGW



CHFDCB

First Mate

The First Mate seat offers a blend of style and comfort, ideal for leisure cruising or calm fishing trips. Its folding backrest and sturdy anodized aluminum hinges make it a practical and dependable choice for a variety of boat setups.

Key features:

- Comfortable luxury design for long-term use
- Available in classic and luxury upholstery
- Folding backrest for flexible cockpit layout
- Anodized aluminum hinges for durability
- Optional UV-protected seat cover (CCDS or CCSB)
- The same skai imitation leather is available in rolls for other interior design applications (see page 407)

Type	Upholstery	Trim structure	Color*	RAL
CHFSW	Yes	Classic	Grey white	9002
CHFSB	Yes	Classic	Cobalt blue	5013
CHFSL	Yes	Classic	Light grey	-
CHFSD	Yes	Classic	Grey with light grey seams	-
CHFDBGW	Yes	Luxury	Grey white	9002
CHFDCB	Yes	Luxury	Cobalt blue	5013

* RAL equivalent

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
11 ¹⁵ / ₆₈	8 ⁴ / ₆₅	5 ³⁷ / ₆₄	3 ²⁵ / ₆₆	15 ¹⁷ / ₂₇	14 ²⁵ / ₉₇	15 ³ / ₄	R / S	7.3



First Class

Comfortable deluxe double seat with folding back rest. Anodised aluminium hinges.

Available colours:

- Grey white with cobalt blue seams (DCHFSW)
- Cobalt blue with grey white seams (DCHFSB)

The same skai imitation leather is available in rolls for other interior design applications (see page 407).

Supplied without pedestal. Fits on two pedestals.

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
18 ² / ₆₄	13 ²⁵ / ₃₂	17 ²⁹ / ₃₂	14 ¹ / ₆₄	35 ⁷ / ₁₆	35 ⁷ / ₁₆	-	2xR	28.5



DCHFSW



DCHFSB



A seat in a different color? See page 407 for more information.



Comfort



CHTBSW



CHTBSB

Ferry

Seat with moveable double sided backrest. Anodised aluminium hinges.

Available colours:

- Grey white with cobalt blue seams (CHTBSW)
- Cobalt blue with grey white seams (CHTBSB)

The same skai imitation leather is available in rolls for other interior design applications (see page 407).

Supplied without pedestal. Fits all pedestals. Use seat cover CCDS or CCSB to keep the seat clean and protected against UV.

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
22 ⁷ / ₁₆	14 ⁴⁹ / ₆₄	18 ⁷ / ₆₄	14 ⁶¹ / ₆₄	16 ¹⁷ / ₃₂	16 ¹⁷ / ₃₂	27 ⁵¹ / ₆₄	R / S	13



DCHTBSW



DCHTBSB

Ferry Bench

Double seat with moveable double sided backrest. Anodised aluminium hinges.

Available colours:

- Grey white with cobalt blue seams (DCHTBSW)
- Cobalt blue with grey white seams (DCHTBSB)

The same skai imitation leather is available in rolls for other interior design applications (see page 407).

Supplied without pedestal. Fits on two pedestals (with or without slide).

D1 (inch)	D2 (inch)	H1 (inch)	H2 (inch)	W1 (inch)	W2 (inch)	ØT (inch)	Mounting hole pattern	Weight (lb)
22 ⁷ / ₁₆	14 ⁴⁹ / ₆₄	18 ⁷ / ₆₄	14 ⁶¹ / ₆₄	35 ⁷ / ₁₆	35 ⁷ / ₁₆	-	2xR / 2xS	33

A seat in a different color?
See page 407 for more information.



CCDS



CCSB



CCMS



CCMB

Seat cover - weather proof

To keep the seat dry and clean and protected against UV light. Made of nylon with PU coating. A drawstring is included.

Type	Description	D (inch)	H (inch)	W (inch)	Suitable for
CCDS	Seat cover silver*	19 ¹¹ / ₁₆	32 ⁴⁹ / ₆₄	25 ¹⁹ / ₆₄	All single seats
CCSB	Seat cover blue	19 ¹¹ / ₁₆	32 ⁴⁹ / ₆₄	25 ¹⁹ / ₆₄	All single seats
CCMS	Seat cover silver*	22 ⁵⁹ / ₆₄	27 ⁹ / ₁₆	22 ⁵⁹ / ₆₄	Master seats
CCMB	Seat cover blue	22 ⁵⁹ / ₆₄	27 ⁹ / ₁₆	22 ⁵⁹ / ₆₄	Master seats

*We recommend the silver cover for light colored seats and use the blue cover for dark seats.

Comfort

Custom Seat Program - CHSKAI Stand out in style

Want a unique look or matching trim? V-Quipment's custom seat program offers eighteen marine-grade skai vinyl options. Simply choose two or more unupholstered seats, pick your colors, and we'll do the rest - we can even add your logo if you like. The marine-grade skai vinyl is UV- and water-resistant, maintenance-free, and also available (special order) in roll form (4.4 feet (1.37 meter) width and 16 feet (5 meter) long.).

Classic skai, special order in rolls

Type	Color	RAL code
CHSKAIB	Cobalt blue	5013
CHSKAIW	Grey white	9002
CHSKAIC	Light ivory	1015
CHSKAITG	Traffic grey	7043
CHSKAILG	Signal grey	7004
CHSKAIPW	Pure white	9010
CHSKAIRR	Ruby red	3003
CHSKAIGB	Graphite black	9011
CHSKAIGY	Golden yellow	1004
CHSKAIEG	Emerald green	6001
CHSKAIMB	Mahogany brown	8016
CHSKAISB	Sapphire blue	5003
CHSKAISG	Slate grey	7015
CHSKAIAW	Aluminium white	9006
CHSKAITB	Traffic black	9017
CHSKAICB	Orange (cognac) brown	8023
CHSKAIBB	Beige brown	8024
CHSKAIGRB	Grey beige	1019



S.CHSKAI



Already have a boat? Order skai rolls to match your current interior. A sample set is also available.

Custom Seat Program - a touch of elegance, luxury, and refinement

The marine-grade skai vinyl custom seat program now features a sophisticated new addition: diamond texture and diamond stitching, available in eleven colors. This striking combination adds a touch of elegance and refinement, making it the perfect upgrade to your interior.

Luxury skai, special order in rolls

Type	Color	RAL code
CHSKAIDBR	Brown red	3011
CHSKAIDCB	Cobalt blue	5013
CHSKAIDGW	Grey white	9002
CHSKAIDSG	Silk grey	7044
CHSKAIDGB	Graphite black	9011
CHSKAIDDG	Dust grey	7037
CHSKAIDBB	Brown beige	1011
CHSKAIDPW	Pure white	9010
CHSKAIDL B	Light blue	5012
CHSKAIDBG	Beige grey	1019
CHSKAIDTG	Traffic grey	7043



S.CHSKAID



Comfort

All seats can be customized, but the following unupholstered models are available from stock: Commander (CHCOMU), Queen (CHFUSQU), King (CHFUSKU), Master (CHFASU), and Pilot (CHSPORTU). Each comes with a pattern template for easy DIY upholstery.

Color combinations are also possible. V-Quipment's custom seat program is available by special order. Minimum order quantity for custom trim is two of any seat type. Price upon request.

We can even embroider your logo if you wish.



Special to order



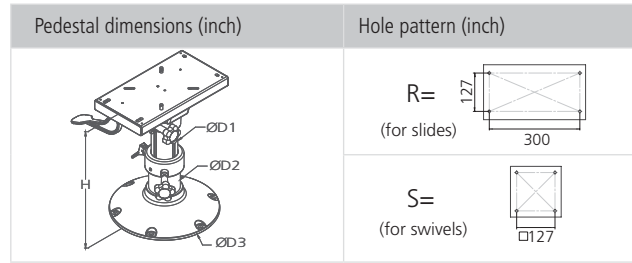


Comfort

Seat pedestals

All pedestals are made of high grade aluminum and have a 360° rotatable swivel on top. Gas adjustable pedestals are operated with a handle. Manually adjustable pedestals have both a lock-pin with a locking position every 1" (25 mm) and a clamping knob for complete security. The sliding mechanism can be moved through 5⁵/₁₆ (135 mm) in total and locked in one of seven positions.

Note: An explanation of the classification logo which is shown next to each seat mount can be found on page 395 of the catalog.



PCM3040

PCM3547

PCM4363

Pedestal (height adjustable)

Manually height adjustable aluminium seat pedestal with 360° swivel only. Anodised base.

Type	Height (H) (inch)	Hole pattern	Post Ø (D1 / D2) (inch)	Base Ø (D3) (inch)	Weight (lb)
PCM3040	11 ¹³ / ₁₆ - 15 ³ / ₄	R / S	2 ⁷ / ₈ / 3 ²⁷ / ₆₄	8 ³¹ / ₃₂	13
PCM3547	13 ²⁵ / ₃₂ - 18 ¹ / ₄	R / S	2 ⁷ / ₈ / 3 ²⁷ / ₆₄	12 ¹ / ₆₄	15.5
PCM4363	17 ¹ / ₈ - 6 ³ / ₆₄	R / S	2 ⁷ / ₈ / 3 ²⁷ / ₆₄	12 ¹ / ₆₄	17



PCMS3040

PCMS3547

PCMS4363

Pedestal (height adjustable)

Manually height adjustable aluminium seat pedestal with slide and 360° swivel. Polished base.

Type	Height (H) (inch)	Hole pattern	Post Ø (D1 / D2) (inch)	Base Ø (D3) (inch)	Weight (lb)
PCMS3040	11 ¹³ / ₁₆ - 15 ³ / ₄	S	2 ²³ / ₆₄ / 2 ⁷ / ₈	8 ³¹ / ₃₂	9
PCMS3547	13 ²⁵ / ₃₂ - 18 ¹ / ₄	S	2 ²³ / ₆₄ / 2 ⁷ / ₈	8 ³¹ / ₃₂	6.5
PCMS4363	17 ¹ / ₈ - 6 ³ / ₆₄	S	2 ²³ / ₆₄ / 2 ⁷ / ₈	8 ³¹ / ₃₂	12.5



PCG3040

PCG3547

PCG4363

PCG5680

Pedestal (height adjustable)

For optimum enjoyment of your seat. Gas spring height adjustable aluminium seat pedestal with slide and 360° swivel. Polished base.

Type	Height (H) (inch)	Hole pattern	Post Ø (D1 / D2) (inch)	Base Ø (D3) (inch)	Weight (lb)
PCG3040	11 ¹³ / ₁₆ - 15 ³ / ₄	R / S	2 ⁷ / ₈ / 3 ²⁷ / ₆₄	8 ³¹ / ₃₂	13
PCG3547	13 ²⁵ / ₃₂ - 18 ¹ / ₄	R / S	2 ⁷ / ₈ / 3 ²⁷ / ₆₄	12 ¹ / ₆₄	15.5
PCG4363	17 ¹ / ₈ - 23 ¹³ / ₁₆	R / S	2 ⁷ / ₈ / 3 ²⁷ / ₆₄	12 ¹ / ₆₄	17
PCG5680	22 ¹ / ₁₆ - 31 ¹ / ₂	R / S	2 ⁷ / ₈ / 3 ²⁷ / ₆₄	12 ¹ / ₆₄	20



Comfort



PCG4363B

PCG5680B

Pedestal (height adjustable)

These sturdy, gas-assisted height-adjustable seat pedestals are built for marine environments. Made from high-quality aluminum with a fully black anodized finish, they provide excellent protection against UV and harsh weather conditions, ensuring long-lasting durability. Both models feature 360° rotation and a slide mechanism for easy seat adjustment and increased onboard comfort.

Type	Height (H) (inch)	Mounting hole pattern	Post Ø (D1 / D2) (inch)	Base Ø (D3) (inch)	Weight (lb)
PCG4363B	17 ¹ / ₈ - 23 ¹³ / ₁₆	R / S	2 ⁷ / ₈ / 3 ²⁷ / ₆₄	12 ¹ / ₆₄	17
PCG5680B	22 ¹ / ₁₆ - 31 ¹ / ₂	R / S	2 ⁷ / ₈ / 3 ²⁷ / ₆₄	12 ¹ / ₆₄	20



PCFS33

Pedestal (fixed height)

With 360° swivel, available with or without slide. Anodised base.

Type	Slide	Height (H) (inch)	Hole pattern	Post Ø (D2) (inch)	Base Ø (D3) (inch)	Weight (lb)
PCFS33	✓	12 ⁶³ / ₆₄	R / S	2 ⁷ / ₈	8 ³¹ / ₃₂	10
PCF33	-	12 ⁶³ / ₆₄	S	2 ⁷ / ₈	8 ³¹ / ₃₂	
PCFS45	✓	17 ⁶³ / ₆₄	R / S	2 ⁷ / ₈	8 ³¹ / ₃₂	10.5
PCF45	-	17 ⁶³ / ₆₄	S	2 ⁷ / ₈	8 ³¹ / ₃₂	



PCF33



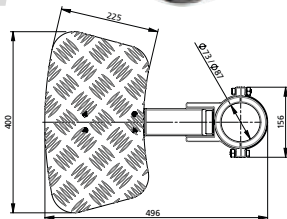
PCFS45



PCF45



FTREST..



Footrest

Rotatable and foldable footrest for pedestals. Made from a marine grade aluminum with stainless steel fastenings. For extra grip the aluminium base plate has a diamond profile.

Type	Description	For post Ø (D2) (inch)	Suits pedestal type	Weight (lb)
FTREST73	Footrest	2 ⁷ / ₈	PCM, PCF	7.5
FTREST87	Footrest	3 ²⁷ / ₆₄	PCMS, PCG	7.5

Does not fit type PCR nor PCQ pedestals.



PCBELL

Pedestal (height adjustable)

A seat pedestal with a friction lock 360° swivel. The height is manually adjustable. Made from a marine grade aluminium. The large bell shaped base is grey powder coated.

Type	Height (H) (inch)	Hole pattern	Post Ø (D1) (inch)	Base Ø (D3) (inch)	Weight (lb)	Load static (lb)	Load dynamic (lb)
PCBELL	12 ⁶³ / ₆₄ - 16 ²⁹ / ₆₄	S	2 ²³ / ₆₄	2 ⁵ / ₆₄	5	204	102



Comfort



PC13

Base (fixed height)

Low profile anodised base with 360° swivel.

Type	Height (H) (inch)	Hole pattern	Post Ø (D1) (inch)	Base Ø (D3) (inch)	Weight (lb)	Load static (lb)	Load dynamic (lb)
PC13	5 ³ / ₃₂	S	2 ¹ / ₈	8 ¹ / ₃₂	4.5	204	102



PCS15

Base (fixed height)

Low profile anodised base with 360° swivel and slide.

Type	Height (H) (inch)	Hole pattern	Post Ø (D1) (inch)	Base Ø (D3) (inch)	Weight (lb)	Load static (lb)	Load dynamic (lb)
PCS15	153	R / S	2 ¹ / ₈	228	8.8	204	102



PCBS

Swivel with slide

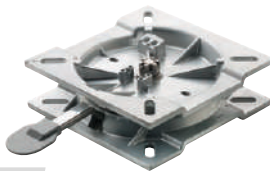
Aluminium 360° swivel with slide with seven locking positions. For direct mounting.

Type	Height (H) (inch)	Hole pattern	Base Ø (D3)	Weight (lb)	Load static (lb)	Load dynamic (lb)
PCBS*	2 ¹ / ₄	R / S	S	5.5	204	102
PCBSR**	2 ¹ / ₄	R / S	S	5.5	204	102



PCBSR

* The lever controls positioned at left and right side.
** The lever controls positioned at one side.



PCBL

Base, rotatable with locking position

Aluminium 360° rotatable base with seven locking positions. For direct mounting.

Type	Height (H) (inch)	Hole pattern	Base	Weight (lb)	Load static (lb)	Load dynamic (lb)
PCBL	2 ¹ / ₆₄	S	S	4.5	204	102

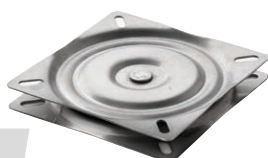


PCB

Base, rotatable and removable

Rotatable and removable synthetic 360° swivel base for direct mounting.

Type	Height (H) (inch)	Hole pattern	Base	Weight (lb)	Load static (lb)	Load dynamic (lb)
PCB	2 ¹ / ₆₄	S	S	1.5	204	102



PCBR

Base, rotatable

360° Rotatable base for direct mounting. Made from stainless steel (AISI 304).

Type	Height (H) (inch)	Hole pattern	Base	Weight (lb)	Load static (lb)	Load dynamic (lb)
PCBR	2 ⁹ / ₃₂	S	S	2	204	102



Comfort



SCU

Slide

Seat slide for direct mounting. The sliding mechanism can be moved through 5⁵/₁₆" (135 mm) in total and locked in one of seven positions.

Type	Height (H) (inch)	Hole pattern	Base	Weight (lb)	Load static (lb)	Load dynamic (lb)
SCU	2 ³ / ₄	R + S	S	4.5	204	102



PCR38



PCRS38

Pedestal, removable (fixed height)

With 360° swivel or slide and recessed anodised base. Base and pedestal fit most commonly used similar systems in the market.

Type	Swivel (hole pattern)	Height (H) (inch)	Post Ø (D2) (inch)	Base Ø (D3) (inch)	Recessed depth (inch)	Cut out deck Ø (inch)
PCR38	Swivel (S)	14 ⁶ / ₁₆	2 ² / ₁₆	9	2 ³ / ₄	3 ³ / ₁₆
PCRS38	Slide (R)	14 ⁶ / ₁₆	2 ² / ₁₆	9	2 ³ / ₄	3 ³ / ₁₆



PCRQ33



PCRQ38

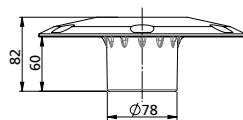
Pedestal, removable (fixed height)

With 360° swivel and recessed anodised base. Base and pedestal fit most commonly used similar systems in the market. Swivel 3° angled.

Type	Swivel (hole pattern)	Height (H) (inch)	Post Ø (D2) (inch)	Base Ø (D3) (inch)	Recessed depth (inch)	Cut out deck Ø (inch)
PCRQ33	Quick position (S)	12 ⁶ / ₁₆	2 ² / ₁₆	9	2 ³ / ₄	3 ³ / ₁₆
PCRQ38	Quick position (S)	14 ⁶ / ₁₆	2 ² / ₁₆	9	2 ³ / ₄	3 ³ / ₁₆



PCRBASE



Base, for pedestal

This (spare) plug-in pedestal base can be used as an extra mounting position or as replacement for existing pedestal bases. The base is made of a marine grade anodized aluminium.

Type	Height (inch)	Base Ø (D3) (inch)	Recessed depth (inch)	Cut out deck Ø (inch)
PCRBASE	3 ¹ / ₄	9	2 ³ / ₄	3 ³ / ₁₆



Comfort

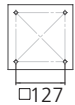
Quick positioning series seat pedestals

Pedestals in the quick positioning series are specially suitable for applications where multiple seating positions are used, such as in fishing boats. There are two positioning systems: a very quick click in system and a more sturdy threaded system. The components that form a complete pedestal can be ordered separately to offer great flexibility in seating configuration. Please make sure you order a swivel, leg and base to complete the pedestal. The quick release pedestals fit seats with hole pattern type S.



Swivel

Seat mount swivel with spring. Angled 3°. Outside dimension swivel: 6^{5/8} x 6^{5/8}" (168 x 168 mm)



Type	Connection	Hole pattern	Height (inch)	Weight (lb)
PCQSWIV	Click	S	5 ^{33/64}	1

Post (fixed height)

Available with click or threaded connection. Anodised aluminium.

Type	Base Connection	Height (H) (inch)	Post Ø (inch)	Weight (lb)
PCQF28C	Click	11 ^{1/32}	1 ^{49/64}	1.3
PCQF28T	Threaded	11 ^{1/32}	1 ^{49/64}	1.6
PCQF33C	Click	12 ^{23/64}	1 ^{49/64}	1.4
PCQF33T	Threaded	12 ^{23/64}	1 ^{49/64}	1.7
PCQF38C	Click	14 ^{41/64}	1 ^{49/64}	1.8
PCQF38T	Threaded	14 ^{41/64}	1 ^{49/64}	1.9

Post with swivel (height adjustable)

Available with click or threaded connection. Angled 3°. 360° swivel included.

Type	Base Connection	Height (H) (inch)	Post Ø (inch)	Hole pattern	Weight (lb)
PCQG5774C	Click	22 ^{1/16} - 29 ^{9/64}	1 ^{49/64}	S	4.5
PCQG5774T	Threaded	22 ^{1/16} - 29 ^{9/64}	1 ^{49/64}	S	5

This adjustable pedestal contains chromed steel parts, we advise against use on salt water.

Base

Stainless steel (AISI 316)

Type	Connection type	Base dimensions (inch)	Recessed depth (inch)	Hole Ø (inch)	Weight (lb)
PCQBASEC	Click	6 ^{23/32} x 6 ^{27/32}	2 ^{23/64}	2 ^{11/64}	2
PCQBASET	Threaded	6 ^{23/32} x 6 ^{27/32}	3 ^{35/64}	2 ^{11/64}	2.5



Comfort

Tables

All table tops are made from white synthetic material and have four cupholders incorporated. The table pedestals are high grade aluminium. The unique locking systems on the threaded base ensures a sturdy table. Separate base plates make various table positions on your boat possible.



PTTF68



PTF68



Table (fixed height)

Removable from the base. The screwed connection ensures a very sturdy table. Anodised aluminium.

Type	Top (inch)	Height (inch)	Base Ø (inch)	Max. load (lb)
PTTF68	Oval, 17 ²³ / ₃₂ x 30 ¹ / ₈	26 ³¹ / ₃₂	7 ¹ / ₆₄	48.5
PTF68	Round, Ø 24 ¹ / ₆₄	26 ³¹ / ₃₂	7 ¹ / ₆₄	48.5



PTT5070



TPM5070



Table (height adjustable)

Removable from the base. The screwed connection ensures a very sturdy table. Polished pedestal, anodised base.

Type	Top (inch)	Height (inch)	Base Ø (inch)	Max. load (lb)
PTT5070	Oval, 17 ²³ / ₃₂ x 30 ¹ / ₈	19 ¹¹ / ₁₆ - 27 ⁹ / ₁₆	7 ¹ / ₆₄	48.5
TPM5070	Round, Ø 24 ¹ / ₆₄	19 ¹¹ / ₁₆ - 27 ⁹ / ₁₆	7 ¹ / ₆₄	48.5

Table (fixed height)

Fixed height, easy to place and remove due to the countersunk connection to the base. Anodised aluminium.

Type	Top (inch)	Height (inch)	Base Ø (inch)	Recessed depth (inch)	Cut out deck Ø (inch)	Max. load (lb)
PTTR68	Oval, 17 ²³ / ₃₂ x 30 ¹ / ₈	26 ³¹ / ₃₂	6 ⁴⁷ / ₆₄	1 ³¹ / ₃₂	2 ¹³ / ₁₆	48.5
PTR68	Round, Ø 24 ¹ / ₆₄	26 ³¹ / ₃₂	6 ⁴⁷ / ₆₄	1 ³¹ / ₃₂	2 ¹³ / ₁₆	48.5



PTTR68

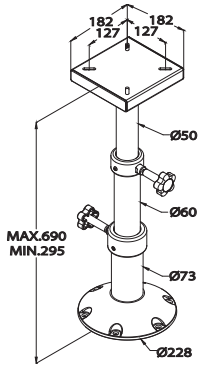


PTR68



Comfort

Table pedestals



PCMS2969

Pedestal (telescopic)

Three stage, height adjustable table pedestal. Anodised aluminium.

Type	Height (inch)	Base Ø (inch)	Max. load (lb) Extended	Max. load (lb) Retracted
PCMS2969	11 ³⁹ / ₆₄ - 27 ¹¹ / ₆₄	8 ³¹ / ₃₂	48.5	225



PT68



PS68

Pedestal, removable (fixed height)

These pedestals ensure a secure connection between table and deck. The PT68 features a robust, screw-fastened base that is still removable, while the PS68 offers a recessed, quick-release base. Both models make it easy to remove the table when space is needed. Models are compatible with V-Quipment's standard table tops.

Type	Connection type	Height (inch)	Base Ø (inch)	Recessed depth (inch)	Deck cut-out Ø (inch)
PT68	screw-fastened	26 ⁵ / ₁₆	7 ¹ / ₆₄	-	-
PS68	recessed	26 ⁵ / ₁₆	6 ³ / ₄	1 ³ / ₃₂	2 ⁵³ / ₆₄



PTSM2969



PTSG3269

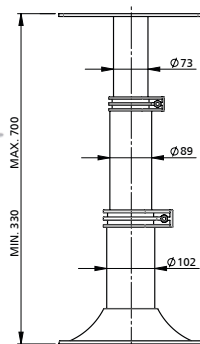
Pedestal, removable (telescopic)

The PTSM2969 and PTSG3269 are sturdy table pedestals from V-Quipment's range, made for onboard use. Constructed from marine-grade aluminum, they are strong, adjustable, and easy to install. These pedestals offer a reliable solution for any table configuration on your boat. Separate additional bases are available.

Type	Connection type	Height (inch)	Base Ø (inch)	Recessed depth (inch)	Deck cut-out Ø (inch)
PTSM2969	recessed	11 ⁷ / ₁₆ - 27 ³ / ₁₆	6 ⁴⁷ / ₆₄	3 ¹¹ / ₃₂	3 ⁴⁷ / ₆₄
PTSG3269	recessed	12 ² / ₈ - 27 ³ / ₁₆	6 ⁴⁷ / ₆₄	3 ¹¹ / ₃₂	3 ⁴⁷ / ₆₄
PTSMBASE	recessed	3 ³⁵ / ₆₄	6 ⁴⁷ / ₆₄	3 ¹¹ / ₃₂	3 ⁴⁷ / ₆₄
PTSGBASE	recessed	3 ³⁵ / ₆₄	6 ⁴⁷ / ₆₄	3 ¹¹ / ₃₂	3 ⁴⁷ / ₆₄



PTG3370M



Three stage table pedestal

A marine grade hand polished and anodized table pedestal. Height adjustment is assisted by a 230N gas spring. Locked by handles.

PTG3370M

The height adjustment (assisted by a gas spring) must be locked with the handles.

Type	Height (inch)	Base Ø (inch)	Max. load (lb) Extended	Max. load (lb) Retracted	Use
PTG3370M	13 ³ / ₁₆ - 27 ³ / ₁₆	12 ¹ / ₆₄	224.8	224.8	In- and outdoors



Comfort

Tables

These top quality parts and products in the V-Quipment table line are now available for a “mix and match to suit your needs”. By having the choice to combine shape, size, options and finish we hope to cater to your needs in every possible situation. We guarantee that all choices are fit for combination and that the result will always be a sturdy, high quality product which is easy to install. The use of corrosion resistant materials will make sure that the combination of your choice will stand the test of time.



Table top

Made from white synthetic material. With four cupholders incorporated.

Type	Top (inch)
TTR	Round, Ø 24
TTO	Oval, 17 ²³ / ₃₂ x 30 ¹ / ₈
TTRR	Rectangled, 18 ⁷ / ₁₆ x 30

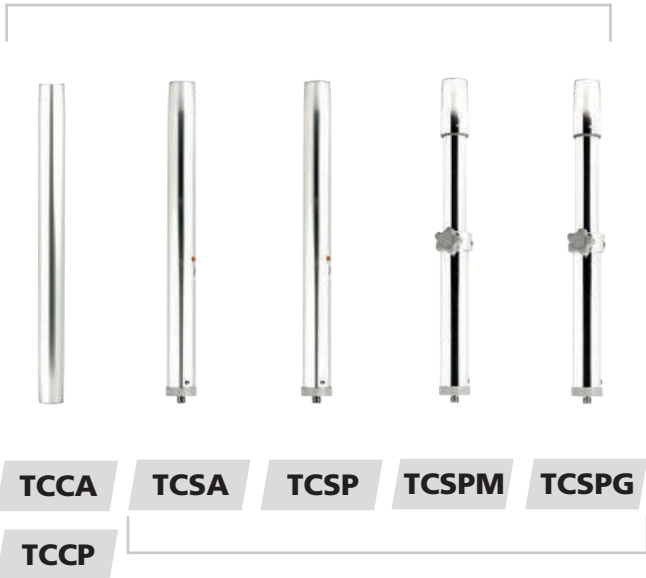
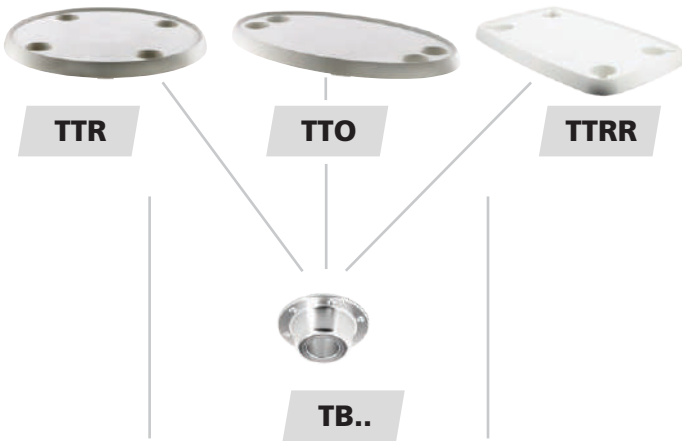
Swivel for table top

Type	Description
TBT	Table swivel anodised aluminium
TBTBA	Table swivel bright anodised aluminium

Table post

The table posts are made of high grade aluminium. Available in fixed- or adjustable heights.

Type	Description	Height (inch)
TCCA	Table post with tapered ends, anodized	26 ³¹ / ₃₂
TCCP	Table post with tapered ends, polished	26 ²⁷ / ₃₂
TCSA	Table post with screw connection, anodized	26 ²³ / ₃₂
TCSP	Table post with screw connection, polished and bright anodised	26 ²³ / ₃₂
TCSPM	Table post with screw connection, polished and bright anodised, manually adjustable	19 ¹¹ / ₁₆ - 27 ⁹ / ₁₆
TCSPG	Table post with screw connection, polished and bright anodised, gas adjustable	19 ¹¹ / ₁₆ - 27 ⁹ / ₁₆



Base

These (spare) bases can be mounted directly on the deck. In addition to being part of the “mix and match” program they can also be used as an extra table position or as replacement for existing pedestal bases. The bases are made of a marine grade anodized aluminium. The TBR and TBRBA have a unique locking system to ensure a sturdy table system.

Type	Description	Connection	Base Ø (inch)	Recessed depth (inch)	Cut out Ø (inch)	Weight (lb)
TBF	Anodised	Countersunk	6 ⁴⁷ / ₆₄	1 ³¹ / ₃₂	2 ²³ / ₆₄	1
TBFBA	Bright anodised	Countersunk	6 ⁴⁷ / ₆₄	1 ³¹ / ₃₂	2 ²³ / ₆₄	1
TBR	Anodised	Screw down	7 ¹ / ₆₄	-	-	0.8
TBRBA	Bright anodised	Screw down	7 ¹ / ₆₄	-	-	0.8

Deck equipment



H12.

H24.

H12D

H24D

Horns, electric

Being heard on the water is as important as being seen. That's why we offer a range of electric horns for all types of boats. These horns are compact, reliable, and made from high-quality materials such as stainless steel and chrome-plated ABS. All models are available in either 12 or 24 VDC.

Type	Horns	Pitch	Freq. (Hz)	Vol. (dB)	Length (inch)	Height (inch)	Width (inch)
H12L	1	Low	310	115	18 ⁵ / ₁₆	4 ¹⁵ / ₁₆	3 ¹⁵ / ₁₆
H12H	1	High	370	115	16 ⁷ / ₈	4 ¹⁵ / ₁₆	3 ¹⁵ / ₁₆
H24L	1	Low	310	115	18 ⁵ / ₁₆	4 ¹⁵ / ₁₆	3 ¹⁵ / ₁₆
H24H	1	High	370	115	16 ⁷ / ₈	4 ¹⁵ / ₁₆	3 ¹⁵ / ₁₆
H12D	2	High + Low	370 + 310	115	18 ⁵ / ₁₆	4 ¹⁵ / ₁₆	7 ⁷ / ₈
H24D	2	High + Low	370 + 310	115	18 ⁵ / ₁₆	4 ¹⁵ / ₁₆	7 ⁷ / ₈



C12L



C12D

Horn, electric, compact shell

Electric horns. Stainless steel (AISI 304). Available in 12 VDC.

Type	Horns	Pitch	Freq. (Hz)	Vol. (dB)	Length (inch)	Height (inch)	Width (inch)
C12L	1	Low	440	110	3 ¹ / ₄	2 ³ / ₁₆	4 ¹ / ₈
C12D	2	High + low	500 + 440	110	8 ¹ / ₁₆	2 ³ / ₁₆	3 ³ / ₈

Horns, electric, compact

Deluxe compact electric horns. Horn made of chromium plated ABS and stainless steel (AISI 304). Available in 12 or 24 VDC and with high pitch and/or low pitch sound. Supplied with relay.



TNA12.

TNA24.

Type	Horns	Pitch	Freq. (Hz)	Vol. (dB)	Length (inch)	Height (inch)	Width (inch)
TNA12L	1	Low	420	115	3 ¹³ / ₁₆	4 ³¹ / ₆₄	3 ⁴⁷ / ₆₄
TNA12H	1	High	480	115	3 ¹³ / ₁₆	4 ³¹ / ₆₄	3 ⁴⁷ / ₆₄
TNA24L	1	Low	420	115	3 ¹³ / ₁₆	4 ³¹ / ₆₄	3 ⁴⁷ / ₆₄
TNA24H	1	High	480	115	3 ¹³ / ₁₆	4 ³¹ / ₆₄	3 ⁴⁷ / ₆₄
TNA12D	2	High + Low	480 + 420	115	7 ⁴³ / ₆₄	4 ³¹ / ₆₄	3 ⁴⁷ / ₆₄
TNA24D	2	High + Low	480 + 420	115	7 ⁴³ / ₆₄	4 ³¹ / ₆₄	3 ⁴⁷ / ₆₄



Deck equipment



T12

Horns, electric, flush mount

Flush mounted electric horns. Synthetic housing, stainless steel (AISI 304) diaphragm. Available in 12 VDC. Includes white, black and chrome plated ABS cover.

Type	Horns	Pitch	Freq. (Hz)	Vol. (dB)	Cover length (inch)	Cover height (inch)	Build in depth (inch)
T12	1	Low	440	110	5 ⁷ / ₆₄	2 ¹ / ₁₆	3 ⁷ / ₆₄

Push-button for marine horn

This push button may operate marine horns, with a current consumption of 15 A maximum. Suitable for 12 and 24 VDC electrical installations.



HORNPB

Specifications

- Cut-out diameter: Ø 1⁷/₃₂" (31 mm)
- Outside dimensions: Ø 1¹/₂" (38 mm)
- Watertight to IP67

Type	Description
HORNPB	Horn push button, max 15A, 12/24 V

Ladders

Our boarding and swim ladders are made from high-quality stainless steel (AISI 316) and designed for safe and easy use onboard. Whether telescopic, folding, or a luxury deck-mounted model, all ladders are built to last and offer secure grip thanks to black synthetic step treads. They are easy to install, compact when stored, and suitable for many types of boats. All ladders are strength tested.

Ladder, telescopic

Stainless steel (AISI 316). Available with three or four steps and in two different widths. With synthetic black grips.



SLT3A

SLT4A

Type	Steps	L (extended) (inch)	L (retracted) (inch)	Width (c to c)* (inch)	Tube Ø (inch)	Weight (lb)	Max. load (lb)
SLT3A	3	34 ²¹ / ₃₂	14 ³ / ₄	10	3 ³ / ₄ / 6 ³ / ₆₄ / 1 ¹⁷ / ₆₄	5.9	661
SLT4A	4	45 ⁷ / ₈	15 ¹⁵ / ₁₆	10	3 ³ / ₄ / 6 ³ / ₆₄ / 1 ¹⁷ / ₆₄ / 1 ¹ / ₂	7.9	661
SLT3AW	3	34 ¹ / ₄	14 ³ / ₄	14	3 ³ / ₄ / 6 ³ / ₆₄ / 1 ¹⁷ / ₆₄	6.3	661
SLT4AW	4	45 ²¹ / ₃₂	16 ¹¹ / ₃₂	14	3 ³ / ₄ / 6 ³ / ₆₄ / 1 ¹⁷ / ₆₄ / 1 ¹ / ₂	8.8	661

* c to c means distance between tube centers

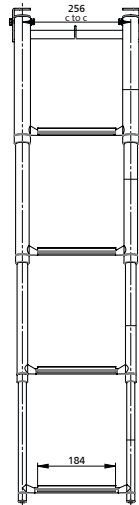
Deck equipment



SLT3PA



SLT4PA

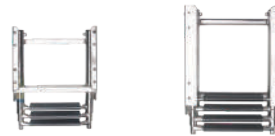


Ladder, telescopic platform

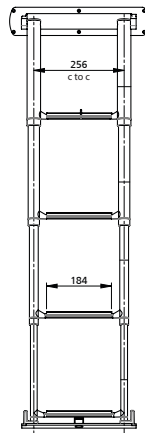
Stainless steel (AISI 316). Available with three or four steps. With synthetic black grips.

Type	Steps	L (extended) (inch)	L (retracted) (inch)	Width (c to c)* (inch)	Tube Ø (inch)	Weight (lb)	Max. load (lb)
SLT3PA	3	34 ⁷ / ₁₆	14 ⁹ / ₁₆	10	3/4 / 63/64 / 1 ¹⁷ / ₆₄	7.9	661
SLT4PA	4	45 ⁷ / ₈	16 ¹¹ / ₃₂	10	3/4 / 63/64 / 1 ¹⁷ / ₆₄ / 1 ¹ / ₂	11.2	661

* c to c means distance between tube centers



SLT4CA



Ladder, telescopic cassette

High gloss polished stainless steel (AISI 316). Available with four steps. With black synthetic grips.

Type	Steps	L (extended) (inch)	L (retracted) (inch)	Width (c to c)* (inch)	Tube Ø (inch)	Weight (lb)	Max. load (lb)
SLT4CA	4	45 ²¹ / ₃₂	0	10	3/4 / 63/64 / 1 ¹⁷ / ₆₄ / 1 ¹ / ₂	17.6	661

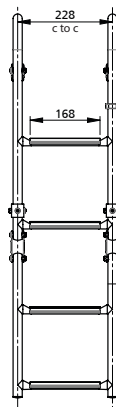
* c to c means distance between tube centers



SLFB3A



SLFB4A



Ladder, folding, deck mounted

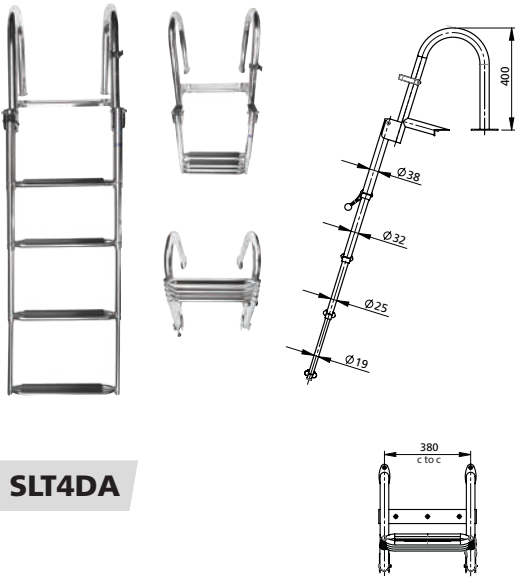
Stainless steel (AISI 316). Available with three or four steps with synthetic black grips.

Type	Steps	L (extended) (inch)	L (retracted) (inch)	Width (c to c)* (inch)	Tube Ø (inch)	Weight (lb)	Max. load (lb)
SLFB3A	3	26 ³¹ / ₂₁	14 ³ / ₄	9	55/64	1.8	385
SLFB4A	4	36 ⁷ / ₃₂	21 ²¹ / ₃₂	9	55/64	5.0	385

* c to c means distance between tube centers



Deck equipment



SLT4DA

Ladder, luxury, deck mounted

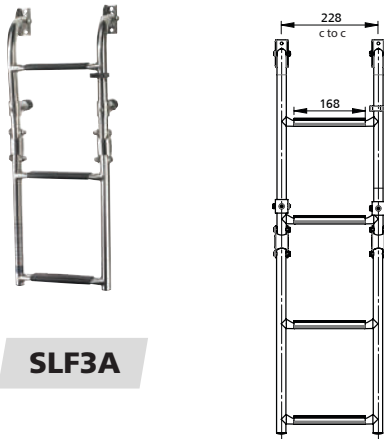
Telescopic swim ladder with four steps. Stainless steel (AISI 316). With black synthetic grips.

Heavy duty stainless steel construction with a L-angle bracket for extra support that goes across the edge of a deck. This luxury ladder extends 44¹/₈" (1120 mm) below the deck when it is unfolded.

- The handrails help you to climb on board easily
- The steps are covered with black synthetic grips to give extra safety with bare feet

Type	Steps	L (extended) (inch)	L (retracted) (inch)	Width (c to c)* (inch)	Tube Ø (inch)	Weight (lb)	Max. load (lb)
SLT4DA	4	63	18 ²⁹ / ₃₂	14	³ / ₄ / ⁶³ / ₆₄ / ¹⁷ / ₆₄ / 1 ¹ / ₂	18.7	661

* c to c means distance between tube centers



SLF3A

Ladder, folding, transom mounted

Stainless steel (AISI 316). Available with three or four steps. With synthetic black grips.

Type	Steps	L (extended) (inch)	L (retracted) (inch)	Width (c to c)* (inch)	Tube Ø (inch)	Weight (lb)	Max. load (lb)
SLF3A	3	24 ¹⁹ / ₃₂	13	9	⁵ / ₆₄	1.9	385
SLF4A	4	35 ⁵ / ₈	17 ¹⁷ / ₃₂	9	⁵ / ₆₄	11.4	385

* c to c means distance between tube centers



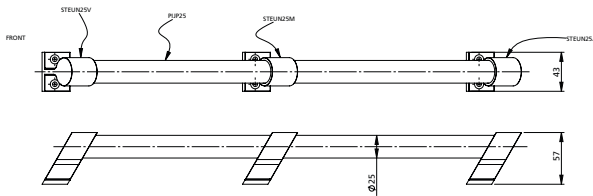
SLF4A

Deck equipment



PIJP

STEUN..



Handrail, stainless steel (AISI 316)

Rail pipe and rail fittings available in $25/32''$ ($\text{Ø} 20 \text{ mm}$) and $1''$ ($\text{Ø} 25 \text{ mm}$). Pipe is available per meter. Supports must be ordered separately, please see price list.

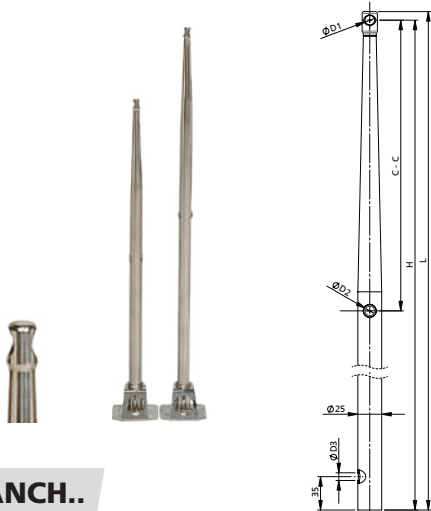
Type	Tube Ø (inch)	Wall thickness (inch)	Max. pipe length (inch)
PIJP	$25/32$	$1/16$	$3267/32$
PIJP25	$63/64$	$1/16$	$3267/32$

Type	Tube Ø (inch)	Support
STEUN20V	$25/32$	Front
STEUN20A	$25/32$	Rear
STEUN20M	$25/32$	Middle
STEUN25V	$63/64$	Front
STEUN25A	$63/64$	Rear
STEUN25M	$63/64$	Middle

Stanchions, stainless steel (AISI 316)

Tapered with two wire holes. Max. railing wire $3/8''$ (9.5 mm)

Supplied without the sockets.



STANCH..

Type	Length (inch)	Height (inch)	C - C (inch)	D1 (inch)	D2 (inch)	D3 (inch)	Hole spacing
STANCH61	$24\frac{1}{8}$	$24\frac{1}{64}$	12	10,1	10,1	8	2 wire holes at $12\frac{1}{64} / 24\frac{1}{64}$
STANCH75	$29\frac{1}{8}$	$29\frac{1}{2}$	$14\frac{1}{16}$	10,1	10,1	8	2 wire holes at $14\frac{1}{64} / 29\frac{1}{2}$

Suitable for STANCHPR + STANCHPS

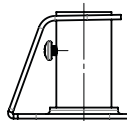
Stanchion sockets, stainless steel (AISI 316)

Specifications

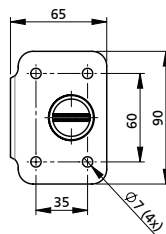
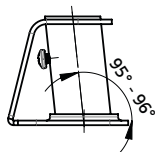
- Diameter: 1" (25 mm)
- 90° straight or with 6° angle



STANCHPR



STANCHPS



Type	Description
STANCHPR	Straight
STANCHPS	Angled

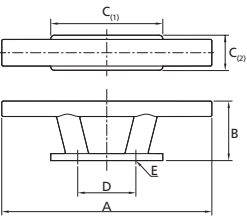
Suitable for STANCH61 + STANCH75



Deck equipment



TAURUS..



Taurus cleats

The Taurus cleats are solid, reliable, and easy to use. Made from high-gloss polished stainless steel (AISI 316), they are built to withstand harsh marine conditions. These cleats feature smooth edges for safe line handling and clean deck mounting. Most models are designed with hidden fasteners underneath for a sleek look. Whether you are securing a small boat or a larger vessel, there is a Taurus cleat to match your needs - with safe working loads from 575 kg up to 2620 kg.

Key features:

- Made of high-quality stainless steel (AISI 316)
- Polished surface
- Safe working loads up to 2620 kg
- Hidden fasteners on most models
- Several sizes and mounting styles available
- Easy to install and maintain

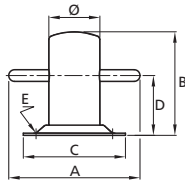
Type	Model	SWL* (kgf)	A (inch)	B (inch)	C ₍₁₎ x C ₍₂₎ (inch)	D (inch)	E (inch)
TAURUS01	A	575	5 ⁵¹ / ₆₄	1 ³¹ / ₃₂	3 ⁹ / ₁₆ x 1 ³ / ₁₆	1 ²⁷ / ₃₂	M8 (2x)
TAURUS02	A	900	7 ⁴⁹ / ₆₄	2 ²³ / ₆₄	4 ³ / ₄ x 1 ³ / ₈	2 ²³ / ₃₂	M10 (2x)
TAURUS03	A	1310	10 ⁹ / ₆₄	2 ⁶¹ / ₆₄	5 ⁴⁹ / ₃₂ x 1 ³⁷ / ₆₄	3 ¹⁷ / ₆₄	M12 (2x)
TAURUS04	A	2470	11 ¹³ / ₁₆	3 ¹¹ / ₃₂	6 ¹⁹ / ₆₄ x 1 ³¹ / ₃₂	3 ¹⁷ / ₆₄	M16 (2x)
TAURUS05	B	2470	11 ¹³ / ₁₆	3 ¹¹ / ₃₂	7 ⁷ / ₈ x 3 ¹¹ / ₃₂	3 ¹⁷ / ₆₄	M16 (2x)
TAURUS06**	C	2620	11 ¹³ / ₁₆	3 ¹¹ / ₃₂	7 ⁷ / ₈ x 3 ¹¹ / ₃₂	5 ¹ / ₈ x 2 ¹¹ / ₆₄	Ø 1/2 (4x)

* SWL = Safe working load

** Four holes in a rectangle as dimensioned by D. Holes are 90° countersunk.



ACHIL...



Bollard

Made of high-gloss polished stainless steel (AISI 316). Bollards type ACHILZ are suitable for direct welding to the deck. Dimensions are similar to ACHIL.

Type	SWL*	A (inch)	B (inch)	Ø (inch)	C (inch)	D (inch)	E (inch)
ACHIL080	620 kgf	4 ²² / ₃₂	3 ³⁵ / ₆₄	1 ³¹ / ₃₂	3 ⁷ / ₃₂ x 2 ⁹ / ₁₆	2 ⁷ / ₆₄	4 x Ø 1/4
ACHIL090	620 kgf	5 ¹ / ₈	3 ⁴⁷ / ₆₄	1 ³¹ / ₃₂	3 ⁹ / ₈ x 3 ⁵ / ₈	2 ⁷ / ₆₄	4 x Ø 1/4
ACHIL110	1150 kgf	6 ¹⁹ / ₆₄	4 ²³ / ₃₂	2 ²³ / ₆₄	4 ⁵¹ / ₆₄ x 3 ³³ / ₁₆	2 ⁷ / ₄	4 x Ø 1/4
ACHIL130	1150 kgf	7 ³ / ₃₂	5 ¹⁹ / ₃₂	2 ¹ / ₄	5 ²³ / ₆₄ x 4 ⁴¹ / ₆₄	3 ¹⁵ / ₆₄	4 x Ø 5/16
ACHIL150	1800 kgf	7 ⁷ / ₈	6 ⁴⁹ / ₆₄	3 ⁵ / ₃₂	6 ¹ / ₃₂ x 4 ³¹ / ₆₄	3 ¹⁵ / ₁₆	4 x Ø 13/32
ACHIL160	2620 kgf	10 ⁹ / ₆₄	7 ⁴⁹ / ₆₄	3 ³⁵ / ₆₄	6 ¹ / ₂ x 5 ⁹ / ₁₆	4 ²³ / ₃₂	4 x Ø 1/2
ACHIL080Z	620 kgf	4 ²² / ₃₂	3 ⁵ / ₃₂	1 ³¹ / ₃₂	-	1 ²¹ / ₃₂	-
ACHIL090Z	620 kgf	5 ¹ / ₈	3 ⁹ / ₁₆	1 ³¹ / ₃₂	-	1 ²⁷ / ₃₂	-
ACHIL110Z	1150 kgf	6 ¹⁹ / ₆₄	4 ⁵ / ₁₆	2 ²³ / ₆₄	-	2 ⁷ / ₈	-
ACHIL130Z	1150 kgf	7 ³ / ₃₂	5 ¹ / ₈	2 ¹ / ₄	-	2 ⁷ / ₄	-
ACHIL150Z	1800 kgf	7 ⁷ / ₈	5 ²⁹ / ₃₂	3 ⁵ / ₃₂	-	3 ¹⁵ / ₁₆	-
ACHIL160Z	2620 kgf	10 ⁹ / ₆₄	6 ⁷ / ₁₆	3 ³⁵ / ₆₄	-	4 ²³ / ₃₂	-

Type	Description
ACHIL090B	Bollard type Achilles 90, with bolt mounting

Bollard type ACHIL090B for small craft is fastened by means of two M8 bolts. Dimensions are similar to ACHIL090.

* SWL = Safe working load

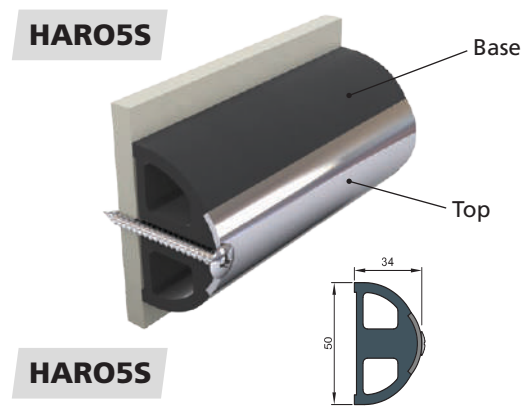
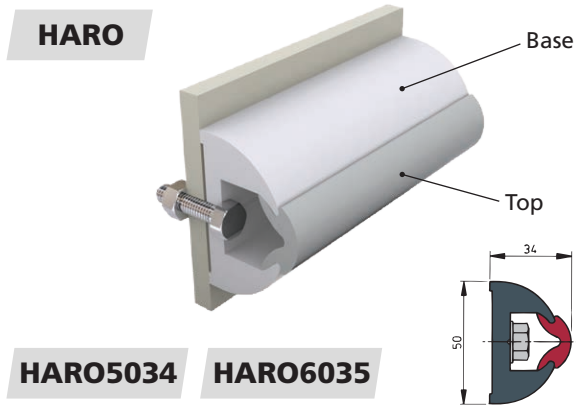


ACHIL...Z

Deck equipment

Rubbing strakes

Configure rubbing strakes/rub rails that really suit your style and vessel. Choose the desired base profile, select your favorite top profile and cap it off with one of our stylish end caps. Personalising your boat has never been that easy!



Base profile

Type	Colour	RAL code	Dimension (inch)	Length (m)
HARO5034	Dark grey	9004	1 ³¹ / ₃₂ X 1 ¹¹ / ₃₂	20
HARO5034L	Dark grey	9004	1 ³¹ / ₃₂ X 1 ¹¹ / ₃₂	30
HARO50W	Signal white	9003	1 ³¹ / ₃₂ X 1 ¹¹ / ₃₂	20
HARO50WL	Signal white	9003	1 ³¹ / ₃₂ X 1 ¹¹ / ₃₂	30
HARO6035	Dark grey	9004	2 ²³ / ₆₄ X 1 ³ / ₈	20
HARO6035L	Dark grey	9004	2 ²³ / ₆₄ X 1 ³ / ₈	30
HARO60W	Signal white	9003	2 ²³ / ₆₄ X 1 ³ / ₈	20
HARO60WL	Signal white	9003	2 ²³ / ₆₄ X 1 ³ / ₈	30

Base profile

Type	Colour	RAL code	Dimension (inch)	Length (m)
HARO55	Dark grey	9004	1 ³¹ / ₃₂ X 1 ¹¹ / ₃₂	20
HARO55L	Dark grey	9004	1 ³¹ / ₃₂ X 1 ¹¹ / ₃₂	30
HARO55W	Signal white	9003	1 ³¹ / ₃₂ X 1 ¹¹ / ₃₂	20
HARO55WL	Signal white	9003	1 ³¹ / ₃₂ X 1 ¹¹ / ₃₂	30

Top profile PVC

Type	Colour	RAL code	Length (m)	Type	Colour	RAL code	Length (m)
STRIPB	Cobalt blue	5013	20	STRIPG	Light grey	7035	20
STRIPBL	Cobalt blue	5013	30	STRIPGL	Light grey	7035	30
STRIPD	Dark grey	9004	20	STRIPR	Wine red	3004	20
STRIPDL	Dark grey	9004	30	STRIPRL	Wine red	3004	30

Note: actual product colour may vary from stated RAL codes.



End caps PVC

Type	Description
EHARO50B	Set end pieces black for rubbing strake type HARO50
EHARO50W	Set end pieces white for rubbing strake type HARO50
EHARO60B	Set end pieces black for rubbing strake type HARO60
EHARO60W	Set end pieces white for rubbing strake type HARO60



Top profile stainless steel

Type	Description
HARO20S	Stainless steel inlay, 10 x 2 m lengths
HARO30S	Stainless steel inlay, 15 x 2 m lengths



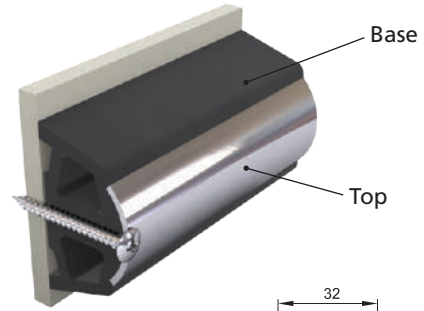
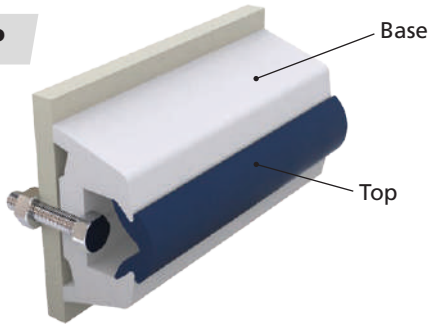
End caps stainless steel

Type	Description
HAROSE	Set of two stainless steel end pieces for rubbing strake type HARO55



Deck equipment

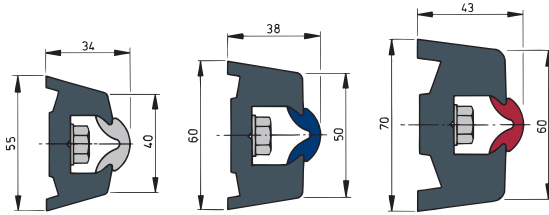
TRAP



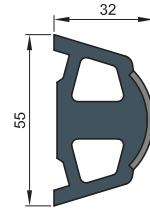
TRAP5534

TRAP6038

TRAP7043



TRAP55



Base profile

Type	Colour	RAL code	Dimension (inch)	Length (m)
TRAP5534	Dark grey	9004	2 ¹¹ / ₆₄ x 1 ¹¹ / ₃₂	20
TRAP5534L	Dark grey	9004	2 ¹¹ / ₆₄ x 1 ¹¹ / ₃₂	30
TRAP55W	Signal white	9003	2 ¹¹ / ₆₄ x 1 ¹¹ / ₃₂	20
TRAP55WL	Signal white	9003	2 ¹¹ / ₆₄ x 1 ¹¹ / ₃₂	30
TRAP6038	Dark grey	9004	2 ²³ / ₆₄ x 1 ¹ / ₂	20
TRAP6038L	Dark grey	9004	2 ²³ / ₆₄ x 1 ¹ / ₂	30
TRAP60W	Signal white	9003	2 ²³ / ₆₄ x 1 ¹ / ₂	20
TRAP60WL	Signal white	9003	2 ²³ / ₆₄ x 1 ¹ / ₂	30
TRAP7043	Dark grey	9004	2 ³ / ₄ x 1 ¹¹ / ₁₆	20
TRAP7043L	Dark grey	9004	2 ³ / ₄ x 1 ¹¹ / ₁₆	30
TRAP70W	Signal white	9003	2 ³ / ₄ x 1 ¹¹ / ₁₆	20
TRAP70WL	Signal white	9003	2 ³ / ₄ x 1 ¹¹ / ₁₆	30

Note: actual product colour may vary from stated RAL codes.

Base profile

Type	Colour	RAL code	Dimension (inch)	Length (m)
TRAP55	Dark grey	9004	2 ¹¹ / ₆₄ x 1 ¹¹ / ₃₂	20
TRAP55L	Dark grey	9004	2 ¹¹ / ₆₄ x 1 ¹¹ / ₃₂	30
TRAP55W	Signal white	9003	2 ¹¹ / ₆₄ x 1 ¹¹ / ₃₂	20
TRAP55WL	Signal white	9003	2 ¹¹ / ₆₄ x 1 ¹¹ / ₃₂	30



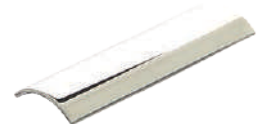
Top profile PVC

Type	Colour	RAL code	Length (m)	Type	Colour	RAL code	Length (m)
STRIPB	Cobalt blue	5013	20	STRIPG	Light grey	7035	20
STRIPBL	Cobalt blue	5013	30	STRIPGL	Light grey	7035	30
STRIPD	Dark grey	9004	20	STRIPR	Wine red	3004	20
STRIPDL	Dark grey	9004	30	STRIPRL	Wine red	3004	30



Top profile stainless steel

Type	Description
TRAP20S	Stainless steel inlay, 10 x 2 m lengths
TRAP30S	Stainless steel inlay, 15 x 2 m lengths



End caps PVC

Type	Description
ETRAP55B	Set end pieces black for rubbing strake type TRAP55
ETRAP55W	Set end pieces white for rubbing strake type TRAP55
ETRAP60B	Set end pieces black for rubbing strake type TRAP60
ETRAP60W	Set end pieces white for rubbing strake type TRAP60
ETRAP70B	Set end pieces black for rubbing strake type TRAP70
ETRAP70W	Set end pieces white for rubbing strake type TRAP70



End caps stainless steel

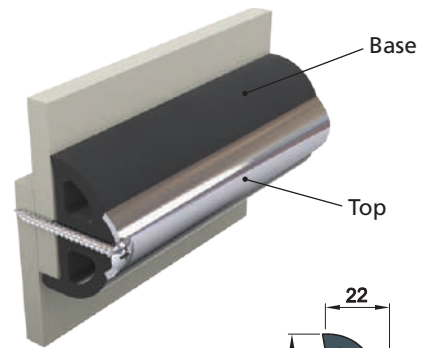
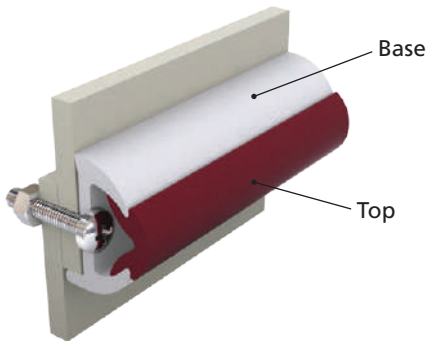
Type	Description
TRAPSE	Set of two stainless steel end pieces for rubbing strake type TRAP55



Deck equipment

Rubbing strake, ideal for GRP boats

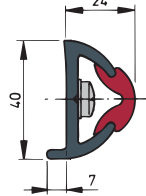
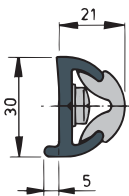
POLY



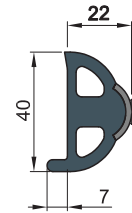
POLY3026

POLY3528

POLY4031



POLY4S



Base profile

Type	Colour	RAL code	Dimension (inch)	Length (m)
POLY3026	Dark grey	9004	1 ³ / ₁₆ X 1 ¹ / ₃₂	20
POLY3026L	Dark grey	9004	1 ³ / ₁₆ X 1 ¹ / ₃₂	30
POLY30W	Signal white	9003	1 ³ / ₁₆ X 1 ¹ / ₃₂	20
POLY30WL	Signal white	9003	1 ³ / ₁₆ X 1 ¹ / ₃₂	30
POLY3528	Dark grey	9004	1 ³ / ₈ X 1 ⁷ / ₆₄	20
POLY3528L	Dark grey	9004	1 ³ / ₈ X 1 ⁷ / ₆₄	30
POLY35W	Signal white	9003	1 ³ / ₈ X 1 ⁷ / ₆₄	20
POLY35WL	Signal white	9003	1 ³ / ₈ X 1 ⁷ / ₆₄	30
POLY4031	Dark grey	9004	1 ³ / ₆₄ X 1 ⁷ / ₃₂	20
POLY4031L	Dark grey	9004	1 ³ / ₆₄ X 1 ⁷ / ₃₂	30
POLY40W	Signal white	9003	1 ³ / ₆₄ X 1 ⁷ / ₃₂	20
POLY40WL	Signal white	9003	1 ³ / ₆₄ X 1 ⁷ / ₃₂	30

Base profile

Type	Colour	RAL code	Dimension (inch)	Length (m)
POLY4S	Dark grey	9004	1 ³ / ₆₄ X 1 ⁷ / ₃₂	20
POLY4SL	Dark grey	9004	1 ³ / ₆₄ X 1 ⁷ / ₃₂	30
POLY4SW	Signal white	9003	1 ³ / ₆₄ X 1 ⁷ / ₃₂	20
POLY4SWL	Signal white	9003	1 ³ / ₆₄ X 1 ⁷ / ₃₂	30

Top profile PVC

Type	Colour	RAL code	Length (m)	Type	Colour	RAL code	Length (m)
STRIPB	Cobalt blue	5013	20	STRIPG	Light grey	7035	20
STRIPBL	Cobalt blue	5013	30	STRIPGL	Light grey	7035	30
STRIPD	Dark grey	9004	20	STRIPR	Wine red	3004	20
STRIPDL	Dark grey	9004	30	STRIPRL	Wine red	3004	30

Note: actual product colour may vary from stated RAL codes.

End caps PVC

Type	Description
EPOLY40B	Set end pieces black for rubbing strake type POLY40
EPOLY40W	Set end pieces white for rubbing strake type POLY40
EPOLY30B	Set end pieces black for rubbing strake type POLY30
EPOLY30W	Set end pieces white for rubbing strake type POLY30
EPOLY35B	Set end pieces black for rubbing strake type POLY35
EPOLY35W	Set end pieces white for rubbing strake type POLY35



Top profile stainless steel

Type	Description
POLY20S	Stainless steel inlay, 10 x 2 m lengths
POLY30S	Stainless steel inlay, 15 x 2 m lengths



End caps stainless steel

Type	Description
POLYSE	Set of two stainless steel end pieces for rubbing strake type POLY4S



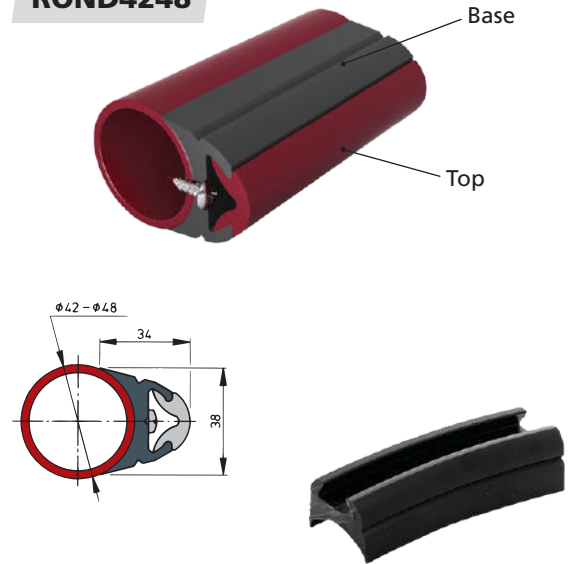
Deck equipment

Rubbing strake for steel boats

STE4838



ROND4248



Base profile

Type	Colour	RAL code	Dimension (inch)	Length (m)
STE4838	Dark grey	9004	1 ⁵⁷ / ₆₄ X 1 ¹ / ₂	20
STE4838L	Dark grey	9004	1 ⁵⁷ / ₆₄ X 1 ¹ / ₂	30

Base profile

Type	Colour	RAL code	Dimension (inch)	Length (m)
ROND4248	Dark grey	9004	Round 1 ²¹ / ₃₂ - 1 ⁵⁷ / ₆₄	20
ROND4248L	Dark grey	9004	Round 1 ²¹ / ₃₂ - 1 ⁵⁷ / ₆₄	30

Top profile PVC

Type	Colour	RAL code	Length (m)	Type	Colour	RAL code	Length (m)
STRIPB	Cobalt blue	5013	20	STRIPG	Light grey	7035	20
STRIPBL	Cobalt blue	5013	30	STRIPGL	Light grey	7035	30
STRIPD	Dark grey	9004	20	STRIPR	Wine red	3004	20
STRIPDL	Dark grey	9004	30	STRIPRL	Wine red	3004	30



Note: actual product colour may vary from stated RAL codes.

Locks and stays



UITSTEL..

Stainless steel (AISI 316) hatch adjusters

Stainless steel (AISI 316). With brackets and knob.

Type	Min. length (inch)	Max. length (inch)
UITSTELPH	7 ⁶¹ / ₆₄	14 ³¹ / ₆₄
UITSTELFE	10 ⁹ / ₃₂	19 ⁷ / ₃₂

Locks and stays

Gas struts

There are many applications on board where the assistance of a gas strut will reduce the effort required. For example, heavy deck hatches or locker doors. VETUS gas struts are specifically designed for marine use. All external parts are made of stainless steel (AISI 316) or synthetic materials and the special seals guarantee long service life. When fitted vertically, make sure that the piston rod is pointing downward.

These gas-filled cylinders are supplied complete with fixings.

In order to calculate the maximum admissible weight which can be supported, the following data is required:

F = Force of the gas strut in N/m (see table)

G = Weight of the object to be lifted in N

W = Width of the object to be lifted in mm

The calculation goes as follows:

$$\text{Force in N/m} = \frac{G \times \frac{1}{2}W}{1000}$$

Example:

The weight (G) of a hatch is 11 kg (≈110 N). The width (W) of the hatch is 600 mm. This means that:

$$\frac{110 \times 300}{1000} = 33 \text{ N/m is needed to hold the hatch open.}$$

In the table we find that GASSP44 delivers 28.8 N/m, which means that an additional 4,3 N/m will have to be applied by the user.

In the case of 2 gas struts GASSP38, $18,9 \times 2 = 37,8$ N/m is delivered by the struts. In this case the user will have to push the hatch down with a force of 4,8 N/m.



GASSP..

Type	Force in N	Stroke S in mm	Force (F) in N/m	Length L in mm	Length L+S in mm
GASSP25	180 (40.5)	74 (2 7/8")	13,3	180 (7 1/8")	254 (10")
GASSP30	135 (30.35)	85 (3 3/8")	11,5	220 (8 5/8")	305 (12")
GASSP38	135 (30.35)	140 (5 1/2")	18,9	240 (9 1/2")	380 (15")
GASSP44	180 (40.5)	160 (6 1/4")	28,8	280 (11")	440 (17 1/8")
GASSP51	270 (60.7)	205 (8 1/16")	55,3	305 (12")	510 (20")

Accessories

Marine binoculars

These binoculars are specially designed for marine applications and the materials are carefully selected for their resistance to wind and weather. The lens coatings are specifically chosen for use on the water, where bright light, glare and UV radiation should be taken into account.

Robust, lightweight binoculars

The durable, lightweight housing and the relatively compact size make the BINO1 the ideal binoculars to have at hand at all times. The BK7 prisms and multi-coated lenses deliver very sharp images and the housing is fitted with a non-slip grip.

- BK7 prisms
- Magnification: 7x; Lens Ø 1 1/32" - 50 mm
- Water repellent
- Fixed focus and central variable focus
- Flexible eyecups for use with (sun) glasses
- Non-slip grip
- Robust housing
- Includes bag and strap and caps
- Non waterproof



BINO1

High-quality, waterproof binoculars

The BAK4 prisms create the sharpest and clearest images possible in a binocular in this price range. All lenses are multi-coated for long lasting protection. The superior prisms combined with large lens diameters make these binoculars very suitable for use in difficult conditions such as twilight or bad weather. The binoculars have a robust soft touch casing and ergonomic design making them easy and stable to hold.

- Superior quality prisms (BAK4) for the brightest images
- Magnification: 7x; Lens Ø 1 1/32" - 50 mm
- Waterproof and fog-free (filled with nitrogen)
- Fixed focus and central variable focus
- Flexible eyecups for use with (sun) glasses
- Ergonomic design and non-slip grip
- Includes bag and floatation strap and caps
- Waterproof



BINO2

BK7 and BAK4 refer to the type of glass used for the prisms. The prisms bend the light image inside the binoculars. BK7 is borosilicate and BAK4 barium crown glass. The type of glass affects the sharpness and clarity of the image, BAK4 produces the best images with negligible distortion, whilst BK7 can result in a very slightly distorted image.



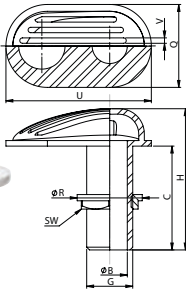
Marine fittings, stainless steel (AISI 316)

V-Equipment marine fittings are designed for reliability and made of high grade materials. Failure of submerged fittings can cause major problems, therefore we advise the use of stainless steel (AISI 316) or bronze fittings (ISO CuPb5Sn5Zn5) for applications in which the fittings are in continuous contact with salt water.

Water scoop



QJ05M.-NN



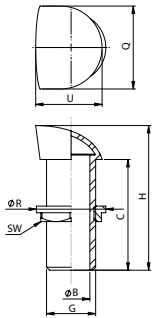
Type	Thread (G)* inch	ØB (mm)	H (mm)	C (mm)	Q (mm)	ØR (mm)	SW (mm)	U (mm)	V (mm)	Weight (lb)
QJ05MC-NN	3/8	11	90	66	44	26	22	81	2,5	0.44
QJ05MD-NN	1/2	12	88	65	44	32	25	81	2,5	0.55
QJ05ME-NN	3/4	19	107	82	56	41	32	104	3	0.88
QJ05MF-NN	1	26	105	76	60	47	38	106	3,2	0.99
QJ05MG-NN	1 1/4	33	103	78	64	57	49	116	2,8	1.21
QJ05MH-NN	1 1/2	39	108	82	70	72	53	133	2,5	1.61
QJ05MI-NN	2	51	122	91	86	83	68	152	3.6	2.20

* According to ISO 228/1-G..B

Air vent



QH05M.-NN



Polished surface, without flame arrester gauze.

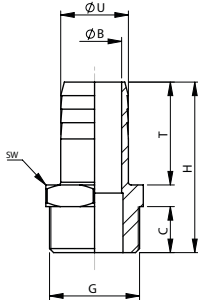
Type	Thread (G)* inch	ØB (mm)	H (mm)	C (mm)	Q (mm)	ØR (mm)	SW (mm)	U (mm)	Weight (lb)
QH05MD-NN	1/2	16	83	65	38	32	25	38	0.29
QH05ME-NN	3/4	21	86	65	43	41	32	41	0.37
QH05MF-NN	1	27	98	75	50	47	38	58	0.57
QH05MG-NN	1 1/4	36	108	79	57	57	49	65	0.88
QH05MH-NN	1 1/2	42	114	82	64	72	53	75	1.10
QH05MI-NN	2	53	134	89	81	83	68	97	2.10

* According to ISO 228/1-G..B

Hose connector



QA05M.-..

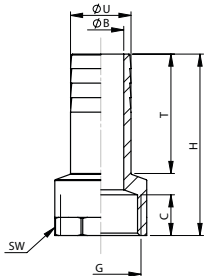


Type	Thread (G)* inch	ØU (mm)	ØB (mm)	H (mm)	C (mm)	T (mm)	Weight (lb)
QA05MC-15	3/8	15	9	45	12,5	25	0.07
QA05MD-12	1/2	12	9	50	16	26	0.20
QA05MD-15	1/2	15	11	54	14,5	31	0.09
QA05MD-20	1/2	20	14	58	15	32	0.13
QA05ME-20	3/4	20	15,5	56	17	31	0.15
QA05ME-25	3/4	25	20	63	17	37	0.20
QA05MF-25	1	25	20,5	67	19	39,5	0.26
QA05MF-30	1	30	25	70	19	43	0.31
QA05MG-32	1 1/4	32	27	76	21	45	0.37
QA05MG-35	1 1/4	35	29,5	76	20,5	45	0.44
QA05MG-38	1 1/4	38	30	75	20,5	45	0.44
QA05MH-38	1 1/2	38	33,5	81,5	22	48	0.90
QA05MH-45	1 1/2	45	39	86	22	52,5	0.55
QA05MI-50	2	50	44	98,6	26	59,5	0.90

Hose connector



QA05F.-..

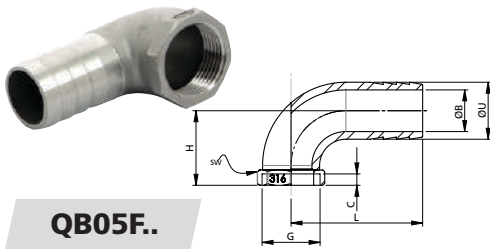


Type	Thread (G)* inch	ØU (mm)	ØB (mm)	H (mm)	C (mm)	T (mm)	Weight (lb)
QA05FC-15	3/8	15	10	41	11,5	26,5	0.09
QA05FD-15	1/2	15	10	48	15,5	27	0.13
QA05FD-20	1/2	20	15	48	15,5	30	0.13
QA05FE-20	3/4	20	14	56	16	34	0.20
QA05FF-25	1	25	18,5	63	19	37,5	0.31
QA05FG-35	1 1/4	35	28	69	21	42	0.66
QA05FG-40	1 1/4	40	34	69	21	42	0.71
QA05FH-45	1 1/2	45	38	76	21,5	50	0.90
QA05FI-50	2	50	42	90,5	24	59,5	1.12

* According to ISO 228/1-G..

Marine fittings, stainless steel (AISI 316)

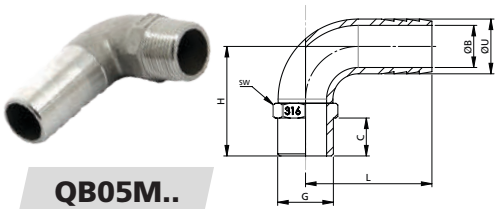
Hose connector 90°



QB05F..

Type	Thread (G)* inch	ØU (mm)	ØB (mm)	C (mm)	L (mm)	H (mm)	SW (mm)	Weight (lb)
QB05FD-19	1/2	19	15	11	48	21	27	0.19
QB05FE-25	3/4	25	19	11	57	26	32	0.33
QB05FF-30	1	30	24	13	65	30	35	0.53
QB05FH-39	1 1/2	39	33	16	84	43	55	0.82
QB05FH-50	1 1/2	50	43	16	84	43	55	1.19

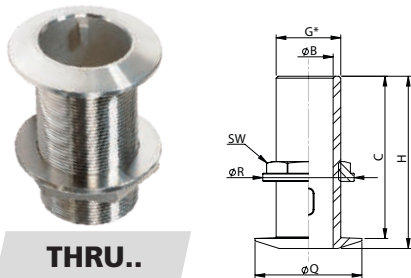
Hose connector 90°



QB05M..

Type	Thread (G)* inch	ØU (mm)	ØB (mm)	C (mm)	L (mm)	H (mm)	SW (mm)	Weight (lb)
QB05MD-20	1/2	20	15	15	54	39	23	0.24
QB05ME-25	3/4	25	19	17	66	46	29	0.41
QB05MF-30	1	30	24	18	73	51	35	0.59
QB05MG-38	1 1/4	38	31	21	82	57	44	0.83

Thru-hull - Chamfered



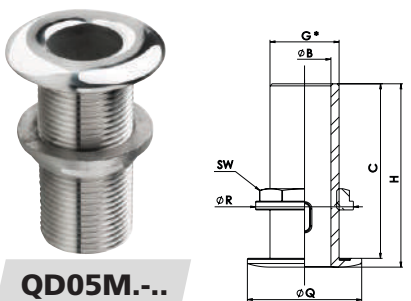
THRU..

Machined surface

Type	Thread (G)* inch	ØB (mm)	H (mm)	C (mm)	ØQ (mm)	ØR (mm)	SW (mm)	Weight (lb)
THRU1/2S	1/2	15	60	52	46	34	27	0.33
THRU3/4S	3/4	20	72	63	51	47	36	0.55
THRU1S	1	26	79	71	54	54	42	0.77
THRU11/4S	1 1/4	33	86	77	70	68	53	1.43
THRU11/2S	1 1/2	39	97	88	70	72	60	1.32
THRU2S	2	52	109	101	88	88	74	1.98

* According to ISO 228/1-G..B

Thru-hull - Rounded



QD05M-...

Polished surface

Type	Thread (G)* inch	ØB (mm)	H (mm)	C (mm)	ØQ (mm)	ØR (mm)	SW (mm)	Weight (lb)
QD05MC-NN	3/8	11	57	53	35	26	22	0.18
QD05MD-NN	1/2	15	63	59	39	32	25	0.22
QD05ME-NN	3/4	20	75	70	49	41	32	0.49
QD05MF-NN	1	25	79	73	55	47	38	0.57
QD05MG-NN	1 1/4	35	84	79	63	57	49	0.77
QD05MH-NN	1 1/2	40	84	79	71	72	53	1.10
QD05MI-NN	2	52	101	97	85	83	68	1.65

* According to ISO 228/1-G..B

Thru-hull - Rounded



QF05M-...

Polished surface

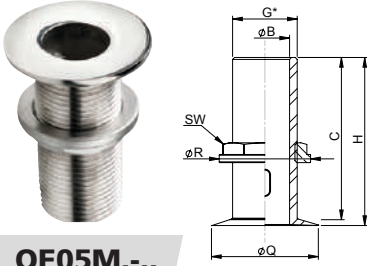
Type	Thread (G)* inch	ØU (mm)	ØB (mm)	H (mm)	C (mm)	ØQ (mm)	ØR (mm)	SW (mm)	T (mm)	Weight (lb)
QF05MC-14	3/8	14	11	59	55	35	26	22	20	0.18
QF05MD-18	1/2	18	15	65	60	39	32	25	24	0.24
QF05ME-23	3/4	23	20	75	71	49	41	32	24	0.39
QF05MF-29	1	29	25	79	73	54	47	38	30	0.53
QF05MG-38	1 1/4	38	35	85	80	63	57	49	30	0.66
QF05MH-44	1 1/2	44	40	87	81	71	72	53	30	0.97
QF05MI-55	2	55	52	100	95	85	83	68	40	1.43

* According to ISO 228/1-G..B



Marine fittings, stainless steel (AISI 316)

Thru-hull - Flush



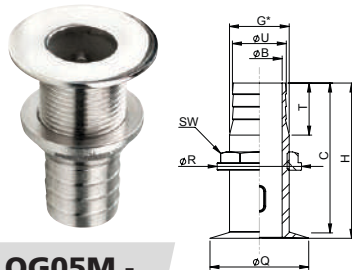
QE05M-...

Polished surface

Type	Thread (G)* (inch)	ØB (mm)	H (mm)	C (mm)	ØQ (mm)	ØR (mm)	SW (mm)	Weight (lb)
QE05MC-NN	3/8	11	54	51	32	26	22	0.15
QE05MD-NN	1/2	15	62	58	37	32	25	0.22
QE05ME-NN	3/4	20	72	66	48	41	32	0.44
QE05MF-NN	1	26	76	70	55	47	38	0.55
QE05MG-NN	1 1/4	34	79	73	64	57	49	0.77
QE05MH-NN	1 1/2	38	81	76	70	72	53	1.10
QE05MI-NN	2	50	89	84	81	83	68	1.65

* According to ISO 228/1-G..B

Thru-hull - Flush



QG05M-...

Polished surface

Type	Thread (G)* (inch)	ØU (mm)	ØB (mm)	H (mm)	C (mm)	ØQ (mm)	ØR (mm)	SW (mm)	T (mm)	Weight (lb)
QG05MC-15	3/8	15	11	54	51	33	26	22	23	0.15
QG05MD-18	1/2	18	15	62	58	37	32	25	24	0.18
QG05ME-22	3/4	22	20	71	65	48	41	32	27	0.35
QG05MF-29	1	29	26	76	70	56	47	38	28	0.55
QG05MG-38	1 1/4	38	34	79	73	64	57	49	30	0.66
QG05MH-43	1 1/2	43	38	82	76	69	72	53	35	0.99
QG05MI-55	2	55	50	89	84	81	83	68	40	1.54

* According to ISO 228/1-G..B

Ball valve



BV..

In a number of countries it is a legal requirement that the toilet or holding tank outlet can be locked to prevent discharge of black water in port. Therefore these stainless steel (AISI 316) ball valves can be padlocked if required.

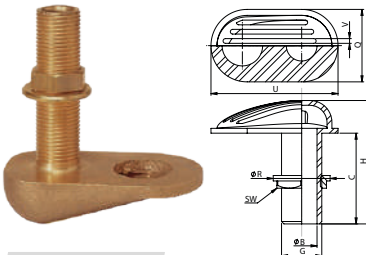
The padlock itself is not supplied. These ball valves are suitable for diesel oil, gasoline, water and sea water.

Type	Thread (G)* (inch)	Thread length (mm)	Bore	Normal Press (bar)	Working temp (° C)	Dimensions (mm)	Weight (lb)
BV1/2	1/2	14	Full Bore	69	-20 - +160	130x65x35	0.66
BV3/4	3/4	16	Full Bore	69	-20 - +160	150x80x40	1.10
BV1	1	19	Full Bore	69	-20 - +160	160x85x50	1.76
BV1 1/4	1 1/4	19	Full Bore	69	-20 - +160	195x110x60	2.54
BV1 1/2	1 1/2	20	Full Bore	69	-20 - +160	230x125x70	4.19
BV2	2	22	1 59/64	69	-20 - +160	260x140x80	5.73

* According to ISO 228/1-G..

Marine fittings, bronze (ISO CuPb5Sn5Zn5)

Water scoop



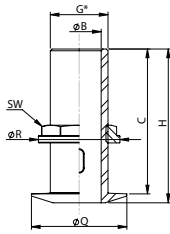
WCAPB..

Type	Thread (G)* (inch)	ØB (mm)	H (mm)	C (mm)	Q (mm)	ØR (mm)	SW (mm)	U (mm)	V (mm)	Weight (lb)
WCAPB1/2	1/2	15	96	73	50	38	25	91	4	0.75
WCAPB3/4	3/4	19	102	78	58	48	32	103	4	1.10
WCAPB1	1	25	109	83	61	53	39	106	4	1.34
WCAPB1 1/4	1 1/4	35	117	90	65	64	50	118	4	1.65
WCAPB1 1/2	1 1/2	38	129	100	70	70	55	131	4	2.09

* According to ISO 228/1-G..B

Marine fittings, bronze (ISO CuPb5Sn5Zn5)

Thru-hull - Chamfered

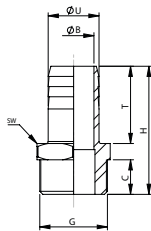


THRUB..

Type	Thread (G)* (inch)	ØB (mm)	H (mm)	C (mm)	ØQ (mm)	ØR (mm)	SW (mm)	Weight (lb)
THRUB1/2	1/2	15	64	59	39	38	25	0.33
THRUB3/4	3/4	19	70	65	48	48	32	0.51
THRUB1	1	25	89	83	56	54	39	0.88
THRUB11/4	1 1/4	34	82	76	65	64	49	0.99
THRUB11/2	1 1/2	39	100	93	72	70	55	1.38

* According to ISO 228/1-G..B

Hose connector



HPB..

Type	Thread (G)* (inch)	ØU (mm)	ØB (mm)	H (mm)	C (mm)	SW (mm)	T (mm)	Weight (lb)
HPB3/8	3/8	13	9	46	10	19	30	0.04
HPB1/2	1/2	13	10	51	13	23	30	0.13
HPB3/4	3/4	20	15	53	14	28	32	0.18
HPB1	1	25	20	62	15	36	38	0.37
HPB11/4	1 1/4	31	26	67	16	45	42	0.55
HPB11/2	1 1/2	37	32	72	18	52	45	0.66

* According to ISO 228/1-G..B

Manifold



MAN.G..

V-Quipment fluid manifolds enable a number of pipes to be connected to a single thru-hull fitting. These manifolds are made of seawater resistant bronze (ISO CuZn35Al1). They may also be connected to an underwater skin fitting with ball valve for raw water intake. It is not recommended to connect multiple engines or generating sets to one raw water intake.

Type	Main connections (M/F) (G)* (inch)	Connections (F) (G)* (inch)
MAN2G1/2	3/4	2 x 1/2
MAN3G1/2	3/4	3 x 1/2
MAN2G3/4	1	2 x 3/4
MAN3G3/4	1	3 x 3/4

* According to ISO 228/1-G..B

Ball valve



BVB..

Ball valve, bronze body CuSn5Zn5Pb5/CC491K

Type	Thread (G)* Female	Bore	Working Press (bar)	Working temp. (°C)	Dimensions (hxbxd)	Weight (lb)
BVB1/2	1/2	Full Bore	32	-10 - +120	120x60x40	0.62
BVB3/4	3/4	Full Bore	32	-10 - +120	140x70x40	0.84
BVB1	1	Full Bore	32	-10 - +120	150x80x50	1.32
BVB11/4	1 1/4	Full Bore	32	-10 - +120	175x98x60	2.09
BVB11/2	1 1/2	Full Bore	32	-10 - +120	180x110x75	2.87

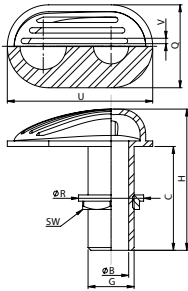
* According to ISO 228/1-G..

For use in (heavily polluted) salt water. We do not recommend the use of these ball valves.



Marine fittings, brass

Water scoop**



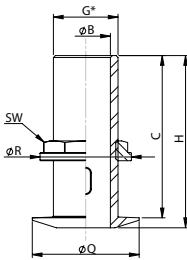
WCAP..

Type	Thread (G)* (inch)	ØB (mm)	H (mm)	C (mm)	Q (mm)	ØR (mm)	SW (mm)	U (mm)	V (mm)	Weight (lb)
WCAP1/2	1/2	15	96	72	49	38	26	91	3	0.66
WCAP3/4	3/4	19	103	77	58	48	32	105	3	0.99
WCAP1	1	26	104	76	61	55	38	108	3	1.21
WCAP11/4	1 1/4	26	104	78	61	55	38	108	3	1.43
WCAP11/2	1 1/2	39	113	82	72	72	56	134	3	1.98
WCAP2	2	51	126	91	89	88	68	156	3	3.31
WCAP21/2	2 1/2	65	155	112	113	113	92	198	5	5.29
WCAP3	3	77	134	134	129	120	105	238	5	8.60

* According to ISO 228/1-G..B

** For continuous immersion in salt water, we advise **against** the use of brass fittings.

Thru-hull - Chamfered**



DOORB..

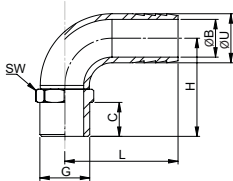
Machined surface

Type	Thread (G)* (inch)	ØB (mm)	H (mm)	C (mm)	ØQ (mm)	ØR (mm)	SW (mm)	Weight (lb)
DOORB3/8	3/8	11	58	53	34	36	22	0.44
DOORB1/2	1/2	15	64	58	40	39	25	0.55
DOORB3/4	3/4	19	72	66	49	49	32	0.55
DOORB1	1	25	77	70	56	56	40	0.77
DOORB11/4	1 1/4	34	83	76	65	66	50	0.99
DOORB11/2	1 1/2	39	84	78	72	72	56	1.32
DOORB2	2	50	102	94	84	84	68	1.98
DOORB21/2	2 1/2	65	132	123	110	111	91	3.75
DOORB3	3	76	150	140	127	124	105	5.51

* According to ISO 228/1-G..B

** For continuous immersion in salt water, we advise **against** the use of brass fittings.

Hose connector 90°**



HPM..B

Type	Thread (G)* (inch)	ØU (mm)	ØB (mm)	H (mm)	C (mm)	SW (mm)	L (mm)	Weight (lb)
HPM1/2B	1/2	13	8	37	15	25	48	0.17
HPM3/4B	3/4	19	12	47	16	30	50	0.33
HPM1B	1	25	19	58	20	37	58	0.57
HPM11/4B	1 1/4	32	24	67	20	50	70	0.99
HPM11/2B	1 1/2	38	29	70	21	55	77	1.26

* According to ISO 228/1-G..B

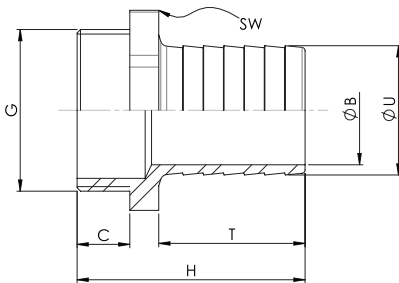
** For continuous immersion in salt water, we advise **against** the use of brass fittings.

Marine fittings, brass

Hose connector**



SLP..

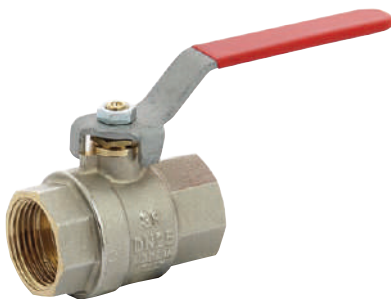


Type	Thread (G)* (inch)	ØU (mm)	ØB (mm)	H (mm)	C (mm)	SW (mm)	T (mm)	Weight (lb)
SLP1/408	¼	8	5	39	9	16	25	0.04
SLP1/416	¼	16	9	44	9	16	30	0.06
SLP3/810	¾	10	7	46	10	19	30	0.06
SLP3/815	¾	15	11	46	10	19	30	0.06
SLP1/213	½	13	9	48	12	22	30	0.08
SLP1/216	½	16	12	48	12	22	30	0.08
SLP1/219	½	19	15	50	12	22	32	0.11
SLP3/416	¾	16	12	49	12	30	30	0.13
SLP3/419	¾	19	14	51	12	30	32	0.17
SLP3/425	¾	25	20	57	12	30	38	0.19
SLP125	1	25	20	59	13	36	38	0.26
SLP132	1	32	27	62	13	36	42	0.30
SLP11/432	1¼	32	27	64	14	44	42	0.39
SLP11/438	1¼	38	32	67	14	45	45	0.44
SLP11/238	1½	38	32	67	16	52	43	0.51
SLP11/245	1½	45	39	73	16	52	48	0.50
SLP251	2	50	44	75	16	65	50	0.79
SLP21/260	2½	60	53	82	18	79	52	1.25
SLP376	3	76	69	96	20	93	64	1.85

* According to ISO 228/1-G..B

** For continuous immersion in salt water, we advise **against** the use of brass fittings.

Ball valve**



KRAAN..

Nickel plated brass, suitable for water and diesel oil.

Type	Thread (G)* Female (inch)	Bore	Working Press (bar)	Working temp (° C)	Dimensions (hxbxd)	Weight (lb)
KRAAN1/4	¼	Full Bore	50	-20 - +170	105x50x24	0.24
KRAAN3/8	¾	Full Bore	50	-20 - +170	105x50x24	0.30
KRAAN1/2	½	Full Bore	50	-20 - +170	118x58x32	0.37
KRAAN3/4	¾	Full Bore	30	-20 - +170	118x64x39	0.57
KRAAN1	1	Full Bore	40	-20 - +170	154x86x48	0.88
KRAAN11/4	1¼	Full Bore	40	-20 - +170	154x86x58	1.32
KRAAN11/2	1½	Full Bore	32	-20 - +170	190x100x69	1.98
KRAAN2	2	Full Bore	32	-20 - +170	200x120x84	3.19
KRAAN21/2	2½	Full Bore	25	-20 - +170	270x145x102	6.61
KRAAN3	3	Full Bore	16	-20 - +170	290x170x115	9.14

* According to ISO 228/1-G..

** For continuous immersion in salt water, we advise **against** the use of brass fittings.

Ball valve 3-way**



KRA..L

Nickel plated brass, suitable for water and diesel oil.

Type	Thread (G)* Female (inch)	Bore	Working Press (bar)	Working temp (° C)	Dimensions (hxbxd)	Weight (lb)
KRA1/2L	½	Full Bore	40	-10 - +100	80x160x70	1.43
KRA3/4L	¾	Full Bore	40	-10 - +100	100x205x85	3.31
KRA1L	1	Full Bore	40	-10 - +100	100x210x90	4.74
KRA11/4L	1¼	Full Bore	40	-10 - +100	310x150x150	8.49
KRA11/2L	1½	Full Bore	40	-10 - +100	310x150x120	13.00

* According to ISO 228/1-G..

** For continuous immersion in salt water, we advise **against** the use of brass fittings.

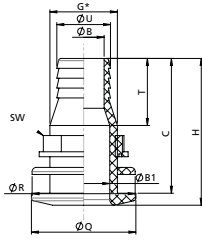


Marine fittings, Delrin

Thru-hull - Chamfered



DOORN..



Type	Thread (G) (inch)	ØU (mm)	ØB (mm)	ØB1 (mm)	H (mm)	C (mm)	ØQ (mm)	ØR (mm)	SW (mm)	T (mm)	Weight (lb)
DOORN5/8	½	16	10	16	76	71	42	41	24	29	0.04
DOORN3/4	¾	19	12	18	81	75	50	49	32	32	0.06
DOORN1	1	25	20	26	94	87	61	60	39	40	0.08
DOORN1¼	1¼	32	24	32	98	91	68	67	48	44	0.15
DOORN1½	1½	38	29	37	104	96	74	73	54	47	0.17

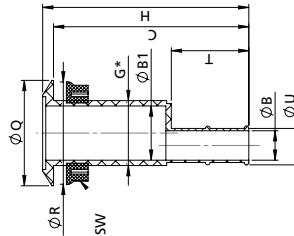
Thru-hull - Chamfered



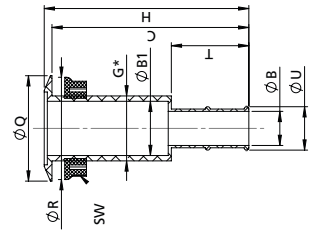
THRH..

Type	Model A / B	Thread (G) (inch)	ØU (mm)	ØB (mm)	ØB1 (mm)	H (mm)	C (mm)	ØQ (mm)	ØR (mm)	SW (mm)	T (mm)	Weight (lb)
THRH16	B	¾	16	8.5	20	73.5	70.5	50	39.5	34	29	0.04
THRH19	B	¾	19	11.5	20	73.5	70.5	50	-	34	29	0.04
THRH25	A	1¼	25	19	35	133	126	68	66	57	50	0.17
THRH28	B	1¼	28	22	35	133	126	68	66	57	50	0.19
THRH32	A	1¼	32	25	35	133	126	68	66	57	50	0.17
THRH38	A	1½	38	32	38	127	121	68	66	56	46	0.24

Model 'A'



Model 'B'

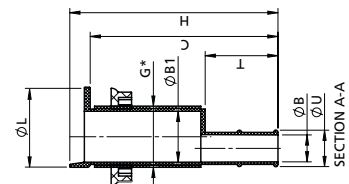
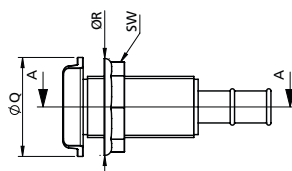


Thru-hull with L-flange (for optimal drainage)



THRH..L

Type	Thread (G) (inch)	ØU (mm)	ØB (mm)	ØB1 (mm)	H (mm)	C (mm)	ØQ (mm)	L (mm)	ØR (mm)	SW (mm)	T (mm)	Weight (lb)
THRH16L	¾	16	8.5	20	85	72	50	37	-	34	29	0.04
THRH19L	¾	19	11	20	85	73	50	38	39.5	34	29	0.06
THRH25L	1¼	25	18.5	35	142	129	68	55	66	57	50	0.17
THRH28L	1½	28	22	35	142	129	68	55	66	56	50	0.24
THRH32L	1¼	32	25	35	142	129	68	55	66	57	50	0.17
THRH38L	1½	38	31.5	38	137	123	68	56	64	53	46	0.22



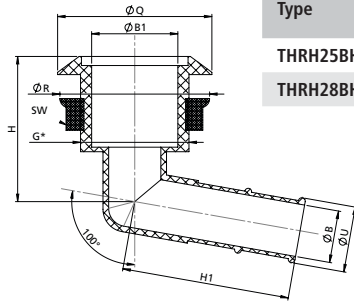
Marine fittings, Delrin

Thru-hull - Chamfered

100° angled



THRH..BH



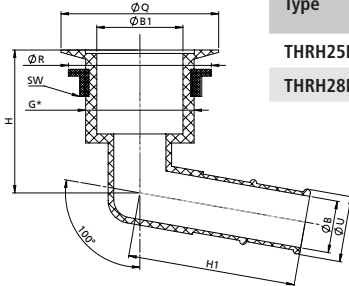
Type	Thread (G) (inch)	ØU (mm)	ØB (mm)	ØB1 (mm)	H (mm)	H1 (mm)	ØQ (mm)	ØR (mm)	SW (mm)	Weight (lb)
THRH25BH	1½	25	20	38	64	74	68	66	56	0.094
THRH28BH	1½	28	20	38	64	74	68	66	56	0.094

Thru-hull - Flush

100° angled



THRH..BL



Type	Thread (G) (inch)	ØU (mm)	ØB (mm)	ØB1 (mm)	H (mm)	H1 (mm)	ØQ (mm)	ØR (mm)	SW (mm)	Weight (lb)
THRH25BL	1½	25	20	38	63	74	69.5	63	53	0.090
THRH28BL	1½	28	20	38	63	74	69.5	63	53	0.090

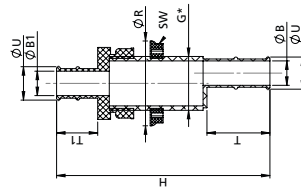
Bulkhead connectors



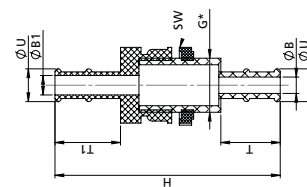
BULKH..

Type	Model A / B	Thread (G) (inch)	ØU (mm)	ØB (mm)	ØB1 (mm)	H (mm)	ØQ (mm)	ØR (mm)	SW (mm)	T (mm)	T1 (mm)	Weight (lb)
BULKH16	B	¾	16	8	9.5	110	50	-	34	29	32	0.040
BULKH19	A	¾	19	11	13	113	50	40	34	29	32	0.040
BULKH25	A	1¼	25	19	19	166	68	66	57	49	32	0.108
BULKH28	B	1¼	28	22	22	175	68	66	57	49	32	0.114
BULKH32	A	1¼	32	25	25	166	68	68	57	49	32	0.116
BULKH38	A	1½	38	31	32	162	68	63	53	46	32	0.144

Model 'A'



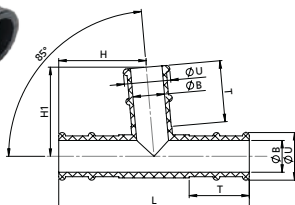
Model 'B'



T-Piece



TPC..



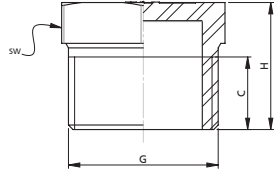
Synthetic equal T-piece. Suitable for temperatures up to +83 °C.

Type	ØU (mm)	ØB (mm)	H (mm)	H1 (mm)	L (mm)	T (mm)	Weight (lb)
TPC16	16	10.5	39	40	84	26	0.016
TPC19	19	14	39	40	84	26	0.016
TPC25	25	17	54	52	99	32	0.034
TPC28	28	21	54	52	99	32	0.032



Marine fittings, stainless steel (AISI 316)

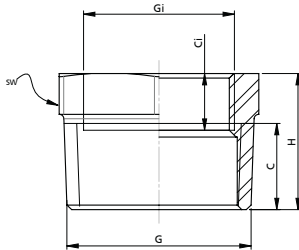
End plug



QS05020.

Type	Thread (G)* (inch)	C (mm)	H (mm)	SW (mm)	Weight (lb)
QS050203	3/8	13	18.5	18	0.04
QS050204	1/2	14.5	20.5	23	0.04
QS050205	3/4	17	25	28	0.11
QS050206	1	18	27	36	0.19
QS050207	1 1/4	22	31	44	0.26
QS050208	1 1/2	22	31	50	0.35
QS050209	2	25	34	63	0.53

Bushing hex

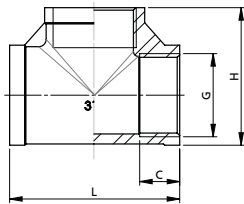


QS05060.

Type	Thread (G)* (inch)	C (mm)	H (mm)	Thread (Gi)* (inch)	Ci (mm)	SW (mm)	Weight (lb)
QS050603	3/8	15	21	1/4"	8	19	0.04
QS050604	1/2	16	23	3/8"	9	22	0.04
QS050605	3/4	18	26	1/2"	10	28	0.11
QS050606	1	18.5	27	3/4"	11	35	0.15
QS050607	1 1/4	20.5	30	1"	13	44	0.24
QS050608	1 1/2	22	31	1 1/4"	14	50	0.26
QS050609	2	25	34	1 1/2"	13	63	0.44

* According to ISO 228/1-G..

T-Piece

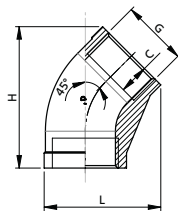


QS05030.

Type	Thread (G)* (inch)	C (mm)	L (mm)	H (mm)	Weight (lb)
QS050303	3/8	10	42	31	0.11
QS050304	1/2	11.5	50	40.7	0.22
QS050305	3/4	12.5	61	46	0.33
QS050306	1	16	70	54	0.53
QS050307	1 1/4	15	80	65	0.63
QS050308	1 1/2	18	95	69	1.08
QS050309	2	18.5	108	81	1.47

* According to ISO 228/1-G..

Elbow 45°



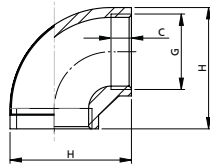
QS05070.

Type	Thread (G)* (inch)	C (mm)	L (mm)	H (mm)	Weight (lb)
QS050703	3/8	10	24	0.08	
QS050704	1/2	12	38	44	0.15
QS050705	3/4	12	29	54	0.22
QS050706	1	13	32	0.37	
QS050707	1 1/4	15	36	70	0.57
QS050708	1 1/2	17	40	0.72	

* According to ISO 228/1-G..

Marine fittings, stainless steel (AISI 316)

Elbow 90°

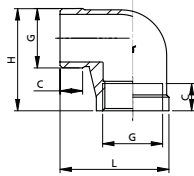


QS05040.

Type	Thread (G)* (inch)	C (mm)	H (mm)	Weight (lb)
QS050403	3/8	10	42	0.08
QS050404	1/2	10	38	0.13
QS050405	3/4	12	45	0.24
QS050406	1	13	68	0.39
QS050407	1 1/4	15	65	0.48
QS050408	1 1/2	17	71	0.66
QS050409	2	17,5	88	1.03

* According to ISO 228/1-G..

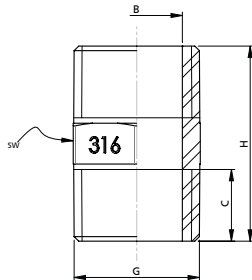
Elbow 90°



QS05010.

Type	Thread (G)* (inch)	C (mm)	L (mm)	H (mm)	Weight (lb)
QS050103	3/8	12	32	22	0.08
QS050104	1/2	13	48	38	0.11
QS050105	3/4	13	38	32	0.19
QS050106	1	18	73	56	0.41
QS050107	1 1/4	20	84	61	0.61
QS050108	1 1/2	15	60	52	0.68
QS050109	2	24	89	108	1.47

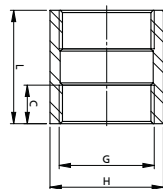
Nipple



QS05050.

Type	Thread (G)* (inch)	C (mm)	H (mm)	B (mm)	SW (mm)	Weight (lb)
QS050503	3/8	12	30	11	18	0.06
QS050504	1/2	15	38	15,5	22	0.08
QS050505	3/4	17	41	20	27	0.15
QS050506	1	19	46	26	36	0.22
QS050507	1 1/4	20	49	35	44	0.28
QS050508	1 1/2	21	49	41	50	0.33
QS050509	2	25	64	51	63	0.74

Socket



QS05080.

Type	Thread (G)* (inch)	C (mm)	L (mm)	H (mm)	Weight (lb)
QS050803	3/8	12	30	21	0.06
QS050804	1/2	16	35	27	0.15
QS050805	3/4	17	35	32	0.15
QS050806	1	15	44	41	0.30
QS050807	1 1/4	15	45	48	0.30
QS050808	1 1/2	18	54	56	0.59
QS050809	2	18	63	68	0.86

* According to ISO 228/1-G..

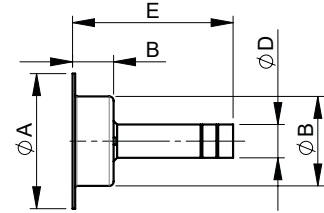
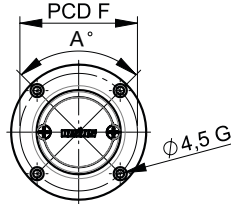


Marine fittings, stainless steel (AISI 316)

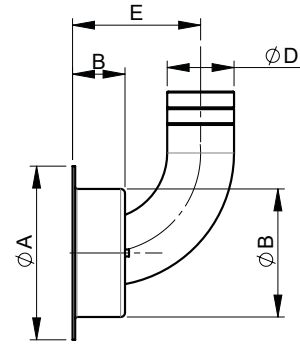
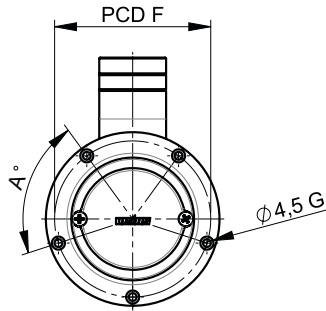
Breather nipples

The breathing capacity fulfils the CE requirements. Provided with an easily cleaned stainless steel (AISI 316) gauze, which functions as a flame arrester.

AB..S



AB..SL



AB..B

Type	Shape	Material	ØD (mm)	ØA (mm)	PCD F (mm)	A° (mm)	# G	Cut-out Ø (inch)	ØB (mm)	Max. wall thickness (inch)	B (mm)	E (mm)
AB16S	Straight	AISI 316	16	64	54	120	3	1½	38	N/A	18	48
AB16B	Angled	AISI 316	16	64	54	120	3	1½	38	1³/₁₆	18	47
AB19S	Straight	AISI 316	19	77	67	90	4	2¹/₆₄	51	N/A	23.4	53.4
AB19SL	Straight	AISI 316	19	77	67	90	4	2¹/₆₄	51	N/A	23.4	91.5
AB19B	Angled	AISI 316	19	77	67	90	4	2¹/₆₄	51	1¹/₃₂	23.4	53
AB25B	Angled	AISI 316	25	77	67	90	4	2¹/₆₄	51	1¹/₃₂	23.4	53
AB38B	Angled	AISI 316	38	99	89	72	5	2¹/₆	73	2¹¹/₃₂	29.9	73

Air vent nipples for tanks

Suitable for 5/8" (Ø 16 mm) internal diameter hose. Straight or 90° angled. Provided with a gauze, which functions as a flame arrester.

ST04HS



ST04S



ST05HS



ST05S



Type	Shape	Material	Hose Ø (inch)	Cut-out Ø (inch)	Wall thickness (inch)
ST04HS	Angled	AISI 316	5/8	2³/₃₂	0 - 2⁵/₆₄
ST04S	Straight	AISI 316	5/8	2³/₃₂	0 - 2⁵/₆₄
ST05HS	Angled	AISI 316	5/8	1³/₆	2⁵/₆₄ - 1³/₁₆
ST05S	Straight	AISI 316	5/8	1³/₆	2⁵/₆₄ - 1³/₁₆

Marine fittings



CAP..38S



CAP..51S

Deck entries, stainless steel (AISI 316)

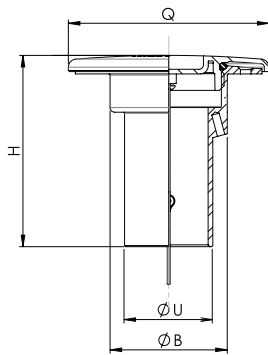
These stainless steel (AISI 316) deck entries are also available with a winch handle socket (item codes ending with a 'W'). With high-gloss polished watertight cover.

Cover inscriptions:

- Water
- Unleaded gasoline
- Diesel fuel
- 'Pump-out' icon (WC)



CAPWC38S



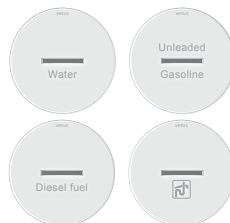
Type	Cap (Q) Ø (inch)	Type	Liquid	Hose (U) Ø (inch)	Cut-out (B) Ø (inch)	Length (H) (inch)
CAPW38S	3 ³ / ₈	Slotted	Water	1 ¹ / ₂	2	3 ³ / ₄
CAPW38W	3 ³ / ₈	Winch	Water	1 ¹ / ₂	2	3 ³ / ₄
CAPG38S	3 ³ / ₈	Slotted	Unleaded Gasoline	1 ¹ / ₂	2	3 ³ / ₄
CAPG38W	3 ³ / ₈	Winch	Unleaded Gasoline	1 ¹ / ₂	2	3 ³ / ₄
CAPF38S	3 ³ / ₈	Slotted	Diesel fuel	1 ¹ / ₂	2	3 ³ / ₄
CAPF38W	3 ³ / ₈	Winch	Diesel fuel	1 ¹ / ₂	2	3 ³ / ₄
CAPWC38S*	3 ³ / ₈	Slotted	WC (pump out)	1 ¹ / ₂	2	5
CAPWC38W*	3 ³ / ₈	Winch	WC (pump out)	1 ¹ / ₂	2	5
CAPF51S	3 ⁵ / ₈	Slotted	Diesel fuel	2	2 ¹ / ₄	3 ³ / ₄
CAPF51W	3 ⁵ / ₈	Winch	Diesel fuel	2	2 ¹ / ₄	3 ³ / ₄

* Fullfills the requirements of ISO 8099:2001

CAP..W



KEY1



Deck entry key

Key for slotted deck entries. Also suitable for deck entries with an octagonal recess.

Deck entries, chromium plated brass



FCAPDF38



FCAPDF50

Type	Cap Ø (inch)	Type	Liquid	Hose Ø (inch)	Cut-out Ø (inch)	Length (inch)
FCAPDF38	3 ¹¹ / ₃₂	Ring	Diesel fuel	1 ¹ / ₂	2 ¹ / ₄	80
FCAPDF50	3 ¹¹ / ₃₂	Ring	Diesel fuel	1 ³¹ / ₃₂	2 ¹ / ₄	80
CAPWC38*	3 ¹¹ / ₃₂	Pop-out	Waste (pump out)	1 ¹ / ₂	1 ³¹ / ₃₂	4 ¹⁷ / ₃₂
FCAPWATER	3 ¹⁵ / ₃₂	Ring	Water	1 ¹ / ₂	2 ¹ / ₄	80

* Fullfills the requirements of ISO 8099:2001



CAPWC38



FCAPWATER



Marine fittings



HCSM

Type	Description	Band width (inch)	Max. torque (Nm)	Max. pressure (Bar)
HCSM08	Hose clamp D $\frac{5}{16}$ - $\frac{5}{8}$	$\frac{23}{64}$	3	45
HCSM12	Hose clamp D $\frac{15}{32}$ - $\frac{55}{64}$	$\frac{23}{64}$	3	45
HCSM16	Hose clamp D $\frac{3}{8}$ - $1\frac{1}{16}$	$\frac{15}{32}$	5	45
HCSM20	Hose clamp D $\frac{25}{32}$ - $1\frac{17}{64}$	$\frac{15}{32}$	6	45
HCSM25	Hose clamp D 1 - $1\frac{37}{64}$	$\frac{15}{32}$	6	40
HCSM32	Hose clamp D $1\frac{17}{64}$ - $1\frac{31}{32}$	$\frac{15}{32}$	6,5	35
HCSM40	Hose clamp D $1\frac{37}{64}$ - $2\frac{23}{64}$	$\frac{15}{32}$	6,5	30

Hose clamps HCSM

This clamp uses a stainless steel band and housing in AISI 430 with a zinc-plated steel screw. The band has a smooth underside and rounded edges to prevent hose damage.

Key Features:

- W2 (AISI 430 stainless steel + zinc-plated screw)
- Moderate corrosion resistance (72 h salt spray)
- Smooth edges to protect the hose

Type	Description	Band width (inch)	Max. torque (Nm)	Max. pressure (Bar)
HCSM50	Hose clamp D $1\frac{31}{32}$ - $2\frac{1}{4}$	$\frac{15}{32}$	7,5	25
HCSM60	Hose clamp D $2\frac{23}{64}$ - $3\frac{5}{32}$	$\frac{15}{32}$	7,5	20
HCSM70	Hose clamp D $2\frac{3}{4}$ - $3\frac{35}{64}$	$\frac{15}{32}$	7,5	17
HCSM90	Hose clamp D $3\frac{9}{16}$ - $4\frac{9}{16}$	$\frac{15}{32}$	7,5	12
HCSM110	Hose clamp D $3\frac{9}{16}$ - $5\frac{1}{8}$	$\frac{15}{32}$	7,5	8
HCSM130	Hose clamp D $5\frac{1}{8}$ - $5\frac{29}{32}$	$\frac{15}{32}$	7,5	6
HCSM150	Hose clamp D $5\frac{29}{32}$ - $6\frac{11}{16}$	$\frac{15}{32}$	7,5	4



HCS

Type	Description	Band width (inch)	Max. torque (Nm)	Max. pressure (Bar)
HCS08	Hose clamp D $\frac{5}{16}$ - $\frac{5}{8}$	$\frac{23}{64}$	3	45
HCS12	Hose clamp D $\frac{15}{32}$ - $\frac{55}{64}$	$\frac{23}{64}$	3	45
HCS16	Hose clamp D $\frac{3}{8}$ - $1\frac{1}{16}$	$\frac{15}{32}$	5	45
HCS20	Hose clamp D $\frac{25}{32}$ - $1\frac{17}{64}$	$\frac{15}{32}$	6	45
HCS25	Hose clamp D 1 - $1\frac{37}{64}$	$\frac{15}{32}$	6	40
HCS32	Hose clamp D $1\frac{17}{64}$ - $1\frac{31}{32}$	$\frac{15}{32}$	6,5	35
HCS40	Hose clamp D $1\frac{37}{64}$ - $2\frac{23}{64}$	$\frac{15}{32}$	6,5	30

Hose clamps HCS

This clamp is made entirely from high-quality AISI 316 stainless steel, offering excellent corrosion resistance. The smooth underside and rounded band edges protect hoses from damage. Its compact design and strong screw make it easy to install and highly reliable.

Key Features:

- W5 (AISI 316 stainless steel)
- Extremely high corrosion resistance (1000 h salt spray)
- Smooth edges to protect the hose

Type	Description	Band width (inch)	Max. torque (Nm)	Max. pressure (Bar)
HCS50	Hose clamp D $1\frac{31}{32}$ - $2\frac{1}{4}$	$\frac{15}{32}$	7,5	25
HCS60	Hose clamp D $2\frac{23}{64}$ - $3\frac{5}{32}$	$\frac{15}{32}$	7,5	20
HCS75	Hose clamp D $2\frac{3}{4}$ - $3\frac{35}{64}$	$\frac{15}{32}$	7,5	17
HCS90	Hose clamp D $3\frac{9}{16}$ - $4\frac{9}{16}$	$\frac{15}{32}$	7,5	12
HCS110	Hose clamp D $3\frac{9}{16}$ - $5\frac{1}{8}$	$\frac{15}{32}$	7,5	8
HCS130	Hose clamp D $5\frac{1}{8}$ - $5\frac{29}{32}$	$\frac{15}{32}$	7,5	7
HCS150	Hose clamp D $5\frac{29}{32}$ - $6\frac{11}{16}$	$\frac{15}{32}$	7,5	7



Marine fittings



HCHD

Type	Description	Band width (inch)	Max. torque (Nm)	Max. pressure (Bar)
HCHD034	Hose clamp D 1 ¹¹ / ₃₂ - 1 ²⁹ / ₆₄	2 ⁵ / ₃₂	13	40
HCHD037	Hose clamp D 1 ²⁹ / ₆₄ - 1 ³⁷ / ₆₄	2 ⁵ / ₃₂	13	40
HCHD040	Hose clamp D 1 ³⁷ / ₆₄ - 1 ¹¹ / ₁₆	2 ⁵ / ₃₂	13	40
HCHD043	Hose clamp D 1 ¹¹ / ₁₆ - 1 ²⁷ / ₃₂	2 ⁵ / ₃₂	16	36
HCHD047	Hose clamp D 1 ²⁷ / ₃₂ - 2 ¹ / ₆₄	2 ⁵ / ₃₂	16	36
HCHD051	Hose clamp D 2 ¹ / ₆₄ - 2 ¹¹ / ₆₄	2 ⁵ / ₃₂	16	36
HCHD055	Hose clamp D 2 ¹¹ / ₆₄ - 2 ²¹ / ₆₄	2 ⁵ / ₃₂	16	36
HCHD059	Hose clamp D 2 ²¹ / ₆₄ - 2 ³¹ / ₆₄	2 ⁵ / ₃₂	16	36
HCHD063	Hose clamp D 2 ³¹ / ₆₄ - 2 ⁴⁹ / ₆₄	2 ⁵ / ₃₂	16	36
HCHD068	Hose clamp D 2 ⁴⁹ / ₆₄ - 2 ⁷ / ₈	1	30	28
HCHD073	Hose clamp D 2 ⁷ / ₈ - 3 ⁷ / ₆₄	1	30	28
HCHD079	Hose clamp D 3 ⁷ / ₆₄ - 3 ¹¹ / ₃₂	1	30	28
HCHD085	Hose clamp D 3 ¹¹ / ₃₂ - 3 ³⁷ / ₆₄	1	30	20
HCHD091	Hose clamp D 3 ³⁷ / ₆₄ - 3 ¹³ / ₁₆	1	30	20



HCHDS

Type	Description	Band width (inch)	Max. torque (Nm)	Max. pressure (Bar)
HCHDS034	Hose clamp D 1 ¹¹ / ₃₂ - 1 ²⁹ / ₆₄	2 ⁵ / ₃₂	13	35
HCHDS037	Hose clamp D 1 ²⁹ / ₆₄ - 1 ³⁷ / ₆₄	2 ⁵ / ₃₂	13	35
HCHDS040	Hose clamp D 1 ³⁷ / ₆₄ - 1 ¹¹ / ₁₆	2 ⁵ / ₃₂	13	35
HCHDS043	Hose clamp D 1 ¹¹ / ₁₆ - 1 ²⁷ / ₃₂	2 ⁵ / ₃₂	16	35
HCHDS047	Hose clamp D 1 ²⁷ / ₃₂ - 2 ¹ / ₆₄	2 ⁵ / ₃₂	16	30
HCHDS051	Hose clamp D 2 ¹ / ₆₄ - 2 ¹¹ / ₆₄	2 ⁵ / ₃₂	16	30
HCHDS055	Hose clamp D 2 ¹¹ / ₆₄ - 2 ²¹ / ₆₄	2 ⁵ / ₃₂	16	30
HCHDS059	Hose clamp D 2 ²¹ / ₆₄ - 2 ³¹ / ₆₄	2 ⁵ / ₃₂	16	30
HCHDS063	Hose clamp D 2 ³¹ / ₆₄ - 2 ⁴⁹ / ₆₄	2 ⁵ / ₃₂	16	30
HCHDS068	Hose clamp D 2 ⁴⁹ / ₆₄ - 2 ⁷ / ₈	1	30	20
HCHDS073	Hose clamp D 2 ⁷ / ₈ - 3 ⁷ / ₆₄	1	30	20
HCHDS079	Hose clamp D 3 ⁷ / ₆₄ - 3 ¹¹ / ₃₂	1	30	20
HCHDS085	Hose clamp D 3 ¹¹ / ₃₂ - 3 ³⁷ / ₆₄	1	30	15
HCHDS091	Hose clamp D 3 ³⁷ / ₆₄ - 3 ¹³ / ₁₆	1	30	15

Hose clamps heavy duty HCHD

A clamp with a swivel bridge that makes installation easy, even in confined spaces. No need to remove the hose to fit the clamp. Suitable for applications where moderate corrosion resistance is acceptable.

Key Features:

- W2 (AISI 430 stainless steel + zinc-plated screw)
- Reusable and strong
- Moderate corrosion resistance (72 h salt spray)

Type	Description	Band width (inch)	Max. torque (Nm)	Max. pressure (Bar)
HCHD097	Hose clamp D 3 ¹³ / ₁₆ - 4 ³ / ₃₂	1	30	20
HCHD104	Hose clamp D 4 ³ / ₃₂ - 4 ¹³ / ₃₂	1	30	12
HCHD112	Hose clamp D 4 ¹³ / ₃₂ - 4 ⁴⁹ / ₆₄	1	30	12
HCHD121	Hose clamp D 4 ⁴⁹ / ₆₄ - 5 ¹ / ₈	1	30	12
HCHD130	Hose clamp D 5 ¹ / ₈ - 5 ³¹ / ₆₄	1 ⁷ / ₆₄	45	9
HCHD140	Hose clamp D 5 ³¹ / ₆₄ - 5 ²⁹ / ₃₂	1 ⁷ / ₆₄	45	9
HCHD150	Hose clamp D 5 ²⁹ / ₃₂ - 6 ³ / ₈	1 ⁷ / ₆₄	45	9
HCHD162	Hose clamp D 6 ³ / ₈ - 6 ²⁷ / ₃₂	1 ⁷ / ₆₄	45	6
HCHD174	Hose clamp D 6 ²⁷ / ₃₂ - 7 ²³ / ₆₄	1 ⁷ / ₆₄	45	6
HCHD187	Hose clamp D 7 ²³ / ₆₄ - 7 ⁷ / ₈	1 ⁷ / ₆₄	45	6
HCHD200	Hose clamp D 7 ⁷ / ₈ - 8 ²⁵ / ₆₄	1 ⁷ / ₆₄	45	3
HCHD213	Hose clamp D 8 ²⁵ / ₆₄ - 8 ⁷ / ₆₄	1 ⁷ / ₆₄	45	3
HCHD260	Hose clamp D 10 ⁷ / ₈ - 10 ⁵ / ₁₆	1 ³ / ₁₆	45	3
HCHD300	Hose clamp D 12 ¹³ / ₃₂ - 13	1 ³ / ₁₆	45	3

Hose clamps heavy duty HCHDS

Resists corrosion in marine environments. Its swivel bridge allows easy installation without removing the hose. Can be opened and reused multiple times.

Key Features:

- W5 (fully stainless steel AISI 316)
- Extremely high corrosion resistance (1000 h salt spray)
- Reusable and durable

Type	Description	Band width (inch)	Max. torque (Nm)	Max. pressure (Bar)
HCHDS097	Hose clamp D 3 ¹³ / ₁₆ - 4 ³ / ₃₂	1	30	15
HCHDS104	Hose clamp D 4 ³ / ₃₂ - 4 ¹³ / ₃₂	1	30	10
HCHDS112	Hose clamp D 4 ¹³ / ₃₂ - 4 ⁴⁹ / ₆₄	1	30	10
HCHDS121	Hose clamp D 4 ⁴⁹ / ₆₄ - 5 ¹ / ₈	1	30	10
HCHDS130	Hose clamp D 5 ¹ / ₈ - 5 ¹ / ₂	1 ³ / ₃₂	45	6
HCHDS140	Hose clamp D 5 ¹ / ₂ - 5 ²⁹ / ₃₂	1 ³ / ₃₂	45	6
HCHDS150	Hose clamp D 5 ²⁹ / ₃₂ - 6 ³ / ₈	1 ³ / ₃₂	45	6
HCHDS162	Hose clamp D 6 ³ / ₈ - 6 ²⁷ / ₃₂	1 ³ / ₃₂	45	3
HCHDS174	Hose clamp D 6 ²⁷ / ₃₂ - 7 ⁷ / ₈	1 ³ / ₃₂	45	3
HCHDS187	Hose clamp D 7 ⁷ / ₈ - 7 ⁷ / ₈	1 ³ / ₃₂	45	3
HCHDS200	Hose clamp D 7 ⁷ / ₈ - 8 ⁷ / ₈	1 ³ / ₃₂	45	3
HCHDS213	Hose clamp D 8 ⁷ / ₈ - 8 ²⁹ / ₃₂	1 ³ / ₃₂	45	3
HCHDS260	Hose clamp D 10 ⁷ / ₈ - 10 ⁵ / ₁₆	1 ³ / ₁₆	45	3
HCHDS300	Hose clamp D 12 ¹³ / ₃₂ - 13	1 ³ / ₁₆	45	3



Pumps



BLPM020

Manual membrane pump

A high quality membrane pump suitable for pumping/ transferring bilge water, seawater or diesel.

- Synthetic housing, metallic parts of stainless steel (AISI 316)
- Easy to remove clamping ring for maintenance and or head rotation
- Horizontal or vertical mounting
- Self-priming

Suitable for boats up to 39" (12 m) (ISO 15083).
For all suitable hoses, see page 466 in the catalog.

Type	Suction lift (ft)	Discharge head (ft)	Capacity L/stroke	Hose connection Ø (inch)	Advised hose type
BLPM020	10	13	1/64	1 17/64	DWHOSE32B



BLP..

Bilge pump

Submersible bilge pumps (IP67). Detachable strainer acts as screw-down base. Durable snap connection for easy cleaning. Double seals for long lifetime. Internal components are made from stainless steel (AISI 316). Comes with 47 1/4 ft. (1.2 meter) cable. For all suitable hoses, see page 466 in the catalog.

Type	Voltage (DC)	Current A @ 13,6 V	Capacity gal/min @ 0 m	Max. head (ft)	Dimensions Ø x H (inch)	Hose connection Ø (inch)	Advised hose type
BLP12500	12	3	8.8	13	3 35/64 X 4 21/32	3/4	DWHOSE19B
BLP121000	12	3	11	13	3 35/64 X 4 21/32	1 1/8	DWHOSE28B
BLP122000	12	6	24	13	4 21/32 X 5 29/132	1 1/8	DWHOSE28B
BLP123000	12	9	35	16	5 1/8 X 7 3/32	1 17/64	DWHOSE32B

Type	Voltage (DC)	Current A @ 27,1 V	Capacity gal/min @ 0 m	Max. head (ft)	Dimensions Ø x H (inch)	Hose connection Ø (inch)	Advised hose type
BLP24500	24	1,5	8.8	13	3 35/64 X 4 21/32	3/4	DWHOSE19B
BLP242000	24	3	24.4	13	4 21/32 X 5 29/132	1 1/8	DWHOSE28B
BLP243000	24	4,5	32	16	5 1/8 X 7 3/32	1 17/64	DWHOSE32B



BLSWITCH

Level switch

This switch activates the pump when the bilge water level reaches 1 32/32" (50 mm).

- Made from high quality synthetic material
- Suitable for 12 and 24 VDC
- Suitable for fresh and salt water
- Comes with 3.3 ft (1 meter) cable

Type	Voltage (DC)	Max. current (A)	Total width (inch)	Total length (inch)	Cable length (ft)
BLSWITCH	12 / 24	15	2 3/4	4 39/64	39 3/8



BLPS..

Stirrup type pump

Sturdy single action plunger pump suitable for fresh water, seawater or other fluids normally present in the bilge.

- Material: durable plastic (PP)
- Temperature resistant to max. 140°F (60° Celsius)
- Ergonomically shaped handle
- Self priming
- Hose length: 38 37/64" (980 mm)

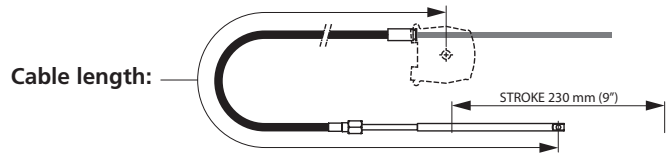
Type	Hose connection Ø (inch)	Stroke length (inch)	Capacity L/stroke
BLPS04	1 7/64	12 13/32	1/64
BLPS07	1 7/64	18 7/64	1/32



Outboard

Cable steering

The cable length refers to total length of the inner cable. The outer jacket of the cable is about 75 cm (30") shorter. When selecting the right cable, always round up to the next size.



LCSKIT..

Light series cable steering kit

Cable steering kit including: Helm, straight bezel, cable and spent core tube.

The helm is equipped as standard with a friction brake. Fitted with a $\varnothing \frac{3}{4}$ " (19 mm) shaft, tapered 1:12.

Available with cable length: 7 to 16 ft (213 to 488 cm), in steps of 1 ft.

- Wheel turns: $\frac{7}{64}$ " (2.6 mm)
- Max. wheel \varnothing : 16" (406 mm)
- Min. bend radius $11\frac{57}{64}$ " (302 mm)

For craft up to 16ft (5 m).

Type	Max. engine output	Cable length
LCSKIT7	55 HP (40 kw)	7 ft (213.5 cm)
LCSKIT8	55 HP (40 kw)	8 ft (244 cm)
LCSKIT9	55 HP (40 kw)	9 ft (274.5 cm)
LCSKIT10	55 HP (40 kw)	10 ft (305 cm)
LCSKIT11	55 HP (40 kw)	11 ft (335.5 cm)

Type	Max. engine output	Cable length
LCSKIT12	55 HP (40 kw)	12 ft (366 cm)
LCSKIT13	55 HP (40 kw)	13 ft (396.5 cm)
LCSKIT14	55 HP (40 kw)	14 ft (427 cm)
LCSKIT15	55 HP (40 kw)	15 ft (457.5 cm)
LCSKIT16	55 HP (40 kw)	16 ft (488 cm)



HZFKIT..

Zero feedback cable steering kit

Zero torque high performance cable steering kit including: Zero feedback helm, straight bezel, high performance cable and spent core tube.

Smooth and durable operation due to planetary gear design. Unique design eliminates any torque coming from the steering cable, creating an effortless ride. A 20° Bezel kit can be ordered separately if required.

Fitted with a $\varnothing \frac{3}{4}$ " (19 mm) shaft, tapered 1:12. A.B.Y.C., N.M.M.A., I.M.C.I. and CE approved.

Available with cable length: 8 to 20 ft (244 to 610 cm), in steps of 1 ft.

- Wheel turns: $\frac{5}{32}$ " (3,8 mm)
- Max. wheel \varnothing : 16" (406 mm)
- Min. bend radius $7\frac{7}{8}$ " (200 mm)

For craft up to 22 ft (7 m).

Type	Max. engine output	Cable length
HZFKIT8	125 HP (90 kw)	8 ft (244 cm)
HZFKIT9	125 HP (90 kw)	9 ft (274.5 cm)
HZFKIT10	125 HP (90 kw)	10 ft (305 cm)
HZFKIT11	125 HP (90 kw)	11 ft (335.5 cm)
HZFKIT12	125 HP (90 kw)	12 ft (366 cm)
HZFKIT13	125 HP (90 kw)	13 ft (396.5 cm)
HZFKIT14	125 HP (90 kw)	14 ft (427 cm)

Type	Max. engine output	Cable length
HZFKIT15	125 HP (90 kw)	15 ft (457.5 cm)
HZFKIT16	125 HP (90 kw)	16 ft (488 cm)
HZFKIT17	125 HP (90 kw)	17 ft (518.5 cm)
HZFKIT18	125 HP (90 kw)	18 ft (549 cm)
HZFKIT19	125 HP (90 kw)	19 ft (579.5 cm)
HZFKIT20	125 HP (90 kw)	20 ft (610 cm)

Outboard

Cable steering options



HB20

Bezel kit

To tilt the helm at a 20° angle for optimum steering position. 20° Bezel kit for zero feedback cable steering helm. Weight 0.7 lb. (0.3 kg.)

Type	Description
HB20	High performance series 20° bezel kit



SQBALL

Quick release balljoint

Quick release balljoint for steering cables. For L and H series. Weight 0.7 lb. (0.3 kg.)

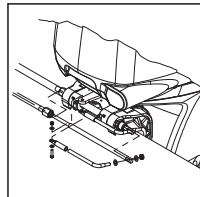
Type	Description
SQBALL	H and L series, steering cable quick release balljoint

Cable steering mounting sets

To complete the steering system to your requirements, please select one of the mounting sets below.



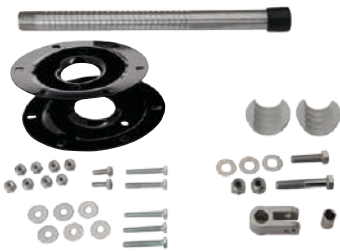
SLINK



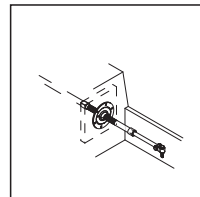
Universal link arm

When outboard motor acts as cable mount. For L and H series.

Type	Description
SLINK	Steering cable universal link arm



SSPLASH



Splashwell mount

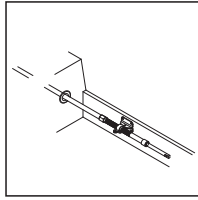
Splashwell cable support mount for L and H series.

Type	Flange Ø (inch)	Weight (lb)
SSPLASH	4 ⁵⁹ / ₆₄	1.65

Outboard



STRANS



Transom mount

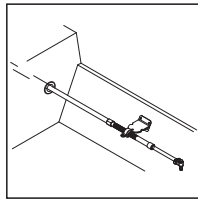
Transom support mount (short) for L and H series.

Type	Length* (inch)	Angle	Weight (lb)
STRANS	2 ¹ / ₆₄	90°	1.5

*Cable core to transom



STRANL



Transom mount

Transom support mount (long) for L and H series.

Type	Length* (inch)	Angle	Weight (lb)
STRANL	4 ¹ / ₆₄	67°	1.8

*Cable core to transom

Steering cable only

Available for light series and high performance series.
Length between 5 and 20 feet (153 to 610 cm), in steps of 1 ft.
Max. bend radius: 200 mm.



HCAB..

Steering cable

For zero feedback series: HCAB (max. 125 HP / 90 kw)

Type	Cable length	Type	Cable length
HCAB5	5 ft (152,5 cm)	HCAB13	13 ft (396,5 cm)
HCAB6	6 ft (183 cm)	HCAB14	14 ft (427 cm)
HCAB7	7 ft (213,5 cm)	HCAB15	15 ft (457,5 cm)
HCAB8	8 ft (244 cm)	HCAB16	16 ft (488 cm)
HCAB9	9 ft (274,5 cm)	HCAB17	17 ft (518,5 cm)
HCAB10	10 ft (305 cm)	HCAB18	18 ft (549 cm)
HCAB11	11 ft (335,5 cm)	HCAB19	19 ft (579,5 cm)
HCAB12	12 ft (366 cm)	HCAB20	20 ft (610 cm)



Materials

Non-slip deck covering

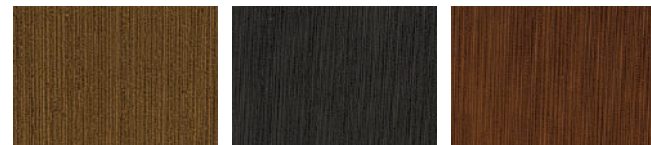
The closed-cell structure EVA foam has an insulating effect which makes it comfortable and is specially designed for nautical purposes. NOSKID easy-to-install-self-adhesive (3M) plates offer incredibly high non-slip properties under all circumstances, even in wet feet! Insulating, comfortable, highly resistant against sunlight and seawater and maintenance-free; this is how high grip deck material should be. The NOSKID series comes in three different colors and is available from stock.



NOSKIDSBI

NOSKIDSBL

NOSKIDSTE



NOSKIDFBI

NOSKIDFBL

NOSKIDFTE



Type	Description	Thickness (inch)	Length (inch)	Width (inch)	Teak width (inch)	Spacing (inch)
NOSKIDSBI	non skid deck in birch teak with caulking look	1/4	94 1/2	35 1/2	2	9/32
NOSKIDSBL	non skid deck in black teak with caulking look	1/4	94 1/2	35 1/2	2	9/32
NOSKIDSTE	non skid deck in natural teak with caulking look	1/4	94 1/2	35 1/2	2	9/32
NOSKIDFBI	non skid full deck in birch teak look, self-adhesive	1/4	94 1/2	35 1/2	2	-
NOSKIDFBL	non skid full deck in black teak look, self-adhesive	1/4	94 1/2	35 1/2	2	-
NOSKIDFTE	non skid full deck in natural teak look, self-adhesive	1/4	94 1/2	35 1/2	2	-

Poly-wood

This material is ideal for the fabrication of all sorts of components on board. It is completely resistant against sunlight and water and is tough and durable. It is easy to work with using common woodworking machinery and tools. The product is made of solid plastic and is not laminated. Poly-wood cannot rot, splinter, crack open or show discoloration and is therefore particularly suitable for outdoor use in all weather conditions.

Available colour:

- White



SH..WSH

SH..WH

SH..WXSH

Type	Dimension (inch)	Thickness (inch)
SH06WXSH	47 1/64" x 23 5/8" (1210 x 600 mm)	1 5/64" - 6 mm
SH12WXSH	47 1/64" x 23 5/8" (1210 x 600 mm)	1 5/32" - 12 mm
SH18WXSH	47 1/64" x 23 5/8" (1210 x 600 mm)	4 5/64" - 18 mm
SH06WSH	48 1/32" x 31 1/2" (1220 x 800 mm)	1 5/64" - 6 mm
SH12WSH	48 1/32" x 31 1/2" (1220 x 800 mm)	1 5/32" - 12 mm
SH18WSH	48 1/32" x 31 1/2" (1220 x 800 mm)	4 5/64" - 18 mm
SH06WH	48 1/32" x 96 1/16" (1220 x 2440 mm)	1 5/64" - 6 mm
SH12WH	48 1/32" x 96 1/16" (1220 x 2440 mm)	1 5/32" - 12 mm
SH18WH	48 1/32" x 96 1/16" (1220 x 2440 mm)	4 5/64" - 18 mm

Each sheet is protected by a plastic masking. We recommend that you remove the masking when the job is done; not before.

Materials



SC



WDC2P

Watertight plug and socket

Watertight plugs and sockets are available in 2 versions: For cable with a cross sectional area up of to 0,75 mm² (AWG18) max. 3 Amp. or a larger model for cables of up to 2,5 mm² (AWG12) max. 5 Amp. A rubber gasket and a synthetic cover are standard supply.

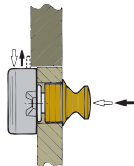
Material:

- Chrome plated brass

Type	Description
SC29	Watertight plug and socket with 2 pins, chromium plated brass
SC33	Watertight plug and socket with 3 pins, chromium plated brass
SC44	Watertight plug and socket with 4 pins, chromium plated brass
SC29L	Watertight plug and socket with 2 pins, large model, chromium plated brass
SC33L	Watertight plug and socket with 3 pins, large model, chromium plated brass
SC44L	Watertight plug and socket with 4 pins, large model, chromium plated brass
WDC2P	Watertight deck connector, 2 pins



LOCKDRC



LOCKDRM



Push-button lock (interior)

Made of synthetic with chromium or brass finish push-button.

Dimensions:

- 3 5/64" x 1 49/64" x 25/32" (78 x 45 x 20 mm)
- Panel thickness from 0.70 in up to 0.78 in (18 up to 20 mm)

Type	Description
LOCKDRC	Synthetic lock with chromium plated push-button
LOCKDRM	Synthetic lock with brass plated push-button

VETUS Fix

This glue has been specially developed to bond VETUS non-slip deck covering. However, it is also very suitable for bonding P.V.C.- and polyester foil to leather and wood. Excellent adhesion is obtained as well on laminated plastics such as Formica, hard P.V.C. and ABS.

A can of (0.26 gal) 1 L VETUS FIX is sufficient to glue 25 to 32 sq. ft. (2 to 3 m²).



BOATFIX1

Type	Description
BOATFIX1	Boatfix adhesive 1 L - 0.26 gallons



Aluminium and zinc anodes

Protection by means of anodes is a "must" for all metal parts under water. Therefore anodes are required for wooden, fibre glass and aluminium hulls. The material of V-Quipment zinc anodes is of the highest possible standard, the U.S. mil.-A-18001 K. specifications. Anodes which do not meet these specifications have little or no effect.

V-Quipment aluminium anodes consist of an aluminium-indium-zinc alloy Mil - A - 24779 (SH). All V-Quipment anodes are streamlined and mounted either with studs which can be welded to a steel hull, or with through-hull bolts for fibreglass and wooden boats. **We supply these studs and bolts separately.**

For vessels, which mostly cruise on inland (fresh) waters, we recommend aluminium anodes since aluminium has a greater difference of potential with other metals than zinc. This is very important, as fresh water provides a higher electrical resistance than salt water. For sailing on salt water or brackish water, we recommend the use of zinc anodes. Aluminium anodes also function well in salt water, but are sacrificed at a much faster rate. We do not recommend the use of magnesium anodes, as the difference of potential with other metals is too great which could cause damage to the hull paint, especially when sailing in brackish or salt waters.

Use the table below to select the right anode suitable for the type of water in which the boat is generally used.

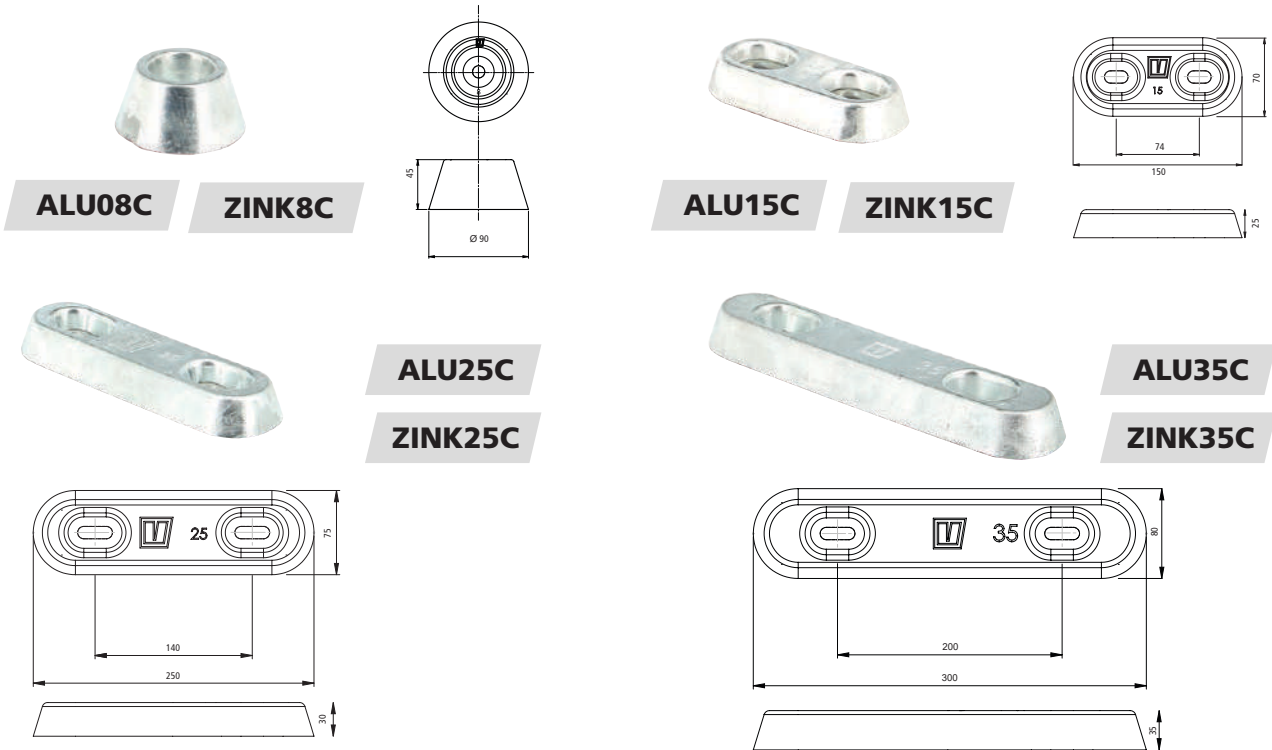
Water type	Hull material				
	Wood	GRP	Aluminium	Steel	Sterndrive/ outboard
Fresh	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Brackish	Zinc/ Aluminium	Zinc/ Aluminium	Zinc/ Aluminium	Zinc/ Aluminium	Aluminium
Salt	Zinc/ Aluminium	Zinc/ Aluminium	Zinc/ Aluminium	Zinc/ Aluminium	Aluminium

An annual inspection of the anode is needed, it should be replaced when the anode has been 50% sacrificed.

Type of anode material

Type	Type of alloy according to
Zinc	MIL-A-18001K
Aluminium	MIL-A-24779 (sh)

Bolt-on anodes



Type	Description	Type of contour	Protects M ² Adequate paint / worn out paint / unpainted	Length (inch)	Width (inch)	Height (inch)	Net weight (lb)
ZINK8C	Hull anode, zinc MIL-A-18001K	Circular	12 / 6 / 3.5	3 ⁹ / ₁₆	3 ⁹ / ₁₆	1 ²⁵ / ₃₂	2.42
ZINK15C	Hull anode, zinc MIL-A-18001K	Rectangular	14 / 7 / 3.5	5 ²⁹ / ₃₂	2 ³ / ₄	1	2.42
ZINK25C	Hull anode, zinc MIL-A-18001K	Rectangular	24 / 12 / 6.5	9 ²⁷ / ₃₂	2 ¹⁵ / ₁₆	1 ³ / ₁₆	5.51
ZINK35C	Hull anode, zinc MIL-A-18001K	Rectangular	40 / 20 / 10.5	13 ²⁵ / ₃₂	3 ⁵ / ₂₃	1 ³ / ₈	10.36

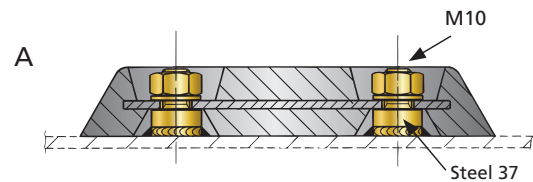
Aluminium and zinc anodes

Type	Description	Type of contour	Protects M ² Adequate paint / worn out paint / unpainted	Length (inch)	Width (inch)	Height (inch)	Net weight (lb)
ZINK8C	Hull anode, zinc MIL-A-18001K	Circular	12 / 6 / 3.5	3 ⁹ / ₁₆	3 ⁹ / ₁₆	1 ²⁵ / ₃₂	2.42
ZINK15C	Hull anode, zinc MIL-A-18001K	Rectangular	14 / 7 / 3.5	5 ²⁹ / ₃₂	2 ³ / ₄	1	2.42
ZINK25C	Hull anode, zinc MIL-A-18001K	Rectangular	24 / 12 / 6.5	9 ²⁷ / ₃₂	2 ¹⁵ / ₁₆	1 ³ / ₁₆	5.51
ZINK35C	Hull anode, zinc MIL-A-18001K	Rectangular	40 / 20 / 10.5	13 ²⁵ / ₃₂	3 ⁵ / ₂₃	1 ³ / ₈	10.36
ZKITS	Anode connection kit for steel hulls						
ZKITP	Anode connection kit for G.R.P. hulls						

When ordering, please always specify the material of the hull. All metal parts must have a direct contact with the anode. Therefore the bolts supplied for e.g. fibreglass hulls must have a wire-connection, so that contact can be made with the metal parts. (See drawing B). On fibreglass and wooden boats only the **metal** parts must be protected. For anodes type 8 you need **one** (1) connection kit and for types 15, 15S, 25, 25S and 35 you need **two** (2) of these. All V-Quipment anodes have a protective layer of paint at the mounting side to prevent damage to the paint work of your boat.

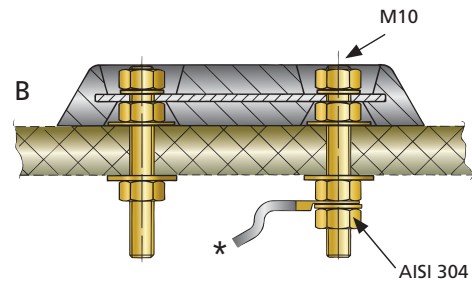
A How to install anodes on steel hulls

Anodes that are installed by means of studs are much easier to replace than anodes that are welded directly to the ship's hull. When ordering studs for a steel hull, please select the ZKITS bolt-on set.



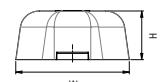
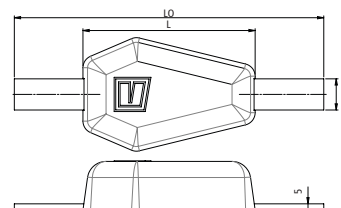
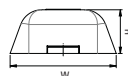
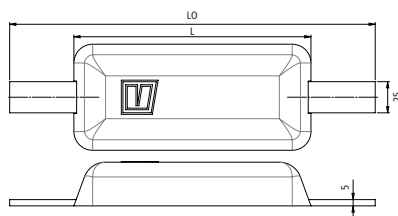
B How to install anodes on fibreglass and wooden hulls

For installing anodes on fibreglass and wooden hulls, please use our ZKITP bolt-on set. This ensures proper fixation and allows the anodes to be easily replaced when they are worn out.



* Copper wire to connect parts to be protected.

Hull anodes

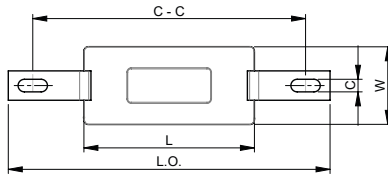


Hull anodes

Type	Description	Model	Length overall (LO=) (inch)	Length (L=) (inch)	Width (W=) (inch)	Height (H=) (inch)	Steel strap (inch)	Net weight (lb)	Gross weight (lb)
WOA000Z	Weld- on hull anode, zinc	Rectangular	7 ²⁵ / ₃₂	4 ⁷ / ₁₆	2 ³ / ₈	7 ⁷ / ₈	7 ²⁵ / ₃₂ X 1 X 1 ¹ / ₈	1.69	1.98
WOA000A	Weld- on hull anode, aluminium	Rectangular	7 ²⁵ / ₃₂	4 ⁷ / ₁₆	2 ³ / ₈	2 ¹ / ₃₂	7 ²⁵ / ₃₂ X 1 X 1 ¹ / ₈	0.55	0.79
WOA001Z	Weld- on hull anode, zinc	Rectangular	7 ²⁵ / ₃₂	4 ⁷ / ₁₆	2 ⁷ / ₁₆	1	7 ²⁵ / ₃₂ X 1 X 3 ³ / ₁₆	1.94	2.35
WOA001A	Weld- on hull anode, aluminium	Rectangular	7 ²⁵ / ₃₂	4 ⁷ / ₁₆	2 ⁷ / ₁₆	1	7 ²⁵ / ₃₂ X 1 X 3 ³ / ₁₆	0.79	1.21
WOA002Z	Weld- on hull anode, zinc	Rectangular	11 ²³ / ₃₂	7 ⁷ / ₈	2 ³ / ₄	7 ⁷ / ₈	7 ²⁵ / ₃₂ X 1 X 3 ³ / ₁₆	3.46	4.07
WOA002A	Weld- on hull anode, aluminium	Rectangular	11 ²³ / ₃₂	7 ⁷ / ₈	2 ³ / ₄	7 ⁷ / ₈	7 ²⁵ / ₃₂ X 1 X 3 ³ / ₁₆	1.67	2.31
WOA003Z	Weld- on hull anode, zinc	Rectangular	11 ¹⁷ / ₃₂	8 ⁷ / ₃₂	2 ⁹ / ₁₆	1 ⁵ / ₃₂	11 ²³ / ₃₂ X 1 X 3 ³ / ₁₆	4.38	5
WOA003A	Weld- on hull anode, aluminium	Rectangular	11 ¹⁷ / ₃₂	8 ⁷ / ₃₂	2 ⁹ / ₁₆	1 ⁵ / ₃₂	11 ²³ / ₃₂ X 1 X 3 ³ / ₁₆	1.8	2.42
WOA004Z	Weld- on hull anode, zinc	Rectangular	11 ¹⁷ / ₃₂	7 ¹⁵ / ₃₂	3 ¹¹ / ₃₂	1 ³ / ₈	11 ²³ / ₃₂ X 1 X 3 ³ / ₁₆	5.99	6.61
WOA004A	Weld- on hull anode, aluminium	Rectangular	11 ¹⁷ / ₃₂	7 ¹⁵ / ₃₂	3 ¹¹ / ₃₂	1 ³ / ₈	11 ²³ / ₃₂ X 1 X 3 ³ / ₁₆	2.42	3.19
WOA010Z	Weld- on hull anode, zinc	Drop	9 ¹ / ₁₆	4 ²¹ / ₃₂	3 ¹ / ₁₆	1	9 ¹ / ₁₆ X 1 X 3 ³ / ₁₆	1.72	2.2
WOA010A	Weld- on hull anode, aluminium	Drop	9 ¹ / ₁₆	4 ²¹ / ₃₂	3 ¹ / ₁₆	1	9 ¹ / ₁₆ X 1 X 3 ³ / ₁₆	0.72	1.21
WOA011Z	Weld- on hull anode, zinc	Drop	9 ³ / ₄	5 ⁷ / ₁₆	3 ⁵ / ₈	1 ³ / ₈	9 ³ / ₄ X 1 X 3 ³ / ₁₆	3.43	3.96
WOA011A	Weld- on hull anode, aluminium	Drop	9 ³ / ₄	5 ⁷ / ₁₆	3 ⁵ / ₈	1 ³ / ₈	9 ³ / ₄ X 1 X 3 ³ / ₁₆	1.56	2.09
WOA012Z	Weld- on hull anode, zinc	Drop	9 ³ / ₄	6 ⁵ / ₁₆	3 ¹⁵ / ₁₆	1 ²¹ / ₃₂	9 ³ / ₄ X 1 X 3 ³ / ₁₆	5.42	5.95
WOA012A	Weld- on hull anode, aluminium	Drop	9 ³ / ₄	6 ⁵ / ₁₆	3 ¹⁵ / ₁₆	1 ²¹ / ₃₂	9 ³ / ₄ X 1 X 3 ³ / ₁₆	2.22	2.75



BOA...Z

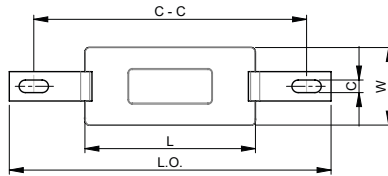


Type	Description	Model	Length overall (LO=) (inch)	Length (L=) (inch)	Width (W=) (inch)	Height (H=) (inch)	Steel strap (inch)	C - C (inch)	C (inch)	Net weight (lb)	Gross weight (lb)
BOA001Z	Hull anode, zinc	Rectangular	6 ¹ / ₂	3 ¹¹ / ₃₂	1 ³ / ₈	5 ⁷ / ₈	6 ¹ / ₂ X 1 ⁹ / ₃₂ X 1 ¹ / ₈	4 ⁴¹ / ₆₄	1 ¹ / ₄	0.4	0.5
BOA002Z	Hull anode, zinc	Rectangular	6 ⁵⁷ / ₆₄	4 ⁹ / ₆₄	1 ⁴⁹ / ₆₄	1	6 ⁵⁷ / ₆₄ X 1 ⁹ / ₃₂ X 1 ¹ / ₈	4 ⁵⁹ / ₆₄	1 ¹ / ₄	1	1.1
BOA003Z	Hull anode, zinc	Rectangular	8 ⁵⁵ / ₆₄	4 ²³ / ₃₂	2 ¹¹ / ₆₄	1 ³ / ₁₆	8 ⁵⁵ / ₆₄ X 2 ⁵ / ₃₂ X 5 ⁷ / ₃₂	7 ³ / ₃₂	2 ²³ / ₆₄	1.8	2.1
BOA004Z	Hull anode, zinc	Rectangular	8 ⁵⁵ / ₆₄	5 ²⁹ / ₃₂	3 ²⁷ / ₆₄	1 ⁷ / ₃₂	8 ⁵⁵ / ₆₄ X 2 ⁵ / ₃₂ X 5 ⁷ / ₃₂	7 ¹ / ₆₄	2 ²³ / ₆₄	4	4.3
BOA005Z	Hull anode, zinc	Rectangular	11 ³⁹ / ₆₄	8 ¹⁵ / ₃₂	3 ⁴⁵ / ₆₄	1 ⁷ / ₃₂	11 ³⁹ / ₆₄ X 1 X 1 ¹³ / ₆₄	10 ³ / ₆₄	3 ³³ / ₆₄	6.9	7.5
BOA006Z*	Hull anode, zinc	Rectangular	13 ²⁵ / ₃₂	9 ²⁷ / ₃₂	4 ¹ / ₄	1 ³ / ₈	13 ²⁵ / ₃₂ X 1 X 1 ¹³ / ₆₄	-	-	11.4	12.3
BOA007Z*	Hull anode, zinc	Rectangular	17 ²³ / ₃₂	13 ²⁵ / ₆₄	5 ²⁹ / ₃₂	1 ³ / ₈	17 ²³ / ₃₂ X 2 X 1 ¹³ / ₆₄	-	-	21.4	22.9

*Steel strap without holes



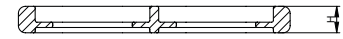
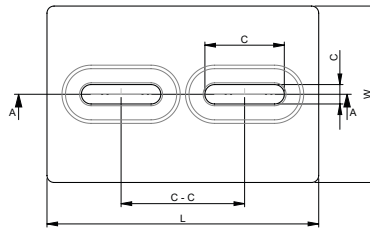
BOA...A



Type	Description	Model	Length overall (LO=) (inch)	Length (L=) (inch)	Width (W=) (inch)	Height (H=) (inch)	Steel strap (inch)	C - C (inch)	C (inch)	Net weight (lb)	Gross weight (lb)
BOA003A	Hull anode, aluminium	Rectangular	9 ¹ / ₁₆	5 ¹ / ₈	2 ²³ / ₆₄	1 ³ / ₁₆	9 ¹ / ₁₆ X 2 ⁵ / ₃₂ X 1 ¹³ / ₆₄	7 ⁴³ / ₆₄	2 ²³ / ₆₄	0.7	0.1
BOA004A	Hull anode, aluminium	Rectangular	8 ⁵⁵ / ₆₄	6 ⁷ / ₆₄	3 ²⁷ / ₆₄	1 ⁷ / ₃₂	8 ⁵⁵ / ₆₄ X 2 ⁵ / ₃₂ X 1 ¹³ / ₆₄	7 ¹ / ₆₄	2 ²³ / ₆₄	1.6	1.9
BOA005A	Hull anode, aluminium	Rectangular	11 ³⁹ / ₆₄	8 ¹⁵ / ₃₂	3 ⁴⁵ / ₆₄	1 ⁷ / ₃₂	11 ³⁹ / ₆₄ X 1 X 1 ¹³ / ₆₄	10 ³ / ₆₄	3 ³³ / ₆₄	2.8	3.4
BOA006A*	Hull anode, aluminium	Rectangular	13 ²⁵ / ₃₂	9 ²⁷ / ₃₂	4 ¹ / ₄	1 ³ / ₈	13 ²⁵ / ₃₂ X 1 X 1 ¹³ / ₆₄	-	-	4.5	5.3
BOA007A*	Hull anode, aluminium	Rectangular	17 ²³ / ₃₂	13 ²⁵ / ₆₄	5 ²⁹ / ₃₂	1 ³ / ₈	17 ²³ / ₃₂ X 2 X 1 ¹³ / ₆₄	-	-	8.2	9.9

*Steel strap without holes

Hull anodes



BOA...Z

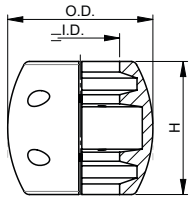
Type	Description	Model	Length (L=) (inch)	Width (W=) (inch)	Height (H=) (inch)	C - C (inch)	C (inch)	Net weight (lb)	Gross weight (lb)
BOA021Z	Hull anode, zinc	Plate	5 ³ / ₄	2 ³³ / ₆₄	³ / ₄	2 ⁷ / ₈	³³ / ₆₄ × 1 ⁷ / ₆₄	2	2
BOA022Z	Hull anode, zinc	Plate	5 ¹⁵ / ₁₆	2 ²³ / ₃₂	1	3	³³ / ₆₄ × 1 ⁷ / ₆₄	3	3.3
BOA023Z	Hull anode, zinc	Plate	7 ⁷ / ₈	4 ² / ₆₄	1 ⁷ / ₆₄	5 ¹ / ₈	³³ / ₆₄ × 1 ⁷ / ₆₄	7.1	7.7
BOA024Z	Hull anode, zinc	Plate	6 ⁷ / ₆₄	3 ¹⁵ / ₁₆	¹⁹ / ₃₂	2 ²³ / ₃₂	⁷ / ₁₆ × 1 ³⁹ / ₆₄	2.4	2.8
BOA025Z	Hull anode, zinc	Plate	11 ⁵⁹ / ₆₄	3 ¹⁵ / ₁₆	³³ / ₆₄	5 ³⁵ / ₆₄	³³ / ₆₄ × 3 ⁵⁵ / ₆₄	7.3	8

Shaft anodes



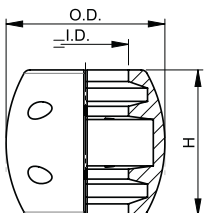
Type	Description	Model	I.D. (Shaft) (inch)	O.D. (inch)	H (inch)	Number of bolts	Net weight (lb)
ZINKAS25C	Shaft anode, zinc	Collar	1	2 ⁷ / ₃₂	2 ⁷ / ₃₂	2	1.12
ZINKAS30C	Shaft anode, zinc	Collar	1 ³ / ₁₆	2 ⁷ / ₃₂	2 ⁷ / ₃₂	2	1.10
ZINKAS35C	Shaft anode, zinc	Collar	1 ³ / ₈	2 ¹⁷ / ₃₂	2 ¹⁹ / ₃₂	4	1.36
ZINKAS40C	Shaft anode, zinc	Collar	1 ⁹ / ₁₆	2 ⁵ / ₃₂	3 ¹ / ₃₂	4	2.42
ZINKAS45C	Shaft anode, zinc	Collar	1 ²⁵ / ₃₂	2 ⁵ / ₃₂	3 ¹ / ₃₂	4	2.02
ZINKAS50C	Shaft anode, zinc	Collar	1 ³¹ / ₃₂	2 ²¹ / ₃₂	3 ¹⁵ / ₃₂	4	2.64
ZINKAS60C	Shaft anode, zinc	Collar	2 ³ / ₈	3 ¹⁵ / ₁₆	3 ¹⁵ / ₁₆	4	4.12

ZINKAS..C

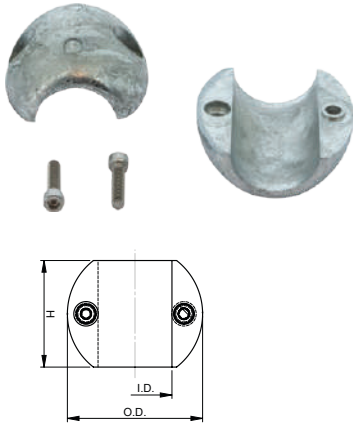


Type	Description	Model	I.D. (Shaft) inch	O.D. (inch)	H (inch)	Number of bolts	Net Weight (lb)
ZASA1C	Shaft anode, zinc	Collar	1	2 ¹ / ₈	2 ⁵ / ₃₂	2	0.9
ZASA1 ¹ / ₄ C	Shaft anode, zinc	Collar	1 ¹ / ₄	2 ¹³ / ₃₂	2 ³ / ₈	2	1.2
ZASA1 ¹ / ₂ C	Shaft anode, zinc	Collar	1 ¹ / ₂	2 ³ / ₄	2 ¹⁹ / ₃₂	4	1.6
ZASA1 ³ / ₄ C	Shaft anode, zinc	Collar	1 ³ / ₄	3 ⁵ / ₃₂	2 ³ / ₄	4	2.4
ZASA2C	Shaft anode, zinc	Collar	2	3 ¹⁷ / ₃₂	2 ²⁹ / ₃₂	4	3.1

ZASA..C

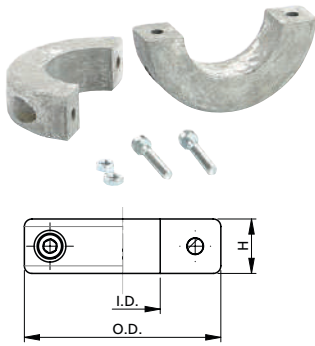


Shaft anodes



Type	Description	Model	I.D. (Shaft) (inch)	O.D. (inch)	H (inch)	Net Weight (lb)
SAC114Z	Shaft anode, zinc	Collar	1 ¹ / ₄	2 ¹ / ₄	1 ³¹ / ₃₂	0.99
SAC138Z	Shaft anode, zinc	Collar	1 ³ / ₈	2 ⁵ / ₈	2 ¹ / ₂	1.7
SAC112Z	Shaft anode, zinc	Collar	1 ¹ / ₂	2 ³ / ₄	2 ¹⁹ / ₃₂	1.8
SAC134Z	Shaft anode, zinc	Collar	1 ³ / ₄	3 ³ / ₁₆	2 ¹⁵ / ₁₆	2.93
SAC2Z	Shaft anode, zinc	Collar	2	3 ³ / ₁₆	2 ¹⁵ / ₁₆	2.69
SAC214Z	Shaft anode, zinc	Collar	2 ¹ / ₄	3 ²⁷ / ₃₂	3 ³ / ₄	4.7
SAC212Z	Shaft anode, zinc	Collar	2 ¹ / ₂	4 ⁵ / ₃₂	3 ¹⁴ / ₁₆	5.18

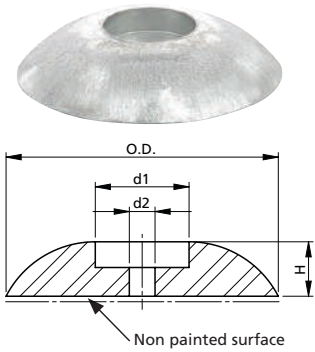
SAC..Z



Type	Description	Model	I.D. (Shaft) (inch)	O.D. (inch)	H (inch)	Net Weight (lb)
SAR25Z	Shaft anode, zinc	Ring	1	2 ⁹ / ₁₆	2 ³ / ₃₂	0.68
SAR30Z	Shaft anode, zinc	Ring	1 ³ / ₁₆	2 ⁹ / ₁₆	2 ³ / ₃₂	0.61
SAR35Z	Shaft anode, zinc	Ring	1 ³ / ₈	2 ⁹ / ₁₆	2 ³ / ₃₂	0.55
SAR40Z	Shaft anode, zinc	Ring	1 ⁹ / ₁₆	2 ⁵ / ₃₂	2 ⁵ / ₃₂	1.03
SAR45Z	Shaft anode, zinc	Ring	1 ²⁵ / ₃₂	2 ⁵ / ₃₂	2 ⁵ / ₃₂	0.97
SAR50Z	Shaft anode, zinc	Ring	1 ³¹ / ₃₂	3 ¹ / ₂	1	1.56

SAR..Z

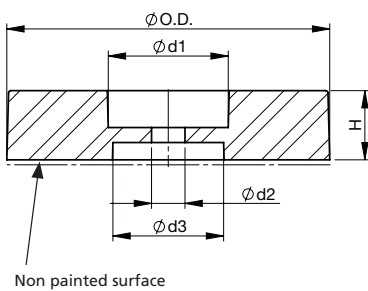
Rudder anodes



Type	Description	Model	O.D. (inch)	d1 (inch)	d2 (inch)	H (inch)	Net Weight (lb)
RAD50Z	Rudder anode, zinc	Disc	1 ³¹ / ₃₂	2 ⁵ / ₃₂	1 ¹ / ₄	7 ¹ / ₁₆	0.17
RAD70Z	Rudder anode, zinc	Disc	2 ³ / ₄	7 ⁷ / ₈	1 ¹¹ / ₃₂	1 ¹ / ₂	0.51
RAD90Z	Rudder anode, zinc	Disc	3 ¹⁷ / ₃₂	1 ⁷ / ₃₂	1 ¹¹ / ₃₂	2 ²³ / ₃₂	0.99
RAD110Z	Rudder anode, zinc	Disc	4 ¹¹ / ₃₂	1 ³ / ₁₆	7 ⁷ / ₁₆	2 ²³ / ₃₂	1.54
RAD140Z	Rudder anode, zinc	Disc	5 ¹ / ₂	1 ³ / ₈	1 ¹⁵ / ₃₂	1 ³ / ₁₆	3.30

RAD..Z

Stern anodes



Type	Description	Model	O.D. (inch)	H (inch)	d1 (inch)	d2 (inch)	d3 (inch)	Net Weight (lb)
STAD001Z	Stern anode, zinc	Disc	5 ¹ / ₂	1 ³ / ₁₆	2 ¹ / ₁₆	9 ¹ / ₁₆	1 ⁷ / ₈	5.95
STAD002Z	Stern anode, zinc	Disc	5 ¹ / ₂	1 ³ / ₈	2 ³ / ₁₆	9 ¹ / ₁₆	1 ⁷ / ₈	6.61
STAD003Z	Stern anode, zinc	Disc	4 ¹⁵ / ₁₆	1 ¹ / ₂	1 ¹⁵ / ₁₆	9 ¹ / ₁₆	1 ⁷ / ₈	5.95
STAD004Z	Stern anode, zinc	Disc	5 ⁵ / ₁₆	1 ⁷ / ₈	M50x3	9 ¹ / ₁₆	1 ¹ / ₄	8.16



STAD001Z



STAD002Z



STAD003Z



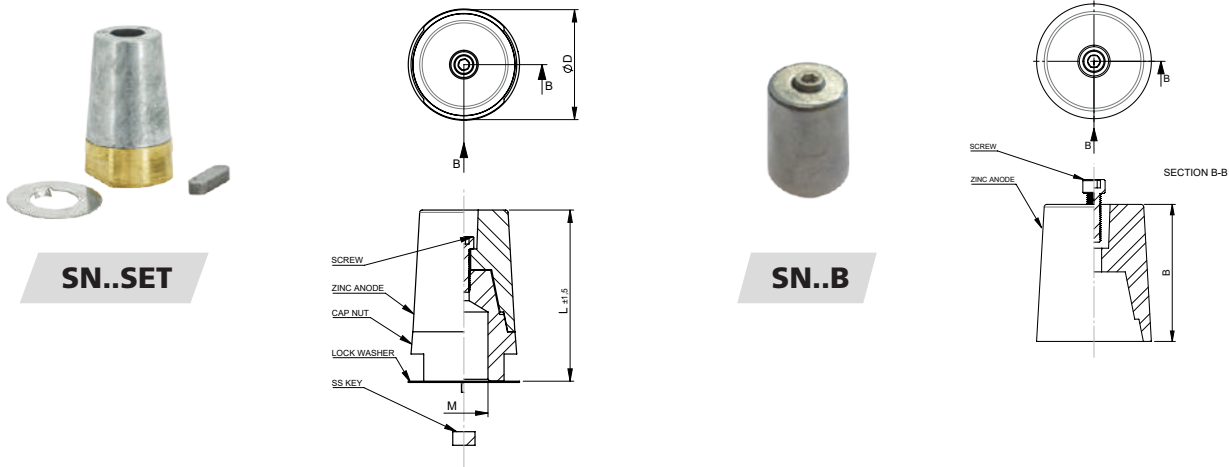
STAD004Z

Aluminium and zinc anodes

Shaft anodes, for installation directly to the propeller shaft

The V-Quipment shaft anodes are designed to create a perfect fit on the shaft. Even if the anode is eroded, it can't fall off. Shaft anodes are not recommended on high speed vessels. They create turbulence in the water flow around the propeller and as they erode, can cause imbalance in the propeller shaft. These problems do not occur when using the V-Quipment propeller nut with integrated zinc anode.

Zinc anode set for VETUS propeller shafts



Type	Description	M	Ø D	Nett Weight (lb)	L +/- 1,5	Replacement anode only
SN25SET	Complete zinc anode set for Ø 25 mm shaft nut	M16 x 1,5	17/16	0.26	2 ⁵ / ₁₆	SN25B
SN30SET	Complete zinc anode set for Ø 30 mm shaft nut	M20 x 1,5	1 ³ / ₄	0.72	2 ¹⁵ / ₁₆	SN30B
SN35SET	Complete zinc anode set for Ø 35 mm shaft nut	M24 x 2	1 ¹⁵ / ₁₆	0.63	3 ³ / ₈	SN35B
SN40SET	Complete zinc anode set for Ø 40 mm shaft nut	M24 x 2	2 ¹ / ₈	1.1	3 ³ / ₄	SN40B
SN45SET	Complete zinc anode set for Ø 45 mm shaft nut	M30 x 2	2 ⁹ / ₁₆	1.65	4 ¹ / ₈	SN45B
SN50SET	Complete zinc anode set for Ø 50 mm shaft nut	M36 x 3	2 ¹⁵ / ₁₆	2.07	4 ⁹ / ₁₆	SN50B
SN60SET	Complete zinc anode set for Ø 60 mm shaft nut	M42 x 3	3 ¹ / ₂	8.37	5 ⁷ / ₁₆	SN60B

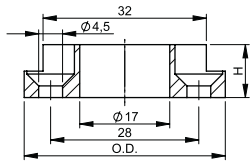
Type	Description	B	Nett Weight (lb)
SN25B	Spare zinc anode for Ø 25 mm shaft nut	1 ⁹ / ₁₆	0.31
SN30B	Spare zinc anode for Ø 30 mm shaft nut	2 ¹ / ₁₆	0.55
SN35B	Spare zinc anode for Ø 35 mm shaft nut	2 ¹³ / ₃₂	0.85
SN40B	Spare zinc anode for Ø 40 mm shaft nut	2 ¹¹ / ₁₆	1.16
SN45B	Spare zinc anode for Ø 45 mm shaft nut	3	1.84
SN50B	Spare zinc anode for Ø 50 mm shaft nut	3 ⁹ / ₁₆	2.31
SN60B	Spare zinc anode for Ø 60 mm shaft nut	3 ⁷ / ₈	3.49



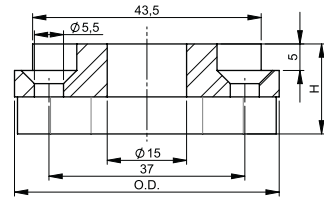
Zinc anodes for VETUS bow thrusters



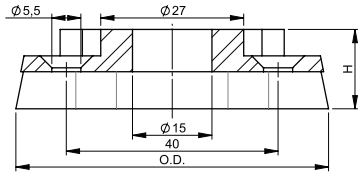
SET0148



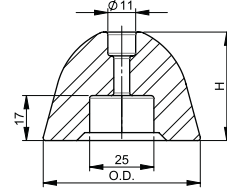
SET0149



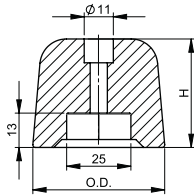
SET0150



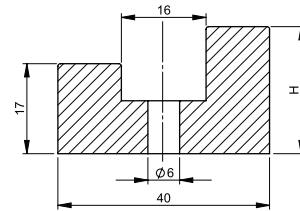
SET0151



SET0152

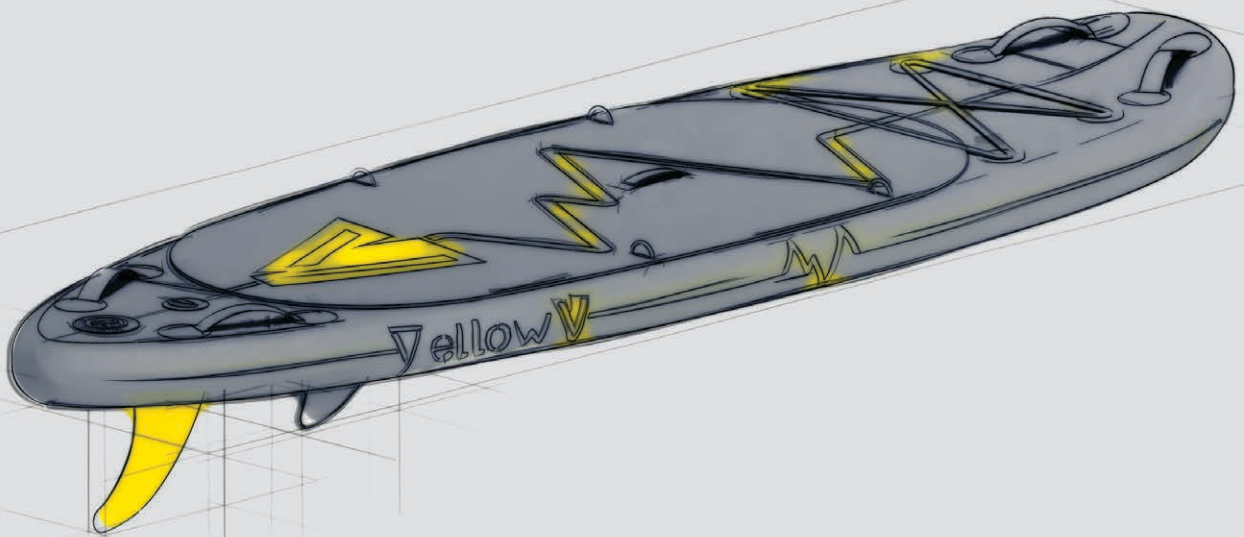


SET0153



Type	Description	O.D. (inch)	H (inch)	Nett Weight (lb)
SET0148	Zinc anode for bow thruster 25 kgf, BOWA030	1 1/2	1 3/32	0.08
SET0149	Zinc anode for bow thruster 35, 45, 55 kgf, BOWA036, 042, 057, BOWB042, 057	1 31/32	2 1/32	0.30
SET0150	Zinc anode for bow thruster 60, 75, 80, 95 kgf, BOWA065, 076, 090, BOWB065, 076, 090	2 3/8	1 9/32	0.33
SET0151	Zinc anode for bow thruster 125, 130, 160 kgf, BOWA110	2 5/16	1 5/8	0.92
SET0152	Zinc anode for bow thruster 220, 230, 285, 300, 310 kgf	1 15/16	1 5/8	0.81
SET0153	Zinc anode for bow thruster 23, 50, 80 kgf	-	1 5/16	0.17





Passion for water

Water is the most important element in our lives. To drink, to freshen up, to relax - we need it in so many ways. We from YellowV love water. It's our passion and we want to share it with you!

We offer a wide range of inflatable watersport products, such as SUP boards, boats and fun tubes to serve a wide audience. All our products stimulate an active life on the water. For more information visit our website: www.yellowv.com

SUP Boards

YellowV starts with a range of five powerful Heartbeat Stand Up Paddling boards. This series combine modern graphics with a distinguished high quality black PVC background. Double layer drop-stitched to be precise, to guarantee many years of fun.

All our boards are supplied as a complete ready-to-run set, see next page.



Passion for water



YVSUP08



YVSUP13



YVSUP09



YVSUP14



YVSUP11

All SUP Boards are supplied with a ready-to-run kit.

This kit includes:

- Fin
- Dry bag
- Paddles
- Pump
- Leash
- SUP kit glue
- Set of water-proof playing cards
- Pawns
- Dice
- Phone case
- Protection microfiber towel
- Backpack



Type	Name / Category	Length in (cm)	Width in (cm)	Thickness in (cm)	Weight lb (kg)	Volume gal (L)	Max. load lb (kg)	EVA foam in (mm)	Construction	Valve	Number of handles
YVSUP08	Iguazu / all-round	98 ⁷ / ₁₆ (250)	28 ³ / ₄ (73)	4 (10)	18.7 (8.5)	40/153	165 (75)	1/16 (5)	Double layer PVC	Bravo A102886	5
YVSUP09	Yosemite / white water	113 (287)	35 (88.9)	6 (15)	19.8 (9)	77/292	287 (130)	1/16 (5)	Fusion PVC	Bravo A102886	3
YVSUP11	Angel / touring	132 (335)	31 ¹ / ₂ (80)	6 (15)	25.3 (11.5)	85/322	287 (130)	1/16 (5)	Fusion PVC	Bravo A102886	9
YVSUP13	Tugela / fast touring	157 ¹ / ₂ (400)	28 ³ / ₄ (73)	6 (15)	20.5 (9.3)	95/360	287 (130)	1/16 (5)	X-woven MSL fusion PVC	TOTORA 'V1002'	5
YVSUP14	Niagara / overnight touring	167 ³ / ₄ (426)	32 ² / ₃ (83)	6 (15)	26.2 (11.9)	103/390	309 (140)	1/16 (5)	X-woven MSL fusion PVC	TOTORA 'V1002'	5

Yellow V

Passion for water



Length: 2870 mm
Width: 889 mm
Thickness: 150 mm
Rider weight: 130-200 kg/300 lb

Passion for water

Body board

Surf the waves and find adventure with the YellowV body board CRUMBLE!

This board is extremely strong and rigid due to the drop stitch construction. This makes the board very light as well.

Weighing only 2.5 kg (5.5 lb) and in conjunction with its ergonomic handles you will find the body board highly maneuverable. The top of the board is made from EVA-Foam, ensuring a good grip of your body to the board. The ideal summer partner.



YVIBC42

Type	Name / Category	Length in (cm)	Width in (cm)	Thickness in (cm)	Weight lb (kg)	Volume gal (L)	Max. load lb (kg)	EVA foam in (mm)	Construction	Valve	Number of handles
YVIBC42	Crumble / wave	42 ¹ / ₈ (107)	20 ⁷ / ₈ (53)	3 ³ / ₃₂ (8)	5.5 (2.5)	12 (46)	209 (95)	1 ¹ / ₁₆ (5 mm)	Knitted, single layer PVC	GRI 'V5001'	2

Platform

Create your own spot on the water. A private island may only be for the lucky few, but the YellowV platform comes very close. For yoga, docking station or just to relax - this platform does it all.

Kit includes:



YVIFP8

Type	Name / Category	Length in (cm)	Width in (cm)	Thickness in (cm)	Weight lb (kg)	Volume gal (L)	Max. load lb (kg)	EVA foam in (mm)	Construction	Valve	Number of handles
YVIFP8	Hawaii / yoga - sunbed - service platform	98 ⁷ / ₁₆ (250)	63 (160)	6 (15)	46.3 (21)	105.7 (400)	903 (410)	1 ¹ / ₁₆ (5 mm)	Knitted MSL fusion PVC	TOTORA 'V1002'	8

Accessories

Paddle and paddle float



YVPAD02



YVPADFLOA

Type	Description
YVPAD02	3-piece paddle, aluminium v2.0 for stand-up paddling/kayaking
YVPADFLOA	Paddle float for adjustable SUP and kayak paddle size 63" x 23/4" (30 x 6.9 cm)



Passion for water

Accessories



YVFIN..

Fin

Type	Description
YVFIN01	Yellow 9-in center fin for all SUP boards
YVFIN02	Set of (2) black 4.5-in side fins for YVSUP08 09 11 SUP's
YVFIN03	Set of (2) black 4.5-in fins for YVSUP14, fits centre/side boxes



YVLEAS..

Leash

Type	Description
YVLEAS01	Leash, 8' coiled for SUP's up to 8'
YVLEAS02	Leash, 10' coiled for SUP's up to 10'
YVLEAS03	Leash, 12' coiled for SUP's up to 12'
YVLEAS04	Leash, 13' coiled for SUP's up to 13'
YVLEAS05	Leash, 14' coiled for SUP's up to 14'



YVPUMP01

YVPUMP02E

Pump

Type	Description
YVPUMP01	Pump, high-pressure, double acting for SUP's and platforms
YVPUMP02E	Electric pump for SUP/Boat/Kayak, works on both the 12V car socket as well as on the 15000mAh battery - inflates up to 4x YVSUP11 to 15 psi/1 bar on a single battery charge

YVSSEAT01



Seat

Type	Description
YVSSEAT01	SUP and kayak seat, black



YVBAG...

Dry bag

Type	Description
YVBAGH02	Dry bag type "tube" black, 2.1 gal/2 liter
YVBAGH15	Dry bag type "tube" black, 4 gal/15 liter
YVBAGY15	Dry bag type "tube" yellow, 4 gal/15 liter
YVBAGH70	Dry bag type "tube" black, 18 gal/70 liter
YVBAGY70	Dry bag type "tube" yellow, 18 gal/70 liter



YV.KIT

Repair kit

Type	Description
YVSKIT	SUP kit glue, (5) pads, key, pawns, cards, phone case and 2.1 gal/2 liter dry bag
YVPKIT	Platform kit glue, (5) pads, key, pawns, cards, phone case and 2.1 gal/2 liter dry bag
YVKKIT	Kayak kit Glue, (5) pads, key, cards, phone case and 2.1 gal/2 liter dry bag

Passion for water

Fun tubes

Experience the thrill of fun tubes with our YellowV range.



YVFUN1DON



YVFUN2DIS



YVFUN2TRI



YVFUN2BAN

Type	Name / Category	Inflated size in (cm)	Max. load lb (kg)	Nylon	PVC	Valve	Features
YVFUN1DON	Donut / towable	54 (137)	169 (77)	420 denier	24 gauge	one-way Boston valve	quick rope connector, 4 covered handles, integrated water drain
YVFUN2DIS	Disc / towable	65 (165)	339 (154)	420 denier	28 gauge	one-way Boston valve	quick rope connector, 4 covered handles, neoprene panels and integrated water drain
YVFUN2TRI	Triangle / towable	57 ¹ / ₈ x 74 (145 x 188)	339 (154)	840 denier	28 gauge	one-way Boston valve	quick rope connector, 4 covered handles, neoprene knuckle guards, one water drain
YVFUN2BAN	Banana / towable	44 ³ / ₃₂ x 79 ⁵ / ₃₂ (112 x 201)	339 (154)	840 denier	30 gauge	one-way Boston valve	quick rope connector, 2 covered handles, neoprene knuckle guards, two water drains

Tow ropes and pump



YVTOWR02



YVTOWR04



YVPUMP02E

Type	Description
YVTOWR02	Tow rope for iFuntubes with floater for 2 persons - black / yellow / white
YVTOWR04	Tow rope for iFuntubes with floater for 4 persons - black / yellow / white
YVPUMP02E	Electric pump for SUP/Boat/Kayak, works on both the 12V car socket as well as on the 15000mAh battery



Passion for water

Inflatable boats

If you are looking for something that is light, compact, and easy to store, look no further than the YellowV inflatable-boat series. Experience the great stability of the large diameter tubes and a performance-increasing deep-V hull. A strap to secure the fuel tank or battery is incorporated in the deck as standard. The D-shaped tubes create extra room inside the boat, making YellowV inflatable boats the ideal accessory to have in the back of your car or on the back of your boat for a quick dash to shore. Because of our multifunctional transom blocks, the YellowV inflatable-boat series accepts both air and aluminium decks. This allows you to mix and match, selecting the appropriate one for your intended use.



Type	VB200	VB230	VB270/B	VB300/B	VB330/B
Inflatable drop-stitch air deck	•	•	•	•	•
Foldable aluminium deck		•	•	•	•
Length overall (in/cm)	78¾ / 200	90 ½ / 230	106 ⁵ / ₁₆ / 270	118 ¹ / ₁₀ / 300	130 / 330
Beam width overall (in/cm)	54¾ / 139	51 ³ / ₁₆ / 130	60 ⁵ / ₈ / 154	60 ⁵ / ₈ / 154	60 ⁵ / ₈ / 154
Inside length (in/cm)	49¼ / 125	61 ¹ / ₃₂ / 155	76¾ / 195	88 ⁷ / ₁₆ / 225	100 ¹ / ₅ / 255
Inside width (in/cm)	23 ⁵ / ₈ / 60	23 ⁵ / ₈ / 60	27 ⁹ / ₁₆ / 70	27 ⁹ / ₁₆ / 70	27 ⁹ / ₁₆ / 70
Tube diameter (in/cm)	16 ¹ / ₈ / 41	13¾ / 35	16½ / 42	16½ / 42	16½ / 42
Valve	generic bayonet push valve				
Packed size (in/cm)	41 ¹ / ₃ x 27 ⁹ / ₁₆ x 12 ⁵ / ₈ 105 x 70 x 32	41 ¹ / ₃ x 27 ⁹ / ₁₆ x 13 ³ / ₄ 105 x 70 x 35	45 ¹ / ₄ x 27 ⁹ / ₁₆ x 15 115 x 70 x 38	45 ¹ / ₄ x 27 ⁹ / ₁₆ x 15 115 x 70 x 38	45 ¹ / ₄ x 27 ⁹ / ₁₆ x 15 115 x 70 x 38
Payload (lb/kg)	551/250	794/360	1069/485	1102/500	1256/570
Max. capacity persons	2	2	3	3+1 (child)	4
Total boat weight (lb/kg) air deck / aluminium deck	62 / NA 28 / NA	68 / 75 31 / 36	86 / 106 39 / 48	90 / 116 41 / 53	97 / 127 44 / 58
Shipping weight (lb/kg) air deck / aluminium deck	73 / NA 33 / NA	84 / 97 38 / 44	97 / 114 44 / 52	105 / 130 48 / 59	112 / 143 51 / 65
Max. horsepower	3,75 kW / 5 hp	3,75 kW / 5 hp	7,5 kW / 10 hp	7,5 kW / 10 hp	11 kW / 15 hp
Design category	D	D	C	C	C
Standard supply	boat cover, carry/storage bag, foot pump with high-pressure chamber, repair kit with spare pump connector, two aluminium oars, one aluminium bench				
Outboard motor	short shaft				



1. The angled stern tubes and the trim flaps at the transom provide a greater planing surface and buoyancy. In addition, the rounded stern tubes with continuous rubbing strakes are less prone to damage.
2. Convenient grab handles are located at the transom.
3. Additional grab handles are ideally placed for the driver when motoring.
4. Oar storage is located inside the boat, and quick-storage clamps are located on the top of the tubes.
5. The bench can be repositioned, and a second bench can be installed as an option.
6. The design features a deep-V keel with a rubbing-strake protector. The side tubes are protected with an additional layer of PVC fabric at the bottom.
7. Multiple D-rings allow for towing and hoisting the boat.
8. Pressure relief valve prevents over-inflation.
9. A one-way drain plug with closure is included.
10. A pump with a pressure valve is included to set the right pressure.

Passion for water

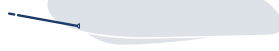
Choosing the right boat

YellowV offers you fully inflatable hulls with two types of decks. The preferred deck and length depend on your personal application. Do you need a lot of space, or does the boat need to fit the davits? How many people should be able to enjoy the boat at once? The YellowV inflatable boat series is available in five boat lengths: 78³/₄" (200 cm), 90¹/₂" (230 cm), 106⁵/₁₆" (270 cm), 118¹/₁₀" (300 cm), or 130" (330 cm) overall. Upon purchase, you can specify either an inflatable deck or a folding aluminium deck depending on your needs. What makes the YellowV inflatable-boat series unique, are the specially designed transom blocks that accept both deck styles. If your preference ever changes, all you need to do is purchase the additional deck. Whatever deck you choose, both versions are rigid when installed and feature a deep V hull for greater stability at both low and high speeds. Each has its individual advantages - check the specs diagram below.

To provide the optimum freedom in usage, all models are equipped with multiple carrying handles and D-rings for towing, lifting, and anchoring. The fun starts with selecting the right boat. Imagine what adventures you are going to have: rowing ashore to discover new places, exploring the coastline, sunbathing away from the crowd, or snorkeling. It's all up to you!



Anchor D ring with integrated carrying handle at the bow



Double D-rings at the bow for towing



Double lifting rings at the bow and stern



TOP SPEED	/
-----------	---

OVERALL STABILITY	/
-------------------	---

SUITABLE FOR HEAVY DUTY USE	/
-----------------------------	---

EASY TO TRANSPORT	/
-------------------	---

WEIGHT	/
--------	---

PRICE	/
-------	---



TOP SPEED	/
-----------	---

OVERALL STABILITY	/
-------------------	---

SUITABLE FOR HEAVY DUTY USE	/
-----------------------------	---

EASY TO TRANSPORT	/
-------------------	---

WEIGHT	/
--------	---

PRICE	/
-------	---



Passion for water

Accessories



VBEN..



VBCOV..

Bench and cover

Type	Description
VBEN74	Extra aluminium bench, 29 ⁹ / ₃₂ " (74 cm) (for types 200 and 230)
VBEN85	Extra aluminium bench, 33 ¹ / ₂ " (85 cm) (for types 270 to 330)
VBENBG	Seat bag, black with light-grey cushion
VBCOV20	Boat cover, light grey for 200 cm boats
VBCOV23	Boat cover, light grey for 230 cm boats
VBCOV27	Boat cover, light grey for 270 cm boats
VBCOV30	Boat cover, light grey for 300 cm boats
VBCOV33	Boat cover, light grey for 330 cm boats

Floor

Replacement or additional floors

Type	Description
VB022	Aluminium deck for 230 cm boats
VB023	Aluminium deck for 270 cm boats
VB024	Aluminium deck for 300 cm boats
VB025	Aluminium deck for 330 cm boats

Airdeck

Replacement or additional floors

Type	Description
VB006	Grey air deck for 200 cm boats
VB007	Grey air deck for 230 cm boats
VB008	Grey air deck for 270 cm boats
VB009	Grey air deck for 300 cm boats
VB010	Grey air deck for 330 cm boats

Airdeck

Type	Description
VB027	Black air deck for 270 cm boats
VB028	Black air deck for 300 cm boats
VB029	Black air deck for 330 cm boats

Service Parts

Type	Description
VBREPAIR	Repair kit complete
YVPUMP01	Dual-action hand pump with pressure gauge
YVPUMP02E	Electric pump for SUP/Boat/Kayak, works on both the 12V car socket as well as on the 15000mAh battery
VBPCON	Air valve connector
VBDRAIN	Drain-plug set
VBHAND	Hand grab with cleat
VBVENT	Air valve
VBCBAG	Carry bag
VBOAR	2-piece oar set, 59 ⁷ / ₁₆ " (152 cm) for models 230, 270, 300 and 330
VBOAR20	2-piece oar set, 52" (132 cm) for model 200
VBOARL	Oarlock, complete
VBOARN	Oarlock, nut only



VB02.

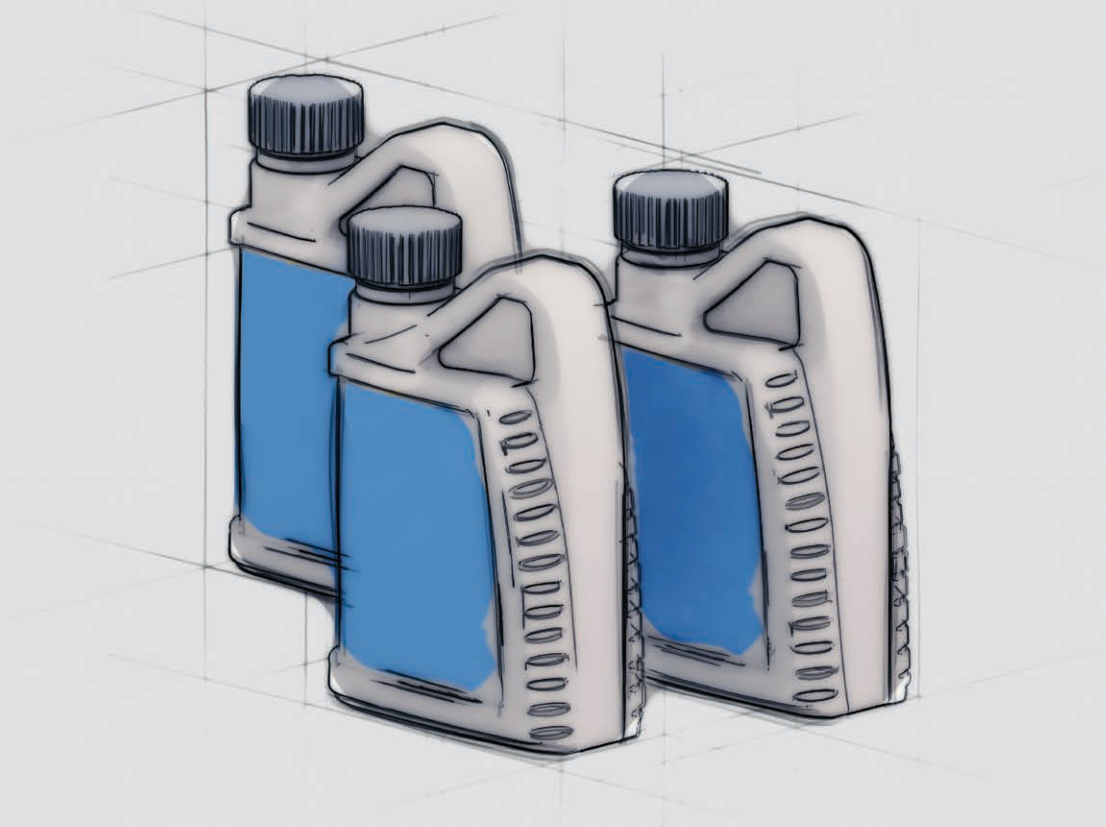


VB0..



VB02.





Hoses and lubricants

Overview of hoses

VETUS marine hoses are high quality and meet all the requirements of the current legislation for use on board. We have a very large range of hoses for all boat systems. Our hoses are highly flexible and extremely resistant to a variety of internal and external influences.



DWHOSEB

Water hose type DWHOSEB

Temperature resistant between 23 and +149°F (-5 and + 65°C)

This hose is made of transparent PVC with spiral inlay and is suitable for transportation of fresh water on board, both suction and pressure.

For available sizes see page 468.



FUHOSEA

FHA115

Fuel hose type FUHOSEA

For transportation of petrol and diesel fuels

This hose is made from CR rubber with a NBR rubber liner. It can be used for fuel transport or fuel tank ventilation. Particularly suitable for use with petrol and diesel because of the low permeability. Type FUHOSEA meets the CE standard: ISO 7840 marine fuel A1.

Type FHA115

Especially suitable for use with petrol because of its low permeability of less than 15 gr/m²/ 24 hours. The lining is translucent nylon for fuel and permeation resistance to 100°C. These fuel hoses have been successfully subjected to a fire test for 2.5 minutes. Suitable for diesel fuel, bio diesel (up to B100), petrol fuel, oil and ethanol. Meets the highest standards: ISO 7840 marine fuel A1-15 and ISO 10088, ABYC, CARB, EPA, SAE J 1527 A1-15, NMMA Type Accepted (2618936 and 2618937), USCG A1.

For available sizes see page 469.



WWHOSEB

Waste water hose

Type WWHOSEB

For transportation of grey waste water

This type of hose is made of white PVC with a steel spiral inlay. It is recommended for the transportation of grey waste water (not toilet waste).



SAHOSE

Impermeable sanitary no-smell hoses type SAHOSE

An absolute must for toilets

These hoses are made of SBR rubber with inlays of woven synthetic fabric and steel spiral. Recommended especially for transportation of biological waste from (marine) toilets (black water).

For available sizes see page 469.



BLHOSE

Ventilation hose

Type BLHOSE

For shell and extraction ventilators

Type BLHOSE is made from PVC coated polyester, reinforced with a steel wire. Temperature resistant between -40° and + 212°F (-20° and +100°C).

For available sizes see page 469.

Overview of hoses

Hose for fluids in closed heating / cooling systems type CCHOSE

Excellent for fluids in air conditioning and central heating

Hose for fluids in closed heating / cooling systems type CCHOSE. Excellent for fluids in air conditioning and central heating systems Type CCHOSE is made of EPDM rubber with an inlay of woven reinforcement fabric. Temperature resistant between 7° and 176°F (+3° and 80°C). Suitable for fluids in closed heating and/or cooling systems.

For available size see page 469.



CCHOSE

Cooling water hose type MWHOSE

For all cooling fluids

Type MWHOSE is made of EPDM rubber with synthetic fabric and spiraled steel reinforcement. Suitable for cooling water, both suction and pressure (max. 2.5 bar), salt and fresh water. Temperature resistant between -22° and 248°F (30° and +120°C).

For available sizes see page 469.



MWHOSE

Hose type HWHOSE

Ideal for use with calorifier and hot water systems

Type HWHOSE is made of EPDM rubber with an inlay of woven synthetic fabric. Suitable for fresh water and is temperature resistant between -22° and 320°F (30° and +160°C).

For available sizes see page 470.



HWHOSE

Silicone hose type SIHOSE

Extremely high temperature resistant

Type SIHOSE is made of high grade silicone rubber with a woven synthetic inlay and an encapsulated steel spiral with an external smooth gloss finish. This flexible hose is highly resistant to ageing and suitable for a wide range of applications (exhaust, cooling and waste water hose). Temperature range of -65°, + 350°F (-54 to 177°C) (intermittently up to 482°F (250°C)).

Type SIHOSE meets all the requirements of the ISO13363 type Class B and SAE J 2006 R1 standards.

For available sizes see page 470.



SIHOSE

Fuel filling hose type FFHOSE

Extremely flexible!

This type of hose, made of NBR rubber with spiralled steel inlay, is suitable for petrol and diesel fuels. Type FFHOSE meets requirements of SAE J 1527 and the standard ISO 7840 marine fuel A1 and is resistant to temperatures of - 22° and + 212°F (-30° and +100°C).

For available sizes see page 470.



FFHOSE



Hoses and lubricants

Overview of hoses

Rubber exhaust hose type SLANG

Flexible and strong, saving valuable installation time

VETUS exhaust hose type SLANG is the most flexible hose because of the increased spiral reinforcement and the extremely supple rubber. The completely smooth internal surface of the hose will reduce back pressure in the engine. Exhaust hoses with an internal diameter up to Ø 6" (152 mm) have a bending radius of 1,5 x the diameter. Exhaust hoses with an internal diameter of more than Ø 152 mm have a bending radius of twice the diameter.



SLANG

Specifications

Certification	Lloyds Approved, SAE J2006 R2
Temperature	Continuous operating temperature range: - 22° and + 212°F (-30° + 100°C); capable of withstanding brief exposures up to 239°F (115°C).
Construction	EPDM rubber tube, high tensile synthetic textile and steel helix reinforcement, EPDM rubber cover.
Smooth Interior	A flush bore design minimizes back pressure, enhancing flow efficiency and system performance.
Application	Designed for the delivery of wet exhaust gases and seawater in marine engine cooling systems.

For available sizes see page 470.

An engine with a water injection exhaust elbow with an external diameter of 2¼" (57 mm) may be connected to 2¾" (60 mm) VETUS exhaust hose. In this case VETUS waterlocks, mufflers, goosenecks and transom connections with a size of 2¾" (60 mm) can be used as well.

Rubber exhaust hose type SLANGR

RINA approved and Ultra-Flexible

Certified by RINA, the VETUS SLANGR exhaust hose builds on the trusted 'SLANG' design with enhanced spiral reinforcement and extremely supple rubber. In addition, the completely smooth interior reduces engine back pressure.



SLANGR

Specifications

Certification:	RINA-approved, ISO 13363
Temperature:	Continuous operating temperature range: - 22° and + 212°F (-30° + 100°C).
Construction:	NBR blend rubber tube, high tensile synthetic textile reinforcement with steel helix wire and an abrasion/ozone-resistant cover.
Smooth Interior:	A flush bore design minimizes back pressure, enhancing flow efficiency and system performance.
Application:	Suitable for the discharge of gases and fuels used in heating and cooling systems.

For available sizes see page 470.

HCS and HCHDS (heavy duty) clamps are made of stainless steel AISI 316. For more information about hose clamps see page 440.

DWBOSEB

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCHD(S) clamp to suit	HCS clamp to suit
DWBOSE10B	¾ (10)	⅝ (16)	0.16	7	1⅜ (20)	30		HCS12
DWBOSE12B	½ (12)	1⅛ (18)	0.18	7	1 (25)	30		HCS12
DWBOSE16B	⅝ (16)	7/8 (22)	0.24	6	1⅜ (35)	30		HCS16 HCS20
DWBOSE19B	¾ (19)	1 (26)	0.32	5	1⅝ (50)	30		HCS16 HCS20 HCS25
DWBOSE25B	1 (25)	1⅝ (33)	0.53	5	2⅜ (60)	30		HCS25 HCS32
DWBOSE28B	1⅛ (28)	1⅞ (36)	0.57	4.5	2⅝ (66)	30	HCHD(S)034	HCS25 HCS32
DWBOSE30B	1⅜ (30)	1½ (38)	0.60	4.5	2¾ (70)	30	HCHD(S)037	HCS25 HCS32
DWBOSE32B	1¼ (32)	1⅞ (40)	0.56	4.5	2⅝ (75)	30	HCHD(S)037 HCHD(S)040	HCS32 HCS40
DWBOSE35B	1⅜ (35)	1¾ (44)	0.73	4	3⅛ (80)	30	HCHD(S)043	HCS32 HCS40
DWBOSE38B	1½ (38)	1⅞ (47)	0.80	4	3⅞ (90)	30	HCHD(S)043 HCHD(S)047	HCS32 HCS40
DWBOSE40B	1⅞ (40)	1⅝ (49)	0.87	3	3¾ (95)	10	HCHD(S)047	HCS32 HCS40
DWBOSE45B	1¾ (45)	2⅜ (55)	1.10	3	4⅞ (105)	10	HCHD(S)051 HCHD(S)055	HCS40 HCS50
DWBOSE50B	1⅝ (50)	2⅜ (60)	1.20	3	4⅝ (125)	10	HCHD(S)059	HCS50

Overview of hoses

FUHOSEA - FHA115A

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCHD(S) clamp to suit	HCS clamp to suit
FUHOSE05A	3/16 (5)	7/16 (11)	0.13	10	7/8 (22)	30		HCS08 HCS12
FUHOSE06A	1/4 (6)	1/2 (13)	0.16	10	1 (25)	30		HCS08 HCS12
FUHOSE08A	5/16 (8)	5/8 (16)	0.24	10	1 3/16 (30)	30		HCS12
FUHOSE10A	3/8 (10)	1 1/16 (18)	0.28	10	1 3/8 (35)	30		HCS12 HCS16
FUHOSE13A	1/2 (13)	7/8 (22)	0.39	10	1 5/16 (50)	30		HCS16 HCS20
FUHOSE16A	5/8 (16)	1 (25)	0.45	10	2 3/8 (60)	30		HCS16 HCS20
FUHOSE19A	3/4 (19)	1 1/8 (28)	0.52	10	3 1/8 (80)	30		HCS20 HCS25
FUHOSE25A	1 (25)	1 3/8 (35)	0.73	10	4 5/16 (110)	30	HCHD(S)034	HCS25 HCS32
FHA11508A	5/16 (8)	2 1/32 (16,7)	0.24	17.2	7/8 (22)	76		HCS12
FHA11510A	3/8 (10)	2 3/32 (18,4)	0.30	17.2	7/8 (22)	76		HCS12

WWHOSE..B

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCHD(S) clamp to suit	HCS clamp to suit
WWHOSE16B	5/8 (16)	7/8 (22)	0,23	6	1 3/8 (35)	30		HCS16 HCS20
WWHOSE19B	3/4 (19)	1 (26)	0,32	5	1 5/16 (50)	30		HCS16 HCS20
WWHOSE25B	1 (25)	1 5/16 (33)	0,53	5	2 3/8 (60)	30		HCS25 HCS32
WWHOSE38B	1 1/2 (38)	1 7/8 (47)	0,80	4	3 3/16 (90)	30	HCHD(S)043 HCHD(S)047	HCS32 HCS40
WWHOSE45B	1 3/4 (45)	2 3/16 (55)	1,10	3	4 1/8 (105)	10	HCHD(S)051 HCHD(S)055	HCS40 HCS50

SAHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCHD(S) clamp to suit	HCS clamp to suit
SAHOSE16	5/8 (16)	1 (26)	0.45	3	1 5/16 (50)	20		HCS16 HCS20 HCS25
SAHOSE19	3/4 (19)	1 1/8 (29)	0.55	3	2 3/16 (65)	20		HCS20 HCS25
SAHOSE25	1 (25)	1 7/16 (36)	0.72	3	2 5/16 (75)	20	HCHD(S)034	HCS25 HCS32
SAHOSE38	1 1/2 (38)	1 7/8 (48)	1.15	3	3 5/16 (100)	20	HCHD(S)047	HCS32 HCS40
SAHOSE51	2 (51)	2 7/16 (62)	1.15	3	4 5/16 (125)	20	HCHD(S)051	HCS50 HCS40

BLHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)
BLHOSE310A	3 1/8 (79)	3 3/8 (85)	0.2	-	1 7/8 (47)	10
BLHOSE410A	4 (102)	4 1/4 (108)	0.2	-	2 3/8 (61)	10

CCHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)
CCHOSE16	5/8 (16)	1 3/16 (30)	0.54	1.5	4 7/16 (112)	20

MWHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCHD(S) clamp to suit	HCS clamp to suit
MWHOSE19	3/4 (19)	1 1/8 (28)	0.39	2.5	1 1/8 (29)	20		HCS20 HCS25
MWHOSE25	1 (25)	1 5/16 (34)	0.51	2.5	1 1/2 (38)	20		HCS25 HCS32
MWHOSE32	1 1/4 (32)	1 5/8 (41)	0.71	2.5	1 7/8 (48)	20	HCHD(S)040	HCS32 HCS40
MWHOSE38	1 1/2 (38)	1 7/8 (47)	0.88	2.5	2 1/4 (57)	20	HCHD(S)043 HCHD(S)047	HCS32 HCS40
MWHOSE51	2 (51)	2 3/8 (60)	1.15	2.5	3 1/16 (77)	20	HCHD(S)059	HCS50



Hoses and lubricants

Overview of hoses

HWHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCS clamp to suit	
HWHOSE13	½ (13)	⅞ (23)	0.36	8	¾ (95)	10	HCS16	HCS20
HWHOSE16	⅝ (16)	1 (26)	0.40	8	4⅝ (110)	10	HCS16	HCS20 HCS25

SIHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCHD(S) clamp to suit	HCS clamp to suit
SIHOSE25	1 (25)	1⅜ (35)	0.60	5.0	2⅞ (62)	20	HCHD034	HSC25
SIHOSE32	1¼ (32)	1⅝ (41)	0.73	4.5	3⅞ (80)	20	HCHD040	HSC32
SIHOSE38	1½ (38)	1⅞ (47)	0.85	4.0	1 (25)	20	HCHD043	HSC40
SIHOSE51	2 (51)	2⅜ (61)	1.31	4.0	5⅞ (150)	20	HCHD059	HSC50
SIHOSE63	2½ (63)	2⅝ (67)	1.60	3.5	7½ (190)	20	HCHD073	HSC60
SIHOSE76	3 (76)	3⅞ (87)	2.06	3.5	8⅞ (225)	20	HCHD085	HSC75
SIHOSE102	4 (102)	4⅞ (113)	2.70	2.0	14⅞ (360)	20	HCHD0112	HSC110

FFHOSE

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCHD(S) clamp to suit		HCS clamp to suit	
FFHOSE38	1½ (38)	1⅝ (50)	1.1	4	3 (76)	20	HCHD(S)047		HCS40	
FFHOSE51	2 (51)	2½ (63)	1.5	4	4 (102)	20	HCHD(S)059	HCHD(S)063	HCS50	HCS60

SLANG

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Bending radius inches (mm)	Roll length (m)	HCHD(S) clamp to suit		HCS clamp to suit	
SLANG30	1⅜ (30)	1½ (38)	0.55	4	1¾ (45)	20	HCHD(S)037		HCS25	HCS32
SLANG40	1⅞ (40)	1⅞ (48)	0.79	4	2⅞ (60)	20	HCHD(S)047		HCS32	HCS40
SLANG45	1¾ (45)	2⅞ (53)	0.88	4	2⅞ (68)	20	HCHD(S)051		HCS40	HCS50
SLANG50	2 (51)	2⅝ (59)	1.0	4	3⅞ (77)	20	HCHD(S)059		HCS40	HCS50
SLANG57	2¼ (57)	2⅞ (65)	1.1	3.3	3⅞ (86)	20	HCHD(S)063		HCS50	HCS60
SLANG60	2⅜ (60)	2⅞ (68)	1.2	3.3	3⅞ (90)	20	HCHD(S)068		HCS50	HCS60
SLANG65	2⅞ (65)	2⅞ (73)	1.3	3.3	3⅞ (98)	20	HCHD(S)068	HCHD(S)073	HCS60	
SLANG75	3 (76)	3⅞ (84)	1.4	3.3	4½ (114)	20	HCHD(S)085		HCS75	
SLANG90	2 (51)	3⅞ (98)	1.9	2	5⅞ (135)	20	HCHD(S)097		HCS90	
SLANG100	4 (102)	4⅞ (110)	2.3	2	6 (153)	20	HCHD(S)104		HCS90	HCS110
SLANG110	4⅞ (110)	4⅞ (119)	2.8	2	6½ (165)	20	HCHD(S)112		HCS110	
SLANG125	5 (127)	5⅞ (137)	3.3	2	7½ (191)	20	HCHD(S)130		HCS130	
SLANG150	6 (152)	6⅞ (163)	4.4	2	9 (228)	20	HCHD(S)162		HCS150	
SLANG200	8 (203)	8⅞ (218)	6.8	2	16 (406)	14	HCHD(S)213		HHCS200	
SLANG250	10 (254)	10⅞ (270)	8.5	2	20 (508)	12	HCHD(S)260		HHCS250	
SLANG300	12 (305)	12⅞ (323)	10.8	2	23⅞ (606)	12	HCHD(S)300		HHCS300	

SLANGR

Type	Internal Ø inches (mm)	External Ø inches (mm)	Weight (kg/m)	Max. pressure (bar)	Burst pressure min. (bar)	Bending radius inches (mm)	Roll length (m)	HCHDS clamp to suit	HCS clamp to suit
SLANG30R	1⅜ (30)	1½ (38)	0.6	2.5	10	1¾ (45)	20	HCHDS037	HCS32
SLANG40R	1⅞ (40)	1⅞ (48)	0.8	2.5	10	2⅞ (60)	20	HCHDS047	HCS40
SLANG60R	2⅜ (60)	2⅞ (68)	1.2	2.5	10	3⅞ (90)	20	HCHDS063	HCS60
SLANG65R	2⅞ (65)	2⅞ (73)	1.3	2.5	10	3⅞ (98)	20	HCHDS068	HCS60
SLANG75R	3 (76)	3⅞ (84)	1.7	2.5	10	4½ (114)	20	HCHDS079	HCS75
SLANG90R	3⅞ (90)	3⅞ (99)	2.0	2.5	10	7⅞ (180)	20	HCHDS097	HCS90
SLANG150R	6 (152)	6⅞ (164)	5.9	2.5	10	24 (610)	20	HCHDS162	HCS150

Lubricants

VETUS has a wide range of high quality lubricants for marine diesel engines, gearboxes, hydraulic steering, power hydraulic systems and bow thrusters. A special line for 2-stroke and 4-stroke outboards and for sterndrives is also available. Multipurpose lubricants complete this impressive range of lubricants for all marine applications!



Marine diesel engine mineral oil

Suitable for most marine diesel engines and generator sets, with or without turbo charging.

Specifications
API CI-4/SL

VMD15

Type	Specification
VMD151	1 L 15W-40
VMD154	4 L 15W-40
VMD1520	20 L 15W-40



Marine diesel engine synthetic oil

Specially developed for high output, modern marine diesel engines and generator sets.

Specifications
API CI-4

VMD10

Type	Specification
VMD101	1 L 10W-40
VMD104	4 L 10W-40



Hypoid gear oil for drive legs

Suitable for bow thrusters and outboard engine drive legs that require GL-5 grade oil.

Specifications
API GL-5

VBT

Type	Specification
VBT05	500 ml 80W-90



Transmission oil

Suitable for all marine transmissions where automatic transmission fluid (ATF) Dextron IID or Suffix A is specified.

Specifications
DEXRON II-D

VTF1

Type	Specification
VTF1	1 L



Hydraulic steering oil

Very thin, hydraulic steering oil for optimal functioning in all temperatures.

Specifications
DIN 51524

VHS1

Type	Specification
VHS1	1 L 22 CST



Hydraulic oil

For power hydraulic systems. This product has particularly high EP and corrosion resistant properties.

Specifications
DIN 51524-2 HLP

VHT

Type	Specification
VHT1	1 L ISO VG 46
VHT4	4 L ISO VG 46
VHT20	20 L ISO VG 46



Hoses and lubricants

Lubricants



2-Stroke outboard engine oil

Suitable for 2-stroke outboard engines.

VTS

Specifications

NMMA (BIA) TC-W3

Type	Specification
VTS1	1 L



4-Stroke outboard engine oil

Recommended for the lubrication of high speed 4-stroke outboard engines under heavy duty load.

VFS

Specifications

NMMA FC-W

Type	Specification
VFS251	1 L 25W-40
VFS101	1 L 10W-30



Stern drive oil

Specially developed for transmissions used in watersports such as outboard drive legs and sterndrive. Outstanding moisture resistance, excellent protection against rust and corrosion.

VSD

Specifications

API: GL-4/5 SAE 75W-90

Type	Specification
VSD7505	500 ml 75W-90



Organic Coolant -38°C

A modern organic coolant for all types of engines made of cast iron, steel or aluminium. Available in 1 liter (VOC1) and 4 liters (VOC4).

VOC

Type	Specification
VOC1	1 L
VOC4	4 L



Sump-pump

This pump is for emptying the engine sump or gearbox. Comes complete with tubing.

CARTERP

Type	Specification
CARTERP	Manual sump-pump, brass, incl. tubing



Teflon Spray

A widely applicable lubricant for cleaning, lubricating and protection against dirt and moisture.

VTEFS

Type	Specification
VTEFS	400 ml



Shipping Grease

A lithium soap thickened grease with excellent water-displacing qualities even in salt water.

VSG

Specifications

N.L.G.I. Klasse 2, DIN 51 502, KP 2 K-30

Type	Specification
VSG	600 gr

Spare parts

VETUS products are manufactured to the highest quality standards. Using only genuine VETUS spare parts protects your investment and maintains the unique warranty conditions. Our dealer network is committed to deliver the right part any time and place you need it.

The VETUS Parts Finder; easy access to spare parts codes

This tool found on the VETUS website gives easy access to spare part codes for VETUS engines and equipment, both current and older models. So when looking for parts, always check our parts finder to avoid mistakes before ordering. Please keep in mind that not all the parts shown are still available or in stock. Your local dealer can inform you about availability.

Why VETUS parts?

- Genuine parts maintain the unique VETUS warranty conditions
- Huge stocks and fast delivery
- Available through our extensive dealer network
- Original spare parts have proven quality

VETUS Diesel Engine Spare Parts

All engine spare parts are manufactured to the same quality standards as the original engine and subject to strict testing procedures. Thanks to short lines of communication with our partners and advanced testing facilities, we can offer high quality and the most extensive warranty conditions in the market.

VETUS Diesel service kit

Regular engine maintenance and daily checks will help to avoid unpleasant surprises whilst out on the water! To make your life easier, a VETUS Diesel Service kit is available for nearly every type VETUS marine diesel engine. Please have your type number available when you order your kit with your dealer to make sure you order the right service kit. This number can be found on the sticker on your engine.

The following items are included in the spare parts kit

- Oil filter
- Fuel filter
- V-belt
- Impeller
- Gasket



VETUS Service network

As the owner of a VETUS engine/product we hope you can enjoy your time on the water without any problems. Regular service and maintenance is, of course, very important, nevertheless even the most reliable products can sometimes develop a problem. With the VETUS worldwide service network we are able to help you with your unexpected issues. We can help you as quickly as needed. Most spare parts are in stock in our central warehouses, from O-rings to alternators and from oil filters to heat exchangers, for both current and discontinued VETUS engines and products alike.



Index

A	Accumulator tank	185	Capstans	376 - 378
	Acoustic materials	58 - 60	Chain	388 - 389
	Air suction vents	340 - 341	Chain snubbers	389
	Air vent fitting	428	Chain stoppers	386
	Air vents (anti siphon)	126 - 127	Circuit breaker	380
	Anchor tensioner	389	Clear view screens	327
	Anchor windlasses	350 - 378	Cleats	422
	Anchors	382 - 383	Connection cables (thrusters)	244 - 245
	Anodes	448 - 454	Connection kit for tanks	166
B	Ball valves	431, 433, 213	Connection parts (steering systems)	300
	Ball-joint	49	Constant velocity joint	98 - 99
	Batteries	274 - 275	Control gear windlasses	379
	Battery boxes	276	Control panel DC thrusters	241
	Battery cables	278	Control panel waste water tank	209
	Battery chargers	272	Control panels (hydraulic thrusters)	242
	Battery main switches	245, 276	Control panels bow and stern thrusters	240 - 241
	Battery maintainer	273	Control panels toilets	196
	Battery selector switch	276	Cooling water strainers	54 - 57
	Battery splitter	272	Copper tubing	299
	Battery switches	276	Couplings (flexible)	94 - 97
	Battery terminals	278	Cowl ventilators	337- 339
	Bearings	105 - 106	Custom made glazing	319 - 323
	Bilge pump waste water	210	Cutlass bearings	105
	Bilge pumps	442	Cylinders	292- 294
	Bilge water/oil separator	56	D	
	Binoculars	427	Deck entries	439
	Boarding ladders	418 - 420	Deck hatches	312 - 318
	Boat seats	395 - 408	Deck ventilators	334 - 335
	Boilers	182 - 183	Detectors	152
	Bollards	422	Diesel engines	22 - 38
	BOW PRO thrusters	222 - 227	Diesel filters	161
	Bow rollers	383 - 384	Dorade boxes	341
	Bow thruster accessories	244 - 245	Drinking water tanks	177 - 180
	Bow thruster anodes	454	Drive for propeller shaft	98 - 99
	Bow thruster control panels	240	Drum winch	372
	Bow thruster tunnels	238	Dual station units	49
	Bow thrusters	228 - 230	E	
	Bow thrusters (hydraulic)	234 - 235	Electric Propulsion	64 - 85
	Breather nipples	438	Electric remote control (thrusters)	243
	By-pass valve	299	Electronic engine controls	46 - 47
C	Cabin entries	321	E-Line	71 - 79
	Cable clamp	49	Engine instrument panels	139 - 141
	Cable lugs	278	Engine mountings (flexible)	50 - 51
	Cable steering	443	Engine remote controls	46 - 47
	Cable terminals	278	Engine shut-off	49
	Cables (battery)	278	E-POD	70
	Calorifiers	182 - 183	Engines	22 - 38
			Escape hatches	312 - 318
			Exhaust transom connectors	129

	Extraction ventilators	342 - 344	Hydraulic pumps	250, 260 - 261	
F	Fans (electric)	342	Hydraulic tanks	252	
	Filters ("no-smell")	169, 206 - 207	Hydraulic thruster control joysticks	255	
	Filters (sea water strainer)	52 - 56	Hydraulic windlasses	265	
	Filters (water separator/fuel filter)	157 - 161	I		
	Fire port	57	Ignition protected thrusters	232	
	Fittings	428	Inspection lids	188	
	Fittings (angled)	429	Inspection port	167 - 168, 187, 211	
	Flexible couplings	94 - 97	Installation kit waste water tanks	213	
	Flexible tanks	206	Instruments (dashboard)	144 - 147	
	Flush deck hatch	315	J		
	Fly bridge hatch	322	Joystick (hydraulic thruster control)	242, 255 - 256	
	Foot switches	380	L		
	Fuel "Splash-Stop"	162	Ladders	418 - 420	
	Fuel filters	157	Level sensors	149	
	Fuel Polisher	162	Level switch	442	
	Fuel Safe	170	Locks and stays (push-button)	447	
	Fuel tanks	163 - 165	Lubricants	471	
	Fuses & fuse holder	245, 277	M		
G	Gas detector	152	Manifold	431	
	Gas struts	427	Mechanical engine controls	44 - 45	
	Gas/water separators	128	Mixer	133	
	Gauges and indicators	144 - 147	Mounting brackets	61	
	Generator sets	270 - 271	Mountings for waterlocks	131	
	Goosenecks	124 - 125	Mufflers	119, 124	
H	Handles	387	Mushroom ventilators	335	
	Handrail	421	N		
	Hatch adjusters	426	No smell filters (waste water)	206 - 207	
	Hatches	312 - 318	Non-return valve (hydraulic)	299	
	Heating element heaters/calorifiers	190	Non-slip deck covering	446	
	Hinged doors	322	No-smell filters (fuel)	169	
	Horns	417 - 418	Nylon hose	299	
	Hose adaptors	131, 215	O		
	Hose clamps	440 - 441	Oil cooler	261	
	Hose connectors	132 - 133, 428 - 429	Oil/water separator	56	
	Hose fittings	428 - 433	Oils	471 - 472	
	Hoses	466	Outboard steering systems	294	
	Hybrid propulsion	86	P		
	Hydraulic bow and stern thrusters	234 - 235, 257 - 258	Pedestals	409 - 413	
	Hydraulic load sensing and control devices	254	Petrol filter	161	
	Hydraulic oil	253, 294	Petrol vapour detector	152	
	Hydraulic outboard steering	294	Plug and sockets	447	
	Hydraulic power steering	260	Poly-wood sheets	446	
	Hydraulic powerpack	263	Portholes	307 - 311	
	Hydraulic propulsion	262	Power packs (electric)	263	
			Power packs (electro-hydraulic)	263	
			Pressurized water systems	184 - 185	
			Propeller shaft anodes	453	
			Propeller shafts & tubes	100 - 104	
			Propellers	108 - 109	
			Proportional valves	256	
			Pump flanges	298	
			Pumps	442	
			Pumps (pressurized water system)	184 - 185	

Index

	Push-pull cables	48		Suction pipes	190
R	Rainsensor (automatic)	330		Sump pump	472
	Relays	277		Superyacht windlasses and capstans	392
	Remote controls for engines	44 - 47		Switch panels	150 - 151
	Remote controls for thrusters	241		Switches	264
	Remote controls for windlasses	379		Swivel	387
	Retractable BOW PRO thruster	233	T	Table pedestals	415
	Rimdrive	231		Tables	416
	Rope	388		Tank fittings	211
	Rope cutter	110		Tank fresh	207
	Rubber bearings	105		Tank gauges and senders	144 - 149
	Rubbing strakes	423 - 426		Tank sensors	149 - 150
	Rudder feedback unit	147		Tanks	163 - 165, 177 - 181, 201 - 206
	Rudder position indicators	147		Tanks drinking water	177 - 180
	Rudders	300 - 301		Tanks flexible	181, 206
S	Saildrive	32		Tanks for fuel	164 - 165
	Saildrive kit	32		Tanks senders	189
	Sani-processor	199 - 200		Tanks waste water	201 - 205
	Screenwash system	329		Tensioners	386
	Seat covers	406		Terminals (battery)	278
	Seat pedestals	409		Thermostatic mixer	190
	Seats	395		Through-hull fittings	429 - 432
	Selection guide windlasses and accessories	390 - 391		Time delay device (thrusters)	244
	Shackles	387		Toilets	195 - 198
	Shaft anodes	451		T-Pieces	435 - 436
	Shafts	100		Transom connectors	129
	Shell ventilators	336		Tunnels (thrusters)	238
	Shore Power	279 - 280	U	Ultrasonic sensor	149, 171, 189, 208
	Shut-off control	49	V	Valves	216
	Snubbers	389		Valves (proportional)	256
	Solas Engines	30		V-CAN	15 - 17
	Solenoids	277, 380		Vent valve	208
	Sound insulation	58 - 61		Ventilation hatches	312 - 317
	Spare parts	473		Ventilators	334 - 338
	Spin-on filter	157 - 158	W	Waste water connectors	216
	Splash-Stop (fuel)	162 - 163		Waste water control panel	209
	Stabilizers	258 - 259		Waste water pump	210
	Stanchions	421		Waste water tank accessories	207 - 216
	Stantion sockets	421		Waste water tanks	201 - 206
	Steering pumps	291- 293		Water heaters	182 - 183
	Steering system configurations	290		Water lubricated stern gear	100 - 104
	Steering systems heavy-duty	296 - 297		Water mixer	133
	Steering systems for outboard engines	294 - 295		Water pressure systems	184 - 185
	Steering wheels	284 - 288		Water scoops	428, 430, 432
	Stopper tensioner	386		Water separators/filters	128
	Strainers	52 - 56		Water strainers	52 - 56
				Waterlocks	116 - 124

	Webbing tensioner	389
	Windlasses	348
	Windlasses (hydraulic)	358
	Windlasses accessories	379
	Windlasses controls	379, 381
	Windscreen washer system	329 - 330
	Windscreen wiper arms and blades	324 - 327
	Windscreen wiper control panel	330
	Windscreen wiper motor	324
	Windscreen wipers	326 - 327
	Windscreen wipers heavy duty	328
	Wireless remote control	243
Y	YellowV	455
Z	Zinc anodes	448



All VETUS products and the VETUS brand logos are the exclusive property of VETUS B.V., the Netherlands. They are protected world-wide by international law. Due to the ever changing marine industry, we reserve the right to alter product specifications and design without prior notice. Upgraded models or new products may be released to replace old models. We have endeavoured to provide the most up-to-date information in this catalogue on items current at the time of printing. We accept no liability for any product changes in size or specification that may occur during the life of this catalogue - or to possible incorrect product sizes or specifications shown in this catalogue. For our full trading terms and conditions including warranty and our retention of title claim - see our website. Possession of this catalogue does not guarantee the right of supply of goods.



CREATOR OF BOAT SYSTEMS

