Exalto

Parts • Wipers • Propulsion

ALQUEST MARINE

Catalogue

Deliveries

Standard goods included in this catalogue can in most cases be delivered from stock. However, we cannot accept any responsibility for late delivery or non-delivery. We aim at despatching goods ordered within the term of delivery agreed upon. Should there be a change in the date of delivery, owing to circumstances beyond our control, we shall inform you at the earliest possible convenience, stating the expected new date of delivery.

Shipment of Goods

If goods are to be shipped by us, we shall select the transport company, but shipment is at buyer's risk. Unless agreed otherwise, shafts, sterntubes, rudders, propellers, couplings etc. will be shipped at buyer's cost, and there will be a charge for necessary packing, such as crates, boxes etc.

Return of Goods

Goods delivered by us can only be returned by mutual arrangement. Return shipments must always be postage prepaid. Returned goods which are not sent postage prepaid, will not be accepted under any circumstances.

Complaints

Complaints about deliveries should reach us within 8 days after their arrival. The granting of warranty claims is decided on by us only, after having consulted the manufacturer or the importer. We shall not be held liable for damages arising from faulty or insufficient performance of a product supplied by us.

Payments

All prices are based on cash payment, unless expressly agreed otherwise.

Conditions

All our quotations, all orders placed on us and all contracts and/or agreements outside the Netherlands are subject to the ORGALIME General Conditions of Sale, as registered in Brussels in September 2012, including subsequent additions and alterations, for the supply of mechanical, electrical and associated electronic products.

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Our products are subject to continual improvement, and therefore we reserve the right to change technical specifications without prior notice.

EORI

The Economic Operators Registration and Identification number (EORI) of Exalto is: NL004069110.

Experience and knowledge

Exalto B.V. is a technical manufacturer and supplier of marine equipment. With a vast experience of over 50 years, Exalto has established a name of high quality, supreme price/quality proportion and we accommodate a high level of technical knowledge and understanding. With the benefit of our own production facilities, we are able to offer our clients a tailor-made solution in either existing or new solutions. We are able to respond quickly to changing demands of the market and its customer base.
Our activities can be divided into three categories:

Exalto

Wiper Technologies

Development and manufacture of Exalto Wipers, the leading standard in the marine industry worldwide for the past 30 years. We have our own wiper business unit and develop and manufacture our own range of wipers. We only use the best marine grade materials for all parts of the system. We deliver to you within two weeks, thus allowing customers flexibility and stock reduction. We offer the best lead times for the worlds yacht building industry.

Wipers

Complete propulsion systems

Exalto B.V. develops, produces and sells custom-made propulsion systems and rudder installations. This all takes place in our well-equipped workshop. We produce propulsion systems with diameters with a range from 25 to 600mm and up to 13.000mm. in length.

Our sterngear installations can be delivered in compliance with all renowned classification societies (e.g. Lloyds).

Propulsion

Quality in every way

Exalto stands for quality in every way. Although we are a wholesaler, we don't just pass on boxes. Our product range is enormous. Many products are available immediately and we strive to keep back orders to a minimum.

We import and distribute only the best top quality brands, including for instance Jabsco, VDO, Mastervolt, Rheinstorm, Recaro Xunzel, et cetera.

Parts

News products

Fell Marine

FELL is a developer and manufacturer of marine electronics. They are specialized in wireless safety technology. With the MOB+ xBAND you get a highly marine durable silicon wristband. This enables you to use the xFOB at your wrist, always on – never intrusive. Available in several colors and designs that match your style.

New

TowForceOne

The TowForceOne Towbar is a must have for wake, ski and tube. The use of a towbar reduces the power needed to tow. The TowForceOne towbar is made out of strong stainless steel. Every TowForceOne towbar comes complete with pre-assembled mountingbrackets, towbar, TowRoller and fasteners.

New

Xunzel product line

XUNZEL is a key global player in the application of innovative solar and wind renewable energy technologies for Off-Grid, Off-Shore, Mobile and Backup Applications. Our products and Solutions range from solar panels and wind turbines to system components such as power electronics, charge controllers and inverters, as well as solar light solutions and products.
For more Xunzel products visit www.exalto.com

New

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Why Exalto is your address for Wipers:

• **Complete range reliable wiper systems**
Exalto produces the world's best professional marine wiper systems. Years of experience in this market combined with a high level of technical knowhow have resulted in reliable and durable high quality systems, designed by our own Research & Development department. Exalto makes complete wiper systems including motor, arms, blades, controls and washing systems for all kind of vessels in the commercial as well as the leisure market.

• **High quality materials for marine environment**
We produce wipers especially for the marine industry. The marine environment is fairly hostile to the materials wipers are made of. That is why you will only find top quality materials in our wiper systems. Stainless steel, naval brass, high grade rubber, everything tested thoroughly for use in marine applications.

• **Technical expertise**
In our own wiper workshop, our people work on wipers every day, all day. We have a wealth of experience and craftsmanship under our own roof. Together with the state-of-the-art tools and materials we work with, we have the perfect conditions to produce the best performing system for your application.

• **Flexibility**
Because we assemble our pantograph Heavy Duty (H.D) wipersystems in-house, we can be flexible to your demands. If our standard range of our wiper system does not fit your situation, we have all means to supply you with the best tailor-made solution.

• **One-stop-wiper-shop**
But there is more than just our H.D. systems. We are a one-stop shop for all your wiper products. So if we don't produce it ourselves, we have reliable partners who supply e.g. straightline wipers, rotary wipers and L.D. wipers. We make sure you will get the very best system available today!.

• **On time delivery**
We offer very short lead times, which is a big advantage in shipbuilding. We strive to have standard systems, as shown in this catalogue, delivered within three weeks after date of order. For non-standard, tailor-made systems you should take a delivery period into account of three to four weeks, depending on the amount of wipers you will need.

• **After sales support**
Our wiper specialists can provide a comprehensive advice to ensure the system works accurately and to your wishes. Should problems occur, it is always our main priority to solve it quickly and accurately.

• **True wiper experts**
We produce wipers, we supply the best wipers in our field of expertise, we are fast in supplying you with the best and there is not a wiper need we cannot fulfil. All this combined makes Exalto the true wiper expert we claim to be. Put us to the test and let us proof it to you!

• **Wiper Questionnaire and wiper website**
Don't worry about choosing the right system for your application. Our wiper specialists will help you. Just fill in the wiper questionnaire, and they will make you a recommendation. You will find the questionnaire online at our wiper website www.exaltowipers.com. This site is fully dedicated to our wiper systems, so here you will find product information, manuals, dealer addresses and more.

Wipers

"Exalto's passion is for creating
a clear view by producing the
world's best marine wiper systems"

*Please contact our sales departement. Our "Wipers" specialists
will help you choosing the right system for your application .*

Exalto window wiper systems

Window height	up to 1100mm		up to 1600mm	between 1100-2100mm	
	LD	MD1	MD2	HD1	HD2
Nm range	15	23 - 35	40	55	80 - 110
Motor series	215	223 230 232 235	240	255	280 2110
Arms series	LD (LD)	MD1 (PU)	MD2 (PF)	HD1 (P10)	HD2 (P12)

LD Wiper motors 215BD

This self parking Light Duty wiper is suitable for either bulkhead or through glass mounting. The 215BD is a pendulum or single spindle unit. It can easily be converted to a pantograph system with the external pantograph plate that comes with the pantograph wiper arm. The wiper motor unit is fully enclosed in a waterproof housing. The housing is rated at IP66, so the 215BD is suitable for both open and covered boats.

Max. armlength	: 600 mm	Driven shafts	: 1
Max. bladelength	: 600 mm	Arm type	: LD (215BD)
Ø driveshaft	: 16 mm		
Centre distance	: 45 mm		

Optional is a kit for use of a parallel arm

Voltage	Bulkhead thickness	Shaft length	Torque	Power	Item no.
12 V	0-15 mm	25 mm	15 Nm	15 W	2151225IER
12 V	15-40 mm	50 mm	15 Nm	15 W	2151250IER
12 V	40-65 mm	75 mm	15 Nm	15 W	2151275IER
24 V	0-15 mm	25 mm	15 Nm	15 W	2152425IER
24 V	15-40 mm	50 mm	15 Nm	15 W	2152450IER
24 V	40-65 mm	75 mm	15 Nm	15 W	2152475IER

LD Wiper arms SS 304

The Exalto LD wiper arms are special for the 215BD windscreen wiper. They are available in a black-coated version and a stainless steel polished version. The single arm is also available with an adjustable clip; This allows you to park the blade along the edge of the window.
The parallel arms are available with 1 and 2 springs and the support shaft is supplied as standard.

Pos.	Wiper arm length	Description	Nr. of springs	Max. bladelength	Item no.
1	330-450 mm	Single arm adjustable	1	280-600 mm	21581118
1	450-600 mm	Single arm adjustable	1	280-600 mm	21581124
2	330-450 mm	Single arm adjustable + adjustable clip	1	280-600 mm	21581218
2	330-450 mm	Single arm adjustable, polished + adjustable clip	1	280-600 mm	21581218P
2	450-600 mm	Single arm adjustable, adjustable clip	1	280-600 mm	21581224
2	450-600 mm	Single arm adjustable, polished + adjustable clip	1	280-600 mm	21581224P
3	330-450 mm	Pantograph arm adjustable	1	280-600 mm	21581318
3	330-450 mm	Pantograph arm adjustable, polished	1	280-600 mm	21581318P
3	450-600 mm	Pantograph arm adjustable	1	280-600 mm	21581324
3	450-600 mm	Pantograph arm adjustable, polished	1	280-600 mm	21581324P
4	330-450 mm	Pantograph arm adjustable, twin spring	2	280-600 mm	21581618
4	330-450 mm	Pantograph arm, twin spring, stainless steel Polished	2	280-600 mm	21581618P
4	450-600 mm	Pantograph arm, twin spring	2	280-600 mm	21581624
4	450-600 mm	Pantograph arm, twin spring, stainless steel Polished	2	280-600 mm	21581624P

LD Washing jets for SS 304 arms

Washingjet with 4 nozzles for LD wiper motors 215BD. To install the washingjet on the arm you also need the clip (2154.clip). Suitable for all LD wiperarms only. For tubing please see our chapter with washing systems.

Pos.	Description	Item no.
2	Nozzle for 215BD arms	21000.326
1	Clip for tubing of 2108 and 215BD arms	2154.CLIP

LD Wiper blades

The Exalto LD-SS blades are available in commercial steel or stainless steel 304 with a high quality rubber profile. Available in length from 280mm till 600mm.

Please check the maximum blades size of the wipermotor when you make a choice for your wiperblade.

Blade length	Material	Item no.
280 mm		21582011
300 mm		21582012
350 mm		21582014
400 mm		21582016
450 mm		21582018
500 mm		21582020
550 mm		21582022
600 mm		21582024
280 mm	SS 304	21582011-SS
300 mm	SS 304	21582012-SS
350 mm	SS 304	21582014-SS
400 mm	SS 304	21582016-SS
450 mm	SS 304	21582018-SS
500 mm	SS 304	21582020-SS
550 mm	SS 304	21582022-SS
600 mm	SS 304	21582024-SS

LD Wiper arms SS 316

Pos.	Wiper arm length	Description	Nr. of springs	Max. bladelength	Item no.
1	270-640 mm	Single arm black SS 316	1	280-600 mm	2107
2	270-640 mm	Pantograph arm black SS 316	1	280-600 mm	2108
3		Idler shaft Kit for SS 316 LD pantograph arm 2108		280-600 mm	2112
4		Outside shaft cover plate for use with kit 2112		280-600 mm	2113

LD Washing jets for SS 316 arms

Washingjet with 4 nozzles for LD wiper motors 215BD. To install the washingjet on the arm you also need the clip (2154.clip). Suitable for all LD wiperarms only.

Pos.	Description	Item no.
1	Clip for tubing of 2108 and 215BD arms	2154.CLIP
2	Nozzle for 215BD arms	21000.326
3	Washing jet, 2 nozzles for MD1 PU arms	2184

LD Wiper blades SS 316

These Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

Description	Blade length	Item no.
Exalto wiper blade	250 mm	2170.HP
Exalto wiper blade	300 mm	2171.HP
Exalto wiper blade	350 mm	2172.HP
Exalto wiper blade	400 mm	2173.HP
Exalto wiper blade	450 mm	2174.HP
Exalto wiper blade	500 mm	2175.HP
Exalto wiper blade	550 mm	2176.HP
Exalto wiper blade	600 mm	2177.HP

LD Wiper controls for 1 wiper

To complete your wiper system, we advise you to use our switch for LD wiper motors which offers 2-speeds and self parking. The set includes a switch and frame.

Installation dimensions H x W x D
: 36,5x21x90 mm

Description	Suitable for	Voltage	Item no.
Wiper control LD 215BD	LD 215 BD	12/24 V	70906425.SET

LD Wiper controls for max. 3 wipers

Exalto Electronic wiper control suitable for upto 3x LD wiper motors. The control features 3 speed modes, intermittent, slow and fast speed, wash/wipe function and self park. The wipers can be switched in 2 groups = master motor or all motors. In operation the motors are synchronized. CE Approved.

L x W x H   : 115 x 115 x 30 mm

| Suitable for	Voltage	L x W x H	Item no.
215 BD	12 V	115 x 115 x 30 mm	21591812
215 BD	24 V	115 x 115 x 30 mm	21591824

LD Wiper controls for max. 4 wipers

Dual voltage electronic wiper control for up to four L.D. wipers. Wipers can be switched in two groups: group I and group II. These groups can be controlled individually but also together. The wiper control with flush mount panel offers one continuous speed, selfparking, three step intermittent wipe and a wipe / wash feature (for the parts see chapter H.D. Wipers). In the intermittent modes, all wipers run synchronised.

Description	Suitable for	Voltage	Item no.
Wiper control LD 215BD max. 4 wipers	LD 215 BD	12/24 V	210604

MD1 Wiper motors 223BDO

Self-parking Exalto MD wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. With a torque of 23 Nm these wipers can drive arms up to 750 mm in length in combination with blades up to 750 mm in length. The 223BDO is a pantograph wiper system. For these wipers a cover in black or white is available to protect the motor and keep all moving parts out of reach. The motor is IER standard. The wiping arc is adjustable from 40 to 90 degrees in 5 degrees increments.
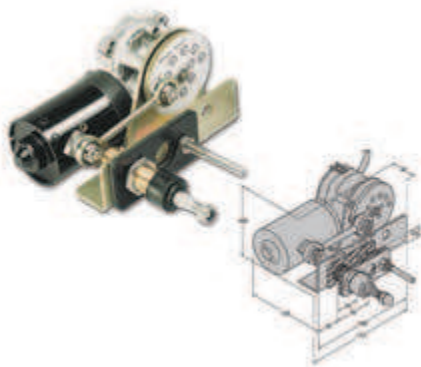
Max. armlength	: 750 mm	Centre distance	: 50 mm
Max. bladelength	: 750 mm	Driven shafts	: 1
Ø driveshaft	: 20 mm	Arm type	: PU;MD1
Ø Idler spindle	: 8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2165.30
12 V	35 mm	23 Nm	36 W	XA2165.32
12 V	55 mm	23 Nm	36 W	XA2165.35
12 V	75 mm	23 Nm	36 W	XA2165.40
12 V	100 mm	23 Nm	36 W	XA2165.45
12 V	125 mm	23 Nm	36 W	XA2165.50
24 V	20 mm	23 Nm	36 W	XA2166.30
24 V	35 mm	23 Nm	36 W	XA2166.32
24 V	55 mm	23 Nm	36 W	XA2166.35
24 V	75 mm	23 Nm	36 W	XA2166.40
24 V	100 mm	23 Nm	36 W	XA2166.45
24 V	125 mm	23 Nm	36 W	XA2166.50
		23 Nm		2109.01

MD1 External wiper housing 223BDO

The Exalto External Wiper Housing is ideally suited for installations where internally installation-space is not suffi-cient and offer unmatched mounting flexibillity and installation ease. The systems´ easily adjustable sweep angles, wiper arm lengths and spring pressure make the Exalto External Wiper Housing easy to configure and install for a wide variety of window configurations.
Please note that you will need the special designed arms 2133.R, 2136.R or 2139.R for this installation.
Also the 2197.301 Connector Kit is neccessary to make a waterproof connection.
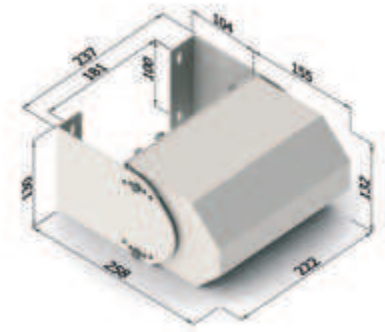
Description	Item no.
External Housing IP66 for 223BD wipersystem	2197.300
Connector Kit for External Wiper Housing	2197.301

MD1 Wiper motors 223BDC

This self-parking Exalto MD1 wiper is suitable for bulkhead mounting. This wiper is available in 12 and 24V. All moving parts are protected by an aluminum housing. With a torque of 23 Nm, this wiper can handle arms up to 750 mm in length and blades up to 750 mm. The motor is insulated earth as standard. The wiping angle is adjustable from 40° up to 90°, in 5° increments.

Max. armlength	: 750 mm	Centre distance	: 50 mm
Max. bladelength	: 750 mm	Driven shafts	: 1
Ø driveshaft	: 20 mm	Arm type	: PU;MD1
Ø Idler spindle	: 8 mm		
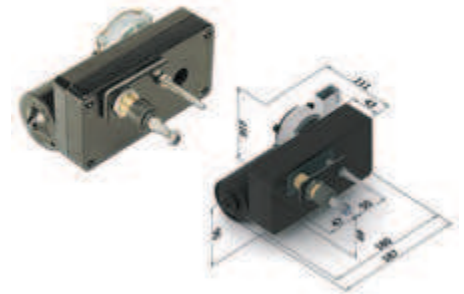
Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2151.30
12 V	35 mm	23 Nm	36 W	XA2151.32
12 V	55 mm	23 Nm	36 W	XA2151.35
12 V	75 mm	23 Nm	36 W	XA2151.40
12 V	100 mm	23 Nm	36 W	XA2151.45
12 V	125 mm	23 Nm	36 W	XA2151.50
24 V	20 mm	23 Nm	36 W	XA2152.30
24 V	35 mm	23 Nm	36 W	XA2152.32
24 V	55 mm	23 Nm	36 W	XA2152.35
24 V	75 mm	23 Nm	36 W	XA2152.40
24 V	100 mm	23 Nm	36 W	XA2152.45
24 V	125 mm	23 Nm	36 W	XA2152.50
		23 Nm		2109.01

MD1 Wiper motors 223BDS

Self-parking Exalto MD1 wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. With a torque of 23 Nm these wipers can drive arms up to 750 mm in length in combination with blades up to 750 mm in length. The 223BDS has only one shaft which makes this a pendulum wiper system. For these wipers a cover in black or white is available to protect the motor and keep all moving parts out of reach.The motor is IER standard. The wiping arc is adjustable from 40 to 90 degrees in 5 degrees increments.

Max. armlength	: 750 mm	Arm type	: E;KW E
Max. bladelength	: 750 mm		
Ø driveshaft	: 20 mm		
Driven shafts	: 1		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2165.30S
12 V	35 mm	23 Nm	36 W	XA2165.32S
12 V	55 mm	23 Nm	36 W	XA2165.35S
12 V	75 mm	23 Nm	36 W	XA2165.40S
24 V	100 mm	23 Nm	36 W	XA2165.45S
12 V	125 mm	23 Nm	36 W	XA2165.50S
24 V	20 mm	23 Nm	36 W	XA2166.30S
24 V	35 mm	23 Nm	36 W	XA2166.32S
24 V	55 mm	23 Nm	36 W	XA2166.35S
24 V	75 mm	23 Nm	36 W	XA2166.40S
24 V	125 mm	23 Nm	36 W	XA2166.50S
24 V	100 mm	23 Nm	36 W	XA2166.45S
		23 Nm		2109.01

MD1 Wiper motors 223BS

Self-parking Exalto MD1 wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. With a torque of 23 Nm these wipers can drive arms up to 750 mm in length in combination with blades up to 750 mm in length. The motor is insulated earth as standard. The 223BS differs from the 223BD and 223BDS by means of the adjustability of the wiping arc. Where the 223BD and BDS can adjust the wiping angle with 5° increments, the 223BS is infinitely variable.
The black or White cover does NOT fit on this wiper.

Max. armlength	: 750 mm	Centre distance	: 50 mm
Max. bladelength	: 750 mm	Driven shafts	: 1
Ø driveshaft	: 20 mm	Arm type	: PU;MD1
Ø Idler spindle	: 8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2167.30
12 V	35 mm	23 Nm	36 W	XA2167.32
12 V	55 mm	23 Nm	36 W	XA2167.35
12 V	75 mm	23 Nm	36 W	XA2167.40
12 V	100 mm	23 Nm	36 W	XA2167.45
12 V	125 mm	23 Nm	36 W	XA2167.50
24 V	20 mm	23 Nm	36 W	XA2168.30
24 V	35 mm	23 Nm	36 W	XA2168.32
24 V	55 mm	23 Nm	36 W	XA2168.35
24 V	75 mm	23 Nm	36 W	XA2168.40
24 V	100 mm	23 Nm	36 W	XA2168.45
24 V	125 mm	23 Nm	36 W	XA2168.50
		23 Nm	36 W	2181.04

MD1 Wiper motors 223KGO

This self-parking Exalto MD1wiper is suitable for glass mounting. All moving parts of the 223KGC are protected by an aluminum housing. For the 223KGO a white or black cover is available. These motors can handle arms up to 450 mm in length and blades up to 500 mm. As this wiper is to be fitted in the glass and has a different drive system from the other wipers, larger arms and blades are not recommended. The wipers have a standard insulated earth return. The wiping angle is adjustable from 40° to 90°, in 5° increments. The motors is insulated earth return standard as well. The 223KGC and 223KGO are only available for a glass thickness of 17 mm or less.

Max. armlength	: 450 mm	Centre distance	: 50 mm
Max. bladelength	: 500 mm	Driven shafts	: 1
Ø driveshaft	: 11 mm	Arm type	: PU;MD1
Ø Idler spindle	: 8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	17 mm	23 Nm	36 W	XA2125
24 V	17 mm	23 Nm	36 W	XA2126

MD1 Wiper motor covers 223KGO / BDO / BDS

Description	Color	Item no.
Cover for MD1 223KG	White	2101
Cover for 223KG	Black	2115

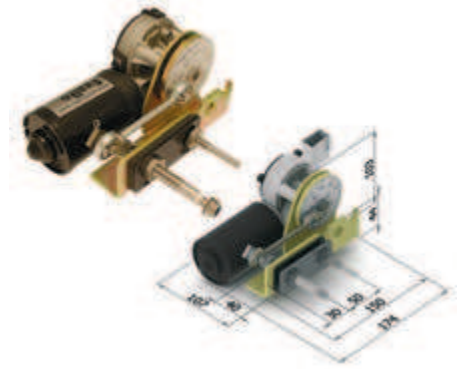## MD1 Wiper motors 223KGC

This self-parking Exalto MD1wiper is suitable for glass mounting. All moving parts of the 223KGC are protected by an aluminum housing. These motors can handle arms up to 450 mm in length and blades up to 500 mm. As this wiper is to be fitted in the glass and has a different drive system from the other wipers, larger arms and blades are not recommended. The wipers have a standard insulated earth return. The wiping angle is adjustable from 40° to 90°, in 5° increments. The motors is insulated earth return standard as well. The 223KGC and 223KGO are only available for a glass thickness of 17 mm or less.

Max. armlength	: 450 mm	Centre distance	: 50 mm
Max. bladelength	: 500 mm	Driven shafts	: 1
Ø driveshaft	: 11 mm	Arm type	: PU;MD1
Ø Idler spindle	: 8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	17 mm	23 Nm	36 W	XA2123
24 V	17 mm	23 Nm	36 W	XA2124
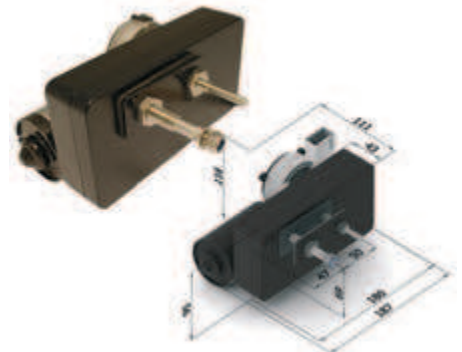
MD1 Wiper motors 232BD

Self-parking Exalto H.D. wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. All moving parts are protected by an aluminum housing. With a torque of 32 Nm, this wiper can handle arms up to 750 mm in length and blades up to 800 mm. The motor is insulated earth return as a standard. The wiping angle is adjustable from 40° to 90°, in 5° increments. This wiper is the correct replacement for the 235KK-HD

Max. armlength	: 750 mm	Centre distance	: 50 mm
Max. bladelength	: 800 mm	Driven shafts	: 1
Ø driveshaft	: 20 mm	Arm type	: PU;MD1
Ø Idler spindle	: 8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	32 Nm	40 W	2157.30
12 V	35 mm	32 Nm	40 W	2157.32
12 V	55 mm	32 Nm	40 W	2157.35
12 V	75 mm	32 Nm	40 W	2157.40
12 V	100 mm	32 Nm	40 W	2157.45
12 V	125 mm	32 Nm	40 W	2157.50
24 V	20 mm	32 Nm	40 W	2158.30
24 V	35 mm	32 Nm	40 W	2158.32
24 V	55 mm	32 Nm	40 W	2158.35
24 V	75 mm	32 Nm	40 W	2158.40
24 V	100 mm	32 Nm	40 W	2158.45
24 V	125 mm	32 Nm	40 W	2158.50
12/24 V				2109.01

MD1 Ruitenwissermotoren 230XP

This self parking Exalto MD wiper is suitable for bulkhead mounting. This wiper is available in bulkhead thickness 25 and 50mm. With a torque of 30 Nm, this wiper can handle arms up to 750mm and blades up to 800mm.
The motor is insulated earth return as standard. The wiping arc is adjustable from 44 up to 90 degrees in 20 steps.

Max. armlength	: 750 mm	Centre distance	: 50 mm
Max. bladelength	: 800 mm	Driven shafts	: 1
Ø driveshaft	: 20 mm	Arm type	: PU;MD1
Ø Idler spindle	: 8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	25 mm	30 Nm	36 W	211230.25
12 V	50 mm	30 Nm	36 W	211230.50
24 V	25 mm	30 Nm	36 W	212430.25
24 V	50 mm	30 Nm	36 W	212430.50

MD1 Pendulum wiper arms for 223BDS

The E-arms are specially designed for the Exalto KW linked and single shaft (e.g. 223BDS) wiper systems. They are made of stainless steel and have a black coating. These pendulum arms have a stepless swivelling blade clip to allow the blade to be positioned parallel to the edge of the glass and are adjustable in length.

Wiper arm length	Description	Max. bladelength	Item no.
300 - 450 mm	Single adjustable arm, Type KW E	250 - 750 mm	2103
450 - 600 mm	Single adjustable arm, Type KW E	250 - 750 mm	2106
600 - 750 mm	Single adjustable arm, Type KW E	250 - 750 mm	2109

MD1 Wiper arms PU

The Exalto PU arms are suitable for all MD wiper systems for small and medium sized windows up to 1100 mm in height. This means that they can be installed on all MD1 & MD2-series wiper motors. All PU arms have a fold back feature, so they can be placed in fixed position away from the windshield. This makes it easier to mount the arms, replace the blades or to clean the window. As a standard the PU arms also have adjustable spring pressure to regulate the pressure of the blade on the window steplessly.

The .01 version allows double spring pressure on high-speed vessels or raked windows. The position of the blade in relation to the window configuration can be adjusted by the swivelling blade clip. All Exalto wiper arms are made of stainless steel 316 and have bronze heads. A black coating is applied on all metal parts as a standard to prevent reflection. The polished arms are new, so you can choose which arm suits the look of your vessel most. The wiper arms are adjustable in length.

Centre distance   : 50 mm

Pos.	Wiper arm length	Description	Length	Nr. of springs	Max. bladelength	Item no.
1	375-525 mm	Exalto MD1 arm type PU	250-750 mm	1	800 mm	2133
3	375-525 mm	Exalto wiper arm MD1 PU with 2 adjustable springs	250-750 mm	2	800 mm	2133.01
2		Tubing retainer strip 190 mm	250-750 mm		800 mm	2133.03
	375-525 mm	Exalto MD1 polished arm type PU	250-750 mm	1	800 mm	2133.P
1	525-650 mm	Exalto MD1 arm type PU	250-750 mm	1	800 mm	2136
3	525-650 mm	Exalto wiper arm MD1 PU with 2 adjustable springs	250-750 mm	2	800 mm	2136.01
2		Tubing retainer strip 430 mm	250-750 mm		800 mm	2136.03
	525-650 mm	Exalto MD1 polished arm type PU	250-750 mm	1	800 mm	2136.P
1	675-790 mm	Exalto MD1 arm type PU	250-750 mm	1	800 mm	2139
3	675-790 mm	Exalto wiper arm MD1 PU with 2 adjustable springs	250-750 mm	2	800 mm	2139.01
2		Tubing retainer strip 480 mm	250-750 mm		800 mm	2139.03
4	675-790 mm	Exalto MD1 polished arm type PU	250-750 mm	1	800 mm	2139.P

MD1 Wiper arms PU Reversed

These Exalto wiperarms are specially designed to fit the Exalto External Wiperhousing(PartNo 2197.300).
The arms have a reversed head to fit the motor inside the External Wiperhousing.
As a standard the PU arms also have adjustable spring pressure to regulate the pressure of the blade on the window steplessly. The position of the blade in relation to the window configuration can be adjusted by the swivelling blade clip. All Exalto wiper arms are made of stainless steel 316 and have bronze heads. A black coating is applied on all metal parts as a standard to prevent reflection. The wiper arms are adjustable in length.

Centre distance   : 50 mm

Wiper arm length	Description	Max. bladelength	Item no.
375-525 mm	Exalto MD1 arm type PU reversed head	750 mm	2133.R
525-650 mm	Exalto MD1 arm type PU reversed head	750 mm	2136.R
675-790 mm	Exalto MD1 arm type PU reversed head	750 mm	2139.R

MD1 Washing jets PU

This washing jets can be fitted on Exalto pantograph arms type MD1 PU and 2108 arm. With most washing jets the angle under which the water is sprayed on the window, can be adjusted

Pos.	Description	Item no.
3	Washing jet, 2 nozzles for MD1 PU arms	2184
4	Washing jet, 6 nozzles for MD1 PU and E-arms	2110.cpl

MD1 Wiper blades SS 316

These Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

Pos.	Description	Blade length	Item no.
1	Exalto wiper blade	250 mm	2170.HP
1	Exalto wiper blade	300 mm	2171.HP
1	Exalto wiper blade	350 mm	2172.HP
1	Exalto wiper blade	400 mm	2173.HP
1	Exalto wiper blade	450 mm	2174.HP
1	Exalto wiper blade	500 mm	2175.HP
1	Exalto wiper blade	550 mm	2176.HP
1	Exalto wiper blade	600 mm	2177.HP
1	Exalto wiper blade	650 mm	2178.HP
1	Exalto wiper blade	700 mm	2179.HP
1	Exalto wiper blade	750 mm	2195.HP
1	Exalto wiper blade	800 mm	2196.HP
2	Exalto Wiper blade HD	610 mm	216120
2	Exalto Wiper blade HD	650 mm	216121
2	Exalto Wiper blade HD	700 mm	216122
2	Exalto Wiper blade HD	750 mm	216123
2	Exalto Wiper blade HD	800 mm	216124
3	Exalto wiper blade HD polished	610 mm	216120P
3	Exalto wiper blade HD polished	650 mm	216121P
3	Exalto wiper blade HD polished	700 mm	216122P
3	Exalto wiper blade HD polished	750 mm	216123P
3	Exalto wiper blade HD polished	800 mm	216124P

MD1 Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids giving wash/wipe facility.

Pos.	Description	Suitable for	Voltage	Item no.
1	2-speed wiper control for 1 wiper	Exalto wipers	12/24 V	2134
2	2-speed wiper control for 2 wipers	Exalto wipers	12/24 V	2135
3	2-speed, intermittend wiper control	Exalto wipers	12 V	2158
3	2-speed, intermittent wiper control	Exalto wipers	24 V	2159
4	Panel for 2-speed intermittent switch	2158, 2159		2159.01

MD1 Wiper controls CT2N

Electronic control for up to two, three, four or five Exalto wipers. Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, one junction box and a 5 m cat 5 connection cable to connect the panel to the junction box. The wiper control offers two continuous speeds, three step intermittent speeds and a wipe/wash feature. All wipers run synchronised in all speeds and are self-parking. LED indicators on the panel indicate the selected speed setting. The system has the capabillity to run a higher number of wipers, controlled in groups; please contact Exalto for options.

Description	Suitable for	Voltage	L x W	Item no.
Exalto Wiper Control for max. 2 wipers	Exalto wipers	12/24 V	100 x 100 mm	21021224
Exalto Wiper Control for max. 3 wipers	Exalto wipers	12/24 V	100 x 100 mm	21031224
Exalto Wiper Control for max. 4 wipers	Exalto wipers	12/24 V	100 x 100 mm	21041224
Exalto Wiper Control for max. 5 wipers	Exalto wipers	12/24 V	100 x 100 mm	21051224

MD1 Wiper controls CT2N extra panel

The Exalto Electronic wiper control can easily turn into a dual control system by adding an extra panel. A 5m cable is included.

Description	Suitable for	Voltage	L x W	Item no.
Extra control panel for 2 wipers	Exalto wiper control CT2N	12/24 V	100 x 100 mm	21021224.P
Extra control panel for 3 wipers	Exalto wipercontrol CT2N	12/24 V	100 x 100 mm	21031224.P
Extra control panel for 4 wipers	Exalto wipercontrol CT2N	12/24 V	100 x 100 mm	21041224.P
Extra control panel for 5 wipers	Exalto wipercontrol CT2N	12/24 V	100 x 100 mm	21051224.P

MD1 Wiper controls CT2N special

Exalto wipercontrol for more than 5 wipers. For grouped system over a 5 wiper installation. This can also be programmed according to your project. All other features as per standard CT2N system.

Description	Item no.
Exalto Wipercontrol 12/24V - 6 wipers with 3 button panel	21061224.3B
Exalto Wipercontrol 12/24V - 6 wipers with 5 button panel	21061224.5B
Exalto Wipercontrol 12/24V - 7 wipers with 5 button panel	21071224.5B
Exalto Wipercontrol 12/24V - 8 wipers with 3 button panel	21081224.3B

MD1 Wiper controls CT3EX

Electronic multivolt wiper control for up to three Exalto MD1 wipers. Wipers can be switched individually or in any combination. LED's indicate each setting. The complete wiper control consists of one flush mount panel of 72 x 72 mm and one junction box. The wiper control offers two continuous speeds, three-step intermittent speeds and a wipe/wash feature. All wipers are self-parking. The wipers run synchronised in all settings. To ease the mounting of the panel, we offer two different bulkhead mounts: a low and a high version. These mounts should be ordered separately. Not suitable for LD, MD2, HD1 and HD2 wipers

L x W x H   : 72 x 72 x 72 mm

Pos.	Description	Suitable for	Voltage	L x W x H	Item no.
1	Exalto wiper control CT3EX for max. 3 wipers	Exalto wipers except LD(215BD), HD1 255, HD2 280, 2110	12/24 V	72 x 72 x 72 mm	216324
-	Exalto wiperpanel CT3EX for max. 3 MD1 wipers, 12V / 24V. w 2 panels.	216324	12/24 V	72 x 72 x 72 mm	216324.DCP
3	Low rim for wiper control CT3EX	216324		88 x 88 x 3 mm	216883
2	High rim for wiper control CT3EX	216324		88 x 88 x 6 mm	216886

MD1 Wiper controls CT41 & CT42

These switches are micro-controller based "intelligent" switches for operating one or two Exalto wiper motors. The switches consist of touch pads with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

Installation dimensions
H x W x D   : 36,5 x 21 x 90 mm
Cable length   : 450 mm

| Description	Suitable for	Voltage	Item no.
Wiper control for 1 wiper	MD1, KW2	12/24 V	210341
Wiper control for 2 wipers	MD1 232, 233, 235	12/24 V	210342
Wiper control for 2 wipers 4A (only synchronized mode)	MD1 232, 233, 235	12/24 V	210342S

MD2 Wiper motors 240BS

Self-parking wiper motor for bulkhead mounting. The 240BS is a powerful wiper with dual driven shafts. It can clean windows up to a height of 1600 mm. With a torque of 40 Nm, this wiper motor powers arms and blades of 900mm in length. This motor is insulated earth return as a standard. The wiping angle of this wiper motor is freely adjustable from 40° to 90°.

Max. armlength	: 900 mm	Centre distance	: 60 mm
Max. bladelength	: 900 mm	Driven shafts	: 2
Ø driveshaft	: 20 mm	Arm type	: PF;HD1 P10;MD2 PF
Ø Idler spindle	: 20 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	30 mm	40 Nm	36 W	211240.30
24 V	30 mm	40 Nm	48 W	212440.30
12/24 V	xx mm		36 / 48 W	2181.05
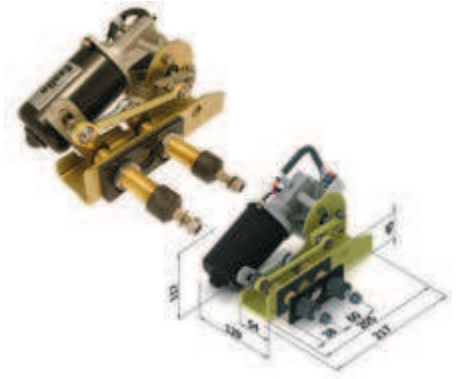
MD2 Wiper arms PF

The PF arms are specially designed for wiper motor 240BS. Exalto PF arms are available for standard blades to 800 mm in length, or for H.D blades to 900mm in length. The arm is manufactured from stainless steel 316 and has brass, seawater resistant heads. The PF arms are fixed length and fixed spring pressure as a standard. The PF arm as standard has a swiveling blade clip to allow easy adjustment of the position of the blade in relation to the window configuration. The arm has a black coating to prevent reflection as a standard. However, these arms with fixed springs are also available in high polished stainless steel. The PF arms with fixed springs can be folded back, which allows it easier to mount the arms, change the blades or clean the window. Alternatively HD1 P10 arms can be used.

Centre distance   : 60 mm

Description	Nr. of springs	Max. bladelength	Wiper arm length	Item no.
Black coated arm with fixed springs	2	850 - 900 mm	800 mm	2140.800.B
Polished arm with fixed springs	2	850 - 900 mm	800 mm	2140.800.BP
Black coated arm with fixed springs	2	300 - 800 mm	800 mm	2140.800.S
Polished arm with fixed springs	2	300 - 800 mm	800 mm	2140.800.SP
Black coated arm with fixed springs	2	850 - 900 mm	850 mm	2140.850.B
Polished arm with fixed springs	2	850 - 900 mm	850 mm	2140.850.BP
Black coated arm with fixed springs	2	300- 800 mm	850 mm	2140.850.S
Polished arm with fixed springs	2	300- 800 mm	850 mm	2140.850.SP
Black coated arm with fixed springs	2	850 - 900 mm	900 mm	2140.900.B
Polished arm with fixed springs	2	850 - 900 mm	900 mm	2140.900.BP
Black coated arm with fixed springs	2	300 - 800 mm	900 mm	2140.900.S
Polished arm with fixed springs	2	300 - 800 mm	900 mm	2140.900.SP

MD2 Washing jets PF & 2142-series

These washing jets can be fitted on Exalto pantograph arms PF, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.

Pos.	Description	Item no.
1	Washing jet, 6 nozzles for HD1 P10 & HD2 P12	2111.cpl
2	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
3	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L

MD2 Wiper blades SS 316

These Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

Pos.	Description	Blade length	Item no.
1	Exalto wiper blade	250 mm	2170.HP
1	Exalto wiper blade	300 mm	2171.HP
1	Exalto wiper blade	350 mm	2172.HP
1	Exalto wiper blade	400 mm	2173.HP
1	Exalto wiper blade	450 mm	2174.HP
1	Exalto wiper blade	500 mm	2175.HP
1	Exalto wiper blade	550 mm	2176.HP
1	Exalto wiper blade	600 mm	2177.HP
1	Exalto wiper blade	650 mm	2178.HP
1	Exalto wiper blade	700 mm	2179.HP
1	Exalto wiper blade	750 mm	2195.HP
1	Exalto wiper blade	800 mm	2196.HP
2	Exalto Wiper blade HD	610 mm	216120
2	Exalto Wiper blade HD	650 mm	216121
2	Exalto Wiper blade HD	700 mm	216122
2	Exalto Wiper blade HD	750 mm	216123
2	Exalto Wiper blade HD	800 mm	216124
2	Exalto wiper blade HD	850 mm	216125
2	Exalto wiper blade HD	900 mm	216126
3	Exalto wiper blade HD polished	610 mm	216120P
3	Exalto wiper blade HD polished	650 mm	216121P
3	Exalto wiper blade HD polished	700 mm	216122P
3	Exalto wiper blade HD polished	750 mm	216123P
3	Exalto wiper blade HD polished	800 mm	216124P
3	Exalto wiper blade HD polished	850 mm	216125P
3	Exalto wiper blade HD polished	900 mm	216126P

MD2 Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids giving wash/wipe facility.

Pos.	Description	Suitable for	Voltage	Item no.
1	2-speed wiper control for 1 wiper	Exalto wipers	12/24 V	2134
2	2-speed wiper control for 2 wipers	Exalto wipers	12/24 V	2135
3	2-speed, intermittend wiper control	Exalto wipers	12 V	2158
3	2-speed, intermittent wiper control	Exalto wipers	24 V	2159
4	Panel for 2-speed intermittent switch	2158, 2159		2159.01

MD2 Wiper controls CT2N

Electronic control for up to two, three, four or five Exalto wipers. Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, one junction box and a 5 m cat 5 connection cable to connect the panel to the junction box. The wiper control offers two continuous speeds, three step intermittent speeds and a wipe/wash feature. All wipers run synchronised in all speeds and are self-parking. LED indicators on the panel indicate the selected speed setting. The system has the capabillity to run a higher number of wipers, controlled in groups; please contact Exalto for options.

Description	Suitable for	Voltage	L x W	Item no.
Exalto Wiper Control for max. 2 wipers	Exalto wipers	12/24 V	100 x 100 mm	21021224
Exalto Wiper Control for max. 3 wipers	Exalto wipers	12/24 V	100 x 100 mm	21031224
Exalto Wiper Control for max. 4 wipers	Exalto wipers	12/24 V	100 x 100 mm	21041224
Exalto Wiper Control for max. 5 wipers	Exalto wipers	12/24 V	100 x 100 mm	21051224

MD2 Wiper controls CT2N extra panel

The Exalto Electronic wiper control can easily turn into a dual control system by adding an extra panel. A 5m cable is included.

Description	Suitable for	Voltage	L x W	Item no.
Extra control panel for 2 wipers	Exalto wiper control CT2N	12/24 V	100 x 100 mm	21021224.P
Extra control panel for 3 wipers	Exalto wipercontrol CT2N	12/24 V	100 x 100 mm	21031224.P
Extra control panel for 4 wipers	Exalto wipercontrol CT2N	12/24 V	100 x 100 mm	21041224.P
Extra control panel for 5 wipers	Exalto wipercontrol CT2N	12/24 V	100 x 100 mm	21051224.P

MD2 Wiper controls CT2N special

Exalto wipercontrol for more than 5 wipers. For grouped system over a 5 wiper installation. This can also be programmed according to your project. All other features as per standard CT2N system.

Description	Item no.
Exalto Wipercontrol 12/24V - 6 wipers with 3 button panel	21061224.3B
Exalto Wipercontrol 12/24V - 6 wipers with 5 button panel	21061224.5B
Exalto Wipercontrol 12/24V - 7 wipers with 5 button panel	21071224.5B
Exalto Wipercontrol 12/24V - 8 wipers with 3 button panel	21081224.3B

MD2 Wiper controls CT41 & CT42

These switches are micro-controller based "intelligent" switches for operating one or two Exalto wiper motors. The switches consist of touch pads with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

Installation dimensions
H x W x D   : 36,5 x 21 x 90 mm
Cable length   : 450 mm

| Description	Suitable for	Voltage	Item no.
Wiper control for 1 wiper 6A	MD1, MD2, KW2	12/24 V	210341J
Wiper control for 2 wipers 6A	MD1, MD2	12/24 V	210342J
Wiperswitch 12 Amp 1 wiper	HD1, HD2, KW3/KW4	12/24 V	210341P
Wiperswitch 12 Amp 2 wipers	HD1, HD2	12/24 V	210342P

HD1 Wiper motors 255BS

This new model is the replacement for the 250BS. The motor is stronger and has an assembled plug. Self-parking wiper motor for bulkhead mounting. The 255BS is a powerful wiper with dual driven shafts. It can clean windows up to a height of 1600 mm. With a torque of 55 Nm, this wiper can drive arms uptp 1 meter in length and blades upto1.2 metres. This motor has insulated earth return as a standard. The wiping angle of this wiper motor is steplessly variable from 40° till 90°.

Max. armlength	: 1000 mm	Centre distance	: 60 mm
Max. bladelength	: 1200 mm	Driven shafts	: 2
Ø driveshaft	: 20 mm	Arm type	: P10;HD1 P10
Ø Idler spindle	: 20 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	35 mm	55 Nm	84 W	211255.35
12 V	65 mm	55 Nm	84 W	211255.65
24 V	35 mm	55 Nm	96 W	212455.35
24 V	65 mm	55 Nm	96 W	212455.65
	mm	55 Nm		2181.03
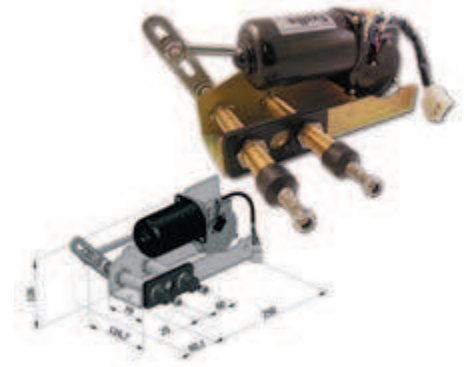
HD1 Wiper motor covers 255BS

Description	Color	Item no.
Cover for HD 1 255BS	Black	2115.255
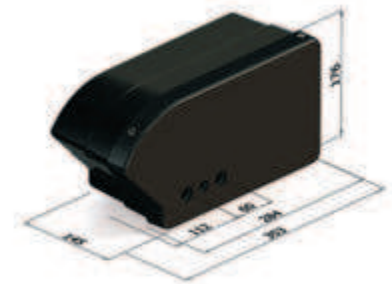
HD1 Wiper arms P10

The P10 arms are specially designed for wiper motor 255BS. Exalto P10 arms are available for standard and H.D. blades till 800 mm in length, or for H.D. blades from 850 till 1200 mm in length. The arm is manufactured from stainless steel 316 and has brass, seawater resistant heads. The P10 arms have two fixed springs as a standard. If you want to adjust the pressure on the glass yourself, P10 arms with two steplessly adjustable springs are also available. The P10 arms have a swivelling blade clip, to adjust the position of the blade in relation to the window configuration easily. The arm has a black coating to prevent reflection as a standard. However, these arms with fixed springs are also available in high polished stainless steel.

Centre distance : 60 mm

Pos.	Wiper arm length	Description	Nr. of springs	Max. bladelength	Item no.
1	750-1000 mm	Black coated arm with fixed springs	2	850 - 1200 mm	2142.B
3	750 - 1000 mm	Black coated arm with adj. springs	2	900 - 1200 mm	2142.BAS
2	750 - 1000 mm	Polished arm with fixed springs	2	900 - 1200 mm	2142.BP
1	750 - 1000 mm	Black coated arm with fixed springs	2	300 - 800 mm	2142.S
3	750 - 1000 mm	Black coated arm with adj. springs	2	300 - 800 mm	2142.SAS
2	750 - 1000 mm	Polished arm with fixed springs	2	300 - 800 mm	2142.SP

HD1 Washing jets P10

These washing jets can be fitted on Exalto pantograph arms MD2 PF, HD1 P10 and HD2 P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.

Pos.	Description	Item no.
2	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
3	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L
1	Washing jet, 6 nozzles for HD1 P10 & HD2 P12	2111.cpl

HD1 Wiper blades SS 316

These Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

Pos.	Description	Blade length	Item no.
1	Exalto wiper blade	250 mm	2170.HP
1	Exalto wiper blade	300 mm	2171.HP
1	Exalto wiper blade	350 mm	2172.HP
1	Exalto wiper blade	400 mm	2173.HP
1	Exalto wiper blade	450 mm	2174.HP
1	Exalto wiper blade	500 mm	2175.HP
1	Exalto wiper blade	550 mm	2176.HP
1	Exalto wiper blade	600 mm	2177.HP
1	Exalto wiper blade	650 mm	2178.HP
1	Exalto wiper blade	700 mm	2179.HP
1	Exalto wiper blade	750 mm	2195.HP
1	Exalto wiper blade	800 mm	2196.HP
2	Exalto Wiper blade HD	610 mm	216120
2	Exalto Wiper blade HD	650 mm	216121
2	Exalto Wiper blade HD	700 mm	216122
2	Exalto Wiper blade HD	750 mm	216123
2	Exalto Wiper blade HD	800 mm	216124
2	Exalto wiper blade HD	850 mm	216125
2	Exalto wiper blade HD	900 mm	216126
2	Exalto wiper blade HD	950 mm	216127
2	Exalto wiper blade HD	1000 mm	216128
2	Exalto wiper blade HD	1100 mm	216129
2	Exalto wiper blade HD	1200 mm	216130
3	Exalto wiper blade HD polished	610 mm	216120P
3	Exalto wiper blade HD polished	650 mm	216121P
3	Exalto wiper blade HD polished	700 mm	216122P
3	Exalto wiper blade HD polished	750 mm	216123P
3	Exalto wiper blade HD polished	800 mm	216124P
3	Exalto wiper blade HD polished	850 mm	216125P
3	Exalto wiper blade HD polished	900 mm	216126P
3	Exalto wiper blade HD polished	950 mm	216127P
3	Exalto wiper blade HD polished	1000 mm	216128P
3	Exalto wiper blade HD polished	1200 mm	216130P

HD1 Wiper blades

These conventional style wipers are strong and durable for use in lenghts 1000-1200 mm. Using full metal design and durable construction for longer life.

Description	Blade length	Item no.
Exalto wiper blade HD	1000 mm	2161000
Exalto wiper blade HD	1100 mm	2161100
Exalto wiper blade HD	1200 mm	2161200

HD1 Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids giving wash/wipe facility.

Pos.	Description	Suitable for	Voltage	Item no.
1	2-speed wiper control for 1 wiper	Exalto wipers	12/24 V	2134
2	2-speed wiper control for 2 wipers	Exalto wipers	12/24 V	2135
3	2-speed, intermittend wiper control	Exalto wipers	12 V	2158
3	2-speed, intermittent wiper control	Exalto wipers	24 V	2159
4	Panel for 2-speed intermittent switch	2158, 2159		2159.01

HD1 Wiper controls CT2N

Electronic control for up to two, three, four or five Exalto wipers. Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, one junction box and a 5 m cat 5 connection cable to connect the panel to the junction box. The wiper control offers two continuous speeds, three step intermittent speeds and a wipe/wash feature. All wipers run synchronised in all speeds and are self-parking. LED indicators on the panel indicate the selected speed setting. The system has the capabillity to run a higher number of wipers, controlled in groups; please contact Exalto for options.

Description	Suitable for	Voltage	L x W	Item no.
Exalto Wiper Control for max. 2 wipers	Exalto wipers	12/24 V	100 x 100 mm	21021224
Exalto Wiper Control for max. 3 wipers	Exalto wipers	12/24 V	100 x 100 mm	21031224
Exalto Wiper Control for max. 4 wipers	Exalto wipers	12/24 V	100 x 100 mm	21041224
Exalto Wiper Control for max. 5 wipers	Exalto wipers	12/24 V	100 x 100 mm	21051224

HD1 Wiper control CT2N extra panel

The Exalto Electronic wiper control can easily turn into a dual control system by adding an extra panel. A 5m cable is included.

Description	Suitable for	Voltage	L x W	Item no.
Extra control panel for 2 wipers	Exalto wiper control CT2N	12/24 V	100 x 100 mm	21021224.P
Extra control panel for 3 wipers	Exalto wipercontrol CT2N	12/24 V	100 x 100 mm	21031224.P
Extra control panel for 4 wipers	Exalto wipercontrol CT2N	12/24 V	100 x 100 mm	21041224.P
Extra control panel for 5 wipers	Exalto wipercontrol CT2N	12/24 V	100 x 100 mm	21051224.P

HD1 Wiper controls CT2N special

Exalto wipercontrol for more than 5 wipers. For grouped system over a 5 wiper installation. This can also be programmed according to your project. All other features as per standard CT2N system.

Description	Item no.
Exalto Wipercontrol 12/24V - 6 wipers with 3 button panel	21061224.3B
Exalto Wipercontrol 12/24V - 6 wipers with 5 button panel	21061224.5B
Exalto Wipercontrol 12/24V - 7 wipers with 5 button panel	21071224.5B
Exalto Wipercontrol 12/24V - 8 wipers with 3 button panel	21081224.3B

HD1 Wiper controls CT41 & CT42

These switches are micro-controller based "intelligent" switches for operating one or two Exalto wiper motors. The switches consist of touch pads with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

Description	Suitable for	Voltage	Item no.
Wiperswitch 12 Amp 1 wiper	HD1, HD2, KW3/KW4	12/24 V	210341P
Wiperswitch 12 Amp 2 wipers	HD1, HD2	12/24 V	210342P

HD2 Wiper motors 285BS

Self-parking wiper motor for bulkhead mounting. This wiper is available in 24V. The 285BS compact is a powerful wiper. With a torque of 85Nm and dual driven shafts this wiper motor can power arms up to 1.2 metres and blades up to 1.5 metres. This means windows of maximum 2100 mm in height can be cleared. The motor is insulated earth as standard, The wiping arc of this wiper is freely adjustable from 40° to 90°.

Max. armlength	: 1200 mm	Centre distance	: 60 mm
Max. bladelength	: 1500 mm	Driven shafts	: 2
Ø driveshaft	: 27 mm		
Ø Idler spindle	: 27 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
24 V	25 mm	80 Nm	77 W	2178.085
				2181.02

HD2 Wiper motors 2110

Self-parking wiper motor for bulkhead mounting. This wiper is only available in 24V. The 2110BS is our most powerful wiper. With a torque of 110 Nm and dual driven shafts this wiper motor can power arms up to 1.5 metres and blades up to 1.5 metres. This means windows of maximum 2250 mm in height can be cleared.
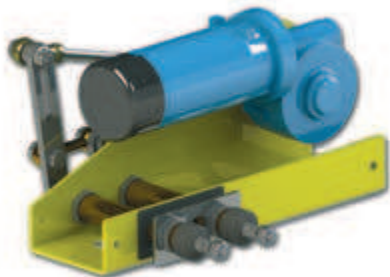
Max. armlength	: 1500 mm	Centre distance	: 60 mm
Max. bladelength	: 1500 mm	Driven shafts	: 2
Ø driveshaft	: 27 mm	Arm type	: HD2 P12
Ø Idler spindle	: 27 mm		

Voltage	Bulkhead thickness	Torque	Item no.
24 V	25 mm	110 Nm	2178.110

HD2 Wiper arms P12

The P12 arms are specially designed for the powerful 280BS and 2110BS wiper. The Exalto P12 arm will be manufactured to the required length. Please, note that therefore they have a longer delivery time. The P12 is not adjustable in length. The P12 arm is made of stainless steel 316 and has seawater resistant brass heads. A black coating is applied as a standard to prevent reflection. The Exalto P12 arms have two adjustable springs, to adjust the pressure on the glass steplessly. By means of the swivelling blade clip, you can park your blades parallel to the window. We advise you to use the Exalto Heavy Duty (H.D.) blades in combination with this arm.

Centre distance : 60 mm

Wiper arm length	Description	Nr. of springs	Max. bladelength	Item no.
max. 1500 mm	Exalto wiper arm HD2 P12 with 2 adjustable springs	2	900 - 1500 mm	2144.B

HD2 Washing jets P12

These washing jets can be fitted on Exalto pantograph arms MD2 PF, HD1 P10 and HD2 P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.

Pos.	Description	Item no.
2	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
3	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L
1	Washing jet, 6 nozzles for HD1 P10 & HD2 P12	2111.cpl

HD2 Wiper blades

These conventional style wipers are strong and durable for use in lenghts 1000-1500 mm. Using full metal design and durable construction for longer life.

Description	Blade length	Item no.
Exalto wiper blade HD	1000 mm	2161000
Exalto wiper blade HD	1100 mm	2161100
Exalto wiper blade HD	1200 mm	2161200
Exalto wiper blade HD	1300 mm	2161300
Exalto wiper blade HD	1500 mm	2161500

HD2 Wiper blades SS 316

These Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. H.D. blades are also available in a polished version also you can choose the look that fits your vessel. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

Pos.	Description	Blade length	Item no.
2	Exalto wiper blade HD	850 mm	216125
2	Exalto wiper blade HD	900 mm	216126
2	Exalto wiper blade HD	950 mm	216127
2	Exalto wiper blade HD	1000 mm	216128
2	Exalto wiper blade HD	1100 mm	216129
2	Exalto wiper blade HD	1200 mm	216130
3	Exalto wiper blade HD polished	850 mm	216125P
3	Exalto wiper blade HD polished	900 mm	216126P
3	Exalto wiper blade HD polished	950 mm	216127P
3	Exalto wiper blade HD polished	1000 mm	216128P
3	Exalto wiper blade HD polished	1200 mm	216130P

HD2 Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids giving wash/wipe facility.

Pos.	Description	Voltage	Item no.
1	2-speed wiper control for 1 wiper	12/24 V	2134
2	2-speed wiper control for 2 wipers	12/24 V	2135
3	2-speed, intermittend wiper control	12 V	2158
3	2-speed, intermittent wiper control	24 V	2159
4	Panel for 2-speed intermittent switch		2159.01

HD2 Wiper controls CT2N

Electronic control for up to two, three, four or five Exalto wipers. Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, one junction box and a 5 m cat 5 connection cable to connect the panel to the junction box. The wiper control offers two continuous speeds, three step intermittent speeds and a wipe/wash feature. All wipers run synchronised in all speeds and are self-parking. LED indicators on the panel indicate the selected speed setting. The system has the capabillity to run a higher number of wipers, controlled in groups; please contact Exalto for options.

Description	Voltage	L x W	Item no.
Exalto Wiper Control for max. 2 wipers	12/24 V	100 x 100 mm	21021224
Exalto Wiper Control for max. 3 wipers	12/24 V	100 x 100 mm	21031224
Exalto Wiper Control for max. 4 wipers	12/24 V	100 x 100 mm	21041224
Exalto Wiper Control for max. 5 wipers	12/24 V	100 x 100 mm	21051224

HD2 Wiper controls CT2N extra panel

The Exalto Electronic wiper control can easily turn into a dual control system by adding an extra panel. A 5m cable is included.

Description	Voltage	L x W	Item no.
Extra control panel for 2 wipers	12/24 V	100 x 100 mm	21021224.P
Extra control panel for 3 wipers	12/24 V	100 x 100 mm	21031224.P
Extra control panel for 4 wipers	12/24 V	100 x 100 mm	21041224.P
Extra control panel for 5 wipers	12/24 V	100 x 100 mm	21051224.P

HD2 Wiper controls CT2N special

Exalto wipercontrol for more than 5 wipers. For grouped system over a 5 wiper installation. This can also be programmed according to your project. All other features as per standard CT2N system.

Description	Item no.
Exalto Wipercontrol 12/24V - 6 wipers with 3 button panel	21061224.3B
Exalto Wipercontrol 12/24V - 6 wipers with 5 button panel	21061224.5B
Exalto Wipercontrol 12/24V - 7 wipers with 5 button panel	21071224.5B
Exalto Wipercontrol 12/24V - 8 wipers with 3 button panel	21081224.3B

HD2 Wiper controls CT41 & CT42

These switches are micro-controller based "intelligent" switches for operating one or two Exalto wiper motors. The switches consist of touch pads with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

Description	Voltage	Item no.
Wiperswitch 12 Amp 1 wiper	12/24 V	210341P
Wiperswitch 12 Amp 2 wipers	12/24 V	210342P

KW2 Linked wiper systems

The Exalto KW2 wiper system is custom-made, so in almost every situation the perfect solution can be offered. With one motor 2 arms can be driven. Main advantage of this wiper system is that the arms are easily adjustable in length. The arms have a swivelling blade clip, so in selfparking position the blade can be set parallel to the edge of the glass. The type E wiper arms are specially designed for the Exalto KW wiper systems. We advise you to use the Exalto H.D. blades. Features Exalto KW: • Easy to mount • Insulated earth return • Noiseless • Self-parking • Two speeds • Available for bulkhead thicknesses 20, 35, 55, 75, 100 and 125 mm • Stainless steel shafts, bolts and nuts • Self-lubricating bronze bearings • Maximum wiping angle 100° • Three types: for two, three or four pendulum arms

Max. armlength	: 600 mm	Arm type	: E; KW E
Max. bladelength	: 700 mm		
Ø driveshaft	: 20 mm		
Driven shafts	: 2		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2123.02012
12 V	35 mm	23 Nm	36 W	XA2123.03512
12 V	55 mm	23 Nm	36 W	XA2123.05512
12 V	75 mm	23 Nm	36 W	XA2123.07512
12 V	100 mm	23 Nm	36 W	XA2123.10012
12 V	125 mm	23 Nm	36 W	XA2123.12512
24 V	20 mm	23 Nm	36 W	XA2123.02024
24 V	35 mm	23 Nm	36 W	XA2123.03524
24 V	55 mm	23 Nm	36 W	XA2123.05524
24 V	75 mm	23 Nm	36 W	XA2123.07524
24 V	100 mm	23 Nm	36 W	XA2123.10024
24 V	125 mm	23 Nm	36 W	XA2123.12524

KW3 Linked wiper systems

The Exalto KW wiper system is custom-made, so in almost every situation the perfect solution can be offered. With one motor 3 arms can be driven. Main advantage of this wiper system is that the arms are easily adjustable in length. The arms have a swivelling blade clip, so in selfparking position the blade can be set parallel to the edge of the glass. The type E wiper arms are specially designed for the Exalto KW wiper systems. We advise you to use the Exalto H.D. blades. Features Exalto KW: • Easy to mount • Insulated earth return • Noiseless • Self-parking • Two speeds • Available for bulkhead thicknesses 20, 35, 55, 75, 100 and 125 mm • Stainless steel shafts, bolts and nuts • Self-lubricating bronze bearings • Maximum wiping angle 100° • Three types: for two, three or four pendulum arms

Max. armlength	: 750 mm		Arm type	: E; KW
Max. bladelength	: 750 mm			
Ø driveshaft	: 20 mm			
Driven shafts	: 3			

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	55 Nm	30 W	2150.02012
12 V	35 mm	55 Nm	30 W	2150.03512
12 V	55 mm	55 Nm	30 W	2150.05512
12 V	75 mm	55 Nm	30 W	2150.07512
12 V	100 mm	55 Nm	30 W	2150.10012
12 V	125 mm	55 Nm	30 W	2150.12512
24 V	20 mm	55 Nm	30 W	2150.02024
24 V	35 mm	55 Nm	30 W	2150.03524
24 V	55 mm	55 Nm	30 W	2150.05524
24 V	75 mm	55 Nm	30 W	2150.07524
24 V	100 mm	55 Nm	30 W	2150.10024
24 V	125 mm	55 Nm	30 W	2150.12524

KW4 Linked wiper systems

The Exalto KW wiper system is custom-made, so in almost every situation the perfect solution can be offered. With one motor 4 arms can be driven. Main advantage of this wiper system is that the arms are easily adjustable in length. The arms have a swivelling blade clip, so in selfparking position the blade can be set parallel to the edge of the glass. The type E wiper arms are specially designed for the Exalto KW wiper systems. We advise you to use the Exalto H.D. blades. Features Exalto KW: • Easy to mount • Insulated earth return • Noiseless • Self-parking • Two speeds • Available for bulkhead thicknesses 20, 35, 55, 75, 100 and 125 mm • Stainless steel shafts, bolts and nuts • Self-lubricating bronze bearings • Maximum wiping angle 100° • Three types: for two, three or four pendulum arms

Max. armlength	: 750 mm		Arm type	: E;KW
Max. bladelength	: 750 mm			
Ø driveshaft	: 20 mm			
Driven shafts	: 4			

Voltage	Bulkhead thickness	Torque	Power	Item no.
24 V	20 mm	80 Nm	77 W	2180.02024
24 V	35 mm	80 Nm	77 W	2180.03524
24 V	55 mm	80 Nm	77 W	2180.05524
24 V	75 mm	80 Nm	77 W	2180.07524
24 V	100 mm	80 Nm	77 W	2180.10024
24 V	125 mm	80 Nm	77 W	2180.12524

KW Wiper arms E

The E-arms are specially designed for the Exalto KW linked and single shaft (e.g. 223BDS) wiper systems. They are made of stainless steel and have a black coating. These pendulum arms have a stepless swivelling blade clip to allow the blade to be positioned parallel to the edge of the glass and are adjustable in length.

Wiper arm length	Description	Max. bladelength	Item no.
300 - 450 mm	Single adjustable arm, Type KW E	250 - 750 mm	2103
450 - 600 mm	Single adjustable arm, Type KW E	250 - 750 mm	2106
600 - 750 mm	Single adjustable arm, Type KW E	250 - 750 mm	2109

KW Washing jets E

These washing jets can be fitted on Exalto pantograph arms PU, P10 and P12 and also on the pendulum E-type arm. With most washing jets the angle under which the water is sprayed on the window, can be adjusted. The 2110.cpl washing jets are also suitable for the linked wiper system type KW.

Pos.	Description	Item no.
4	Washing jet, 6 nozzles for MD1 PU and E-arms	2110.cpl

KW Wiper blades SS 316

These Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

Pos.	Description	Blade length	Item no.
1	Exalto wiper blade	250 mm	2170.HP
1	Exalto wiper blade	300 mm	2171.HP
1	Exalto wiper blade	350 mm	2172.HP
1	Exalto wiper blade	400 mm	2173.HP
1	Exalto wiper blade	450 mm	2174.HP
1	Exalto wiper blade	500 mm	2175.HP
1	Exalto wiper blade	550 mm	2176.HP
1	Exalto wiper blade	600 mm	2177.HP
1	Exalto wiper blade	650 mm	2178.HP
1	Exalto wiper blade	700 mm	2179.HP
1	Exalto wiper blade	750 mm	2195.HP
2	Exalto Wiper blade HD	610 mm	216120
2	Exalto Wiper blade HD	650 mm	216121
2	Exalto Wiper blade HD	700 mm	216122
2	Exalto Wiper blade HD	750 mm	216123
3	Exalto wiper blade HD polished	610 mm	216120P
3	Exalto wiper blade HD polished	650 mm	216121P
3	Exalto wiper blade HD polished	700 mm	216122P
3	Exalto wiper blade HD polished	750 mm	216123P

KW Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids giving wash/wipe facility.

Pos.	Description	Suitable for	Voltage	Item no.
1	2-speed wiper control for 1 wiper	Exalto wipers	12/24 V	2134
2	2-speed wiper control for 2 wipers	Exalto wipers	12/24 V	2135
3	2-speed, intermittend wiper control	Exalto wipers	12 V	2158
3	2-speed, intermittent wiper control	Exalto wipers	24 V	2159
4	Panel for 2-speed intermittent switch	2158, 2159		2159.01

KW Wiper controls CT41

These switches are micro-controller based "intelligent" switches for operating one or two Exalto wiper motors. The switches consist of touch pads with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

Installation dimensions   Cable length   : 450 mm
H x W x D   : 36,5 x 21 x 90 mm

Description	Suitable for	Voltage	Item no.
Wiper control for 1 wiper 6A	MD1, MD2, KW2	12/24 V	210341J
Wiperswitch 12 Amp 1 wiper	HD1, HD2, KW3/KW4	12/24 V	210341P

Fittings for low pressure systems

Pos.	Description	B.S.P. x Ø mm	Item no.
1	90° bulkhead connector		2153
2	End coupling female	1/4 B.S.P. x 6 inch x mm	2120
3	T-coupling		2156
4	Straight coupling		2150
5	Straight coupling	1/8 B.S.P. x 6 inch x mm	2116
6	Straight coupling	1/4 B.S.P. x 6 inch x mm	2117
7	Flexible rubber tubing black		2154.N
-	Non-return valve for rubber hose		2121
-	Plasticized nylon tubing (grey)		2157.N
	Bulkhead fitting 90 degrees		2122.715

Fittings for high pressure systems

Pos.	Description	B.S.P. x Ø mm	Item no.
1	Elbow		2129
2	Bulkhead fitting		2130
3	T-coupling		2166
4	Elbow connector		2131
5	Straight coupling	1/8 B.S.P. x 6 inch x mm	2118
6	Straight coupling	1/4 B.S.P. x 6 inch x mm	2119
8	High pressure PVC bulkhead fitting for washing jet		2180
9	High pressure SS 316 bulkhead fitting for washing jet		2181
-	Plasticized nylon tubing (grey)		2157.N
	Non return valve 6x6mm		2128

Bulkhead mount washing jets

These washing jets can be mounted on the deck or skin of the vessel. With most washing jets the angle under which the water is sprayed on the window, can be adjusted. These washing jets are also suitable for the linked wiper system type KW.

Pos.	Description	Voltage	Item no.
2	Fixed washing jet (bulkhead)		2161
1	Heated washing jet	24 V	2148
1	Heated washing jet	230 V	2149

Arm mount type washing jets

These washing jets can be fitted on Exalto pantograph arms PF, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.

Pos.	Description	Item no.
1	Washing jet, 6 nozzles for HD1 P10 & HD2 P12	2111.cpl
3	Washing jet, 2 nozzles for MD1 PU arms	2184
2	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
3	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L
4	Washing jet, 6 nozzles for MD1 PU and E-arms	2110.cpl

Reservoirs with pump

For your wash system you can use the water from your fresh water system. You only need a solenoid valve. As soon as the valve gets a signal via the wiper control, it will open to provide water for the wipe/wash program. If you don't have a pressurized drinking water system, you can use one of the reservoirs.

Pos.	Description	Voltage	Item no.
	Reservoir 1,2 ltr with 1 pump	12 V	2100.PT-0701080
1	Reservoir 8,0 ltr with pump	12 V	2193
	Reservoir 8,0 ltr with 2 pumps	12 V	PT0701042
-	Reservoir 8,0 ltr with 3 pumps	12 V	PT0701044
	Reservoir 1,2 ltr with 1 pump	24 V	2100.PT-0701081
	Reservoir 5,0 ltr with 1 pump	24 V	2100.PT0701021
	Reservoir 5,7 ltr with 1 pump	24 V	2100.PT-2752
1	Reservoir 8,0 ltr with pump	24 V	2194
	Reservoir 8,0 ltr with 1 pump	24 V	2100.PT-2875
	Reservoir 8,0 ltr with 2x pumps	24 V	2194.10
	Reservoir 8,0 ltr with 2 pumps	24 V	PT0701043
-	Reservoir 8,0 ltr with 3 pumps	24 V	PT0701045
2	Reservoir 20 ltr with 3 pumps	24 V	2192
	Connectionset for 2192		2192.2169
	Reservoir 27 ltr with 3 pomps	24 V	2100.zxa163-3
	Connectionset for 2193 and 2194		2193.con

Solenoid valves

For your wash system you can use the water from your on board pressure supply. You only need a solenoid valve. As soon as the valve gets a signal via the wiper control, it will open to provide water for the wipe/wash program.

Pos.	Description	Voltage	Connections	Item no.
1	Solenoid valve	12 V	1/8" B.S.P.	2137
-	Solenoid valve	24 V	1/8" B.S.P.	2138
2	Solenoid valve	12 V	1/4" B.S.P.	2142
-	Solenoid valve	24 V	1/4" B.S.P.	2143

Straightline HD DW80

The Straight Line Wipersystem is made to meet your specific needs. With this system it is possible to wipe 90% of your window.
The SL wiper is suitable for windows from 0.5 meter upto 3 meters. it is available as single or twin system(one or two arms).
Mounting a Straight Line wipersystem is a breeze. The system works perfectly in a temperature range of -40°C and +50°C.The motor is mounted externally and integral to the systems casing, made of seawater resistant anodised aliminium in white powder coating. the arm is adjustable in length and also the springpressure is adjustable. The control can be configured to control either one or multiple groups of wipers.
Voltages available are 24VDC, 110VAC and 230VAC. Also various control systems are available. Please contact Exalto sales for more information.

Description	Item no.
Made to order, please contact our sales dept.	DW80xxxx1x

Straightline arms

The wiperarms for the straightline wipers are made of stainless steel with black coating and are supplied in full length. The arms feature stepless spring tension adjustment by means of 2 springs. They are available in 2 models; one for blades from 500 upto 800mm and one for blades from 900 upto 1000mm.

Description	Item no.
Wiperarm for 500-800mm blades	DW81000007
Wiperarm for 900-1000mm blades	DW81000008
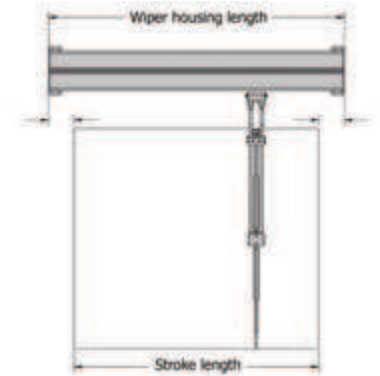
Straightline blades

The Straightline Wiperblades are designed to fit the Straightline wiperarms. The blades have a black coating finish.

Description	Blade length	Suitable for	Item no.
Wiper blade	500 mm	SL	DW10500500
Wiper blade	600 mm	SL	DW10500600
Wiper blade	700 mm	SL	DW10500700
Wiper blade	800 mm	SL	DW10500800
Wiper blade	900 mm	SL	DW10500900
Wiper blade	1000 mm	SL	DW10501000

Straightline cables

This special cable is neccessary to connect the wiper to the controlsystem. The cable is available in different lengths.

Description	Item no.
Cable 3m with connector	DW81000203
Cable 5m with connector	DW81000205
Cable 10m with connector	DW81000210

Seaview 300

The CVS is totally different from the other wipers. It is a clear view screen. This means that the front part of the CVS rotates with a high speed. By the centrifugal force the area between the anodized aluminum stays free of rain. Comes with clear assembly instruction, a template for cutting the glass and an assembly tool. Optional is the control panel (surface or flush mount).

Voltage	Built-in heating	Power	Item no.
12 V	Yes	60 W	1803010
12 V	No	60 W	1803020
24 V	Yes	60 W	1803030
24 V	No	60 W	1803040
110 V	Yes	60 W	1803070
110 V	No	60 W	1803080
230 V	Yes	60 W	1803090
230 V	No	60 W	1803100
12 V	Yes	120 W	1804010
12 V	No	120 W	1804020
24 V	Yes	120 W	1804030
24 V	No	120 W	1804040
110 V	Yes	120 W	1804070
110 V	No	120 W	1804080
230 V	Yes	120 W	1804090
230 V	No	120 W	1804100

Seaview 350

The CVS is totally different from the other wipers. It is a clear view screen. This means that the front part of the CVS rotates with a high speed. By the centrifugal force the area between the anodized aluminum stays free of rain. Comes with clear assembly instruction, a template for cutting the glass and an assembly tool. Optional is the control panel (surface or flush mount).

Voltage	Built-in heating	Power	Item no.
12 V	Yes	60 W	1803510
12 V	No	60 W	1803520
24 V	Yes	60 W	1803530
24 V	No	60 W	1803540
110 V	Yes	60 W	1803570
110 V	No	60 W	1803580
230 V	Yes	60 W	1803590
230 V	No	60 W	1803600
12 V	Yes	120 W	1803610
12 V	No	120 W	1803620
24 V	Yes	120 W	1803630
24 V	No	120 W	1803630
110 V	Yes	120 W	1803670
110 V	No	120 W	1803680
230 V	Yes	120 W	1803690
230 V	No	120 W	1803700

Seaview 400

The CVS is totally different from the other wipers. It is a clear view screen. This means that the front part of the CVS rotates with a high speed. By the centrifugal force the area between the anodized aluminum stays free of rain. Comes with clear assembly instruction, a template for cutting the glass and an assembly tool. Optional is the control panel (surface or flush mount).

Voltage	Built-in heating	Power	Item no.
12 V	Yes	120 W	1804010
12 V	No	120 W	1804020
24 V	Yes	120 W	1804030
24 V	No	120 W	1804040
110 V	Yes	120 W	1804070
110 V	No	120 W	1804080
230 V	Yes	120 W	1804090
230 V	No	120 W	1804100

Seaview wiper control

Switch for Clearview screen.
The controlpanel is available as a surface mount box or flush mount panel.

Description	Voltage	Power	Item no.
Wipercontrol for Clearview Screen Surface Mount	12 V		1815012
Wipercontrol for Clearview Screen Surface Mount	24 V	60 W	1815024
Wipercontrol for Clearview Screen Surface Mount	24 V	120 W	1815025
Wipercontrol for Clearview Screen Surface Mount	110 V		1815110
Wipercontrol for Clearview Screen Surface Mount	230 V		1815220
Wipercontrol for Clearview Screen Flush Mount	12 V		1815112
Wipercontrol for Clearview Screen Flush Mount	24 V	60 W	1815124
Wipercontrol for Clearview Screen Flush Mount	24 V	120 W	1815125
Wipercontrol for Clearview Screen Flush Mount	110 V		1815111
Wipercontrol for Clearview Screen Flush Mount	230 V		1815221

Why Exalto is your address for Propulsion

• Complete propulsion systems

Propulsion is a core activity of Exalto. We can offer you complete propulsion systems, from coupling to propeller. Our engineers design the systems and in our well-equipped workshop we can produce sterngear installations for shafts from Ø 25 mm. The maximum size of shafts we can produce is 12 metres in length or with a maximum weight of 5 tons.

• Sales experts

We have a sales team dedicated to propulsion systems only. You can be sure they know exactly what you are talking about. And they can give you the best advice possible for your propulsion system.

A sterntube's mounting aids are welded on in our workshop.

• Exalto made

Most propulsion products shown here are made in our own production facility in Hardinxveld, the Netherlands. Shafts, sterntubes, Hollex seals, thrust bearings, rudder systems; they are all in-house engineered and produced. In our production facility we have all the machinery and craftsmanship to put to work for your propulsion system.

• Re-fit

Sometimes you only need to have part of the propulsion system replaced. We'll gladly advise you about the right solution. Even when you have a very unusual tailor-made system, we are likely to be able to reproduce parts of the system.

An example of a customised shaft with non-standard propeller

Propulsion

● **Classification**

Commercial ships and some leisure yachts require classification. Of course, we can design and produce systems according to most classification societies. We often produce according to ABS, BV, Lloyd's, RINA, DNV and GL. Depending on your wishes, Exalto can take care of having the propulsion system classified. If required, we supply with full certification and survey.

● **Calculations**

To offer the best possible propulsion system, we take care of all calculations. E.g. the calculations for the propeller, couplings, shaft diameters, bearing distances, and more. Check our downloads on www.exalto.com for our propeller form and our MO sterntube form to see what data we need, or contact our Propulsion sales team for help.

Work in progress on a customised rudder installation in our production facility in Hardinxveld, The Netherlands.

Exalto Custom Rudder installations

Exalto rudder installations are completely in-house designed and fabricated.
A typical Exalto rudder installation consists of:
• a rudder stock, split type (by means of a flange connection) or non-split type, made of stainless steel 316 and the lower part of steel.
• a stainless steel tube with steel double walled welding ends. A maintenance-free double row spherical bearing and a water lubricated rubber bearing are included.
• if the rudder is not free hanging, a demountable heel socket with a water lubricated rubber bearing is also included.
• if a blade is required, Exalto can offer single or double plated rudder blades.

All Exalto rudder installations are manufactured in our own workshop. We use only first class materials and if required, we can supply the installations in accordance with the standards of all well-established classification societies. Our technical consultants would be pleased to help you with determining design and materials.

Please do not hesitate to contact us, delivery times and prizes are available on request.
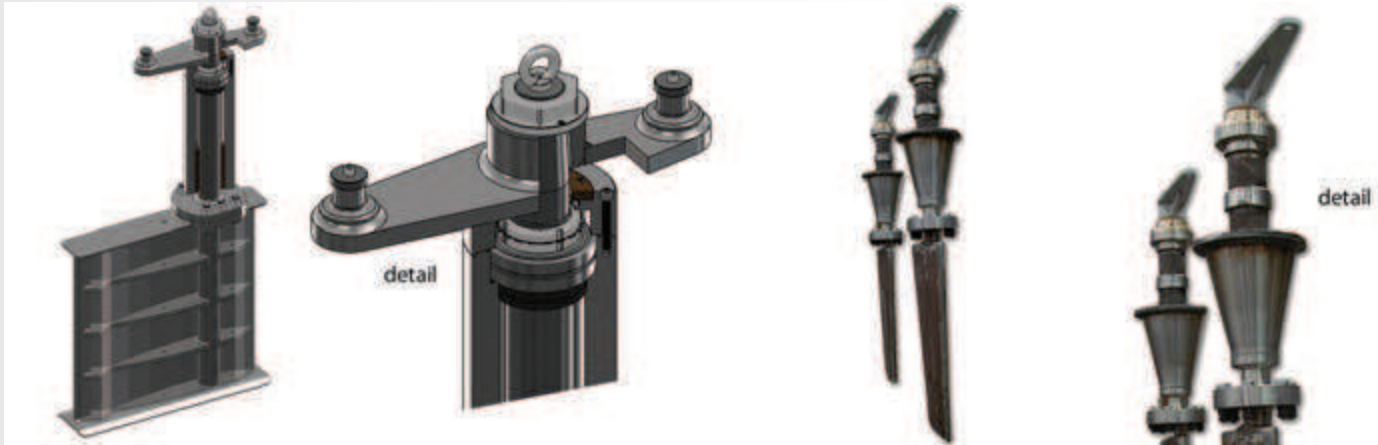
Exalto ERS Rudder systems

The ERS (Exalto Rudder System) concerns an outer /inner tube system in which a steel casing pipe is welded in the hull at an early stage. For rudder stock Ø 35 and 40 mm, this concerns Ø 101.6 x 6.3 mm, for rudder stock Ø 45 mm and 50 mm diameter it is Ø 127 x 7.1 mm. The GRP inner tube is equipped with a lower and an upper bearing and the shaft is sealed by means of a Carco-seal. During building you can mount the GRP inner tube in the outer tube by means of a clamping system. The stainless steel rudder stock can be produced undivided or divided. On the upper side a square is milled for the emergency tiller arm. Delivery includes a rudder lever. This complete system is quick and easy to install.
Benefits:
• No corrosion
• Low installation costs due to simple installation
• Bearings are easy to replace by removable rudder tube

Rudder tubes are available in brass, steel, stainless steel or GRP.
Shaft diameters, length of rudder tubes, rudder stocks, delivery times and prizes are available on request.
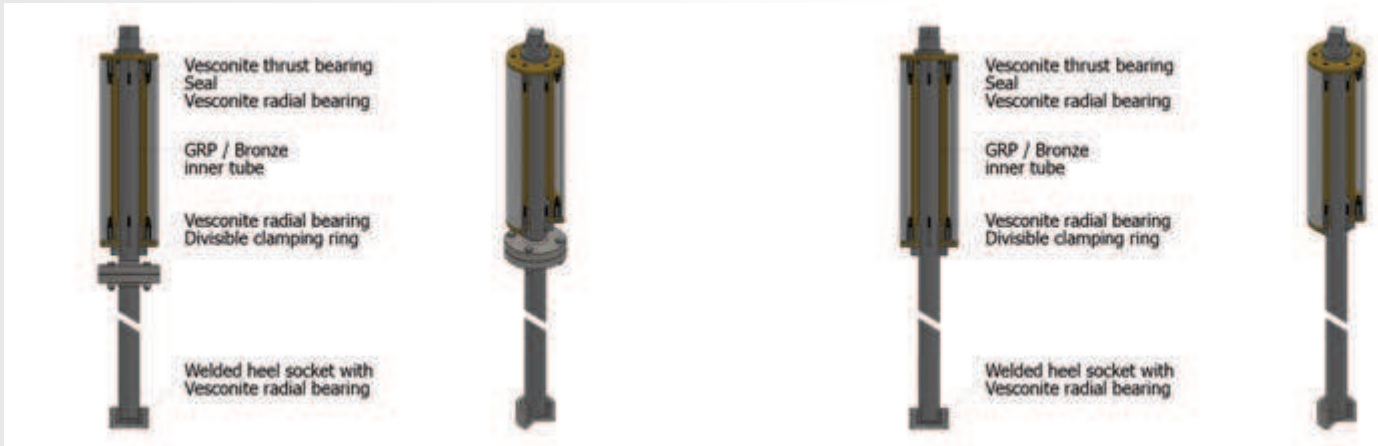
Exalto Maintenance-free rudder installations

No rudder installation is the same. That is why we specialize in designing and producing customised rudder installations. A complete Exalto rudder installation consists of a rudder tube, a rudder stock and a rudder lever. The rudder stock is made ??of stainless steel, to allow welding of the rudder blade. The rudder stock is locked by the rudder lever at one side and a stainless steel clamping ring at the other side. It also has a emergency steering feature. Optional a weldable heel socket with composite bearing is available. Rudder stocks are available in split or non-spilt type.

Rudder tubes are available in brass, steel, stainless steel or GRP.
Shaft diameters, length of rudder tubes, rudder stocks, delivery times and prizes are available on request.

detail

TOR Type 40 D & P

TOR rudders are available for vessels up to 12 metres in length. Attention: TOR rudders are only supplied as complete rudder installations. Standard delivery time for TOR rudder installations is three weeks.

Surface rudder	Model / type	Model rudder tube	Diameter	Material	H	L	Item no.
5,08 dm2	D5	A0	40 mm	Bronze	245 mm	248 mm	D5-A0
5,08 dm2	D5	A15	40 mm	Bronze	245 mm	248 mm	D5-A15
5,08 dm2	D5	C0	40 mm	Bronze	245 mm	248 mm	D5-C0
5,08 dm2	D5	C12	40 mm	Bronze	245 mm	248 mm	D5-C12
10,71 dm2	D11	A0	40 mm	Bronze	415 mm	340 mm	D11-A0
10,71 dm2	D11	A15	40 mm	Bronze	415 mm	340 mm	D11-A15
10,71 dm2	D11	C0	40 mm	Bronze	415 mm	340 mm	D11-C0
10,71 dm2	D11	C12	40 mm	Bronze	415 mm	340 mm	D11-C12
7,21 dm2	P7	A0	40 mm	Bronze	450 mm	200 mm	P7-A0
7,21 dm2	P7	A15	40 mm	Bronze	450 mm	200 mm	P7-A15
7,21 dm2	P7	C0	40 mm	Bronze	450 mm	200 mm	P7-C0
7,21 dm2	P7	C12	40 mm	Bronze	450 mm	200 mm	P7-C12
5,87 dm2	D6	A0	40 mm	Bronze	345 mm	220 mm	P6-A0
5,87 dm2	D6	A15	40 mm	Bronze	345 mm	220 mm	P6-A15
5,87 dm2	D6	C0	40 mm	Bronze	345 mm	220 mm	P6-C0
5,87 dm2	D6	C12	40 mm	Bronze	345 mm	220 mm	P6-C12
10,84 dm2	P11	A0	40 mm	Bronze	520 mm	260 mm	P11-A0
10,84 dm2	P11	A15	40 mm	Bronze	520 mm	260 mm	P11-A15
10,84 dm2	P11	C0	40 mm	Bronze	520 mm	260 mm	P11-C0
10,84 dm2	P11	C12	40 mm	Bronze	520 mm	260 mm	P11-C12
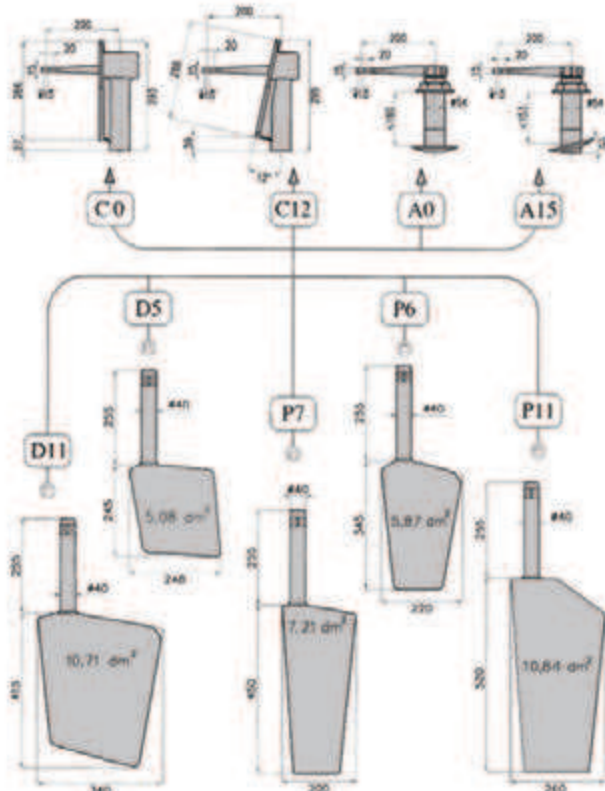
TOR Type 40 P

TOR rudders are available for vessels up to 12 metres in length. The blades of these rudders are made of stainless steel 316 and the rudder stocks of stainless steel 630.
Attention: TOR rudders are only supplied as complete rudder installations. Standard delivery time for TOR rudder installations is three weeks.

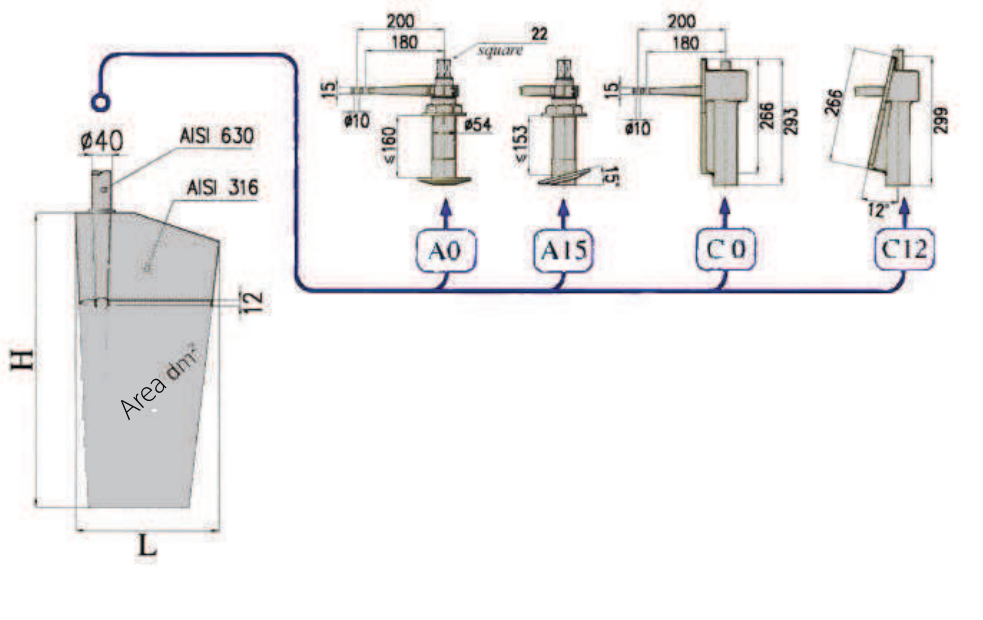| Surface rudder	Model / type	Model rudder tube	Diameter	Material	H	L	Item no.
13,1 dm2	P13	A0	40 mm	SS 316;Stainless steel 630	570 mm	280 mm	P13-A0
13,1 dm2	P13	A15	40 mm	SS 316;Stainless steel 630	570 mm	280 mm	P13-A15
13,1 dm2	P13	C0	40 mm	SS 316;Stainless steel 630	570 mm	280 mm	P13-C0
13,1 dm2	P13	C12	40 mm	SS 316;Stainless steel 630	570 mm	280 mm	P13-C12
15,4 dm2	P15	A0	40 mm	SS 316;Stainless steel 630	620 mm	300 mm	P15-A0
15,4 dm2	P15	A15	40 mm	SS 316;Stainless steel 630	620 mm	300 mm	P15-A15
15,4 dm2	P15	C0	40 mm	SS 316;Stainless steel 630	620 mm	300 mm	P15-C0
15,4 dm2	P15	C12	40 mm	SS 316;Stainless steel 630	620 mm	300 mm	P15-C12

TOR Type 60 P

TOR rudders are available for vessels up to 20 metres in length. The blades of these rudders are made of stainless steel 316 and the rudder stocks of stainless steel 630.
Attention: TOR rudders are only supplied as complete rudder installations. Standard delivery time for TOR rudder installations is three weeks.

Surface rudder	Model / type	Model rudder tube	Diameter	Material	H	L	Item no.
18,16 dm2	P18	B	60 mm	SS 316;Stainless steel 630	620 mm	350 mm	P18-B
18,16 dm2	P18	A	60 mm	SS 316;Stainless steel 630	620 mm	350 mm	P18-A
18,16 dm2	P18	C0	60 mm	SS 316;Stainless steel 630	620 mm	350 mm	P18-C0
18,16 dm2	P18	C15	60 mm	SS 316;Stainless steel 630	620 mm	350 mm	P18-C15
20,73 dm2	P20	B	60 mm	SS 316;Stainless steel 630	630 mm	380 mm	P20-B
20,73 dm2	P20	A	60 mm	SS 316;Stainless steel 630	630 mm	380 mm	P20-A
20,73 dm2	P20	C0	60 mm	SS 316;Stainless steel 630	630 mm	380 mm	P20-C0
20,73 dm2	P20	C15	60 mm	SS 316;Stainless steel 630	630 mm	380 mm	P20-C15
24,02 dm2	P24	B	60 mm	SS 316;Stainless steel 630	730 mm	400 mm	P24-B
24,02 dm2	P24	A	60 mm	SS 316;Stainless steel 630	730 mm	400 mm	P24-A
24,02 dm2	P24	C0	60 mm	SS 316;Stainless steel 630	730 mm	400 mm	P24-C0
24,02 dm2	P24	C15	60 mm	SS 316;Stainless steel 630	730 mm	400 mm	P24-C15
25,30 dm2	P25	B	60 mm	SS 316;Stainless steel 630	700 mm	430 mm	P25-B
25,30 dm2	P25	A	60 mm	SS 316;Stainless steel 630	700 mm	430 mm	P25-A
25,30 dm2	P25	C0	60 mm	SS 316;Stainless steel 630	700 mm	430 mm	P25-C0
25,30 dm2	P25	C15	60 mm	SS 316;Stainless steel 630	700 mm	430 mm	P25-C15
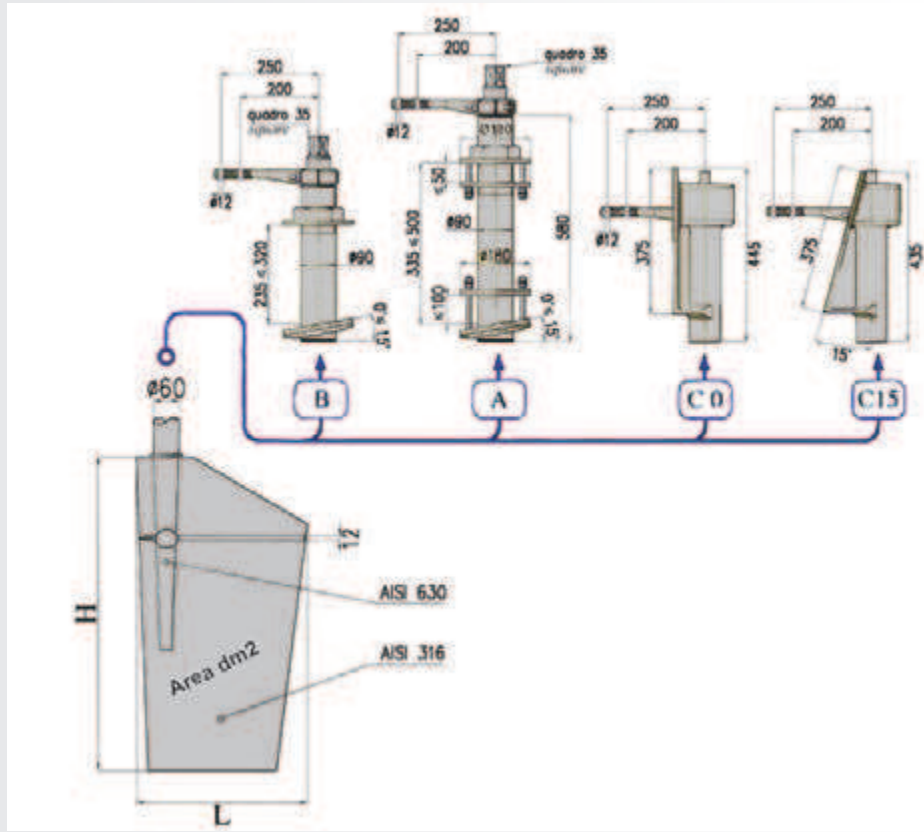
RL-serie

The steel rudder levers mentioned in the table below are all available from stock. Larger or special sizes are on request. When ordering, please state sizes L and, when desired, size G as well. For size G a surcharge will be calculated.
Dimensions in mm.
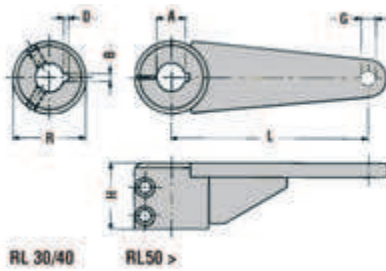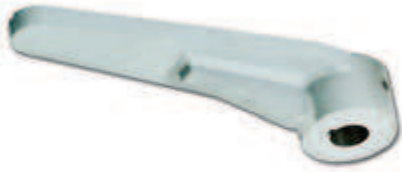
Model / type	Material	A	B	D	R	H	Max. length	Item no.
RL30	Steel C45K	30 mm	8 mm	4,0 mm	75 mm	55 mm	260 mm	67081
RL40	Steel C45K	40 mm	12 mm	5,0 mm	75 mm	55 mm	260 mm	67082
RL50	Steel C45K	50 mm	14 mm	5,0 mm	100 mm	80 mm	270 mm	67083
RL60	Steel C45K	60 mm	18 mm	5,5 mm	100 mm	80 mm	270 mm	67084
RL70	Steel C45K	70 mm	18 mm	5,5 mm	135 mm	100 mm	280 mm	67091
RL80	Steel C45K	80 mm	20 mm	6,0 mm	135 mm	100 mm	280 mm	67092
RL90	Steel C45K	90 mm	22 mm	6,0 mm	165 mm	120 mm	300 mm	67093
RL100	Steel C45K	100 mm	25 mm	6,0 mm	165 mm	120 mm	300 mm	67094

RL 30/40   RL 50 >

As supplier of marine propellers, Exalto has a solid reputation for Michigan Wheel propellers.

These are high quality propellers for both the yachting and the professional industries. Besides the propellers quality, the choice of the right kind of propeller is crucial. The right propeller will deliver the optimum propulsion.

Calculation

Because choosing the right propeller is crucial for an efficient propulsion system, Exalto specializes in propeller calculation. We can give you a solid, thorough advice on the right propeller in your specific situation. You can download our special Propeller questionnaire on www.exalto.com. Just fill in the data and return the form to us. We will then be able to calculate the best propeller for you.

All sorts, shapes and sizes

We supply a very wide range of propellers to choose from. We offer propellers:

- For every kind of application imaginable

- Varying from standard propellers to propellers for displacement, sailing or plaining vessels

- Customized propellers for e.g. submarines (Goldline and Powerline propellers)

- With diameters measuring from 5" up to almost 3 meters

- From all known materials like Mn.Br. and Ni.Al.Br.

- in various qualities, like Class S, I and II, ISO 481/1 and ISO481/2. These propellers are designed with CAD/CAM-technology and fabricated with CNC machines. This contributes to a higher efficiency, less vibrations, a lower noise level and less fuel consumption.

- With approval of various classification societies, e.g. LR, BV, ABS, DNV, GL etc.

- All the propellers can be supplied with a M.R.I. measuring rapport.

Free rotation of the propeller

After the diameter of the propeller has been determined, it is very important to know whether this propeller can be fitted. To prevent vibration it is absolutely necessary to take into account certain clearances of the propeller. Clearance of the propeller needs to be 15% of the diameter of the propeller at the top and 4% at the bottom

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Caution!

The incorrect combination of gearbox ratio and/or propeller type may cause vibration problems.
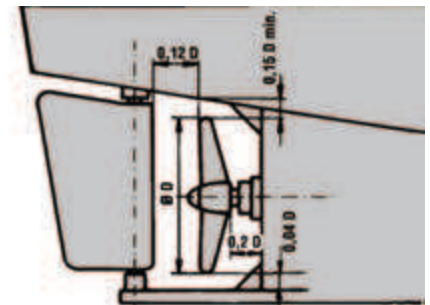
Clearance in propeller frame

Type Goldline

Standard Goldline propellers are made of manganese bronze (Mn.Br.). These propellers comply to the ISO 484/2 class II tolerances.

In most situations Mn.Br. is a good material for propellers. But when it comes to aluminum or seagoing non metallic vessels, we advise the use of a nickel aluminum bronze propeller.

Manganese bronze contains up to 40% of zinc, which always causes unwanted reactions when used with aluminum. Nickel aluminum bronze is almost free of zinc, so this will not cause any troubles. If there is a lot of cavitation, or if the engine is very powerful, we advise nickel-aluminum bronze as well.

All Goldline propellers can be supplied in nickel-aluminum bronze (Ni.Al.Br.) at a surcharge. If you are not sure which material would be best in your situation, please do not hesitate to ask our experts at the Sales department Propulsion.

Standard range Goldline propellers:

GL235 - D.A.R. 2B	:	35%
GL352 - D.A.R. 3B	:	52%
GL469 - D.A.R. 4B	:	69%
GL485 - D.A.R. 4B	:	85%
GL592 - D.A.R. 5B	:	92%

Diameter	Outside boss ØD1 x ØD2	Keyway (W x D)	Standard bore (tapered 1:10) Ø d1 x Ød2 x L
11 - 279 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
12 - 305 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
13 - 330 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
14 - 356 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
15 - 381 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
16 - 406 inch-mm	45 x 52 mm	8 x 4 mm	30 x 22 x 80
17 - 432 inch-mm	45 x 52 mm	8 x 4 mm	30 x 22 x 80
18 - 457 inch-mm	45 x 52 mm	8 x 4 mm	30 x 22 x 80
19 - 483 inch-mm	50 x 57 mm	10 x 4 mm	35 x 26 x 90
20 - 508 inch-mm	50 x 57 mm	10 x 4 mm	35 x 26 x 90
21 - 533 inch-mm	50 x 57 mm	10 x 4 mm	35 x 26 x 90
22 - 559 inch-mm	55 x 64 mm	12 x 5 mm	40 x 30 x 100
23 - 584 inch-mm	55 x 64 mm	12 x 5 mm	40 x 28 x 120
24 - 610 inch-mm	55 x 64 mm	12 x 5 mm	40 x 28 x 120
25 - 635 inch-mm	65 x 75 mm	14 x 5 mm	45 x 33 x 120
26 - 660 inch-mm	75 x 84 mm	14 x 5 mm	50 x 38 x 120
27 - 686 inch-mm	75 x 84 mm	14 x 5 mm	50 x 36 x 140
28 - 711 inch-mm	75 x 84 mm	14 x 5 mm	50 x 36 x 140
29 - 736 inch-mm	76 x 102 mm	16 x 5 mm	60 x 45 x 150
30 - 762 inch-mm	76 x 102 mm	16 x 5 mm	60 x 45 x 150

Standard taperbore
(taper 1:10)

Type Powerline

As well as the mentioned Goldline propellers, we can also supply many other types. For custom designed propellers, Exalto is the best address to go. Below you can find some examples of commonly used propellers.

Type Powerline High Skew

Powerline propellers are designed for higher speeds and shaft rpm. They have a large blade area that solves cavitation problems. The variable pitch, chord, camber, rake and skew distributions are modelled to deliver maximum performance, minimal noise and vibration and to manage the elimination of cavitation induced damage

All our propellers are stamped with individual serial numbers that allow full traceability of the alloy chemical composition and mechanical characteristics. The Powerline range can also be supplied in Ni.Al.Br. material.

High skew propellers   :
PL375 - DA.R. 3B   : 75%
PL485 - D.A.R. 4B   : 85%
PL592 - D.A.R. 5B   : 92%
PL506 - D.A.R. 5B   : 106%

Below you can find some examples of commonly used propellers.

Diameter	Outside boss ØD1 x ØD2	Keyway (W x D)	Standard bore (tapered 1:10) Ø d1 x Ød2 x L
11 - 279 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
12 - 305 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
13 - 330 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
14 - 356 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
15 - 381 inch-mm	37 x 42 mm	6 x 3 mm	25 x 19 x 60
16 - 406 inch-mm	45 x 52 mm	8 x 4 mm	30 x 22 x 80
17 - 432 inch-mm	45 x 52 mm	8 x 4 mm	30 x 22 x 80
18 - 457 inch-mm	45 x 52 mm	8 x 4 mm	30 x 22 x 80
19 - 483 inch-mm	50 x 57 mm	10 x 4 mm	35 x 26 x 90
20 - 508 inch-mm	50 x 57 mm	10 x 4 mm	35 x 26 x 90
21 - 533 inch-mm	50 x 57 mm	10 x 4 mm	35 x 26 x 90
22 - 559 inch-mm	55 x 64 mm	12 x 5 mm	40 x 30 x 100
23 - 584 inch-mm	55 x 64 mm	12 x 5 mm	40 x 28 x 120
24 - 610 inch-mm	55 x 64 mm	12 x 5 mm	40 x 28 x 120
25 - 635 inch-mm	65 x 75 mm	14 x 5 mm	45 x 33 x 120
26 - 660 inch-mm	75 x 84 mm	14 x 5 mm	50 x 38 x 120
27 - 686 inch-mm	75 x 84 mm	14 x 5 mm	50 x 36 x 140
28 - 711 inch-mm	75 x 84 mm	14 x 5 mm	50 x 36 x 140
29 - 736 inch-mm	76 x 102 mm	16 x 5 mm	60 x 45 x 150
30 - 762 inch-mm	76 x 102 mm	16 x 5 mm	60 x 45 x 150

VARIPROP
FEATHERING PROPELLERS

Shock absorbing
multidisc brake

External pitch adjustment
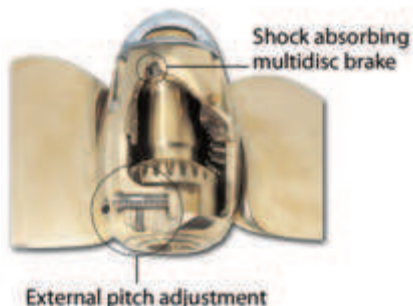
Variprop is an user-friendly superior feathering propeller, made of durable Ni.Br.Al. Available for sailing yachts up to 180 HP (132 kW). As soon as the engine is turned off, the waterflow rotates the blades. This reduces the drag to almost nothing, and increases the speed. Variprop propellers cause little turbulence and therefore optimize the rudder effect.

Within less than one shaft rotation the propeller blade turns 180°. The thrust in reverse is equal to forward. This is approximately 30-40% better than with fixed propeller blades. This improves the stopping power.

The blades are dynamically balanced, so they run smooth, quiet and without vibration. Rope cutters can be mounted close to the blades.

Unique features Variprop:

• Independently adjustable external pitch control of reverse and forward thrust

• Patented SoftStop shock absorbing multidisc brake. This dramatically reduces shock loads, unpleasant operating noises and wear.

• Gears are 35-50% larger than competing propellers to extend the service life

• Easy mounting as the propeller will be supplied fully assembled

• Short built-in length, so they can be built in to almost every sailing yacht

• Germanischer Lloyd approval

Variprop 2-blade feathering propeller
Saildrive propellers are available on request.

Diameter	Max. diam. shaft	Hub	Power	Built-in length	Weight ±
12 - 305 inch - mm	25 mm	DF-80	22 kW	155 mm	4,8 kg
13 - 330 inch - mm	25 mm	DF-80	22 kW	155 mm	5,0 kg
14 - 356 inch - mm	25 mm	DF-80	22 kW	155 mm	5,5 kg
15 - 381 inch - mm	25 mm	DF-80	22 kW	155 mm	6,0 kg
16 - 406 inch - mm	25 mm	DF-80	22 kW	155 mm	6,5 kg
15 - 381 inch - mm	35 mm	DF-107	59 kW	170 mm	8,0 kg
16 - 406 inch - mm	35 mm	DF-107	59 kW	170 mm	8,5 kg
17 - 432 inch - mm	35 mm	DF-107	59 kW	170 mm	9,5 kg
18 - 457 inch - mm	35 mm	DF-107	59 kW	170 mm	10,5 kg
19 - 483 inch - mm	35 mm	DF-107	59 kW	170 mm	11,5 kg

Variprop 3-blade feathering propeller

Saildrive propellers are available on request.

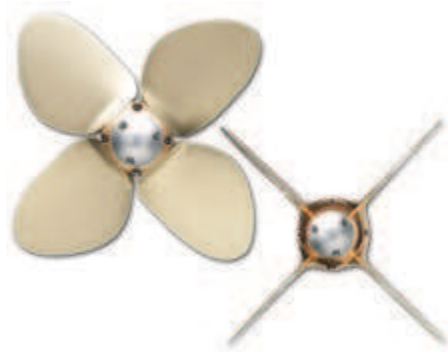| Diameter	Max. diam. shaft	Hub	Power	Built-in length	Weight ±
12 - 305 inch - mm	25 mm	DF-80	22 kW	155 mm	4,8 kg
13 - 330 inch - mm	25 mm	DF-80	22 kW	155 mm	5,0 kg
14 - 356 inch - mm	25 mm	DF-80	22 kW	155 mm	5,5 kg
15 - 381 inch - mm	25 mm	DF-80	22 kW	155 mm	6,0 kg
16 - 406 inch - mm	25 mm	DF-80	22 kW	155 mm	6,5 kg
15 - 381 inch - mm	35 mm	DF-107	59 kW	170 mm	8,0 kg
16 - 406 inch - mm	35 mm	DF-107	59 kW	170 mm	8,5 kg
17 - 432 inch - mm	35 mm	DF-107	59 kW	170 mm	9,5 kg
18 - 457 inch - mm	35 mm	DF-107	59 kW	170 mm	10,5 kg
19 - 483 inch - mm	35 mm	DF-107	59 kW	170 mm	11,5 kg
20 - 508 inch - mm	40 mm	DF-112	88 kW	215 mm	17,0 kg
21 - 533 inch - mm	40 mm	DF-112	88 kW	215 mm	17,5 kg
22 - 559 inch - mm	40 mm	DF-112	88 kW	215 mm	18,0 kg
23 - 584 inch - mm	40 mm	DF-112	88 kW	215 mm	19,0 kg
24 - 609 inch - mm	40 mm	DF-112	88 kW	215 mm	20,0 kg
24 - 609 inch - mm	50 mm	DF-128	103 kW	245 mm	26,0 kg
26 - 659 inch - mm	50 mm	DF-128	103 kW	245 mm	26,5 kg
28 - 711 inch - mm	50 mm	DF-128	103 kW	245 mm	27,0 kg
24 - 609 inch - mm	55 mm	DF-140	132 kW	256 mm	26,0 kg
26 - 659 inch - mm	55 mm	DF-140	132 kW	256 mm	28,0 kg
28 - 711 inch - mm	55 mm	DF-140	132 kW	256 mm	32,0 kg
30 - 762 inch - mm	55 mm	DF-140	132 kW	256 mm	39,0 kg
32 - 813 inch - mm	55 mm	DF-140	132 kW	256 mm	40,0 kg

Variprop 4-blade feathering propeller
Saildrive propellers are available on request.

Diameter	Max. diam. shaft	Hub	Power	Built-in length	Weight ±
12 - 305 inch - mm	25 mm	DF-80	22 kW	155 mm	4,8 kg
13 - 330 inch - mm	25 mm	DF-80	22 kW	155 mm	5,0 kg
14 - 356 inch - mm	25 mm	DF-80	22 kW	155 mm	5,5 kg
15 - 381 inch - mm	25 mm	DF-80	22 kW	155 mm	6,0 kg
16 - 406 inch - mm	25 mm	DF-80	22 kW	155 mm	6,5 kg
15 - 381 inch - mm	35 mm	DF-107	59 kW	170 mm	8,0 kg
16 - 406 inch - mm	35 mm	DF-107	59 kW	170 mm	8,5 kg
17 - 432 inch - mm	35 mm	DF-107	59 kW	170 mm	9,5 kg
18 - 457 inch - mm	35 mm	DF-107	59 kW	170 mm	10,5 kg
19 - 483 inch - mm	35 mm	DF-107	59 kW	170 mm	11,5 kg
20 - 508 inch - mm	40 mm	DF-112	88 kW	215 mm	17,0 kg
21 - 533 inch - mm	40 mm	DF-112	88 kW	215 mm	17,5 kg
22 - 559 inch - mm	40 mm	DF-112	88 kW	215 mm	18,0 kg
23 - 584 inch - mm	40 mm	DF-112	88 kW	215 mm	19,0 kg
24 - 609 inch - mm	40 mm	DF-112	88 kW	215 mm	20,0 kg
24 - 609 inch - mm	50 mm	DF-128	103 kW	245 mm	26,0 kg
26 - 659 inch - mm	50 mm	DF-128	103 kW	245 mm	26,5 kg
28 - 711 inch - mm	50 mm	DF-128	103 kW	245 mm	27,0 kg
24 - 609 inch - mm	55 mm	DF-140	132 kW	256 mm	26,0 kg
26 - 659 inch - mm	55 mm	DF-140	132 kW	256 mm	28,0 kg
28 - 711 inch - mm	55 mm	DF-140	132 kW	256 mm	32,0 kg
30 - 762 inch - mm	55 mm	DF-140	132 kW	256 mm	39,0 kg
32 - 813 inch - mm	55 mm	DF-140	132 kW	256 mm	40,0 kg

Spare parts for Variprop feathering propellers
The service kit contains an anode, grease nipple, grease gun and a cartridge with 300 grams grease (EP/SAL).

Description	For hub	Item no.	For hub	Item no.	For hub	Item no.
Anode	DF-80	DF80/ANODE	DF-112	DF112/ANODE	DF-140	DF140/ANODE
Screw set	DF-80	DF80/SCREW	DF-112	DF112/SCREW	DF-140	DF140/SCREW
Propeller nut	DF-80	DF80/NUT	DF-112	DF112/NUT	DF-140	DF140/NUT
Puller	DF-80	DF80/PULLER	DF-112	DF80/PULLER	DF-140	DF140/PULLER
Grease	DF-80	DFVP/GREASE	DF-112	DFVP/GREASE	DF-140	DFVP/GREASE
Service kit	DF-80	DF80/SERVICE	DF-112	DF 112/SERVICE	DF-140	DF140/SERVICE
Anode	DF-107	DF107/ANODE	DF-128	DF128/ANODE		
Screw set	DF-107	DF107/SCREW	DF-128	DF128/SCREW		
Propeller nut	DF-107	DF107/NUT	DF-128	DF128/NUT		
Puller	DF-107	DF107/PULLER	DF-128	DF128/PULLER		
Grease	DF-107	DFVP/GREASE	DF-128	DFVP/GREASE		
Service kit	DF-107	DF107/SERVICE	DF-128	DF128/SERVICE		

One of the benefits of the Maxprop feathering propellers is the variety of models for almost any application.

The MAX PROP propeller has been realized in Italy by Bianchi Srl (now MAX PROP Srl.) in 1975 and has solved the age-old problem of the motor propulsion for sailing yachts. Until this innovative product appeared on the market the alternative given by the traditional propellers was: either having good engine performance with high drag during sailing, or better speed when sailing (sensibly faster, thanks to the low drag of the prop in the water) with low engine performance, especially in reverse.

Type Easy 2-, 3- and 4-blades

The new models Easy 2-, 3- and 4-blade and Whisper 5-blade are a step forward in Maxprop design. They are shipped fully assembled, making installation similar to a fixed propeller.

Just slide it onto the shaft, tighten the nut, mount the anode and the propeller is ready to go. As with all Max-Props the pitch on Easy and Whisper models is adjustable in 2 degree increments, providing the ability to fine tune the loading of the engine. Moreover, pitch adjustment can be done in the water as the propeller does not need to be disassembled to change the pitch.

Available models type: Easy 78, 85, 90, 101 and 111.
Diameter from Ø 12" up to ø 24", and for shaft diameters Ø 22 to Ø 40 mm.
The Easy type is also available for saildrive installations (incl. Yanmar).

Type Max Prop Whisper 5-blade

The Max-Prop Whisper uses five blades to provide ultra impressive thrust and quiet operation. The resulting powering performance is especially noticeable when powering against heavy wind and seas. The five blade design also provides for a substantial vibration and noise reduction in all conditions.

Available models type: Whisper 101,111, 120, 129, 144, 161, 190 and 220.

Available propeller diameters from Ø 16" up to ø 47" and for shaft diameters from Ø 35 to Ø 100 mm.

Please do not hesitate to contact our specialists for advice to choosing the right propeller..

Propeller extractor

To remove a propeller from a shaft, a propeller extractor can be used. The propeller extractor consists of a slot (back plate), nuts, studs, a front plate, an extractor bolt and several adaptor plates to center the slot with the shaft.

Number of blades	Shaft diameter (mm)	Item no.
3 - 4	25 t/m 50	9525500
3 - 4 - 5	55 t/m 90	9655900

Flexofold propellers reduce the resistance while sailing, giving the boat more speed. The folding propeller unfolds automatically when the shaft starts revolving, as a result of centrifugal force. All blades, which open in synchronisation, are intersepted by strong polyurethane shock absorbers. During sailing, when the engine is not running, the blades close as a result of the water pressure. This results in a propeller that gives as little resistance as possible.

Why Flexofold?

Flexofold propellers are made of NiBrAl (for strength and corrosion resistance) and 82% of copper (for anti-fouling). The propeller hub features the unique patented double spiral corrugation, which ensures that the blades will fold and unfold smoothly and that they have the best balance. This, combined with the small amount of parts, results in a long life span and very little wear.

Flexofold propellers are available in 2 and 3 blades.

Specifications of standard Flexofold propellers:

Standard bore	Taper	Keyway	Propeller nut
25 x 19 x 60 mm	1 : 10	6 x 3 mm	M16 x 1,5
30 x 22 x 80 mm	1 : 10	8 x 4 mm	M20 x 1,5

Dimensions as per Euro-standards ISO/DIN 4566. Tolerances ISO 484/2, class 2 standard.

Especially for 3-blade Flexofold propellers hub caps made of zinc are available for electrolytic protection (are supplied with your order). Flexofold propellers come complete with tools, loctite and manuals. Flexofold propellers can be used on your shaft or saildrive without modifications.

Flexofold type FP-2B and FP-3B

The two-blade Flexofold is available in diameters from 12" up to 18". The threeblade propeller is available in diameters from 14" up to 21".

A zinc propeller hub cap is available on request for the three-blade Flexofold propellers. Non-standard pitches for a surcharge

Non-standard pitches for a surcharge. Available in 2- or 3 blade standard and saildrive.

Diameter	Pitch
12 - 305 inch - mm - only RH	7" up to 10" inch
13 - 330 inch - mm	8" up to 11" inch
14 - 356 inch - mm	9" up to 12" inch
15 - 381 inch - mm	9" up to 13" inch
16 - 406 inch - mm	10" up to 14" inch
17 - 432 inch - mm	11" up to 15" inch
18 - 457 inch - mm	12" up to 16" inch
20 - 508 inch - mm	14" up to 17" inch
22 - 559 inch - mm	13" up to 18" inch

Flexofold parts

Description	For	Item no.
Anode zinc	FP3B singular hole mount	786000
Cover plate(anode excluded)	For discontinued model Flexofold with three hole mounting pattern	786000.01
Disc anode set (2pce.)	Sidemount	786001

Exalto offers a complete range of standard propeller shafts in various designs. Metric sizes of all models can be supplied in steel C45 or in stainless steel 1.4462. Imperial sizes of all models can be fabricated in stainless steel 316 up to Ø 1¼" and Duplex 1,4462 from Ø 1½".

Exalto propeller shafts are fully in-house designed and fabricated to a h9 tolerance and straightened to a tolerance of 0.05 mm/m. We can also produce shafts according to a customer-supplied example or drawing. We can produce shafts from Ø 25 mm up to Ø 300 mm and with a maximum length of 11.5 meters. Of course we can also supply with approval of various classification societies, e.g. LR, BV, ABS, DNV, GL, et cetera.

Please contact our Sales department Propulsion for delivery times and prices.

10-series

Design 11

Design 12

20-series

Design 21

Design 22

Design 23

Design 24

30-series

Design 31

Design 32

Design 33

Design 34

Design 35

40-series

Design 41

Design 42

Design 43

Design 44

Design 45

Design 46

Design 47

50-series — on request

Design 51
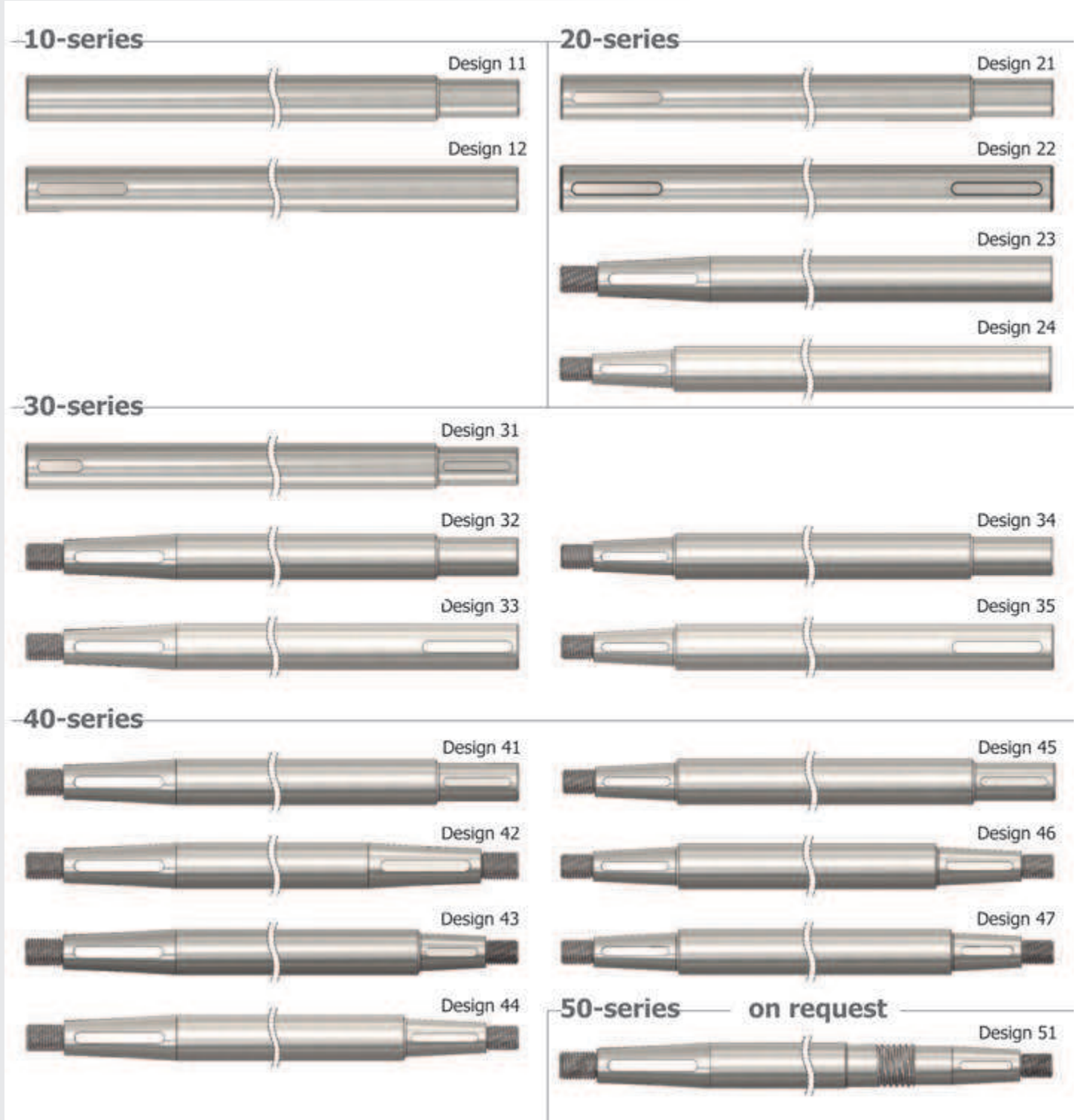
Exalto Shaft type 23 from stock

Stainless steel 1.4462

Exalto offers a complete range of propeller shafts directly from stock. The shafts are made of stainless steel 1.4462 with a h9-tolerance and a taper of 1:10. The shafts have a straightness of 0.05 mm/m. These shafts from stock come complete with matching stainless steel 316 key. A propeller nut is **not included** with the shafts stated in the table below, you will need to order these separately. On these shafts, you can either use a Hollex brass propeller nut or an TOR propeller nut with zinc anode.

All dimensions in mm.

| Shaft diameter	Length	S	A	Keyway (W x D x B)	Key (W x H)	G	M	U	Item no.
25 mm	1500 mm	55 mm	19,5 mm	6 x 3,5 x 45 mm	6 x 6 mm	M4	M16 x 1,5	20 mm	23446202515060
25 mm	2000 mm	55 mm	19,5 mm	6 x 3,5 x 45 mm	6 x 6 mm	M4	M16 x 1,5	20 mm	23446202520060
25 mm	2500 mm	55 mm	19,5 mm	6 x 3,5 x 45 mm	6 x 6 mm	M4	M16 x 1,5	20 mm	23446202525060
25 mm	3000 mm	55 mm	19,5 mm	6 x 3,5 x 45 mm	6 x 6 mm	M4	M16 x 1,5	20 mm	23446202530060
30 mm	1500 mm	75 mm	22,5 mm	8 x 4,5 x 60 mm	8 x 7 mm	M4	M18 x 1,5	25 mm	23446203015080
30 mm	2000 mm	75 mm	22,5 mm	8 x 4,5 x 60 mm	8 x 7 mm	M4	M18 x 1,5	25 mm	23446203020080
30 mm	2500 mm	75 mm	22,5 mm	8 x 4,5 x 60 mm	8 x 7 mm	M4	M18 x 1,5	25 mm	23446203025080
30 mm	3000 mm	75 mm	22,5 mm	8 x 4,5 x 60 mm	8 x 7 mm	M4	M18 x 1,5	25 mm	23446203030080
35 mm	1500 mm	85 mm	26,5 mm	10 x 4,5 x 70 mm	10 x 8 mm	M6	M20 x 1,5	25 mm	23446203515090
35 mm	2000 mm	85 mm	26,5 mm	10 x 4,5 x 70 mm	10 x 8 mm	M6	M20 x 1,5	25 mm	23446203520090
35 mm	2500 mm	85 mm	26,5 mm	10 x 4,5 x 70 mm	10 x 8 mm	M6	M20 x 1,5	25 mm	23446203525090
35 mm	3000 mm	85 mm	26,5 mm	10 x 4,5 x 70 mm	10 x 8 mm	M6	M20 x 1,5	25 mm	23446203530090
40 mm	2000 mm	95 mm	30,5 mm	12 x 4,5 x 80 mm	12 x 8 mm	M6	M22 x 1,5	25 mm	23446204020100
40 mm	2000 mm	112 mm	28,8 mm	12 x 4,5 x 90 mm	12 x 8 mm	M6	M22 x 1,5	30 mm	23446204020120
40 mm	3000 mm	95 mm	30,5 mm	12 x 4,5 x 80 mm	12 x 8 mm	M6	M22 x 1,5	25 mm	23446204030100
40 mm	3000 mm	112 mm	28,8 mm	12 x 4,5 x 90 mm	12 x 8 mm	M6	M22 x 1,5	30 mm	23446204030120
40 mm	4500 mm	95 mm	30,5 mm	12 x 4,5 x 80 mm	12 x 8 mm	M6	M22 x 1,5	25 mm	23446204045100
40 mm	4500 mm	112 mm	28,8 mm	12 x 4,5 x 90 mm	12 x 8 mm	M6	M22 x 1,5	30 mm	23446204045120
45 mm	3000 mm	112 mm	33,8 mm	14 x 5,5 x 100 mm	14 x 9 mm	M6	M24 x 2,0	35 mm	23446204530120
45 mm	4500 mm	112 mm	33,8 mm	14 x 5,5 x 100 mm	14 x 9 mm	M6	M24 x 2,0	35 mm	23446204545120
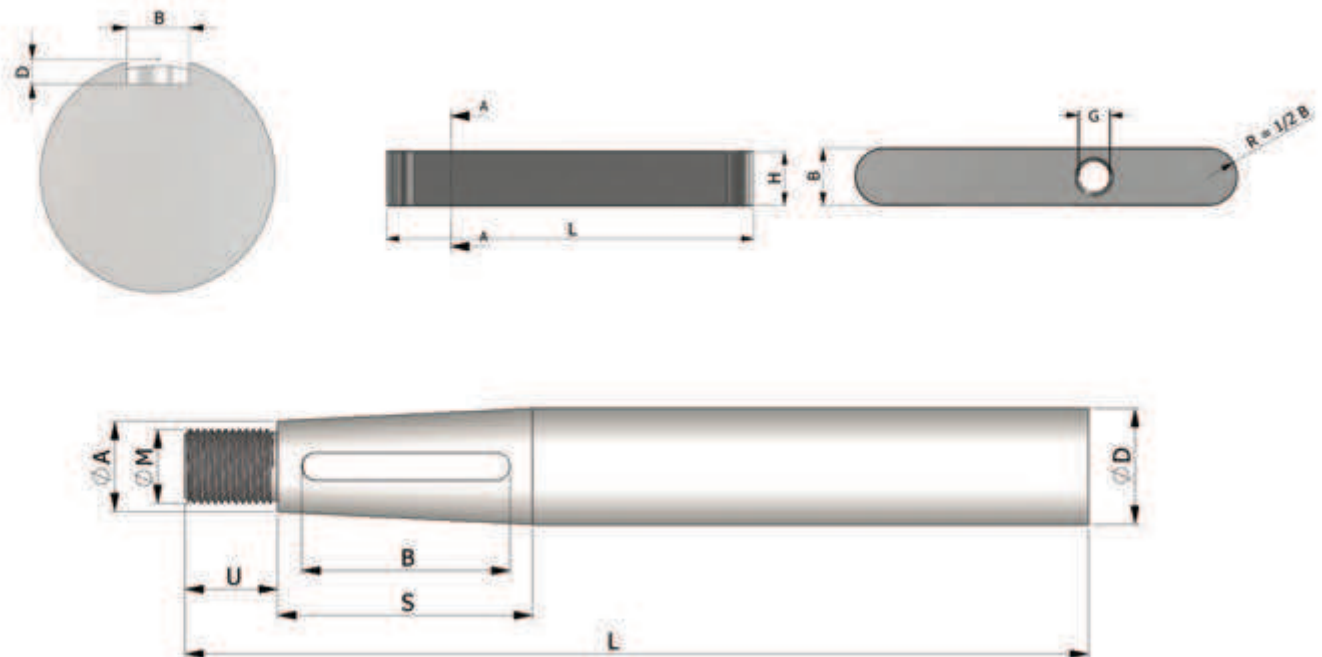
Type OES

Supplied complete with zinc anode and stainless steel AISI 316 locking ring.

T

Shaft diam.	M	B	L	Item no.
25 mm	M16 x 1,5	37 mm	58 mm	OES-25-16P1.5
25 mm	M18 x 1,5	37 mm	58 mm	OES-25-18P1.5
25 mm	M20 x 1,5	37 mm	58 mm	OES-25-20P1.5
30 mm	M18 x 1,5	45 mm	75 mm	OES-30-18P1.5
30 mm	M20 x 1.5	45 mm	75 mm	OES-30-20P1.5
35 mm	M20 x 1.5	50 mm	87 mm	OES-35-20P1.5
35 mm	M24 x 2,0	50 mm	87 mm	OES-35-24P2.0
40 mm	M22 x 1,5	55 mm	94 mm	OES-40-22P1.5
40 mm	M24 x 1,5	55 mm	94 mm	OES-40-24P1.5
40 mm	M24 x 2,0	55 mm	94 mm	OES-40-24P2.0
45 mm	M27 x 1,5	65 mm	105 mm	OES-45-27P1.5
45 mm	M33 x 2,0	65 mm	105 mm	OES-45-33P2.0

Propeller nut with zinc anode
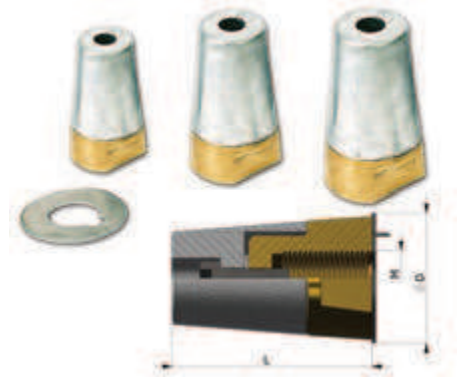
Spare zinc anodes for propeller nuts

Shaft diam.	Suitable for	Item no.
25 mm	OES-25	ZN25
30 mm	OES-30	ZN30
35 mm	OES-35	ZN35
40 mm	OES-40	ZN40
45 mm	OES-45	ZN45

Propeller nuts

Hollex Propeller nuts

Bronze and Ni.Al.Br.
Prices for nuts larger than M42 available on request
D$_g$= common shaft diameter..
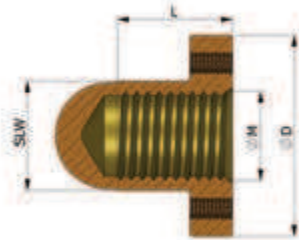
Thread M	D. max.	D. min.	Dg. shaft diam.	L	Spanner width	Item no. Bronze	Item no. Ni.Al. BR.
M14 x 1,5	30 mm	29 mm	20 mm	20 mm	18 mm	66211	66221.NAB
M16 x 1,5	36 mm	34 mm	25 mm	20 mm	20 mm	66221	66233.NAB
M18 x 1,5	48 mm	44 mm	30 mm	25 mm	27 mm	66233	66238.NAB
M20 x 1,5	55 mm	47 mm	35 mm	25 mm	30 mm	66238	66243.NAB
M22 x 1,5	65 mm	57 mm	40 mm	25 mm	36 mm	66243	66248.NAB
M24 x 2,0	80 mm	62 mm	45 mm	30 mm	41 mm	66248	66253.NAB
M27 x 2,0	93 mm	73 mm	50 mm	30 mm	46 mm	66253	
M30 x 2,0	110 mm	80 mm	55 mm	35 mm	50 mm	66263	
M36 x 2,0	122 mm	98 mm	60 mm	35 mm	60 mm	66283	
M42 x 2,0	135 mm	108 mm	70 mm	40 mm	70 mm	66293	
M48 x 3,0	150 mm	126 mm		40 mm	80 mm	66313	
M56 x 3,0	165 mm	136 mm		45 mm	90 mm	66333	
M64 x 4,0	195 mm	153 mm		45 mm	105 mm	66344	
M72 x 4,0	225 mm	168 mm		50 mm	120 mm	66349	
M80 x 4,0	265 mm	200 mm		50 mm	150 mm	66366	

Hollex Flange nuts

Mild steel
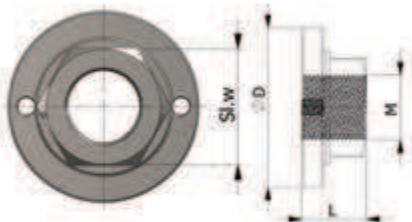
M	D	L	Spanner width	Item no.
M20 x 1,5	44 mm	20 mm	27 mm	66810
M22 x 1,5	49 mm	20 mm	30 mm	66815
M24 x 2,0	54 mm	25 mm	36 mm	66820
M27 x 2,0	64 mm	25 mm	41 mm	66830
M30 x 2,0	74 mm	30 mm	46 mm	66841
M36 x 2,0	84 mm	30 mm	50 mm	66851
M42 x 2,0	94 mm	35 mm	60 mm	66861
M48 x 3,0	104 mm	35 mm	70 mm	66866
M56 x 3,0	114 mm	40 mm	80 mm	66871
M64 x 4,0	124 mm	40 mm	90 mm	66881
M72 x 4,0	139 mm	45 mm	105 mm	66891
M80 x 4,0	154 mm	45 mm	120 mm	66901

Hollex keys
Stainless steel 316

Hollex keys have a threaded hole, so the key can be easily removed. The size of the thread is shown in the table column G.

W x H x L	G	Item no.	W x H x L	G	Item no.
6 x 6 x 40 mm	M4	63009	18 x 11 x 120 mm	M6	63126
6 x 6 x 45 mm	M4	63010	18 x 11 x 125 mm	M6	63130
6 x 6 x 50 mm	M4	63011	18 x 11 x 140 mm	M6	63132
6 x 6 x 55 mm	M4	63012	18 x 11 x 150 mm	M6	63134
8 x 7 x 45 mm	M4	63020	18 x 11 x 160 mm	M6	63136
8 x 7 x 55 mm	M4	63030	20 x 12 x 140 mm	M6	63140
8 x 7 x 60 mm	M4	63031	20 x 12 x 150 mm	M6	63142
8 x 7 x 65 mm	M4	63032	20 x 12 x 160 mm	M6	63144
10 x 8 x 50 mm	M6	63040	20 x 12 x 170 mm	M6	63146
10 x 8 x 60 mm	M6	63039	20 x 12 x 180 mm	M6	63148
10 x 8 x 63 mm	M6	63041	22 x 14 x 150 mm	M6	63152
10 x 8 x 70 mm	M6	63043	22 x 14 x 160 mm	M6	63150
10 x 8 x 80 mm	M6	63044	22 x 14 x 180 mm	M6	63151
10 x 8 x 90 mm	M6	63045	22 x 14 x 190 mm	M6	63153
12 x 8 x 50 mm	M6	63060	22 x 14 x 200 mm	M6	63154
12 x 8 x 60 mm	M6	63061	22 x 14 x 210 mm	M6	63156
12 x 8 x 70 mm	M6	63070	25 x 14 x 100 mm	M10	63155
12 x 8 x 80 mm	M6	63071	25 x 14 x 140 mm	M10	63157
12 x 8 x 90 mm	M6	63080	25 x 14 x 180 mm	M10	63160
12 x 8 x 100 mm	M6	63081	25 x 14 x 190 mm	M10	63162
14 x 9 x 80 mm	M6	63090	25 x 14 x 200 mm	M10	63164
14 x 9 x 90 mm	M6	63095	25 x 14 x 210 mm	M10	63166
14 x 9 x 100 mm	M6	63100	25 x 14 x 220 mm	M10	63168
14 x 9 x 120 mm	M6	63105	25 x 14 x 230 mm	M10	63169
16 x 10 x 80 mm	M6	63110	28 x 16 x 200 mm	M10	63170
16 x 10 x 100 mm	M6	63120	32 x 18 x 200 mm	M10	63180
16 x 10 x 120 mm	M6	63122	32 x 18 x 220 mm	M10	63185
16 x 10 x 140 mm	M6	63124	36 x 20 x 260 mm	M12	63190
18 x 11 x 110 mm	M6	63125	40 x 22 x 300 mm	M12	63200

Hollex Keys

Steel C45K

Hollex keys have a treaded hole, so the key can be easily removed. Thesize of the thread is shown in the table column G.

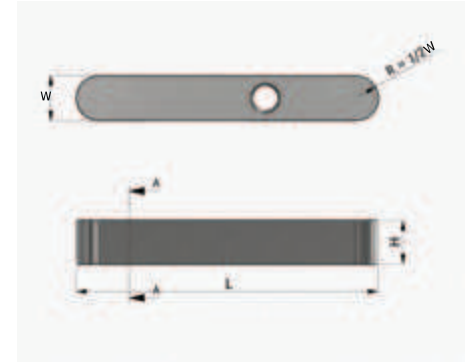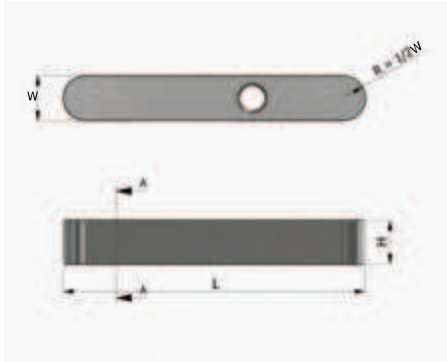| W x H x L	G	Item no.	W x H x L	G	Item no.
6 x 6 x 40 mm	M4	63210	18 x 11 x 63 mm	M6	63330
6 x 6 x 45 mm	M4	63211	18 x 11 x 70 mm	M6	63329
8 x 7 x 40 mm	M4	63220	18 x 11 x 80 mm	M6	63331
8 x 7 x 45 mm	M4	63221	18 x 11 x 90 mm	M6	63332
8 x 7 x 50 mm	M4	63230	18 x 11 x 100 mm	M6	63333
8 x 7 x 55 mm	M4	63232	18 x 11 x 110 mm	M6	63335
8 x 7 x 63 mm	M4	63231	18 x 11 x 120 mm	M6	63334
10 x 8 x 40 mm	M6	63240	18 x 11 x 125 mm	M6	63336
10 x 8 x 50 mm	M6	63250	20 x 12 x 80 mm	M6	63340
10 x 8 x 60 mm	M6	63251	20 x 12 x 90 mm	M6	63339
10 x 8 x 63 mm	M6	63260	20 x 12 x 100 mm	M6	63341
10 x 8 x 70 mm	M6	63261	20 x 12 x 140 mm	M6	63342
10 x 8 x 80 mm	M6	63262	22 x 14 x 80 mm	M6	63350
10 x 8 x 90 mm	M6	63263	22 x 14 x 100 mm	M6	63351
12 x 8 x 40 mm	M6	63269	22 x 14 x 150 mm	M6	63352
12 x 8 x 50 mm	M6	63270	22 x 14 x 160 mm	M6	63353
12 x 8 x 60 mm	M6	63271	22 x 14 x 180 mm	M6	63354
12 x 8 x 63 mm	M6	63280	25 x 14 x 80 mm	M10	63360
12 x 8 x 70 mm	M6	63285	25 x 14 x 100 mm	M10	63361
12 x 8 x 80 mm	M6	63286	25 x 14 x 115 mm	M10	63363
12 x 8 x 90 mm	M6	63287	25 x 14 x 120 mm	M10	63364
12 x 8 x 100 mm	M6	63288	25 x 14 x 140 mm	M10	63362
14 x 9 x 50 mm	M6	63290	25 x 14 x 180 mm	M10	63365
14 x 9 x 63 mm	M6	63300	28 x 16 x 110 mm	M10	63370
14 x 9 x 80 mm	M6	63305	28 x 16 x 140 mm	M10	63371
14 x 9 x 90 mm	M6	63306	28 x 16 x 200 mm	M10	63373
14 x 9 x 100 mm	M6	63307	32 x 18 x 110 mm	M10	63380
14 x 9 x 120 mm	M6	63310	32 x 18 x 140 mm	M10	63381
16 x 10 x 50 mm	M6	63319	32 x 18 x 180 mm	M10	63382
16 x 10 x 63 mm	M6	63320	32 x 18 x 200 mm	M10	63383
16 x 10 x 70 mm	M6	63322	32 x 18 x 220 mm	M10	63384
16 x 10 x 80 mm	M6	63321	36 x 20 x 100 mm	M12	63390
16 x 10 x 90 mm	M6	63323	36 x 20 x 160 mm	M12	63391
16 x 10 x 100 mm	M6	63324	36 x 20 x 200 mm	M12	63392
			40 x 22 x 160 mm	M12	63395
			40 x 22 x 200 mm	M12	63396
			40 x 22 x 225 mm	M12	63397

Hollex Adaptor keys

Stainless steel 316

Hollex keys have a threaded hole, so the key can be easily removed. The size of the thread is shown in the table column G.

B1/B2 x H x L	G	H1	H2	Item no.
8 / 6 x 7 x 55 mm	M5	3,60 mm	3,4 mm	63001
10 / 8 x 8 x 90 mm	M6	4,20 mm	3,8 mm	63002
12 / 10 x 8 x 100 mm	M6	4,50 mm	3,5 mm	63003
14 / 12 x 9 x 100 mm	M6	5,50 mm	3,5 mm	63004
16 / 14 x 10 x 100 mm	M6	5,60 mm	4,4 mm	63005
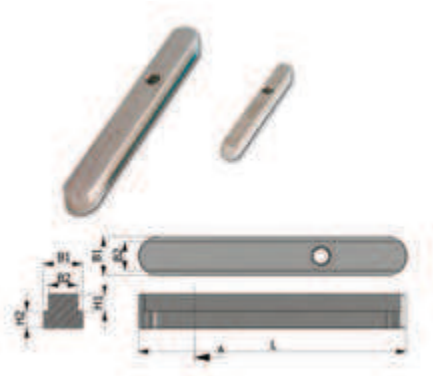
Stripper Saildrive rope cutter

The saildrive stripper is designed for installation on a saildrive. The stripper is mounted at the propeller shaft. By folding and feathering propellers a slight adjustment is sometimes needed to install the stripper. If you have any questions about the performance of the saildrive stripper, do not hesitate to contact our sales team.
Available for Volvo, Yanmar and Bukh.

Model	Shaft diameter	ØF	No. of blades	Item no.
AM10	28 mm	120 mm	2	2102028
AM10	28 mm	120 mm	3	2103028

Stripper Shaft mounted rope cutter

The stripper protects your propeller. It keeps your propeller clear of rubbish by shredding it into harmless fragments. The stripper is an assembly of rotating cutting blades that interlock around the shaft in front of the propeller. A fixed blade runs in bearing integral with the rotating cutter resulting in a shearing action as the blades pass each other. The patented shape of the blades puts real strength at the base where it's needed. The needle sharp teeth extend in an elegant outward curve to the very tips of the blade. This results in a cutting action that is smoothest possible. Even a low powered engine can cut through large ropes easily.

Stripper 2-blades: suitable for 2- or 4-blade propellers
Stripper 3-blades: suitable for 3- or 5-blade propellers
Stripper 4-blades: suitable for 4-blade propellers

All dimensions in mm. Attention: the rope cutters are also available in imperial sizes (inches). Please ask our sales department if you prefer to order in inches.

Model	Shaft diameter	ØB	ØF	E	L	No. of blades	Item no.
AM5	20 mm	55 mm	100 mm	36 mm	60 mm	2	2052020
AM5	22 mm	55 mm	100 mm	36 mm	60 mm	2	2052022
AM5	25 mm	55 mm	100 mm	36 mm	60 mm	2	2052025
AM10	25 mm	66 mm	120 mm	40 mm	60 mm	2	2102025
AM10	30 mm	66 mm	120 mm	40 mm	60 mm	2	2102030
AM10	35 mm	66 mm	120 mm	40 mm	60 mm	2	2102035
AM10	25 mm	66 mm	120 mm	40 mm	60 mm	3	2103025
AM10	30 mm	66 mm	120 mm	40 mm	60 mm	3	2103030
AM10	35 mm	66 mm	120 mm	40 mm	60 mm	3	2103035
AM15	40 mm	86 mm	150 mm	50 mm	60 mm	2	2152040
AM15	45 mm	86 mm	150 mm	50 mm	60 mm	2	2152045
AM15	50 mm	86 mm	150 mm	50 mm	60 mm	2	2152050
AM15	40 mm	86 mm	150 mm	50 mm	60 mm	3	2153040
AM15	45 mm	86 mm	150 mm	50 mm	60 mm	3	2153045
AM15	50 mm	86 mm	150 mm	50 mm	60 mm	3	2153050
AM20	50 mm	110 mm	180 mm	55 mm	60 mm	3	2203050
AM20	60 mm	110 mm	180 mm	55 mm	60 mm	3	2203060
AM20	70 mm	110 mm	180 mm	55 mm	60 mm	3	2203070
AM20	50 mm	110 mm	180 mm	65 mm	60 mm	4	2204050
AM20	60 mm	110 mm	180 mm	65 mm	60 mm	4	2204060
AM20	70 mm	110 mm	180 mm	65 mm	60 mm	4	2204070
AM30	80 mm	165 mm	280 mm	60 mm	90 mm	3	2303080
AM30	90 mm	165 mm	280 mm	60 mm	90 mm	3	2303090
AM30	80 mm	165 mm	280 mm	70 mm	90 mm	4	2304080
AM30	90 mm	165 mm	280 mm	70 mm	90 mm	4	2304090
AM30	100 mm	165 mm	280 mm	70 mm	90 mm	4	2304100
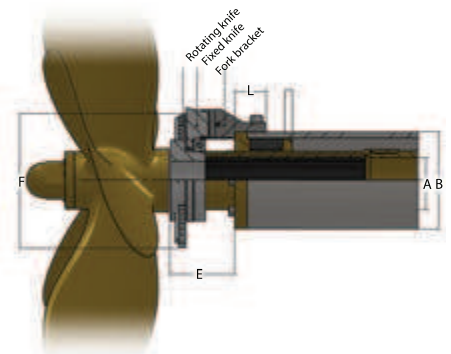
Bearings and clips

Description	Suitable for	Item no.
Set of 2 bearings	AM5	7051005
Set of 2 bearings	AM10	7051010
Set of 2 bearings	AM15 (also for saildrive implementation)	7051015
Set of 2 bearings	AM20	70501020
Set of 2 bearings	AM30	7051030
Clip set	AM5 t/m AM30	7051020

Dividable rope cutter SS316

The TOR rope cutter consists of two parts so it can be assembled and disassembled easily without removing the propeller. It is also easy to disassemble the rope cutter again. It cuts nylon line, fishing nets, Kevlar and thin stainless steel wires (max.7mm). Made of high quality stainless steel AISI-316L. Razor-sharp!

Shaft diameter	Width	Outer diameter	Item no.
25 mm	22 mm	80 mm	5225080T
30 mm	22 mm	80 mm	5230080T
35 mm	22 mm	100 mm	5235100T
40 mm	22 mm	100 mm	5240100T
45 mm	22 mm	100 mm	5245120T
50 mm	22 mm	100 mm	5250120T
55 mm	22 mm	150 mm	5255150T
60 mm	22 mm	150 mm	5260150T
25,4 mm	22 mm	80 mm	5225480T
31,75 mm	22 mm	80 mm	5231780T
38,1 mm	22 mm	100 mm	5238100T
44,45 mm	22 mm	120 mm	5244120
50,8 mm	22 mm	120 mm	5251120T
57,15 mm	22 mm	150 mm	5257150T
63,5 mm	22 mm	150 mm	5263150T

P-brackets Type VTR

Manufactured in bronze. Each bracket comes complete with a water lubricated bearing. The advantage of these brackets is that they can be fitted at any required height or at any angle. This enables very accurate fitment.
All dimensions in mm.

Shaft diameter	B	L	G	H	Item no.
25mm	38,10 mm	102 mm	220 mm	400 mm	VTR-25
30 mm	44,45 mm	127 mm	220 mm	400 mm	VTR-30
35mm	47,62 mm	140 mm	260 mm	450 mm	VTR-35
40mm	53,97 mm	165 mm	280 mm	450 mm	VTR-40
45 mm	60,32 mm	178 mm	330 mm	550 mm	VTR-45
50 mm	66,67 mm	203 mm	350 mm	550 mm	VTR-50
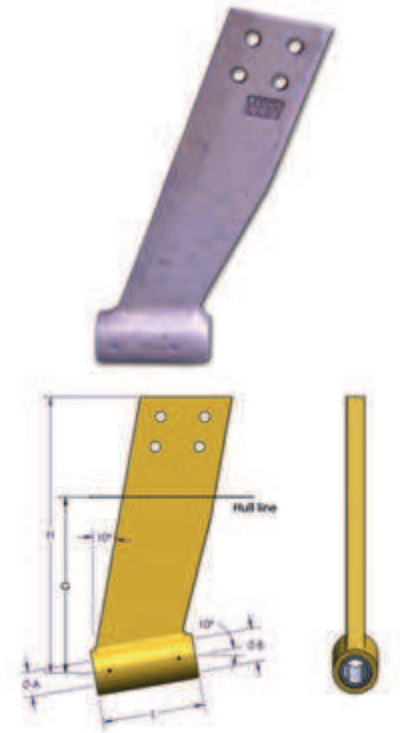
Customized brackets

Besides the standard brackets, Exalto is able to produce customized brackets and bracket hubs. Our brackets are fully in-house designed and produced. This way we offer you maximum flexibility.
We can supply you with P-, Y-, I- or V-brackets, or any other shape you need. We can produce Exalto brackets in steel, stainless steel or aluminum.
Further details on our customized brackets, please contact our Sales Department Propulsion.

Exalto is a well-experienced producer of sterntubes. Through the years, we have proved to be a reliable and innovative supplier to both the yachting and the professional industry. Exalto propulsion systems are fully in-house designed and produced. Our wide range of sterntubes consist of both standard and customized models.

Depending on the chosen lubrication methode, we can supply water, grease or oil lubricated sterntubes, either open or closed. Depending on the hull material or its construction method, we can provide sterntubes to be welded in place, fixed between bulkheads by clamp nuts or to be laminated in place. Also, for vessels that are produced to the standards of all well-established classification societies (e.g. Lloyds, BV, DNV and ABS), we can produce sterntubes with the casting procedure or by boring.

Exalto sterntubes are made of only the best quality materials (steel, stainless steel, brass, GRP and aluminum), to ensure the sterntubes meet our high quality standards. Because we design our own products, we are able to anticipate on the following aspects:

- Propeller calculation

- Shaft inclination

- Desired lubricant: water, grease or oil

- Hull material and desired mounting system

- Calculation of shaft diameter and taper size

- Shaft sealing

- Coupling

Bearing distance

The correct positioning of the bearings in the sterntube will diminish vibrations, noise and wear within the system. Correct bearing distances not only bring more comfort, it helps to ensure the reliability of your complete propulsion system! That is why the bearing distances are always the starting point when designing your propulsion system. However, if theory and practice do not match, we will always contact you.

An example

We will calculate the bearing distances of the installation as shown below. We will call the minimum bearing distance X, the maximum is called Y. The bearing distances as drawn here (distance fore and aft bearing and fore bearing and thrust bearing) will lay between X and Y. The installation will therefore meet the requirements.

X < Bearing distance < Y   X < Bearing distance < Y
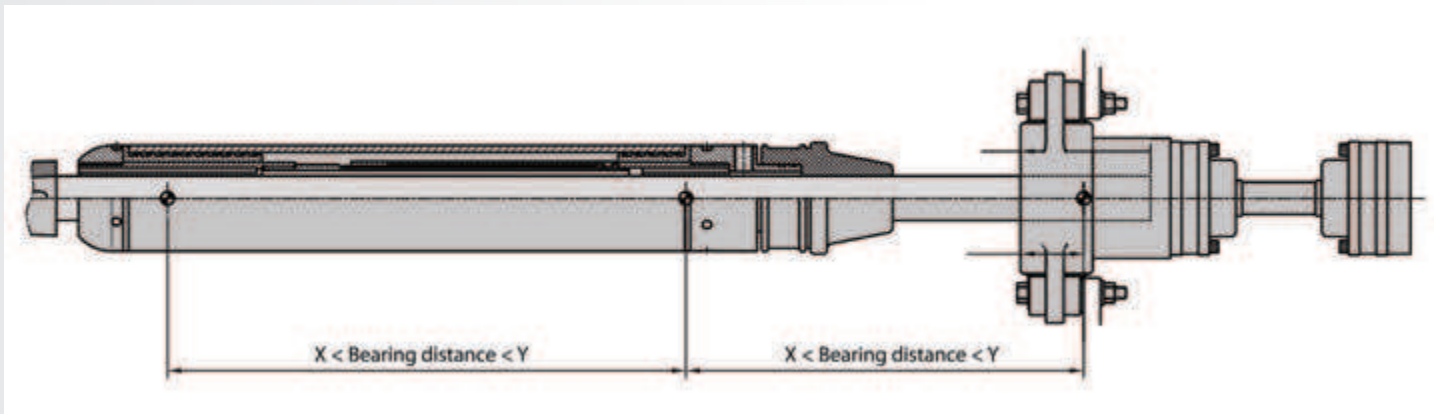
Application form

Of course we would be very pleased to receive your ordering details. To make quoting easier, you can download an application form on our website www.exalto.com. Please contact our sales department Propulsion if you need further details.

Exalto Clamping System

This is a system that uses the inner and outer tube idea. The outer tube is a steel tube which can be welded into the ship's casco. Later on, the inner GRP tube can be slipped into the outer tube and fixed by means of the clamping system.

The inner tube features an aft and a middle and/or fore bearing. The inner tube's front is ready for the STB Evo seal. This seal will ensure the system is water tight. The system as a whole is easily and quickly to instal.

Other advantages are:

• Less noise and vibrations

• The shaft is corrosion protected

• Easy installation makes for little installation costs

• Easy replacement of bearings due to detachable inner tube
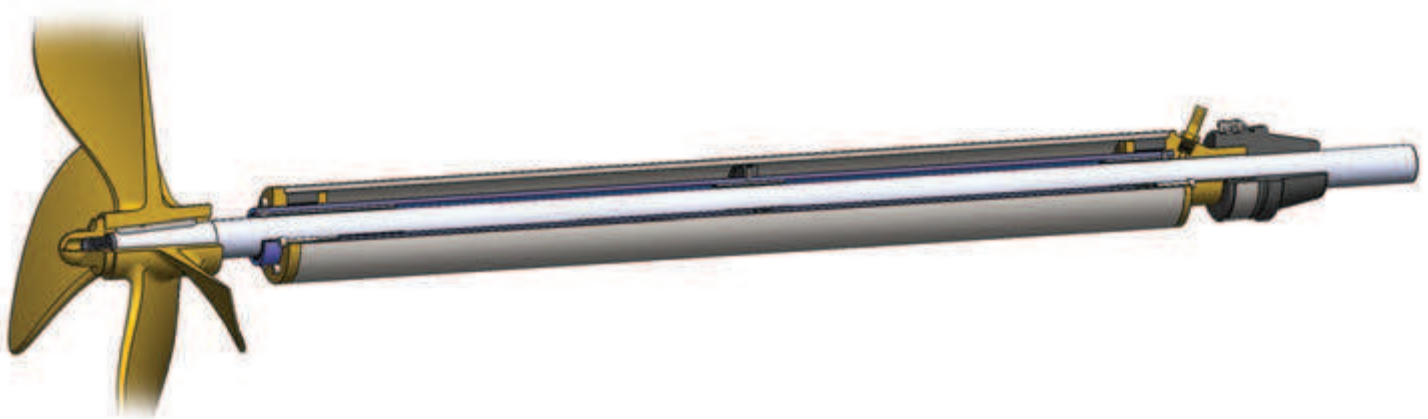
Shaft diameter	Outer tube Ø x d
25 mm	82,5 mm x 6,3 mm
30 mm	82,5 mm x 6,3 mm
35 mm	101,6 mm x 6,3 mm
40 mm	101,6mm x 6,3 mm
45 mm	127 mm x 7,1 mm
50 mm	127 mm x 7,1 mm

Exalto Sterntubes to be welded in

Sterntube for water lubricated system. This conventional sterntube is made of St 52.3 steel, stainless steel or aluminum and welded into the hull. In order to prevent the bearings from being damaged by the welding heat, the tube is equipped with double walled welding ends. The weldable sterntube is available in two models::

- model 02 (undivided) supplied with an aft bearing and (depending on the bearing distance) a fore bearing.
- model 22 (divided) supplied with both an aft and a middle bearing and (depending on the bearing distance) a fore bearing.

On the outside, the weldable sterntube is coated with a primer. The front end will be machined to fit the shaft sealing of your choice. The possible seals for this type of sterntube are the Hollex seal, Tides Marine or the Sure seal.

The Exalto weldable sterntube is available in steel for shaft diameters from 25 up to 70 mm. Larger diameters and prices for tubes made of aluminum are available on request.

The dimensions of the sterntube depend on the outer diameter of the bearings used.

All dimensions in mm.

O.D. Bearings	Shaft diam.	Steel tubes K	D	Aluminum tubes K	D	General M	L	N	P	R	W
40 mm	25 mm	50 mm	60 mm	50 mm	70 mm	M 48 x 1½	25 mm	75 mm	33 mm	35 mm	23 mm
45 mm	30 mm	55 mm	65 mm	55 mm	75 mm	M 53 x 1½	30 mm	90 mm	35 mm	40 mm	25 mm
50 mm	35 mm	60 mm	80 mm	60 mm	80 mm	M 58 x 1½	30 mm	105 mm	43 mm	50 mm	25 mm
55 mm	40 mm	65 mm	80 mm	65 mm	100 mm	M 63 x 2	35 mm	120 mm	45 mm	55 mm	28 mm
65 mm	45 mm	75 mm	95 mm	75 mm	110 mm	M 75 x 2	35 mm	135 mm	53 mm	65 mm	28 mm
70 mm	50 mm	85 mm	105 mm	85 mm	120 mm	M 80 x 2	35 mm	150 mm	55 mm	70 mm	33 mm
80 mm	60 mm	95 mm	115 mm	95 mm	130 mm	M 90 x 2	40 mm	180 mm	65 mm	85 mm	35 mm
90 mm	70 mm	110 mm	130 mm	110 mm	130 mm	M100 x 2	40 mm	210 mm	70 mm	95 mm	35 mm

Model 75 / 78

Built-in length

Exalto Sterntubes with clamping fix

Sterntube for water lubricated system. This brass RG7 sterntube is the optimal solution for ships made from GRP, wood, woodcore or with a sandwich construction. The tube is mounted by means of two brass sterntube nuts, which encloses the tube. This sterntube is available in two models:
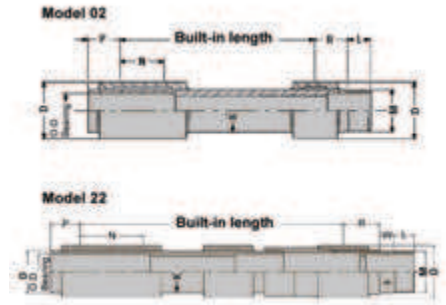• model 75 (undivided) supplied with an aft bearing and (depending on the bearing distance) a fore bearing.

• model 78 (divided) supplied with both an aft and a middle bearing and (depending on the bearing distance) a fore bearing.

The front end of the brass sterntube is machined to fit the shaft sealing of your choice. The possible seals for this type of sterntube are the Hollex seal or the Sure seal.

Shaft diameter	M	L	K	U	T
25 mm	M 48 x 1½	25 mm	51 mm	80 mm	60 mm
30 mm	M 53 x 1½	30 mm	56 mm	80 mm	60mm
35 mm	M 58 x 1½	30 mm	61 mm	80 mm	60 mm
40 mm	M 63 x 2	35 mm	66 mm	80 mm	60 mm
45 mm	M 75 x 2	35 mm	76 mm	80 mm	60 mm
50 mm	M 80 x 2	35 mm	81 mm	90 mm	80 mm
60 mm	M 90 x 2	40 mm	91 mm	90 mm	80 mm
70 mm	M100 x 2	40 mm	102 mm	90 mm	80 mm
80 mm	M110 x 2	40 mm	112 mm	90 mm	80 mm
90 mm	M120 x 2	40 mm	122mm	90 mm	80 mm
100 mm	M140 x 3	45 mm	142 mm	90 mm	80 mm
110 mm	M150 x 3	45 mm	152 mm	110 mm	120 mm
120 mm	M170 x 3	45 mm	172 mm	110 mm	120 mm

Model 78.3

Model 75.1
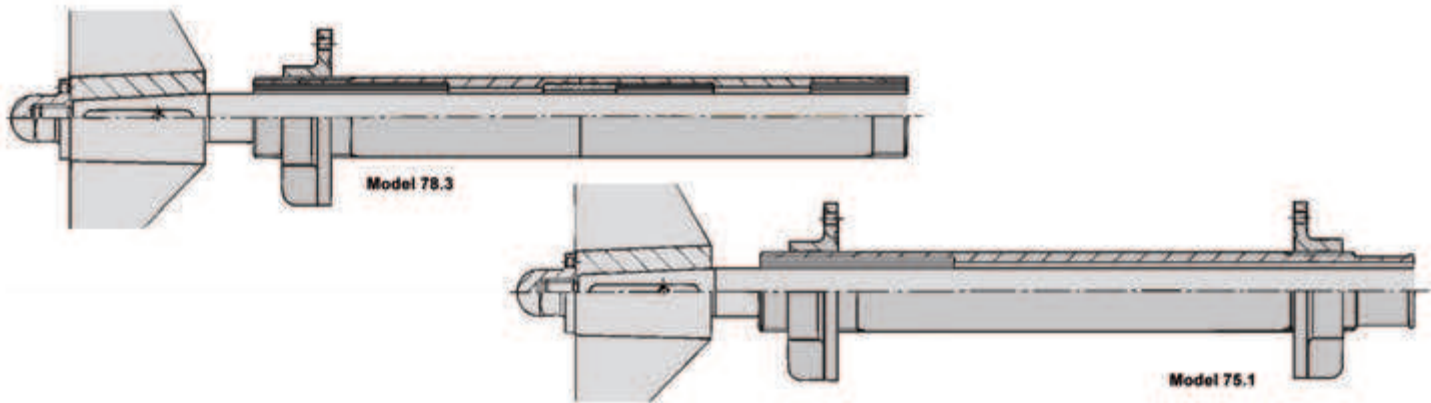
Exalto Fast-Fix

The Exalto Fast-Fix offers you the ultimate installation convenience and flexibility and is suitable for traditional waterlubricated systems. The Exalto Fast-Fix system consists of a seawater resistant brass tube, a shell-less rubber bearing, two Fast-Fix clamp flanges, a Tides Marine Series One Seal, an Exalto 4462 stainless steel propeller shaft and TOR prop nut with zinc anode.

The advantages of this clamping tube system at a glance:

- The brass sterntube and the stainless steel 4462 tube shaft can be shortened at the front, in this way you can easily tailor the tube yourself.

- The narrow flanges were specifically designed for this system and can be built in almost everywhere.

- The bundled Series One seal does not only seal perfectly but the silicone bellow also does not age. The seal has two years warranty (or 1500 hours).

Optional for this system is a forward bearing or bronze rubber bearing, a Centa M flexible coupling and a variety of suitable propellers.

Shaft diameter	Length tube	Length shaft	Item no.
25 mm	1000 mm	1500 mm	FASTFIX25/1000.STD
25mm	1250 mm	2000 mm	FASTFIX25/1250.STD
25 mm	1500 mm	2000 mm	FASTFIX25/1500.STD
30 mm	1000 mm	1500 mm	FASTFIX30/1000.STD
30 mm	1250 mm	2000 mm	FASTFIX30/1250.STD
30 mm	1500 mm	2000 mm	FASTFIX30/1500.STD

Exalto Fast-Fix E-Propulsion

The revolutionary Fast-Fix system is also suitable for electric propulsion. The Exalto Fast-Fix offers ultimate installation convenience and flexibility. The Exalto Fast-Fix propulsion system consists of a seawater resistant brass tube, a composite bearing, two FastFix clamp flanges, a Tides Marine Series One seal, an Exalto 4462 stainless steel propeller shaft and an TOR prop nut with zinc anode.

The advantages of this clamping tube system at a glance:

- The brass sterntube and the stainless steel 4462 tube shaft can be shortened at the front, in this way you can easily tailor the tube yourself.

- The narrow flanges were specifically designed for this system and can be built in almost everywhere.

- The bundled Series One seal does not only close perfectly but the silicone bellow also does not age. The seal has two years warranty (or 1500 hours).

Optional for this system is a forward bearing or bronze rubber bearing, a Centa M flexible coupling and a variety of suitable propellers.

Shaft diameter	Length tube	Length shaft	Item no.
25 mm	1000 mm	1500 mm	FASTFIX25/1000.EP
25mm	1250 mm	2000 mm	FASTFIX25/1250.EP
25 mm	1500 mm	2000 mm	FASTFIX25/1500.EP
30 mm	1000 mm	1500 mm	FASTFIX30/1000.EP
30 mm	1250 mm	2000 mm	FASTFIX30/1250.EP
30 mm	1500 mm	2000 mm	FASTFIX30/1500.EP

Model 61

Exalto Sterntubes to be laminated in

Sterntube for water lubricated system. Exalto's GRP sterntube is ideal to directly laminate into GRP vessels. This sterntube is available in model 61.1 with one aft bearing and in model 61.2 with both an aft and a fore bearing. GRP tubes are internally machined at the position of the bearings. The rubber bearings are held in place with 3 locking screws. The front end of the tube is machined to fit the shaft sealing of your choice. The possible seals for this type of sterntube are the Hollex seal or the Sure seal. In some situations a STB seal can be fitted on request.

Shaft diameter	L	C	K	E
25 mm	25 mm	15 mm	50 mm	6 mm
30 mm	30 mm	15 mm	55 mm	8 mm
35 mm	30 mm	15 mm	60 mm	8 mm
40 mm	35 mm	15 mm	65 mm	8 mm
45 mm	35 mm	15 mm	75 mm	8 mm

Model 61.1

Model 61.2
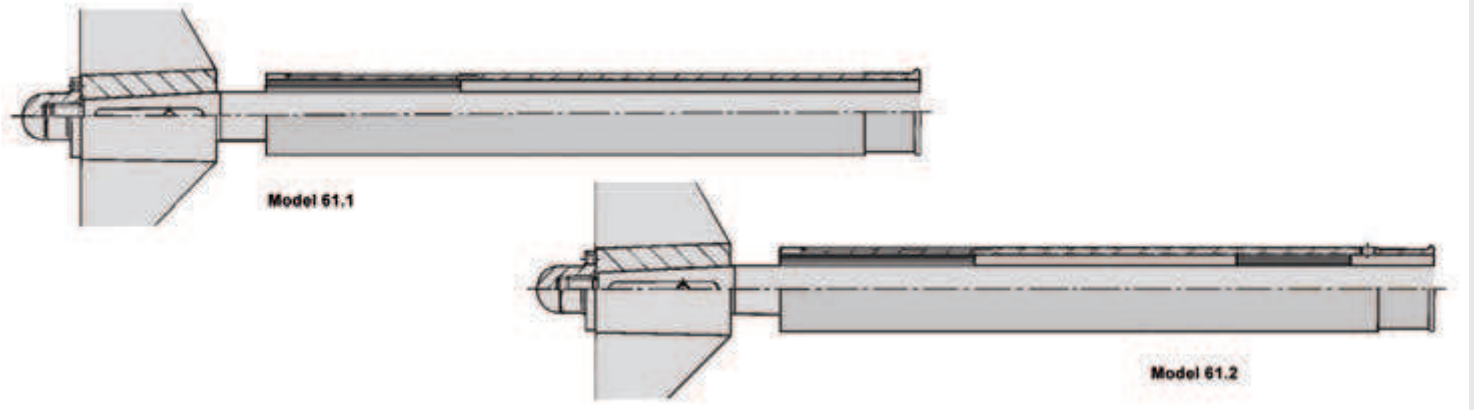
Exalto Sterntubes to be welded in

Sterntube for grease lubricated system. This conventional sterntube is made of St 52.3 steel and welded into the hull. In order to prevent the bearings from being damaged by the welding heat, the tube is equipped with double walled welding ends. The weldable sterntube is available in two models:

- model 02 (undivided) supplied with an aft grease lubricated brass bearing and (depending on the bearing distance) a fore bearing.
- model 22 (divided) supplied with both an aft and a middle bearing and (depending on the bearing distance)
- a fore bearing.

On the inside, the weldable sterntube is sand blasted. The outside is coated with a primer. The front end will be machined to fit the shaft sealing of your choice. Standard seal for this type of sterntube is the greaseflex seal. The Exalto sterntube is available in steel for shaft diameters from 25 up to 70 mm.
Larger diameters are available on request.

The dimensions of the sterntube depend on the outer diameter of the bearings used.
All dimensions in mm..

O.D. Bearings	Shaft diam.	Steel tubes		Aluminimum tubes		General					
		K	D	K	D	M	L	N	P	R	W
40 mm	25 mm	50 mm	60 mm	50 mm	70 mm	M 48 x 1½	25 mm	75 mm	33 mm	35 mm	23 mm
45 mm	30 mm	55 mm	65 mm	55 mm	75 mm	M 53 x 1½	30 mm	90 mm	35 mm	40 mm	25 mm
50 mm	35 mm	60 mm	80 mm	60 mm	80 mm	M 58 x 1½	30 mm	105 mm	43 mm	50 mm	25 mm
55 mm	40 mm	65 mm	80 mm	65 mm	100 mm	M 63 x 2	35 mm	120 mm	45 mm	55 mm	28 mm
65 mm	45 mm	75 mm	95 mm	75 mm	110 mm	M 75 x 2	35 mm	135 mm	53 mm	65 mm	28 mm
70 mm	50 mm	85 mm	105 mm	85 mm	120 mm	M 80 x 2	35 mm	150 mm	55 mm	70 mm	33 mm
80 mm	60 mm	95 mm	115 mm	95 mm	130 mm	M 90 x 2	40 mm	180 mm	65 mm	85 mm	35 mm
90 mm	70 mm	110 mm	130 mm	110 mm	130 mm	M100 x 2	40 mm	210 mm	70 mm	95 mm	35 mm

Exalto Sterntubes with clamping fix
Model 41

Sterntube for grease lubricated system. Model 41 is a steel sterntube that is threaded on both ends, to fit grease lubricated glands. The tube is mounted and closed in by the clamping flanges of the glands. The inner gland is equipped with a grease nipple. The inside of the tube is sand blasted and the outside is coated with a primer. The clampable sterntube is available for shaft diameters of 25, 30, 35, 40, 45 and 50 mm. On request, this tube is also available with 2V and BV Heavy Duty glands..

Model 02

Model 22

Exalto Sterntubes to be welded in

Sterntube for oil lubricated system. This conventional sterntube is made of St 52.3 steel, stainless steel or aluminum and welded into the hull. In order to prevent the bearings from being 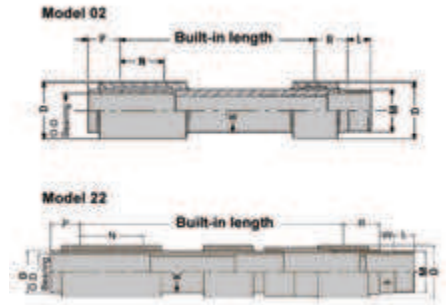damaged by the welding heat, the tube is equipped with double walled welding ends. The weldable sterntube is available in two models:
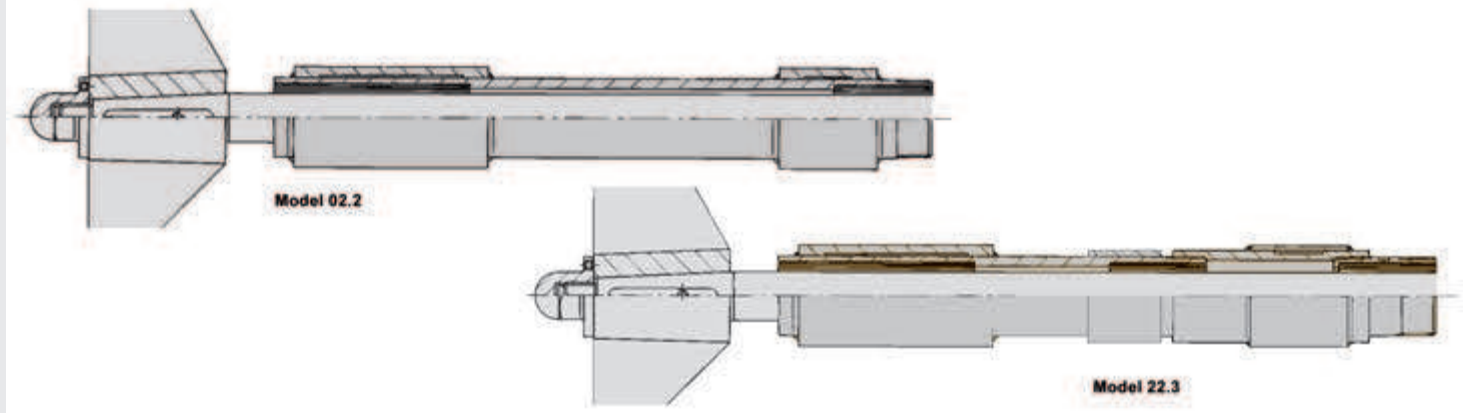
- model 02 (undevided) supplied with an aft oil lubricated brass bearing and (depending on the bearing distance) a fore bearing.
- model 22 (devided) supplied with both an aft and a middle bearing and -depending on the bearing distance- a fore bearing.

On the inside the sterntube is sand blasted. On the outside it is coated with a primer. The front end will be machined to fit the shaft sealing of your choice. The possible seals for this type of sterntube are the Exalto seal housings types SA, SV, SB and SC.

The Exalto weldable sterntube is available in steel in shaft diameters of 25 up to 70 mm.
Larger diametres and prices on aluminum and stainless steel are available on request.

The dimensions of the sterntube depend on the outer diameter of the bearings used.
All dimensions in mm.
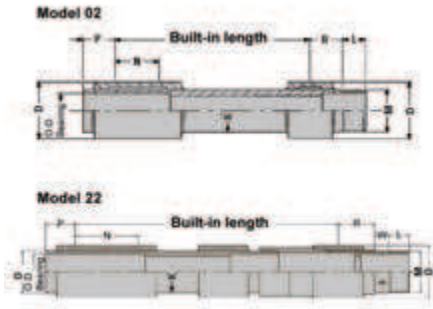
O.D. Bearings	Shaft diam.	Steel tubes		Aluminum tubes		General					
		K	D	K	D	M	L	N	P	R	W
40 mm	25 mm	50 mm	60 mm	50 mm	70 mm	M 48 x 1½	25 mm	75 mm	33 mm	35 mm	23 mm
45 mm	30 mm	55 mm	65 mm	55 mm	75 mm	M 53 x 1½	30 mm	90 mm	35 mm	40 mm	25 mm
50 mm	35 mm	60 mm	80 mm	60 mm	80 mm	M 58 x 1½	30 mm	105 mm	43 mm	50 mm	25 mm
55 mm	40 mm	65 mm	80 mm	65 mm	100 mm	M 63 x 2	35 mm	120 mm	45 mm	55 mm	28 mm
65 mm	45 mm	75 mm	95 mm	75 mm	110 mm	M 75 x 2	35 mm	135 mm	53 mm	65 mm	28 mm
70 mm	50 mm	85 mm	105 mm	85 mm	120 mm	M 80 x 2	35 mm	150 mm	55 mm	70 mm	33 mm
80 mm	60 mm	95 mm	115 mm	95 mm	130 mm	M 90 x 2	40 mm	180 mm	65 mm	85 mm	35 mm
90 mm	70 mm	110 mm	130 mm	110 mm	130 mm	M100 x 2	40 mm	210 mm	70 mm	95 mm	35 mm

Model 02.2

Model 22.3

Exalto water lubricated rubber lined bearings

These rubber lined bearings are especially designed for water lubricated sterntubes and rudder stocks. The nitrile rubber bearing material gives the bearing a high resistance to abrasion and wear whilst providing effective noise and vibration insulation.

The rubber lined bearing's outer shell is manufactured from either corrosion resistant naval brass or non-metallic material. The non-metallic shell has the advantage of being lighter and it prevents electrolytic corrosion.

Non-standard sizes and flange bearings are available on request.

Exalto rubber lined bearings with phenolic shell mm - mm

Shaft diameter in mm, outside diameter in mm

Shaft diameter	Outer diam.	Length	Item no.	Length	Item no.
20 mm	35 mm	80 mm	71007	42 mm	71007.001
25 mm	40 mm	100 mm	71010	48 mm	71010.001
30 mm	45 mm	120 mm	71020	58 mm	71020.001
35 mm	50 mm	140 mm	71030	68 mm	71030.001
40 mm	55 mm	160 mm	71040	78 mm	71040.001
45 mm	65 mm	180 mm	71050	88 mm	71050.001
50 mm	70 mm	200 mm	71060	98 mm	71060.001
60 mm	80 mm	240 mm	71080	118 mm	71080.001
70 mm	90 mm	280 mm	71100	138 mm	71100.001
80 mm	100 mm	320 mm	71120	158 mm	71120.001
90 mm	110 mm	360 mm	71140	178 mm	71140.001
100 mm	125 mm	400 mm	71160	198 mm	71160.001
110 mm	135 mm	440 mm	71170	218 mm	71170.001
120 mm	155 mm	480 mm	71180	238 mm	71180.001

Exalto rubber lined bearings with phenolic shell mm - inch

Shaft diameter in mm, outside diameter in inches. Non-standard sizes are available on request.

Shaft diameter	Outer diameter	Length	Item no.	Length	Item no.
25 mm	1 ½ inch	100 mm	71810	48 mm	71810.001
30 mm	1 ¾ inch	120 mm	71820	58 mm	71820.001
35 mm	1 1/8 inch	140 mm	71830	68 mm	71830.001
40 mm	2 1/8 inch	160 mm	71840	78 mm	71840.001
45 mm	2 1/8 inch	180 mm	71850		
50 mm	2 1/8 inch	200 mm	71860		
60 mm	3 ¼ inch	240 mm	71870	118 mm	71870.001
70 mm	3 ½ inch	280 mm	71880	138 mm	71880.001
80 mm	4 inch	320 mm	71890	158 mm	71890.001

Exalto rubber lined bearings with phenolic shell inch - inch

Shaft diameter in inches, outside diameter in inches.

Shaft diam.	Outer diameter	Length	Item no.	Length	Item no.
¾ inch	1 ¼ inch	3 inch	71404		
1 inch	1 ½ inch	4 inch	71410	2 inch	71410.001
1½ inch	2 inch	6 inch	71430	3 inch	71430.001
1¾ inch	2 ½ inch	7 inch	71442	3 ½ inch	71442.001
2 inch	2 ⊠ inch	8 inch	71450	4 inch	71450.001
2¾ inch	3 ¾ inch	11 inch	71481	5 ½ inch	71481.001
3 inch	3 ¾ inch	12 inch	71490	6 inch	71490.001
3¼ inch	4 ¼ inch	13 inch	71501	6 ½ inch	71501.001
3½ inch	4 ½ inch	14 inch	71511	7 inch	71511.001
3¼ inch	5 ¼ inch	15 ½ inch	71523	7 ¾ inch	71523.001
4 inch	5 inch	16 inch	71530	8 inch	71530.001
4½ inch	5 ½ inch	18 inch	71550	9 inch	71550.001
4½ inch	5 ¾ inch	18 inch	71551		

Exalto rubber lined bearings with bronze shell mm - mm

Shaft diameter in mm, outside diameter in inches.Non-standard sizes are available on request..

Shaft diameter	Outer diam.	Length	Item no.	Length	Item no.
20 mm	35 mm	80 mm	71207	42 mm	71207.001
25 mm	40 mm	100 mm	71210	48 mm	71210.001
30 mm	45 mm	120 mm	71220	58 mm	71220.001
35 mm	50 mm	140 mm	71230	68 mm	71230.001
40 mm	50 mm	140 mm	71239	78 mm	71239.001
40 mm	55 mm	140 mm	71240	78 mm	71240.001
45 mm	65 mm	180 mm	71250	88 mm	71250.001
50 mm	70 mm	200 mm	71260	98 mm	71260.001
60 mm	80 mm	240 mm	71280	118 mm	71280.001
70 mm	90 mm	280 mm	71300	138 mm	71300.001
80 mm	100 mm	320 mm	71320	158 mm	71320.001
90 mm	110 mm	360 mm	71340	178 mm	71340.001
100 mm	125 mm	400 mm	71360	198 mm	71360.001
110 mm	135 mm	440 mm	71370		
120 mm	155 mm	480 mm	71380	238 mm	71380.001

Exalto rubber lined bearings with bronze shell mm - inch

Shaft diameter in mm, outside diameter in inches. Non-standard sizes are available on request.

Shaft diameter	Outer diameter	Lengte	Item no.	Length	Item no.
22 mm	1 ¼ inch	88 mm	71208		
25 mm	1 ½ inch	100 mm	71910	48 mm	71910.001
30 mm	1 ¾ inch	120 mm	71920	58 mm	71920.001
35 mm	1 1/8 inch	140 mm	71930	68 mm	71930.001
40 mm	2 1/8 inch	160 mm	71940	78 mm	71940.001
45 mm	2 1/8 inch	180 mm	71950	88 mm	71950.001
50 mm	2 1/8 inch	200 mm	71960	98 mm	71960.001
60 mm	3 ¼ inch	240 mm	71970	118 mm	71970.001
70 mm	3 ½ inch	280 mm	71980	138 mm	71980.001
80 mm	4 inch	320 mm	71990	158 mm	71990.001

Exalto rubber lined bearings with bronze shell inch - inch

Shaft diameter in inches, outside diameter in inches. Non-standard sizes are available on request.

Shaft diam.	Outer diameter	Length	Item no.	Length	Item no.
¾" inch	1 ¼ inch	3 inch	71604	2 inch	71608.001
1" inch	1 ¼ inch	4 inch	71608	2 inch	71610.001
1" inch	1 ½ inch	4 inch	71610	2 inch	71612.001
1" inch	2 inch	4 inch	71612	2 ½ inch	71617.001
1¼" inch	1 ½ inch	5 inch	71617	2 ½ inch	71620.001
1¼" inch	1 ¾ inch	5 inch	71620	2 ½ inch	71621.001
1¼" inch	2 inch	5 inch	71621	3 inch	71630.001
1½" inch	2 inch	6 inch	71630	3 ½ inch	71644.001
1¾" inch	2 1/8 inch	7 inch	71644	3 ½ inch	71645.001
1¾" inch	2 1/8 inch	7 inch	71645	4 inch	71651.001
2" inch	3 inch	8 inch	71651	4 ½ inch	71654.001
2¼" inch	2 15/16 inch	9 inch	71654	4 ½ inch	71660.001
2¼" inch	3 1/8 inch	9 inch	71660	4 ½ inch	71661.001
2¼" inch	3 1/8 inch	9 inch	71661	5 inch	71669.001
2½" inch	3 ¼ inch	10 inch	71669	5 ½ inch	71680.001
2¾" inch	3 1/8 inch	11 inch	71680	6 inch	71690.001
2¾" inch	3 ¾ inch	11 inch	71681	6 inch	71691.001
3" inch	3 ¾ inch	12 inch	71690	6 ½ inch	71700.001
3" inch	4 inch	12 inch	71691	6 ½ inch	71701.001
3¼ inch	4 inch	13 inch	71700	6 ½ inch	71710.001
3¼ inch	4 ¼ inch	13 inch	71701	6 ½ inch	71711.001
3½" inch	4 ¼ inch	14 inch	71710	7 ½ inch	71720.001
3½" inch	4 ½ inch	14 inch	71711	7 ½ inch	71721.001
3¾" inch	4 ½ inch	15 inch	71720	7 ½ inch	71722.001
3¾" inch	5 inch	15 inch	71721	8 inch	71730.001
4" inch	5 inch	16 inch	71730	8 inch	71731.001

Exalto rubber lined bearings with GRP shell mm - mm

Shaft diameter and outside diameter in mm. Non-standard sizes are available on request.

Shaft diameter	Outer diam.	Length	Item no.	Length	Item no.
25 mm	40 mm	100 mm	72010	48 mm	72010.001
30 mm	45 mm	120 mm	72020	58 mm	72020.001
35 mm	50 mm	140 mm	72030	68 mm	72030.001
40 mm	50 mm	160 mm	72039	78 mm	72039.001
40 mm	55 mm	160 mm	72040	78 mm	72040.001
45 mm	65 mm	180 mm	72050	88 mm	72050.001
50 mm	70 mm	200 mm	72060	98 mm	72060.001

Exalto All rubber flanged bearings

If you have very limited space for a (replacement) bearing, bearings without an outer shell will certainly do the trick. These bearings are also very handy when replacing bearings in the propeller brackets of various well known brands of sailing vessels (Jeanneau, Beneteau, etc). They come complete with two nylon mounting screws. As with any of our own made bearings, we can supply them in any size and to your personal needs. The table shows our standard range of all rubber bearings, but please do not hesitate to let us know your special needs.

Shaft diameter	Outer diam.	L	F	T	Item no.
22 mm	29 mm	75 mm	39 mm	5 mm	MRSFF22X29X75
22 mm	36 mm	75 mm	46 mm	5 mm	MRSFF22X36X75
25 mm	34 mm	55 mm	44 mm	5 mm	MRSFF25X34X55
25 mm	36 mm	100 mm	46 mm	5 mm	MRSFF25X36X100
25 mm	40 mm	100 mm	50 mm	5 mm	MRSFF25X40X100
25 mm	40 mm	120 mm	50 mm	5 mm	MRSFF25X40X120
30 mm	40 mm	100 mm	50 mm	5 mm	MRSFF30X40X100
30 mm	40 mm	120 mm	50 mm	5 mm	MRSFF30X40X120
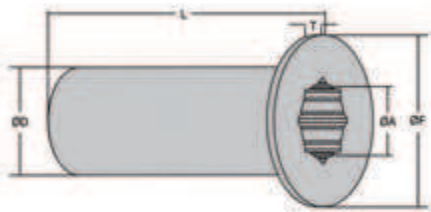
Exalto Bronze bearings

Bronze bearings for greasel lubricated propulsion systems. Shaft diameter and outer diameter in mm.

Shaft diameter	Outer diam.	Length	Item no.	Length	Item no.
25 mm	40 mm	50 mm	79215	25 mm	79015
30 mm	45 mm	60 mm	79225	30 mm	79025
35 mm	50 mm	70 mm	79235	35 mm	79035
40 mm	55 mm	80 mm	79245	40 mm	79045
45 mm	60 mm	90 mm	79255	45 mm	79055
50 mm	65 mm	100 mm	79265	50 mm	79065
55 mm	70 mm	110 mm	79275	55 mm	79075
60 mm	75 mm	120 mm	79285	60 mm	79085
65 mm	80 mm	130 mm	79295	65 mm	79095
70 mm	85 mm	140 mm	79305	70 mm	79105
75 mm	95 mm	150 mm	79315	75 mm	79115
80 mm	100 mm	160 mm	79325	80 mm	79125
85 mm	105 mm	170 mm	79335	85 mm	79135
90 mm	110 mm	180 mm	79345	90 mm	79145
95 mm	115 mm	190 mm	79355	95 mm	79155
100 mm	120 mm	200 mm	79365	100 mm	79165
110 mm	130 mm	220 mm	79375	110 mm	79175
120 mm	140 mm	240 mm	79385	120 mm	79185

Oil lubricated bearings

Exalto Bronze bearings

Bronze bearings for oil lubricated propulsion systems. Shaft diameter and outer diameter in mm.

Shaft diameter	Outer diam.	Length	Item no.	Length	Item no.
25 mm	40 mm	50 mm	79615	25 mm	79415
30 mm	45 mm	60 mm	79625	30 mm	79425
35 mm	50 mm	70 mm	79635	35 mm	79435
40 mm	55 mm	80 mm	79645	40 mm	79445
45 mm	60 mm	90 mm	79655	45 mm	79455
50 mm	65 mm	100 mm	79665	50 mm	79465
55 mm	70 mm	110 mm	79675	55 mm	79475
60 mm	75 mm	120 mm	79685	60 mm	79485
65 mm	80 mm	130 mm	79695	65 mm	79495
70 mm	85 mm	140 mm	79705	70 mm	79505
75 mm	95 mm	150 mm	79715	75 mm	79515
80 mm	100 mm	160 mm	79725	80 mm	79525
85 mm	105 mm	170 mm	79735	85 mm	79535
90 mm	110 mm	180 mm	79745	90 mm	79545
95 mm	115 mm	190 mm	79755	95 mm	79555
100 mm	120 mm	200 mm	79765	100 mm	79565
110 mm	130 mm	220 mm	79775	110 mm	79575
120 mm	140 mm	240 mm	79785	120 mm	79585

Inner glands Type 1V

These bronze inner and outer glands are used with grease lubricated sterngear and rudder installations.

Shaft diameter	B B.S.P.	C	D	E	F	G	H	J	Dimensions seal	Item no.
25 mm	1,25 inch	19 mm	98 mm	51 mm	73 mm	11 mm	127 mm	¼" b.s.p.	5 mm	75010
30 mm	1,5 inch	18 mm	99 mm	56 mm	76 mm	11 mm	132 mm	¼" b.s.p.	5 mm	75030
35 mm	1,5 inch	18 mm	100 mm	57 mm	81 mm	11 mm	137 mm	¼" b.s.p.	5 mm	75040
40 mm	2 inch	18 mm	113 mm	69 mm	91 mm	11 mm	137 mm	¼" b.s.p.	5 mm	75060
45 mm	2 inch	23 mm	113 mm	69 mm	93 mm	11 mm	139 mm	¼" b.s.p.	6 mm	75070
50 mm	2,5 inch	25 mm	145 mm	87 mm	116 mm	11 mm	152 mm	¼" b.s.p.	6 mm	75090

Outer glands Type AV

These bronze inner and outer glands are used with grease lubricated sterngear and rudder installations.
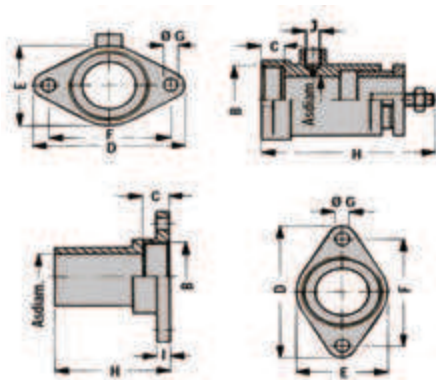
Shaft diameter	B B.S.P.	C	D	E	F	G	H	I	Item no.
25 mm	1,25 inch	20 mm	100 mm	65 mm	75 mm	11 mm	78 mm	10 mm	75210
30 mm	1,5 inch	17 mm	102 mm	65 mm	81 mm	11 mm	82 mm	10 mm	75230
35 mm	1,5 inch	18 mm	100 mm	65 mm	79 mm	11 mm	85 mm	9 mm	75240
40 mm	2 inch	22 mm	115 mm	80 mm	91 mm	11 mm	92 mm	9 mm	75260
45 mm	2 inch	20 mm	115 mm	80 mm	93 mm	11 mm	95 mm	10 mm	75270
50 mm	2,5 inch	24 mm	145 mm	104 mm	118 mm	11 mm	104 mm	11 mm	75290

Inner glands type 2V

These bronze inner and outer glands are used with grease lubricated sterngear and rudder installations. These types are of a more robust fabricate than the types 1V and AV mentioned before.

Shaft diameter	B B.S.P.	C	D	E	F	G	H	J	Dimensions seal	Item no.
25 mm	1,5 inch	25 mm	110 mm	60 mm	85 mm	12 mm	130 mm	¼" b.s.p.	8 mm	75310
30 mm	1,5 inch	25 mm	110 mm	60 mm	85 mm	12 mm	130 mm	¼" b.s.p.	6 mm	75311
35 mm	2 inch	25 mm	125 mm	75 mm	100 mm	12 mm	150 mm	¼" b.s.p.	8 mm	75312
40 mm	2 inch	25 mm	125 mm	75 mm	100 mm	12 mm	150 mm	¼" b.s.p.	5 mm	75313
45 mm	2,5 inch	25 mm	150 mm	90 mm	120 mm	14 mm	165 mm	¼" b.s.p.	8 mm	75314
50 mm	2,5 inch	25 mm	150 mm	90 mm	120 mm	14 mm	165 mm	¼" b.s.p.	6 mm	75315

Outer glands type BV
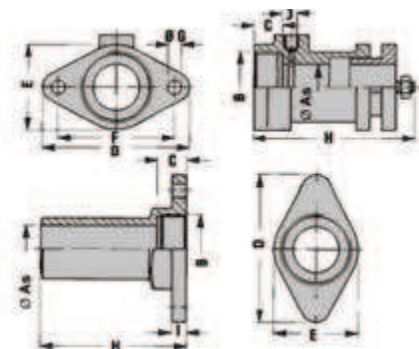
Shaft diameter	B B.S.P.	C	D	E	H	I	Item no.
25 mm	1,5 inch	25 mm	125 mm	65 mm	95 mm	9 mm	75320
30 mm	1,5 inch	25 mm	125 mm	65 mm	95 mm	11 mm	75321
35 mm	2 inch	25 mm	135 mm	85 mm	125 mm	15 mm	75322
40 mm	2 inch	25 mm	135 mm	85 mm	125 mm	15 mm	75323
45 mm	2,5 inch	25 mm	170 mm	110 mm	125 mm	15 mm	75324
50 mm	2,5 inch	25 mm	170 mm	110 mm	125 mm	15 mm	75325

Water lubricated

Hollex seals

The Hollex seal is used with water lubricated sterngear installations. It works according to a different principle than conventional seals. The Hollex seal seals axially, that is to say along the length. A sliding ring made of high quality stainless steel is mounted onto the shaft. It rotates with its smoothly polished surface against a carbon counter sliding ring. This counter sliding ring is mounted in a rubber bellow, fixed to the stern tube. Due to the relatively small sealing areas only minimal radial movement is allowed, especially with the smallest diameters. Therefore the Hollex seal must always be installed as close to the fore bearings as possible. With its low frictional resistance, the life span of the Hollex Seal is much longer than that of a conventional seal. There will be no grooves in the shaft due to the wearing of the packing or the lip seal. Please note that the axial (forward) movement of the engine (caused by the propeller thrust on the shock absorbers) must be added to the initial tension. If necessary, the seals dimensions can be customized (see dimensions D and S in the drawing).
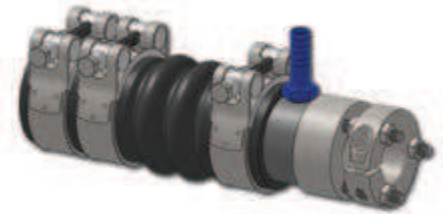
Shaft diameter	D	L	S	Item no.
25 mm	45 mm	230 mm	60 mm	8000025
30 mm	60 mm	250 mm	60 mm	8000030
35 mm	60 mm	250 mm	60 mm	8000035
40 mm	60 mm	250 mm	60 mm	8000040
45 mm	80 mm	250 mm	60 mm	8000045
50 mm	80 mm	285 mm	60 mm	8000050
55 mm	90 mm	320 mm	60 mm	8000055
60 mm	90 mm	310 mm	60 mm	8000060
70 mm	115 mm	350 mm	75 mm	8000070
80 mm	115 mm	350 mm	75 mm	8000080
90 mm	135 mm	390 mm	65 mm	8000090
100 mm	135 mm	390 mm	65 mm	8000100
110 mm	165 mm	415 mm	73 mm	8000110
120 mm	165 mm	415 mm	73 mm	8000120
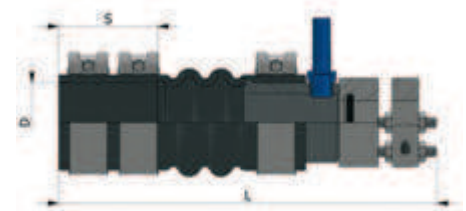
Tides Marine SeriesOne seals

The SeriesOne seal by Tides Marine is applicable for water lubricated sterngear systems. This seal housing is made of high quality composite material, that will not absorb water and handles temperature changes well. A water inlet is fitted as a standard on the SeriesOne. The seals should be lubricated by the engine's cooling water. The high flexible bellow will follow any shaft movement. The actual sealing is done by one lip seal. The SeriesOne is available for shaft diameters of 25 and 30 mm.
 The SeriesOne seal is also available in inch dimensions with short delivery times.

Shaft diameter	D	L	S	Item no.
22 mm	41 mm	156 mm	48 mm	ONE22M41MM
25 mm	41 mm	156 mm	48 mm	ONE25M41MM
25 mm	45 mm	156 mm	48 mm	ONE25M45MM
25 mm	51 mm	156 mm	48 mm	ONE25M51MM
25 mm	63 mm	156 mm	48 mm	ONE25M63MM
30 mm	45 mm	156 mm	48 mm	ONE30M45MM
30 mm	51 mm	156 mm	48 mm	ONE30M51MM
30 mm	63 mm	156 mm	48 mm	ONE30M63MM
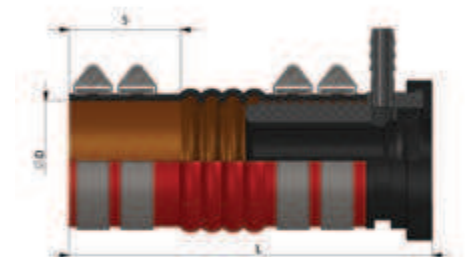
Tides Marine SureSeal

The Tides Marine SureSeals are suitable for water lubricated sterngear installations. This seal housing is made of high quality composite material, that is very durable and will not absorb water. The material handles temperature changes well. The SureSeals have high flexible bellows and come with a water inlet fitted as a standard. The seal should be lubricated by the engine's cooling water. The main advantage of the SureSeal is the easy installation. Installed at the same time as the SureSeal, special Carrier kits can be slipped onto te shaft. These units allow lip seal replacement to be performed without uncoupling the shaft from the transmission. And, if necessary, this replacement can be done while the vessel is in the water (a haul-out may not be necessary). See "Sure Seal spare kits" further on in this chapter. SureSeals are ABS and Lloyd's approved.
For larger diametres or imperial sizes, please contact our Sales department Propulsion.
Attention: The SureSeal is available for both single and twin engine installations. All SureSeals mentioned in the table below are suitable for single engine installations. Many more shaft/sterntube diameter combinations availlable.

Price and delivery time for SureSeals in inch-sizes and for twin engine application on request.

Shaft diameter	Tube diameter	L	S	Item no.
35 mm	60 mm	198,6 mm	50,8 mm	FSKM35M60M0
40 mm	60 mm	198,6 mm	50,8 mm	FSKM40M60M0
40 mm	64 mm	198,6 mm	50,8 mm	FSKM40M64M0
45 mm	79 mm	198,6 mm	50,8 mm	FSKM45M79M0
50 mm	76 mm	198,6 mm	52,0 mm	FSKM50M76M0
50 mm	79 mm	198,6 mm	52,0 mm	FSKM50M79M0
60 mm	89 mm	204,7 mm	52,0 mm	FSKM60M89M0
70 mm	114 mm	204,7 mm	52,0 mm	FSKM70M114M0

Tides Marine SureSeal spare seals

The Spare Seal Carrier Kit is developed as a convenient way to protect and store spare lipseals on the propeller shaft. Fitted at the time of original installation, the kit allows the quick and easy replacement of a worn lip seal without the need to lift the boat from the water and without detaching the shaft from the coupling. Replacement lip seals without the Carrier can also be supplied.

Shaft diameter	Shaft diam.	Version	Nr. of seals per set	Item no.	Version	Item no.
35 mm	1 3/8 Inch	With carrier	1	KFM35MM00	Lipseal only	LSF1375
40 mm		With carrier	1	KFM40MM00	Lipseal only	LSF40MM
45 mm		With carrier	1	KFM45MM00	Lipseal only	LSF45MM
50 mm		With carrier	2	KM50MM00	Lipseal only	LS50MM
55 mm		With carrier	2	KM55MM00	Lipseal only	LS55MM
60 mm		With carrier	2	KM60MM00	Lipseal only	LS60MM
65 mm		With carrier	2	KM65MM00	Lipseal only	LS65MM
70 mm	2 3/4 Inch	With carrier	2	KF275000	Lipseal only	LSF2750
75 mm		With carrier	2	KFM75MM00	Lipseal only	LSF75MM
80 mm		With carrier	2	KM80MM00	Lipseal only	LS80MM

Tides Marine Water Pick-Up Kits

Tides Marine Water Pick-Up Kits include everything needed for connecting Tides Marine SureSeals to pressurized water for proper lubrication of the lip seal by means of a flexible cooling hose. A kit includes 2.4 metres hose, two stainless steel hose clamps and a tee fitting. The tee fittings are custom designed to fit a wide range of hose sizes.

Please make sure you order the extra set with cross-over hose and clamps in case of a twin engine application (cat. no. INJHOSE0375)! Original seal for SureSeals.

Set consists of T-piece (to be placed in the cooling water system of the engine), a 2.4 meter hose and 2 hose clamps.
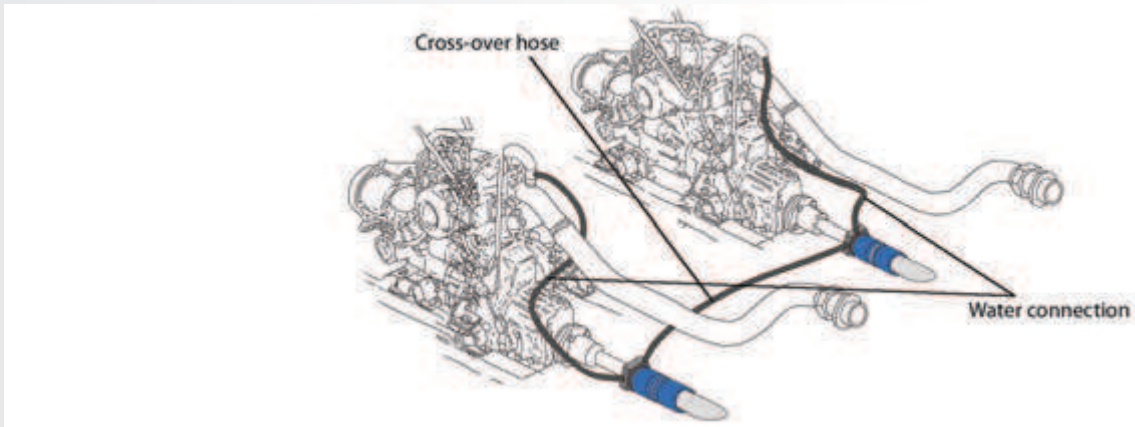
Shaft diameter	Description	Inner diam.	Item no.
35 - 75 mm	Water pick-up kit	16 mm	TK0625-3/8-218
35 - 75 mm	Water pick-up kit	19 mm	TK0750-3/8-218
35 - 75 mm	Water pick-up kit	25 mm	TK1000-3/8-218
35 - 75 mm	Water pick-up kit	32 mm	TK1250-3/8-218
80 mm	Water pick-up kit	38 mm	TK1500-1/2-218
35 - 75 mm	Water pick-up kit	38 mm	TK1500-3/8-218
	Cross-over hose for twin SureSeal		INJHOSE0375

Tides Marine Alarmsystem

This Smart Alarm System protects the SureSeal against overheating when running dry. It turns on when the water temperature in the SureSeal rises, due to a lack of water supply. The water temperature is measured by means of a sensor constantly. Via an electric module the warning light on the control starts burning when the temperature is too high. Optionally you can also install an acoustic alarm. The alarm system is suitable for new installed SureSeals as well as in existing Tides Marine installations. The alarm system contains an electronic module, a control panel with warning light and a sensor unit.

Description	Voltage	Item no.
Tides Marine alarmsystem single engine	12/24 V	SP-SS-1
Tides Marine alarmsystem twin engine	12/24 V	SP-SS-2
Tides Marine acoustic alarm	12/24 V	SP-SS-SIREN
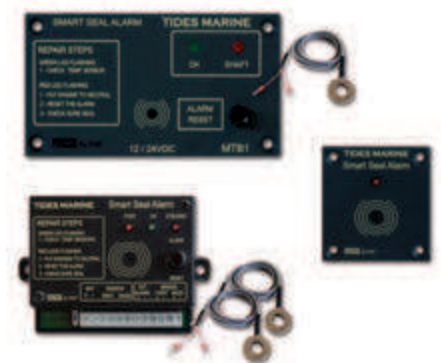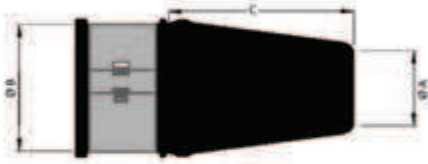
STB Seal with waterinlet

This seal is used in water lubricated sterngear installations and has it's own waterinlet. This seal also has a grease supply tip to lubricate the lipseal. The seal consists of a flexible rubber socket and a hose clamp. Including a tube of "stuffy grease" and a water inlet.

Shaft diameter	Shaft diam.	Tube diameter	Length	C	Item no.
25 mm		42 mm	105 mm	60 mm	STB25E
30 mm		48 mm	111 mm	60 mm	STB30E
35 mm		54 mm	119 mm	70 mm	STB35E
40 mm		60 mm	119 mm	70 mm	STB40E
45 mm		64 mm	118 mm	80 mm	STB45E
50 mm		70 mm	120 mm	80 mm	STB50E
	1 Inch	43 mm	105 mm		STB2540E
	1 1/4 Inch	49 mm	111 mm		STB3175E
	1 1/2 Inch	60 mm	119 mm		STB3810E
	1 3/4 Inch	65 mm	117 mm		STB4445E
	2 Inch	70 mm	120 mm		STB5080E

STB Seal

This seal is used in water lubricated sterngear installations. The seal consists of a flexible rubber socket and a hose clamp. Including a tube of "stuffy grease".

Attention: this seal requires a water inlet on the sterntube.

Shaft diameter	Shaft diam.	Tube diameter	Length	C	Item no.
25 mm		42 mm	105 mm	60 mm	STB25
30 mm		48 mm	111 mm	60 mm	STB30
35 mm		54 mm	119 mm	70 mm	STB35
40 mm		60 mm	119 mm	70 mm	STB40
45 mm		64 mm	118 mm	80 mm	STB45
50 mm		70 mm	120 mm	80 mm	STB50
	1 Inch	43 mm	105 mm		STB2540
	1 1/4 Inch	49 mm	111 mm		STB3175
	1 1/2 Inch	60 mm	119 mm		STB3810
	1 3/4 Inch	65 mm	117 mm		STB4445
	2 Inch	70 mm	120 mm		STB5080
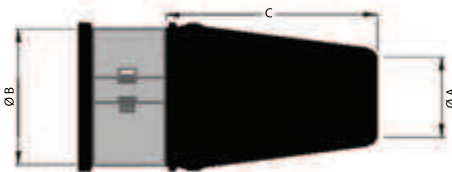
Rameh shaft packing rings for stuffing box

Rameh shaft packing cut to size for stuffing boxes. The ultimate solution for sealing. The packing is manufactured from 100% pure Rameh fibres. Characteristics of this material: does not decay, remains elastic, does not grow hard, little loss of volume, low friction and highly durable.
The maximum allowable temperature is ± 200°C.

Description	A	Shaft diameter	Item no.
Rameh shaft packing ring 8 mm	8 mm	25 mm	66430025
Rameh shaft packing ring 8 mm	8 mm	30 mm	66430030
Rameh shaft packing ring 8 mm	8 mm	35 mm	66430035
Rameh shaft packing ring 8 mm	8 mm	40 mm	66430040
Rameh shaft packing ring 10 mm	10,0 mm	45 mm	66440045
Rameh shaft packing ring 10 mm	10,0 mm	50 mm	66440050
Rameh shaft packing ring 10 mm	10,0 mm	60 mm	66440060
Rameh shaft packing ring 12,5 mm	12,5 mm	70 mm	66460070
Rameh shaft packing ring 12,5 mm	12,5 mm	80 mm	66460080
Rameh shaft packing ring 14 mm	14,0 mm	90 mm	66470090
Rameh shaft packing ring 14 mm	14,0 mm	100 mm	66470100
Rameh shaft packing ring 16 mm	16,0 mm	120 mm	66480120
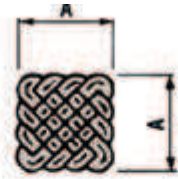
Rameh shaft packing 1m

Rameh packing in length 1m. The ultimate solution for sealing tailshafts, rudder stocks, etc. The packing is manufactured from 100% pure Rameh fibres. Characteristics of this material: does not decay, remains elastic, does not grow hard, little loss of volume, low friction and highly durable. The maximum allowable temperature is ± 200°C.

Description	A	Item no.
Rameh shaft packing 5 mm, length 1m	5 mm	66410
Rameh shaft packing 6 mm, length 1m	6 mm	66420
Rameh shaft packing 8 mm, length 1m	8 mm	66430
Rameh shaft packing 10 mm, length 1m	10 mm	66440
Rameh shaft packing 11 mm, length 1m	11 mm	66450
Rameh shaft packing 12,5 mm, length 1m	12,5 mm	66460
Rameh shaft packing 14 mm, length 1m	14 mm	66470
Rameh shaft packing 16 mm, length 1m	16 mm	66480
Rameh shaft packing 19 mm, length 1m	19 mm	66490
Rameh shaft packing 22 mm, length 1m	22 mm	66500
Rameh shaft packing 25 mm, length 1m	25 mm	66510

Packing removers

For easy removal of Rameh packings from stuffing boxes.

Description	Suitable for	Item no.
Hollex packing remover for 6/8 mm packing	6 / 8 mm	66548
Hollex packing remover for 10/11/12,5 mm packing	10 / 11 / 12,5 mm	66552
Hollex packing remover for 14/16/19 mm packing	14 / 16 / 19 mm	66553
Hollex packing remover for 22/25 mm packing	22 / 25 mm	66554

Grease lubricated

Exalto Grease Flexseal

The Exalto greaseflexseals can be used with grease lubricated sterngear. The housing is made of high grade composite. Due to the rubber bellow, greaseflexseals are easy to mount directly to the sterntube. The seal needs to be installed near the shaft bearing.

Attention: the supply of grease should be realised on the sterntube, for the seal doesn't have its own supply.
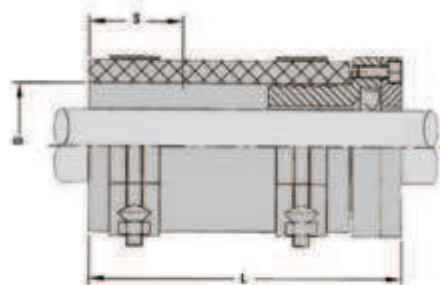
Shaft diameter	Tube diameter	S	L	Item no.
25 mm	45 mm	30 mm	140 mm	75501EX
30 mm	45 mm	30 mm	140 mm	75502EX
35 mm	60 mm	30 mm	150 mm	75503EX
40 mm	60 mm	30 mm	150 mm	75504EX
45 mm	75 mm	35 mm	155 mm	75505EX
50 mm	75 mm	35 mm	155 mm	75506EX
60 mm	90 mm	40 mm	185 mm	75508EX
70 mm	90 mm	40 mm	185 mm	75510EX

Carco Seals

Carco lip seals are applied in almost every sterntube system, regardless of the lubrication. Lip seals are only applicable with housing, because lip seals are always mounted by means of axial confinement. Carco lip seals are treated with the brandname Carcoflon coating. This seals the gap perfectly, they are self-lubricating and have a very low friction coefficient. The radial tension is provided by the built-in stainless steel spring. Carcoseals function best at temperatures between -40 ° and +120 ° Celsius. They may reach a maximum velocity of 15 m/s, peaking to 20 m/s.

Carco seals up to 70mm delivery from stock. Delivery time of larger sizes on request.

Shaft diameter	D	B	Item no.
25 mm	47 mm	10,0 mm	96025
30 mm	52 mm	10,0 mm	96030
35 mm	57 mm	10,0 mm	96035
40 mm	65 mm	11,0 mm	96040
45 mm	70 mm	11,0 mm	96045
50 mm	75 mm	11,0 mm	96050
60 mm	85 mm	11,0 mm	96060
70 mm	102 mm	12,5 mm	96070
80 mm	112 mm	12,5 mm	96080
90 mm	122 mm	12,5 mm	96090
100 mm	132 mm	12,5 mm	96100
110 mm	150 mm	16,0 mm	96110
120 mm	160 mm	16,0 mm	96120
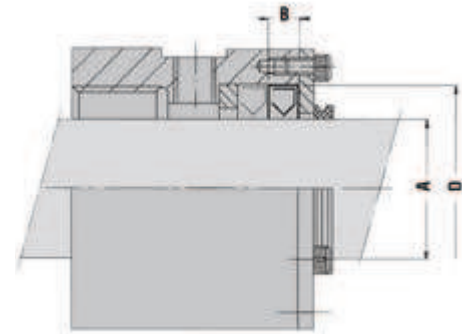
Carco Seals Split

These carco seals are a "split" version. This simplifies maintenance, because the propeller shaft installation does not need to be dismantled. With this design the rubber at both ends is a little softer with a guarantee to a perfect closure of the lip seal. Carco lip seals are treated with the brandname Carcoflon coating. This seals the gap perfectly, they are self-lubricating and have a very low friction coefficient. The radial tension is provided by the built-in stainless steel spring. Carcoseals function best at temperatures between -40 ° and +120 ° Celsius. They may reach a maximum velocity of 15 m/s, peaking to 20 m/s.

Delivery time of carco seals in split-version on request.

Shaft diameter	D	B	Item no.
25 mm	47 mm	10,0 mm	96025.SPLIT
30 mm	52 mm	10,0 mm	96030.SPLIT
35 mm	57 mm	10,0 mm	96035.SPLIT
40 mm	65 mm	11,0 mm	96040.SPLIT
45 mm	70 mm	11,0 mm	96045.SPLIT
50 mm	75 mm	11,0 mm	96050.SPLIT
60 mm	85 mm	11,0 mm	96060.SPLIT
70 mm	102 mm	12,5 mm	96070.SPLIT
80 mm	112 mm	12,5 mm	96080.SPLIT
90 mm	122 mm	12,5 mm	96090.SPLIT
100 mm	132 mm	12,5 mm	96100.SPLIT
110 mm	150 mm	16,0 mm	96110.SPLIT
120 mm	160 mm	16,0 mm	96120.SPLIT
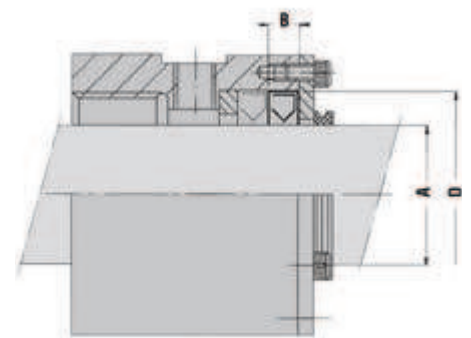
Exalto Seal housings SA and SV

Exalto seal housings are used with oil and grease lubricated sterngear installations. They are available in two versions. Type SA and SV are in direct contact with the shaft. The SA is mounted at the propellerside of the shaft. The SV is mounted at the engineside of the shaft. The seal housings are to be mounted rigidly to the sterntube. The housings have JW seals inside, which can absorb little radial movement. To allow the seal housing to perform at its best, an additional support bearing should be fitted in the sterntube (close to the shaft seal). When fitting the seal housing, the support bearing in the sterntube should be in line with the seal housing.
When ordering, please specify the method of lubrication.
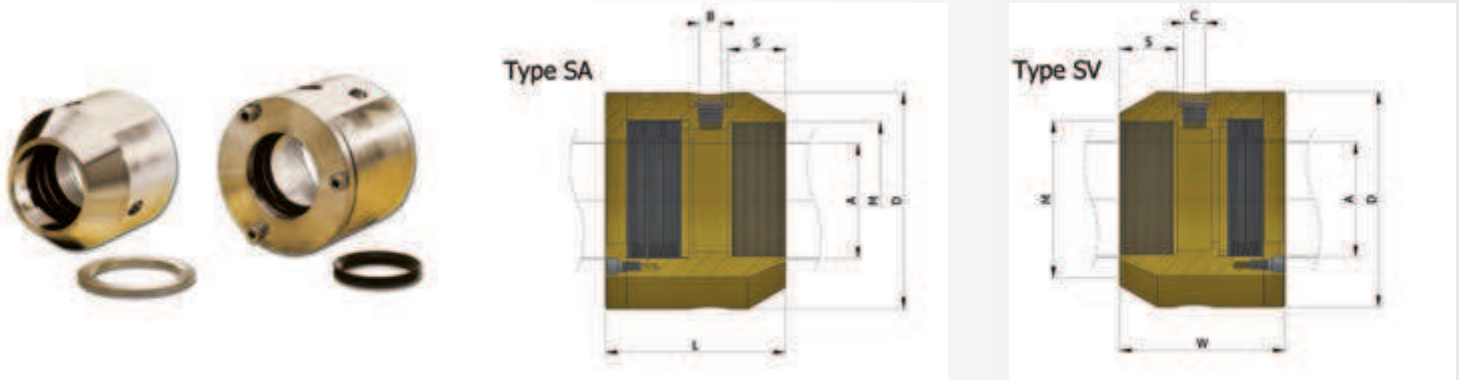
Shaft diameter	D	B	C	F	L	S	W	M	PDC	Item no. SA	Item no. SV
25 mm	76 mm	1/4"G mm	2 x 1/4"G mm	110 mm	90 mm	25 mm	86 mm	48 x 1,5	85 - 3 x Ø 11 mm	77025	77525
30 mm	81 mm	1/4"G mm	2 x 1/4"G mm	110 mm	95 mm	30 mm	91 mm	53 x 1,5	85 - 3 x Ø 11 mm	77030	77530
35 mm	86 mm	1/4"G mm	2 x 1/4"G mm	120 mm	95 mm	30 mm	91 mm	58 x 1,5	95 - 4 x Ø 11 mm	77035	77535
40 mm	100 mm	3/8"G mm	2 x 3/8"G mm	120 mm	106 mm	35 mm	107 mm	63 x 2,0	95 - 4 x Ø 11 mm	77040	77540
45 mm	105 mm	3/8"G mm	2 x 3/8"G mm	150 mm	110 mm	35 mm	107 mm	68 x 2,0	125 - 6 x Ø 11 mm	77045	77545
50 mm	110 mm	3/8"G mm	2 x 3/8"G mm	150 mm	110 mm	35 mm	107 mm	75 x 2,0	125 - 6 x Ø 11 mm	77050	77550
60 mm	120 mm	1/2"G mm	2 x 1/2"G mm	175 mm	120 mm	40 mm	117 mm	85 x 2,0	145 - 6 x Ø 13 mm	77060	77560
70 mm	145 mm	1/2"G mm	2 x 1/2"G mm	175 mm	125 mm	40 mm	124 mm	95 x 2,0	145 - 6 x Ø 13 mm	77070	77570
80 mm	150 mm	1/2"G mm	2 x 1/2"G mm	200 mm	125 mm	40 mm	124 mm	110 x 2,0	170 - 6 x Ø 13 mm	77080	77580
90 mm	160 mm	1/2"G mm	2 x 1/2"G mm	200 mm	140 mm	40 mm	124 mm	120 x 2,0	170 - 6 x Ø 13 mm	77090	77590
100 mm	170 mm	3/4"G mm	2 x 3/4"G mm	240 mm	140 mm	45 mm	139 mm	130 x 2,0	210 - 6 x Ø 13 mm	77100	77600

Exalto Seal housings SB and SC

Exalto seal housings are used with oil and grease lubricated sterngear installations. They are available in two versions. Types SB and SC and used together with a sleeve. There is no direct contact with (and wear of) the shaft. The SB is mounted at the propellerside of the shaft. The seal housings are to be mounted rigidly to the sterntube. The housings have JW seals inside, which can absorb little radial movement. To allow the seal housing to perform at its best, an additional support bearing should be fitted in the sterntube (close to the shaft seal). When fitting the seal housing, the support bearing in the sterntube should be in line with the seal housing.
When ordering, please specify the method of lubrication.
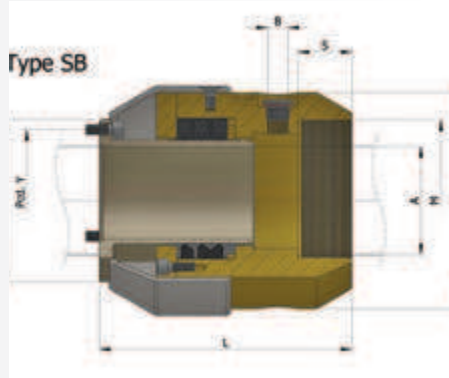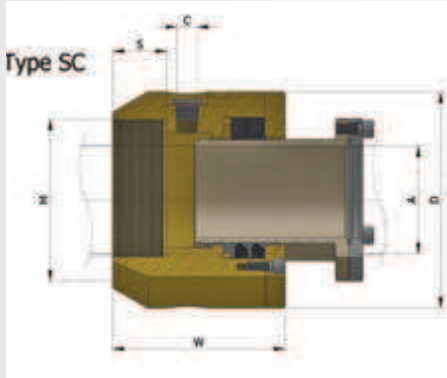
Shaft diameter	D	F	L	S	W	M	PDC	Item no. SB	Item no. SC
50 mm	120 mm	175 mm	175 mm	35 mm	195 mm	75 x 2	125 - 6 x Ø 13 mm	77150	77650
60 mm	145 mm	175 mm	156 mm	40 mm	220 mm	90 x 2	145 - 6 x Ø 13 mm	77160	77660
70 mm	150 mm	200 mm	156 mm	40 mm	190 mm	95 x 2	145 - 6 x Ø 13 mm	77170	77670
80 mm	160 mm	200 mm	187 mm	40 mm	226 mm	120 x 2	170 - 6 x Ø 13 mm	77180	77680
90 mm	170 mm	240 mm	195 mm	40 mm	235 mm	130 x 2	210 - 6 x Ø 13 mm	77190	77690
100 mm	200 mm	240 mm	200 mm	45 mm	236 mm	140 x 2	210 - 6 x Ø 13 mm	77200	77700

Mounting diagram Exalto seal housings

For oil lubrigated sterngear

Oil level

Oil (Motoroil)

Y x 1,5

Waterline

Caution: All tubes must be mounted upward. Never horizontal or descending.

Y

Drain

SA = design with 3 seals

1 seal against oil pressure
2 seals against water pressure
Fill the space between the seals with grease

SV = Design with 2 seals

2 seals against oil pressure
Fill the space between the seals with grease
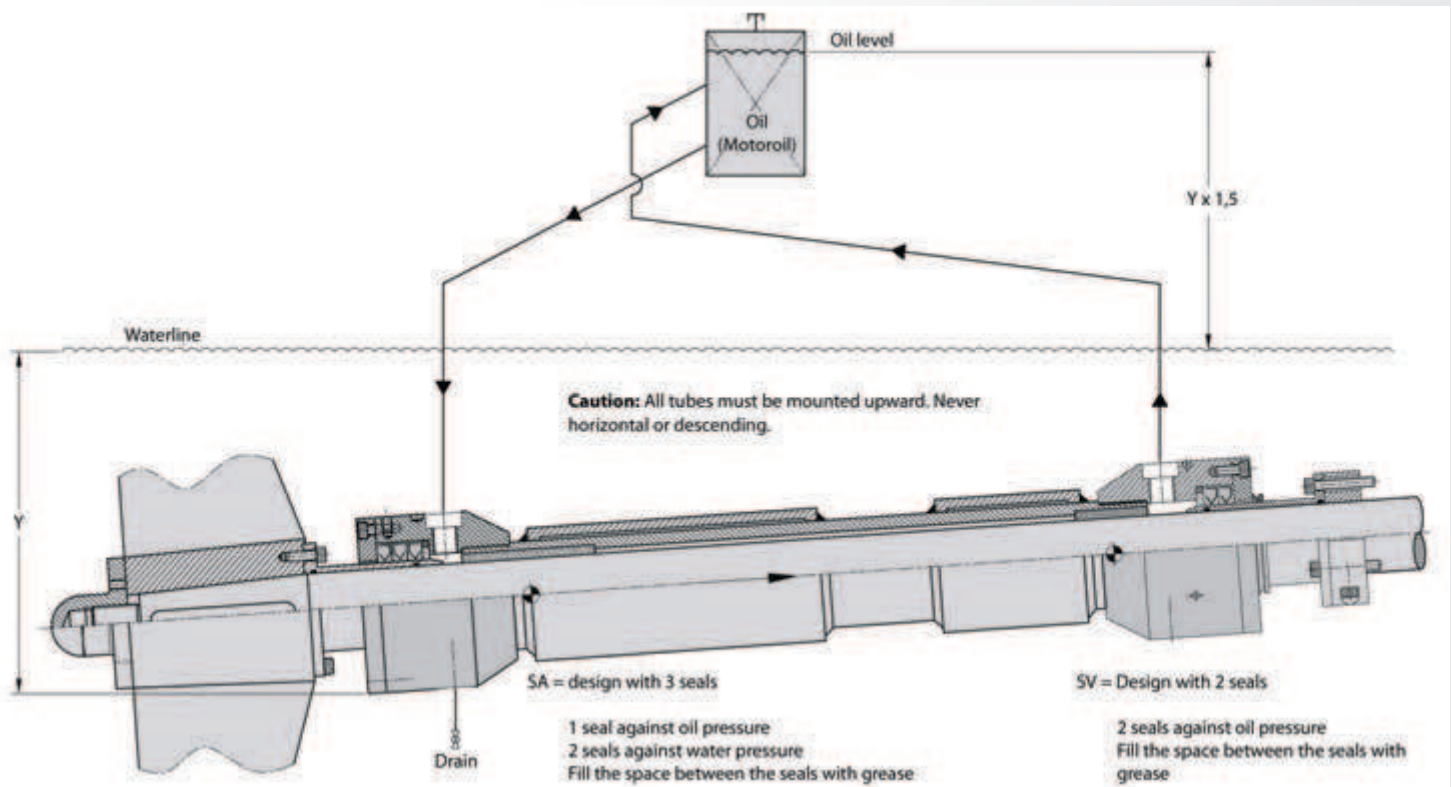
Exalto offers two types of plummer block roller bearings:

- Type ST: with tapered withdrawal sleeve, which is mount on an encased shaft.
- Type SR: with conical clamp-on, which is mounted directly on the shaft.

The double row roller bearing can transmit the thrust directly to the ship, so the gearbox and engine will be spared. The bearing should be filled with oil up to 1/3 of bottom roller height. Up to shaft size 100 mm available, price on request.

SKF Plummer block roller bearing units type SR
All dimensions in mm.
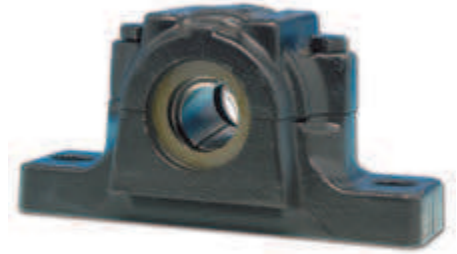
Shaft diameter	h	L	A	B	C	M	H1	S	Item no.
25 mm	50 mm	77 mm	185 mm	52 mm	22 mm	150 mm	87 mm	M10 mm	81215
30 mm	50 mm	82 mm	185 mm	52 mm	22 mm	150 mm	92 mm	M10 mm	81225
35 mm	60 mm	90 mm	205 mm	60 mm	25 mm	170 mm	112 mm	M12 mm	81235
40 mm	70 mm	95 mm	255 mm	70 mm	28 mm	210 mm	127 mm	M16 mm	81245
45 mm	70 mm	105 mm	255 mm	70 mm	30 mm	210 mm	133 mm	M16 mm	81255
50 mm	80 mm	110 mm	275 mm	80 mm	30 mm	230 mm	148 mm	M16 mm	81265

Locking nut at propeller side

Shaft machining not needed with type SR
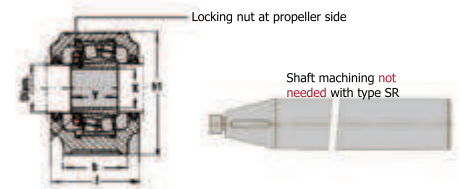
SKF Plummer block roller bearing units type ST
For transmitting thrust.
All dimensions in mm.
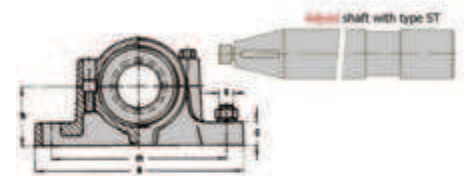
Shaft diameter	h	L	A	B	C	M	H1	X	Y	Item no.
25 mm	50 mm	77 mm	185 mm	52 mm	22 mm	150 mm	87 mm	22 mm	31 mm	81210
30 mm	50 mm	82 mm	185 mm	52 mm	22 mm	150 mm	92 mm	27 mm	35 mm	81220
35 mm	60 mm	90 mm	205 mm	60 mm	25 mm	170 mm	112 mm	32 mm	46 mm	81230
40 mm	70 mm	95 mm	255 mm	70 mm	28 mm	210 mm	127 mm	37 mm	50 mm	81240
45 mm	70 mm	105 mm	255 mm	70 mm	30 mm	210 mm	133 mm	42 mm	55 mm	81250
50 mm	80 mm	110 mm	275 mm	80 mm	30 mm	230 mm	148 mm	47 mm	59 mm	81260

shaft with type ST

Maximum allowable thrust
Relation between the engines rating and the rotations per minute with the plummer block roller bearing

Shaft diam. (mm)	Engine rating (kW)	Shaft (rpm)	Thrust (kN)	Shaft diam. (mm)	Engine rating (kW	Shaft (rpm)	Thrust (kN))
25	50	2500	2,5	65	270	2000	19,0
30	60	2500	3,0	70	305	2000	21,4
35	125	2500	6,0	75	350	1500	24,5
40	160	2500	8,0	80	400	1500	28,0
45	200	2500	10,0	85	450	1500	31,5
50	185	2000	13,0	90	520	1500	36,4
55	200	2000	14,0	100	600	1500	42,0
60	235	2000	16,5				

Exalto Thrust bearings

The double row roller bearing with spherical roller thrust bearing is the best combination for thrust bearings. Due to the thrust bearing the thrust is transmitted to the vessel's construction and the motor installation is spared.

Exalto supplies the following housing constructions:

- Seperate, for mounting on the fundation, with a mounting base at the bottom or side of the bearing house.

- Seperate, for mounting with a flange to the engine room bulkhead.

- As one part with the sterntube shafts, for mounting with a flange to the engine room bulkhead. The lubrication of the shaft bearing is unimportant in this construction. The thrust bearings are available from shaftsØ 60 mm.

Prices and sizes on request.

Type FLM

These clamp-on coupling flanges are manufactured in C45 steel and galvanically coated. The clamp-on couplings are completely machined and can be supplied in the dimensions mentioned in the table below. The R indicated in the table represents the number of bolt holes in the flange. Clamp couplings for shaft ø 25 and 30 mm have a std. 4" fitting. The ø 35 and 40 mm version have a 5" fitting.

A	D	Pu	G	PDC	L	Ph	R	Item no.
25 mm	102 mm	63,5 mm	10,5 mm	82,5 mm	68 mm	3 mm	4 mm	25-FM-102
30 mm	102 mm	63,5 mm	10,5 mm	82,5 mm	68 mm	3 mm	4 mm	30-FM-102
35 mm	127 mm	63,5 mm	11,5 mm	107,95 mm	93 mm	3 mm	4 mm	35-FM-127
40 mm	127 mm	63,5 mm	11,5 mm	107,95 mm	93 mm	3 mm	4 mm	40-FM-127
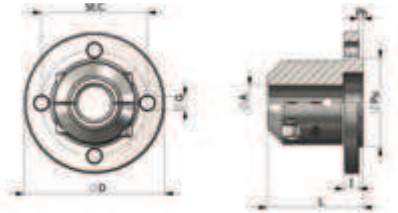
Type CF

The clamp-on couplings are completely machined and can be supplied in the dimensions mentioned in the table below. Clamp couplings are availble with the standard 4" and 5" fittings from ZF and Yanmar.

A	D	G	PDC	L	Item no.
25 mm	102 mm	10 mm	82,5 mm	81 mm	CF165-25
30 mm	102 mm	10 mm	82,5 mm	81 mm	CF165-30
35 mm	102 mm	10 mm	82,5 mm	81 mm	CF165-35
40 mm	102 mm	10 mm	82,5 mm	81 mm	CF165-40
30 mm	127 mm	11,2 mm	107,95 mm	95 mm	CF171-30
35 mm	127 mm	11,2 mm	107,95 mm	95 mm	CF171-35
40 mm	127 mm	11,2 mm	107,95 mm	95 mm	CF171-40
45 mm	127 mm	11,2 mm	107,95 mm	95 mm	CF171-45
50 mm	127 mm	11,2 mm	107,95 mm	95 mm	CF171-50
25 mm	102 mm	10 mm	78 mm	81 mm	CF257-25-YANMA
30 mm	102 mm	10 mm	78 mm	81 mm	CF257-30-YANMA
35 mm	102 mm	10 mm	78 mm	81 mm	CF257-35-YANMA
40 mm	102 mm	10 mm	78 mm	81 mm	CF257-40-YANMA
30 mm	120 mm	10 mm	100 mm	95 mm	CF300-30-YANMA
35 mm	120 mm	10 mm	100 mm	95 mm	CF300-35-YANMA
40 mm	120 mm	10 mm	100 mm	95 mm	CF300-40-YANMA
45 mm	120 mm	10 mm	100 mm	95 mm	CF300-45-YANMA
50 mm	120 mm	10 mm	100 mm	95 mm	CF300-50-YANMA
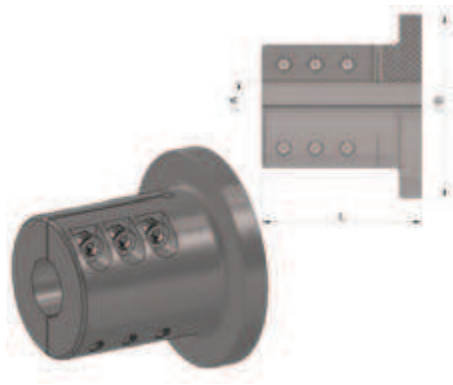
Exalto Clamp-on couplings

Exalto clamp-on couplings are available in unmachined version or with completely machined flange. The flanges can be machined to suit the gearbox flange, Aquadrive thrust bearings (both input and output shaft) and all known gearboxes. You have to order the machining seperately. The installation dimensions of the machined flanges are slightly shorter than the unmachined length.
All dimensions in mm.
Other shaft diameters on request.

A	D	L	Torque (Nm)	Shaft diameter	Clamping length	Item no. unmachining	Item no. machining
25 mm	102 mm	100 mm	212 Nm	25 mm	85 mm	74525102	74525102.010
30 mm	102 mm	100 mm	255 Nm	30 mm	85 mm	74530102	74530102.010
30 mm	127 mm	110 mm	255 Nm	30 mm	95 mm	74530127	74530127.010
35 mm	102 mm	100 mm	470 Nm	35 mm	85 mm	74535102	74535102.010
35 mm	127 mm	110 mm	470 Nm	35 mm	95 mm	74535127	74535127.010
40 mm	127 mm	110 mm	537 Nm	40 mm	95 mm	74540127	74540127.010
45 mm	127 mm	110 mm	878 Nm	45 mm	95 mm	74545127	74545127.010
45 mm	146 mm	125 mm	878 Nm	45 mm	110 mm	74545146	74545146.010
50 mm	146 mm	125 mm	976 Nm	50 mm	110 mm	74550146	74550146.010

Exalto Spacers

Custom made Spacers

Sometimes it's not possible to fit a (e.g. Centa) coupling directly on the gear box flange. In that case you need a spacer. Exalto can offer and make a fitting solution.
Please contact us for possibilities and pricing.

Centa couplings

Centa offers the perfect, innovative marine transmission. It is a combination of well-proven designs with unique features – freedom in alignment and installation, together with damping of noise and vibration within the transmission. Centaflex couplings have one or more centaflex rubber elements. The rubber elements interrupt structure borne noises and dampen noise and vibrations for the highest level of comfort in the boat.

Common features of Centaflex couplings

- Centa offers a broad range of rating and sizes.
- Short, lightweight design.
- Integrated prop shaft clamping device which can easily be adapted by intermediate bushes for an extensive range of propeller shaft diameters.
- Patented design.
- The thrust bearings have a spherical outer ring, which means they will always align themselves perfectly to the prop shaft for optimum bearing lifetime.

Selection method

In the tables shown at each type of coupling, you will find four versions to choose from. To ease the selection of the right coupling, let us explain the specifics of each version.

Leisure craft (PL)

Engine hours   :up to 500 hours/year, max. 10% of time with full power.
Usage   : highly intermittent operation, varying speed and power.
Typical applications   : planing hull, private use, sailing boats, and motor boats.
Not suitable for   : charter or long range.

Light duty (LD)

Engine hours   : up to 2000 hours/year, max. 15% of time with full power.
Usage   : varying speed and power
Typical applications   : planing and semi-displacement hulls, charter sport / leisure activities, patrol boats,
                                 long range private boats.

Medium duty (MD)

Engine hours   : up to 3000 hours/year, max. 50% of time with full power.
Usage   : some variations in speed and power.
Typical applications   : semi- and full displacement hulls, charter and commercial craft, ferries, fishing boats, crew boats,
                                 naval and police boats.

Continuous duty (CD)

For more demanding or continuous duty please consult the experts of Exalto.

Calculating the nominal torque: $M(Nm) = \dfrac{9550 \times P \times R}{n}$

M = Nominal torque
P = Engine rating in kW (1 hp = 0.735 kW)
R = Gearbox ratio
n = engine rpm

The range of small Centaflex couplings consists of types M, AM, AGM and ACV.
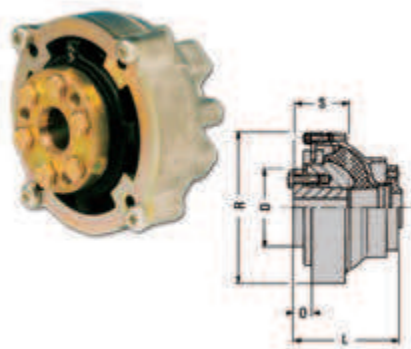
Centa Type M

Highly flexible coupling for the connection of gear and propeller shaft. For applications with limited mounting space. Backlash-free transmission of torque and propeller thrust via highly flexible rubber element. Specially designed to reduce noise and vibrations under confined space requirements. Dampens torsional vibrations and shocks, interrupts structure-borne noise and compensates axial, radial and angular misalignments. Additionally offers a high degree of electrical insulation.

Mounted with minimum effort by means of a clamping hub. Delivered with fail-safe device and ready to install. Further handling, maintenance and cost benefits by omitting additional components, such as spacers.

Model / type	Shaft diameter	L	ØR	O	S	ØD	Max. rpm	Max. Thrust	Max. nominal momentum	Item no.
M127	25 - 35 mm	89 mm	153 mm	11 mm	53 mm	73 mm	4500	10 kN	250 Nm	94701
M127	25 mm	89 mm	153 mm	11 mm	53 mm	73 mm	4500	10 kN	250 Nm	94701.025YAN
M127	30 mm	89 mm	153 mm	11 mm	53 mm	73 mm	4500	10 kN	250 Nm	94701.030YAN
M160	25 - 40 mm	120 mm	195 mm	13 mm	79 mm	100 mm	3500	20 kN	500 Nm	94702

Centaflex Adapter flange

These handy adapter flanges come with 4 allen bolt M10 for mounting on the Centa coupling.

Model / type	Description	Item no.
M127	Flange kit PCD M10 x 100 (4xM8. spigot 65 mm)	94701F.2.3
M127	Flange kit PCD M10 x 80 (4xM8. spigot 65 mm)	94701F.3.2

Centa Type AM

The AM coupling is a highly flexible coupling especially designed for yachts and workboats.
The couplings have a fail-safe device, which ensures that power can continu to be transmitted even if the rubber fails.
The coupling comes with a thrust element that allows the coupling to transmit the propeller thrust.
If a thrust bearing is placed on the shaft, this thrust element has to be removed.
Mounting on the gearbox
The AM coupling is machined to fit the gearbox flange. It is therefore important that the exact make and
type of the gearbox is given. For some gearboxes, the diameter of the rubber element (ØR) exceeds the available space.
A distance piece (spacer) must then be placed between the coupling and the gearbox flange.
This spacer is not included, but can be ordered separately.
All dimensions in mm.
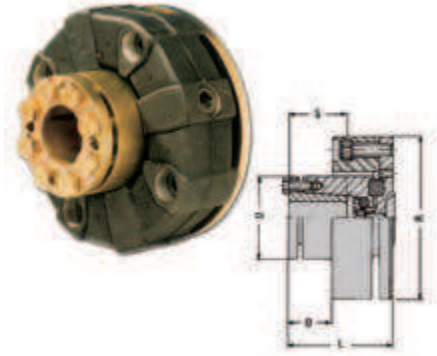
Max. angle : 2 °

Dimension AM600 on request

Model / type	Shaft diameter	L	ØR	O	S	ØD	Max. rpm	Max. Thrust	Max. nominal momentum	LD	Item no.
AM12	25 - 35 mm	99 mm	120 mm	51 mm	57 mm	75 mm	4000	5,5 kN	175 Nm	135 Nm	94703
AM22	25 - 35 mm	99 mm	150 mm	41 mm	57 mm	80 mm	4000	7,5 kN	350 Nm	269 Nm	94704
AM28	25 - 40 mm	100 mm	170 mm	41 mm	55 mm	85 mm	4000	10,00 kN	525 Nm	404 Nm	94705
AM30	25 - 50 mm	125 mm	200 mm	51 mm	70 mm	100 mm	4000	10,00 kN	625 Nm	481 Nm	94710
AM50	25 - 50 mm	125 mm	200 mm	51 mm	70 mm	100 mm	4000	10,00 kN	1000 Nm	769 Nm	94720
AM80	25 - 50 mm	125 mm	205 mm	44 mm	70 mm	100 mm	4000	15,00 kN	1400 Nm	1077 Nm	94730
AM140	35 - 60 mm	138 mm	260 mm	48 mm	83 mm	125 mm	3600	20,00 kN	1875 Nm	1422 Nm	94740
AM200	40 - 70 mm	160 mm	300 mm	50 mm	90 mm	145 mm	3200	30,00 kN	3100 Nm	2385 Nm	94750
AM250	45 - 80 mm	172 mm	340 mm	60 mm	100 mm	160 mm	3000	35,00 kN	4000 Nm	3077 Nm	94760
AM400	50 - 100 mm	199 mm	370 mm	67 mm	120 mm	170 mm	2500	35,00 kN	7500 Nm	5769 Nm	94770
AM600	50 - 100 mm						2500	50,00 kN	11000 Nm	8462 Nm	94780

Centa Type AGM

The AGM coupling is a highly flexible coupling combined with a thrust bearing. It is a combination of well-proven design with unique features – freedom in alignment and installation, together with dampening of noise and vibration within the transmission. The thrust free mounting of the engine on very soft mounts, together with the flexibility and the high dampening of the transmission, provides the lowest possible level of noise and vibration in the drive train, lower than any other system. Mounting on the gearbox

The AGM coupling is machined to fit the gearbox flange. Therefore it is important that the exact make and type of the gearbox is given. For some gearboxes, the diameter of the rubber element (ØR) exceeds the available space. A distance piece (spacer) must than be placed between the coupling and the gearbox flange. This spacer is not included but can be ordered separately.

All dimensions in mm.

PDC   : 145 mm
Max. angle   : 2 x 3,0 °

Model / type	Shaft diameter	L	ØR	0	S	U	PDC	ØG	Max. rpm	Max. Thrust	LD	Item no.
AGM08	20 - 35 mm	209 mm	120 mm	169,5 mm	48,5 mm	197 mm	145 mm	102 mm	4000	8 kN	123 Nm	94802
AGM16	20 - 35 mm	231 mm	150 mm	191,5 mm	48,5 mm	197 mm	145 mm	102 mm	4000	8 kN	246 Nm	94803
AGM25	20 - 40 mm	267 mm	170 mm	226,0 mm	65 mm	197 mm	145 mm	102 mm	4000	10 kN	308 Nm	94804
AGM30	20 - 40 mm	303 mm	200 mm	262,0 mm	65 mm	197 mm	145 mm	102 mm	3500	10 kN	481 Nm	94810
AGM50	35 - 50 mm	330 mm	200 mm	266,5 mm	69,5 mm	277 mm	211 mm	140 mm	3000	14 kN	769 Nm	94820
AGM80	35 - 50 mm	333 mm	205 mm	269,5 mm	69,5 mm	277 mm	211 mm	140 mm	2500	14 kN	1077 Nm	94830
AGM140	35 - 60 mm	411 mm	260 mm	333,0 mm	82 mm	284 mm	216 mm	160 mm	2000	24 kN	1442 Nm	94840
AGM200	50 - 80 mm	474 mm	300 mm	374,0 mm	108,0 mm	346 mm	277 mm	210 mm	2000	40 kN	2385 Nm	94850
AGM250	50 - 80 mm	499 mm	340 mm	399,0 mm	108,0 mm	346 mm	277 mm	210 mm	1800	40 kN	3077 Nm	94860
AGM400	50 - 127 mm								1600	80 kN	5769 Nm	94870
AGM600	50 - 165 mm								1400	120 kN	8462 Nm	94880

Centa Type ACV

The ACV is a combination with a CV (constant velocity or homokinetic) joint on one side and a flexible coupling on the other side. Just like the AGM the ACV also incorporates a thrust bearing. The combination of the CV joint with the flexible coupling gives the vibration and noise dampening features of a flexible coupling and the unsurpassed freedom of movement and large angle of a homokinetic shaft. It is ideal for larger angles, up to 8 degrees in the CV (b) plus up to 2 or 3 degrees in the rubber element (a).
Please take notice that a minimum angle has to be made, like in every other homokinetic coupling!
Mounting on the gearbox
The ACV comes complete with an adapter flange to suit the gearbox. Design and dimensions depend on the type of gearbox. It is therefore important that the exact make and type of the gearbox is given.
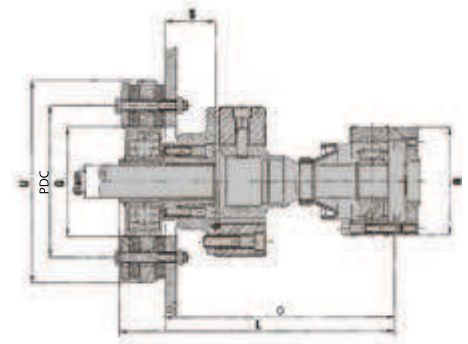
Model / type	Shaft diameter	L	ØR	O	S	U	PDC	ØG	Max. rpm	Max. Thrust	LD	Item no.
ACV08	20 - 35 mm	211 mm	90 mm	171,5 mm	48,5 mm	197 mm	145 mm	102 mm	4000	8 kN	123 Nm	94902
ACV16	20 - 35 mm	243 mm	97 mm	203,5 mm	48,5 mm	197 mm	145 mm	102 mm	4000	8 kN	246 Nm	94903
ACV25	20 - 40 mm	287 mm	103 mm	246,0 mm	65 mm	197 mm	145 mm	102 mm	4000	10 kN	308 Nm	94904
ACV30	20 - 40 mm	304 mm	110 mm	263,0 mm	65 mm	197 mm	145 mm	102 mm	3500	10 kN	481 Nm	94910
ACV50	35 - 50 mm	330 mm	130 mm	266,5 mm	69,5 mm	277 mm	211 mm	140 mm	3000	14 kN	769 Nm	94920
ACV80	35 - 50 mm	370 mm	150 mm	306,5 mm	69,5 mm	277 mm	211 mm	140 mm	2500	14 kN	1077 Nm	94930
ACV140	35 - 60 mm	440 mm	186 mm	362,0 mm	82 mm	284 mm	216 mm	160 mm	2000	24 kN	1442 Nm	94940
ACV200	50 - 80 mm	492 mm	200 mm	392,0 mm	108,0 mm	346 mm	277 mm	210 mm	2000	40 kN	2385 Nm	94950
ACV250	50 - 80 mm	596 mm	285 mm	496,0 mm	108,0 mm	346 mm	277 mm	210 mm	1800	40 kN	3077 Nm	94960
ACV600	50 - 127 mm								1600	80 kN	5769 Nm	94970
ACV600	50 - 165 mm								1400	120 kN	8462 Nm	94980

Alignment of engines is often a problem. First for the shipbuilder, later on for the owner. Each engine vibrates. Ships suffer from the vibrations, passed through the foundation to the hull. In addition, vibrations are very uncomfortable for the the crew.

Aquadrive couplings ensure that the motor is not affected by the propeller and it has it's own freedom of movement. Furthermore, the alignment of the engine is relatively easy to perform.

Aquadrive couplings consist of a CV joint, a thrust bearing and an adapter flange. The CV joint consist of two universal joints connected by a floating axle, which allows axial and radial movements. The thrust bearing transfers the thrust of the propeller through a rubber suspension on the foundation of the craft instead of the gearbox.

The Aquadrive Moduline is modular, allowing the overall length to be reduced to 70% and the weight to 75%. The Moduline consists of a thrust bearing being connected to the shaft by a sleeve set. The joint is attached to the thrust bearing with an adapter at one side and connected to the gearbox on the other side with an adapter flange. There is a gearbox adapter available for all existing gearboxes. Aquadrive Moduline couplings are available for power between 5 and 235 hp.

The descriptions in this catalog are provided as a guide. Based on data of your boat and motor Exalto can provide the most suitable Aquadrive coupling

Aquadrive Moduline couplings
S
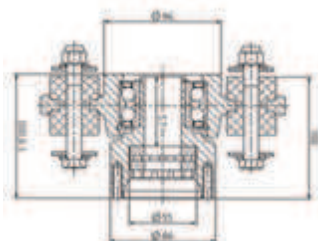
Aquadrive CVB05.05 Moduline
Diameter head CV joint   : 86 mm
PDC   : 74 mm

Adapter flange and extended versions, price and delivery time on request

Description	Model / type	Working length	Item no.
Aquadrive CV joint CV05 moduline	CV05	130 mm	6070001
Aquadrive extended CV joint CV05 WL up to 1000 mm	CV05	Max. 1000 mm	6070005
Repairkit CV joint CV05 (1 side)	CV05		6036002
Moduline B05 thrust bearing Ø 20 mm	B05		6100201
Moduline B05 thrust bearing Ø 22 mm	B05		6100202
Moduline B05 thrust bearing Ø 25 mm	B05		6100204
Moduline B05 thrust bearing Ø 1"	B05		6100205
Moduline B05 thrust bearing Ø 30 mm	B05		6100207
Dimension and price on request	Adapter flange		

Aquadrive CVB05.10 Moduline
Diameter head CV joint   : 86 mm
PDC   : 74 mm
Adapter flange and extended versions, price and delivery time on request

Description	Model / type	Working length	Item no.
Aquadrive CV joint CV05 moduline	CV05	130 mm	6070001
Aquadrive extended CV joint CV05 WL up to 1000 mm	CV05	Max. 1000 mm	6070005
Repairkit CV joint CV05 (1 side)	CV05		6036002
Moduline B10 thrust bearing	B 10		6110000
Adapter set - B10 - CV05	B10 - CV05		6116011
Clamping sleeve set 20 mm			6111013
Clamping sleeve set 25 mm			6111016
Clamping sleeve set 30 mm			6111019
Clamping sleeve set 35 mm			6111022
Clamping sleeve set 40 mm			6111024
Pre-assembled, CVB.05.10 shaft Ø 30 mm	CVB.05.10		6110207
Dimension and price on request	Adapter flange		

Aquadrive CVB10.10 Moduline

If you need the extended version of this CV-joint, please contact Exalto.

Diameter head CV joint   : 94 mm
PDC   : 80 mm

Adapter flange and extended versions, price and delivery time on request

Description	Model / type	Working length	Item no.
Aquadrive CV joint CV10 moduline	CV 10	154 mm	6070006
CV joint extended up to max. 1000mm	CV 10	Max. 1000 mm	6070019
Bootkit cv joint CV10 (1 side)	CV10		6036004
Moduline B10 thrust bearing	B 10		6110000
Adapter set - B10 - CV10	B 10 - CV 10		6116012
Clamping sleeve set 20 mm			6111013
Clamping sleeve set 25 mm			6111016
Clamping sleeve set 30 mm			6111019
Clamping sleeve set 35 mm			6111022
Clamping sleeve set 40 mm			6111024
Pre-assembled, CVB.10.10 shaft Ø 25 mm	CVB.10.10		6110304
Pre-assembled, CVB.10.10 shaft Ø 30 mm	CVB.10.10		6110307
Pre-assembled, CVB.10.10 shaft Ø 35 mm	CVB.10.10		6110310
Pre-assembled, CVB.10.10 shaft Ø 40 mm	CVB.10.10		6110312
Dimension and price on request	Adapter flange		
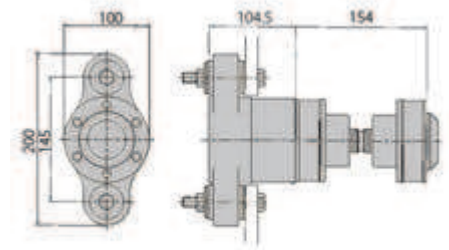
Aquadrive CVB15.10 Moduline

Diameter head CV joint   : 108 mm
PDC   : 94 mm

Adapter flange and extended versions, price and delivery time on request

Description	Model / type	Working length	Item no.
Aquadrive CV joint CV15 moduline	CV15	170 mm	6070025
Aquadrive CV joint CV15 extended up to 1000 mm	CV15	Max. 1000 mm	6070035
Bootkit cv joint CV15 (1 side)	CV15		6036011
Moduline B10 thrust bearing	B 10		6110000
Adapter set - B10 - CV15	B10 - CV15		6116013
Clamping sleeve set 20 mm			6111013
Clamping sleeve set 25 mm			6111016
Clamping sleeve set 30 mm			6111019
Clamping sleeve set 35 mm			6111022
Clamping sleeve set 40 mm			6111024
Pre-assembled, CVB.15.10 shaft Ø 30 mm	CVB.15.10		6110407
Pre-assembled, CVB.15.10 shaft Ø 35 mm	CVB.15.10		6110410
Pre-assembled, CVB.15.10 shaft Ø 40 mm	CVB.15.10		6110412
Complete thrust bearing 45 mm			6110424
Complete thrust bearing 50 mm			6110426
Dimension and price on request	Adapter flange		

Aquadrive CVB21.10 Moduline

Diameter head CV joint   : 128 mm
PDC   : 108 mm
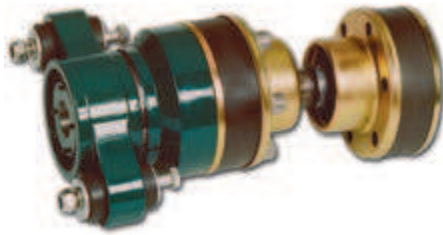
Adapter flange and extended versions, price and delivery time on request

Description	Model / type	Working length	Item no.
Aquadrive CV joint CV21 moduline	CV21	210 mm	6070040
Aquadrive extended CV joint CV21 WL up to 1000 mm	CV21	Max. 1000 mm	6070049
Repairkit CV joint CV21 (1 side)	CV21		6036015
Moduline B10 thrust bearing	B 10		6110000
Adapter set - B10 - CV21	B10 - CV21		6116014
Clamping sleeve set 20 mm			6111013
Clamping sleeve set 25 mm			6111016
Clamping sleeve set 30 mm			6111019
Clamping sleeve set 35 mm			6111022
Clamping sleeve set 40 mm			6111024
Pre-assembled, CVB.21.10 shaft Ø 30 mm	CVB.21.10		6110507
Pre-assembled, CVB.21.10 shaft Ø 35 mm	CVB.21.10		6110510
Pre-assembled, CVB.21.10 shaft Ø 40 mm	CVB.21.10		6110512
Dimension and price on request	Adapter flange		
Complete thrust bearing B10 for CV21 Ø 45 ext.			6110524
Complete thrust bearing B10 for CV21 Ø 50 ext.			6110526
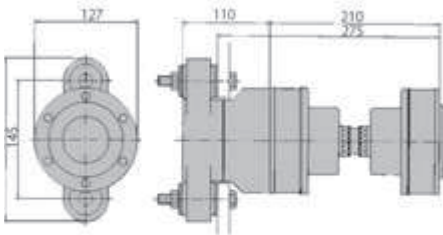
Aquadrive CVB21.20 Moduline

Diameter head CV joint   : 128 mm
PDC   : 108 mm
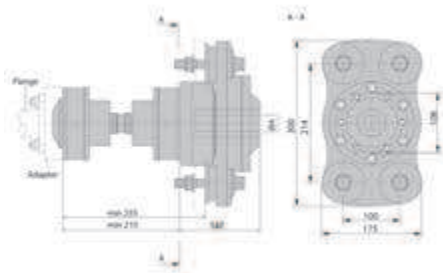
Adapter flange and extended versions, price and delivery time on request

Description	Model / type	Working length	Item no.
Aquadrive CV joint CV21 moduline	CV21	210 mm	6070040
Aquadrive extended CV joint CV21 WL up to 1000 mm	CV21	Max. 1000 mm	6070049
Repairkit CV joint CV21 (1 side)	CV21		6036015
Moduline B20 thrust bearing	B20		6120000
Adapter set - B20 for CV21 drive shaft Ø 72,6	B20 - CV21		6126011
Clamping sleeve set 35 mm			6121010
Clamping sleeve set 40 mm			6121012
Clamping sleeve set 45 mm			6121014
Clamping sleeve set 50 mm			6121016
Dimension and price on request	Adapter flange		

Aquadrive CVB30.20 Moduline

Diameter head CV joint : 148 mm
PDC : 128 mm

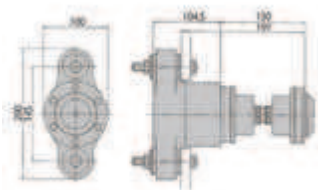**Adapter flange and extended versions, price and delivery time on request**

Description	Model / type	Working length	Item no.
Aquadrive CV joint CV30 moduline	CV30	245 mm	6070090
Aquadrive extended CV joint CV30 WL up to 1000 mm	CV30	Max. 1000 mm	6070095
Repairkit CV joint CV30 (1 side)	CV30		6036018
Moduline B20 thrust bearing	B20		6120000
Adapter set - B20 - CV30	B20 - CV30		6126012
Clamping sleeve set 35 mm			6121010
Clamping sleeve set 40 mm			6121012
Clamping sleeve set 45 mm			6121014
Clamping sleeve set 50 mm			6121016
Dimension and price on request	Adapter flange		
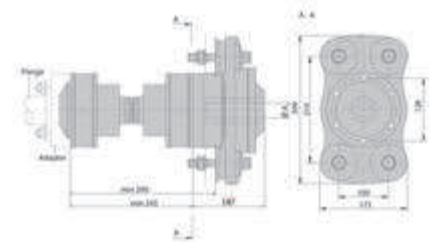
Aquadrive CVB30.30 Moduline

Diameter head CV joint : 148 mm
PDC : 128 mm

Adapter flange and extended versions, price and delivery time on request

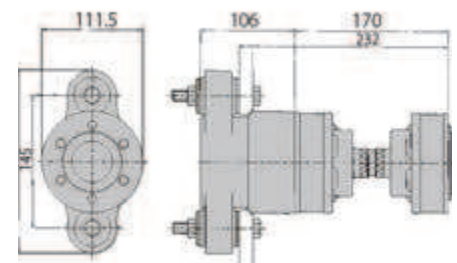| Description	Model / type	Working length	Item no.
Aquadrive CV joint CV30 moduline	CV30	245 mm	6070090
Aquadrive extended CV joint CV30 WL up to 1000 mm	CV30	Max. 1000 mm	6070095
Repairkit CV joint CV30 (1 side)	CV30		6036018
Moduline B30 thrust bearing	B30		6130000
Adapter set - B30 - CV30	B30 - CV30		6136011
Clamping sleeve set 40 mm			6131012
Clamping sleeve set 45 mm			6131014
Clamping sleeve set 50 mm			6131016
Clamping sleeve set 55 mm			6131018
Clamping sleeve set 60 mm			6131020
Clamping sleeve set 65 mm			6131023
Dimension and price on request	Adapter flange		

Aquadrive CVB42.30 Moduline

Diameter head CV joint   : 192 mm
PDC   : 165 mm

Adapter flange and extended versions, price and delivery time on request

Description	Model / type	Working length	Item no.
Aquadrive CV joint CV42 moduline	CV42	274 mm	6070083
Aquadrive extended CV joint CV42 up to 1000 mm	CV42	Max. 1000 mm	6070087
Bootkit cv joint CV42 (1 side)	CV42		6036020
Moduline B30 thrust bearing	B30		6130000
Adapter set - B30 - CV42	B30 - CV42		6136015
Clamping sleeve set 40 mm			6131012
Clamping sleeve set 45 mm			6131014
Clamping sleeve set 50 mm			6131016
Clamping sleeve set 55 mm			6131018
Clamping sleeve set 60 mm			6131020
Clamping sleeve set 65 mm			6131023
Dimension and price on request	Adapter flange		
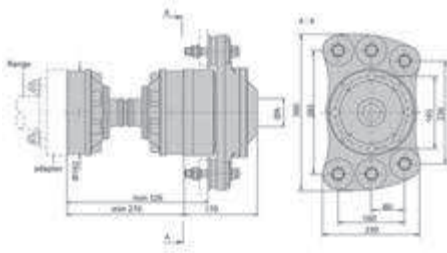
Aquadrive HD couplings
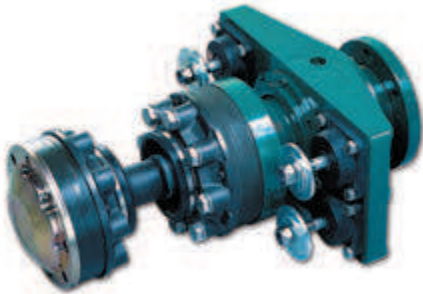
Aquadrive HDL42.680

Diameter head CV joint   : 192 mm
PDC   : 165 mm

Adapter flange and extended versions, price and delivery time on request

Description	Model / type	Item no.
Aquadrive CV joint CV42 moduline	CV42	6070083
Aquadrive extended CV joint CV42 up to 1000 mm	CV42	6070087
Thrust bearing 20.680 Ø 60 mm		6039209A
Thrust bearing 20.680 Ø 70 mm		6039212A
Thrust bearing 20.680 flange / flange		6039220A
Dimension and price on request	Adapter flange	
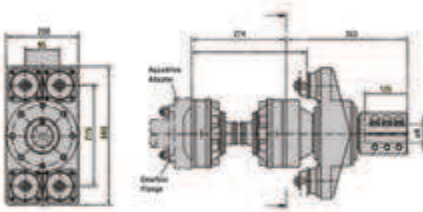
Aquadrive HDL60.700 / HDL60.780

If you need the extended version of this CV-joint, please contact Exalto.

Diameter head CV joint : 275 mm
PDC : 245 mm

Adapter flange and extended versions, price and delivery time on request

Description	Model / type	Item no.
Aquadrive CV joint CV60 moduline	CV60	6070100
Thrust bearing 20.700 Ø 60 mm		6039309
Thrust bearing 20.700 flange 7 ½"		6039312
Thrust bearing 20.700 flange 10 ½"		6039320
Thrust bearing 20.780 flange 10 ½"		6039519
Dimension and price on request	Adapter flange	
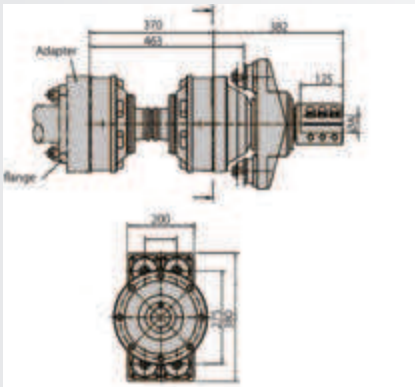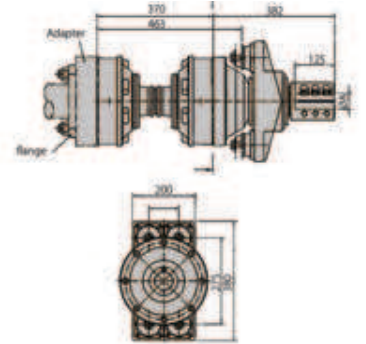
HD60.700CL
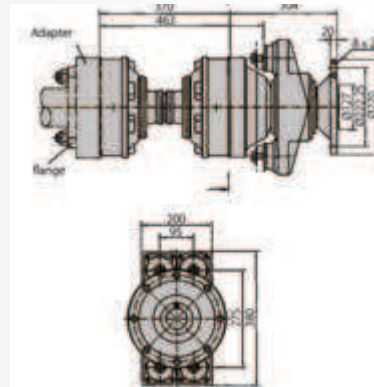
HD60.700HT
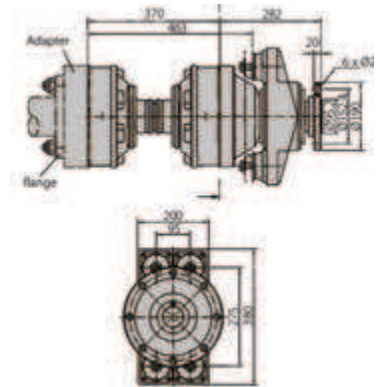
HD60.700STD

Parts for Aquadrive couplings

Clamping sleeves and bearings

Description	Item no.
Locking Device B20	6122000
Locking Device B30	6132000
Bearing B10	6190001
Bearing B20	6190002
Bearing B30	6190003
Rubber element for thrust bearing B10	6190039
Rubber element for thrust bearing B20 / B30	6090234

The Python-drive is a complete drive system for yachts, pinnaces, barges, et cetera. With a Python-drive installed you will eliminate the need for alingnment of propeller shaft and gearbox/engine. Axial movement caused by the propellers' thrust are eliminated and the thrust is passed onto the hull by means of the special suspension of the trust unit. The maintenance-free cv shaft forms the heart of every Python-drive.

The heavily built thrust bearing unit is also maintenance-free. The thrust bearing unit is mounted by means of a clamping sleeve. This sleeve centres the propeller shaft where it should be centred; right after the cv shaft of the Python-drive. The cv shaft ensures a constant rpm of the propeller shaft, even at uneven angles, which decreases the wear of rotating parts in the propulsion system.

Another big advantage is the very limited built-in length the Python-drive needs. The unit is supplied complete with all needed mounting gear, such as an adapte adapter flange for most common gearbox types, a cv shaft, a robust thrust bearing unit and all bolts, (locking) nuts, and rubbers to take the thrust. For 19 mm up to 100 mm (and imperial sizes), complete units are available. Conical shaft sleeves are also an option. CV shafts for torques up to 1.500 Kgm (14.7 kNm) as well as longer or custom-made shafts are also available on request. Thrust bearing units can be supplied as separate units to be mounted on any position on the propeller shaft.

Python-Drive couplings
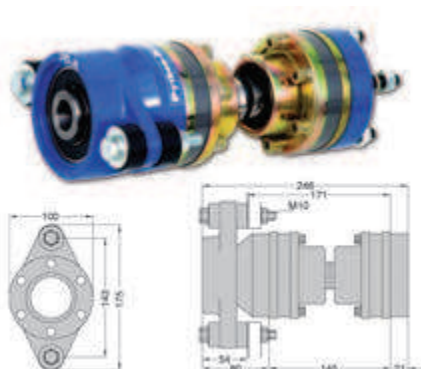
Python-Drive P30-R

The Python-drive is supplied with a built-in length of 145 mm as a standard. Without a surcharge we can also offer built-in lengths of 165 or 195 mm. Please state the desired built-in length when you order your P30-R.

Diameter head CV joint : 100 mm
PDC : 86 mm
Max. torque : 294 Nm
Max. Thrust : 4,3 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P30-R	19 - 30 mm		P30-R
Python CV joint P30 L=145 mm		145 mm	P30.145
Python CV joint P30 L=165 mm		165 mm	P30.165
Python CV joint P30 L=195 mm		195 mm	P30.195
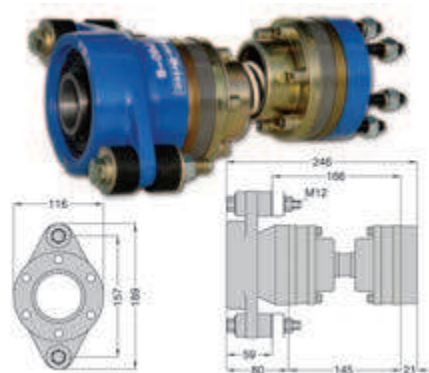
Python-Drive P60-B

The Python-drive is supplied with a built-in length of 145 mm as a standard. Without a surcharge we can also offer built-in lengths of 165 or 195 mm. Please state the desired built-in length when you order your P60-B..

Diameter head CV joint : 100 mm
PDC : 86 mm
Max. torque : 588 Nm
Max. Thrust : 5,7 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P60-B	1,1/4" - 40 mm		P60-B
Python CV joint shaft P60 L=145 mm		145 mm	P60.145
Python CV joint shaft P60 L=165 mm		165 mm	P60.165
Python CV joint shaft P60 L=195 mm		195 mm	P60.195

Python-Drive P60-K

The Python-drive is supplied with a built-in length of 165 mm as a standard. Without a surcharge we can also offer built-in lengths of 145 or 195 mm. Please state the desired built-in length when you order your P60-K.

Diameter head CV joint	: 100 mm
PDC	: 86 mm
Max. torque	: 588 Nm
Max. Thrust	: 5,7 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P60-K	30 - 40 mm		P60-K
Python CV joint shaft P60 L=145 mm		145 mm	P60.145
Python CV joint shaft P60 L=165 mm		165 mm	P60.165
Python CV joint shaft P60 L=195 mm		195 mm	P60.195
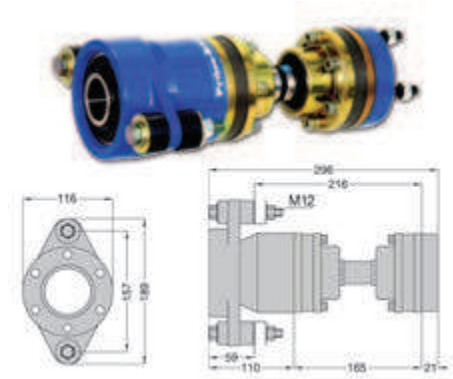
Python-Drive P80-M

The Python-drive is supplied with a built-in length of 195 mm as a standard. Without a surcharge we can also offer built-in lengths of 145 or 165 mm. Please state the desired built-in length when you order your P80-M.

Diameter head CV joint	: 100 mm
PDC	: 86 mm
Max. torque	: 785 Nm
Max. Thrust	: 8 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P80-M	30 - 45 mm		P80-M
Python CV joint shaft P80 L=145 mm		145 mm	P80.145
Python CV joint shaft P80 L=165 mm		165 mm	P80.165
Python CV joint shaft P80 L=195 mm		195 mm	P80.195
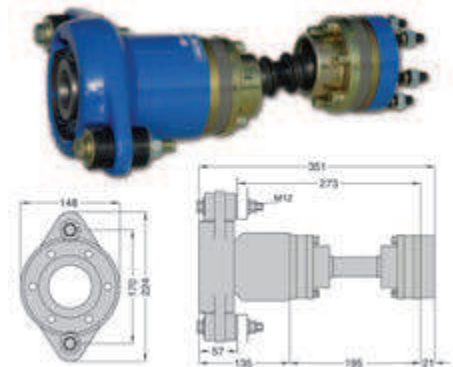
Python-Drive P80-S

The Python-drive is supplied with a built-in length of 195 mm as a standard. Without a surcharge we can also offer built-in lengths of 145 or 165 mm. Please state the desired built-in length when you order your P80-S.

Diameter head CV joint	: 100 mm
PDC	: 86 mm
Max. torque	: 785 Nm
Max. Thrust	: 12 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P80-S	30 - 45 mm		P80-S
Python CV joint shaft P80 L=145 mm		145 mm	P80.145
Python CV joint shaft P80 L=165 mm		165 mm	P80.165
Python CV joint shaft P80 L=195 mm		195 mm	P80.195
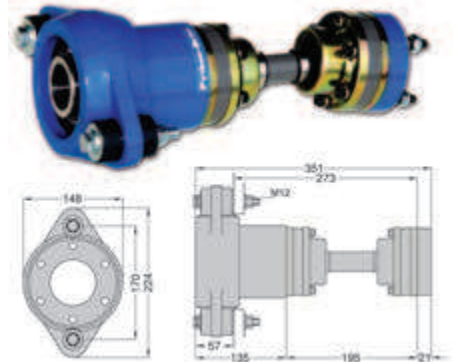
Python-Drive P110-S

The Python-drive is supplied with a built-in length of 180 mm as a standard. Please state the desired built-in length when you order your P110-S.

Diameter head CV joint	: 108 mm
PDC	: 94 mm
Max. torque	: 108 Nm
Max. Thrust	: 12 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P110-S	35 - 45 mm		P110-S
Python CV joint shaft P110 L=180 mm		180 mm	P110.180
Python CV joint shaft P110 L=225 mm		225 mm	P110.225
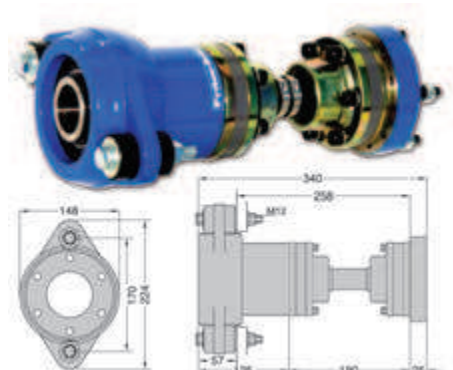
Python-Drive P110-T

The Python-drive is supplied with a built-in length of 180 mm as a standard. Please state the desired built-in length when you order your P110-T.

Diameter head CV joint : 108 mm
PDC : 94 mm
Max. torque : 1080 Nm
Max. Thrust : 18 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P110-T	35 - 50 mm		P110-T
Python CV joint shaft P110 L=180 mm		180 mm	P110.180
Python CV joint shaft P110 L=225 mm		225 mm	P110.225

Python-Drive P140-T

The Python-drive is supplied with a built-in length of 180 mm as a standard. Without a surcharge we can also offer a built-in length of 225 mm. Please state the desired built-in length when you order your P140-T.

Diameter head CV joint : 122 mm
PDC : 103,8 mm
Max. torque : 1370 Nm
Max. Thrust : 18 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P140-T	40 - 55 mm		P140-T
Python CV joint P140 L=180 mm		180 mm	P140.180
Python CV joint P140 L=225 mm		225 mm	P140.225

Python-Drive P200-T

The Python-drive P200-T is supplied with a built-in length of 255 mm as a standard.

Diameter head CV joint : 148 mm
PDC : 128 mm
Max. torque : 1960 Nm
Max. Thrust : 18 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P200-T	40 - 60 mm		P200-T
Python CV joint shaft P200 L=255mm		255 mm	P200.255

Python-Drive P200-Q

The Python-drive P200-Q is supplied with a built-in length of 255 mm as a standard.

Diameter head CV joint : 148 mm
PDC : 128 mm
Max. torque : 1960 Nm
Max. Thrust : 22 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P200-Q	45 - 60 mm		P200-Q
Python CV joint shaft P200 L=255mm		255 mm	P200.255
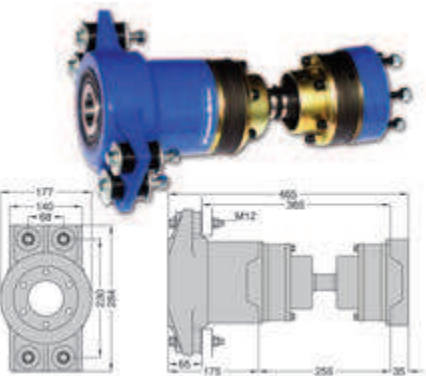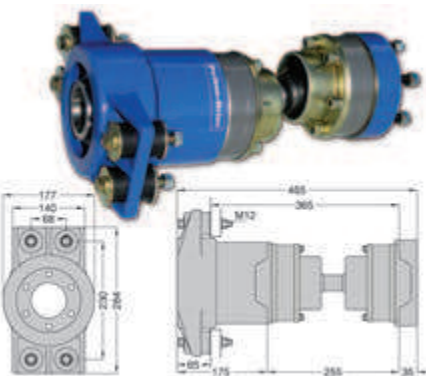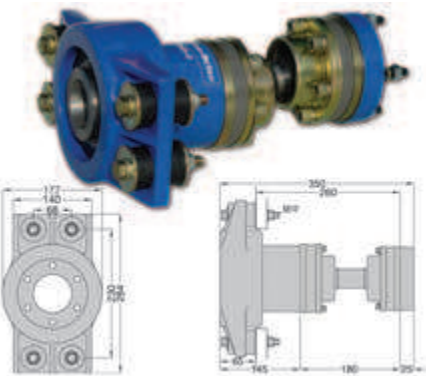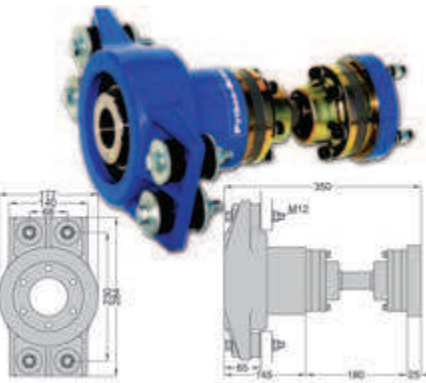
Python-Drive P200-W

The Python-drive P200-W is supplied with a built-in length of 255 mm as a standard.

Diameter head CV joint : 148 mm
PDC : 128 mm
Max. torque : 1960 Nm
Max. Thrust : 30 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P200-W	50 - 60 mm		P200-W
Python CV joint shaft P200 L=255mm		255 mm	P200.255
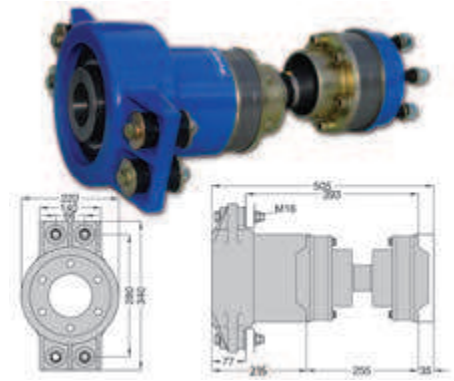
Python-Drive P501-Q

The Python-drive P501-Q is supplied with a built-in length of 221 mm as a standard.

Diameter head CV joint : 191,8 mm
PDC : 165 mm
Max. torque : 4900 Nm
Max. Thrust : 22 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P501-Q	55 - 60 mm		P501-Q
Python CV joint shaft P501 L=221mm		221 mm	P501.221
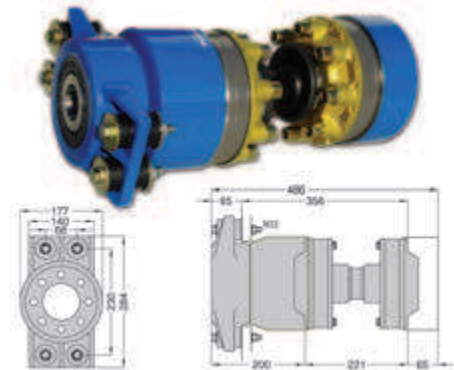
Python-Drive P501-W

The Python-drive P501-W is supplied with a built-in length of 221 mm as a standard.
Without a surcharge we can also offer a built-in length of 260 mm. Please state the desired
built-in length when you order your P501-W.

Diameter head CV joint : 191,8 mm
PDC : 165 mm
Max. torque : 4900 Nm
Max. Thrust : 30 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P501-W	60 - 80 mm		P501-W
Python CV joint shaft P501 L=221mm		221 mm	P501.221
Python CV joint shaft P501 L=260mm		260 mm	P501.260
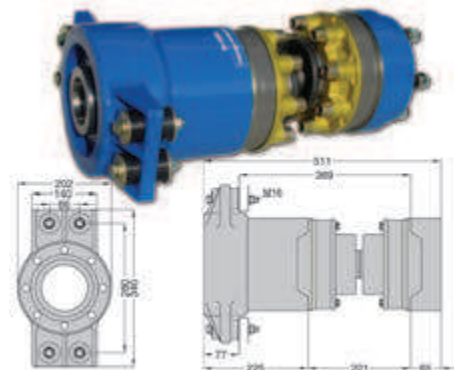
Python-Drive P501-L

The Python-drive P501-L is supplied with a built-in length of 221 mm as a standard. Without
a surcharge we can also offer a built-in length of 260 mm. Please state the desired built-in
length when you order your P501-L.

Diameter head CV joint : 191,8 mm
PDC : 165 mm
Max. torque : 4900 Nm
Max. Thrust : 45 kN

Description	Shaft diameter	Working length	Item no.
Python complete thrust bearing P501-L	60 - 80 mm		P501-L
Python CV joint shaft P501 L=221mm		221 mm	P501.221
Python CV joint shaft P501 L=260mm		260 mm	P501.260
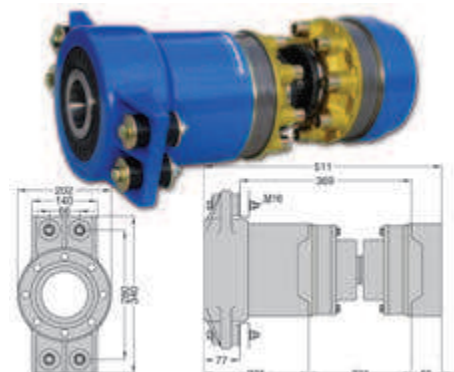
Mountingkits for Python-Drive couplings

The mounting kit is a complete set of nuts, bolts, washers and rubber elements to fix the thrust bearing to the thrust plate.

Description	Suitable for	Item no.
Python Mounting kit	PD-B	PD-B.MON
Python Mounting kit	PD-K	PD-K.MON
Python Mounting kit	PD-M	PD-M.MON
Python Mounting kit	PD-Q	PD-Q.MON
Python Mounting kit	PD-R	PD-R.MON
Python Mounting kit	PD-S	PD-S.MON
Python Mounting kit	PD-T	PD-T.MON
Python Mounting kit	PD-W	PD-W.MON

Why Exalto is your address for Parts:

• Quality
We import and distribute only the best top quality brands such as Jabsco, VDO, Rheinstrom, Recaro et cetera.

• Know how
Exalto stands for quality in every way. Although we are a wholesaler, we don't just pass on boxes. We think quality goes further than offering top quality brands. We strive to give you top quality advice and correct deliveries as well.

We team up with specialised suppliers, who stand out in quality, know how and reliability. On a regular basis, we initiate product trainings, where our sales team is brought up to date by our (international) suppliers. That is how we get to know all the ins and outs of our product range, so you'll know where to turn to with all your questions!

Our premises in Hardinxveld from which all orders are shipped

• Substantial stock and fast delivery
Although it's not very trendy to have a considerable amount of products in stock at the moment, we strongly believe in delivery from stock. Many products are available immediately and we strive to keep back orders to a minimum. Ordered goods can either be send to you, or you can pick them up at one of our warehouses.

• Contemporary logistics
Besides expanding our warehouse, we also invested heavily in automating our logistics. We have had a clever system developed that cooperates with our ERP system. We can immediately inform you whether products are in stock or when they are due.

Our subsidiary in Grou

• Improvement
Our product range is enormous. But if we spot room for improvement, we will jump right in. A good example is our range of water pressure systems. We have all the parts to build them from stock, but we have not yet seen the best price/quality ratio on the market yet. Therefore we started to assemble them ourselves, so we can guarantee you with 100% certainty that we offer you our best solution.

• Service
Even the best products can fail sometimes. Many products will then be tested and repaired by us. If we need to send it to the original supplier to have it fixed, we always send a detailed repair record along. This often results in quicker solutions.

Parts

"Our" brands

As said, we only sell top quality brands that meet our demands. To give you an idea of the brands we use:

CLEEMANN CHAIR-SYSTEMS

TowForceOne TOWINGPOWER

xunzel

AG

HELLA

JABSCO
a xylem brand

Kahlenberg SINCE 1895

POMPES LS

MASTERVOLT
MARINCO

MAX POWER

MERFORD

MGDUFF

prebit

FELL MARINE

RECARO

Rheinstrom

rule

Bostik
smart adhesives

STAZO

VDO

zwaardvis

and many more ...

Towbar FUN-series

The TowForceOne Towbar FUN is a must have for wake, ski and tube. The TowForceOne towbar is available in four versions FUN050, FUN100, FUN250 and FUN350 which cover most outboards up to 350HP.
The use of a towbar reduces the power needed to tow and has additional advantages:

• reduced fuel consumption when towing

• improved course stability

• easier handling and manoeuvrability when towing

The TowForceOne towbar is made out of strong stainless steel. Every TowForceOne towbar comes complete with pre-assembled mountingbrackets, towbar, TowRoller and fasteners.
Note: some outboards may need the compact version. The TowForceOne selector (www.towforceone.com) will be your guideline.

Description	Version	Nett Weight	Item no.
Towbar universal up to 50hp		8,30 kg	FUN050
Towbar compact up to 50hp	Compact	8,20 kg	FUN050C
Towbar universal up to 100hp		9,30 kg	FUN100
Towbar compact up to 100hp	Compact	9,20 kg	FUN100C
Towbar universal up to 250hp		10,20 kg	FUN250
Towbar compact up to 250hp	Compact	10,10 kg	FUN250C
Towbar universal up to 350hp			FUN350

Towbar PRO-series

The TowForceOne Towbar PRO is a must have for towing. The TowForceOne towbar is available in three versions PRO050, PRO100 and PRO250 which cover most outboards up to 250HP.
The use of a towbar reduces the power needed to tow and has additional advantages:

• reduced fuel consumption when towing

• improved course stability

• easier handling and manoeuvrability when towing

The TowForceOne towbar is made out of strong duplex steel. Every TowForceOne towbar comes complete with pre-assembled mountingbrackets, towbar, TowRoller and fasteners.
Note: some outboards may need the compact version. The TowForceOne selector (www.towforceone.com) will be your guideline.

Description	Version	Nett Weight	Item no.
Towbar universal up to 50hp		8,70 kg	PRO050
Towbar compact up to 50hp	Compact	8,60 kg	PRO050C
Towbar universal up to 100hp		9,80 kg	PRO100
Towbar compact up to 100hp	Compact	9,70 kg	PRO100C
Towbar universal up to 250hp		10,80 kg	PRO250
Towbar compact up to 250hp	Compact	10,70 kg	PRO250C

TowForceOne®
TOWINGPOWER

More Towingpower
More FUN

SAFE
FUELSAVING
PROTECTION
COURSE STABILITY
IMPROVED MANOEUVRABILITY

WAKE

Looking for a good time on the water or like to ride the edge and try to improve your performance ?
No matter what you're looking for the TowForceOne FUN towbar is a **musthave** whenever you like to wake, ski or tube.
The **TowForceOne PRO-series** is for toughtowing. Designed for professional use and for even **more towload** than the FUN-series (up to 500kgf).

SKI

A towbar ensures **increased comfort** for everyone in and behind the boat. Better feedback and more constant response leads to less fatigue.
TowForceOne will keep you going.

Towbars like TowForceOne are saving **fuel**. Boaters using towbars experience improved course stabilty and steer ability when towing.

TUBE

A towbar has some additional **benefits** like:
• keeping the towline away from the propeller.
• saving space, while the towline is outside the boat
• protection for your valuable out boardmotor.

Try it yourself and get the TowForceOne experience.

www.TowForceOne.com

Max 1.9, 31295

Ideal for small to medium sized leisure crafts. Jabsco 1.9 drinking water pumps are three-chamber diaphragm pumps. They have a built-in pulsation dampening, which eliminates cycling and removes its noise and vibration. Therefore no separate accumulator tanks are necessary. Jabsco 1.9 drinking water pumps are very compact and easy to install. They are self-priming up to 1.8 meters and can run dry without damage. The engine is thermally protected and provided with a built-in pressure switch. It switches on under 20 psi, and off at 40 psi. Manufactured from corrosion resistant materials, the shaft e.g. is made of stainless steel 316.

Suction connection   : 1/2" inch
Intake connection   : 13 mm
Discharge connection : 1/2" inch
Discharge connection : 13 mm

Suction lift   : 3 m

Model / type	Suitable for	Voltage	Current	Max. capacity	Nett Weight	L x W x H	Item no.
Max 1.9 - 31295		12 V	3,5 A	7 l/min	1,80 kg	230 x 110 x 120 mm	31295-0092
Max 1.9 - 31295		24 V	1,7 A	7 l/min	1,80 kg	230 x 110 x 120 mm	31295-0094
LA12 actuator	single application	12 V	4,6 A		0,75 kg		036001

Max 2.9, 31395

Ideal for small to medium sized leisure crafts. Jabsco 2.9 drinking water pumps are three-chamber diaphragm pumps. They have a built-in pulsation dampening, which eliminates cycling and removes its noise and vibration. Therefore no separate accumulator tanks are necessary. Jabsco 2.9 drinking water pumps are very compact and easy to install. They are self-priming up to 1.8 meters and can run dry without damage. The engine is thermally protected and provided with a built-in pressure switch. It switches on under 20 psi, and off at 40 psi. Manufactured from corrosion resistant materials, the shaft e.g. is made of stainless steel 316.

Suction connection   : 1/2" inch
Intake connection   : 13 mm
Discharge connection : 1/2" inch
Discharge connection : 13 mm

Suction lift   : 3 m

Model / type	Voltage	Current	Max. capacity	Nett Weight	L x W x H	Item no.
Max 2.9 - 31395	12 V	4,4 A	11 l/min	1,80 kg	230 x 110 x 120 mm	31395-0292
Max 2.9 - 31395	24 V	2,2 A	11 l/min	1,80 kg	230 x 110 x 120 mm	31395-0294
Max 2.9 - 31395	12 V	4,4 A	11 l/min	1,80 kg	230 x 110 x 120 mm	31395-0392
Max 2.9 - 31395	24 V	2,2 A	11 l/min	1,80 kg	230 x 110 x 120 mm	31395-0394

Max 3.5, 32600

This renewed Max 3 pump, model 32600, features the same three-chamber diaphragm pump head as the 1.9 and 2.9 pumps. The main difference is the more robust motor and therefore a higher capacity. The drinking water pump is self-priming up to 3 m and has 13 mm (1/2") "click-in" hose connections. Snap-fit ports simplify both installation and removal for routine service. The pump can be fitted at most locations and is easy to install. This pump has a built-in pressure switch, that switches on under 20 psi and off at 40 psi. The pump can run dry without damage.

CE ISO 8846 Marine

Suction connection	: 1/2" inch	Suction lift	: 3 m
Intake connection	: 13 mm		
Discharge connection	: 1/2" inch		
Discharge connection	: 13 mm		

Model / type	Voltage	Current	Max. capacity	Nett Weight	L x W x H	Item no.
Max 3.5 - 32600	12 V	8 A	13,2 l/min	3,00 kg	220 x 105 x 109 mm	32600-0092
Max 3.5 - 32600	24 V	4 A	13,2 l/min	3,00 kg	220 x 105 x 109 mm	32600-0094

Max 4, 31620

Self-priming drinking water pump with 13 mm (1/2") "click-in" hose connections. Snap-fit ports simplify both installation and removal for routine service. The pump can be fitted at most locations and is easy to install. The Max 4 serves four or more outlets at any time. This pump has a built-in pressure switch, that switches on under 20 psi and off at 40 psi..

CE ISO 8846 Marine

Suction connection	: 1/2" inch
Intake connection	: 13 mm
Discharge connection	: 1/2" inch
Discharge connection	: 13 mm

Model / type	Voltage	Current	Max. capacity	Nett Weight	L x W x H	Item no.
Max 4 - 31620	12 V	6 A	16,3 l/min	3,00 kg	250 x 106 x 100 mm	3368
Max 4 - 31620	24 V	3 A	16,3 l/min	3,00 kg	250 x 106 x 100 mm	3369

V-Flo 5.0, 42755

CE ISO 8846 Marine

Suction connection	: 1/2" inch	Suction lift	: 2,5 m
Intake connection	: 13 mm		
Discharge connection	: 1/2" inch		
Discharge connection	: 13 mm		

Type Jabsco V-FLO 5.0 version 40 psi cannot be used in a water pressure system with a calorifier.

Model / type	Voltage	Current	Max. capacity	Nett Weight	L x W x H	Item no.
V-FLO 5.0 42755	12 V	12 A	19 l/min	3,00 kg	252 x 116 x 105 mm	42755-0092
V-FLO 5.0 42755	24 V	7 A	19 l/min	3,00 kg	252 x 116 x 105 mm	42755-0094
V-FLO 5.0 42755	12 V		19 l/min	3,20 kg	252 x 116 x 105 mm	42755-0392
V-FLO 5.0 42755	24 V		19 l/min	3,22 kg	252 x 116 x 105 mm	42755-0394

Parts for drinking water pumps

Description	Suitable for	Nett Weight	Item no.
Valve set	Max 1.9 , Max 2.9	0,04 kg	18911-1030
Pressure switch 25 psi	Max 1.9, Max 2.9	0,05 kg	18916-1025
Pressure switch 40 psi	Max 1.9, Max 2.9	0,06 kg	18916-1040
Slide clips (pair)	Max 1.9 / 2.9	0,01 kg	30647-1000
Valve set	Max 2, Max 3, Max 4, Sensor Max, 31705	0,01 kg	18912-3040
Pressure switch 40 psi	Max 3, Max 4	0,09 kg	37121-0010
Repair kit	Max 3, Max 4	0,20 kg	18920-9043
Repair kit	Magic	0,23 kg	43990-0061
Membrane	Magic / Master / Senior	0,04 kg	30015-0000
Valve set	Magic / Master / Super	0,05 kg	30004-0000
Belt	Magic / Seagulp	0,03 kg	30022-0000
Repair kit	Master	0,20 kg	30122-0000
Belt	Master / Super	0,03 kg	30021-0000
Repair kit	Super	0,20 kg	30121-0000
Membrane	Super / Seagulp	0,04 kg	30016-0000
Pressure switch 60 psi	Jabsco pumps	0,17 kg	44050-1000
Pressure switch 20 psi	Jabsco pumps	0,10 kg	44814-1000

Drinking water strainers

These compact pre filters prevent particles jamming valves and causing pump breakdowns. The filters have a screw off, transparent housing for easy inspection and quick, in place cleaning. The universal model makes it easier than ever to install the pump. The filters can be fitted directly into diaphragm pump inlet port and also benefit from a swivelled angled inlet port on a rotating body. So the inlet hose can approach from any direction!

Model / type	Connections	Connections	Nett Weight	Item no.
46400	1/2" inch	13 mm	0,20 kg	3311
46400	3/4" inch	19 mm	0,20 kg	46400-0000
46400-0012	1/2" inch	13 mm	0,20 kg	46400-0012

Bilge- and deckwash pumps

Mini Puppy, 23620

Self-priming bilge- and deckwash pump and also for general use. This impeller pump may not run dry.

Suction lift	: 1,5 m
Connections	: 25 mm
L x W x H	: 150 x 105 x 92 mm

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	5,0 A	Mini Puppy - 23620	6 l/min	2,20 kg	3383
24 V	2,5 A	Mini Puppy - 23620	6 l/min	2,20 kg	3384

Water Puppy 2000, 23680

Self-priming impeller pump. Good flow rate, for general purpose use. Do not run dry and do not use with a trigger nozzle.

Suction lift	: 1,2 m
Connections	: 13 mm
L x W x H	: 181 x 121 x 89 mm

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	13 A	Water Puppy 2000 - 23680	35 l/min	3,60 kg	333301
24 V	6 A	Water Puppy 2000 - 23680	35 l/min	3,60 kg	333302

Maxi Puppy 3000, 23610

Large self-priming impeller pump. Can be used as bilge pump and as deckwash pump. Do not run dry.

Suction lift	: 2,4 m
Connections	: 25 mm
L x W x H	: 220 x 120 x 90 mm

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	21 A	Maxi Puppy 3000 - 23610	45 l/min	3,80 kg	333303
24 V	11 A	Maxi Puppy 3000 - 23610	45 l/min	3,80 kg	333304

Parts for bilge- and deckwash pumps

NITRILE

Description	Suitable for	Nett Weight	Item no.
Repair kit (including impeller)	Jabsco Mini puppy	0,02 kg	SK374-0003
Repair kit	Jabsco Water Puppy 2000	0,05 kg	SK224
Repair kit (including impeller)	Jabsco Maxi Puppy 3000	0,05 kg	SK224-01

50880

Electric self-priming bilge pump. Ideal for shower tray, sink drain and bilge water applications. Can run dry without damaging the pump. The membrane pump can be installed in any position, due to the 360° rotating head. Quiet running. The pump is made of corrosion resistant materials.

| CE | ISO 8846 Marine | ISO 8849 Marine | USCG 183.410 | ISO 15083 | BSEN 50081 |

Connections	: 19 mm
Suction lift	: 1,8 m
Discharge head	: 6 m
L x W x H	: 297 x 150 x 111 mm

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	7 A	50880	16 l/min	2,70 kg	50880-1000
24 V	5 A	50880	16 l/min	2,70 kg	50880-1100

37202-2

Electric self-priming diaphragm bilge pump. Can run dry without damaging the membrane pump. Pump can be installed in any position. Supplied complete with intake strainer.

| CE | ISO 8846 Marine | ISO 8849 Marine | USCG 183.410 | BSEN 50081 |

Connections	: 19 mm
Suction lift	: 2 m
L x W x H	: 130 x 150 x 190 mm

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	10 A	37202-2	13 l/min	2,50 kg	3381
24 V	5 A	37202-2	13 l/min	2,50 kg	3382

Senior, 36960

Electric self-priming diaphragm bilge pump. Can run dry without damaging the pump. The membrane pump can be installed in any position. Supplied complete with intake strainer.

| CE | ISO 8846 Marine | USCG 183.410 |

Connections	: 19 mm
Suction lift	: 1,5 m
L x W x H	: 130 x 165 x 200 mm

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	6,0 A	Senior - 36960	15 l/min	2,80 kg	3313
24 V	5,5 A	Senior - 36960	15 l/min	2,80 kg	3314

Seagulp, 36600

Electric self-priming diaphragm bilge pump. Can run dry without damaging the pump. The membrane pump can be installed in any position. Supplied complete with intake strainer.

Connections	: 19 mm
Suction lift	: 3 m
L x W x H	: 220 x 150 x 210 mm

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	11 A	Seagulp - 36600	30 l/min	5,00 kg	3323
24 V	5 A	Seagulp - 36600	30 l/min	5,00 kg	3324

Max 4, 31705

Compact self-priming bilge pump. Can run dry without damaging the pump. Supplied complete with intake strainer. Pump can be installed in any position.

Connections	: 19 mm
Suction lift	: 3 m
L x W x H	: 180x105x100 mm

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	10 A	31705 - Max 4	16,3 l/min	2,50 kg	3375
24 V	7 A	31705 - Max 4	16,3 l/min	2,50 kg	3376

LP900S

Rule's LoPro Series Bilge Pumps are only 2.4" (6cm) high. The LP900S model features two automated modes. The first one engages the pump when the water level reaches 2" (5 cm) or 1.3" (3.25 cm) (user choice); and the second one checks for water by briefly turning on the pump every 2.5 minutes. The LP900S model uses a traditional float and/or panel switch for operation. The LP900S features two automated modes of operation

| Connections | : 19, 25, 28 mm |

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	4 A	LP900S	56 l/min	0,00 kg	LP900S

Bilge strainers, 46200

These compact pre filters prevent particles jamming valves and causing pump breakdowns. The filters have a screw off, transparent housing for easy inspection and quick, in place cleaning. The Universal model makes it easier than ever to install your pump by fitting directly into diaphragm pump inlet port as well as benefiting from swivelled angled inlet port on a rotating body so inlet hose can approach from any direction! Pos. 1 is the inline filter, Pos. 2 has a 90° inlet and can be clicked directly onto the pump.

| Connections | : 19 mm |

Pos.	Model / type	Nett Weight	Diameter	Length	Item no.
1	46200	0,20 kg	70 mm	120 mm	3310
2	46200	0,20 kg	70 mm	120 mm	46200-0010

Switch panels for bilge pumps

Illuminated water resistant switch panels for bilge pump with 3-way switch: "Automatic", "Off" and "On". The mode "Automatic" is shown by an indicator light. The Jabsco switch is available in 12V and 24V. The switch panel comes complete with mounting materials.

Pos.	Voltage	Switched current	Model / type	W x H	Nett Weight	Item no.
1	12 V	0 - 20 A	Switchpanel Jabsco	73 x 60 mm	0,09 kg	0237
1	24 V	0 - 10 A	Switchpanel Jabsco	73 x 60 mm	0,09 kg	0238
2	12/24 V	30 A	Switchpanel Rule	100 x 60 mm	0,15 kg	29140-0000

Parts for bilge pumps

Description	Suitable for	Nett Weight	Item no.
Repair kit	Jabsco 37202-2	0,14 kg	50095-1000
Repair kit	Jabsco Senior	0,22 kg	43990-0063
Repair kit	Jabsco Seagulp	0,19 kg	30124-0000
Repair kit	Jabsco 50880	0,12 kg	SK880
Repair kit	Max 3, Max 4	0,20 kg	18920-9043

Deckwash pumps

Z60

Electric pump designed for general use and deckwash and to pump diesel. The pump is not self-priming and has to be fitted below the waterline. The pump is made of bronze with a brass impeller and a stainless steel shaft, and therefore salt water proof.

CE

Max. period	: 120 min.
Connections	: 25 mm
Discharge head	: 6 m

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	40 A	Z60	60 l/min	4,50 kg	3407
24 V	20 A	Z60	60 l/min	4,50 kg	3408

4E

Electric pump designed for general use and deckwash. The pump is self-priming, except when it runs dry. It is recommended to install a non-return valve in the suction hose. The pump is made of bronze with a bronze impeller and stainless steel shaft, and therefore salt and sweet water proof. High quality motor with removable coils.
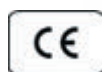
Max. period	: 120 min.
Connections	: 19 mm
Suction lift	: 3 m
Discharge head	: 13 m

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	40 A	4E	50 l/min	7,00 kg	3421
24 V	20 A	4E	50 l/min	7,00 kg	3422

6E

Electric pump designed for general use and deckwash. The pump is self-priming when not running dry and can be installed above the waterline. It is recommended to install a non-return valve in the suction hose. The pump is made of bronze with bronze impeller and stainless steel shaft. On request we can offer this pump in 230V and 400V.

Max. period	: 180 min.
Connections	: 25 mm
Suction lift	: 6 m
Discharge head	: 18 m

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
24 V	42 A	6E	80 l/min	15,00 kg	3403

SW70, 82605

HotShot Wash Down heavy duty pressure controlled diaphragm pump. The new 5 chamber design diaphragm allows dry running for a limited time. The pump is suitable for use with Seawater.
Self-priming up to 3m vertical lift.
The SW70 pumps are available in 12V or 24V.
Supplied with inlet strainer, trigger nozzle & port fittings.

Connections	: 19 mm
Suction lift	: 2,5 m
L x W x H	: 270 x 111 x 111 mm

Voltage	Model / type	Max. capacity	Nett Weight	Item no.
12 V	SW70	22,7 l/min	4,00 kg	82605-0092
24 V	SW70	22,7 l/min	4,00 kg	82605-0094

Max 5, 32700

Electric self-priming deckwash pump. Can run dry for a limited period without damaging the pump. Supplied complete with suction strainer and spray nozzle.

CE · ISO 8846 Marine

Connections : 13 mm
Suction lift : 3 m
L x W x H : 25 x 106 x 100 mm

Voltage	Current	Model / type	Max. capacity	Nett Weight	Item no.
12 V	5,5 A	Max 5 - 32700	16,3 l/min	19,00 kg	32700-0392
24 V	2,7 A	Max 5 - 32700	16,3 l/min	19,00 kg	32700-0394

Parts for deckwash pumps

Description	Suitable for	Nett Weight	Item no.
Repair kit	Rheinstrom Z60	0,03 kg	0260095
Repair kit	Rheinstrom 4E	0,04 kg	3004095
Repair kit	Rheinstrom 6E	0,08 kg	0462095
Spray gun	Jabsco Max 4, 31700	0,96 kg	3343
Valve set	Max 2, Max 3, Max 4, Sensor Max, 31705	0,01 kg	18912-3040

Rule S-series

With high flow rates and low battery drain. Rule DC submersible pumps transfer water quietly and efficiently against low heads. Flow rate falls rapidly as the discharge head rises. Use the recommended hose size: undersized hose won't harm the pump but you will get significantly less flow. A good choice for light, intermittent duties handling cleanish bilge water. Large submersibles can shift water at an impressive rate without making a heavy demand on the battery. Not for continuous bilge pumping, for water with a lot of suspended solid matter, or for permanently submerged duties.

Discharge head   : 2 m

Model / type	Voltage	Current	Max. capacity	Connections	Nett Weight	Height x diam.	H x W	Item no.
24	12 V	2,1 A	1363 l/h.	19 mm	0,37 kg	3 ½ x 2 3/8 inch/mm	89 x 60 mm	333524
500/25D	12 V	1,9 A	1896 l/h.	19 mm	0,37 kg	89 x 60 inch/mm		333525
500/26D	24 V	0,9 A	1896 l/h.	19 mm	0,37 kg	89 x 60 inch/mm		333526
800/20R	12 V	2,8 A	3030 l/h.	19 mm	0,41 kg	95 x 60 inch/mm		333520
800/21R	24 V	1,3 A	3030 l/h.	19 mm	0,41 kg	95 x 60 inch/mm		333521
1100/27D	12 V	3,3 A	4164 l/h.	29 mm	0,45 kg	108 x 60 inch/mm		333527
1100/28D	24 V	1,3 A	4164 l/h.	29 mm	0,41 kg	108 x 60 inch/mm		333528
2000/10	12 V	8,4 A	7572 l/h.	29 mm	1,56 kg	152 x 108 inch/mm		333510
2000/12	24 V	4,0 A	7572 l/h.	29 mm	1,56 kg	152 x 108 inch/mm		333512
3700/14A	12 V	15,5 A	14010 l/h.	38 mm	2,90 kg	184 x 124 inch/mm		333514
3700/16A	24 V	6,9 A	14010 l/h.	38 mm	2,90 kg	184 x 124 inch/mm		333516

Rule-Mate

The renewed Rule-Mate submersible pumps incorporate an eco-friendly water detection system. This means that the sensors only detect water and in the presence of oil, the pump will not turn on. This mechanism eliminates the need of a float switch. The automatic sensor switches the pump on when the water reaches 60 mm and off when the water is pumped out. The Rule-Mate submersible pumps feature a thermal cut-off and an anti-fouling impeller. The pumps have a robust, corrosion resistant housing. They come complete with a snap-off strainer for easy cleaning.

Discharge head   : 2 m

Model / type	Voltage	Current	Max. capacity	Connections	Nett Weight	H x W	Item no.
RM500	12 V	3,3 A	1896 l/h.	19 mm	0,50 kg	101,6 x 127 mm	RM500A
RM500-24	24 V	1,4 A	1896 l/h.	19 mm	0,50 kg	101,6 x 127 mm	RM500A-24
RM750	12 V	1,9 A	2892 l/h.	19 mm	0,60 kg	101,6 x 127 mm	RM750A
RM750-24	24 V	1,0 A	2892 l/h.	19 mm	0,60 kg	101,6 x 127 mm	RM750A-24
RM1100	12 V	2,8 A	4164 l/h.	29 mm	0,60 kg	101,6 x 127 mm	RM1100A
RM1100-24	24 V	1,4 A	4164 l/h.	29 mm	0,60 kg	101,6 x 127 mm	RM1100A-24

35A & 40A

Automatic float switch, suitable for submersible bilge pumps and alarm systems. This new model has connection cables on top of the switch. Therefore they will not be in the water, so corrosion will be limited. It is an environmentally responsible switch, due to the completely sealed metal capsules. The switch is also mercury free. The switch turns on when a water level of 64 mm is reached and off at 32 mm.

CE

Pos.	Model - Type	Switched current	Voltage	L x W x H	Item no.
1	35A en 40A	14 / 7 A	12/24 V	114 x 38 x 51 mm	333535A
2	35A en 40A	20 / 10 A	12/24 V	162 x 59 x 86 mm	333540A

39

Automatic bilge switch which comes complete with hose. The switch will operate both bilge pumps and alarms once water level reaches 50 mm. All electrical components are clear of the water.

CE

Model - Type	Switched current	Voltage	L x W x H	Item no.
39	20 A	12 V	60 x 30 x 100 mm	333539.12
39	10 A	24 V	60 x 30 x 100 mm	333539.24

Utility pumps

53040

Self-priming portable pump with neoprene or nitrile impeller for water handling and 230V AC electric motor. The neoprene impeller is used with engine cooling and pumping water. The nitrile impeller is used for pumping oil based liquids. The pump handles soft and hard solids without clogging. Built-in dry running protection for 30 minutes after initial prime. The 53040 is the "light" version of the 53080.

CE

Max. period   : 40 min.
Connections   : 25 mm
L x W x H   : 290 x 210 x 230 mm

Model / type	Suitable for	Max. capacity	Nett Weight	Item no.
53040	oil containing fluids	33 l/min	9,50 kg	53040-2003
53040	water / cooling liquid	33 l/min	9,50 kg	53040-2021

53080

Self-priming portable pump with neoprene or nitrile impeller for water handling and 230V AC electric motor. The neoprene impeller is used with engine cooling and pumping water. The nitrile impeller is used for pumping oil based liquids. The pump handles soft and hard solids without clogging. Built-in dry running protection for 30 minutes after initial prime.
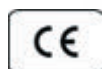
Max. period	: 40 min.
Connections	: 38 mm
L x W x H	: 330 x 240 x 240 mm

Model / type	Suitable for	Max. capacity	Nett Weight	Item no.
53080	water / cooling liquid	66 l/min	15,00 kg	53080-2001
53080	oil containing fluids	66 l/min	15,00 kg	53080-2003

Parts for utility pumps

NITRILE

Description	Suitable for	Nett Weight	Item no.
Service kit nitrile	53040	0,00 kg	SK409-0003
Service kit neoprene	53040	0,00 kg	SK409-0021
Service kit neoprene	53080	0,00 kg	SK411-0001
Service kit nitrile	53080	0,00 kg	SK411-0003

Engine driven impeller pumps

Can be used as deckwash pump, bilge pump, engine cooling water pump and for many other purposes. The pump is self-priming. Stainless steel shaft runs in self-lubricating bronze bearings. The housing is made of bronze. The pump should not run dry.

BRONZE **NEOPRENE**

Discharge head   : 3 m

Model / type	Suitable for	Connections	Max. capacity	Item no.
51520-2001	Johnson F4B-8	3/8" inch	27 l/min	3374
motor driven impellerpump - 52040	Johnson F5B-8	3/4" inch	53 l/min	3371
motor driven impellerpump - 50320	Johnson F7B-8	1" inch	107 l/min	3372
motor driven impellerpump - 29470	Johnson F4B-9	3/8" inch	27 l/min	3379
Peugeot Indenor - 21770		1" inch	36 l/min	21770-XXXX
29480-2431	Bukh: DV10 ME/SME, DV20 ME/SME, DV24 ME/SME, Ruggerini: MM351, Lister Petter: LPW3			29480-2431

Belt driven cooling water pumps with mechanical clutch

This impeller pump can be used as deckwash pump, bilge pump, engine cooling water pump and for many other purposes. Can be switched on and off by means of built-in mechanical clutch. The pump is self-priming. Stainless steel shaft runs in self-lubricating bronze bearings. The housing is made of bronze. The pump should not run dry.

BRONZE **NEOPRENE**

Discharge head   : 4,5 m

Model / type	Connections	Max. capacity	Item no.
V-belt impellerpump (mechanical) - 51080-2001	1" inch	95 l/min	3321
V-belt impellerpomp (mechanical) - 51200-2011	1 1/2" inch	225 l/min	3321.5
V-belt impellerpomp (mechanical) - 51270-2011	2" inch	315 l/min	3321.2

Belt driven cooling water pumps with electro-magnetic clutch

This flexible impeller pump can be used as deckwash pump, bilge pump, engine cooling water pump and for many other purposes. Can be switched on and off by means of built-in electrical clutch. This pump is self-priming. Stainless steel shaft runs in self-lubricating bronze bearings. The housing is made of bronze.

BRONZE | **NEOPRENE**

Discharge head : 4,5 m

Model / type	Voltage	Connections	Max. capacity	Item no.
V-belt impellerpump (electro-magnetic) - 50080-2001	12 V	1" inch	95 l/min	3388
V-belt impellerpump (electro-magnetic) - 50080-2101	24 V	1" inch	95 l/min	3389

Parts for cooling water pumps

NEOPRENE
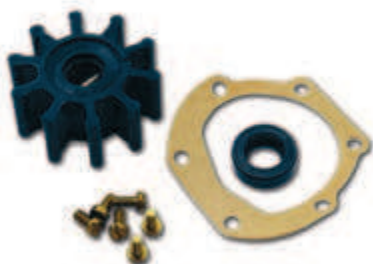
Description	Suitable for	Item no.
Repair kit	29470	SK405-0001
Repair kit	50280	SK271
Repair kit	50320	SK406-0001
Repair kit	52010	SK404-0101
Repair kit	51520	SK405-0101
Repair kit	52040	SK384-0101

Impellers & Accessories

Jabsco Endcovers & gaskets

Model / type	Diameter impeller	Nr. of mounting holes	Item no.
Gasket end cover	62 mm	6	1126-0000
End cover	76 mm	6	11830-0000
End cover	85 mm	6	11831-0000
End cover	62 mm	6	11835-0000
Gasket end cover	76 mm	6	3298-0000
Gasket end cover	85 mm	6	890-0000

Jabsco Neoprene impellers

NEOPRENE

Material	Model / type	Suitable for	Drivetype	Nr. of blades	Diam. x depth x shaftdiameter	Item no.
Neoprene	040 SP NEO SPL - drive 7	52040 / 50280	7	12	57 x 31,5 x 16 mm	1210-0001-P
Neoprene	005 HP NE 1FL - drive 4		4	6	32 x 12 x 8 mm	14609-0001B
Neoprene	120 SP NE SPL - drive 7		7	8	65 x 76,2 x 16 mm	17018-0001-P
Neoprene	200 SP NE SPL - drive 7		7	12	95 x 63 x 25,4 mm	17935-0001-P
Neoprene	270 MP NE SPL - drive 7		7	12	95 x 88,9 x 25,4 mm	17936-0001-P
Neoprene	080 SP NE SPL - drive 7		7	10	65 x 51 x 16 mm	17937-0001-P
Neoprene	020 SP NEO PIN - drive 1		1	10	51 x 22 x 12 mm	18653-0001-P
Neoprene	005 SP NE 1FL - drive 4		4	6	32 x 12 x 8 mm	21414-0001-P
Neoprene	020 SP NE DNG - drive 3		3	6	51 x 22 x 12,7 mm	22799-0001-P
Neoprene	010 NE PIN - drive 1 or 2		1, 2	6	40 x 19 x 9,5 mm	4528-0001-P
Neoprene	040 SP NE KEY - drive 3		3	12	57 x 31,5 x 16 mm	4568-0001-P
Neoprene	080 SP NE KEY - drive 3		3	8	65 x 51 x 16 mm	4598-0001-P
Neoprene	020 TP NE IFL drive 4	18590	4	6	51 x 22 x 8 mm	6303-0001-P
Neoprene	020 SP NE PIN	52020 / 29470	1	6	51x 22 x 12 mm	653-0001B
Neoprene	020 SP NE PIN - drive 1		1	6	51 x 22 x 12 mm	653-0001-P
Neoprene	020 SP NE PIN - drive 1 of 2		1, 2	6	51 x 22 x 12,7 mm	673-0001-P
Neoprene	200 SP NE SPL - drive 7		7	9	95 x 63 x 25,4 mm	836-0001-P
Neoprene	080 NE SPL - drive 7		7	8	65 x 51 x 16 mm	920-0001-P

Depth
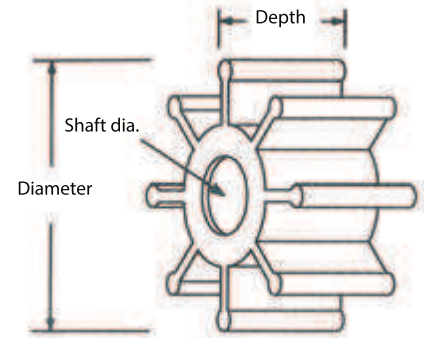
Shaft dia.

Diameter

Jabsco Nitrile impellers

NITRILE
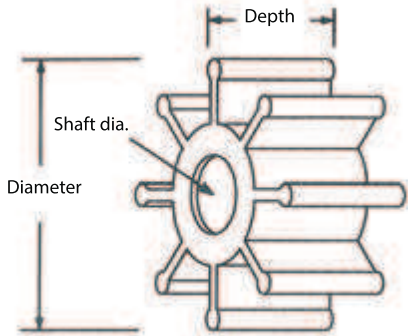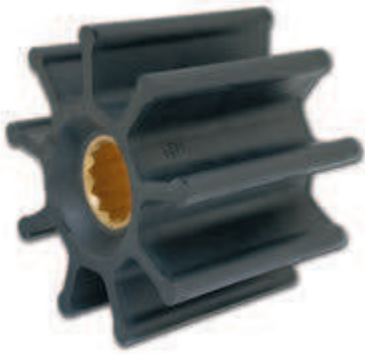
Material	Model / type	Drivetype	Nr. of blades	Diam. x depth x shaftdiameter	Item no.
Nitrile	005 SP NIO 1FL - drive 4	4	8	32 x 12 x 8 mm	1414-0003-P
Nitrile	040 SP NIO 2FL - drive 5	5	12	57 x 31,5 x 16 mm	14281-0003B
Nitrile	Impeller kit Nitrile - drive 4	4	8	32 x 12 x 12 mm	14750-0003-P
Nitrile	080 SP N 10 SPL - drive 7	7	10	65 x 51 x 16 mm	17937-0003-P
Nitrile	6056-0003-P - drive 6	6	8	65 x 51 x 16 mm	6056-0003-P
Nitrile	020 TP NI 1FL - drive 4	4	6	51 x 22 x 8 mm	6303-0003-P
Nitrile	200 SP NIO SPL - drive 7	7	9	95 x 63 x 25,4 mm	836-0003B

Jabsco Impeller removal tool

This impeller removal tool is the easiest way to remove flexible impellers, especially when the pump is mounted in tight and cramped conditions. By using the removal tool, there is no risk of expensive damage to the pump. The flexible impeller removal tools are manufactured from corrosion resistant cast aluminum and stainless steel.

Pos.	Model / type	Suitable for	W x D x H	Item no.
2	50070	0 - 57mm impellers	150 x 20 x 200 mm	50070-0080
1	50070	0 - 65mm impellers	150 x 20 x 200 mm	50070-0040
2	50070	65 - 118mm impellers	150 x 20 x 200 mm	50070-0200

Sigma Wing pumps

Self-lubricating, manual pump. Manufactured of brass in a housing of cast iron. Suitable for pumping oil and water.

CAST IRON

Model / type	Max. capacity	Discharge head	Connections	Connections	Nett Weight	Item no.
K00	7,5 l/min	25 m	3/8" inch	19 mm	3,00 kg	570001
K0	11,5 l/min	25 m	1/2" inch	13 mm	4,00 kg	570002
K1	17,25 l/min	25 m	3/4" inch	19 mm	6,00 kg	570003
K2	22,5 l/min	25 m	1" inch	25 mm	8,00 kg	570004
K3	29,0 l/min	22 m	1 1/2" inch	32 mm	10,00 kg	570005
K4	43,25 l/min	22 m	1 1/2" inch	32 mm	12,00 kg	570006
K5	53,5 l/min	20 m	1 1/2" inch	38 mm	15,00 kg	570007
K7	90,0 l/min	15 m	2" inch	50 mm	28,00 kg	570008

Manual diaphragm pumps

M50

Can be used as a bilge pump or as a grey water pump. Easy to operate by means of the large pump handle. Because of the large valves, obstructions will not easily occur, but if so you don't need any tools to lift the lid. The pump can be mounted horizontal or vertical. Please note that the diameter of the hoses may never be reduced, otherwise the pump will not have the full capacity. The self-priming pump is made of aluminum and covered with a strong nylon coating.

Connections   : 38 mm
Suction lift   : 7 m
Discharge head   : 10 m

Material	Connections	Max. capacity	Nett Weight	Model / type	Item no.
Aluminum	38 mm	100 l/min	2,10 kg	M50	3501

Amazon bulkhead, 29240

With detachable handle. The pump has repositionable ports and body. Easy to assemble due to 96 assembly variations. The pump is made of corrosion resistant materials throughout. Comes complete with stainless steel handle and mounting clips. Very suitable for emptying bilge or waste water tanks. The pump is made entirely of corrosion resistance materials.

Connections   : 25 mm
Suction lift   : 4 m

Material	Connections	Max. capacity	Nett Weight	L x W x H	Model / type	Item no.
PVC	25 mm	45 l/min	0,80 kg	180 x 200 x 120 mm	Amazon bulkhead 1" - 29240	333201

Amazon thrudeck, 29250

Easy to install due to no less than 16 port variations relative to the body. Loosening just one screw lets you clear blockages or position the body anywhere through 360° relative to the handle position. Through Deck Kit and cover offer four mounting positions relative to the pump. The pump is made of corrosion resistant materials throughout. Comes complete with stainless steel handle, Through Deck Kit and mounting clips. The pump is made entirely of corrosion resistance materials.

Connections   : 25 mm
Suction lift   : 5 m

Material	Connections	Max. capacity	Nett Weight	L x W x H	Model / type	Item no.
PVC	25 mm	50 l/min	1,20 kg	250 x 110 x 120 mm	Amazon thrudeck 1" - 29250	333202

Amazon universal, 29270

Suitable for mounting on bulkhead, through bulkhead, on deck or through deck. Push-fit inlet and outlet elbows swivel through 360° to increase flexibility of installation. Made of corrosion resistant materials. A quick release gives fast access for blockage clearance. Very suitable for emptying bilge or waste water tanks. Comes complete with stainless steel handle and mounting clips.

Connections   : 38 mm
Suction lift   : 3 m

Material	Connections	Max. capacity	Nett Weight	L x W x H	Model / type	Item no.
PVC	38 mm	100 l/min	1,20 kg	240 x 240 x 150 mm	Amazon universal 1 1/2" - 29270	333203

Amazon warrior, 29280

With detachable handle. Particularly suited to workboats and larger leisure crafts, or any installation where particularly heavy duty use is anticipated. Made of corrosion resistant materials. Very suitable for emptying bilge or waste water tanks.

Connections   : 38 mm
Suction lift   : 5,5 m

Material	Connections	Max. capacity	Nett Weight	L x W x H	Model / type	Item no.
PVC	38 mm	135 l/min	5,00 kg	355 x 240 x 200 mm	Amazon warrior 1 1/2" - 29280	333204

Parts for manual diaphragm pumps

Original parts for repair and/or maintenance of diaphragm pumps.

Description	Suitable for	Nett Weight	Item no.
Repair kit	Jabsco Amazon bulkhead 29240	0,18 kg	29246-1000
Repair kit	Jabsco Amazon thrudeck 29250	0,17 kg	29256-1000
Repair kit	Jabsco Amazon universal 29270	0,20 kg	29276-1000
Repair kit	Jabsco Amazon warrior 29280	0,42 kg	29286-1000
Deck fitting	Jabsco Amazon universal / warrior	0,16 kg	333207
Knee 1 1/2"	Jabsco Amazon universal	0,06 kg	333208
Thrudeck	Jabsco Amazon warrior	0,55 kg	333210
Repair kit	Rheinstrom M / M50FA	0,23 kg	0015095
Repair kit	Rheinstrom M50 / M50E	0,28 kg	0350095N
Repair kit	Rheinstrom MF10	0,06 kg	0210095

Electric diaphragm pumps

50890

This diaphragm waste evacuation pump is designed to empty holding tanks. Can run dry without damaging the pump. Pump can be installed in any position, due to the 360° rotating head. Quiet running. The pump is made of corrosion resistant materials.

Connections   : 38 mm
Suction lift   : 3 m
Discharge head   : 3 m
L x W x H   : 277 x 155 x 111 mm

Material	Voltage	Current	Max. capacity	Nett Weight	Model / type	Item no.
PVC	12 V	15 A	19 l/min	3,00 kg	50890	50890-1000
PVC	24 V	7 A	19 l/min	3,00 kg	50890	50890-1100

M50E

Can be used as a bilge pump to pump grey water or as a ballast pump. Can run dry without damaging the pump. A powerful motor is fitted for long running periods. Because of the large valves, obstructions will not easily occur. The self-priming pump is made of aluminum and covered with a strong nylon coating or made of brass. The pump housing with the two hose connectors can be rotated 360° . Easy to inspect by the removable front cover.

Connections   : 38 mm
Suction lift   : 3,5 m
Discharge head   : 10 m
Max. period   : 180 min.

Material	Voltage	Current	Max. capacity	Nett Weight	Model / type	Item no.
Aluminum	12 V	10 A	40 l/min	6,00 kg	M50E	3502
Aluminum	24 V	5 A	40 l/min	6,00 kg	M50E	3503
Bronze	12 V	10 A	40 l/min	10,00 kg	M50E	0351000
Bronze	24 V	5 A	40 l/min	10,00 kg	M50E	0352000

M

Can be used as a bilge pump or to empty holding tanks. Can be installed in any position because of built-in non-return valves. The two hose connectors can be rotated 270°. This self-priming pump is available in aluminum covered with a strong nylon coating or in bronze. The noiseless pump is driven by a powerful 12V abd 24V electricmotor.

CE 98/37/EG a4 p2

Connections : 38 mm
Suction lift : 5 m
Discharge head : 8 m
Max. period : 180 min.

Material	Voltage	Current	Max. capacity	Nett Weight	Model / type	Item no.
Aluminum	12 V	10 A	35 l/min	7,00 kg	M	3504
Aluminum	24 V	5 A	35 l/min	7,00 kg	M	3505
Bronze	12 V	10 A	35 l/min	11,00 kg	M	3516
Bronze	24 V	5 A	35 l/min	11,00 kg	M	3517

Parts for electric diaphragm pumps

Original parts for repair and/or maintenance of diaphragm pumps.

Description	Suitable for	Nett Weight	Item no.
Repair kit	Jabsco 50890	0,15 kg	SK890
Repair kit	Rheinstrom M50 / M50E	0,28 kg	0350095N
Repair kit	Rheinstrom M / M50FA	0,23 kg	0015095

Macerator pumps

F

Designed to empty holding tanks. As the pump is not self-priming, it is important to be fitted either at the lowest part of the tank or lower than the tank itself. Made of bronze with brass impellers and a stainless steel shaft. Easy and quick to take apart for maintenance or service.

CE

Max. period : 120 min.
Discharge head : 5 m
Suction connection : 2" inch
Intake connection : 50 mm

Discharge connnection : 1" inch
Discharge connection : 25 mm
L x W x H : 270 x 125 x 140 min.

Voltage	Current	Max. capacity	Nett Weight	Model / type	Item no.
12 V	40 A	70 l/min	6,00 kg	F	3409
24 V	20 A	70 l/min	6,00 kg	F	3410

FS370

Designed to empty large holding tanks. Holding tank capacity should be about 1 m3. As the pump is not self-priming, it is important to fit the pump either at the lowest part of the tank or lower than the tank itself. Made of bronze and stainless steel. Easy to take apart.

Discharge head	: 6 m	Discharge connection	: 25 mm
Suction connection	: 2" inch	L x W x H	: 390 x 180 x 140 min.
Intake connection	: 50 mm		
Discharge connnection	: 1" inch		

Voltage	Current	Max. capacity	Nett Weight	Model / type	Item no.
12 V	40,0 A	60 l/min	9,00 kg	FS370	341370
24 V	28,0 A	60 l/min	9,00 kg	FS370	341371
230 V	2,5 A	50 l/min	8,00 kg	FS370	341372
400 V	1,0 A	50 l/min	8,00 kg	FS370	341373

T

Designed to empty holding tanks. The motor is fitted on top of the tank. Suction pipe available in any length of 200 to 600 mm. Please state us the length (depth of your tank) when ordering. The pump is made of bronze and stainless steel and is not self-priming.

Max. period	: 120 min.	Diameter	: 195 m
Discharge head	: 5 m		
Discharge connnection	: 1" inch		
Discharge connection	: 25 mm		

Voltage	Current	Max. capacity	Nett Weight	Model / type	Item no.
24 V	20 A	70 l/min	9,00 kg	T	341307

18590

This self-priming macerator pump has a triple sealed motor to prevent both internal and external corrosion. A four-blade cutter reduces the chance of clogging. The pump detects the abscence of fluid and then shuts-off before impeller is damaged. A sensor provides adequate run-dry period to allow initial priming of the pump.

Max. period	: 15 min.	Discharge connnection	: 1" inch
Suction lift	: 0,6 m	Discharge connection	: 25 mm
Discharge head	: 6 m	L x W x H	: 290 x 120 x 90 min.
Suction connection	: 1 1/2" inch		
Intake connection	: 38 mm		

Voltage	Current	Max. capacity	Nett Weight	Model / type	Item no.
12 V	16 A	45 l/min	2,30 kg	18590	18590-2092
24 V	8 A	45 l/min	2,30 kg	18590	18590-2094

Parts for macerator pumps

Description	Suitable for	Nett Weight	Item no.
Repair kit	18590	0,30 kg	18598-1000
Repair kit	F / FS370 / T	0,30 kg	0301095

Diesel transfer pumps

EP40

Self-priming fuel transfer pump, suitable to deliver oil and diesel fuel or to exchange motor oil. The body and gear wheels are made of bronze and the shaft is made of stainless steel. The shaft sealing is mechanical which has the advantage of being fully free of maintenance. Please note that both hoses (suction and discharge) should never be narrowed in any way.

CE

Max. period	: 120 min.	Suction connection	: 3/8" inch
Suction lift	: 3 m	Discharge connnection	: 3/8" min.
Discharge head	: 15 m		
L x W x H	: 180 x 100 x 120 mm		

Voltage	Max. capacity	Nett Weight	Model / type	Item no.
12 V	20 l/min	3,10 kg	EP40	3427
24 V	20 l/min	3,10 kg	EP40	3428

23870

Self-priming fuel transfer pump. Can be used to pump diesel from lower tanks to higher tanks. Cannot run dry.

CE   ISO 8846 Marine   IP 55

Max. period	: 25 min.	Intake connection	: 19 mm
Suction lift	: 2,8 m	Discharge connnection	: 3/4" min.
Discharge head	: 6 m	Discharge connection	: 19 mm
L x W x H	: 190 x 110 x 140 mm		
Suction connection	: 3/4" inch		

Voltage	Max. capacity	Nett Weight	Model / type	Item no.
12 V	35 l/min	2,80 kg	23870	333012
24 V	35 l/min	2,80 kg	23870	333014

VR 050

Heavy duty self-priming fuel transfer pump. Can be used to pump diesel from lower tanks to higher tanks. Cannot run dry. The 12 V VR 050 diesel transfer pump comes complete with switch.

CE | **ISO 8846 Marine** | **IP 55**

Suction lift	: 3 m	Intake connection	: 25 mm
Discharge head	: 3 m	Discharge connnection	: 1" min.
L x W x H	: 230 x 130 x 150 mm	Discharge connection	: 25 mm
Suction connection	: 1" inch		

Voltage	Max. capacity	Nett Weight	Model / type	Item no.
12 V	50 l/min	5,00 kg	VR050	333022
24 V	50 l/min	5,00 kg	VR050	333024

VR 100

Heavy duty self-priming fuel transfer pump. Can be used to pump diesel from lower tanks to higher tanks. Cannot run dry. This is the largest available diesel transfer pump from Jabsco.

Max. period	: 40 min.	Intake connection	: 32 mm
Suction lift	: 5 m	Discharge connnection	: 1 1/4" min.
Discharge head	: 5 m	Discharge connection	: 32 mm
L x W x H	: 270 x 145 x 180 mm		
Suction connection	: 1 1/4" inch		

Voltage	Max. capacity	Nett Weight	Model / type	Item no.
24 V	105 l/min	9,00 kg	VR100	333034

Parts for diesel transfer pumps

Description	Suitable for	Nett Weight	Item no.
Repair kit	Rheinstrom EP40	0,00 kg	1300495
Repair kit	Jabsco 23870	0,04 kg	SK399-0101
Repair kit	Jabsco VR 050	0,04 kg	SK421-0000
Repair kit	Jabsco VR 100	0,10 kg	SK422-0001

Circulation pumps

59510

Magnetic driven circulation pump with sealed pump chamber and brushless motor. For use with hot water systems, heating systems and all other applications where circulation is required, with a maximum water temperature of 100°C. Suitable for handling aggressive liquids as well! Ignition protected according to ISO8846 Marine.

CE | **ISO 8846 Marine** | **EMC**

Connections	: 19 mm

Voltage	Current	Max. capacity	Nett Weight	Item no.
12 V	1,2 A	12,5 (bij 0,12 bar) l/min	0,30 kg	59510-0012

34060

Compact manual pump for engine and gearbox oil drain. Oil and corrosion resistant brass and neoprene construction.

Pump's housing material : brass.

Length x diam.	Suction connection	Item no.
260 x 30 mm	1/2" inch	3320

3400

This Carter oil drain pump is completely made of bronze and is designed to remove oil from motor and clutch easily. An aluminum bracket and an oil hose is an option.

Length x diam.	Suction connection	Item no.
235 x 32 mm	1/4" inch	3400.001

Parts for oil drain pumps

Description	Suitable for	Item no.
Rubber piston	3400.001	3400.002
Bracket	3400.001	3400.003
Hose 1,0 m incl. nipples	3400.001	3400.004

Shower drain units

Hollex Shower drain units

Automatic drain unit. Suitable for the discharge of waste water for one or more showers. It automatically turns on after the water starts, and shuts off when the water is removed. Stainless steel strainer, level switch and pump and specially designed stainless steel housing.

CE

Discharge head	: 1 m	Outlet connection	: 20 mm
Connection	: 1 1/2" inch	L x W x H	: 290 x 210 x 130 mm
Inlet connection	: 38 mm		
Outlet connection	: 3/4" inch		

Voltage	Current	Max. capacity	Nett Weight	Item no.
12 V	2,0 A	30 l/min	0,00 kg	333006
24 V	1,8 A	30 l/min	0,00 kg	333007

Rheinstrom Shower drain units

Automatic drain unit with a Rheinstrom type F macerator pump as discharge pump. Suitable for the discharge of waste water from shower, kitchen and sink. Due to the integrated level switch satisfactory operation can be guaranteed even at an angle of maximum 45°. Accepts water from up to three separate shower units. Equipped with a non-return valve and with a black polythene or a stainless steel housing.

Max. period	: 30 min.	Outlet connection	: 1" inch
Discharge head	: 6 m	Outlet connection	: 25 mm
Connection	: 1 1/2" inch	L x W x H	: 550 x 310 x 250 mm
Inlet connection	: 38 mm		

Model / type	Material	Voltage	Current	Max. capacity	Nett Weight	Item no.
Shower drain set	PVC	24 V	20 A	70 l/min	8,00 kg	4030001
Shower drain set	Stainless steel	24 V	20 A	70 l/min	10,00 kg	4030005
Shower drain set		230 V	0,62 A	50 l/min	10,00 kg	4030230
Shower drain set	PVC	230 V	0,62 A	50 l/min	8,00 kg	4030231

Rule Shower drain units

Model 98 is a compact and full capacity shower drain system. It automatically turns on after the water starts, and shuts off when the water is removed. The system is activated by a Rule-A-Matic float switch. With multiple inlet ports. Other features include a clear screw down cover, a removable strainer for easy cleaning and an internal check to prevent back flow.

Discharge head	: 1 m	Outlet connection	: 19 mm
Connection	: 3/4" inch	L x W x H	: 210 x 286 x 140 mm
Inlet connection	: 19 (2x) - 25 - 29 - 38 mm		
Outlet connection	: 3/4" inch		

Model / type	Material	Voltage	Max. capacity	Nett Weight	Item no.
Shower drain set 98	PVC	12 V	50 l/min	1,50 kg	333598.12
Shower drain set 98	PVC	24 V	50 l/min	1,50 kg	333598.24

Parts for shower drain units

Automatic float switch, suitable for submersible bilge pumps and alarm systems. This new model has connection cables on top of the switch. Therefore they will not be in the water, so corrosion will be limited. It is an environmentally responsible switch, due to the completely sealed metal capsules. The switch is also mercury free. The switch turns on when a water level of 64 mm is reached and off at 32 mm.

CE

L x W x H   : 114 x 38 x 51 mm

Description	Voltage	Current	Suitable for	Max. capacity	Nett Weight	Item no.
Jabsco float switch Rule-A-Matic 35A	12/24 V		Rule drain units		0,16 kg	333535A
Rule submersible pump	12 V	2,8 A	Rule drain units	50 l/min	0,41 kg	333520
Rule submersible pump	24 V	1,3 A	Rule drain units	50 l/min	0,41 kg	333521
Repair kit master			Rheinstrom drain unit		0,29 kg	4030096
Float switch Rheinstrom			Rheinstrom drain unit		0,22 kg	4030021

Jabsco drinking water strainers 46400

These compact pre filters prevent particles jamming valves and causing pump breakdowns. The filters have a screw off, transparent housing for easy inspection and quick, in place cleaning. The universal model makes it easier than ever to install the pump. The filters can be fitted directly into diaphragm pump inlet port and also benefit from a swivelled angled inlet port on a rotating body. So the inlet hose can approach from any direction!

Model / type	Description	Connections	Item no.
46400	Jabsco drinking water strainer 13 mm inline	13 mm	3311
46400	Jabsco drink water filter inline	19 mm	46400-0000
46400-0012	Jabsco drinking water filter, bottom- and side connection Snap-In	13 mm	46400-0012

Jabsco Aqua Filta

Aqua FiltaTM is an activated carbon water filter that removes chlorine, unpleasent smells, tastes and colors from marine water systems and uses specially silver-impregnated carbon to inhibit bacterial growth in the filter bed. Aqua FiltaTM absorbs dissolved impurities but retains beneficial mineral salts, thus freshening and cleansing water to make it natural tasting, sweet smelling and crystal clear.

Description	Connections	Item no.
Aqua Filta drinkwater filter	13 mm	3322
Replacement cartridge		3322.1

Uvidis drinking water filters

There are two types of drinking water strainers: a sediment and a carbon strainer. The sediment strainer extracts organic pollution and small parts like rust, sand etcetera from the water. The carbon strainer contains active carbon. This reduces the level of chemical substances and improves the taste and scent of the water. Once the filter is placed and has made contact with water it has to be replaced every 3 months, regardless the usage.

Description	Model / type	Length	Item no.
Strainerholder 10"	UDS 207300	10 inch	334050
Sedimentstrainer 10"	UDS 222000	10 inch	334051
Carbon strainer 10"	UDS 242000	10 inch	334052

46200

These compact pre filters prevent particles jamming valves and causing pump breakdowns. The filters have a screw off, transparent housing for easy inspection and quick, in place cleaning. The Universal model makes it easier than ever to install your pump by fitting directly into diaphragm pump inlet port as well as benefiting from swivelled angled inlet port on a rotating body so inlet hose can approach from any direction! Pos. 1 is the inline filter, Pos. 2 has a 90° inlet and can be clicked directly onto the pump.

Pos.	Model / type	Description	Connections	Diameter	Length	Item no.
1	46200	Jabsco bilge water strainer inline	19 mm	70 mm	120 mm	3310
2	46200	Jabsco Bilger water filter right-angled Snap-In	19 mm	70 mm	120 mm	46200-0010

Fuel strainers / Water seperators

Magnet filters

This de-bug strainer uses a magnetic field which extinguishes all the organisms. This helps in the prevention against pollution/contamination. The magnets have a ceramic coating and thanks to this special technique no sieve is required which makes them almost maintenance free.

Model / type	Description	Max. capacity	Diameter	Height	Item no.
L140	Magnetic de-bug filter	140 l/h.	80 mm	100 mm	L140
L500	Magnetic de-bug filter	500 l/h.	110 mm	160 mm	L500
L1000	Magnetic de-bug filter	1000 l/h.	110 mm	190 mm	L1000
GE08L1/4NPT	Nipple				C50406.1
GE10L1/4NPT	Nipple				C50406.2
GE12L1/4NPT	Nipple				C50406.3
GE12L1/2NPT	Nipple				C50407.1
GE15L1/2NPT	Nipple				C50407.2

Hengst Fuel filters

This fuel filter can feature two fuel filters / water separators in one single unit, so you can change your fuel filter without turning off your engine. Classification societies often require filter elements with steel housings and reservoirs. The strainers 1778 and 1781 come complete with two filter elements with synthetic reservoir. If you would like to install a fuel filter with steel reservoir, then we recommend you to order the strainer holder (326010) and two filter elements with steel reservoir (1780.M or 1783.M).

Pos.	Description	Max. capacity	Connections metric	W x H	Item no.
1	Fuel filter complete	2 x 45 l/h.		190 x 180 mm	1765
2	Filter element for 1765	45 l/h.			1766
-	Hengst strainer holder for both 1778 and 1781 (top changeable)		M16x1,5		326010

Delphi Fuel filters with water separator

Delphi fuel filters / water separators can solve fuel problems. The reduced velocity in the unit allows heavy liquid and solid contaminants to accumulate in the reservoir, from which it can be drained off.

Pos.	Description	Suitable for	Max. capacity	Connections	W x H	Item no.
1	Fuel filter - water separators		45 l/h.	1/2" x20 inch UNF	95 x 105 mm	1745
2	Fuel filter element for 1745 (type 296)		45 l/h.			1746
4	Fuel filter - water separator		90 l/h.	1/2" x20 inch UNF	95 x 200 mm	1760
3	Filter element for 1760 (type 796)		90 l/h.			1762
-	Glass bowl; can be fitted on Delphistrainer	1745/1760				177.005
5	Manual fuel pump; fits directly on Delphi filter	Delphi: 1745, 1760				1749
-	Connection kit for 8 mm piping	Delphi: 1745, 1760				1747
-	Connection kit for 8 mm flexible tubing	Delphi: 1745, 1760				1748

Hengst/Racor Fuel filters with water separator

This fuel filter can features two fuel filters / water separators in one single unit, so you can change your fuel filter without turning off your engine. Classification societies often require filter elements with steel housings and reservoirs. The strainers 1778 and 1781 come complete with two filter elements with synthetic reservoir. If you would like to install a fuel filter with steel reservoir, then we recommend you to order the strainer holder (326010) and two filter elements with steel reservoir (1780.M or 1783.M).

Pos.	Description	Suitable for	Max. capacity	Connections metric	W x H	Diameter	Height	Item no.
1	Fuel filter - water seperator complete		2 x 115 l/h.	M18x1,5	190 x 255 mm			1778
2	Racor filter element S3208 for 1778	1778	115 l/h.	M16 x 1,5		72,3 mm	124 mm	1779
3	Racor filter element for 1778 incl. synthetic reservoir	1778	115 l/h.	M16 x 1,5				1780
-	Strainer element (S3208P) for 1778 incl. steel reservoir	1778	115 l/h.	M16x1,5				1780.M
4	Fuel filter - water separator complete		2 x 225 l/h.	M18 x 1,5	200 x 270 mm			1781
5	Racor filter element for 1781	1781	225 l/h.	M16 x 1,5				1782
6	Racor filter element for 1781 incl. synthetic reservoir	1781	225 l/h.	M16 x 1,5				1783
-	Strainer element (S3209P) for 1781 incl. steel reservoir	1781	225 l/h.					1783.M
-	Hengst strainer holder for both 1778 and 1781 (top changeable)	1778, 1781		M16x1,5				326010
-	Strainer holder (top single filter) for 1778 and 1781	1778, 1781						43042
-	Connection kit for 8 mm piping	326010, 1765, 1778, 1781						1767
-	Connection kit for 8 mm flexible tubing.							1768
-	Connection for 10 mm piping	1778/ 1781/ 326010						1784

Racor Fuel filters with water separator and integrated fuel lift pump

Fuel strainer combined with water separator. The water in the gasoline is gathered in the reservoir, so it can be tapped. If you order the strainer with alarm, make sure you also order the water detection module. Without this module it is not possible to generate an alarm! As soon as the water in the reservoir reaches a certain level, the module is activated and e.g. a warning bulb or buzzer switches on. As soon as the water is drained, the alarm is turned off.

Pos.	Description	Suitable for	Max. capacity	W x H	Item no.
2	fuel filter - water separator incl, alarm (steel reservoir incl. water sensor)		57 l/h.	99 x 196 mm	175057MA
1	Racor fuel filter - water separators (synthetic reservoir)		57 l/h.	99 x 196 mm	175057K
-	Strainer element for 17505K and 175057MA (model R15P)	175057K / 175057MA	57 l/h.	99 x 229 mm	175057
2	fuel filter - water separator incl. alarm (steel reservoir)		115 l/h.	99 x 229 mm	175114MA
-	fuel filter - water separator (synthetic reservoir)		114 l/h.	99 x 229 mm	175114K
-	Strainer element for 175114K and 175114MA (model R20P)		114 l/h.	99 x 229 mm	175114

Racor Turbine series

For these fuel strainers special filter elements are available: the Aquabloc II. Check the strainer elements for more information.

ISO 10088

Model / type	Description	Suitable for	Max. capacity	Connections metric	W x D x H	Item no.
500 MAM	Racor fuel filter Turbine Series 500 MAM		227 l/h.	16mm x1.5	292 x 147 x 122 mm	170227
900 MAM	Racor fuel filter Turbine Series 900 MAM		341 l/h.	22mm x1.5	432 x 152 x 178 mm	170341
1000 MAM	Racor fuel filter Turbine Series 1000 MAM		681 l/h.	22mm x1.5	559 x 152 x 178 mm	170681
75500 MAXM	Racor fuel filter Turbine Series 75500 MAXM		227 x 2 l/h.	3/4"-16SAE	292 x 368 x 241 mm	172227
75900 MAXM	Racor fuel filter Turbine Series 75900 MAXM		341 x 2 l/h.	7/8"-14SAE	432 x 476 x 279 mm	172341
751000 MAXM	Racorfuel filterTurbine Series 751000 MAXM		681 x 2 l/h.	7/8"-14SAE	559 x 476 x 279 mm	172681
	Drain valve	Racor Turbine Series				43007

Cartridge filters Racor Aquablocc for Turbine series

For the Racor fuel strainers Turbine Series special Aquabloc II elements are available (30 micron). These elements are rustproof to ensure a long lifetime. Besides removing water, Aquabloc elements filter tiny particles of dirt and algae from fuel. We advise you to order the drain valve, because the Turbine Series strainers have non-standard connections.

ISO 10088

Description	Suitable for	Item no.
Aquabloc element type 2010, 30 micron	500 MAM / 75500 MAXM	172010
Aquabloc element type 2020, 30 micron	1002 MAM / 731000 MAM / 751000 MAXM / 771000 MAM	172020
Aquabloc element type 2040, 30 micron	902 MAM / 75900 MAXM	172040

Nipples for Racor Turbine series

For these fuel strainers special filter elements are available: the Aquabloc II. Check the strainer elements for more information.

Description	Suitable for	Item no.
Racor connection nipple 8 mm for model 500MAN	for model 500MAN	C50404.3
Racor connection nipple 10 mm for model 500MAN	for model 500MAN	C50404.4
Racor connection nipple 12 mm for model 500MAN	for model 500MAN	C50404.5
Racor connection nipple 15 mm for model 500MAN	for model 500MAN	C50404.6
Racor connection nipple 10 mm for model 75500	for model 75500	C50405.4
Racor connection nipple 12 mm for model 75500	for model 75500	C50405.5
Racor connection nipple 12 mm for model 75900 - 751000	for model 75900/751000	C50405.6
Racor connection nipple 15 mm for model 75900 - 751000	75900/751000	C50405.7
Racor connection nipple 15 mm for model 75500	for model 75500	C504054

Racor Alarm

Fuel strainer combined with water separator. The water in the gasoline is gathered in the reservoir, so it can be tapped. If you order the strainer with alarm, make sure you also order the water detection module. Without this module it is not possible to generate an alarm! As soon as the water in the reservoir reaches a certain level, the module is activated and e.g. a warning bulb or buzzer switches on. As soon as the water is drained, the alarm is turned off.
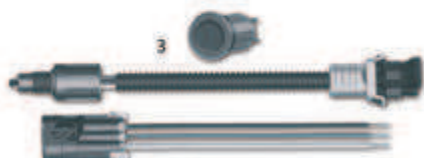
Pos.	Description	Item no.
1	Water dectection module	175000
2	Fluid Detector	43005
3	Sensor- and lighting kit	43009

Separ SWK2000/5-series

The Separ fuel filter - water separator is in single and double versions. The SWK2000 series is made of a non-corrosive aluminum housing with a polycarbonate or metal bowl with stainless steel connections. By default, the filters are supplied with a 30 micron element and a drain valve (option: 10 micron element). A vacuum meter and alarm can also be connected. For the alarm, a bowl of contact points is required. (See list) Saper SWK filters include Lloyd, Bureau Veritas, Rina and Germanischer Lloyd.

Pos.	Model / type	Description	Max. capacity	Bowl material	Connections metric	Filter No.	Item no.
1	SWK2000/5	Separ fuel filter with water separator	300 l/h.	Plastic	M16x 1,5	00530	SWK2000/5
2	SWK2000/5M	Separ fuel filter with water separator	300 l/h.	Steel	M16x 1,5	00530	SWK2000/5M
3	SWK2000/5U	Separ fuel filter with water separator	2x300 l/h.	Plastic		00530	SWK2000/5U
4	SWK2000/5UM	Separ fuel filter with water separator	2x300 l/h.	Steel		00530	SWK2000/5UM

Separ SWK2000/10-series

The Separ fuel filter - water separator is in single and double versions. The SWK2000 series is made of a non-corrosive aluminum housing with a polycarbonate or metal bowl with stainless steel connections. By default, the filters are supplied with a 30 micron element and a drain valve (option: 10 micron element). A vacuum meter and alarm can also be connected. For the alarm, a bowl of contact points is required. (See list) Saper SWK filters include Lloyd, Bureau Veritas, Rina and Germanischer Lloyd.

Pos.	Model / type	Description	Max. capacity	Bowl material	Connections metric	Filter No.	Item no.
1	SWK2000/10	Separ fuel filter with water separator	600 l/h.	Steel	M22x 1,5	01030	SWK2000/10
2	SWK2000/10M	Separ fuel filter with water separator	600 l/h.	Plastic	M22x 1,5	01030	SWK2000/10M
3	SWK2000/10U	Separ fuel filter with water separator	2x600 l/h.	Steel		01030	SWK2000/10U
4	SWK2000/10UM	Separ fuel filter with water separator	2x600 l/h.	Plastic		01030	SWK2000/10UM

Separ SWK2000/18-series

The Separ fuel filter - water separator is in single and double versions. The SWK2000 series is made of a non-corrosive aluminum housing with a polycarbonate or metal bowl with stainless steel connections. By default, the filters are supplied with a 30 micron element and a drain valve (option: 10 micron element). A vacuum meter and alarm can also be connected. For the alarm, a bowl of contact points is required. (See list) Saper SWK filters include Lloyd, Bureau Veritas, Rina and Germanischer Lloyd.

Pos.	Model / type	Description	Max. capacity	Bowl material	Connections metric	Filter No.	Item no.
1	SWK2000/18	Separ fuel filter with water separator	1080 l/h.	Steel	M26x 1,5	01030	SWK2000/18
2	SWK2000/18M	Separ fuel filter with water separator	1080 l/h.	Plastic	M26x 1,5	01030	SWK2000/18M
3	SWK2000/18U	Separ fuel filter with water separator	2x1080 l/h.	Plastic		01030	SWK2000/18U
4	SWK2000/18UM	Separ fuel filter with water separator	2x1080 l/h.	Steel		01030	SWK2000/18UM

Options for Separ fuel filters

The Separ fuel filter - water separator is in single and double versions. The SWK2000 series is made of a non-corrosive aluminum housing with a polycarbonate or metal bowl with stainless steel connections. By default, the filters are supplied with a 30 micron element and a drain valve (option: 10 micron element). A vacuum meter and alarm can also be connected. For the alarm, a bowl of contact points is required. (See list) Saper SWK filters include Lloyd, Bureau Veritas, Rina and Germanischer Lloyd.

Pos.	Description	Suitable for	Item no.
1	Separ Alarm class GL	Separ SWK-series	SWK.ALARM/GL
2	Separ manual pump	Separ SWK-series	SWK.POMP
3	Separ vacuum meter	Separ SWK-series	SWK.VACUUM

Cartridgefilters for Separ fuel filters

The Separ fuel filter - water separator is in single and double versions. The SWK2000 series is made of a non-corrosive aluminum housing with a polycarbonate or metal bowl with stainless steel connections. By default, the filters are supplied with a 30 micron element and a drain valve (option: 10 micron element). A vacuum meter and alarm can also be connected. For the alarm, a bowl of contact points is required. (See list) Saper SWK filters include Lloyd, Bureau Veritas, Rina and Germanischer Lloyd.

Description	Suitable for	Item no.
Filter replacement for Separ fuel filters	SWK2000/5 series	SWK.00530
Filter replacement for Separ fuel filters	SWK2000/10 series	SWK.01030
Filter replacement for Separ fuel filters	SWK2000/18 series	SWK.01830

Cooling water inlet strainers

Type 1

This small water strainer is especially designed to filter flushing water and as a cooling water strainer for small engines and generator sets. The housing and cover are manufactured from high quality nickel-plated bronze. The filter element is made of stainless steel AISI 316L. Suitable for installation below the waterline. The filter comes complete with a tool to open the filter for inspection or cleaning. The sealing between cover and housing is by means of a neoprene O-ring. For this type of strainers brackets are available as well as spare parts.
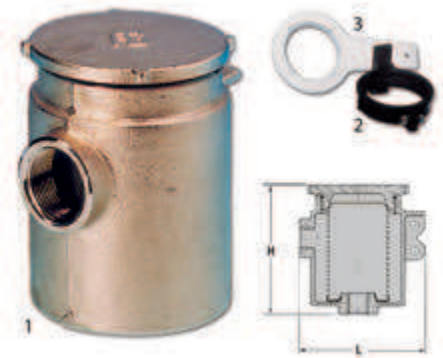
Model / type	Description	Connections	Capacity l/min@0,1bar	L	H	Item no.
Type 1	Hollex cooling water strainer type 1	3/4" B.S.P.	79	99 mm	105 mm	3140
Type 1	Hollex bracket for cooling water strainer type 1					3141
Type 1	Tool for cover of cooling water strainer type 1					3140.006

Type 3

A distinguished water strainer for small and medium-sized engines and very appropriate for deckwash pumps as well. The housing is made of high quality nickel-plated bronze. The filter element is made of stainless steel AISI 316L and the cover of Lexan transparent polycarbonate. Stainless steel bolts and rings as well as a drain plug are included. Easy to inspect and clean. The sealing between cover and housing is by means of a neoprene O-ring. Spare parts for this filter are also available.

Nickel plated BRONZE | **SS 316 filter**

Model / type	Connections	Capacity l/min@0,1bar	A	L	H	h	Item no.
Type 3	3/4" B.S.P.	78	108 mm	150 mm	143 mm	95 mm	3147
Type 3	1" B.S.P.	132	108 mm	150 mm	143 mm	95 mm	3157
Type 3	1 1/4" B.S.P.	208	134 mm	180 mm	175 mm	102 mm	3158
Type 3	1 1/2" B.S.P.	318	134 mm	180 mm	175 mm	102 mm	3188
Type 3	2" B.S.P.	500	165 mm	214 mm	210 mm	132 mm	3198

Type 4

Robust water strainer for larger engines. The housing is manufactured from high quality nickel-plated bronze. The filter element is made of stainless steel AISI 316L and the cover of Lexan transparent polycarbonate. Stainless steel bolts and rings as well as a drain plug are included. Easy to inspect and clean. The sealing between cover and housing is obtained by using a neoprene O-ring. Spare parts for this filter are also available.

Nickel plated BRONZE | **SS 316 filter**

Model / type	Connections	Capacity l/min@0,1bar	A	L	H	h	Item no.
Type 4	3/8" B.S.P.	28	110 mm	140 mm	131 mm	90 mm	3171
Type 4	1/2" B.S.P.	35	110 mm	140 mm	131 mm	90 mm	3172
Type 4	3/4" B.S.P.	67	145 mm	169 mm	151 mm	106 mm	3173
Type 4	1" B.S.P.	77	145 mm	169 mm	151 mm	106 mm	3174
Type 4	1 1/4" B.S.P.	165	170 mm	211 mm	204 mm	146 mm	3175
Type 4	1 1/2" B.S.P.	183	170 mm	211 mm	204 mm	146 mm	3176
Type 4	2" B.S.P.	248	190 mm	238 mm	220 mm	154 mm	3177
Type 4	2 1/2" B.S.P.	348	200 mm	298 mm	280 mm	194 mm	3178
Type 4	3" B.S.P.	500	200 mm	304 mm	291 mm	205 mm	3179
Type 4	4" B.S.P.	1500	220 mm	341 mm	430 mm	329 mm	3199

Type 5

Super large water strainer for large engines. The housing and the cover are made of high quality bronze. The filter element is made of stainless steel AISI 316L. Stainless steel bolts and rings as well as a drain plug are included. The sealing between cover and housing is by means of a neoprene O-ring. Spare parts for this filter are also available.

BRONZE **SS 316 filter**
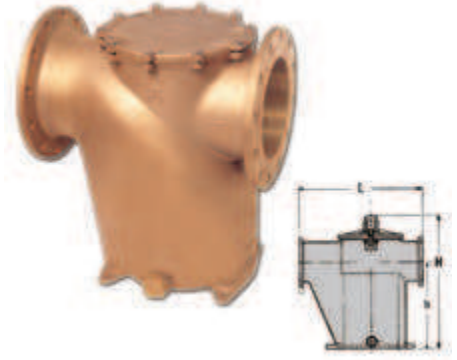
Model / type	Capacity l/min@0,1bar	L	H	h	Item no.
Type 5	1485	355 mm	415 mm	310 mm	3111
Type 5	3282	506 mm	483 mm	350 mm	3112
Type 5	5833	600 mm	600 mm	440 mm	3113

Parts for cooling water inlet strainers

Perspex inner lid for cooling water filters

Polycarbonate replacement glass for the inspection cover. When replacing the glass, replace the O-ring as well. Cover edge not included.
When ordering filter components for the Hollex cooling water filters, always read the dimensions of the parts. This way we can always check for the correct parts for your cooling water filter.

Description	Suitable for	Item no.
Cover polycarbonate	3147 / 3157 / 3173 / 3174	3147.001
Cover polycarbonate	3158 / 3175 (new type)	3158.001
Cover polycarbonate	3171 / 3172	3171.001
Cover polycarbonate	3175 (old type) / 3176 / 3188	3176.001
Polycarbonate glass for cover	3177 / 3198	3177.001
Cover polycarbonate	3178 / 3179 / 3199	3178.001

Closed lid for cooling water filters

View closed lid without plexiglas. When replacing a new lid, replace the o-ring as well. When ordering strainer components for the Hollex cooling water strainer, always read the dimonsions of the parts. This way we can check for the correct parts for your cooling water strainer.

Nickel plated BRONZE

Description	Suitable for	Item no.
Bronze cover for 3140	3140	3140.001
Cover steel	3147 / 3157 / 3173 / 3174	3147.001M
Cover steel	3158 / 3175 (new type)	3158.001M
Cover steel	3176 / 3188	3176.001M
Cover steel	3177 / 3198	3177.001M
Cover steel	3178 / 3179 / 3199	3178.001M
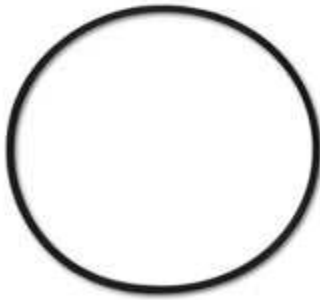
O-rings for cooling water filters

O-rings for sealing the inspection cover. When replacing a new polycarbonate, replace the O-ring.
When ordering filter components for the Hollex cooling water filters, always read the dimensions of the parts. This way we can always check for the correct parts for your cooling water filter.

Description	Suitable for	Item no.
O-ring	3140	3140.002
O-ring	3147 / 3157 / 3173 / 3174	3147.002
O-ring	3158 / 3175 (old type) / 3176 / 3188	3158.002
O-ring	3171 / 3172	3171.002
O-ring	3175 (new type)	3175.002
O-ring	3177 / 3198	3177.002
O-ring	3178 / 3179 / 3199	3178.002

Strainer baskets for cooling water filters

Inside filters, also called seven or baskets for the cooling water filter. When replacing a new inner flange, replace the O-ring as well.
When ordering filter components for the Hollex cooling water filters, always read the dimensions of the parts. This way we can always check for the correct parts for your cooling water filter.

stainless steel 316

Description	Suitable for	Item no.
SS strainer	3140	3140.005
Inner strainer	3147 / 3157	3147.005
Inner strainer	3158 / 3188	3158.005
SS Strainer	3171 / 3172	3171.005
SS Strainer	3173 / 3174	3173.005
SS Strainer	3175 (old type) 3175 (new type)	3175.005
SS strainer	3176	3176.005
SS strainer	3177	3177.005
SS strainer	3178 / 3179	3178.005
SS strainer	3198	3198.005
SS strainer	3199	3199.005

Lite Flush

This stylish toilet is compact and weighs only 11 kg. It is an eco-friendly toilet, with low power consumption and uses only 1.2 litres water per flushing. In this way you can use your waste water tank more efficiently. The Lite Flush toilet has a plastic outer casing, ceramic bowl and a "slow close" seat and lid. It is fitted with a new quiet and efficient flush pump which has large clearances to help prevent blockages and macerates waste. The foot switch can be fitted left or right. With the Lite Flush it is also easy to replace an existing Jabsco Manual Toilet. The Lite Flush Electric Toilet has the same footprint, fixing points and hose attachments as the Manual Toilet making installation quick and straight forward.

Discharge head	: 1,5 m		Discharge connection	: 1 1/2" inch
Suction lift	: 3 m		Discharge connection	: 38 mm
Connection	: 3/4" inch			
Inlet connection	: 19 mm			

Version	Voltage	Current	Power	Nett Weight	Item no.
With foot switch	12 V	20 A	240 W	11,00 kg	58500-0012
With foot switch	24 V	10 A	240 W	11,00 kg	58500-0024
With controlpanel	12 V	20 A	240 W	11,00 kg	58500-1012
With controlpanel	24 V	10 A	240 W	11,00 kg	58500-1024

Deluxe Flush

This luxurious toilet offers a silent operation and minimal water usage (1.5 litres per flush). The modern and compact design hides flush pump with macerator, wiring and plumbing. The Deluxe toilet comes complete with touch-screen control panel, which offers four eco-friendly flushings. The bowl is manufactured of high gloss china and is easy to clean. For flushing, you can use drinking water from your pressurized water system. Or you can use lake, river or sea water, brought on board by means of a remote mounted self-priming pump.

Discharge head	: 2 m		Discharge connection	: 1 1/2" inch
Suction lift	: 3 m		Discharge connection	: 38 mm
Connection	: 3/4" inch			
Inlet connection	: 19 mm			

Voltage	Current	Power	Nett Weight	Item no.
12 V	20 A	240 W	26,00 kg	58040-1012

Deluxe Flush Slant

This luxurious toilet is almost the same as the above mentioned Deluxe Flush Straight. The only difference is the slant back.

Discharge head	: 2 m		Discharge connection	: 38 mm
Connection	: 3/4" inch			
Inlet connection	: 19 mm			
Discharge connection	: 1 1/2" inch			

Version	Voltage	Current	Power	Nett Weight	Item no.
With solenoid valve	12 V	20 A	240 W	22,00 kg	58020-1012
With solenoid valve	24 V	10 A	240 W	22,00 kg	58020-1024
For intake pump	12 V	20 A	240 W	22,00 kg	58220-1012
For intake pump	24 V	10 A	240 W	22,00 kg	58220-1024

Quiet Flush

Designed to radically reduce noise levels. Even when others are asleep, you won't waken them by flushing the toilet. The Quiet Flush toilet is available with a regular size bowl, or a compact bowl. The toilet comes complete with control panel and macerator pump. You have to choose whether you want to use drinking water for flushing (solenoid valve) or lake, river or sea water (intake pump).

Connection   : 3/4" inch
Inlet connection   : 19 mm
Discharge connection   : 1" inch
Discharge connection   : 25 mm

Version	Voltage	Current	Power	Nett Weight	Item no.
With solenoid valve	12 V	10 A	120 W	15,40 kg	37045-0092
With solenoid valve	24 V	5 A	120 W	15,40 kg	37045-0094
For intake pump	12 V	10 A	120 W	18,00 kg	37245-0092
For intake pump	24 V	5 A	120 W	16,40 kg	37245-0094
With solenoid valve	12 V	10 A	120 W	17,30 kg	37045-1092
With solenoid valve	24 V	5 A	120 W	17,30 kg	37045-1094
For intake pump	12 V	10 A	120 W	18,30 kg	37245-1092
For intake pump	24 V	5 A	120 W	16,60 kg	37245-1094

Quiet Flush Conversion kit

If you already have a Jabsco electric toilet type 37010 on board, you can easily convert it to a Quiet Flush model by means of one of the conversion kits. Advantages are an almost silent operation, a three way switch which allows the operator to select a normal flush and drain cycle, or increase or decrease the amount of flushwater, and the choice of using drinking water (solenoid valve kit) or lake, river or sea water (intake pump kit) for flushing.

Version	Voltage	Current	Power	Nett Weight	Item no.
With solenoid valve	12 V	10 A	120 W	3,83 kg	37055-0092
With solenoid valve	24 V	5 A	120 W	3,78 kg	37055-0094
For intake pump	12 V	10 A	120 W	5,68 kg	37255-0092
For intake pump	24 V	5 A	120 W	5,73 kg	37255-0094

Parts for Jabsco electric toilets

Description	Suitable for	Nett Weight	Item no.
Replacement seat and lid	Deluxe Flush	2,88 kg	58104-1000
Replacement seat standaard	Lite Flush/ Quiet Flush	1,60 kg	29127-1000
Replacement seat standaard	Lite Flush / Quiet Flush	1,20 kg	29097-1000
Service Kit (seal and gasket)	Quiet Flush	0,04 kg	90197-0000
Service kit for intake pump	Quiet Flush	0,00 kg	30617-1000
Solenoid valve 12V	Deluxe Flush	0,36 kg	37038-1012
Solenoid valve 24V	Deluxe Flush	0,36 kg	37038-1024

Y8

Not self-priming toilet. The essential difference between this model and the Y10 model is that the water supply required for flushing the toilet has to be applied under pressure, either from the fresh water pressure system or from a separately installed pump. The main advantage is that the noise is considerably reduced. Due to the use of mostly wear-free parts this toilet is almost completely maintenance-free. As an option the foot pedal can be replaced by an electric switch and a solenoid valve which will then be fitted on the intake side of the toilet. The bowl can be turned 360° without the use of an adapter.

CE

Discharge head	: 5 m	Discharge connection	: 25 mm
Connection	: 3/4" inch	Power	: 300 W
Inlet connection	: 19 mm		
Discharge connection	: 1" inch		

Version	Voltage	Current	Nett Weight	Item no.
Excluding enclosure	12 V	40 A	21,00 kg	3045
Excluding enclosure	24 V	20 A	21,00 kg	3046
Including enclosure	12 V	40 A	0,00 kg	3047
Including enclosure	24 V	20 A	0,00 kg	3048
Including controlpanel, excluding enclosure	12 V	40 A	0,00 kg	3045EB
Including controlpanel, excluding enclosure	24 V	20 A	0,00 kg	3046EB
Including controlpanel, including enclosure	12 V	40 A	0,00 kg	3047EB
Including controlpanel, including enclosure	24 V	20 A	0,00 kg	3048EB

excluding enclosure

including enclosure

Y10

By simply pressing the foot pedal the pump is activated and in approximately eight seconds the toilet is flushed and the waste is pumped away. The bronze macerator reduces the debris into small particles in the process. All parts are manufactured from the finest materials such as stainless steel, bronze and porcelain. A non-return valve on the discharge side is fitted as a standard. All metal parts of the housing are covered with a heavy-duty nylon coating. The bowl can be turned 360° without the use of an adapter.

CE

Discharge head	: 5 m	Discharge connection	: 1" inch
Suction lift	: 1 m	Discharge connection	: 25 mm
Connection	: 3/4" inch	Power	: 300 W
Inlet connection	: 19 mm		

Version	Voltage	Current	Nett Weight	Item no.
Excluding enclosure	12 V	40 A	21,00 kg	3005
Excluding enclosure	24 V	20 A	21,00 kg	3006
Including enclosure	12 V	40 A	25,50 kg	3007
Including enclosure	24 V	20 A	25,50 kg	3008

excluding enclosure

including enclosure

Rheinstrom pump enclosure Y8 / Y10

If required, the noise of flushing the toilet can be largely suppressed by fitting a matching GRP casing. This casing is not only beautifully designed to enhance the appearance of the whole assembly, but acts as a super efficient muffler as well. The smooth surface makes cleaning easy. Vibrations are handled by mounting the toilet on a brass base plate located by special dampeners.

Description	Suitable for	Nett Weight	Item no.
Pump enclosure	Y8-Y10	4,22 kg	3009

Y12-W

The Y12-W has the same advantages as the Y12, only this is a space-saving wall mounted toilet. This means you can easier clean your toilet floor and there is extra space for the legs. The other advantage of this toilet is that, apart from the switch, no moving parts are present on the outside of the toilet. The pump can be fitted in e.g. the engine compartment, resulting in a reduction of the required space and noise. The water supply required for flushing the toilet has to be applied under pressure either from the fresh water pressure system or from a separately installed pump. By simply pressing the button, water is used. When pressing the other button, the water and the waste are pumped away. The Y12-W comes complete with an efficient control panel, a Rheinstrom electric membrane pump (type M) and 1 m waste hose for discharge.

CE

Discharge head	: 8 m	Discharge connection	: 1 1/2" inch
Suction lift	: 5 m	Discharge connection	: 38 mm
Connection	: 1 1/2" inch	Power	: 300 W
Inlet connection	: 38 mm		

Description	Version	Voltage	Current	Nett Weight	Item no.
Electric toilet	Wall mount	12 V	10 A	22,00 kg	0120100
Electric toilet	Wall mount	24 V	5 A	33,00 kg	0120101
Mounting frame				0,00 kg	0120130
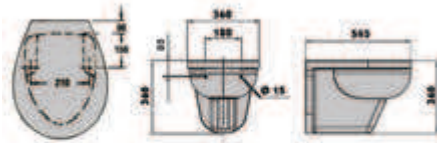
Parts for Rheinstrom electric toilets

A Master repair kit also contains mounting materials, like bolts and nuts. These mounting materials are not included in the Standard repair kit.

Description	Suitable for	Nett Weight	Item no.
Synthetic seat & cover white	Y2G - Y3G - Y4 - Y7G - Y8 - Y10 - Y12	1,92 kg	0104002
Bowl large white porcelain (round connection)	Y2G - Y3G - Y4 - Y7G (round flange)	7,70 kg	0100001
Repairkit Standard	Y8	0,09 kg	0108095N
Repairkit Master	Y8	0,19 kg	0108096N
Repairkit Standard	Y10	0,14 kg	0111095N
Repairkit Master	Y10	0,23 kg	0111096N
Repairkit for switch	Y8 - Y10	0,00 kg	0111099N
Switch without spring	Y7 - Y8 - Y10	0,00 kg	0111020
Relais 12V	Y8 - Y10	0,00 kg	0111024
Relais 24V	Y8 - Y10	0,04 kg	0112024
Relais 12V	Y12-W	0,04 kg	0200.050
Pressure switch	Y12-W	0,01 kg	0120027

Twist 'n Lock

This manual toilet features a Twist 'n' Lock safety handle. This lock guards against syphonic flooding and waste back-flow. The angled pump housing and long stroke makes operation easy. The toilet has a powerful self-priming pump. You can choose between a regular bowl, or a compact sized bowl.

Discharge head : 6 m
Suction lift : 1 m
Connection : 3/4" inch
Inlet connection : 19 mm

Discharge connection : 1 1/2" inch
Discharge connection : 38 mm

Version	Nett Weight	Item no.
Compact bowl	11,00 kg	29090-3000
Standard bowl	13,00 kg	29120-3000

Parts for Jabsco manual toilets

Description	Suitable for	Nett Weight	Item no.
Replacement seat standaard	Lite Flush / Quiet Flush	1,20 kg	29097-1000
Replacement seat standaard	Lite Flush/ Quiet Flush	1,60 kg	29127-1000
Service kit (for toilet up to 1997)		0,19 kg	29045-0000
Service kit (for toilets form 1998 thru to 2007)		0,23 kg	29045-2000
Service kit (for toilets from 2007)		0,16 kg	29045-3000

Rheinstrom Manual toilets

Y2 / Y2G

Ideal toilet for those who appreciate comfort. Pump and base are made of bronze and coated with a heavy duty nylon/Rilan. For ease of operation a crank type pump handle is fitted. The bowl can be turned 180° without the use of an adapter. The Y2G type has a larger bowl than the Y2. Both toilets come complete with a white coated wooden seat and cover.

Discharge head : 6 m
Suction lift : 2 m
Connection : 3/4" inch
Inlet connection : 19 mm

Discharge connection : 1 1/2" inch
Discharge connection : 38 mm

Model / type	Version	Nett Weight	Item no.
Y2	Small bowl	17,00 kg	3003.02
Y2G	Large bowl	19,00 kg	3015.02

Type Y2

Type Y2G
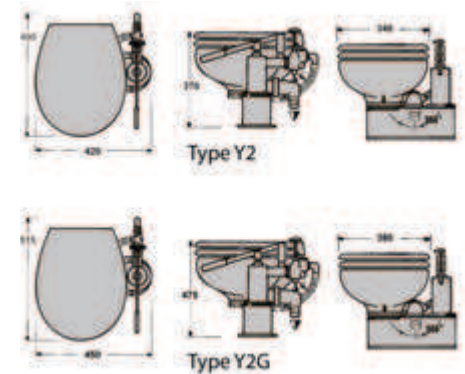
Y3 / Y3G

Robust, but lightweight aluminium toilet. Therefore the Y3 is very suitable for sailing vessels. The small dimensions and the possibility to mount the toilet near to the wall, create extra space in your toilet room. Due to the universal mounting system, your current toilet is easily interchangeable by the Y3. This toilet is made of corrosion resistant materials to guarantee a long lifetime. The bowl can be turned 180° without using an adapter.

Discharge head	: 10 m	Discharge connection	: 1 1/2" inch
Suction lift	: 4 m	Discharge connection	: 38 mm
Connection	: 3/4" inch		
Inlet connection	: 19 mm		

Model / type	Version	Nett Weight	Item no.
Y3	Compact bowl	0,00 kg	0003001
Y3G	Large bowl	17,00 kg	0003000

Type Y3* - Y3G

inlet connection

* dimensions Y3
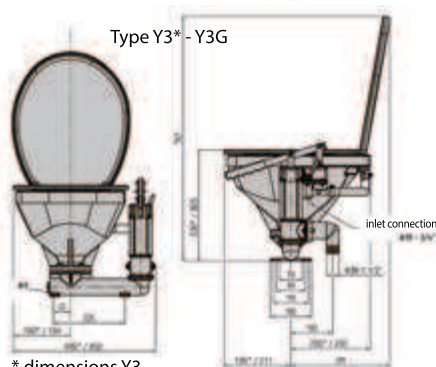
Y4

Delivery is easy to operate. The bowl can be turned 360° without the use of an adapter. The base and pump are coated with a heavy duty nylon coating. Comes complete with white synthetic seat and cover.

Discharge head	: 6 m	Discharge connection	: 1 1/2" inch
Suction lift	: 2 m	Discharge connection	: 38 mm
Connection	: 3/4" inch		
Inlet connection	: 19 mm		

Model / type	Nett Weight	Item no.
Y4	33,00 kg	3004

Type Y4
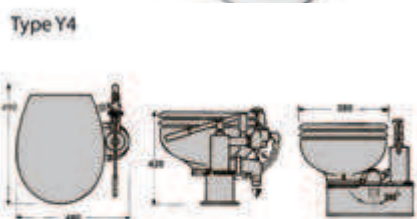
Parts for Rheinstrom manual toilets

Description	Suitable for	Nett Weight	Item no.
Seat and lid (wooden) Rheinstrom Y1/Y2	Y1 - Y2 - Y3 - Y7	2,00 kg	0101070
Bowl gasket oval for Rheinstrom toilets	Y1 - Y2 - Y7 (oval flange)	0,01 kg	0101007
Repairkit Standard	Y2 - Y2G	0,18 kg	0102095N
Repairkit Master	Y2 - Y2G	0,24 kg	0102096N
Repairkit Standard	Y3 - Y3G	0,14 kg	0103095N
Synthetic seat & cover white	Y2G - Y3G - Y4 - Y7G - Y8 - Y10 - Y12	1,92 kg	0104002
Repair kit standard	Y4	0,74 kg	0104095
Bowl small white porcelain (round connection)	Y2 - Y3 - Y7 round flange)	6,10 kg	0100002
Bowl large white porcelain (round connection)	Y2G - Y3G - Y4 - Y7G (round flange)	7,70 kg	0100001

Y7 / Y7G

The above the waterline toilets are available in two types: Y7 with a small porcelain bowl and a white painted wooden seat and cover, and Y7G with a large bowl and a very strong synthetic seat and cover. A hose connector 3/4" x 19 mm is supplied with the toilet.

Model / type	Version	Nett Weight	Item no.
Y7	Compact bowl	11,50 kg	3039
Y7	Large bowl	13,00 kg	3041

Parts for Rheinstrom above the waterline toilets

Description	Suitable for	Nett Weight	Item no.
Seat and lid (wooden) Rheinstrom Y1/Y2	Y1 - Y2 - Y3 - Y7	2,00 kg	0101070
Bowl small white porcelain (round connection)	Y2 - Y3 - Y7 round flange)	6,10 kg	0100002
Bowl gasket oval for Rheinstrom toilets	Y1 - Y2 - Y7 (oval flange)	0,01 kg	0101007
Gasket for bowl	All Y-series toilets	0,00 kg	0101002
Bowl large white porcelain (round connection)	Y2G - Y3G - Y4 - Y7G (round flange)	7,70 kg	0100001
Synthetic seat & cover white	Y2G - Y3G - Y4 - Y7G - Y8 - Y10 - Y12	1,92 kg	0104002
Repairkit Standard		0,06 kg	0107095N
Switch without spring	Y7 - Y8 - Y10	0,00 kg	0111020
Standpipe gasket		0,05 kg	0105814

Isotemp Basic

Isotemp Basic calorifiers have an exterior casing and inner tank are made of brushed AISI 316. The immersion heating element is specially designed to heat water at bottom of tank. Extra-long corrugated coils ensure heat exchange efficiency. Isotemp calorifiers use two thermostats: a temperature thermostat and a safety thermostat designed to trip in the event the tank is run dry. As a standard Isotemp water heaters come with a mixing valve. This mixing valve regulates the temperature of the water coming out of the tank to prevent scalding. The standard heating elements are 750 watts which won't overload generators or trip dock breakers. Also calorifiers available with double coil.

Voltage AC	: 230 V
Power	: 750 W
Max. working pressure	: 7 bar
Water connection	: ½ G"

Description	Volume	Version	Nett Weight	Diameter	Length	Item no.
Calorifier	24 l		11,00 kg	395 mm	460 mm	727624
Calorifier	40 l		17,00 kg	395 mm	630 mm	727640
Calorifier	40 l	double coil	19,00 kg	395 mm	630 mm	727642
Calorifier	50 l		20,00 kg	395 mm	750 mm	727650
Calorifier	75 l		26,00 kg	395 mm	1040 mm	727675
Calorifier	75 l	double coil	28,00 kg	395 mm	1040 mm	727677

Isotemp Slim

Isotemp Slim calorifiers have a smaller diameter than the Basic and can easily be mounted in narrow spaces. The exterior casing and inner tank are made of brushed AISI 316. The immersion heating element is specially designed to heat water at bottom of tank. Extra-long corrugated coils ensure heat exchange efficiency. Isotemp calorifiers use two thermostats: a temperature thermostat and a safety thermostat designed to trip in the event the tank is run dry. As a standard Isotemp water heaters come with a mixing valve. This mixing valve regulates the temperature of the water coming out of the tank to prevent scalding. The standard heating elements are 750 watts which won't overload generators or trip dock breakers.

Voltage AC	: 230 V
Power	: 750 W
Max. working pressure	: 7 bar
Water connection	: ½ G"

Description	Volume	Nett Weight	Diameter	Length	Item no.
Calorifier	15 l	8,00 kg	295 mm	505 mm	727715
Calorifier	20 l	9,00 kg	295 mm	630 mm	727720
Calorifier	25 l	11,00 kg	295 mm	750 mm	727725

Isotemp Spa

Isotemp SPA calorifiers have an exterior casing made of high quality extra-thick polypropylene insulation. The inner tank is made of AISI 316 stainless steel. The immersion heating element is specially designed to heat water at bottom of tank. Extra-long corrugated coils ensure heat exchange efficiency. Isotemp calorifiers use two thermostats: a temperature thermostat and a safety thermostat designed to trip in the event the tank is run dry. As a standard Isotemp water heaters come with a mixing valve. This mixing valve regulates the temperature of the water coming out of the tank to prevent scalding. The standard heating elements are 750 watts which won't overload generators or trip dock breakers.

Voltage AC	: 230 V
Power	: 750 W
Max. working pressure	: 6 bar
Water connection	: ½ G"

Description	Volume	Version	Nett Weight	Diameter	Length	Item no.
Calorifier	15 l	Spa	8,00 kg	310 mm	450 mm	727815
Calorifier	20 l	Spa	9,00 kg	310 mm	550 mm	727820
Calorifier	25 l	Spa	11,00 kg	310 mm	650 mm	727825
Calorifier	30 l	Spa	12,00 kg	390 mm	535 mm	727830
Calorifier	40 l	Spa	14,00 kg	390 mm	640 mm	727840

Parts for Isotemp calorifiers

Original parts for service of Isotemp calorifiers.

Pos.	Description	Nett Weight	Item no.
1	Pressure relief valve Basic 4 bar	0,40 kg	720035S
2	Immersion hearter Basic 750W, gasket included	0,30 kg	720030S
-	Innmersion heater Basic 1200W, gasket included	0,40 kg	720032S
3	Mixer tap Basic	1,20 kg	720033S
-	Thermostat Basic	0,60 kg	720037
-	Non-return valve	0,50 kg	3240
-	Sealing set	0,20 kg	720036

Calorifiers

Rheinstrom Economic

The Rheinstrom Economic calorifiers have a stainless steel 316 tank. These compact calorifiers can be mounted horizontal as well as vertical . They are equipped with a 230V / 800W immersion heater. Tank, stainless steel brackets and a hose for cooling water are supplied as a standard.

Voltage AC   : 230 V
Power   : 800 W
Max. working pressure   : 6 bar

Volume	Description	Nett Weight	Diameter	Length	Suitable for	Item no.
20 l	Calorifier	6,00 kg	355 mm	410 mm	Horinzontal / vertical installation	0590020
30 l	Calorifier	7,00 kg	355 mm	530 mm	Horinzontal / vertical installation	0590030
40 l	Calorifier	8,00 kg	355 mm	670 mm	Horinzontal / vertical installation	0590040

Rheinstrom Deluxe

Rheinstrom Deluxe calorifiers are available in two versions: one for vertical installation; the other for horizontal installation. The connections on the vertical and horizontal calorifiers are at different locations, please bear this in mind when ordering. The immersion heater and a non return-valve (art. code 3240) are not included. The heating period with an immersion heater of 1 KW (based on a watertemp. of 16^{0}C and a surrounding temp. of 18^{0}C: to 50^{0}C: 120 min. with 50 l, 180 min. with 75 l, 280 min. with 115 l. To 80^{0}C: 240 min. with 50 l, 360 min. with 75 l, 550 min with 115 l. Cooling down period from 80^{0}C to 60^{0}C: 26 hrs with 50 l, 27 hrs with 75 l, 30hrs with 115 l.

Voltage AC   : 230 V
Power   : 1000 / 2000 / 3000 W

Volume	Description	Nett Weight	Diameter	Length	Suitable for	Item no.
50 l	Calorifier	21,00 kg	430 mm	810 mm	Vertical installation	5327
50 l	Calorifier	27,00 kg	430 mm	810 mm	Horizontal installation	5337
75 l	Calorifier	34,00 kg	430 mm	1150 mm	Vertical installation	5338
75 l	Calorifier	36,00 kg	430 mm	1150 mm	Horizontal installation	5339
115 l	Calorifier	44,00 kg	430 mm	1480 mm	Vertical installation	5340
115 l	Calorifier	46,00 kg	430 mm	1480 mm	Horizontal installation	5341

Parts for Rheinstrom calorifiers

If you have a 230V generator or on-shore power, you can use an immersion heater to warm the water. The immersion heater has an adjustable thermostat from 30°C up to 85°C. Attention: If you have to replace the immersion heater at a calorifier with a quadrangle element, please make sure you also order a brass ring.

Pos.	Description	Power	Nett Weight	Installation length	Suitable for	Item no.
1	Immersion heater	800 W	0,32 kg		Economic	0590050
2	Pressure relief valve		0,12 kg		Economic	0590063
3	Thermostat		0,10 kg		Economic	0590061
4	Immersion heater	1000 W	1,12 kg	270 mm	20 / 30/ 40 / 50 / 75 / 115	5371
-	Immersion heater	2000 W	1,14 kg	270 mm	20 / 30/ 40 / 50 / 75 / 115	5372
-	Immersion heater	3000 W	1,15 kg	270 mm	20 / 30/ 40 / 50 / 75 / 115	5373
-	Switchable immersion heater	1000-2000-3000 W	1,55 kg	270 mm	20 / 30/ 40 / 50 / 75 / 115	5374
-	Pressure relief valve		0,16 kg		20 / 30/ 40 / 50 / 75 / 115	0600400
-	Thermostat		0,12 kg		20 / 30/ 40 / 50 / 75 / 115	0600102
5	Set fittings 1/2" x 1" for Rheinstrom calorifier		0,52 kg		50 / 75 / 115	5346
-	Brass adapter for immersion heater built till 2008'		1,11 kg		20 / 30/ 40 / 50 / 75 / 115	0600050
-	Non-return valve		0,50 kg			3240

Skin fittings - outer thread

B.S.P. x Length inch x mm	A	D	D1 mm	F mm	G B.S.P.	H mm	SW mm	Item no.
1" x 85	80	57	57	25	1"	85	41	310050
1 1/4" x 91	85	67	67	32	1 1/4"	91	49	310051
1 1/2" x 96	90	75	75	38	1 1/2"	96	56	310052
2" x 107	100	88	88	50	2"	107	69	310053
2 1/2" x 128	120	108	108	63	2 1/2"	128	85	310055
3" x 158	150	122	122	76	3"	158	100	310056
4" x 209	200	150	150	100	4"	209	129	310057
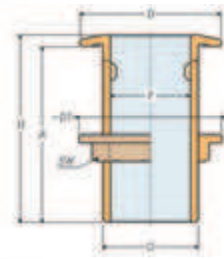
Hose connectors - standard, outer thread

B.S.P. x Ø mm inch x mm	A	D	G B.S.P.	H mm	H1 mm	P mm	SW mm	Item no.
1 1/4" x 38	16	32,5	1 1/4"	70	45	38	45	310041
1 1/2" x 50	18	39	1 1/2"	78	50	50	53	310042
2" x 50	16	43	2"	75	50	50	65	310043
2" x 60	18	50	2"	82	53	60	66	310044
2 1/2" x 60	20	52	2 1/2"	85	53	60	82	310045
3" x 76	20	67	3"	98	65	76	96	310046
4" x 100	22	90	4"	113	76	100	123	310047

Nipples - Outer thread, inner thread

Thread B.S.P. inch	A	D	G B.S.P.	H mm	SW mm	Item no.
1 1/4"	22	33	1 1/4"	53	48	302801
1 1/2"	22	39	1 1/2"	54	55	302802
2"	26	50	2"	63	67	302803
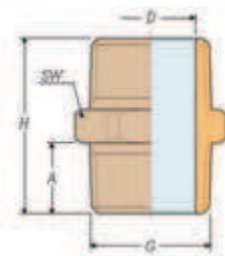
Elbows I - 90°, inner thread

Thread B.S.P. inch	A	G B.S.P.	H mm	Item no.
1 1/4"	21	1 1/4"	45	300901
1 1/2"	21	1 1/2"	48	300902
2"	26	2"	49	300903
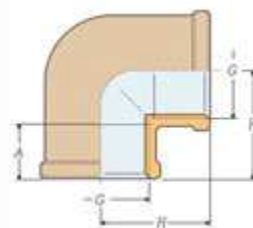
Elbows II - 90°, inner thread, outer thread

Thread B.S.P. inch	A	A1 mm	G B.S.P.	G1 B.S.P.	H mm	L mm	Item no.
1 1/4"	21	19	1 1/4"	1 1/4"	45	54	300921
1 1/2"	21	19	1 1/2"	1 1/2"	48	59	300922
2"	26	23	2"	2"	59	69	300923
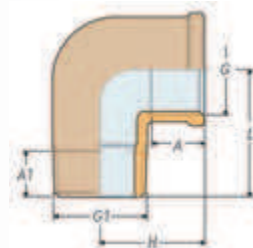
Couplings (inner thread) - inner thread

Thread B.S.P. inch	G B.S.P.	H mm	Item no.
1 1/4"	1 1/4"	46	302701
1 1/2"	1 1/2"	48	302702
2"	2"	57	302703
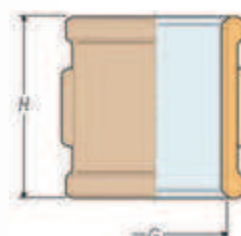
Bronze

T-pieces - inner thread

Thread B.S.P. inch	A	G B.S.P.	H mm	L mm	Item no.
1 1/4"	21,4	1 1/4"	45	90	301301
1 1/2"	21,4	1 1/2"	48	96	301302
2"	25,7	2"	59	118	301303
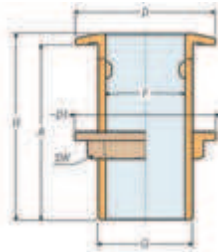
Skin fittings I - outer thread, short

B.S.P. x Length inch x mm	A	D	D1 mm	F mm	G B.S.P.	H mm	SW mm	Item no.
1/2" x 65	65	40	40	13	1/2"	70	26	386092
3/4" x 70	70	47	46	19	3/4"	75	32	386093
1" x 80	80	57	57	25	1"	85	41	386094
1 1/4" x 85	85	67	67	32	1 1/4"	91	49	386095
1 1/2" x 90	90	75	75	38	1 1/2"	96	56	386096
2" x 100	100	88	88	50	2"	107	69	386097
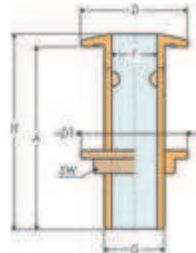
Skin fittings II - outer thread, long

B.S.P. x Length inch x mm	A	D	D1 mm	F mm	G B.S.P.	H mm	SW mm	Item no.
1" x 110	200	65	65	24	1"	206	41	386104
1 1/4" x 80	200	75	75	32	1 1/4"	207	50	386105
1 1/2" x 110	200	85	85	37	1 1/2"	207	57	386106
2" x 80	200	100	100	48	2"	208	70	386107
2 1/2" x 230	230	120	116	63	2 1/2"	238	85	386108
3" x 230	230	130	130	75	3"	239	100	386109
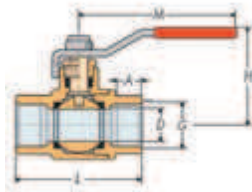
Ball valves I - 2-way, inner thread

Thread B.S.P. inch	PN --	A	D	G B.S.P.	H mm	L mm	M mm	Item no.
1/2"	32	15	15	1/2"	45	62	85	386002
3/4"	32	16,3	19	3/4"	55	70	104	386003
1"	32	19,1	25	1"	57	85	104	386004
1 1/4"	32	21,4	32	1 1/4"	75	99	122	386005
1 1/2"	32	21,4	40	1 1/2"	80	110	122	386006
2"	32	25,7	50	2"	98	134	153	386007
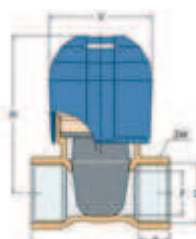
Ball valves II - 2-way, inner thread

Thread B.S.P. inch	A	F mm	G B.S.P.	H mm	L mm	SW mm	V mm	Item no.
3/8"	11,4	15	3/8"	76	67	25	53	386110
1/2"	15	15	1/2"	76	67	25	53	386111
3/4"	16,3	20	3/4"	85	73	31	58	386112
1"	19,1	25	1"	94	84	38	63	386113
1 1/4"	21,4	33	1 1/4"	110	97	47	72	386114
1 1/2"	21,4	38	1 1/2"	118	103	54	78	386115
2"	25,7	48	2"	139	124	67	90	386116

Gate valves - quick closing, inner thread

Thread B.S.P. inch	A	B	D	G B.S.P.	H mm	L mm	Item no.
3/8"	11	80	15	3/8"	40	44	310101
1/2"	13	80	15	1/2"	40	46	310102
3/4"	14	100	20	3/4"	48	51	310103
1"	16	100	25	1"	55	57	310104
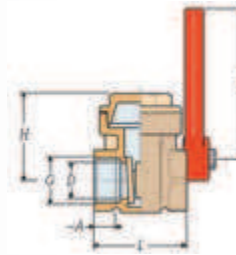
Non-return valves - outer thread, hose connector

B.S.P. x Ø mm inch x mm	H mm	D	G B.S.P.	P mm	Item no.
1" x 27	115	88	1"	28	3249
1" x 37	115	88	1"	28	3250
1 1/2" x 27	130	88	1 1/2"	40	3251
1 1/2" x 37	130	88	1 1/2"	40	3252
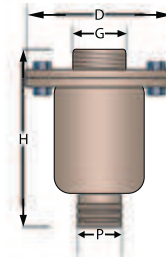
Hose connectors - standard, outer thread

B.S.P. x Ø mm inch x mm	A	D	G B.S.P.	H mm	H1 mm	P mm	SW mm	Item no.
1/2" x 14	13	10,5	1/2"	51	30	14	23	386012
3/4' x 20	13	15,5	3/4"	53	32	20	28	386011
3/4" x 22	13	19,5	3/4"	59	38	25	28	386013
1" x 28	15	24,5	1"	62	38	30	36	386014
1 1/4" x 33	16	26	1 1/4"	67	42	32	45	386015
1 1/2" x 40	18	34	1 1/2"	73	45	40	53	386016
2" x 53	18	43	2"	79	50	50	66	386017

Nipples - Outer thread, inner thread

Thread B.S.P. inch	A	D	G B.S.P.	H mm	SW mm	Item no.
3/8"	13	11,5	3/8"	33	19	386051
1/2"	16	15	1/2"	40	23	386052
3/4"	17,5	19,5	3/4"	43	28	386053
1"	20	25	1"	49	38	386054
1 1/4"	22	33	1 1/4"	53	48	386055
1 1/2"	22	39	1 1/2"	54	55	386056
2"	26	50	2"	63	67	386057
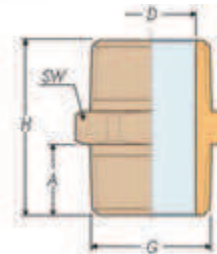
Elbows with hose adapter - 90°, hose connector/outer thread

B.S.P. x Ø mm inch x mm	A	G B.S.P.	H mm	L mm	SW mm	Item no.
1/2" x 13	12,5	1/2"	34	42	30	3142
3/4" x 20	13	3/4"	41	47	33	3143
1" x 25	16	1"	54	47	40	3144
1 1/4" x 32	18	1 1/4	60	70	49	3145
1 1/2" x 38	18	1 1/2"	74	79	58	3146
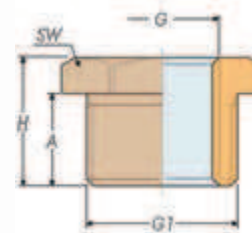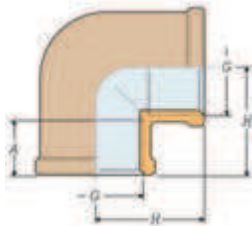
Elbows - 90°, inner thread

Thread B.S.P. inch	A	G B.S.P.	H mm	Item no.
1/4"	11	1/4"	22	386040
3/8"	12	3/8"	23	386041
1/2"	14	1/2"	28	386042
3/4"	15	3/4"	33	386043
1"	18	1"	39	386044
1 1/4"	21	1 1/4"	43	386045
1 1/2"	21	1 1/2"	46	386046
2"	26	2"	56	386047
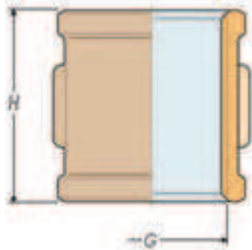
Couplings (inner thread) - inner thread

Thread B.S.P. inch	G B.S.P.	H mm	Item no.
1/4"	1/4"	22	386030
3/8"	3/8"	30	386031
1/2"	1/2"	32	386032
3/4"	3/4"	35	386033
1"	1"	43	386034
1 1/4"	1 1/4"	47	386035
1 1/2"	1 1/2"	52	386036
2"	2"	64	386037

T-pieces - inner thread

Thread B.S.P. inch	A	G B.S.P.	H mm	L mm	Item no.
1/4"	11	1/4"	16	42	386070
3/8"	12	3/8"	24	47	386071
1/2"	13	1/2"	25	49	386072
3/4"	16	3/4"	30	60	386073
1"	18	1"	35	70	386074
1 1/4"	19	1 1/4"	43	85	386075
1 1/2"	22	1 1/2	48	96	386076
2"	24	2"	57	115	386077
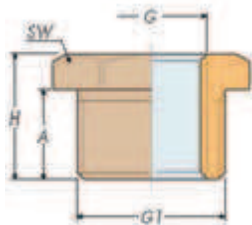
Reducers - outer thread, inner thread

Thread B.S.P. inch	A	G B.S.P.	G1 B.S.P.	H mm	SW mm	Item no.
3/8" x 1/4"	12	1/4"	3/8"	17	20	386061
1/2" x 3/8"	16	3/8"	1/2"	24	23	386062
3/4" x 1/2"	17,5	1/2"	3/4"	25,5	28	386063
1" x 3/4"	20	3/4"	1"	29	36	386064
1 1/4" x 1"	22	1"	1 1/4"	31	45	386065
1 1/2" x 1 1/4"	22	1 1/4"	1 1/2"	32	53	386066
2" x 1 1/2"	26	1 1/2"	2"	37	65	386067

Reducing straight couplings - inner thread, inner thread

Thread B.S.P. inch	A	A1 mm	G B.S.P.	G1 B.S.P.	H mm	Item no.
1/2" x 3/8"	11,4	15	1/2"	3/8"	30	386022
3/4" x 1/2"	15	16,3	3/4"	1/2"	36	386023
1" x 3/4"	16,3	19,1	1"	3/4"	41	386024
1 1/4" x 1"	19,1	21,4	1 1/4"	1"	47	386025
1 1/2" x 1 1/4"	21,4	21,4	1 1/2"	1 1/4"	49	386026
2" x 1 1/2"	21,4	25,7	2"	1 1/2"	55	386027

Inlet strainers - outer thread

Brass
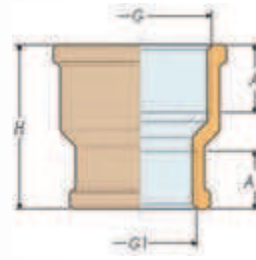
B.S.P. x Length inch x mm	A	B	D	E	F mm	G B.S.P.	H mm	L mm	SW mm	Item no.
1/2" x 80	80	44	37	78	15	1/2"	101	4	26	3190
3/4" x 80	80	48	47	89	20	3/4"	102	4	32	3191
1" x 81	85	55	55	101	25	1"	110	4	38	3192
1 1/4" x 90	90	64	64	118	33	1 1/4"	116	4	49	3193
1 1/2" x 98	100	73	72	132	38	1 1/2"	129	4	56	3194
2" x 110	110	85	85	160	49	2"	143	4	58	3195
2 1/2" x 128	130	100	110	200	64	2 1/2"	189	5,5	92	3196
3" x 150	150	115	123	220	77	3"	214	5,5	105	3197
4" x 200	200	145	150	293	101	4"	285	5,6	132	311198
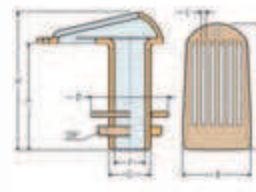
Skin fittings I - outer thread

B.S.P. x Length inch x mm	A	D	D1 mm	F mm	G B.S.P.	H mm	SW mm	Item no.
3/8" x 64	53	34	33	12	3/8"	57	23	311180
1/2" x 60	60	37	37	15	1/2"	65	26	3180
3/4" x 65	65	47	47	20	3/4"	70	32	3181
1" x 80	80	55	55	25	1"	85	38	3182
1 1/4" x 80	80	64	64	33	1 1/4"	86	49	3183
1 1/2" x 90	90	72	72	39	1 1/2"	96	56	3184
2" x 101	100	85	85	50	2"	107	68	3185
2 1/2" x 121	122	110	110	63	2 1/2"	130	92	3186
3" x 150	150	123	123	76	3"	158	105	3187
4" x 200	200	150	150	100	4"	209	132	311188
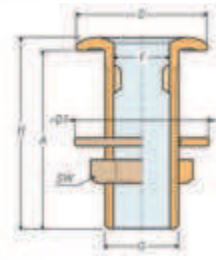
Skin fittings II - outer thread, hose connector

BSP x Length mm x Ømm	A	B	D	D1 mm	F mm	G B.S.P.	H mm	P mm	SW mm	Item no.
3/8" x 64 x 15	53	18	34	33	12	3/8"	57	15	23	3136
1/2" x 60 x 18	60	22	37	37	15	1/2"	65	18	26	3120
3/4" x 64 x 24	65	22	47	47	20	3/4"	70	24	32	3137
1" x 80 x 30	80	27	55	55	25	1"	85	30	38	3138
1 1/4" x 80 x 39	80	27	64	64	33	1 1/4"	86	39	49	3139
1 1/2" x 90 x 45	90	27	72	72	39	1 1/2"	96	45	56	3148
2" x 100 x 57	100	33	85	85	50	2"	107	57	68	3149
2 1/2" x 121 x 72	122	38	110	110	63	2 1/2"	130	72	92	3150
3" x 150 x 80	150	48	123	123	76	3"	158	82	105	3159
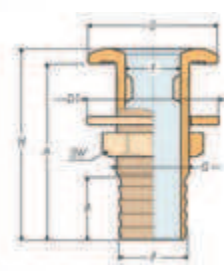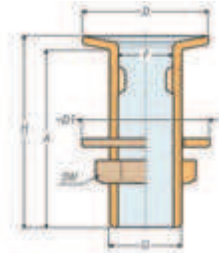
Skin fittings III - recessed, outer thread

B.S.P. x Length inch x mm	A	D	D1 mm	F mm	G B.S.P.	H mm	SW mm	Item no.
1" x 80	80	52	55	25	1"	85	38	311040
1 1/2" x 90	90	68	72	39	1 1/2"	95	56	311042
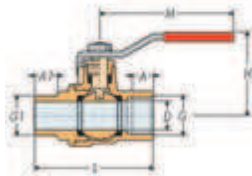
Ball valves I - 2-way, inner, outer thread

Thread B.S.P. inch	A	A1 mm	D	G B.S.P.	G1 B.S.P.	H mm	M mm	L mm	Item no.
1/4"	10	10	10	1/4"	1/4"	41	80	42	310008
3/8"	10	10	10	3/8"	3/8"	41	80	54	310009
1/2"	15	15	15	1/2'	1/2'	54	90	70	310015
3/4"	16	16	20	3/4"	3/4"	58	90	80	310016
1"	19	19	25	1"	1"	66	125	92	310017
1 1/4"	21	21	32	1 1/4"	1 1/2"	71	125	102	310018
1 1/2"	21	21	40	1 1/2"	1 1/2"	80	140	117	310019
2"	26	26	50	2"	2"	88	140	137	310020
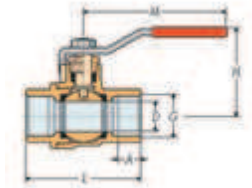
Ball valves II - 2-way, inner thread

Thread B.S.P. inch	PN --	A	D	G B.S.P.	H mm	L mm	M mm	Item no.
1/4"	40	10	10	1/4"	41	45	80	3108
3/8"	40	10	10	3/8"	41	45	80	3109
1/2"	40	15	10	1/2"	54	63	90	3115
3/4"	40	16	15	3/4"	58	71	90	3116
1"	40	19	20	1"	66	83	125	3117
1 1/4"	32	21	25	1 1/4"	71	92	125	3118
1 1/2"	32	21	32	1 1/2"	80	104	140	3119
2"	32	26	40	2"	88	124	140	3169
2 1/2"	25	27	50	2 1/2"	131	140	250	3170
3"	25	28	61	3"	140	159	250	3189
4"	25	35	74	4"	156	195	250	310190
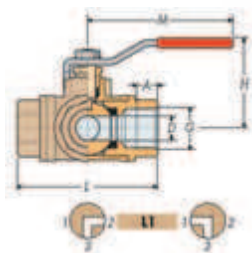
Ball valves III - 3-way L-bore, inner thread

Thread B.S.P. inch	PN --	A	D	H mm	G B.S.P.	M mm	L mm	Item no.
1/2"	32	14	12	62	1/2"	125	80	310110
3/4"	32	16	15	66	3/4"	125	90	310115
1"	32	19	20	73	1"	140	105	310120
1 1/4"	25	21	25	76	1 1/4"	140	115	310125
1 1/2"	25	23	32	97	1 1/2"	220	138	310130
2"	25	26	40	104	2"	220	161	310135

Ball valves IV - 3-way T-bore, inner thread

Thread B.S.P. inch	A	D	G B.S.P.	H mm	L mm	M mm	Item no.
1/2"	14	12	1/2"	62	80	125	310210
3/4"	16	15	3/4"	66	90	125	310215
1"	19	20	1"	73	105	140	310220
1 1/4"	21	25	1 1/4"	76	115	140	310225
1 1/2"	23	32	1 1/2"	97	138	220	310230
2"	26	40	2"	104	161	220	310235
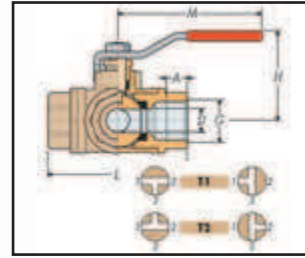
Ball valves V - 2-way, inner, outer thread

Thread B.S.P. inch	A	A1 mm	D	G B.S.P.	G1 B.S.P.	H mm	L mm	M mm	Item no.
1/4"	10	8	7,5	1/4"	1/4"	28	41	34	310250
3/8"	10	10	7,5	3/8"	3/8"	28	41	34	310251
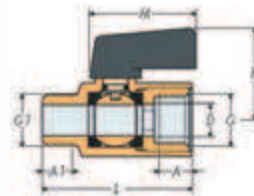
Ball valves - standard, inner thread

Thread B.S.P. inch	A	D	G B.S.P.	H mm	L mm	V mm	Item no.
1/4"	8	11	1/4"	66	36	45	3107
3/8"	9	13	3/8"	66	38	45	3101
1/2"	9	15	1/2"	68	38	45	3102
3/4"	10	19	3/4"	78	45	50	3103
1"	11	24	1"	92	48	55	3104
1 1/4"	11	32	1 1/4"	108	51	60	3105
1 1/2"	13	37	1 1/2"	125	58	70	3106
2"	13	47	2"	145	62	80	3166
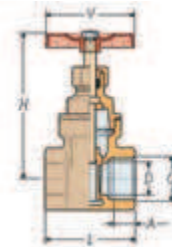
Check valves - inner thread, inner thread

Thread B.S.P. inch	D	G B.S.P.	H mm	Item no.
3/8"	29	3/8"	45	3239
1/2"	30	1/2"	48	3240
3/4"	37	3/4"	53	3265
1"	44	1"	59	3266
1 1/4"	56	1 1/4"	66	3267
1 1/2"	63	1 1/2"	71	3268
2"	78	2"	80	3269
2 1/2"	103	2 1/2"	93	3270
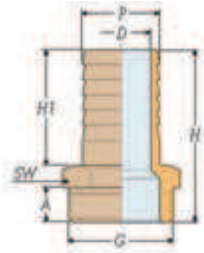
Hose connectors I - standard, outer thread

B.S.P. x Ø mm inch x mm	A	D	G B.S.P.	H mm	H1 mm	P mm	SW mm	Item no.
1/4" x 8	9	5	1/4"	39	25	8	16	3161
3/8" x10	10	6,5	3/8"	46	30	10	19	3131
1/2" x 13	12	9,5	1/2"	48	30	13	23	3121
1/2" x 16	12	12	1/2"	48	30	16	23	314200
3/4" x 13	12	9,5	3/4"	49	30	13	30	3126
3/4" x 20	12	15,5	3/4"	51	32	20	30	3122
1" x 25	13	19,5	1"	58	38	25	36	3123
1 1/4" x 32	14	26	1 1/4"	64	42	32	45	3124
1 1/4" x 45	14	34	1 1/4"	70	48	45	45	3128
1 1/2" x 38	16	32	1 1/2"	69	45	38	53	3125
1 1/2" x 45	16	39	1 1/2"	72	48	45	53	3127
2" x 45	16	39	2"	73	48	45	65	3163
2" x 51	16	50	2"	75	50	50	65	3165
2 1/2" x 63	18	56	2 1/2"	82	53	63	80	3167
3" x 76	18	67	3"	95	61	76	82	3168
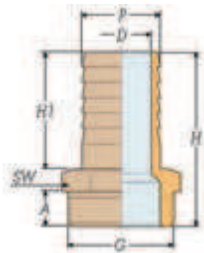
Hose connectors II - full flow, outer thread

B.S.P. x Ø mm inch x mm	A	D	G B.S.P.	H mm	H1 mm	P mm	SW mm	Item no.
1/4" x 10	9	6,5	1/4"	44	30	10	16	3151
3/8" x 13	10	9,5	3/8"	46	30	13	19	3152
1/2" x 20	12	15,5	1/2"	50	32	20	23	3153
3/4" x 25	12	20	3/4"	57	38	25	30	3154
1" x 32	13	26	1"	62	42	32	36	3155
1 1/4" x 38	14	32	1 1/4"	64	67	38	45	3156
1 1/2" x 50	16	40	1 1/2"	74	50	50	53	3164
4" x 100	21	92	4"	115	76	100	123	310681

Hose connectors III - standard, inner thread

B.S.P. x Ø mm inch x mm	A	D	H mm	H1 mm	P mm	SW mm	Item no.
1/4" x 10	11	6,5	43	30	10	16	314001
3/8" x 14	11	10,5	43	30	14	20	314003
1/2" x 15	12	11,5	44	30	15	25	314005
3/4" x 20	13	15	47	32	20	30	314007
1" x 25	14	20	55	38	25	38	314009
1 1/4" x 35	15	28	58	39	35	45	314011
1 1/2" x 40	16	34	60	43	40	50	314013
2" x 50	18	43	70	46	50	63	314016
2 1/2" x 70	21	62	83	58	70	78	314017
3" x 80	21	72	99	74	80	91	314018

Nipples - Outer thread, inner thread

Thread B.S.P. inch	A	D	G B.S.P.	H mm	SW mm	Item no.
1/4"	12	8,5	1/4"	29	16	3271
3/8"	14	12	3/8"	35	19	3272
1/2"	16	16	1/2"	40	23	3273
3/4"	18	20	3/4"	44	28	3274
1"	20	25	1"	48	38	3275
1 1/4"	21	34	1 1/4"	50	48	3276
1 1/2"	24	40	1 1/2"	57	54	3277
2"	25	51	2"	61	65	3278
2 1/2"	26	64	2 1/2"	61	81	3279

Reducing nipples - Outer thread, inner thread

Thread B.S.P. inch	A	A1 mm	D	G B.S.P.	G1 B.S.P.	H mm	SW mm	Item no.
1/4" x 1/8"	11	8,5	6	1/4"	1/8"	24,5	16	310302
3/8" x 1/4"	16,5	11	8,5	3/4"	1/4"	34	28	310303
1/2" x 3/8"	15	12	12	1/2"	3/8"	33	23	310304
3/4" x 1/2"	16,5	15	16	3/4"	1/2	38	28	310305
1" x 3/4"	19	16,5	20	1"	3/4"	42,5	35	310306
1 1/4" x 1"	19	11	8,5	1"	1/4"	37	35	310307
1 1/2" x 1 1/4"	22	15	16	1 1/4"	1/2"	45	48	310308
2" x 1 1/2"	26	22	39	2"	1 1/2"	57	65	310309
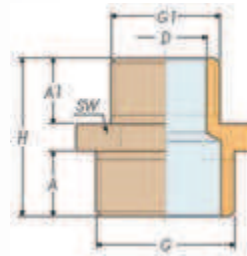
Elbows I - 90°, inner thread

Thread B.S.P. inch	A	G B.S.P.	H mm	Item no.
1/4"	11	1/4"	22	3221
3/8"	12	3/8"	23	3222
1/2"	14	1/2"	28	3223
3/4"	15	3/4"	33	3224
1"	18	1"	39	3225
1 1/4"	21	1 1/4"	43	3226
1 1/2"	21	1 1/2"	46	3227
2"	26	2"	56	3228
2 1/2"	23	2 1/2"	63	3229
3"	24	3"	74	3230
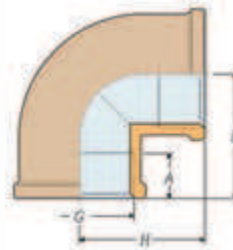
Elbows II - 90°, inner thread, outer thread

Thread B.S.P. inch	A	A1 mm	G B.S.P.	G1 B.S.P.	H mm	L mm	Item no.
1/4"	11	11	1/4"	1/4"	22	28	3253
3/8"	12	11	3/8"	3/8"	23	29	3254
1/2"	14	13	1/2"	1/2"	29	36	3255
3/4"	15	15	3/4"	3/4"	32	40	3256
1"	18	18	1"	1"	38	48	3257
1 1/4"	21	22	1 1/4"	1 1/4"	43	51	3258
1 1/2"	21	22	1 1/2"	1 1/2"	46	55	3259
2"	23	23	2"	2"	56	66	3260
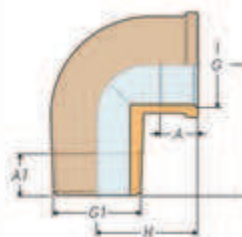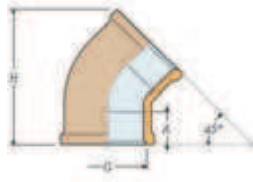
Elbows III - 45°, inner thread

Thread B.S.P. inch	A	G B.S.P.	H mm	Item no.
3/8"	11	3/8"	36	315001
1/2"	15	1/2"	46	315002
3/4"	16	3/4"	54	315003
1"	19	1"	64	315004
1 1/4"	21	1 1/4"	73	315005
1 1/2"	21	1 1/2"	79	315006
2"	26	2"	98	315007
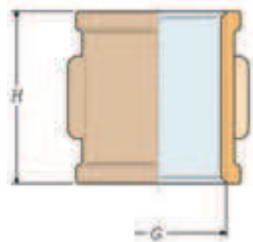
Couplings (inner thread) - inner thread

Thread B.S.P. inch	G B.S.P.	H mm	Item no.
1/4"	1/4"	27	3231
3/8"	3/8"	30	3232
1/2"	1/2"	32	3233
3/4"	3/4"	35	3234
1"	1"	43	3235
1 1/4"	1 1/4"	47	3236
1 1/2"	1 1/2"	52	3237
2"	2"	64	3238
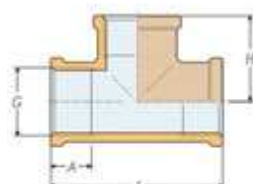
T-pieces - inner thread

Thread B.S.P. inch	A	G B.S.P.	H mm	L mm	Item no.
1/4"	11	1/4"	21	42	3211
3/8"	12	3/8"	24	47	3212
1/2"	13	1/2"	25	49	3213
3/4"	16	3/4"	30	60	3214
1"	18	1"	35	70	3215
1 1/4"	19	1 1/4"	43	85	3216
1 1/2"	22	1 1/2"	48	96	3217
2"	24	2"	57	115	3218
2 1/2"	24	2"	69	140	3219
3"	25	3"	75	149	310219
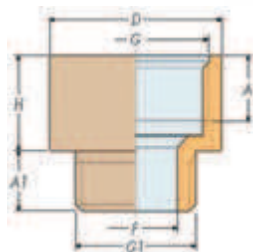
Reducing couplings - Inner thread, inner thread

Thread B.S.P. inch	A	A1 mm	D	F mm	G B.S.P.	G1 B.S.P.	H mm	Item no.
3/8" x 1/4"	10,5	9	21	8	3/8"	1/4"	13	3282
1/2" x 3/8"	10,5	10	27	11	1/2"	3/8"	15	3283
3/4" x 1/2"	12	10	32	12	3/4"	1/2"	15	3284
1" x 3/4"	12,5	11	40	17	1"	3/4"	16.,5	3285

Mutters - inner thread

Thread B.S.P. inch	G B.S.P.	H mm	SW mm	Item no.
1/2"	1/2"	8	26	3100.101
3/4"	3/4"	9	32	3100.102
1"	1"	9,5	38	3100.103
1 1/4"	1 1/4"	10	49	3100.104
1 1/2"	1 1/2"	11	56	3100.105
2"	2"	11	68	3100.106
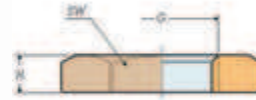
Rings -

Thread B.S.P. inch	D	F mm	H mm	Item no.
1/4"	22	13	2	3100.109
3/8"	26	17	2	3100.110
1/2"	33	22	2,5	3100.111
3/4"	38	27	3	3100.112
1"	48	34	3	3100.113
1 1/4"	55	43	4	3100.114
1 1/2"	64	49	5	3100.115
2"	77	61	6	3100.116
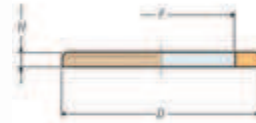
Caps - outer thread

Thread B.S.P. inch	A	G B.S.P.	H mm	SW mm	Item no.
1/4"	10	1/4"	21	8	310402
3/8"	11	3/8"	22	10	310403
1/2"	12	1/2"	25	11	310404
3/4"	15	3/4"	30	17	310405
1"	20	1"	35	19	310406
1 1/4"	21	1 1/4"	37	22	310407
1 1/2"	24	1 1/2"	40	22	310408
2"	26	2"	44	27	310409
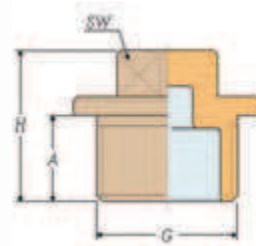
Plugs - inner thread

Thread B.S.P. inch	A	G B.S.P.	H mm	SW mm	Item no.
1/4"	11	1/4"	15	17	310412
3/8"	11	3/8"	15	20	310413
1/2"	13	1/2"	17	25	310414
3/4"	15	3/4"	21	32	310415
1"	17	1"	23	38	310416
1 1/4"	20	1 1/4"	26	47	310417
1 1/2"	20	1 1/2"	26	53	310418
2"	24	2"	31	66	310419
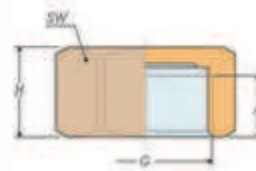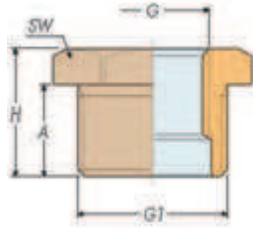
Reducers - outer thread, inner thread

Thread B.S.P. inch	A	G B.S.P.	G1 B.S.P.	H mm	SW mm	Item no.
3/8" x 1/4"	12	1/8"	3/8"	17,5	19	3241
1/2" x 3/8"	15	3/8"	1/2"	21	23	3242
3/4" x 1/2"	16,5	1/2"	3/4"	23	28	3243
1" x 1/2"	19	1/2"	1"	26	35	30201503
1" x 3/4"	19	3/4"	1"	26	35	3244
1 1/4" x 1"	22	1"	1 1/4"	30	48	3245
1 1/2" x 1 1/4"	22	1 1/4"	1 1/2"	31	54	3246
2" x 1 1/2"	26	1 1/2"	2"	36	65	3247
2 1/2" x 2"	26	2"	2 1/2"	36	80	3248
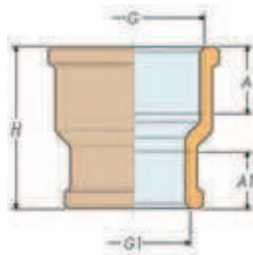
Reducing straight couplings - inner thread, inner thread

Thread B.S.P. inch	A mm	A1 mm	G B.S.P.	G1 B.S.P.	H mm	Item no.
1/2" x 3/8"	12	12	1/2"	3/8"	31	324002
3/4" x 1/2"	15	13	3/4"	1/2"	36	324003
1" x 3/4"	19	16	1"	3/4"	42	324004
1 1/4" x 1"	20	19	1 1/4"	1"	48	324005
1 1/2" x 1 1/4"	22	22	1 1/2"	1 1/4"	53	324006
2" x 1 1/2"	23	20	2"	1 1/2"	54	324007

Threaded pipes - outer thread

B.S.P. x inn.Ø inch x mm	D	G B.S.P.	L mm	Item no.
1/2" x 15 mm	15	1/2"	1000	315022
3/4" x 19 mm	19	3/4"	1000	315023
1" x 25 mm	25	1"	1000	315024
1 1/4" x 34 mm	34	1 1/4"	1000	315025

Extension pipes - outer thread

B.S.P. x Length inch x mm	A	D	G B.S.P.	H mm	Item no.
1/2" x 60	15	15	1/2"	60	315203
3/4" x 60	16	19	3/4"	60	315303
1" x 60	18	25	1"	60	315403
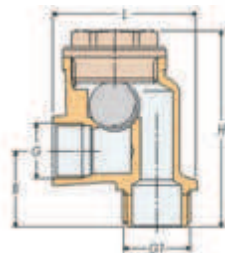
Siphonbreak valves - outer thread, inner thread

Thread B.S.P. inch	B	G B.S.P.	G1 B.S.P.	H mm	L mm	Item no.
1/2" - 3/8"	26	3/8"	1/2"	68	44	314902

Scoops - bolt on

Diam. x Height mm	D	D1 mm	H mm	L mm	Item no.
60 x 10	60	33	10	4	311201
80 x 15	80	54	15	4	311202
100 x 20	100	73	21	4	311203
120 x 25	120	96	27	4	311204
150 x 35	150	121	35	4	311205
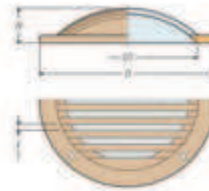
Strainers - outer thread

Thread B.S.P. inch	G B.S.P.	H mm	Item no.
3/8"	3/8"	50	3293
1/2"	1/2"	49	3294
3/4"	3/4"	55	3295
1"	1"	63	3296
1 1/4"	1 1/4"	69	3297
1 1/2"	1 1/2"	79	3298
2"	2"	94	3299
2 1/2"	2 1/2"	95	3299.1

PVC
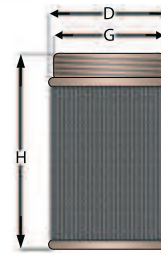
Y-valves -

Connections mm	Description	Item no.
38		333036
	2-way valve	45500-1000

Check valves - hose connector

Connections mm	Item no.
19	333213
25	333211
38	333212

Vented loops - hose connector

Connections mm	Item no.
19	333111
25	333113
38	333112

Suction scoops - hose connector

Connections mm	Item no.
19	333216
25	333214
38	333215

SS 316
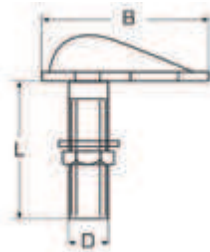
Inlet strainers - outer thread

B.S.P. x Length inch x mm	B	D	L mm	Item no.
1/2" x 72	90	1/2	72	387082
3/4" x 80	104	3/4	80	387083
1" x 77	107	1	77	387084
1 1/2" x 80	132	1 1/2	80	387086
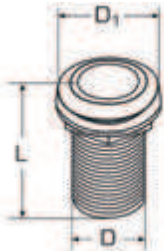
Skin fittings - outer thread

B.S.P. x Length inch x mm	D1 mm	L mm	Item no.
3/8" x 54	33	54	387091
1/2" x 60	40	60	387092
3/4" x 68	48	68	387093
1" x 72	54	72	387094
1 1/4" x 78	70	78	387095
1 1/2" x 80	75	80	387096
2" x 95	85	95	387097
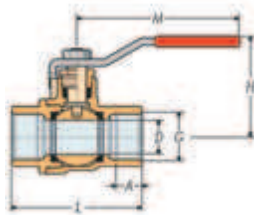
Ball valves - 2-way, inner thread

Thread B.S.P. inch	PN --	A	G B.S.P.	H mm	L mm	M mm	Item no.
3/8"	63	8	3/8"	63	45	93	387001
1/2"	63	14	1/2"	63	58	94	387002
3/4"	63	14	3/4"	76	60	102	387003
1"	63	16	1"	78	78	134	387004
1 1/4"	63	19,5	1 1/4"	80	90	134	387005
1 1/2"	63	21	1 1/2"	86	106	150	387006
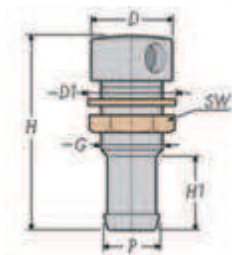
Gas tank vents - hose connector

Diameter mm	D	D1 mm	H mm	H1 mm	P mm	Item no.
16	25	32	76	30	17	314211

Chrome-plated brass
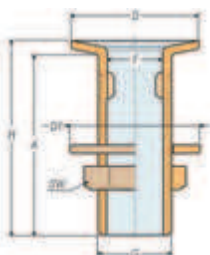
Skin fittings - recessed, outer thread

B.S.P. x Length inch x mm	A	D	D1 mm	F mm	G B.S.P.	H mm	SW mm	Item no.
3/8" x 53	53	30	33	12	3/8"	95	23	311137
1/2" x 60	60	35	37	15	1/2"	86	26	311138
3/4" x 65	65	46	47	20	3/4"	85	32	311139
1" x 80	80	52	55	25	1"	70	38	311140
1 1/4" x 80	80	61	64	33	1 1/4"	65	49	311141
1 1/2" x 90	90	68	72	39	1 1/2"	57	56	311142

Air vents - hose connector

B.S.P. x Length inch x mm	A	D	F mm	G B.S.P.	H mm	L mm	SW mm	Item no.
1/2" x 65	65	33	15	1/2"	85	61	26	314212
3/4" x 70	70	38	20	3/4"	93	71	32	314213
1" x 75	75	48	25	1"	102	84	38	314214
1 1/4" x 80	80	55	33	1 1/4"	111	101	49	314215
1 1/2" x 85	85	64	38	1 1/2"	119	112	56	314216
2" x 90	90	77	49	2"	130	135	68	314217
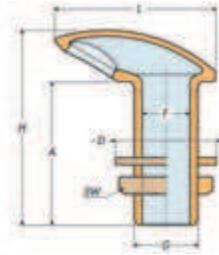
Gas tank vents I - hose connector

Diameter mm	D mm	D1 mm	G --	H mm	H1 mm	P mm	SW mm	Item no.
16	25	27	19x19F	60	23	16	23	314802
20	32	38	3/4"	70	25	20	32	314803
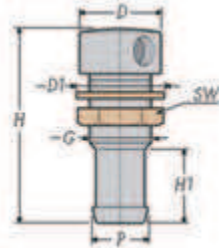
Gas tank vents II - hose connector

Diameter mm	D mm	D1 mm	G --	H mm	L1 mm	P mm	SW mm	Item no.
16	48	48	Ø35x14F - Ø16	49	23	16	38	314208
20	54	54	1 1/4"- Ø20	59	26	20	46	314209
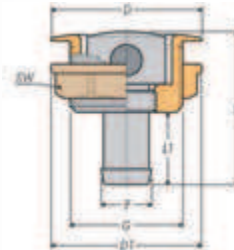
Gas tank vents III - hose connector

Diameter mm	D mm	D1 mm	G --	H mm	L mm	L1 mm	P mm	SW mm	Item no.
16	25	27	19x19F	77	52	20	17	23	314203
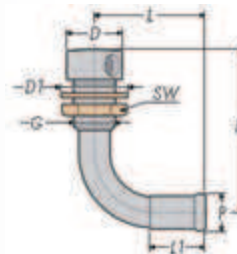
Gas tank vents IV - hose connector

Diameter mm	D mm	D1 mm	G --	H mm	L mm	P mm	SW mm	Item no.
16	48	48	Ø35x14F - Ø16	68	52	16	38	314207
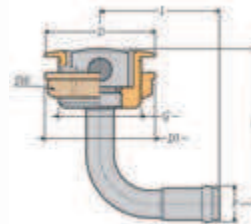
Gas tank vents V - hose connector

Diameter mm	A	D	F mm	H mm	SW mm	P mm	Item no.
13	48	32	11	61	25	14	314206

Brass

The Ship leaves ports are polished brass and are provided in toughened glass.

Installation diam.	Diameter	Outer diam.	Item no.
145 mm	5" inch	175 mm	0915
170 mm	6" inch	200 mm	0916
195 mm	7" inch	230 mm	0917
225 mm	8" inch	260 mm	0918
280 mm	10" inch	315 mm	0920
145 mm	5" inch	175 mm	0945
170 mm	6" inch	200 mm	0946
195 mm	7" inch	230 mm	0947
225 mm	8" inch	260 mm	0948
280 mm	10" inch	315 mm	0950

Hollex Portholes and fixed portlights

Stainless steel

These opening and fixed portlights are made of stainless steel 304 and have toughened glass. Supplied complete with portlight trim. Suitable for a bulkhead thickness of 4 - 15 mm. The opening and fixed portlights are both available in three sizes. Mosquito screens are in RVS available for the opening portlights.

stainless steel 304

Description	Suitable for	Glass diameter	Installation diam.	Outer diam.	Item no.
Portlight, opening		100 mm	116 mm	165 mm	0934
Portlight, opening		125 mm	141 mm	190 mm	0935
Portlight, opening		150 mm	166 mm	215 mm	0936
Portlight, fixed		125 mm	141 mm	190 mm	0955
Portlight, fixed		150 mm	166 mm	215 mm	0956
		200 mm	215 mm	265 mm	0957
Mosquito screen	0934	100 mm	116 mm	165 mm	0924
Mosquito screen	0935	125 mm	141 mm	190 mm	0925
Mosquito screen	0936	150 mm	166 mm	215 mm	0926

Stainless steel

These opening portlights are made of stainless steel 304 and have toughened glass. Supplied complete with portlight trim. Suitable for a bulkhead thickness of 4 - 16 mm. Mosquito screens are available for all sizes

stainless steel 304

Installation diam.	Diameter	Outer diam.	Item no.
160 mm	6" inch	218 mm	0901
210 mm	8" inch	269 mm	0902
261 mm	10" inch	320 mm	0903
160 mm	6" inch	218 mm	0911
210 mm	8" inch	269 mm	0912
261 mm	10" inch	320 mm	0913

Gebo port holes

Portholes Round & elliptical shaped

Easily mounting porthole. Matching mosquito is available.

CE ISO 12216 ISO 9094

Thickness acrylate   : 10 mm

Description	Installation diam.	Cut out size L x W	Item no.
Round	175 mm		81.00.75.00
	198 mm		81.00.81.00
	236 mm		81.00.83.00
Elliptical		510 x 165 mm	81.00.79.00
Mosquito screen	175 mm		84.75.00.11
Mosquito screen	198 mm		84.75.00.12
Mosquito screen	236 mm		84.75.00.13
Mosquito screen		510 x 165 mm	84.75.79.00

Portholes globular shaped

Globular portlight available in international standard sizes. Feature an unique clamping system for the fasted and neatest finish. Made of high quality non-corrosive materials. Aluminum mosquito and rain cap are available as an option.

CE | **ISO 12216** | **ISO 9094**

Thickness acrylate : 10 mm
Radius : 2xr = 88 mm

Description	Cut out size L x W	Item no.
Globular, opening	375 x 175 mm	81.00.20.05
Globular, fixed	375 x 175 mm	81.20.21.05
Mosquito screen	375 x 175 mm	84.75.00.09
Rain cap	375 x 175 mm	84.85.00.09

Portholes rectangular

Rectangular port hole. Aluminum mosquito and rain cap are available.

CE | **ISO 12216** | **ISO 9094**

Thickness acrylate : 10 mm
Radius : 4 x r : 56 mm mm

Description	Cut out size L x W	Item no.
Rectangular, opening	375 x 175 mm	81.00.20.00
Rectangular, opening	375 x 215 mm	81.00.30.00
Rectangular, opening	475 x 255 mm	81.00.40.00
Rectangular, fixed	375 x 175 mm	81.20.21.00
Rectangular, fixed	375 x 215 mm	81.20.31.00
Rectangular, fixed	475 x 255 mm	81.20.41.00
Mosquito screen	375 x 175 mm	84.75.00.03
Mosquito screen	375 x 215 mm	84.75.00.04
Mosquito screen	475 x 255 mm	84.75.00.05
Rain cap	375 x 175 mm	84.85.00.03
Rain cap	375 x 215 mm	84.85.00.04
Rain cap	475 x 255 mm	84.85.00.05
Globular, fixed	375 x 175 mm	81.20.21.05

Parts for portholes & portlights

Gebo Seal R 610, per meter.

Description	Suitable for	Item no.
Seal R 610, per meter		089.60.06.20
Gebo Polishing paste acrylate	Gebo hatches	089.90.00.00

Escape hatches

Gebo standard deckhatch without flange.
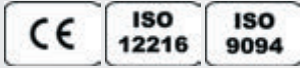
Height   : 40 mm
Radius   : 30 mm

Cut out size L x W	Thickness acrylate	Item no.
450 x 320 mm	10 mm	80.20.30.00
500 x 370 mm	10 mm	80.20.40.00
500 x 500 mm	10 mm	80.20.50.00
620 x 620 mm	15 mm	80.20.60.00

Mosquito screens and roller blinds combined with mosquito screens

Gebo mosquito screen for deckhatch 84.20.30.00.

Description	Cut out size L x W	Suitable for	Item no.
Mosquito screen	450 x 320 mm	80.20.30.00	84.55.01.23
Mosquito screen	500 x 370 mm	80.20.40.00	84.55.01.24
Mosquito screen	500 x 500 mm	80.20.50.00	84.55.01.25
Mosquito screen	620 x 620 mm	80.20.50.00	84.55.01.26
Fly-blind	450 x 320 mm	80.20.30.00, 80.21.10.00	84.70.01.50
Fly-blind	500 x 370 mm	80.20.40.00, 80.21.20.00	84.70.01.51
Fly-blind	500 x 500 mm	80.20.50.00, 80.21.30.00	84.70.01.52
Fly-blind	620 x 620 mm	80.20.50.00, 80.21.40.00	84.70.01.53

Inner trims for deck- and escape hatches - Aluminum

Gebo inner trim made of aluminum for deck and escape hatches.

Cut out size L x W	Suitable for	Item no.
450 x 320 mm	80.20.30.00	80.07.45.03
500 x 370 mm	80.20.40.00	80.07.40.00
500 x 500 mm	80.20.50.00	80.07.50.00
620 x 620 mm	80.20.60.00	80.07.61.00
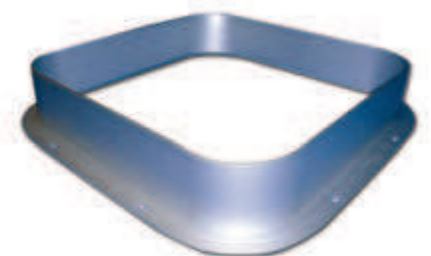
Escape hatches

Gebo standard deckhatch with flange.

CE | ISO 12216 | ISO 9094

Height : 40 mm
Radius : 55 mm

Cut out size L x W	Thickness acrylate	Item no.
450 x 320 mm	10 mm	80.21.10.00
500 x 370 mm	10 mm	80.21.20.00
500 x 500 mm	10 mm	80.21.30.00
620 x 620 mm	15 mm	80.21.40.00

Mosquito screens and roller blinds combined with mosquito screens

Gebo mosquito screen for deckhatch 80.21.10.00.

Description	Cut out size L x W	Suitable for	Item no.
Mosquito screen	450 x 320 mm	80.21.10.00	84.55.00.40
Mosquito screen	500 x 370 mm	80.21.20.00	84.55.00.41
Mosquito screen	500 x 500 mm	80.21.30.00	84.55.00.42
Mosquito screen	620 x 620 mm	80.21.40.00	84.55.00.43
Fly-blind	450 x 320 mm	80.20.30.00, 80.21.10.00	84.70.01.50
Fly-blind	500 x 370 mm	80.20.40.00, 80.21.20.00	84.70.01.51
Fly-blind	500 x 500 mm	80.20.50.00, 80.21.30.00	84.70.01.52
Fly-blind	620 x 620 mm	80.20.50.00, 80.21.40.00	84.70.01.53

Inner trims for deck- and escape hatches - Aluminum

Gebo inner trim made of aluminum for deck and escape hatches.
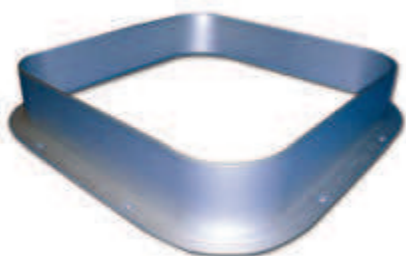
Cut out size L x W	Suitable for	Item no.
500 x 370 mm	80.21.20.00	80.07.45.00
500 x 500 mm	80.21.30.00	80.07.51.00
620 x 620 mm	80.21.40.00	80.07.39.00

Escape hatches

Gebo Flushline deckhatch with low profile.

CE · ISO 12216 · ISO 9094

Height   : 42 mm
Radius   : 70 mm

Cut out size L x W	Thickness acrylate	Item no.
420 x 420 mm	8 mm	80.50.60.00
450 x 320 mm	8 mm	80.50.40.01
510 x 510 mm	10 mm	80.55.90.00
620 x 620 mm	10 mm	80.55.10.00

Mosquito screens and roller blinds combined with mosquito screens

Gebo Mosquito screen for flushline 420 x 420.

Description	Cut out size L x W	Suitable for	Item no.
	419 x 419 mm	80.50.60.00	84.50.00.01
	449 x 319 mm	80.50.40.01	84.50.00.09
	509 x 509 mm	80.55.90.00	84.50.00.03
	619 x 619 mm	80.55.10.00	84.50.00.05
Fly-blind	450 x 320 mm	80.20.30.00, 80.21.10.00	84.70.01.50
Fly-blind	500 x 500 mm	80.20.50.00, 80.21.30.00	84.70.01.52
Fly-blind	620 x 620 mm	80.20.50.00, 80.21.40.00	84.70.01.53

Inner trims for deck- and escape hatches - ABS

Gebo inner trim made of ABS for flushline hatches. When using an inner trim only roller blinds can be installed (no standard mosquito screens).

Cut out size L x W	Suitable for	Item no.
420 x 420 mm	80.50.60.00	84.60.00.01
510 x 510 mm	80.55.90.00	84.60.00.03
620 x 620 mm	80.55.10.00	84.60.00.05

For Gebo escape hatches

Gebo cover for hatch 500x500 mm

Description	Suitable for	Item no.
Hatchcover	Hatches 500 x 500 mm	084.80.01.52
Right Handle set complete	Standard up to 500 x 500 mm	089.65.01.00
Left handle set complete	Standard up to 500 x 500 mm	089.65.02.00
Hinge Repair set 10mm	Standard up to 500 x 500 mm	089.69.91.00
Right handle set complete	Standard 620 x 620 mm (and larger)	089.65.03.00
Left handle set complete	Standard 620 x 620 mm (and larger)	089.65.04.00
Hinge repair set 15mm	Standard 620 x 620 mm (and larger)	089.69.91.50
Sealing rubber R 163, per meter		089.60.06.00
Stay	Flushline	080.50.00.00
Sealing rubber R 113, per meter	Flushline	089.60.01.13
Gebo Polishing paste acrylate	Gebo hatches	089.90.00.00

R 113

R 163

Kahlenberg Sound Signaling

"Zero"-series for vessels up to 20 meters (Class IV)

Kahlenberg airhorns are made of spun brass and cast bronze. The "Zero-series" comes in high quality chrome plated. Naturally, all Kahlenberg horns meet the IMO-standards for frequency and amount of decibels. The required compressor needs to be ordered separately. It is possible to equip your airhorn system with a manual or electric control.

Required pressure   : 50 - 200 / 3,5 - 14 psi/bar

Pos.	Description	Model / type	Color	Length	Frequency	Sound level	Consumption	Item no.
1	Kahlenberg single horn	S-0A	Chrome	433 mm	322 Hz	122,9 dB	9 CFM	021101
2	Kahlenberg double horn	D-0A	Chrome	576 mm	322 / 254 Hz	122,5 dB	17.6 CFM	021201

Compressorkits "Zero"-series

The required compressor for your Kahlenberg airhorn comes in a very complete kit.

Capacity: 24 liter per minute
Max. pressure: 150 psi / 10.31 bar

Voltage	Description	Model / type	Current	Length x diam.	Item no.
12 V	Kahlenberg compressor	P449-17	21,0 A	178 x 203 mm	021412
24 V	Kahlenberg compressor	P449-18	12,0 A	178 x 203 mm	021424

"330"-series for vessels from 20 up to 75 meters (Class III)

Kahlenberg airhorns are made of spun brass and cast bronze. The "330-series" comes in high quality chrome plated. Naturally, all Kahlenberg horns meet the IMO-standards for frequency and amount of decibels. The required compressor needs to be ordered separately. It is possible to equip your airhorn system with a manual or electric control.

Required pressure   : 50 - 200 / 3.5 - 13.8 psi/bar

Also available in gold, black or white finish upon request.

Pos.	Description	Model / type	Color	Length	Frequency	Sound level	Item no.
1	Kahlenberg single horn	S-330	Chrome	433 mm	330 Hz	132 (op 1m) dB	021311
2	Kahlenberg double horn	D-330	Chrome	563 mm	330 / 280 Hz	133 (op 1m) dB	021321

Compressorkits "330"-series

The required compressor for your Kahlenberg airhorn comes in a very complete kit. The compressor kit contains the following items:
Compressor: 12V or 24V with tank, pressure switch and bleeder
Connectors: 1 hose connector 1/4" NPT_x_5/16", 1 nipple 1/8" NPT, 1 hose connector 1/8" NPT_x_5/16", 1 pressure vent 130/100 psi, 1 hose connector 1/8" NPT_x_1/4", 1 t-piece 1/8" NPT, 1 hose connector 1/4" NPT_x_1/4"
Hose: 4,5 meter 5/16 OD.

Maximum pressure: 150 psi / 10,31 bar
Noise level: 9 dB at 1 meter
Air output: 26 litre per minute

Capacity: 26 liter per minute
Max. pressure: 150 psi / 10.31 bar

Voltage	Description	Model / type	Current	Length x diam.	Item no.
12 V	Kahlenberg compressor	P449-26	20 A	178 x 203 mm	021826
24 V	Kahlenberg compressor	P449-25	14 A	178 x 203 mm	021825

Solenoid valves

Original Kahlenberg solenoid valve for airhorn.

Pos.	Voltage	Description	Model / type	Item no.
1	12 V	Kahlenberg solenoid valve 12V for K-380 / K-460	V-170-K	021627
2	12 V	Kahlenberg solenoid valve 12V for D-0A/S-0A/S-330	V-69-K	021612
-	24 V	Kahlenberg solenoid valve for D-0A/S-0A/S-330	V-69-K	021624
3	12 V	Kahlenberg solenoid valve 12V for D-330	V-149-K	021625
-	24 V	Kahlenberg solenoid valve 24V for D-330	V-149-K	021626

Controls for sound signaling

Orginal Kahlenberg hand-operated control.

Pos.	Voltage	Description	Model / type	Item no.
1		Kahlenberg manual valve	V-110B	021600
2	12 V	Kahlenberg signal controller, fog signal timer	M-485A	021712
-	24 V	Kahlenberg signal controller, fog signal timer		021724

Chrome-plated brass

Chrome plated brass air horns with matching compressor for heavy duty sound. Supplied complete with hose connector, flexible hose (one metre), gasket and extra support for the horn. Please order a compressor separately. The compressors come complete with relay and all necessary fittings. For hose lengths over two metres, compressor type HD should be used.

chrome
plated
brass

Pos.	Voltage	Description	Color	Length	Sound level	Item no.
1		Hollex chrome-plated brass horn		475 mm	120 dB	021475
1		Hollex chrome-plated brass horn		585 mm	120 dB	021585
2	12 V	Hollex compressor HD				021594
2	24 V	Compressor HD				021596
3		Hollex hose for horn (price per meter)	Transparant			0200.090

Stainless steel 316 with protective endcap

Stainless steel 316 air horns with matching compressor for heavy duty sound. Supplied complete with hose connector, flexible hose (one metre), gasket and extra support for the horn. Please order a compressor separately. The compressors come complete with relay and all necessary fittings.

stainless
steel
316

Pos.	Voltage	Description	Color	Length	Frequency	Sound level	Item no.
1		Air horn		528 mm	180 Hz	118 dB	021528
2	24 V	Hollex compressor 24V Marco					0244
2	12 V	Hollex compressor 12V Marco					0245
3		Hollex hose for horn (price per meter)	Transparant				0200.090

Stainless steel 316

Stainless steel 316 air horns with matching compressor for heavy duty sound. Supplied complete with hose connector, gasket and extra support for the horn. Please order a compressor separately. The compressors come complete with relay and all necessary fittings.

Pos.	Voltage	Description	Color	Length	Frequency	Sound level	Item no.
1		Hollex SS 316 horn		430 mm	320 Hz	120 dB	021430
2	12 V	Hollex compressor HD					021594
2	24 V	Compressor HD					021596
3		Hollex hose for horn (price per meter)	Transparant				0200.090

Electric horns

Stainless steel 304

Electric marine horn manufactured of stainless steel 304. Sound of 120dB with 340 Hz for the single horn. The double horn has a sound of 120 dB with 340 / 390 Hz. The horns are available in 12V and 24V. Power consumption is 3A - 4A per horn.

Pos.	Voltage	Description	Current	Length	Frequency	Sound level	Item no.
1	12 V	Hollex electrical horn 12V	3 A	410 mm	340 Hz	120 dB	021033
1	24 V	Hollex electrical horn 24V	1.5 A	410 mm	340 Hz	120 dB	021035
2	12 V	Hollex double electrical horn 12V	3 + 4 A	410 / 470 mm	340 / 390 Hz	120 dB	021034

Recessed horns

These built-in electric marine horns are available in 12 V The sound range is 112dB. The pitch is 405 Hz. The power-consumption of the horn is about 4.5 A.

Voltage	Description	Current	Color	L x W x H	W x D x H	Frequency	Sound level	Item no.
12 V	Hollex Built-in horn 12V white	4,5 A	White	141 x 106 x 94 mm	141 x 106 x 94 mm	405 Hz	112 dB	021324
12 V	Hollex Built-in horn 12V silver	4,5 A	Silver	141 x 106 x 94 mm	141 x 106 x 94 mm	405 Hz	112 dB	021325

Recessed horns Easterner

Voltage	Current	L x W x H	Sound level	Item no.
12 V	3,0 A	44 x 83 x mm	115 ± 5 dB	EP-HYF364BG

Surface mount horns "Mini" I

These small horns have a completely sealed sound unit. The cover, the diaphragm and the bracket are all made of stainless steel 304. The Mini Compact horn has an output of 106dB, the Mini Twin will give up to 109dB. The Compact has a frequency of 440 Hz, the Twin of 440/490 Hz. Each horn takes 3A per piece. The Minis only come in 12V.

stainless steel 304

Pos.	Voltage	Description	Current	L x W x H	Frequency	Sound level	Item no.
1	12 V	Hollex airhorn mini compact 12V	3 A	76 x 83 x 44 mm	440 Hz	106 dB	021211
2	12 V	Hollex airhorn mini twin 12V	3 + 3 A	76 x 203 x 44 mm	440 / 490 Hz	109 dB	021212

Surface mount horns "Mini" II

Mini horn with none rust plastic housing. Stainless steel cover, diaphragm & mounting bracket. Vibration-damping pad also included.

Voltage	Current	L x W x H	Sound level	Item no.
12 V	2,0 A	99 x 83 x 51 mm	110 ± 5 dB	EP-HYF364SC

Surface mount horns "Compact"

stainless steel 304

Voltage	Current	L x W x H	Frequency	Sound level	Item no.
12 V	3 A	111x86x51 mm	430 ±20 Hz	106 dB	021210

Jetty (dock) fenders - mini, corner and straight

The Hollex Dockfenders are made of an unique strong UV-resistant marine grade of vinyl. These fenders are ready to use and easy to install.

UV RESISTANT

Recommended pressure   : 0,2 Bar

Position	Description	Color	Fender dimensions	Item no.
1	Jetty Fender Corner	Blue	20 x 20 x 10 x 7 cm	0474.BL
-	Jetty Fender Corner	Dark blue	20 x 20 x 10 x 7 cm	0474.DB
-	Jetty Fender Corner	White	20 x 20 x 10 x 7 cm	0474.WI
-	Jetty Fender Corner	Black	20 x 20 x 10 x 7 cm	0474.ZW
-	Jetty Fender Mini	Blue	10 x 25 x 7 cm	0475.BL
-	Jetty Fender Mini	Dark blue	10 x 25 x 7 cm	0475.DB
2	Jetty Fender Mini	White	10 x 25 x 7 cm	0475.WI
-	Jetty Fender Mini	Black	10 x 25 x 7 cm	0475.ZW
-	Jetty Fender Straight	Blue	10 x 50 x 7 cm	0476.BL
-	Jetty Fender Straight	Dark blue	10 x 50 x 7 cm	0476.DB
-	Jetty Fender Straight	White	10 x 50 x 7 cm	0476.WI
3	Jetty Fender Straight	Black	10 x 50 x 7 cm	0476.ZW

Dock fenders

The Hollex Dockfenders are made of an unique strong UV-resistant marine grade of vinyl. These fenders are ready to use and easy to install.

UV RESISTANT

Recommended pressure   : 0,2 Bar

Position	Description	Color	Fender dimensions	Item no.
1	Dockfender Flex	White	100 x 12 x 7 cm	0477.WI
-	Dockfender Flex	Dark blue	100 x 12 x 7 cm	0477.DB
-	Dockfender Flex	Black	100 x 12 x 7 cm	0477.ZW
-	Dockfender Mini	White	50 x 12 x 7 cm	0478.WI
-	Dockfender Mini	Dark blue	50 x 12 x 7 cm	0478.DB
2	Dockfender Mini	Black	50 x 12 x 7 cm	0478.ZW
-	Dockfender Straight	White	100 x 12 x 7 cm	0479.WI
3	Dockfender Straight	Dark blue	100 x 12 x 7 cm	0479.DB
-	Dockfender Straight	Black	100 x 12 x 7 cm	0479.ZW
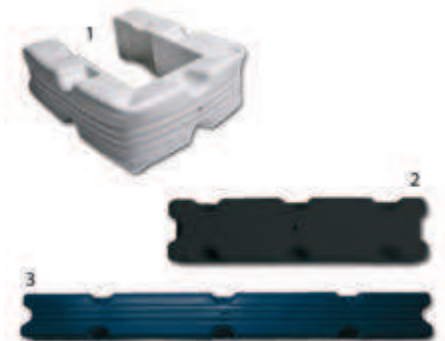
Majoni Cylinder fenders

The Hollex cylinder fenders are made of an unique strong UV-resistant marine grade of vinyl. All Hollex ball fenders have a strong brass valve for easy inflation and deflation.

Hollex fenders require minimal maintenance. Wash with clean water and if dirty with hot water and soap. Available in several colors.

UV RESISTANT

Recommended pressure   : 0,2 Bar

Recommended air pressure: 0.2 Bar

Position	Description	Color	Fender dimensions	Item no.
1	Cylinderfender 0	Blue	9 x 30 cm	0404
-	Cylinderfender 0	Dark blue	9 x 30 cm	0405
-	Cylinderfender 0	White	9 x 30 cm	0402
-	Cylinderfender 0	Black	9 x 30 cm	0403
-	Cylinderfender 1	Blue	10 x 42 cm	0447
-	Cylinderfender 1	Dark blue	10 x 42 cm	0449
-	Cylinderfender 1	Extra dark blue	10 x 42 cm	0449-1
2	Cylinderfender 1	White	10 x 42 cm	0406
-	Cylinderfender 1	Black	10 x 42 cm	0448
3	Cylinderfender 2	Blue	12 x 55 cm	0409
-	Cylinderfender 2	Dark blue	12 x 55 cm	0450
-	Cylinderfender 2	Extra dark blue	12 x 55 cm	0450-1
-	Cylinderfender 2	White	12 x 55 cm	0412
-	Cylinderfender 2	Black	12 x 55 cm	0432
-	Cylinderfender 2	Grey silver	12 x 55 cm	0450-2
-	Cylinderfender 3	Blue	16 x 60 cm	0408
-	Cylinderfender 3	Dark blue	16 x 60 cm	0451
-	Cylinderfender 3	Extra dark blue	16 x 60 cm	0451-1
4	Cylinderfender 3	White	16 x 60 cm	0411
-	Cylinderfender 3	Black	16 x 60 cm	0431
-	Cylinderfender 3	Grey silver	16 x 60 cm	0451-2
-	Cylinderfender 4	Blue	22 x 65 cm	0407
-	Cylinderfender 4	Dark blue	22 x 65 cm	0452
5	Cylinderfender 4	Extra dark blue	22 x 65 cm	0452-1
-	Cylinderfender 4	White	22 x 65 cm	0410
-	Cylinderfender 4	Black	22 x 65 cm	0429
-	Cylinderfender 4	Grey silver	22 x 65 cm	0452-2
-	Cylinderfender 5	Blue	25 x 80 cm	0414
-	Cylinderfender 5	Dark blue	25 x 80 cm	0453
-	Cylinderfender 5	Extra dark blue	25 x 80 cm	0453-1
-	Cylinderfender 5	White	25 x 80 cm	0416
6	Cylinderfender 5	Black	25 x 80 cm	0430
-	Cylinderfender 5	Grey silver	25 x 80 cm	0453-2
-	Cylinderfender 6	Blue	30 x 90 cm	0415
-	Cylinderfender 6	Dark blue	30 x 90 cm	0454
-	Cylinderfender 6	Extra dark blue	30 x 90 cm	0454-1
-	Cylinderfender 6	White	30 x 90 cm	0417
-	Cylinderfender 6	Black	30 x 90 cm	0433
7	Cylinderfender 6	Grey silver	30 x 90 cm	0454-2

Majoni Float fenders

The Hollex ball fenders are made of an unique strong UV-resistant marine grade of vinyl. All Hollex ball fenders have a strong brass valve for easy inflation and deflation.
Hollex fenders require minimal maintenance. Wash with clean water and if dirty with hot water and soap. Available in several colors.

UV RESISTANT

Recommended pressure   : 0,2 Bar

Recommended air pressure: 0.2 Bar

Position	Description	Color	Fender dimensions	Item no.
1	Bolfender 35	Blue	35 x 48 cm	0439
-	Bolfender 35	Dark blue	35 x 48 cm	0455
-	Bolfender 35	Extra dark blue	35 x 48 cm	0462
-	Bolfender 35	White	35 x 48 cm	0425
-	Bolfender 35	Black	35 x 48 cm	0435
-	Bolfender 35	Orange	35 x 48 cm	0420
-	Bolfender 45	Blue	45 x 62 cm	0440
2	Bolfender 45	Dark blue	45 x 62 cm	0456
-	Bolfender 45	Extra dark blue	45 x 62 cm	0460
-	Bolfender 45	White	45 x 62 cm	0426
-	Bolfender 45	Black	45 x 62 cm	0436
-	Bolfender 45	Orange	45 x 62 cm	0421
-	Bolfender 55	Blue	55 x 73 cm	0441
-	Bolfender 55	Dark blue	55 x 73 cm	0457
3	Bolfender 55	Extra dark blue	55 x 73 cm	0463
-	Bolfender 55	White	55 x 73 cm	0427
-	Bolfender 55	Black	55 x 73 cm	0437
-	Bolfender 55	Orange	55 x 73 cm	0422
-	Bolfender 65	Blue	65 x 88 cm	0442
-	Bolfender 65	Dark blue	65 x 88 cm	0458
-	Bolfender 65	Extra dark blue	65 x 88 cm	0464
-	Bolfender 65	White	65 x 88 cm	0428
-	Bolfender 65	Black	65 x 88 cm	0438
4	Bolfender 65	Orange	65 x 88 cm	0423

Majoni Anchor-, bowbuoy-, dumpy-, and ringfenders

The Hollex bow fenders are made of an unique strong UV-resistant marine grade of vinyl. All Hollex bow fenders have a strong brass valve for easy inflation and deflation.
Hollex fenders require minimal maintenance. Wash with clean water and if dirty with hot water and soap.

UV RESISTANT

Recommended pressure   : 0,2 Bar

Recommended air pressure: 0.2 Bar

Position	Description	Color	Fender dimensions	Item no.
-	Majoni bow fender	Blue	9 x 70 cm	0466.BL
1	Majoni bow fender	Dark blue	9 x 70 cm	0466.DB
-	Majoni bow fender	Extra dark blue	9 x 70 cm	0466.DDB
-	Dumpy fender type 1	Blue	15 x 30 cm	0487
-	Dumpy fender type 1	Dark blue	15 x 30 cm	0481
2	Dumpy fender type 1	White	15 x 30 cm	0483
-	Dumpy fender type 1	Black	15 x 30 cm	0485
3	Dumpy fender type 2	Blue	18 x 36 cm	0488
-	Dumpy fender type 2	Dark blue	18 x 36 cm	0482
-	Dumpy fender type 2	White	18 x 36 cm	0484
-	Dumpy fender type 2	Black	18 x 36 cm	0486
4	Majoni Anchor Buoy	Yellow	15 x 21 cm	0471
-	Majoni Anchor Buoy	Orange	15 x 21 cm	0470
-	Majoni Anchor Buoy	Orange	35 x 40 cm	0472
5	Majoni Anchor Buoy	Orange	35 x 46 cm	0473
-	Majoni ringfender	Blue	10 x 30 cm	0419
-	Majoni ringfender	Dark blue	10 x 30 cm	0459
6	Majoni ringfender	Extra dark blue	10 x 30 cm	0465
-	Majoni ringfender	White	10 x 30 cm	0418
-	Majoni ringfender	Black	10 x 30 cm	0444

Accessories for fenders

The best way to inflate a Hollex fender is just pushing air pressure from a compressor with a flat head against the valve and the fender will inflate. It also is possible to inflate the fender with a bicycle or car pump with the special adaptor. Do not use a hand-set with a pin to inflate, because the pin can damage the valve. Best inflation pressure is 0.2 bar / 2.9 psi. This is the pressure where you should be able to press the body of the fender visible easy with your flat hand.
Valves can be replaced by using a bolt M3 and pliers to remove/replace the valve.

Position	Description	Item no.
1	Fender valve (bicycle connection)	0498
2	Valve for fender	0499

For float- and cylinder fenders

Especially in the summer, the fenders often have a sticky surface, which melt and rub off onto the skin of your boat. This sticky surface collects dirt and the skin (and your fender) becomes grimey and rough. The durable fenderfits protect your vessel and the fender against dirt and damage. Another advantage is the elimination of the irritating fender "squeak". Most fenderfits are supplied per two pieces. The fenderfits can be hand washed on 30°C. Available for ball and cylinder fenders. Fendersfits are sold as a set (2 pieces) except A4NB and A5NB.

UV RESISTANT

Description	Color	Fender dimensions	Item no.
Fenderfit	Dark blue	35 x 48 cm	A2NB
Fenderfit	Dark blue	45 x 62 cm	A3NB
Fenderfit (1 pc)	Dark blue	55 x 73 cm	A4NB
Fenderfit (1 pc)	Dark blue	65 x 88 cm	A5NB
Fenderfit	Black	16 x 60 cm	F1BK
Fenderfit	Dark blue	16 x 60 cm	F1NB
Fenderfit	Blue	16 x 60 cm	F1RB
Fenderfit	Black	22 x 65 cm	F2BK
Fenderfit	Dark blue	22 x 65 cm	F2NB
Fenderfit	Blue	22 x 65 cm	F2RB
Fenderfit	Blue	25 x 80 cm	FF03B
Fenderfit	Dark blue	25 x 80 cm	FF03N
Fenderfit	Black	25 x 80 cm	FF03Z
Fenderfit	Black	30 x 90 cm	LARGEBK
Fenderfit	Dark blue	30 x 90 cm	LARGENB
Fenderfit	Blue	30 x 90 cm	LARGERB

Fender hooks

Model Sail

The Fastfender is the ultimate solution for the rapid and straightforward hanging, adjustment and stowing away of boatfenders. The Fastfender Sail is suitable for steel wiring on sailing yachts. All Fastfender products are available in three different colours: blue, black and white.

UV RESISTANT

Max. load (short)   : 150 kg
Max. Load (long)   : 85 kg

Description	Line	Color	W x D x H	Weight	Item no.
Fenderhook	6 - 12 mm	Blue	42 x 33 x 118 mm	55 g	FFS/BLAUW
Fenderhook	6 - 12 mm	Light gray	42 x 33 x 118 mm	55 g	FFS/LICHTGRIJS
Fenderhook	6 - 12 mm	Black	42 x 33 x 118 mm	55 g	FFS/ZWART

Model 25

The Fastfender is the ultimate solution for the rapid and straightforward hanging, adjustment and stowing away of boatfenders. The Fastfender 25 is suitable for a diameter of 25 mm. All Fastfender products are available in three different colours: blue, black and white.

UV RESISTANT

Max. load (short)   : 150 kg
Max. Load (long)   : 85 kg

Description	Line	Color	W x D x H	Weight	Item no.
Fenderhook	6 - 12 mm	Blue	55 x 33 x 118 mm	55 g	FF25/BLAUW
Fenderhook	6 - 12 mm	Light gray	55 x 33 x 118 mm	55 g	FF25/LICHTGRIJS
Fenderhook	6 - 12 mm	Black	55 x 33 x 118 mm	55 g	FF25/ZWART

Model 32

The Fastfender is the ultimate solution for the rapid and straightforward hanging, adjustment and stowing away of boatfenders. The Fastfender 32 is suitable for a diameter of 32 mm. All Fastfender products are available in three different colours: blue, black and white.

UV RESISTANT

Max. load (short)   : 250 kg
Max. Load (long)   : 150 kg

Description	Line	Color	W x D x H	Weight	Item no.
Fenderhook	6 - 10 mm	Blue	72 x 40 x 158 mm	120 g	FF32/BLAUW
Fenderhook	6 - 10 mm	Light gray	72 x 40 x 158 mm	120 g	FF32/LICHTGRIJS
Fenderhook	6 - 10 mm	Black	72 x 40 x 158 mm	120 g	FF32/ZWART

Model 40

The Fastfender is the ultimate solution for the rapid and straightforward hanging, adjustment and stowing away of boatfenders. The Fastfender 40 is suitable for a diameter of 40 mm. All Fastfender products are available in three different colours: blue, black and white.

UV RESISTANT

Max. load (short)   : 150 kg
Max. Load (long)   : 100 kg

Description	Line	Color	W x D x H	Weight	Item no.
Fenderhook	6 - 14 mm	Blue	76 x 47 x 160 mm	122 g	FF40/BLAUW
Fenderhook	6 - 14 mm	Light gray	76 x 47 x 160 mm	122 g	FF40/LICHTGRIJS
Fenderhook	6 - 14 mm	Black	76 x 47 x 160 mm	122 g	FF40/ZWART

Stainless steel

Filler caps made of stainless steel. Severval handles with inscription are available.
When ordering a filler cap for waste water a hose adapter is required. The basic filler caps have CE-approval. The basic filler cap with 1 1/2" thread applies to ISO 8099.

Cut out size Ø   : 52 mm
Flange dimension   : 81,5 mm

Pos.	Material	Connections	Connections	Item no.
1	SS 304	1 1/2" inch	38 mm	305160
1	SS 304	2" inch	50 mm	305161
-	SS 304			305162
2	SS 304			305165
3	SS 304			305164
-	SS 304			305167
4				304168

Brass

Robust design deck entry, made of brass.

Description	Material	Connections	Connections	Item no.
Filler cap	Brass	1" inch	25 mm	43010
Filler cap	Brass	1 1/2" inch	38 mm	43015
Filler cap	Brass	2" inch	50 mm	43020
Filler cap	Brass	2 1/2" inch	76 mm	43025
Filler cap	Brass	3" inch	76 mm	43030
Filler cap	Brass	4" inch	102 mm	43040

Chrome-plated brass

Chrome plated brass, for black water reservoirs

Cut out size Ø   : 56 mm
Flange dimension   : 83 x 5 mm

Pos.	Material	Connections	Connections	Item no.
1	Chromium-plated brass	1 1/2" inch	38 mm	311014
2	Chromium-plated brass	1 1/2" inch	38 mm	311001
2	Chromium-plated brass	2" inch	50 mm	311003
3	Chromium-plated brass	1 1/2" inch	38 mm	311011
3	Chromium-plated brass	2" inch	50 mm	311013
4	Chromium-plated brass	1 1/2" inch	38 mm	311031
4	Chromium-plated brass	2" inch	50 mm	311033

Aluminum

Aluminum anodised deck plates with built-in shutter for water, fuel or black water.

Pos.	Material	Length	Connections	Connections	Item no.
1	Aluminum	59 mm	1 1/2" inch	38 mm	304124
2	Aluminum	59 mm	1 1/2" inch	38 mm	304125
3	Aluminum	73 mm	2" inch	50 mm	304127

Wood

Yacht masts

The poles are made of mahogany and finished with strokes of ash. They are equipped with cable transit and rosette for the anchor light. The poles are 50 mm thick.

Description	Material	Length	L x W x H	Item no.
Yacht mast	Mahogany	1000 mm		1401
Yacht mast	Mahogany	1250 mm		1402
Yacht mast	Mahogany	1500 mm		1403
Yacht mast	Mahogany	1750 mm		1404
Yacht mast	Mahogany	2000 mm		1405
	SS 316		170 x 110 x 190 mm	1423

Stainless steel

Mooring rings

Material	Length	Width	Item no.
SS 304	49 mm	49 mm	50203

Antenna brackets

Material	L x W x H	Thread B.S.P.	Item no.
SS 316	150 x 110 x 160 mm	3/4" - 14 inch	50270

Bow cleats

Made of high-gloss polished stainless steel, type AISI 316. These sets contain two pieces.

Pos.	Material	Length	Width	Item no.
1	SS 316	142 mm	21 mm	502125
1	SS 316	152 mm	23 mm	502150
2	SS 316	115 mm	18 mm	50265
2	SS 316	150 mm	27 mm	50266

Bollards bolt-on

Stainless steel bollards in various dimensions and types. Manufactured from 304 stainless steel and highly polished. A welding bollard for steel hulls and a Bollard with base plate for bolting in cases where welding is not possible.

Material	Height	Diameter	Bulkhead thickness	Item no.
SS 316	95 mm	50 mm	1,5 mm	0751
SS 316	120 mm	60 mm	1,5 mm	0752
SS 316	150 mm	80 mm	1,5 mm	0753

Bollards weld-on

Stainless steel bollards in various dimensions and types. Manufactured from 304 stainless steel and highly polished. A welding bollard for steel hulls and a Bollard with base plate for bolting in cases where welding is not possible.

Material	Height	Diameter	Bulkhead thickness	Item no.
SS 316	90 mm	51 mm	2 mm	0771
SS 316	120 mm	60 mm	2 mm	0772
SS 316	140 mm	76 mm	2,5 mm	0773
SS 316	160 mm	89 mm	3 mm	0774
SS 316	185 mm	101,5 mm	3 mm	0775

Deck connection eyes

Made of high-gloss polished stainless steel, type AISI 316. Complete with base plate. Available in several dimensions.

Material	Length	Width	Item no.
SS 304	30 mm	35 mm	50204
SS 304	35 mm	40 mm	50205
SS 304	40 mm	50 mm	50206

Cable bushings

Pos.	Description	Material	Diameter	Installation depth	Item no.
1	Hollex cable outlet	Chromium-plated brass	6 mm		020006
1	Cable outlet	Chromium-plated brass	8 mm		020008
1	Cable outlet	Chromium-plated brass	10 mm		020010
1	Cable outlet	Chromium-plated brass	12 mm		020012
1	Cable outlet	Chromium-plated brass	16 mm		020016
1	Cable outlet	Chromium-plated brass	19 mm		020019
2	Cable outlet	SS 316	49 mm	28 mm	501011
2	Cable outlet	SS 316	27 mm	17 mm	501012
2	Cable outlet	SS 316	19 mm	17 mm	501013

Cleats

Cleat made of stainless steel, type AISI 316. High-gloss polished.

Material	Length	Height	Item no.
SS 316	125 mm	26 mm	50241
SS 316	150 mm	30 mm	50242
SS 316	200 mm	45 mm	50243
SS 316	250 mm	58 mm	50244
SS 316	125 mm	28 mm	50251
SS 316	150 mm	32 mm	50252
SS 316	200 mm	39 mm	50253

Hatch rings

Made of high-gloss polished stainless steel 316. The ring is equipped with a spring, so after use, the lifitng ring will snap shut.

Material	Length	Width	Installation depth	Item no.
SS 304	65 mm	55 mm	9 mm	50654

Rotating spits

Made of galvanised steel and available in two lengths. Easy to turn into the ground.

Description	Material	Length	Item no.
Turn spit small	Galvanised steel	350 mm	51160
Turn spit large	Galvanised steel	630 mm	51161

Plow anchors stainless steel 316

Anchors made of polished stainless steel 316. Available in various weights.

Description	Nett Weight	A	B	C	D	Item no.
Plow anchor	6,00 kg	590 mm	510 mm	210 mm	8 mm	123206
Plow anchor	10,00 kg	700 mm	600 mm	255 mm	10 mm	123210
Plow anchor	16,00 kg	810 mm	700 mm	295 mm	12 mm	123216
Plow anchor	20,00 kg	875 mm	760 mm	320 mm	14 mm	123220
Plow anchor	25,00 kg	945 mm	815 mm	345 mm	14 mm	123225
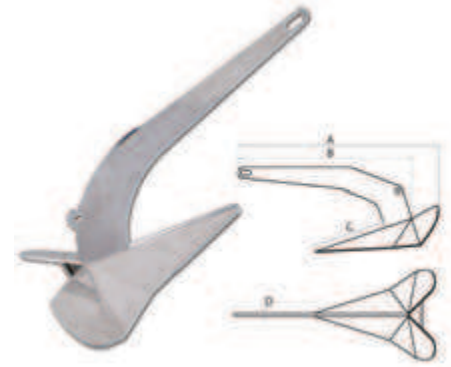
"Pool" Galvanized anchors

Very popular anchors, available in various weights and sizes. Made from high grade steel and hot dip galvanised. The hollow flukes are also hot dip galvanised on the inside.
Please advise the table of dimensions for detailed information.

Description	Nett Weight	A	B	C	D	E	F	G	H	K	Item no.
Pool anchor	16,00 kg	355 mm	290 mm	330 mm	170 mm	420 mm	65 mm	60 mm	13 mm	45 mm	1206.P
Pool anchor	20,00 kg	283 mm	310 mm	340 mm	180 mm	470 mm	65 mm	60 mm	13 mm	45 mm	1207.P
Pool anchor	24,00 kg	407 mm	335 mm	370 mm	190 mm	490 mm	65 mm	60 mm	13 mm	45 mm	1218.P
Pool anchor	32,00 kg	450 mm	360 mm	405 mm	203 mm	535 mm	85 mm	70 mm	16 mm	50 mm	1219.P
Pool anchor	40,00 kg	480 mm	370 mm	435 mm	210 mm	603 mm	85 mm	70 mm	16 mm	50 mm	1220.P
Pool anchor	48,00 kg	560 mm	410 mm	475 mm	220 mm	670 mm	83 mm	83 mm	18 mm	50 mm	1221.P
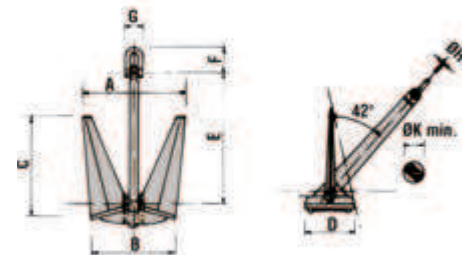
Stainless steel 316 anchor chain DIN 766

These stainless steel 316 anchor chains are available in 6, 8 and 10 mm chains. All sizes are manufactured according to DIN 766. Other lengths on request.

Chain Thickness	Standard	Length	Weight	Max. load	Item no.
6 mm	DIN 766	25 m	0,8 kg/m	16 kN	1201.025
6 mm	DIN 766	50 m	0,8 kg/m	16 kN	1201.050
8 mm	DIN 766	5 m	1,34 kg/m	20 kN	1202.005
8 mm	DIN 766	30 m	1,34 kg/m	20 kN	1202.030
8 mm	DIN 766	50 m	1,34 kg/m	20 kN	1202.050
10 mm	DIN 766	5 m	2,21 kg/m	32 kN	1203.005
10 mm	DIN 766	30 m	2,21 kg/m	32 kN	1203.030
10 mm	DIN 766	50 m	2,21 kg/m	32 kN	1203.050

Galvanized anchor chain DIN 766

Hot dip galvanised anchor chain. Available in 6, 8, 10 and 13 mm, according to DIN 766. Available in standard bundle lengths as mentioned in the table below. Other lengths on request.

Chain Thickness	Standard	Length	Weight	P1 inner shackle length	W1	W	Max. load	Item no.
6 mm	DIN 766	30 m	0,85 kg/m	18,5 mm	7,2 mm	20,4 mm	16 kN	1207.030
8 mm	DIN 766	25 m	1,45 kg/m	24 mm	9,6 mm	27,2 mm	32 kN	1204.025
8 mm	DIN 766	30 m	1,45 kg/m	24 mm	9,6 mm	27,2 mm	32 kN	1204.030
8 mm	DIN 766	40 m	1,45 kg/m	24 mm	9,6 mm	27,2 mm	32 kN	1204.040
8 mm	DIN 766	50 m	1,45 kg/m	24 mm	9,6 mm	27,2 mm	32 kN	1204.050
8 mm	DIN 766	100 m	1,45 kg/m	24 mm	9,6 mm	27,2 mm	32 kN	1204.100
10 mm	DIN 766	25 m	2,30 kg/m	28 mm	12 mm	36,0 mm	50 kN	1206.025
10 mm	DIN 766	30 m	2,30 kg/m	28 mm	12 mm	36,0 mm	50 kN	1206.030
10 mm	DIN 766	50 m	2,30 kg/m	28 mm	12 mm	36,0 mm	50 kN	1206.050
10 mm	DIN 766	100 m	2,30 kg/m	28 mm	12 mm	36,0 mm	50 kN	1206.100
13 mm	DIN 766	50 m	3,90 kg/m	36 mm	15,6 mm	47,0 mm	80 kN	1208.050
13 mm	DIN 766	100 m	3,90 kg/m	36 mm	15,6 mm	47,0 mm	80 kN	1208.100

Galvanized anchor chain ISO 4565

Hot dip galvanised anchor chain. This 10 mm chain complies to DIN 766L (ISO 4565). Available in standard bundle lengths as mentioned in the table below. Other lengths on request.

DIN 766L

Chain Thickness	Standard	Length	Weight	P1 inner shackle length	W1	W	Max. load	Item no.
10 mm	ISO 4565	25 m	2,25 kg/m	30 mm	13,5 mm	36 mm	50 kN	1205.025
10 mm	ISO 4565	30 m	2,25 kg/m	30 mm	13,5 mm	36 mm	50 kN	1205.030
10 mm	ISO 4565	40 m	2,25 kg/m	30 mm	13,5 mm	36 mm	50 kN	1205.040
10 mm	ISO 4565	50 m	2,25 kg/m	30 mm	13,5 mm	36 mm	50 kN	1205.050
10 mm	ISO 4565	100 m	2,25 kg/m	30 mm	13,5 mm	36 mm	50 kN	1205.100
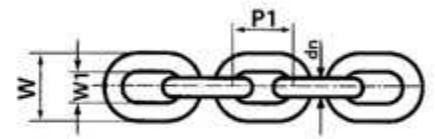
Accessories for anchors and chain

Swivels and shackles

Swivel made of polished stainless steel 316. Suitable for 8 or 10mm chains.

stainless steel 316

Description	Material	Nett Weight	L x W x D	Item no.
Swivel stainless steel 316	SS 316	0,25 kg		127020
Swivel stainless steel 316	SS 316	0,57 kg		127021
Double swivel stainless steel 316	SS 316	0,34 kg		127025
Double swivel stainless steel 316	SS 316	0,88 kg		127026
Swivel stainless steel 316	SS 316	0,17 kg	210 x 110 x 15 mm	1280
Swivel stainless steel 316	SS 316	0,33 kg	325 x 110 x 15 mm	1281
H-shackle 10mm A4, stainless steel	SS 316	0,13 kg		1285
D-shackle 10mm A4, stainless steel	SS 316	0,12 kg		1286

Chainstoppers

This stainless steel 316 chain stop to prevent damage to the anchor winch drive. The surfaces are polished. Max. load up to 2500kg for 6, 8 and 10mm chain

stainless steel 316

Max. load   : 2500 kg
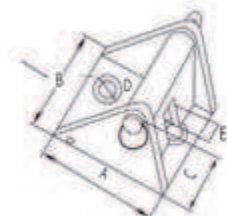
Description	A	B	C	D	E	Material	Item no.
Chainstopper	80,2 mm	70 mm	62 mm	13 mm	13 mm	SS 316	127027

Manual operated winch Giglio

The Giglio manual horizontal windlass has a double effect drive system. It comes with a white painted finish aluminum gearbox and an indendant anodized aluminum drum. Chrome plated bronze barbotins for 6, 8 and 10 mm chains.

Ships length : 5 - 12 m

Chain Thickness	Standard	Max. load	Working load	Item no.
6 mm	DIN 766	400 kg	70 kg	GI.06D
8 mm	DIN 766	400 kg	70 kg	GI.08D
10 mm	DIN 766	400 kg	70 kg	GI.10D7

Obi

Horizontal axis anchor winch made of anodized aluminum alloy, with a chrome plated gipsy cover. This model features a manual chain freefall system. Available with or without a drum (cat. nos ending with a D are with drum, cat. nos ending with a L come without a drum). Winches for chain ISO 4565 available upon request.

Deck thickness : 15 - 45 mm
Ships length : 5 - 9 & 9 - 15 m

Relay is included.

Pos.	Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Line	Item no.
1	12 V	8 mm	DIN 766	500 W	60 A	23 m/min.	No	630 kg	90 kg		OB0500.1208L
1	12 V	8 mm	DIN 766	700 W	90 A	25 m/min.	No	670 kg	100 kg		OB0700.1208L
2	12 V	8 mm	DIN 766	1000 W	115 A	25 m/min.	Yes	1250 kg	130 kg	12 mm	OB1000.1208D
2	12 V	10 mm	DIN 766	1000 W	115 A	25 m/min.	Yes	1250 kg	130 kg		OB1000.1210D7
2	12 V	8 mm	DIN 766	1500 W	130 A	26 m/min.	Yes	1350 kg	150 kg	12 mm	OB1500.1208D
2	12 V	10 mm	DIN 766	1500 W	130 A	26 m/min.	Yes	1350 kg	150 kg		OB1500.1210D7
2	24 V	8 mm	DIN 766	1000 W	60 A	25 m/min.	Yes	1290 kg	140 kg	12 mm	OB1000.2408D
2	24 V	10 mm	DIN 766	1000 W	60 A	25 m/min.	Yes	1290 kg	140 kg		OB1000.2410D7
2	24 V	8 mm	DIN 766	1500 W	70 A	26 m/min.	Yes	1390 kg	160 kg	12 mm	OB1500.2408D
2	24 V	10 mm	DIN 766	1500 W	70 A	26 m/min.	Yes	1390 kg	160 kg		OB1500.2410D7

Devon

Aluminum horizontal windlass with bronze gipsy and chrome plated cover. Will take chains of 8-10mm DIN766. Om request also available for ISO chain. For boats up to 17 metres. The Devons are standard supplied with chain counter sensor.

Ships length   : 11 - 17 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Item no.
12 V	8 mm	DIN 766	1000 W	115 A	25 m/min.	Yes	1290 kg	150 kg	DE1000.1208D
12 V	10 mm	DIN 766	1500 W	130 A	26 m/min.	Yes	1350 kg	180 kg	DE1500.1210D7
24 V	8 mm	DIN 766	1000 W	60 A	25 m/min.	Yes	1310 kg	160 kg	DE1000.2408D
24 V	10 mm	DIN 766	1500 W	70 A	26 m/min.	Yes	1370 kg	190 kg	DE1500.2410D7

Fyn

Aluminum anodised windlass with white painted finish. Gipsy of chrome plated bronze. Takes anchor chains 8-10mm DIN766L and ISO 4565. On request available for DIN766 chain and ISO 4565. Suitable for boats with a length of 13-18 meters.

CE

Ships length   : 13 - 18 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Item no.
12 V	8 mm	DIN 766	1700 W	135 A	14 m/min.	Yes	1700 kg	260 kg	FY1700.1208D
12 V	10 mm	ISO 4565	1700 W	135 A	14 m/min.	Yes	1700 kg	260 kg	FY1700.1210D
12 V	12 mm	ISO 4565	1700 W	135 A	14 m/min.	Yes	1700 kg	260 kg	FY1700.1212D
24 V	8 mm	DIN 766	1700 W	75 A	14 m/min.	Yes	1750 kg	270 kg	FY1700.2408D
24 V	10 mm	ISO 4565	1700 W	75 A	14 m/min.	Yes	1800 kg	450 kg	FY1700.2410D
24 V	12 mm	ISO 4565	1700 W	75 A	14 m/min.	Yes	1750 kg	270 kg	FY1700.2412D

Raja

Horizontal anchor winch made of anodized aluminum alloy. The Raja can take chains from 10 to 14 mm. Available in many configurations, for a drum or a gipsy can be placed on top or at the right or left side. As shown in the image is a Raja with drum on top and a gipsy on both the left and the right side. Please contact our sales department Parts for more information. The Raja is suitable for ships up to 26 meters.

CE

Ships length   : 18 - 26 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Item no.
12 V	13 mm	DIN 766	2000 W	185 A	12 m/min.	Yes	1800 kg	370 kg	RAJA I
24 V	13 mm	DIN 766	2000 W	90 A	12 m/min.	Yes	1900 kg	390 kg	RAJA II
24 V	13 mm	DIN 766	2300 W	120 A	12 m/min.	Yes	2800 kg	520 kg	RAJA III
24 V	13 mm	DIN 766	2700 W	150 A	12 m/min.	Yes	3000 kg	590 kg	RAJA IV
230/400 V	13 mm	DIN 766	3600 W		12 m/min.	Yes	3200 kg	700 kg	RAJA V

Esk

Aluminum anodized horizontal anchor winch. The Esk can take chains from 12 - 16 mm. Available in many configurations, for a drum or a gipsy can be placed on top or at the right or left side. As shown in the image is a Esk in just one of the many possible configurations. Please contact our sales department Parts for more information. The Esk is suitable for ships up to 32 meters.

CE

Ships length   : < 32 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Item no.
24 V	13 / 16 mm	DIN 766	2300 W	120 A	13 m/min.	Yes	3300 kg	1000 kg	ESK
24 V	13 / 16 mm	DIN 766	2700 W	150 A	13 m/min.	Yes	3500 kg	1100 kg	ESKx
24 V	13 / 16 mm	DIN 766	3500 W	195 A	13 m/min.	Yes	3900 kg	1200 kg	ESKxx
230/400 V	13 / 16 mm	DIN 766	4000 W		13 m/min.	Yes	3900 kg	1300 kg	ESKxxxx

Smart

Stainless steel 316 vertical windlass. Available in high or low profile, with different drives.
Recommended for ships up to 10 metres long. The Smart windlass can use chains up to 8mm and is equipped with rope tensioner. Comes with built-in chain counter sensor.

Deck thickness : 18 - 35 mm
Ships length : 5 - 11 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Line	Item no.
12 V	6 mm	DIN 766	500 W	60 A	23 m/min.	Yes	650 kg	90 kg	12 mm	SM0500.1206D
12 V	6 mm	DIN 766	500 W	60 A	23 m/min.	No	650 kg	90 kg	12 mm	SM0500.1206L
12 V	8 mm	DIN 766	500 W	60 A	23 m/min.	Yes	650 kg	90 kg	12 mm	SM0500.1208D
12 V	8 mm	DIN 766	500 W	60 A	23 m/min.	No	650 kg	90 kg	12 mm	SM0500.1208L
12 V	6 mm	DIN 766	700 W	90 A	25 m/min.	Yes	750 kg	100 kg	12 mm	SM0700.1206D
12 V	6 mm	DIN 766	700 W	90 A	23 m/min.	No	750 kg	100 kg	12 mm	SM0700.1206L
12 V	8 mm	DIN 766	700 W	90 A	25 m/min.	Yes	750 kg	100 kg	12 mm	SM0700.1208D
12 V	8 mm	DIN 766	700 W	90 A	23 m/min.	No	750 kg	100 kg	12 mm	SM0700.1208L
24 V	6 mm	DIN 766	500 W	32 A	23 m/min.	Yes	660 kg	90 kg	12 mm	SM0500.2406D
24 V	6 mm	DIN 766	500 W	32 A	23 m/min.	No	660 kg	90 kg	12 mm	SM0500.2406L
24 V	8 mm	DIN 766	500 W	32 A	23 m/min.	Yes	660 kg	90 kg	12 mm	SM0500.2408D
24 V	8 mm	DIN 766	500 W	32 A	23 m/min.	No	660 kg	90 kg	12 mm	SM0500.2408L

Smart 1000

Stainless steel 316 vertical windlass. Available in high or low profile, with different drives.
Recommended for ships up to 13 metres long. The Smart windlass can use chains up to 8mm and is equipped with rope tensioner. Comes with built-in chain counter sensor.

Deck thickness : 18 - 35 mm
Ships length : 8 - 13 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Line	Item no.
12 V	6 mm	DIN 766	1000 W	115 A	26 m/min.	Yes	930 kg	130 kg	12 mm	SM1000.1206D
12 V	6 mm	DIN 766	1000 W	115 A	26 m/min.	No	930 kg	130 kg	12 mm	SM1000.1206L
12 V	8 mm	DIN 766	1000 W	115 A	26 m/min.	Yes	930 kg	130 kg	12 mm	SM1000.1208D
12 V	8 mm	DIN 766	1000 W	115 A	26 m/min.	No	930 kg	130 kg	12 mm	SM1000.1208L
24 V	6 mm	DIN 766	1000 W	60 A	26 m/min.	Yes	940 kg	130 kg	12 mm	SM1000.2406D
24 V	6 mm	DIN 766	1000 W	60 A	26 m/min.	No	940 kg	130 kg	12 mm	SM1000.2406L
24 V	8 mm	DIN 766	1000 W	60 A	26 m/min.	Yes	940 kg	130 kg	12 mm	SM1000.2408D
24 V	8 mm	DIN 766	1000 W	60 A	26 m/min.	No	940 kg	130 kg	12 mm	SM1000.2408L

Smart V

SMART-V is a stainless steel AISI 316 vertical windlass with planetary drive. Available low profile, with different drives and recommended for boats up to 10m. SMART-V can use chains up to 8 mm and is equipped with rope tensioner. Comes with built-in chain counter sensor.

CE | stainless steel 316

Deck thickness   : 18 - 40 mm
Ships length   : 8 - 10 m

Relay is included.

Voltage	Chain Thickness	Current	Max. line speed	Hauling drum	Max. load	Working load	Line	Item no.
12 V	6 mm	60 A	23 m/min.	No	670 kg	90 kg	12 mm	SV0500.1206I
12 V	8 mm	60 A	23 m/min.	No	670 kg	90 kg	12 mm	SV0500.1208I
12 V	6 mm	90 A	25 m/min.	No	800 kg	100 kg	12 mm	SV0800.1206I
12 V	8 mm	90 A	25 m/min.	No	800 kg	100 kg	12 mm	SV0800.1208I
24 V	6 mm	32 A	23 m/min.	No	680 kg	90 kg	12 mm	SV0500.2406I
24 V	8 mm	32 A	23 m/min.	No	680 kg	90 kg	12 mm	SV0500.2408I
24 V	6 mm	45 A	25 m/min.	No	810 kg	100 kg	12 mm	SV0800.2406I
24 V	8 mm	45 A	25 m/min.	No	810 kg	100 kg	12 mm	SV0800.2408I

Smart Plus

CE | stainless steel 316

Deck thickness : 18-35 mm
Ships length : 8 - 16 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Line	Item no.
12 V	8 mm	DIN 766	700 W	90 A	25 m/min.	No	750 kg	100 kg	14-16 mm	SS0700.1208L
12 V	6 mm	DIN 766	1000 W	115 A	25 m/min.	yes	1020 kg	130 kg		SS1000.1206D
12 V	6 mm	DIN 766	1000 W	115 A	25 m/min.	no	1020 kg	130 kg		SS1000.1206L
12 V	8 mm	DIN 766	1000 W	115 A	25 m/min.	yes	1020 kg	130 kg	14-16 mm	SS1000.1208D
12 V	8 mm	DIN 766	1000 W	115 A	25 m/min.	no	1020 kg	130 kg	14-16 mm	SS1000.1208L
12 V	8 mm	DIN 766	1500 W	130 A	26 m/min.	yes	1250 kg	150 kg	14-16 mm	SS1500.1208D
12 V	8 mm	DIN 766	1500 W	130 A	26 m/min.	no	1250 kg	150 kg	14-16 mm	SS1500.1208L
12 V	10 mm	DIN 766	1000 W	115 A	25 m/min.	yes	1020 kg	130 kg		SS1000.1210D7
12 V	10 mm	DIN 766	1000 W	115 A	25 m/min.	no	1020 kg	130 kg		SS1000.1210L7
12 V	10 mm	DIN 766	1500 W	130 A	26 m/min.	yes	1250 kg	150 kg		SS1500.1210D7
12 V	10 mm	DIN 766	1500 W	130 A	26 m/min.	no	1250 kg	150 kg		SS1500.1210L7
12 V	10 mm	DIN 766	1700 W	138 A	26 m/min.	yes	1650 kg	220 kg		SS1700.1210D7
12 V	10 mm	DIN 766	1700 W	138 A	26 m/min.	no	1650 kg	220 kg		SS1700.1210L7
24 V	6 mm	DIN 766	1000 W	60 A	25 m/min.	yes	1060 kg	140 kg		SS1000.2406D
24 V	6 mm	DIN 766	1000 W	60 A	25 m/min.	no	1060 kg	140 kg		SS1000.2406L
24 V	8 mm	DIN 766	1000 W	60 A	25 m/min.	yes	1060 kg	140 kg	14-16 mm	SS1000.2408D
24 V	8 mm	DIN 766	1000 W	60 A	25 m/min.	no	1060 kg	140 kg	14-16 mm	SS1000.2408L
24 V	10 mm	DIN 766	1000 W	60 A	25 m/min.	yes	1060 kg	140 kg		SS1000.2410D7
24 V	10 mm	DIN 766	1000 W	60 A	25 m/min.	no	1060 kg	140 kg		SS1000.2410L7
24 V	8 mm	DIN 766	1500 W	70 A	26 m/min.	yes	1290 kg	160 kg	14-16 mm	SS1500.2408D
24 V	8 mm	DIN 766	1500 W	70 A	26 m/min.	no	1290 kg	160 kg	14-16 mm	SS1500.2408L
24 V	10 mm	DIN 766	1500 W	70 A	26 m/min.	yes	1290 kg	160 kg		SS1500.2410D7
24 V	10 mm	DIN 766	1500 W	70 A	26 m/min.	no	1290 kg	160 kg		SS1500.2410L7
24 V	10 mm	DIN 766	1700 W	75 A	26 m/min.	yes	1700 kg	240 kg		SS1700.2410D7
24 V	10 mm	DIN 766	1700 W	75 A	26 m/min.	no	1700 kg	240 kg		SS1700.2410L7

Thunder Lux

Powerful vertical winches made of chrome plated bronze. Thunder Lux winches have an integrated chain counter sensor. These winches will handle 6, 8 and 10 mm chain (DIN 766) Winches for chain ISO 4565 available upon request. The 8mmThunder Lux can process a combination of anchor chain and rope, as long as the rope is spliced to the chain. Suitable for vessels up to 16 metres long. Available with or without drum (article numbers ending with a D are with drum, ending with a L come without a drum). The Thunder Lux winch is also availible with a 6mm gipsy.

CE

Deck thickness   : 25 - 50 mm
Ships length   : 8 - 16 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Line	Item no.
12 V	8 mm	DIN 766	1000 W	115 A	25 m/min.	Yes	1020 kg	130 kg	14-16 mm	TX1000.1208D
12 V	8 mm	DIN 766	1000 W	115 A	25 m/min.	No	1020 kg	130 kg	14-16 mm	TX1000.1208L
12 V	10 mm	DIN 766	1000 W	115 A	25 m/min.	Yes	1020 kg	130 kg		TX1000.1210D7
12 V	8 mm	DIN 766	1700 W	130 A	26 m/min.	Yes	1250 kg	150 kg	14-16 mm	TX1500.1208D
12 V	8 mm	DIN 766	1700 W	130 A	26 m/min.	No	1250 kg	150 kg	14-16 mm	TX1500.1208L
24 V	8 mm	DIN 766	1000 W	60 A	25 m/min.	Yes	1060 kg	140 kg	14-16 mm	TX1000.2408D
24 V	8 mm	DIN 766	1000 W	60 A	25 m/min.	No	1060 kg	140 kg	14-16 mm	TX1000.2408L
24 V	8 mm	DIN 766	1700 W	70 A	26 m/min.	Yes	1290 kg	160 kg	14-16 mm	TX1500.2408D
24 V	8 mm	DIN 766	1700 W	70 A	26 m/min.	No	1290 kg	160 kg	14-16 mm	TX1500.2408L

Star

CE   stainless steel 316

Deck thickness   : 50 - 70 mm
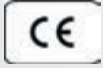Ships length   : 13 - 19 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Item no.
12 V	10 mm	DIN 766	1500 W	130 A	12 m/min.	yes	1250 kg	170 kg	ST1500.1210D7
12 V	10 mm	DIN 766	1500 W	130 A	12 m/min.	no	1250 kg	170 kg	ST1500.1210L7
12 V	10 mm	DIN 766	1700 W	138 A	12 m/min.	yes	1650 kg	240 kg	ST1700.1210D7
12 V	10 mm	DIN 766	1700 W	138 A	12 m/min.	no	1650 kg	240 kg	ST1700.1210L7
12 V	12 mm	ISO 4565	1700 W	138 A	12 m/min.	yes	1650 kg	240 kg	ST1700.1212D
12 V	12 mm	ISO 4565	1700 W	138 A	12 m/min.	no	1650 kg	240 kg	ST1700.1212L
24 V	10 mm	DIN 766	1500 W	70 A	12 m/min.	yes	1290 kg	180 kg	ST1500.2410D7
24 V	10 mm	DIN 766	1500 W	70 A	12 m/min.	no	1290 kg	180 kg	ST1500.2410L7
24 V	10 mm	DIN 766	1700 W	75 A	12 m/min.	yes	1700 kg	250 kg	ST1700.2410D7
24 V	10 mm	DIN 766	1700 W	75 A	12 m/min.	no	1700 kg	250 kg	ST1700.2410L7
24 V	12 mm	ISO 4565	1700 W	75 A	12 m/min.	yes	1700 kg	250 kg	ST1700.2412D
24 V	12 mm	ISO 4565	1700 W	75 A	12 m/min.	no	1700 kg	250 kg	ST1700.2412L
24 V	10 mm	DIN 766	2000 W	100 A	12 m/min.	yes	1750 kg	270 kg	ST2000.2410D7
24 V	10 mm	DIN 766	2000 W	100 A	12 m/min.	no	1750 kg	270 kg	ST2000.2410L7
24 V	12 mm	ISO 4565	2000 W	100 A	12 m/min.	yes	1750 kg	270 kg	ST2000.2412D
24 V	12 mm	ISO 4565	2000 W	100 A	12 m/min.	no	1750 kg	270 kg	ST2000.2412L

Star Plus

Chrome plated vertical windlass. Available in high or low profile, with different drives. Recommended for ships up to 26 metres long. The Star Plus can take chains from 10 to 14 mm and comes with built-in chain counter sensor. Possibility of 230V, 400V or hydraulic drive.

Deck thickness   : 60 - 110 mm
Ships length   : 20 - 26 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Item no.
24 V	10 mm	DIN 766	2300 W	120 A	12 m/min.	Yes	2200 kg	500 kg	SP2300.2410D7
24 V	10 mm	ISO 4565	2300 W	120 A	12 m/min.	Yes	2200 kg	500 kg	SP2300.2410SD
24 V	10 mm	DIN 766	2300 W	120 A	12 m/min.	No	2200 kg	500 kg	SP2300.2410L7
24 V	10 mm	ISO 4565	2300 W	120 A	12 m/min.	No	2200 kg	500 kg	SP2300.2410SL
24 V	13 mm	DIN 766	2300 W	120 A	12 m/min.	Yes	2200 kg	500 kg	SP2300.2412D
24 V	13 mm	DIN 766	2300 W	120 A	12 m/min.	No	2200 kg	500 kg	SP2300.2412L
24 V	13 mm	DIN 766	2300 W	120 A	12 m/min.	Yes	2200 kg	500 kg	SP2300.2413D7
24 V	14 mm	ISO 4565	2300 W	120 A	12 m/min.	Yes	2200 kg	500 kg	SP2300.2414D
24 V	14 mm	ISO 4565	2300 W	120 A	12 m/min.	No	2200 kg	500 kg	SP2300.2414L
24 V	13 mm	DIN 766	2700 W	150 A	12 m/min.	Yes	2500 kg	600 kg	SP2700.2412D
24 V	13 mm	DIN 766	2700 W	150 A	12 m/min.	No	2500 kg	600 kg	SP2700.2412L
24 V	13 mm	DIN 766	2700 W	150 A	12 m/min.	Yes	2500 kg	600 kg	SP2700.2413D7
24 V	14 mm	ISO 4565	2700 W	150 A	12 m/min.	Yes	2500 kg	600 kg	SP2700.2414D
24 V	14 mm	ISO 4565	2700 W	150 A	12 m/min.	No	2500 kg	600 kg	SP2700.2414L
230/400 V	13 mm	DIN 766	2200 W		12 m/min.	Yes	2350 kg	525 kg	SP2200.AC12D
230/400 V	13 mm	DIN 766	2200 W		12 m/min.	No	2350 kg	525 kg	SP2200.AC12L
230/400 V	13 mm	DIN 766	2200 W		12 m/min.	Yes	2350 kg	525 kg	SP2200.AC13D7
230/400 V	13 mm	DIN 766	3600 W		12 m/min.	Yes	2600 kg	625 kg	SP3600.AC13D7
230/400 V	14 mm	ISO 4565	2200 W		12 m/min.	Yes	2350 kg	525 kg	SP2200.AC14D
230/400 V	14 mm	ISO 4565	2200 W		12 m/min.	No	2350 kg	525 kg	SP2200.AC14L

Moon

MOON is a stainless steel AISI 316 vertical windlass. Available in high or low profile, with different drives and recommended for boats up to 30m. MOON can use chains from 10 mm to 14 mm. Possibility of 24V, 230V, 400V or hydraulic drive.

Deck thickness   : 70 - 120 mm
Ships length   : 25 - 32 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Item no.
24 V	12 / 13 mm	DIN 766;ISO 4565	3500 W	195 A	15 m/min.	yes	3400 kg	1000 kg	MO3500.2412D
230/400 V	12 / 13 mm	DIN 766;ISO 4565	4000 W		14 m/min.	yes	3500 kg	1250 kg	MO4000.AC12D
230/400 V	14 mm	ISO 4565	4000 W		14 m/min.	yes	3500 kg	1250 kg	MO4000.AC14D
	12 / 13 mm	DIN 766;ISO 4565			14 m/min.	yes	3500 kg	1250 kg	MO11HY.12D

Sun

SUN is a stainless steel AISI 316 vertical windlass Available with different motorization it's suggested for boats up to 45 meters. The SUN can bring chain up to 17,5 mm with stud link size and can have different optionals like remote brake wheel and the WLS light system (Windlass Lighting System). Possibility to have different motor supply: 24V, 230V, 400V or hydraulic. SUN MAXI is the SUN version with a bigger capstan drum; this in order to improve the docking operations

CE | stainless steel 316

Deck thickness   : 110 - 170 mm
Ships length   : 28 - 45 m

Relay is included.

Voltage	Chain Thickness	Standard	Power	Current	Max. line speed	Hauling drum	Max. load	Working load	Item no.
24 V	13 mm	DIN 766	3500 W	195 A	14 m/min.	Yes	4600 kg	1500 kg	SU3500.2413D7
24 V	16 mm	DIN 766	3500 W	195 A	14 m/min.	Yes	4600 kg	1500 kg	SU3500.2416D7
230/400 V	13 mm	DIN 766	4000 W		12 m/min.	Yes	4800 kg	1600 kg	SU4000.AC13D7
230/400 V	16 mm	DIN 766	4000 W		12 m/min.	Yes	4800 kg	1600 kg	SU4000.AC16D7
230/400 V	13 mm	DIN 766	5500 W		12 m/min.	Yes	5200 kg	1700 kg	SU5500.AC16D7
230/400 V	18 mm	ISO 4565	7500 W		12 m/min.	Yes	5400 kg	1800 kg	SU7500.AC18D

Remote controls for anchor winches

Controlswitch on panel

Description	Item no.
Control switchpanel	127009

Remote control Wired

Description	Item no.
Wired remote control with plug, 4.5m. Cable	127012

Remote control Wireless Kompass 2 and 4

Just like the remote control units, the radiographic control units can command anchor Winches, bow & stern thrusters, crabs and gangways and are easy to use thanks to the handy remote control feature. Available in 2 and 4 channels, with an IP67 watertight receiver and transmitter. Frequency band: 433 Mhz or 868Mhz.

IP 67

L x W x H   : 60 x 60 x 18 mm

Description	Frequency	Item no.
Wireless remote control Kompass 2	433,92 Hz	127013
Wireless remote Kompass 4	433,92 Hz	127024
Signal amplifier Kompass		127014

Remote control Wireless Kompass 8

The Kompass-8 remote control can handle up to 8 channels of transmission operating two winches and the bow and stern thrusters. With the shortcut key is also possible to operate simultaneously two thrusters, making even easier the mooring. Floating transmitter IP67. Attendance 868Mhz or 913Mhz.

IP 67
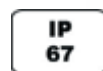
L x W x H   : 145 x 60 x 30 mm

Description	Frequency	Item no.
Wireless remote Kompass 8	868 / 913 Hz	127023

Wireless control with chain counter sensor

This wireless remote control features a chain counter (only for winches with chain counter sensor). The clearly readable screen allows maximum freedom of movement throughout the ship. The control has a rechargeable battery and comes complete with a charger with a 12/24 V connection. Working frequency : 868 MHz

L x W x H   : 145 x 50 x 22 mm

Description	Frequency	Item no.
Wireless remote control with charger and chain counter	868 Hz	127007

Chaincounter

The chaincounter EV011 is compact, small and extremely performing in order to be employed with equipments which are already provided with windlasses' control units, but do not have any chaincounter. It is easy to be installed and compatible with any kind of windlass on the market, it displays the measure of the chain lowered in metres or feet. Guaranteed protection rating IP56 and universal power supply 12/24Vdc.
- Indications in 5 languages
- Up alarm function
- Display of the manoeuvres speed
- Choice between meters or feet as unit of measure
- Adjustable Lighting system display
- Universal Feeding (12-24V)

- Simple and immediate use
- Automatic descent function
- Display of the power supply voltage of the motor
- High resolution LCD display
- Adjustable Contrast display
- Watertight case IP 56

IP 65

Description	Item no.
Chaincounter EV011	127019

Foot switches

Perfectly watertight control for relays or other loads, which can be activated by the simple pressure of your foot. Perfect watertight execution- Max. loading: 4 A. Inox steel base. Fitted with a hinged thermoplastic crashproof flap cover in order to avoid fortuitous operation. Control button in sea water resistant silicon rubber. Available in grey, chromed or completely stainless steel.

Pos.	Description	Item no.
1	Waterproof footswitch UP	127005
2	Waterproof footswitch DOWN	127006
3	Electric foots switch DOWN	127035
4	Electric foots switch UP	127036

Accessories for anchor winches

Relais for anchor winches

For electric anchor winches

Description	Voltage	Power	Item no.
Relays	12 V	1300 W	127000
Relays	12 V	1500 W	127001
Relays	24 V	2000 W	127002

Bow rollers

Bow rollers made of 316 stainless steel and provided with polyamide rollers.
Type A is suitable for delta, plough en danforth anchors.
Type B and C are suitable for delta, plough, danforth, force and bruce anchors.
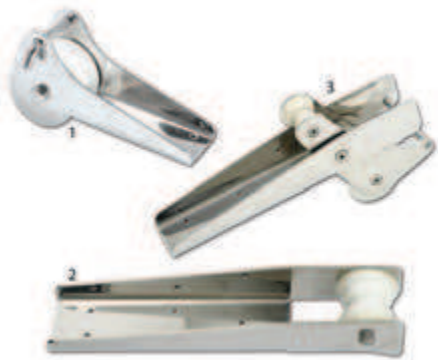
Pos.	Description	L x W x H	Item no.
1	bow roller	220 x 60 x 113 mm	127101
2	bow roller	400 x 63 x 65 mm	127102
2	bow roller	480 x 90 x 73 mm	127103
3	bow roller	400 x 76 x 63 mm	127104
3	bow roller	480 x 106 x 80 mm	127105

Capstans

Paros Lux

Stainless steel AISI 316 capstan winch, with different drives and
recommended for boats up to 13 meters.

Deck thickness : 25 - 50 mm
Ships length : < 13 m

Relay is included.

Power	Voltage	Current	Max. line speed	Max. load	Working load	Item no.
500 W	12 V	60 A	23 m/min.	650 kg	90 kg	PX0500.12D
700 W	12 V	90 A	25 m/min.	750 kg	100 kg	PX0700.12D
500 W	24 V	32 A	23 m/min.	670 kg	90 kg	PX0500.24D
700 W	24 V	40 A	25 m/min.	760 kg	100 kg	PX0700.24d

Aran

Chrome plated bronze capstan winch, available with different drives. Suitable for ships up to
28 meters.
Deck thickness (mm) : 60 to 110

Deck thickness : 60 - 110 mm
Ships length : < 28 m

Relay is included.

Power	Voltage	Current	Max. line speed	Max. load	Working load	Item no.
1700 W	24 V	75 A	12 m/min.	740 kg	340 kg	AR1700.24D
2300 W	24 V	120 A	12 m/min.	2100 kg	500 kg	AR2300.24D
2700 W	24 V	150 A	12 m/min.	2300 kg	600 kg	AR2700.24D
2200 W	230/400 V		12 m/min.	2100 kg	525 kg	AR2200.ACD

Milos

MILOS - Stainless steel AISI 316 capstan winch, with different drives and recommended for boats up to 38 meters. Possibility of 24V, 230V, 400V or hydraulic drive.

Deck thickness   : 130 - 170 mm
Ships length   : < 38 m

Relay is included.

Power	Voltage	Current	Max. line speed	Max. load	Working load	Item no.
3500 W	24 V	195 A	12 m/min.	4000 kg	1100 kg	MI3500.24D
3000 W	230/400 V		12 m/min.	4000 kg	1100 kg	MI3000.ACD

Nestor

Stainless steel AISI 316 capstan winch, with different drives and recommended for boats up to 17 meters.

Deck thickness   : 25-50 mm
Ships length   : < 17 m

Relay is included.

Power	Voltage	Current	Max. line speed	Max. load	Working load	Item no.
1000 W	12 V	115 A	25 m/min.	1020 kg	130 kg	NE1000.12d
1500 W	12 V	130 A	26 m/min.	1250 kg	150 kg	NE1500.12d
1000 W	24 V	60 A	25 m/min.	1060 kg	140 kg	NE1000.24d
1500 W	24 V	70 A	26 m/min.	1290 kg	160 kg	NE1500.24d

Nestor-V

Nestor-V is a stainless steel AISI 316 vertical capstan with planetary drive.

Deck thickness   : 18-40 mm
Ships length   : < 17 m

Relay is included.

Power	Voltage	Current	Max. line speed	Max. load	Working load	Item no.
800 W	12 V	90 A	25 m/min.	800 kg	100 kg	NV0800.12d
800 W	24 V	45 A	25 m/min.	810 kg	100 kg	NV0800.24d

Heron

Stainless steel capstan winch, with different drives. Available for ships up to 23 meters.
Deck thickness (mm) : 30 to 70

| Deck thickness | : 30-70 mm |
| Ships length | : < 23 m |

Relay is included.

Power	Voltage	Current	Max. line speed	Max. load	Working load	Item no.
1500 W	12 V	130 A	26 m/min.	1250 kg	150 kg	HE1500.12D
1700 W	12 V	185 A	26 m/min.	1650 kg	220 kg	HE1700.12D
1500 W	24 V	70 A	26 m/min.	1290 kg	160 kg	HE1500.24D
1700 W	24 V	90 A	26 m/min.	1700 kg	240 kg	HE1700.24D
2000 W	24 V	100 A	12 m/min.	1750 kg	270 kg	HE2000.24D
2000 W	230 V		12 m/min.	1700 kg	250 kg	HE2000.230D

Placement scedule
2 anodes
4 anodes
6 anodes
8 anodes
WL = water line

Guidelines for the application of anodes

To determine the number and type of anodes you will need, it is important to take the water and mooring place of the vessel into account. The electric current of an anode depends on the water conduction. For example, an anode in salt water has a higher electric current than the same kind of anode in fresh water. As a result the anode in fresh water has a longer life span.

The electric current is modified by the surface area of the anode, so in brackish and fresh water it is better to apply several small anodes than one large anode. The electric current also depends on the material. Magnesium has the highest electric current and zinc the lowest. The electric current of aluminum is somewhat higher than the current of zinc.

Anode material in relation to waters and mooring places

If a vessel is to be found in fresh waters only, magnesium anodes can best be used. If a ship mainly sails in salt water and every once in a while in brackish water, zinc is the right anode material. When the vessel has varying waters and mooring places, aluminum can best be used. Aluminum anodes are also the most environmental friendly anodes. Aluminum is suitable for either salt, brackish or fresh water.

Life span of the anodes

The anode protection must at least be enough for the period between two slip services. The anode consumption depends on a lot of factors. In general, replacement of the anodes is advised when the anodes are consumed for 70 upto 80%.

Place of the anodes on the vessel

In the picture the place of the anodes is calculated as followed: seen from the stern an interval is taken

equal to: $\dfrac{\text{length of the water line}}{\text{number of anodes}}$

Don't forget to protect your rudder with anodes as well!
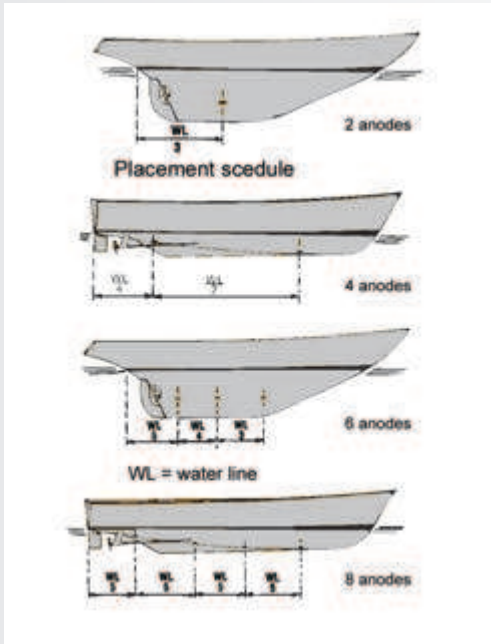
Magnesium anodes

MGD Magnesium hull anodes

The backside of the magnesium anodes can be painted. We advise to apply extra paint on the surroundings of the anodes. Anode MD78B (not shown in the picture) has two holes for the use of M10 studs, instead of a welding strip.
Suitable for use in fresh water.

ISO 9001: 2008

MD76 MD77 MD78 MD79 MD78B MD77EURO

Model - Type	Description	Nett Weight	Strip length	Length anode	Width	Height	Bolt distance	Suitable for	Item no.
MD76	Hull anode	0,20 kg	160 mm	114 mm	76 mm		140 mm		1795
MD77	Hull anode	0,64 kg	230 mm	157 mm	83 mm		200 mm		1796
MD78	Hull anode	1,46 kg	385 mm	305 mm	76 mm				1797
MD79	Hull anode	0,90 kg	230 mm	171 mm	83 mm		200 mm		1798
MD78B	Hull anode	1,30 kg		305 mm	76 mm		200 mm		MD78B
MD77EURO	Hull anode	0,70 kg		318 mm	65 mm	32 mm	110-210 mm		MD77EURO
Backing pads	Backing pad	0,00 kg						AD76 / ZD76	B76EURO
Backing pads	Backing pad	0,00 kg						AD76 / ZD77	B77
Backing pads	Backing pad	0,00 kg						AD77 Euro / ZD77 Euro	B77EURO
Backing pads	Backing pad	0,00 kg						AD78B / ZD78B	B78B

MGD Magnesium hull- and rudder anodes

The shape of these anodes reduces the resistance in the water to a minimum. These anodes are very suitable for rudder blades and for hull application on fast going vessels.
Suitable for use in fresh water.

Model - Type	Description	Nett Weight	Diameter	Height	Suitable for	Item no.
MD56	Shaft anode	0,20 kg	100 mm	25 mm		1786
Backing pads	Backing pad	0,00 kg			AD56 / ZD56	B56

Aluminum anodes

MGD Aluminum hull anodes

These aluminum anodes have been used in the marine and offshore industry for many years now due to their superior material. The aluminum alloy guarantees a constant consumption, this influences the lifetime and reliability of the vessel in a positive way. Safe and universal to use!
Suitable for use in brackish and salt water.

Model - Type	Description	Nett Weight	Strip length	Length anode	Width	Height	Bolt distance	Item no.
AD76	Hull anode	0,45 kg	165 mm	114 mm	76 mm	32 mm		593141
AD77	Hull anode	0,85 kg	230 mm	157 mm	83 mm	41 mm	200 mm	593142
AD72B	Hull anode	0,85 kg		318 mm	65 mm	64 mm	110-210 mm	AD77EURO
AD79	Hull anode	1,50 kg	230 mm	171 mm	83 mm	41 mm	200 mm	593143
AD78	Hull anode	2,00 kg	385 mm	305 mm	76 mm	32 mm		593144
AD78B	Hull anode	2,00 kg		305 mm	76 mm	32 mm	200 mm	AD78B
AD60	Hull anode	2,50 kg	380 mm	320 mm	125 mm	25 mm		593145
AD72B	Hull anode	4,60 kg		457 mm	102 mm	64 mm	229 mm	AD72B
AD73	Hull anode	5,00 kg	456 mm	356 mm	152 mm	32 mm		593146

MME Aluminum hull anodes

These aluminum anodes are suitable for almost all purposes. With steel welding strips for general use or aluminum welding strips for ships with aluminum hulls.
Suitable for use in fresh, brackish and salt water.

Model - Type	Description	Nett Weight	Strip length	Length anode	Width	Suitable for	Item no.
MME 02A	Anode, with steel welding strip	0,20 kg	200 mm	120 mm	40 mm	Steel hull	1735
MME 04A	Anode, with steel welding strip	0,40 kg	260 mm	180 mm	60 mm	Steel hull	1736
MME 08A	Anode, with steel welding strip	0,80 kg	300 mm	220 mm	75 mm	Steel hull	1737
MME 12A	Anode, with steel welding strip	1,20 kg	300 mm	200 mm	95 mm	Steel hull	1738
MME 17A	Anode, with steel welding strip	1,70 kg	440 mm	290 mm	100 mm	Steel hull	1739
MME 02AA	Anode, with aluminum welding strip	0,20 kg	200 mm	120 mm	40 mm	Aluminum hull	1725
MME 04AA	Anode, with aluminum welding strip	0,40 kg	260 mm	180 mm	60 mm	Aluminum hull	1726
MME 08AA	Anode, with aluminum welding strip	0,80 kg	300 mm	220 mm	75 mm	Aluminum hull	1727
MME 17AA	Anode, with aluminum welding strip	1,70 kg	440 mm	290 mm	100 mm	Aluminum hull	1729

MGD Aluminum hull- and rudder anodes

The shape of these anodes reduces the resistance in the water to a minimum. This makes these anodes very suitable for rudder blades and for hull application on fast going vessels.
Suitable for use in fresh, brackish and salt water.

Model - Type	Description	Nett Weight	Diameter	Height	Suitable for	Item no.
AD56	Rudder anode	0,30 kg	100 mm	25 mm		593156
AD58	Rudder anode	0,80 kg	150 mm	35 mm		593158
AD55	Rudder anode	2,60 kg	225 mm	25 mm		593155
Backing pads	Backing pad	0,00 kg			AD56 / ZD56	B56
Backing pads	Backing pad	0,00 kg			AD58 / ZD58	B58

MGD Aluminum shaft anodes

This new generation of shaft anodes has a steel core, which makes sure the anode will not loosen.
Suitable for use in fresh, brackish and salt water.

ISO 9001: 2008

Shaft diameter	Model - Type	Description	Nett Weight	Diameter	Length anode	Item no.
22 mm	MGDA22MM	Shaft anodes	0,40 kg	68 mm	78 mm	592022
25 mm	MGDA25MM	Shaft anodes	0,25 kg	68 mm	78 mm	592025
30 mm	MGDA30MM	Shaft anodes	0,20 kg	68 mm	78 mm	592030
35 mm	MGDA35MM	Shaft anodes	0,35 kg	68 mm	78 mm	592035
40 mm	MGDA40MM	Shaft anodes	0,30 kg	85 mm	98 mm	592040
45 mm	MGDA45MM	Shaft anodes	0,65 kg	85 mm	98 mm	592045
50 mm	MGDA50MM	Shaft anodes	0,55 kg	85 mm	98 mm	592050

MGD Aluminum ring anodes

Ring anodes are to be fitted on the shaft against the propeller hub.
Suitable for use in brackish and salt water.

Shaft diameter	Model - Type	Description	Nett Weight	Diameter	Height	Thickness	Item no.
22 mm	ASC22T	Ring anode	0,08 kg	60 mm	15,5 mm	15,5 mm	ASC22T
25 mm	ASC25T	Ring anode	0,09 kg	60 mm	15,5 mm	15,5 mm	ASC25T
30 mm	ASC30T	Ring anode	0,10 kg	60 mm	15,5 mm	15,5 mm	ASC30T
35 mm	ASC35T	Ring anode	0,13 kg	73 mm	18 mm	18,0 mm	ASC35T
40 mm	ASC40T	Ring anode	0,13 kg	74 mm	18 mm	18,0 mm	ASC40T
45 mm	ASC45T	Ring anode	0,15 kg	81 mm	18 mm	18,0 mm	ASC45T
50 mm	ASC50T	Ring anode	0,18 kg	81 mm	18 mm	18,0 mm	ASC50T

MGD Zinc hull anodes

These zinc anodes have proven their quality many times, especially in salt water. The anodes comply with the U.S.A. Mil Specification type A-18001K. The anodes ZD77, ZD79 and ZD78B (not shown) have holes for use with M10 studs. The anodes ZD72B and ZD72BM have holes for use with M16 studs. All other anodes have welding strips.
Suitable for use in salt water.

Model - Type	Nett Weight	Strip length	Length anode	Width	Bolt distance	Item no.
ZD75	0,50 kg	155 mm	100 mm	45 mm		593061
ZD76	0,90 kg	160 mm	114 mm	76 mm		593062
ZD77	2,10 kg	230 mm	157 mm	83 mm	200 mm	593063
ZD79	3,00 kg	230 mm	171 mm	83 mm	200 mm	593064
ZD78	4,50 kg	385 mm	305 mm	76 mm		593065
ZD78B	4,00 kg		305 mm	76 mm	200 mm	ZD78B
ZD60	6,00 kg	380 mm	320 mm	125 mm		593066
ZD72BM	7,00 kg		457 mm	102 mm	225 mm	ZD72BM
ZD73	10,00 kg	456 mm	356 mm	152 mm		593067
ZD72B	12,00 kg		457 mm	102 mm	225 mm	ZD72B

MGD Zinc hull anodes with slotted holes

Model - Type	Nett Weight	Length	Width	Height	Bolt distance	Item no.
ZD76E	1,50 kg	200 mm	65 mm	32 mm	0-110 mm	593070
ZD77E	2,50 kg	318 mm	65 mm	32 mm	100-210 mm	593077

MME Zinc hull anodes

The zinc anodes comply with the U.S.A. Mil Specification type A-1800 1J.
Suitable for use in salt water.

Model - Type	Nett Weight	Strip length	Length anode	Width	Item no.
MME 0Z	0,50 kg	200 mm	120 mm	40 mm	1791
MME 1Z	1,00 kg	260 mm	180 mm	60 mm	1792
MME 2Z	2,00 kg	300 mm	220 mm	75 mm	1793
MME 3Z	3,00 kg	300 mm	200 mm	95 mm	1799
MME 5Z	5,00 kg	440 mm	300 mm	90 mm	1752
MME 6Z	6,00 kg	330 mm	200 mm	150 mm	1753
MME 10Z	10,00 kg	405 mm	275 mm	175 mm	1754
MME 16Z	16,00 kg	550 mm	425 mm	165 mm	1755

MGD Zinc hull- and rudder anodes

The shape of these anodes reduces the resistance in the water to a minimum. This makes
these anodes very suitable for rudder blades and for hull application on fast going vessels.
Hole centres for use with M10 studs. The anodes comply with the U.S.A. Mil Specification
type 18001K.

Suitable for use in salt water.

Model - Type	Nett Weight	Diameter	Height	Item no.
ZD56	0,91 kg	100 mm	25 mm	593056
ZD58	2,10 kg	150 mm	35 mm	593058
ZD55	7,00 kg	225 mm	25 mm	593055

MGD Zinc shaft anodes

This robust shaft anode has a steel core, which makes sure the anode will not loosen.
Suitable for use in salt water.

ISO
9001:
2008

Shaft diameter	Model - Type	Nett Weight	Diameter	Length anode	Item no.
19 mm	MGD3/4"	0,70 kg	55 mm	62 mm	591019
22 mm	MGD7/8"	0,81 kg	55 mm	62 mm	591022
25 mm	MGD25mm	0,70 kg	55 mm	62 mm	591025
25,4 mm	MGD1"	0,50 kg	55 mm	62 mm	591026
28 mm	MGD1 1/8"	0,50 kg	55 mm	62 mm	591028
30 mm	MGD30mm	0,66 kg	55 mm	62 mm	591030
31,7 mm	MGD1 1/4"	1,10 kg	68 mm	78 mm	591032
35 mm	MGD1 3/8"	1,00 kg	68 mm	78 mm	591035
38 mm	MGD1 1/2"	0,80 kg	68 mm	78 mm	591038
40 mm	MGD40mm	1,10 kg	68 mm	78 mm	591040
45 mm	MGD45mm	2,60 kg	72 mm	100 mm	591045
45 mm	MGD1 3/4"	0,00 kg	85 mm	100 mm	591039
50 mm	MGD50mm	2,35 kg	83 mm	100 mm	591050
50 mm	MGD2"	0,00 kg	85 mm	100 mm	591046
60 mm	MGD60mm	2,70 kg	85 mm	100 mm	591060
70 mm	MGD70mm	3,10 kg	110 mm	100 mm	591070
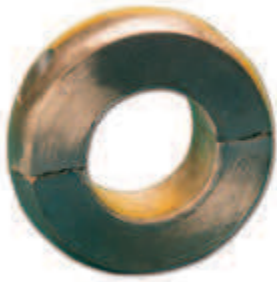
Zinc ring anodes

Ring anodes are to be fitted on the shaft against the propeller hub.
Suitable for use in salt water.

Shaft diameter	Model - Type	Nett Weight	Diameter	Height	Item no.
22 mm	22	0,20 kg	59 mm	15 mm	5930
25 mm	25	0,20 kg	59 mm	15 mm	5931
30 mm	30	0,20 kg	59 mm	15 mm	5932
35 mm	35	0,35 kg	67 mm	18 mm	5933
40 mm	40	0,30 kg	74 mm	18 mm	5934
45 mm	45	0,35 kg	74 mm	18 mm	5935
50 mm	50	1,05 kg	100 mm	29 mm	5936
55 mm	55	0,95 kg	100 mm	30 mm	5937
60 mm	60	1,55 kg	120 mm	30 mm	5938
65 mm	65	1,45 kg	120 mm	30 mm	5939
70 mm	70	1,85 kg	130 mm	30 mm	5940
75 mm	75	1,70 kg	140 mm	30 mm	5941
80 mm	80	1,90 kg	163 mm	40 mm	5942
85 mm	85	1,75 kg	163 mm	40 mm	5943
90 mm	90	4,00 kg	163 mm	40 mm	5944
100 mm	100	4,30 kg	180 mm	40 mm	5945
110 mm	110	4,50 kg	190 mm	40 mm	5946
120 mm	120	5,00 kg	200 mm	40 mm	5947
125 mm	125	4,90 kg	200 mm	40 mm	5948
130 mm	130	8,45 kg	210 mm	60 mm	5949

Zinc ball anodes

Ring anodes are to be fitted on the shaft against the propeller hub.
Suitable for use in salt water.

Shaft diameter	Model - Type	Nett Weight	Diameter	Length	Item no.
22 mm	22	0,33 kg	49 mm	40 mm	5911
25 mm	25	0,51 kg	49 mm	40 mm	5901
30 mm	30	0,45 kg	58 mm	55 mm	5902
35 mm	35	0,60 kg	64 mm	63 mm	5903
40 mm	40	1,20 kg	82 mm	86 mm	5904
45 mm	45	1,00 kg	93 mm	89 mm	5905
50 mm	50	1,15 kg	89 mm	70 mm	5906
55 mm	55	2,05 kg	94 mm	89 mm	5907
60 mm	60	1,85 kg	98 mm	98 mm	5908
65 mm	65	3,40 kg	108 mm	129 mm	5909
70 mm	70	3,40 kg	108 mm	129 mm	5910

Zinc anodes for TOR propeller nuts

Supplied complete with zinc anode and stainless steel AISI 316 locking ring. To order spare anodes, please use the catalogue numbers from the last column of the table

Nett Weight	Shaft diameter	Suitable for	Item no.
0,00 kg	25 mm	ZN25	OES-25-16P1.5
0,00 kg	25 mm	ZN25	OES-25-18P1.5
0,00 kg	25 mm	ZN25	OES-25-20P1.5
0,00 kg	30 mm	ZN30	OES-30-18P1.5
0,00 kg	30 mm	ZN30	OES-30-20P1.5
0,00 kg	35 mm	ZN35	OES-35-20P1.5
0,00 kg	35 mm	ZN35	OES-35-24P2.0
0,00 kg	40 mm	ZN40	OES-40-22P1.5
0,00 kg	40 mm	ZN40	OES-40-24P1.5
0,00 kg	40 mm	ZN40	OES-40-24P2.0
0,00 kg	45 mm	ZN45	OES-45-27P1.5
0,00 kg	45 mm	ZN45	OES-45-33P2.0
0,00 kg	25 mm	OES-25	ZN25
0,00 kg	30 mm	OES-30	ZN30
0,00 kg	35 mm	OES-35	ZN35
0,00 kg	40 mm	OES-40	ZN40
0,00 kg	45 mm	OES-45	ZN45

Zinc anodes for Variprop propellers

Suitable for salt water.

Description	Nett Weight	Item no.
Anode for Variprop DF-80	0,00 kg	DF80/ANODE
Anode for Variprop DF-107	0,00 kg	DF107/ANODE
Anode for Variprop DF-112	0,00 kg	DF112/ANODE
Anode for Variprop DF-128	0,00 kg	DF128/ANODE
Anode for Variprop DF-140	0,00 kg	DF140/ANODE

Zinc anodes for Maxprop propellers

Suitable for salt water.

Description	Nett Weight	Shape	Item no.
Zinc anode for MP-2B / hub 63 mm	0,00 kg		90987
Zinc anode for MP-3B / hub 63 mm	0,00 kg	triangle	90988
Zinc anode for Max Prop ø 63 NEW	0,00 kg	triangle	90990N
Zinc anode for Max Prop ø100	0,00 kg	round	90991
Zinkanode tbv Max Prop ø100	0,00 kg	triangle	90993
Zinc anode for Max Prop ø125	0,00 kg	triangle	90994
Zinc anode for Max Prop ø160	0,00 kg	triangle	90995
Zinc anode E=70 for saildrive propeller	0,00 kg	round	90999
Zinc anode E=63 for saildrive propeller NEW	0,00 kg	round	90999N
Zink cover E= 83 for Max-prop OLD model	0,00 kg	triangle	MZI083
Zinc cover E=125 for Max-prop OUD model	0,00 kg	triangle	MZI125
Zinc cover E=160 for Max-prop OUD model	0,00 kg	triangle	MZI160
Zinc cover E= 63 for Max-prop NEW model	0,00 kg	round	CMMP63RZ
Zinc cover E= 70 for Max-prop NEW model	0,00 kg	round	CMMP70RZ
Zinc cover E= 83 for Max-prop NEW model	0,00 kg	round	CMMP83RZ

Backing pads

For MgDuff anodes

It's not good practice to have anodes fitted directly on the ship's hull. We now offer a wide range of backing pads for all MGD anodes. This is a rubber pad that eliminates direct contact between anode and hull. The risk on alkalinity is herewith reduced drastically.

ISO 9001: 2008

Description	Suitable for	Item no.
Backing pad	AD56 / ZD56	B56
Backing pad	AD58 / ZD58	B58
Backing pad	ZD72 / ZD72BMLP	B72
Backing pad	AD72B / ZD72B	B72B
Backing pad	AD76 / ZD76	B76EURO
Backing pad	AD76 / ZD77	B77
Backing pad	AD77 Euro / ZD77 Euro	B77EURO
Backing pad	AD78B / ZD78B	B78B

Mercruiser sterndrive BRAVO I, II & III

To make replacement of anodes on the Mercruiser sterndrives easier, a complete aluminum anode pack is compiled for the Bravo I for 1988 till present. Now you cannot forget changing an anode! The pack comes complete with mounting materials.

The Bravo I pack consists of: -anodic plate (CM821630C2A) -bearing carrier anode (CM806188A) -trimcilinderanode (CM806190A) -trim tab anode (CM762145A)
The Bravo II and III pack consists of: -anodic plate (CM821630CA) - bearing carrier anode (CM806190A) -trim tab anode (CM722145A).

Suitable for brackish / salt water.

ISO 9001: 2008

Suitable for	Material	Item no.
Bravo I, 1988 - present	**Aluminum**	**CMBRAVO1KITA**
Bravo II en III, 1989 - present	**Aluminum**	**CMBRAVO23KITA**

Mercruiser sterndrive Alpha I gen. II

This anode pack is specially compiled for the Mercruiser Alpha I generation II (1991 - present) to make replacement of your sterndrive anodes easier. The pack comes complete with mounting materials.

To make replacement of anodes on the Mercruiser sterndrives easier, a complete aluminum anode pack is compiled for the Bravo I for 1988 till present. Now you cannot forget changing an anode! The pack comes complete with mounting materials.

The Alpha pack consists of: -anodic plate (CM821629CA) - bearing carrier anode (CM806105A) -trimcilinderanode (M806189A) -trim tab anode (CM762145A) -gimbal anode (CM821631A).

Suitable for brackish / salt water.

ISO 9001: 2008

Suitable for	Material	Item no.
Alpha I, 1991 - present	**Aluminum**	**CMALPHAKITA**

Brackets and brushes

With water lubricated sterngear installations, which have rubber bearings, cavitation erosion caused by potential differences cannot be avoided. To
prevent these erosion problems one has to install a proper earthing device on every shaft.
Hollex earthing devices are available with carbon brush or copper graphite brush. Carbon brushes have to run on a tailor-made bronze ring. Copper
graphite brushes can run directly on the shaft or half coupling. Tailor-made rings are available on request. The brushes for earthing devices should be
ordered separately.
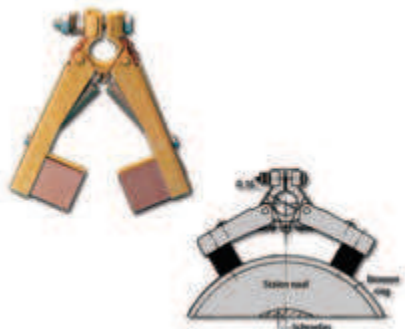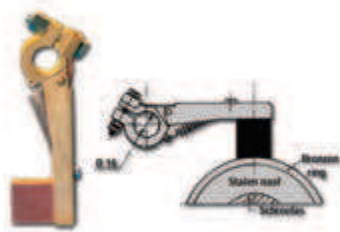
Description	Material	Max. current draw	Max. peripheral speed	Suitable for	Item no.
Single earthing device					95001
Double earthing device					95002
Carbon brush - coal	Carbon	8 A/cm2	50 m/sec.	Running surface with bronze ring	95011
Graphite brush - copper	Copper graphite	20 - 30 A/cm2	20 m/sec.	Running surface with bronze ring of direct on shaft	95012

Noise can be reduced very well if you use the right materials in the right place. In the drawing and table you can find out which materials you should use and where, to make your vessel as silent as possible.

Overview materials and their application

Hollex anti-drumming paste + zincor strips

Hollex anti-drumming paste + zincor strips

- Deck floor
- Hollexmatt
- Floor base
- Hollomer strip
- Hollex GW
- Hollex Merfocom
- Hollex anti-drumming paste + zincor strips
- Steel wall engine room

Engine mounts
Homokinetic coupling
Thrust bearing
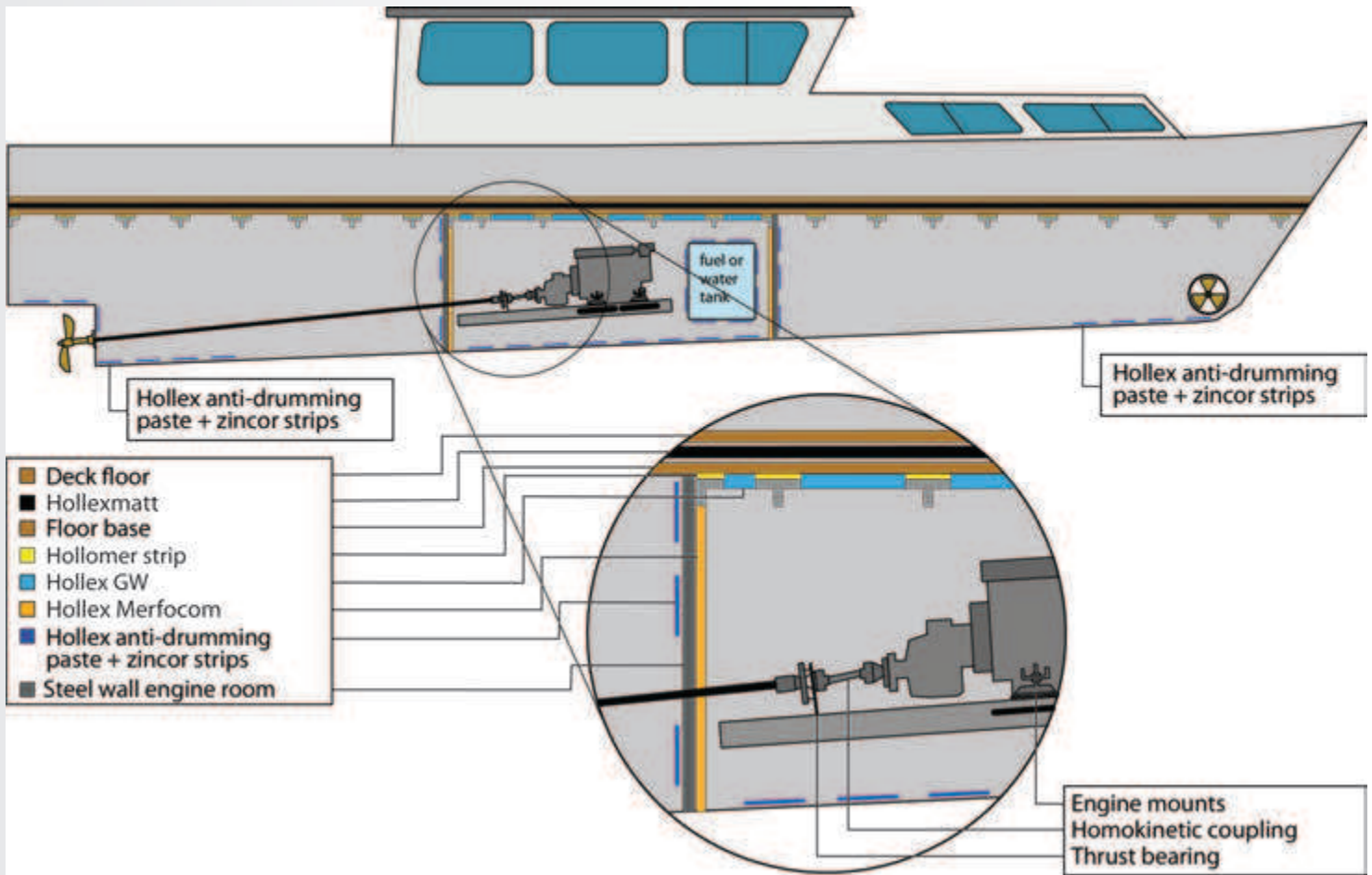
	Air noise					Contact noise	
	Merfocom	Isomat	Merfocell PU	Merfocell GW	Akotherm	Anti-drumming paste	Agglomer
Engine noise	X	X	X	X		X	
Propeller noise / vibrations in casco						X	
Floor wheel-house		X					X
Engine room ventilation			X		X		
Separating walls		X			X		X

Engine noise

In many cases the engine is the main source of noise. Engine noise often can be heard throughout the whole ship. This has two reasons:
- First of all, the engine itself makes a lot of noise. This is called air noise. Air noise will increase the closer you get to the engine.
- Second, the engine passes vibrations on to the ship's hull. These vibrations are heard as noise throughout the vessel; this is called contact noise.

Damming air noise

Air noise can be reduced by the use of insulation and absorption materials. The Merfocom combination sheet is the fastest and easiest solution for contact noise. This sheet insulates and absorbs at the same time. If you prefer to apply the layers by yourself, then you can use Isomat for insulation, combined with Merfocell PU or Merfocell GW. Absorption materials must always be applied at the side of the source of the noise (the engine). Merfocom and Merfocell GW have a heat repellent top layer, so if the engine is installed close to the wall, these products are a better choice than Merfocell PU.

Most materials are self-adhesive. Due to the weight of the sheets, we strongly suggest to screw both Merfocom and Isomat if mounted on the ceiling. This will not affect the insulating qualities.

Damming contact noise

The first problem to tackle is the source of the vibrations. Make sure the engine rests on rubber engine mounts. Place the generator set on a stiff, heavy underground (not on a tank or console). The remaining sound can be dealt with by the use of Hollex anti-drumming paste in combination with zincor strips (for more information check: Vibrations in the casco). When vibrations to the floor still occur, you can use Hollomer to disconnect your ship's floors.

Propeller noise and other vibrations in the casco

zincor strip
paste
metal
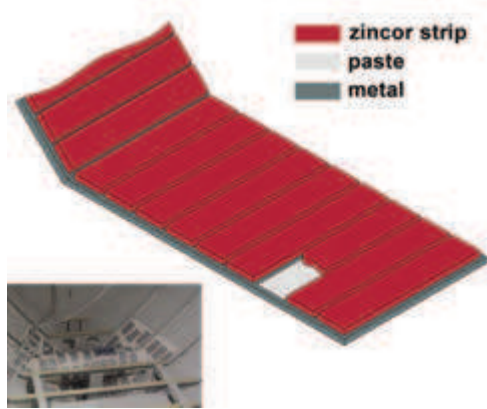
Vibrations that cause contact noise in the casco can have several sources. Mostly the engine is the main reason (see: Engine noise), but the propeller and/or bow thruster can cause many contact noise as well.

You can dam this noise by anti-drumming the casco around the source of the noise with Hollex antidrumming paste.

Anti-drumming with Hollex anti-drumming paste
The usage of anti-drumming paste will stiffen the metal parts of the ship that pass on the vibrations. Treat the places where the vibrations start for the best result.

The larger the treated surface, the better the result. When dealing with very strict sound regulations, often all engine room walls, tanks and the surface from engine room till stern is anti-drummed.

Wheel-house floor

Vibrations that cause contact noise can be dammed by applying anti-drumming paste, but also by disconnecting walls and floors. Especially when building a new vessel this is quite easy to realise. A floating floor or wall is detached from the ship's hull, and therefore it no longer passes vibrations on.

In the picture you see a floating (deck) floor. Hollomer vibration insulation strips are glued (not screwed!) on the trusses. On top of this Hollomer strips a wooden floor base is mounted. The weight of this base is increased by Hollexmatt sheets.

In case of a steel or aluminum deck, we advise the use of Hollomer floor sheets throughout the complete surface. On these floor sheets you place the wooden deck floor with Hollexmatt.

Please make sure the floor never touches the hull anywhere. Therefore we recommend the use of Hollomer strips around the edges. Never use screws to mount Hollomer or Hollexmatt.

(Engine room) ventilation

If much noise escapes through the ventilating shafts, you can put Akotherm on the inside of the shaft. If this isn't sufficient, then it might be useful to make a labyrinth. By making a "crank" in the shaft, and cover this with Akotherm, the ventilating shaft is better muffled.

Separating walls

With separating walls you can have air noise and contact noise. Air noise can be dammed by applying Hollexmatt on the separating wall. If there is a slit, you can apply Akotherm in the slit.

Contact noise (vibrations) can be dammed by disconnecting the wall from the casco by Hollomer wall sheets. Adhere the Hollomer sheets directly to the ship's hull. Adhere the wall on top of the sheets. It is important that the wall never touches the hull. This can be achieved by the use of Hollomer strips on top and at the bottom of the wall. Never use screws when mounting Hollomer sheets or strips..

Merfocom

Hollex Merfocom is a combination of sound absorbing and sound insulating materials in one sheet. Hollex Merfocom is easy to apply, due to the self-adhesive layer. It is also timesaving while there's only one sheet to apply. The rubber sound insulation layer weighs 8 kg/m2 and guarantees a good noise reduction. Thanks to the glass fibre toplayer Merfocom foam sheets are also fire- and dammage repellent and high decorative. Suitable for applications in engine compartments.

Description	Weight per square meter	Color	L x W x H	Length	Width	Item no.
Merfocom (combination-sheet)	9,5 kg/m2		1190 x 990 x 34 mm			2838
Tape (GW)		Light gray		33 m	50 mm	2888
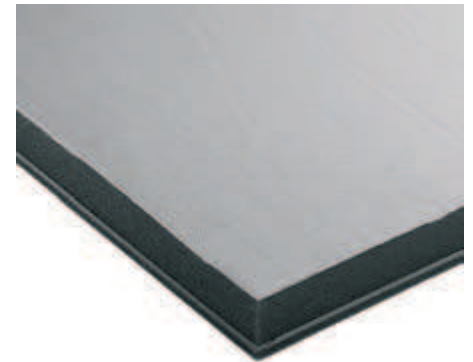
Merfocell PU

Sound-absorbing flat foam made of polyurethane synthetics and a black or white thin, flexible moisture- and oil-repellent foil layer. Easy to apply, due to the self-adhesive layer. Suitable for applications in engine compartments. Applies to FMVSS302, ISO 4589 and is CE-approved. Available as sheet or by-the-roll.

Description	Weight per square meter	L x W x H	Item no.
Merfocell PU (absorption)	0,70 kg/m2	1200 x 1000 x 20 mm	2821
Merfocell PU (absorption)	0,95 kg/m2	1200 x 1000 x 30 mm	2822
Merfocell PU (absorption)	1,65 kg/m2	1200 x 1000 x 50 mm	2823
Merfocell PU (absorption)	1,25 kg/m2	20000 x 1500 x 40 mm	2893
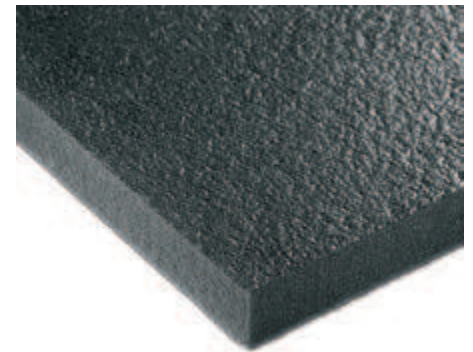
Akotherm

Akotherm is the alternative for stone wool and glass wool. It doesn't itch and it is moist stable. Even when dealing with vibrations, Akotherm will hold its shape. Akotherm is not only a sound insulating foam, it also has very good thermal insulation capacities. Akotherm is very suitable to insulate hulls and to fill up walls. Applies to EN13501-1Not CE-approved for application within engine compartments.

Description	Weight per square meter	L x W x H	Item no.
Akotherm (absorption)	0,5 kg/m2	1200 x 1000 x 25 mm	2862401
Akotherm (absorption)	0,8 kg/m2	1200 x 1000 x 40 mm	2862403
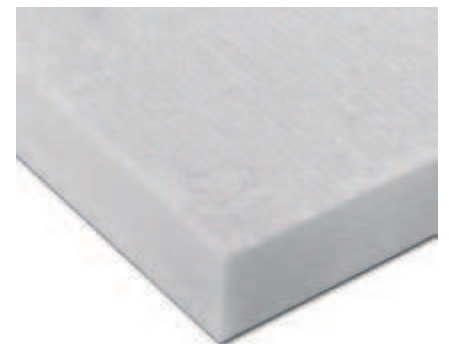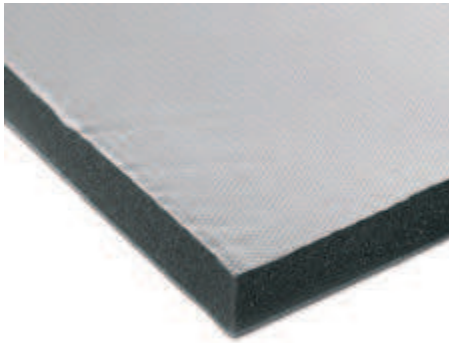
Merfocell GW

Sound-absorbing flat foam made of polyurethane synthetics with a grey glass fibre toplayer. This sheet is self-adhesive and oil- and water-repellant. Thanks to the glass fibre top-layer, Mercofell GW foam sheets are also fire- and damage repellent and highly decorative. Suitable for application in engine compartments. To tape the seams of the Merfocell GW sheets we recommend using GW-tape.
Applies to ISO 4589 and is CE-approved.

Description	Weight per square meter	Color	L x W x H	Length	Width	Item no.
Merfocell GW (absorption)	1,3 kg/m2		1200 x 1000 x 25 mm			2887
Merfocell GW (absorption)	1,7 kg/m2		1200 x 1000 x 40 mm			2886
Tape (GW)		Light gray		33 m	50 mm	2888
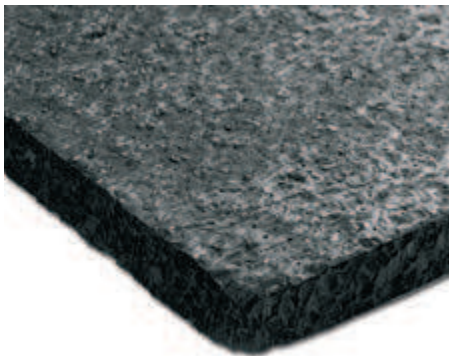
Merfopol

Merfopol is an absorbing and thermic isolating foam with a polyethylene closed cell structure. Very suitable for application within engine compartments, generators, air compressors, etc. Merfopol is stable, solid and lightweight. Easy to apply.

Description	Weight per square meter	L x W x H	Item no.
Merfopol (absorption)	1,20 kg/m2	1200 x 1000 x 40 mm	2826
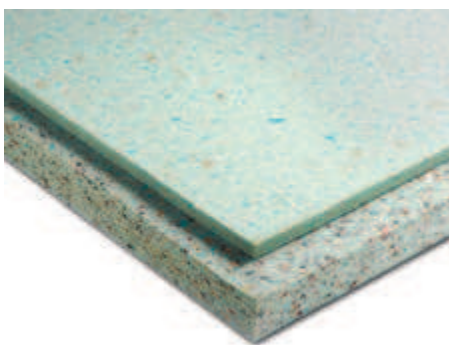
Agglomer

Agglomer is available in different densities. To disconnect (deck) floors, use 30 mm thick Agglomer. It has a very high density and mass to ensure a solid underlayment for the floor. For the disconnection of walls Agglomer with a 50 mm thickness can best be used. To disconnect all edges, use Agglomer strips. The strips have a self-adhesive layer.

For easy mounting of Agglomer sheets, Hollexmatt and the final deck floor, we advise the use of Simsontix adhesive.

Description	Weight per square meter	L x W x H	Item no.
Agglomer	4,20 kg/m2	1000 x 1000 x 30 mm	2818
Agglomer	4,00 kg/m2	1000 x 1000 x 50 mm	2817

Damping

2-component damping compound

Hollex anti-drumming paste is to be used to glue zincor strips to a surface. The minimum thickness which should be kept in mind is 4 : 1 : 1. This means that if the surface (mostly the ship's hull) is 6 mm thick, the layer of anti-drumming paste should be 1.5 mm thick and the zincor strips should be 1.5 mm thick as well. This way, you will need 21/4 kilo of paste to cover a surface of one square metre.

Description	Item no.
Anti-drumming paste 5 kg + bottle	2840

Zincor damping sheets

Zincor strips are used for anti-drumming. The zincor strips are 20 cm long and 10 cm wide. Any roundness in the hull can be covered without the need of bending the strips. The coverage of the strips is 80% per m2 you need 40 strips. Applicated on ship's hulls. Relation : 4 : 1 : 1 (hull : visco-elastic layer : zincor strip (in mm)

Description	L x W x H	Item no.
Zincor	200 x 100 x 1,5 mm	2846

Isomat

The Isomat sheet is very heavy due to the use of special fillers. This high weight
ensures a solid sound insulation. The sheet can withstand temperatures between -40°C and +80°C. The sheet is also water-, oil- and fuel-resistant and can withstand many cleaning and solvent-products. Art.nr. 2834 has jute on one side, for easier adhesion, especially with polyester. Isomat is not self-adhesive. We advise the use of Simsontix adhesive.

Description	Weight per square meter	L x W x H	Item no.
Hollexmatt	8 kg/m2	1000 x 1000 x 4,0 mm	2829
Hollexmatt	14 kg/m2	1000 x 1000 x 5,7 mm	2830
Hollexmatt	14 kg/m2	1000 x 1000 x 6,0 mm	2834
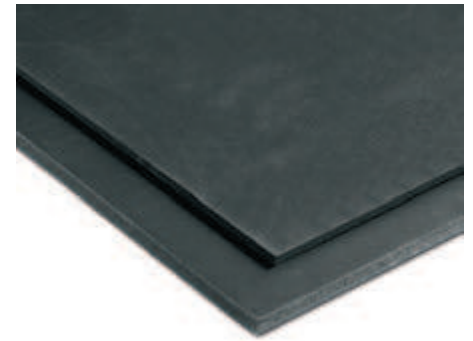
Vibration isolation

Agglomer

Agglomer is available in different densities. To disconnect (deck) floors, use 30 mm thick Agglomer. It has a very high density and mass to ensure a solid underlayment for the floor. For the disconnection of walls Agglomer with a 50 mm thickness can best be used. To disconnect all edges, use Agglomer strips. The strips have a self-adhesive layer.

For easy mounting of Agglomer sheets, Hollexmatt and the final deck floor, we advise the use of Simsontix adhesive.

Description	Weight per square meter	L x W x H	Item no.
Agglomer	2,00 kg/m2	1000 x 1000 x 10 mm	2816
Agglomer	0,20 kg/m2	2000 x 50 x 10 mm	2820
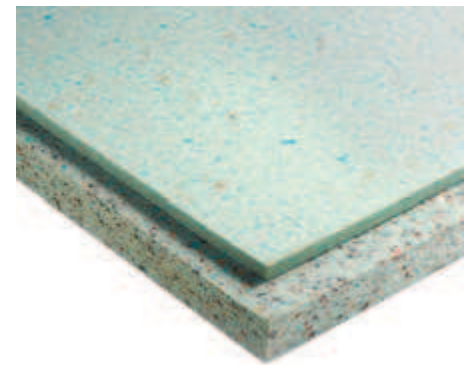
Regufoam

Sound-absorbing foam used to reduce contact noise and vibrations. Regufoam disconnects the source of the noise from other parts of the ship. Regufoam is water resistant and has a:
• Very low amplitude dependence
• Proven long-term behaviour
• High fatigue strength
• High elasticity, long service life
• Can withstand fungi, insects and bacteria.
Regofoam can be used as an alternative for agglomer foam.

Description	Weight per square meter	L x W x H	Item no.
Regufoam	0,20 kg/m2	1500 x 40 x 12 mm	2810

Simsontix

Simsontix is a high quality contact glue with a base of neoprene rubber. Very suitable to glue non-adhesive acoustic sheets. We recommend to use Simsontix only indoors. The weather resistant GW tape (not on picture) is suitable to tape the seams of Hollex GW sheets. The tape has a width of 50 mm.

Description	Color	Volume	Item no.
Contact glue	Yellow;Beige	750 ml	023461
Contact glue	Yellow;Beige	5000 ml	023462

SS 304 Waterlocks

Heavy duty waterlocks manufactured from stainless steel 304 and designed for water injected exhaust systems. Available for horizontal and vertical installation. The vertical version has a base plate for easy installation. The horizontal model has mounting feet (included in height measurement). These waterlocks can also be used for generators. Suitable for both above and below the waterline. Both models have a drain plug. Both I.D.'s of the waterlock's hose connection are the same.

Type L

Type S
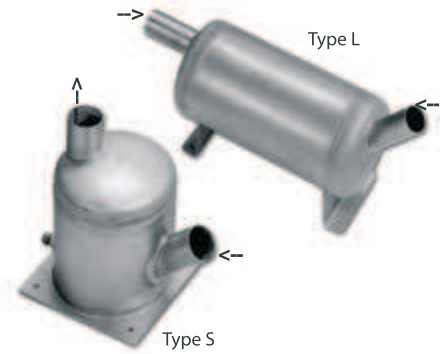
Outer Ø connection	Outer Ø connection	Version	Model / type	Length	Height	Diameter	Item no.
75 mm	3 inch	Vertical	S	300 mm	300 mm	250 mm	322623
90 mm	3,5 inch	Vertical	S	300 mm	300 mm	250 mm	322624
100 mm	4 inch	Vertical	S	300 mm	300 mm	250 mm	322625
127 mm	5 inch	Vertical	S	350 mm	400 mm	300 mm	322626
40 mm	1,5 inch	Horizontal	L	330 mm	210 mm	150 mm	322620
45 mm	1,75 inch	Horizontal	L	330 mm	210 mm	150 mm	322631
50 mm	2 inch	Horizontal	L	330 mm	210 mm	150 mm	322621
60 mm	2,375 inch	Horizontal	L	330 mm	210 mm	150 mm	322622
75 mm	3 inch	Horizontal	L	400 mm	210 mm	150 mm	322627

Type L

Type S
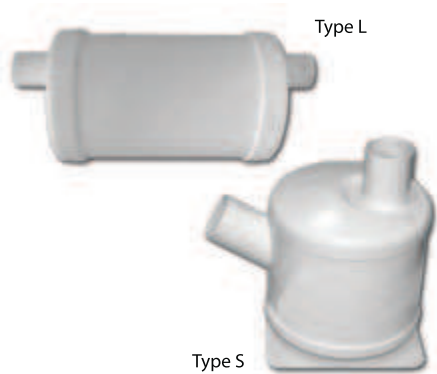
GRP Waterlocks

Waterlocks are made of GRP and developped for water injected exhaust systems. The waterlocks are finished with a white coating and they are flame-retardant according to ASTM D-635. Available in horizontal and vertical version. The base of the vertical version measures 305 x 305 mm. Waterlocks can also be used for generators. Suitable for above and below the waterline. Both models have a drain plug. GRP water locks have a Lloyds type approval.
The I.D's of the hoses are always the same within one separator. At pos. 1 is a horizontal waterlock and pos. 2 is a vertical model.
Our Sales department Parts will advise you on the right waterlock for your system.

GRP | Lloyds Register

Outer Ø connection	Outer Ø connection	Version	Model / type	Length	Height	Diameter	Item no.
41 mm	1,5 inch	Vertical	S	-	203 mm	212 mm	1500104
51 mm	2 inch	Vertical	S	-	203 mm	162 mm	1500171
61 mm	2,375 inch	Vertical	S	-	258 mm	255 mm	1500122W
76 mm	3 inch	Vertical	S	-	305 mm	313 mm	1500112
89 mm	3,5 inch	Vertical	S	-	305 mm	313 mm	1500113
102 mm	4 inch	Vertical	S	-	305 mm	313 mm	1500114
127 mm	5 inch	Vertical	S	-	305 mm	313 mm	1500116
38 mm	1,5 inch	Horizontal	L	267 mm		162 mm	1500035
44 mm	1,75 inch	Horizontal	L	267 mm		162 mm	1500038
51 mm	2 inch	Horizontal	L	356 mm		212 mm	1500043
60 mm	2,375 inch	Horizontal	L	356 mm		212 mm	1500047
76 mm	3 inch	Horizontal	L	445 mm		255 mm	1500051
89 mm	3,5 inch	Horizontal	L	432 mm		255 mm	1500119
127 mm	5 inch	Horizontal	L	559 mm		313 mm	1500100

GRP Waterlocks rectangular

Waterlocks are developped for water injected exhaust systems. This waterlock is ideal for sloops, because of the form. The water locks are flame-retardant according to ASTM D-635 and have a Lloyds type approval.
Our Sales department Parts will advise you on the right waterlock for your system.

GRP | Lloyds Register

Outer Ø connection	Outer Ø connection	Version	Height	Diameter	Item no.
41 mm	1,5 inch	Vertical	305 mm	178 mm	15R2163W
51 mm	2 inch	Vertical	305 mm	178 mm	15R2200W

Stainless steel 316 Thru hull fittings

Heavy duty transom exhaust connections manufactured from polished stainless steel 316.
The required holes in the flange are already made.
Thickness pipe : 2 mm
Thickness flange : 4 mm

stainless
steel
316

Outer Ø connection	Outer Ø connection	Bulkhead thickness	Flange thickness	Item no.
40 mm	1,5 inch	2 mm	4 mm	322040
45 mm	1,75 inch	2 mm	4 mm	322045
50 mm	2 inch	2 mm	4 mm	322050
60 mm	2,375 inch	2 mm	4 mm	322060
75 mm	3 inch	2 mm	4 mm	322075
90 mm	3,5 inch	2 mm	4 mm	322090
100 mm	4 inch	2 mm	4 mm	322100

GRP Thru hull fittings

These transom exhaust connections without flapper are made of GRP and designed for wet exhaust systems. The transom exhaust connections are available in black or white. Thickness pipe : 3 mm

GRP

Outer Ø connection	Outer Ø connection	Version	Color	Item no.
51 mm	2 inch	Without flapper	White	1200302-W
51 mm	2 inch	Without flapper	Black	1200303-BL
76 mm	3 inch	Without flapper	White	1200287-W
76 mm	3 inch	Without flapper	Black	1200288-BL
102 mm	4 inch	Without flapper	White	1200324-W
102 mm	4 inch	Without flapper	Black	1200323-BL
127 mm	5 inch	Without flapper	White	1200337-W
127 mm	5 inch	Without flapper	Black	1200338-BL

GRP Thru hull fittings with flapper

These transom exhaust connections with flapper are made of GRP and designed for wet exhaust systems. The transom exhaust connections are available in black or white. Thickness pipe : 3 mm

GRP

Outer Ø connection	Outer Ø connection	Version	Color	Item no.
51 mm	2 inch	With flapper	White	1200300-W
51 mm	2 inch	With flapper	Black	1200301-BL
76 mm	3 inch	With flapper	White	1200298-W
76 mm	3 inch	With flapper	Black	1200299-BL
102 mm	4 inch	With flapper	White	1200326-W
102 mm	4 inch	With flapper	Black	1200325-BL
127 mm	5 inch	With flapper	White	1200342-W
127 mm	5 inch	With flapper	Black	1200343-BL

Stainless steel 316 water separators

To be used in the water injected systems of generators. A water separator separates water from the exhaust fumes. This way the fumes can soundlessly be discarded above the waterline, whilst the separated water can be drained off below the waterline. Due to this separation, the sound of generators is remarkably decreased. This water separator is made of stainless steel 316.

stainless steel 316

Outer Ø connection	Outer Ø connection	Height	Diameter	Item no.
40 - 40 - 40 mm	1 1/2 - 1 1/2 - 1 1/2 inch	130 mm	300 mm	322141
50 - 40 - 50 mm	2 - 1 1/2 - 2 inch	130 mm	300 mm	322151

GRP Waterseparator

To be used for dieselgenerators. A water separator separates water from the exhaust fumes. This way the fumes can soundlessly be discarded above the waterline, whilst the separated water can be drained off below the waterline. Due to this separation, the sound of generators is remarkably decreased. This water separator is made of GRP, is flame-retardant according to ASTM D-635 and has a Lloyds type approval.
Our Sales department Parts will advise you on the right waterseparator for your system.

GRP   Lloyds Register

Outer Ø connection	Outer Ø connection	Color	Length	Width	Height	Diameter	Item no.
38 - 32 - 38 mm	1 1/2 - 1 1/4 - 1 1/2 inch	White	128 mm	314 mm	397 mm	397 mm	1020150
51 - 38 - 51 mm	2 - 1 1/2 - 2 inch	White	128 mm	314 mm	397 mm	397 mm	1020200

Welding elbows 90°

Radius 11/2 x diameter D complies to DIN 2605, norm 3S

stainless steel 304

Outer Ø connection	Outer Ø connection	A	ØD	Bulkhead thickness	Item no.
40 mm	1,5 inch	45,0 mm	40 mm	2 mm	560040
45 mm	1,75 inch	51,0 mm	45 mm	2 mm	560045
50 mm	2 inch	67,6 mm	51 mm	2 mm	560050
60 mm	2,375 inch	76,0 mm	61 mm	2 mm	560060
75 mm	3 inch	95,0 mm	76 mm	2 mm	560075
90 mm	3,5 inch	114,5 mm	89 mm	2 mm	560090
100 mm	4 inch	133,5 mm	101 mm	2 mm	560100

Dry exhaust systems

The silencers mentioned in this paragraph are to be used in dry exhaust systems. The silencers should not be brought in contact with the engine's cooling water system. A dry exhaust system can be as effective as a water injected exhaust system. There are three types of silencers available, each with its own specific characteristics:
- Silencers for medium and high frequency sounds (type HM). These silencers leave a tough sound of the working engine, for those who want to "hear the engine's horse-powers".
- Silencers for low frequency sounds (type L25). These silencers are usually only applied in combination with HM silencers.
- Compact silencers for confined spaces which combine the frequencies mentioned above (LH35).
All silencers come with an identification plate, on which you can determine which type of silencer you have.

The silencers have a thick housing made of S 235 JT G2 steel, which allows supports to be welded on the silencers. On request, we can provide silencers in Corten steel or stainless steel. All silencers have a grey corrosion and heat resistant coating and come complete with matching flanges, gaskets, bolts and nuts. When mounting the silencer, please be aware of the engine's flow. Always mount your exhaust system free of vibrations, leaving space for the pulsation and vibrations of the engine.

The silencers can resist a maximum gas heat of 600°C. Thermal insulation is recommended due to high temperatures. To insulate the system, you can apply glass fibre strip (see further on in this chapter). When dealing with sound regulations, additional sound insulation may be necessary. Please check the "Sound insulation materials" chapter for the right choice of material.

Silencer HM

Type HM silencers work according to the absorption principle. Silencing takes place in the medium and high frequencies nes. This type is often applied in exhaust systems of engines with four or more cylinders. When applied in combination w frequencies.
Insertion loss : 20 - 35 dB
Placement advice : as close to the engine as possible.
When applied in combination with a L25 silencer, the HM silencer should be placed at the end of the exhaust system.
Comes standard with flange and gasket.

ISO 9001

Outer Ø connection	Outer Ø connection	A	B	C	D	Nett Weight	Item no.
40 mm	1,5 inch	48,3 mm	130 mm	850 mm	760 mm	8,00 kg	HM-040
50 mm	2 inch	60,3 mm	155 mm	870 mm	765 mm	10,00 kg	HM-050
65 mm	2,5 inch	76,2 mm	180 mm	1020 mm	915 mm	15,00 kg	HM-065
80 mm	3 inch	88,9 mm	206 mm	1120 mm	1015 mm	19,00 kg	HM-080
100 mm	4 inch	114,3 mm	256 mm	1150 mm	1020 mm	26,00 kg	HM-100
125 mm	5 inch	139,7 mm	306 mm	1500 mm	1270 mm	45,00 kg	HM-125
150 mm	6 inch	168,3 mm	356 mm	1500 mm	1270 mm	56,00 kg	HM-150
200 mm	8 inch	219,1 mm	401 mm	1750 mm	1525 mm	76,00 kg	HM-200
250 mm	10 inch	273,0 mm	556 mm	2250 mm	2006 mm	144,00 kg	HM-250

Silencer L25

Type L25 silencers work according to the exhaust reflection principle. Silencing takes place in the low frequencies. This silencer is applicable for 2 and 4 stroke engines. This type is mostly applied in exhaust systems of engines with one, two or three cylinders. When applied in combination with a HM silencer, the silencing takes place on all frequencies. Applicable at bow thruster systems and dieseloil generators.
Insertion loss : 15 - 20 dB
Placement advice : as near to the engine as possible.
Comes standard with flange and gasket.

ISO 9001

Outer Ø connection	Outer Ø connection	A	B	C	D	Nett Weight	Item no.
40 mm	1,5 inch	48,3 mm	206 mm	775 mm	640 mm	11,00 kg	L25-040
50 mm	2 inch	60,3 mm	206 mm	775 mm	640 mm	12,00 kg	L25-050
65 mm	2,5 inch	76,2 mm	256 mm	900 mm	770 mm	19,00 kg	L25-065
80 mm	3 inch	88,9 mm	306 mm	900 mm	780 mm	27,00 kg	L25-080
100 mm	4 inch	114,3 mm	356 mm	1500 mm	1270 mm	48,00 kg	L25-100
125 mm	5 inch	139,7 mm	401 mm	1500 mm	1275 mm	63,00 kg	L25-125
150 mm	6 inch	168,3 mm	482 mm	1750 mm	1506 mm	118,00 kg	L25-150
200 mm	8 inch	219,1 mm	558 mm	2000 mm	1756 mm	161,00 kg	L25-200
250 mm	10 inch	273,0 mm	658 mm	2500 mm	2256 mm	234,00 kg	L25-250
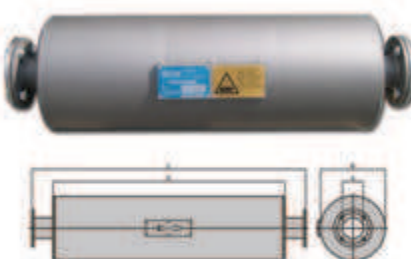
Silencer LH35

The LH35 silencers work according to a combination of the absorption and the exhaust reflection principles. These silencers are specially made for the exhaust systems of 2 or 4 stroke engines where critical sound regulations are to be met.
Insertion loss : 25 - 35 dB
Placement advice : as near to the engine as possible.
Comes standard with flange and gasket.

ISO 9001

Outer Ø connection	Outer Ø connection	A	B	C	D	Nett Weight	Item no.
40 mm	1,5 inch	48,3 mm	206 mm	900 mm	765 mm	13,00 kg	LH35-040
50 mm	2 inch	60,3 mm	206 mm	900 mm	765 mm	14,00 kg	LH35-050
65 mm	2,5 inch	76,2 mm	256 mm	1000 mm	850 mm	22,00 kg	LH35-065
80 mm	3 inch	88,9 mm	306 mm	1000 mm	850 mm	30,00 kg	LH35-080
100 mm	4 inch	114,3 mm	356 mm	1500 mm	1270 mm	49,00 kg	LH35-100
125 mm	5 inch	139,7 mm	401 mm	1500 mm	1275 mm	65,00 kg	LH35-125
150 mm	6 inch	168,3 mm	482 mm	1750 mm	1506 mm	124,00 kg	LH35-150
200 mm	8 inch	219,1 mm	558 mm	2000 mm	1756 mm	169,00 kg	LH35-200
250 mm	10 inch	273,0 mm	658 mm	2500 mm	2256 mm	247,00 kg	LH35-250

Flanges

Flanges for dry exhaust systems. Comply to DIN 2573 PN6 standards.
I.D. hose = Nominal diameter of the flange. A = inner diameter. B = outer diameter. C = thickness. Stc= pitch circle. The pitch
 circle mentioned in the table below, includes the amount and size of holes as well.
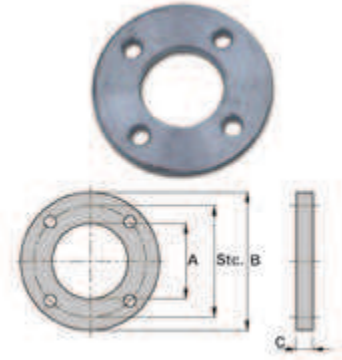
Outer Ø connection	Outer Ø connection	A	B	C	Pitch circle	Item no.
40 mm	1,5 inch	49 mm	130 mm	10 mm	100 - 4x14 mm	CF-040
50 mm	2 inch	61 mm	140 mm	10 mm	110 - 4x14 mm	CF-050
65 mm	2,5 inch	77 mm	160 mm	10 mm	130 - 4x14 mm	CF-065
80 mm	3 inch	90 mm	190 mm	10 mm	150 - 4x18 mm	CF-080
100 mm	4 inch	116 mm	210 mm	10 mm	170 - 4x18 mm	CF-100
125 mm	5 inch	142 mm	240 mm	16 mm	200 - 8x18 mm	CF-125
150 mm	6 inch	171 mm	265 mm	16 mm	225 - 8x18 mm	CF-150
200 mm	8 inch	222 mm	320 mm	16 mm	280 - 8x18 mm	CF-200
250 mm	10 inch	276 mm	375 mm	16 mm	335 - 12x18 mm	CF-250
40 mm	1,5 inch	49 mm	130 mm	10 mm	100 - 4x14 mm	PA-040
50 mm	2 inch	61 mm	140 mm	10 mm	110 - 4x14 mm	PA-050
65 mm	2,5 inch	77 mm	160 mm	10 mm	130 - 4x14 mm	PA-065
80 mm	3 inch	90 mm	190 mm	10 mm	150 - 4x18 mm	PA-080
100 mm	4 inch	116 mm	210 mm	10 mm	170 - 4x18 mm	PA-100
125 mm	5 inch	142 mm	240 mm	16 mm	200 - 8x18 mm	PA-125
150 mm	6 inch	171 mm	265 mm	16 mm	225 - 8x18 mm	PA-150
200 mm	8 inch	222 mm	320 mm	16 mm	280 - 8x18 mm	PA-200
250 mm	10 inch	276 mm	375 mm	16 mm	335 - 12x18 mm	PA-250

Exhaust bellow

Exhaust bellows with welding ends for dry exhaust systems. Made of stainless steel 321. Standard bellows for use in the exhaust piping system to eliminate the expansion of the pipes when the engine is running. Not to be used to eliminate the movement of the engine when fitted on flexible engine mounts. Length of the welding ends: 100 mm.

stainless steel 321

Outer Ø connection	Outer Ø connection	Length	Dimensions weld end	Axial movement	Latheral movement	Item no.
25 mm	1 inch	155 mm	33,7 x 3,25 mm	25 mm	15 mm	17061
32 mm	1,25 inch	205 mm	42,4 x 3,25 mm	25 mm	20 mm	17071
40 mm	1,5 inch	205 mm	48,3 x 2,60 mm	25 mm	24 mm	17081
50 mm	2 inch	245 mm	60,3 x 2,90 mm	35 mm	29 mm	17091
65 mm	2,5 inch	245 mm	76,1 x 2,90 mm	43 mm	28 mm	17101
80 mm	3 inch	245 mm	88,9 x 3,20 mm	43 mm	24 mm	17111
100 mm	4 inch	245 mm	114,3 x 3,60 mm	57 mm	26 mm	17121
125 mm	5 inch	245 mm	139,7 x 3,60 mm	57 mm	21 mm	17131
150 mm	6 inch	245 mm	168,3 x 4,00 mm	42 mm	13 mm	17141
200 mm	8 inch	245 mm	219,1 x 4,50 mm	48 mm	11 mm	17151

Exhaust bellow with braided steel wire

For exhaust systems where a fixed connection is impossible, this exhaust bellow offers the solution. Due to the twined steel wire, this bellow can handle larger pressures (up to 64 bar nominal). The inner hose is made of AISI 316, the twined wire is made of AISI 304 and the welding ends of carbon steel.

stainless steel 321 **stainless steel 304**

Outer Ø connection	Outer Ø connection	Length	Dimensions weld end	Latheral movement	Item no.
48 mm	1,5 inch	300 mm	48,3 x 2,60 mm	32 mm	50711
60 mm	2 inch	400 mm	60,3 x 2,90 mm	23 mm	50712
73 mm	2,5 inch	500 mm	76,1 x 2,90 mm	19 mm	50703
89 mm	3 inch	500 mm	88,9 x 3,20 mm	17 mm	50704
114,3 mm	4 inch	500 mm	114,3 x 3,60 mm	14 mm	50705

Glass fibre strip and heat cloth

Exhaust temperatures in dry systems can reach up to 700°C. These temperatures can cause fire hazard. As a precaution, heat insulation should be applied. To insulate dry exhaust systems, glass fibre strip can be used.

If desired, the glass fibre cord or band can be covered with a heat blanket (cat. no. 20620, sold per metre) for a nice finish. To apply a heat blanket, you will need mounting hooks and stainless steel thread.
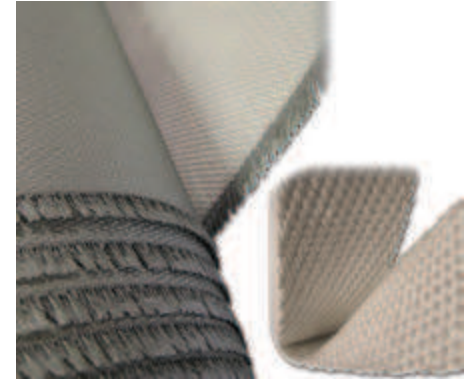
Description	Quantity	Width	Length	Roll length	Thickness	Material	Item no.
Glass fibre woven strip		50 mm		50 m	3 mm		20623
Heat blanket		1000 mm					20620
Mounting hooks for heat blanket	100 pcs.					SS 304	20621
Thread for heat blanket (ss304)			20000 mm			SS 304	20622

Exalto offers a complete range of anti-vibration mounts for the fitting of propulsion engines and generator sets to enlarge your comfort on board. Please do not hesitate to contact us for helping you select the best anti-vibration mount for your situation. With your data like weight and type of motor, number of revolutions and number of supports, we can make an anti-vibration calculation.

The sizes of hardness mentioned in the tables are available as standard. Other hardness sizes are available on request. The antivibration mounts are available with or without heavy style. The cap is galvanized, the mounting foot coated. All anti-vibration mounts are certified by Bureau Veritas.

Dimensions
Of types PC100, PC140 and PC182
Dimensions in mm

Type	H	H1 min./max.	M	ST	L	B	0	P	Spanner width
PC100	40	62 / 72	M12	100	120	60	14	11	20
PC140	50	79 / 89	M16	140	184	75	30	13	27
PC182	70	106 / 116	M20	182	230	112	26	18	30

PC100 - 140 - 182

Type PC100

Type PC140

Type PC182
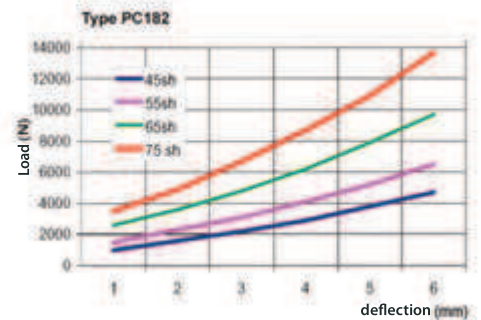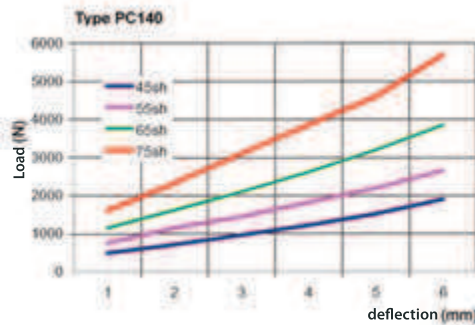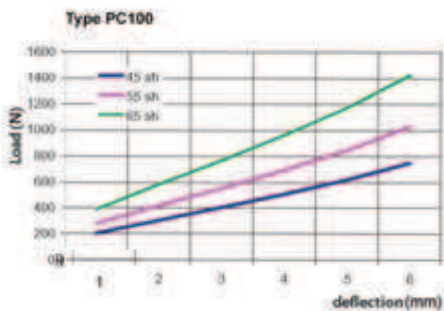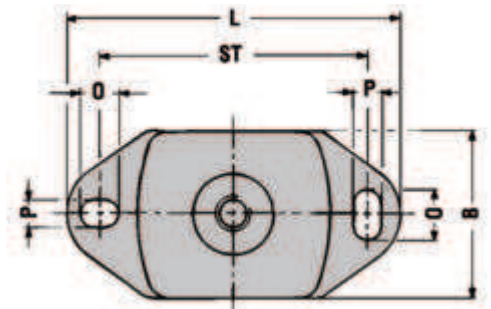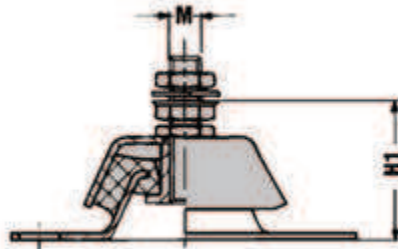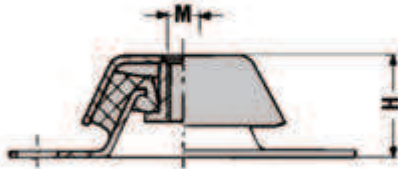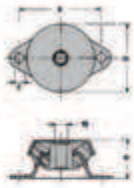
60.060

The 60.060 has an extra large horizontal stiffness characteristic. Due to the use of a special grade of rubber, vibrations of 1 - 3 cylinder engines can be absorbed. This anti-vibration mount is also suitable for generator sets, pump sets and compressors. The 60.060 is available in three types. The mounts are dip protected.

Max. deflection   : Max. 3 mm

Version	Stiffness	Max. load	A	D	d	H	Item no.
03	196 N/mm	60 kg	76,5 mm	62,5 mm	10 mm	34,5 mm	86599
04	360 N/mm	110 kg	76,5 mm	62,5 mm	10 mm	34,5 mm	86600
05	490 N/mm	150 kg	76,5 mm	62,5 mm	10 mm	34,5 mm	86601

PC100

The PC100 combines optimum vibration insulation with a long lifetime. This is a tri-flex mount, which means that the vibrations are absorbed in three directions. Due to a perfect proportion of vertical and horizontal stiffness, the contact noise is also reduced. The PC100 is available in three sizes of hardness. For type PC100 we have an adapter available for M12 to M16.

Max. deflection   : Max. 6 mm

Hardness Shore	Version	Stiffness	Max. load	B	H	Height 1	Length L	O	P	Thread metric	Wrench size	Item no.
45 °	Without stud bolts	136 N/mm	75 kg	60 mm	40 mm	62 / 72 mm	120 mm	14 mm	11 mm	M12x1,75	20 mm	86110.45
55 °	Without stud bolts	185 N/mm	102,9 kg	60 mm	40 mm	62 / 72 mm	120 mm	14 mm	11 mm	M12x1,75	20 mm	86110.55
65 °	Without stud bolts	256 N/mm	142,5 kg	60 mm	40 mm	62 / 72 mm	120 mm	14 mm	11 mm	M12x1,75	20 mm	86110.65
45 °	With stud bolts	136 N/mm	75 kg	60 mm	40 mm	62 / 72 mm	120 mm	14 mm	11 mm	M12x1,75	20 mm	86140.45
55 °	With stud bolts	185 N/mm	102,9 kg	60 mm	40 mm	62 / 72 mm	120 mm	14 mm	11 mm	M12x1,75	20 mm	86140.55
65 °	With stud bolts	256 N/mm	142,5 kg	60 mm	40 mm	62 / 72 mm	120 mm	14 mm	11 mm	M12x1,75	20 mm	86140.65
	Adapter									M12x1,75 / M16x2		86100

PC140

The PC140 combines optimum vibration insulation with a long lifetime. This is a tri-flex mount: the vibrations are absorbed in three directions. An optimum proportion between vertical and horizontal stiffness provides a lot of noise reduction. This anti-vibration mount is available in four sizes of hardness.

Max. deflection : Max. 6 mm

Hardness Shore	Version	Stiffness	Max. load	B	H	Height 1	Length L	0	P	Thread metric	Wrench size	Item no.
45 °	Without stud bolts	320 N/mm	190 kg	75 mm	50 mm	79 / 89 mm	184 mm	30 mm	13 mm	M16x2	27 mm	86210.45
55 °	Without stud bolts	483 N/mm	265 kg	75 mm	50 mm	79 / 89 mm	184 mm	30 mm	13 mm	M16x2	27 mm	86210.55
65 °	Without stud bolts	700 N/mm	385 kg	75 mm	50 mm	79 / 89 mm	184 mm	30 mm	13 mm	M16x2	27 mm	86210.65
75 °	Without stud bolts	1033 N/mm	570 kg	75 mm	50 mm	79 / 89 mm	184 mm	30 mm	13 mm	M16x2	27 mm	86210.75
45 °	With stud bolts	320 N/mm	190 kg	75 mm	50 mm	79 / 89 mm	184 mm	30 mm	13 mm	M16x2	27 mm	86240.45
55 °	With stud bolts	483 N/mm	265 kg	75 mm	50 mm	79 / 89 mm	184 mm	30 mm	13 mm	M16x2	27 mm	86240.55
65 °	With stud bolts	700 N/mm	385 kg	75 mm	50 mm	79 / 89 mm	184 mm	30 mm	13 mm	M16x2	27 mm	86240.65
75 °	With stud bolts	1033 N/mm	570 kg	75 mm	50 mm	79 / 89 mm	184 mm	30 mm	13 mm	M16x2	27 mm	86240.75

PC182

The PC182 provides an optimum combination of vibration insulation with a long lifetime. This tri-flex mount absorbs vibrations in three directions. Due to a perfect proportion of vertical and horizontal stiffness, the contact noise is also reduced. The PC182 is available in four sizes of hardness.

Max. deflection : Max. 6 mm

Hardness Shore	Version	Stiffness	Max. load	B	H	Height 1	Length L	0	P	Thread metric	Wrench size	Item no.
45 °	Without stud bolts	733 N/mm	470 kg	112 mm	70 mm	106 / 116 mm	230 mm	26 mm	18 mm	M20x2,5	30 mm	86410.45
55 °	Without stud bolts	1033 N/mm	650 kg	112 mm	70 mm	106 / 116 mm	230 mm	26 mm	18 mm	M20x2,5	30 mm	86410.55
65 °	Without stud bolts	1600 N/mm	970 kg	112 mm	70 mm	106 / 116 mm	230 mm	26 mm	18 mm	M20x2,5	30 mm	86410.65
75 °	Without stud bolts	2233 N/mm	1370 kg	112 mm	70 mm	106 / 116 mm	230 mm	26 mm	18 mm	M20x2,5	30 mm	86410.75
45 °	With stud bolts	733 N/mm	470 kg	112 mm	70 mm	106 / 116 mm	230 mm	26 mm	18 mm	M20x2,5	30 mm	86440.45
55 °	With stud bolts	1033 N/mm	650 kg	112 mm	70 mm	106 / 116 mm	230 mm	26 mm	18 mm	M20x2,5	30 mm	86440.55
65 °	With stud bolts	1600 N/mm	970 kg	112 mm	70 mm	106 / 116 mm	230 mm	26 mm	18 mm	M20x2,5	30 mm	86440.65
75 °	With stud bolts	2233 N/mm	1370 kg	112 mm	70 mm	106 / 116 mm	230 mm	26 mm	18 mm	M20x2,5	30 mm	86440.75
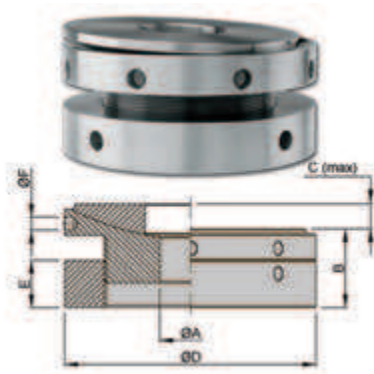
Model SM Original

The spherical Vibracon SM Original mounts neutralise parallel deviations to an angle of 4 degrees between the foundation and the engine base, resulting in supporting the entire surface. Vibracon adjustable mounts can be adjusted at all times. After an overhaul or replacement the object can be replaced with the same accuracy. For these remarkable mounts, only the best materials are used. Durable, reliable and proven quality, as you may expect from Exalto.

Model / type	ØA	B	C	ØD	E	ØF	Thread metric	Machine load	Max. load	Item no.
SM12	17 mm	30 mm	8 mm	60 mm	15 mm	6 mm	M12 / M14 / M16 (8.8)	8 kN	48 kN	76910
SM16	21 mm	35 mm	10 mm	80 mm	18 mm	6 mm	M16 / M18 / M20 (8.8)	15 kN	90 kN	76920
SM20	25 mm	40 mm	10 mm	100 mm	20 mm	8 mm	M20 /M22 /M24 (8.8)	25 kN	140 kN	76930
SM24	31 mm	45 mm	12 mm	120 mm	24 mm	8 mm	M24 /M27 /M30 (8.8)	35 kN	200 kN	76940
SM30	37 mm	50 mm	12 mm	140 mm	26 mm	10 mm	M30 .M33 /M36 (8.8)	60 kN	325 kN	76950
SM36	44 mm	55 mm	12 mm	160 mm	31 mm	10 mm	M36 /M39 /M42 (8.8)	90 kN	475 kN	76960
SM42	50 mm	60 mm	12 mm	190 mm	36 mm	10 mm	M42 /M45 /M48 (8.8)	120 kN	675 kN	76970
SM48	60 mm	70 mm	15 mm	220 mm	43 mm	10 mm	M48 /M52 /M56 (8.8)	160 kN	850 kN	76975
SM56	66 mm	75 mm	15 mm	230 mm	44 mm	12 mm	M56 /M60 /M64 (8.8)	225 kN	1150 kN	76980
SM64	74 mm	80 mm	15 mm	250 mm	48 mm	12 mm	M64 /M68 /M72 (8.8)	300 kN	1500 kN	76985

Model SM Low-Profile

Vibracon adjustable mounts now are available in a new version: the SM Low Profile. The most important difference with the SM Original-series is of course the height. Vibracon SM Low Profile mounts can be used where you would normally have to turn to casting mass. With the same advantages as the Original mounts (quick mounting, adjustable at all times and replacable), but than suitable for narrow spaces, like with repair projects (where the spigot dimensions are mostly very limited). The SM Low Profile comes complete with a mounting ring.
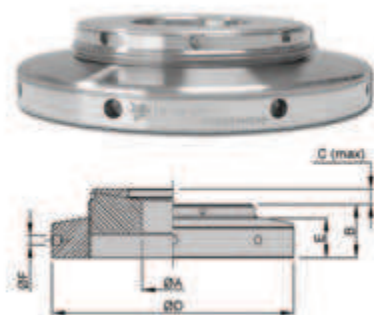
Model / type	ØA	B	C	ØD	E	ØF	Thread metric	Machine load	Max. load	Item no.
SM16LP	21 mm	20 mm	10 mm	80 mm	17 mm	6 mm	M16 /M18 /M20 (8.8)	15 kN	90 kN	76920LP
SM20LP	25 mm	20 mm	10 mm	100 mm	17 mm	6 mm	M20 /M22 /M24 (8.8)	25 kN	140 kN	76930LP
SM24LP	31 mm	20 mm	10 mm	120 mm	17 mm	6 mm	M24 /M27 /M30 (8.8)	35 kN	200 kN	76940LP
SM30LP	37 mm	20 mm	10 mm	140 mm	17 mm	6 mm	M30 /M33 /M36 (8.8)	60 kN	325 kN	76950LP
SM36LP	44 mm	30 mm	10 mm	160 mm	26 mm	6 mm	M36 /M39 /M42 (8.8)	90 kN	475 kN	76960LP
SM42LP	50 mm	35 mm	10 mm	190 mm	26 mm	6 mm	M42 /M45 /M48 (8.8)	120 kN	675 kN	76970LP

Hollex casting compound

Casting mass is a synthetic compound that can be used as a filler for engine foundations and for the fixation of sterntubes and bearings, where accurate alignment is required.

Description	Volume	Volume	Item no.
Casting mass	0.5 l	1 kg	99101
Casting mass	2.5 l	5 kg	99105
Casting mass	5 l	10 kg	99110

Jabsco 34739 & 35400, Flangemount

These fans ensure that engine exhaust residues can be removed from the engine compartment before the engine is started. They can of course also be used to remove fumes and odors from kitchens and other compartments. Easy to install. These models are not suitable for continuous use.

CE N.M.M.A type accepted USCG 183.410 ISO 8846 Marine ISO 9097 Marine BSEN 50081

For continuous use, we recommend model 35770 or 35760.

Model / type	Voltage	Current	Nett Weight	L x W x H	Diameter hose	Capacity	Item no.
34739	12 V	6,5 A	2,03 kg	200 x 170 x 200 mm	75 mm	4,0 m^3/min	403003
34739	24 V	3,3 A	2,03 kg	200 x 170 x 200 mm	75 mm	4,2 m^3/min	403004
35400	12 V	12 A	2,56 kg	220 x 220 x 230 mm	100 mm	7 m^3/min	403013
35400	24 V	5,3 A	2,57 kg	220 x 220 x 230 mm	100 mm	7 m^3/min	403014

Jabsco 36740 & 35440, Flexmount

These fans ensure that engine exhaust residues can be removed from the engine compartment before the engine is started. They can of course also be used to remove fumes and odors from kitchens and other compartments. Easy to install. These models are not suitable for continuous use.

CE N.M.M.A type accepted USCG 183.410 ISO 8846 Marine ISO 9097 Marine BSEN 50081

For continuous use, we recommend model 35770 or 35760.

Model / type	Voltage	Current	Nett Weight	L x W x H	Diameter hose	Capacity	Item no.
36740	12 V	6,8 A	2,32 kg	200 x 210 x 230 mm	75 mm	4,2 m^3/min	403001
36740	24 V	3,3 A	2,34 kg	200 x 210 x 230 mm	75 mm	4,2 m^3/min	403002
35440	12 V	12 A	2,82 kg	232 x 234 x 245 mm	100 mm	7 m^3/min	403011
35440	24 V	5,5 A	2,51 kg	232 x 234 x 245 mm	100 mm	7 m^3/min	403012

Jabsco 35770 Flexmount & 35760 Flangemount continous duty blowers

These fans ensure that engine exhaust residues can be removed from the engine compartment before the engine is started. They can of course also be used to remove fumes and odors from kitchens and other compartments. The fans can be mounted in the piping system. The hoses can easily be connected to the fan's collar. These models are not suitable for continuous use. For continuous use, we recommend model 35770 or 35760.

For continuous use, we recommend model 35770 or 35760.

Model / type	Voltage	Current	Nett Weight	L x W x H	Diameter hose	Capacity	Item no.
35770	12 V	11 A	3,40 kg	230 x 240 x 250 mm	100 mm	7 m^3/min	403041
35770	24 V	6 A	3,40 kg	230 x 240 x 250 mm	100 mm	7 m^3/min	403042
35760	12 V	11 A	3,40 kg	240 x 220 x 230 mm	100 mm	7 m^3/min	403043
35760	24 V	6 A	3,40 kg	240 x 220 x 230 mm	100 mm	7 m^3/min	403044

In-line blowers

Rule 140 & 240

In-line blowers with both inlet and outlet ports designed for slip-on flexible ducting connections. Easy installation. Suitable for simple installations with short ducting lengths and a minimum of bends.

Model / type	Voltage	Current	Nett Weight	L x W x H	Diameter hose	Capacity	Item no.
140	12 V	2,9 A	0,54 kg	95 x 125 x 130 mm	75 mm	3,8 m^3/min	140
140	24 V	1.7 A	0,52 kg	95 x 125 x 130 mm	75 mm	3,8 m^3/min	140-24V
240	12 V	4,3 A	0,50 kg	120 x 150 x 130 mm	100 mm	6,7 m^3/min	240
240	24 V	2,4 A	0,58 kg	120 x 150 x 130 mm	100 mm	6,7 m^3/min	240-24V

Easterner inline blower

In-line blower suitable for 12V with a capacity of 391m3/min.

Model / type	Voltage	Current	Nett Weight	L x W x H	Diameter hose	Capacity	Item no.
In-line blower	12 V	1,5 A	0,00 kg	130,2 x 131,7 x 90,5 mm	101,6 mm	391 m^3/min	EP-11605

ECS Recessed blowers

Has a high capacity and is very low noise. This fan has two speeds and can turn both right and left. Comes complete with a switching unit. The ECS ventilation fittings and grille grille can easily be combined with this fan.

Description	Voltage	Height	Installation diam.	Diameter hose	Radius cut out size	Item no.
Ventilator	12/24 V	52 mm	95 mm	125 mm	92 mm	2013

ECS Blower connectorpieces & decorative grilles

The flanges have a slip-on connection for the flexible ducting. The screens prevent debris from entering ventilation blowers. Flexible ducting allows quick and easy installation of ventilation blowers.

Pos.	Description	Material	Diameter hose	Item no.
1	Intake screen			2009
2	Blower ducting l = 6 m	PVC	76 mm	1019
2	Blower ducting l = 6 m	PVC	102 mm	1021
3	Intake screen bulkhead mount			2008

Ventilation- & air intake caps

The ventilation hoods can be used with or without flexible hose. All mentioned products are made of stainless steel

stainless steel 316

Pos.	Description	Material	Height	Installation depth	Diameter	L x W x H	Item no.
1	Intake screen with flow	SS 316	40 mm		230 mm		2004
2	Intake screen without lightflow	SS 316	40 mm		230 mm		2005
3	Hollex intake screen s.s.	SS 316		85 mm	185 mm		1026
-	Hollex intake screen large s.s.	SS 316		123 mm	240 mm		1027
4	Intake scrren (5 holes) s.s.	SS 316				325 x 110 x 15 mm	1025
5	Intake screen (3 holes) s.s.	SS 316				220 x 110 x 15 mm	1024
6	Intake screen s.s. 304	SS 304				180 x 117 x 40 mm	1020
7	Intake screen s.s. 304	SS 304				126 x 143 x 47 mm	1030
8	Non-metallic mounting collar for 1030	PVC			77 mm	132 x 149 x 2 mm	1031
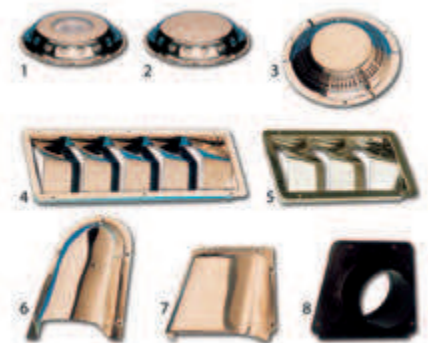
Hollex Ventilation caps

Particularly firmly ventilated stainless steel 304 stainless steel cap and waterproof sealable from the inside using a brass spindle. Available in three versions and equipped with a stainless steel mosquito net and a plastic finish.

Description	Material	Height	Installation diam.	Diameter	Item no.
Ventilation cap	Stainless steel	28 mm	84 mm	115 mm	1016
Ventilation cap	Stainless steel	30 mm	122 mm	150 mm	1017
Ventilation cap	Stainless steel	42 mm	152 mm	175 mm	1018

Gebo Air suction

Provides natural ventilation without motors / fans. A special dorade box system ensures that any water that collects within the air suction mechanism can be directed out of the unit to the outside of the boat. Gebo Air suction ventilators should be fitted on an even surface with a maximum tolerance of 1mm.
• Timesaving clamping system, nice and tidy finishing
• Features the same dimensions and materials as other Gebo products (such as portlights)
• Easy to clean
• Anodized as a standard (optional powdercoating in any RAL colour))

Description	Radius	Cut out size L x W	Radius cut out size	Item no.
Gebo Air suction	68 mm	375 x 175 mm	56 mm	81.60.00.01
Gebo Air suction	100 mm	600 x 175 mm	88 mm	81.60.50.00

Air vent plastic

Airflow vent made of plastic. Easy bolt-on installation.

Description	Color	Item no.
Intake screen	Black	EP-82021B
Intake screen	White	EP-82021W

Air vent SS 316

The air vent can be used with or without flexible hose. The coverplate is made of SS 316. These ventilation hoods can be mounted without fasteners.

Description	Diameter	Item no.
Ventilation cap	76 mm	81932ss-hp
Ventilation cap	101 mm	81933ss-hp

Nicro Solar ventilators

Very compact and low-noise solar power ventilator. No need for external power supply. The ventilator can work up to 40 hours without sunlight. The ventilator comes with a set of 2 fan blades, decorative ring and mosquito screen.

Model / type	Capacity	Ø pass	Height	Installation diam.	Color	Item no.
Nicro Solar Fan	17 m³/min	3 inch	57 mm	95 mm	Stainless steel	n20703s
Nicro Solar fan	17 m³/min	3 inch	57 mm	95 mm	White	n20703w
Nicro Solar Fan	28.31 m³/min	4 inch	57 mm	121 mm	Stainless steel	n20704s
Nicro Solar Fan	28.31 m³/min	4 inch	57 mm	121 mm	White	n20704w

MasterBus: Basic system with charger

1. MasterView Easy
2. MasterShunt
3. ChargeMaster

MasterBus: Extended system with laptop

230 V/50 Hz
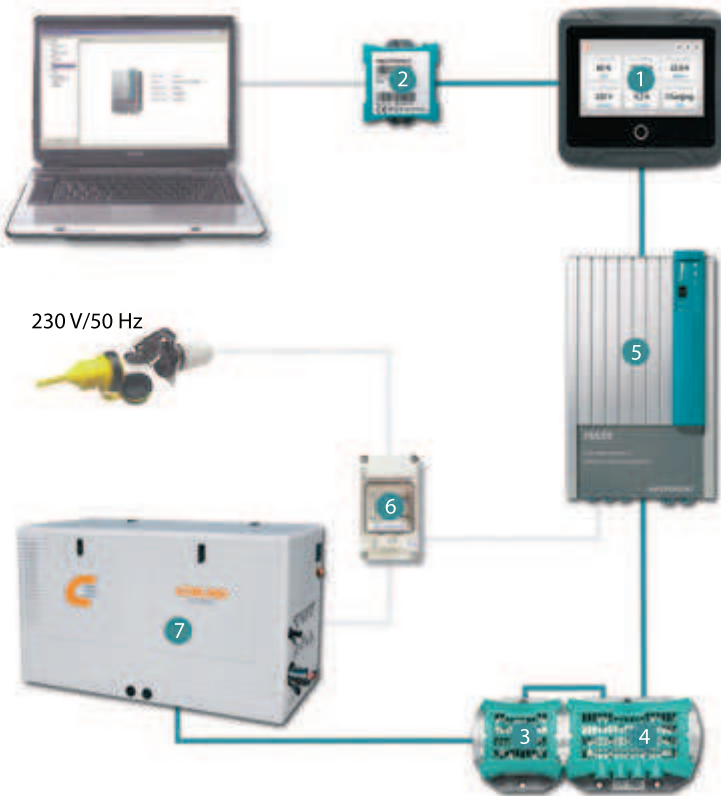
1. MasterView Easy
2. MasterBus-USB interface
3. MasterShunt
4. DC Distribution
5. Mass Combi
6. Masterswitch
7. Coelmo generator

Complete on boardsystem for luxury yachts

Terminator

MasterView Easy
controlpanel

MasterView System
controlpanel

Terminator

option:
Coelmo Generator

230 V/50 Hz

Systemswitch

Mass
charger

230 V

Mass GI
Transformer

Boiler
Washing machine
Lightning
Household
appliances

Mass Sine
transformer

MasterShunt   DC Distribution

Alpha Pro controller

Dynamo

Battery
12 V (AGM)

Battery 12 V (gel)

Emergency switch
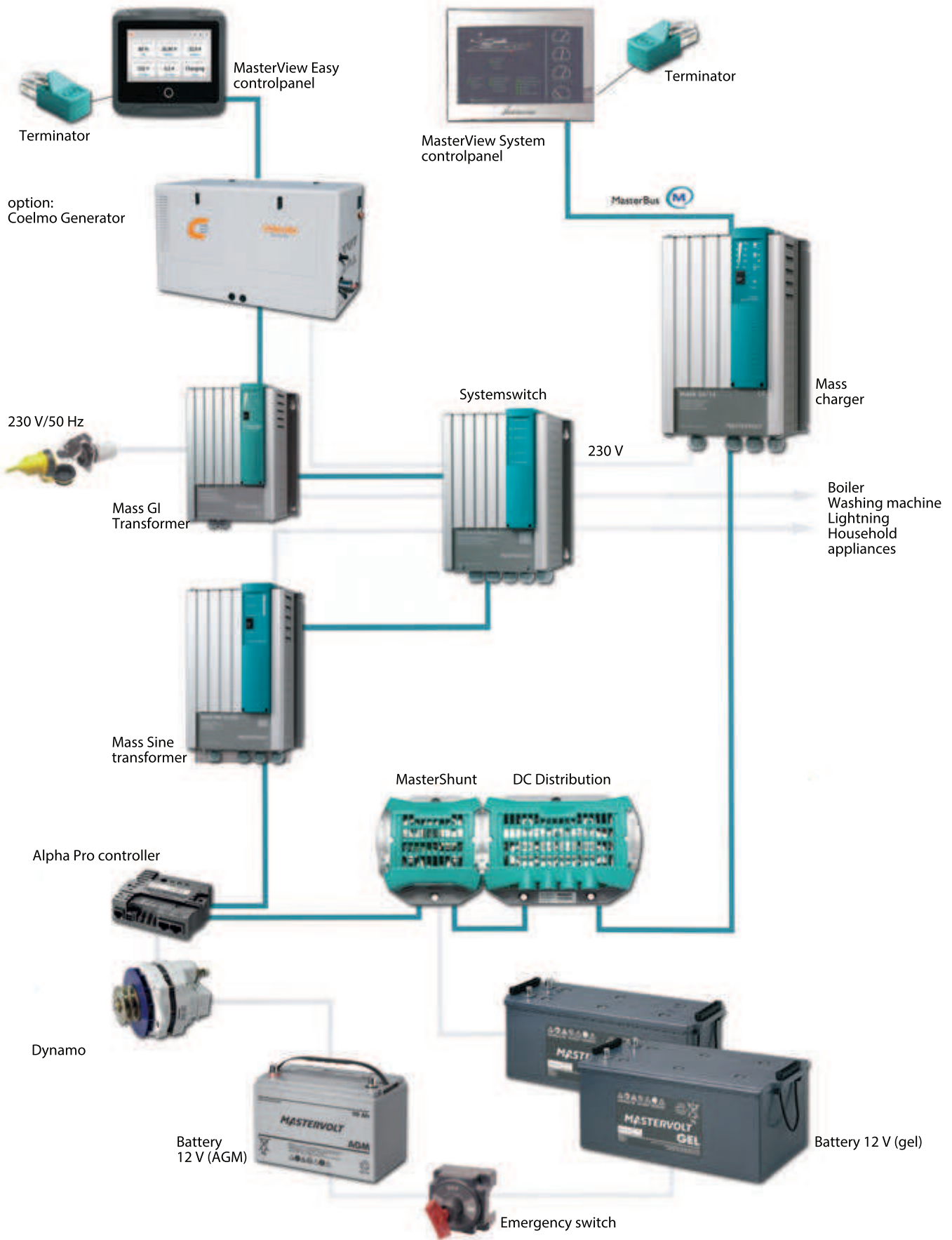
Mastervolt shorepower inlets

Mastervolt supplies a complete range of shorepower inlets for 230 Volts. The shorepower inlets feature the "Easy-Lock" system: the plug plugs into the inlet with a short screw motion. The screw ring hermetically seals the plug and inlet from moisture and water. Besides the plastic Valox inlet, a stainless steel 316 inlet can be supplied too. The stainless steel version is completely sealed when closed and when a power plug is plugged in. The shore connection sockets, contra plugs and covers can be ordered seperately.

Pos.	Description	Voltage	Max. current	Nr. of poles	Item no.
1	Shore connection set Valox	230 V	16 A	2 + A	120500300
2	Shore connection set stainless steel	230 V	16 A	2 + A	120500400
2	Shore connection set stainless steel	230 V	32 A	2 + A	120500500
2	Shore connection set stainless steel	230 V	32 A	3 + A	120500600

Mastervolt shorepower inlets parts

Mastervolt supplies a complete range of shorepower inlets for 230 Volts. The shorepower inlets feature the "Easy-Lock" system: the plug plugs into the inlet with a short screw motion. The screw ring hermetically seals the plug and inlet from moisture and water. Besides the plastic Valox inlet, a stainless steel 316 inlet can be supplied too. The stainless steel version is completely sealed when closed and when a power plug is plugged in. The shore connection sockets, contra plugs and covers can be ordered seperately.

Pos.	Description	Voltage	Max. current	Nr. of poles	Item no.
	Shore connection Valox	230 V	16 A	2 + A	301EL-BX
1	Shore connection stainless steel	230 V	16 A	2 + A	303SSEL-BX
2	Shore connection contra	230 V	16 A	2 + A	305CRCXN
3	Shore connection cover case		16 A	2 + A	103RN.OEM
4	Shore connection contra	230 V	32 A	2 + A	6360CRNX
5	Shore connection cover case contra		32 A	2 + A	7715CRN
6	Shore connection set stainless steel	230 V	16 A	2 + A	121160000
7	Shore connection set stainless steel	230 V	32 A	2 + A	6371EL-BX

Shorepower inlets

Shore power inlets 16A available in white or blue.
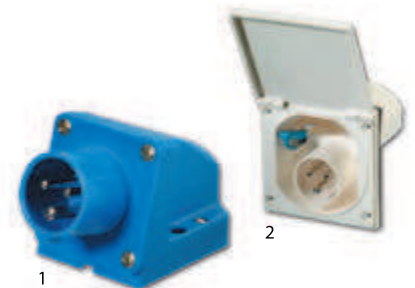
Pos.	Description	Voltage	Max. current	Item no.
1	Socket	230 V	16 A	0225
2	Socket	230 V	16 A	0226

CEE plug and contra plug

Pos.	Description	Voltage	Max. current	Item no.
1	Plug	230 V	16 A	0221
2	Contra-plug	230 V	16 A	0223

Mastervolt 16A shorepower cables green

A safe and carefree power connection is necessary for a comfortable and smooth onboard experience during your stay. Mastervolt offers you everything you need for a high quality grid connection. The green shorepower cables are supplied with moulded connections.

CE

Description	Length	Max. current	Color	Suitable for	Item no.
Power cable 2,5 mm^2	15 m	16 A	Green	121160000	121160150
Power cable 2,5 mm^2	25 m	16 A	Green	121160000	121160250
MV shore power cable carrying case 36x46x11cm					121160930

Shorepower cable 16A yellow

A safe and carefree power connection is necessary for a comfortable and smooth onboard experience during your stay. Mastervolt offers you everything you need for a high quality grid connection.

CE

Description	Length	Max. current	Color	Suitable for	Item no.
Power cable 25 metre 2,5 mm^2	25 m	16 A	Yellow	120500300, 120500499	120302500
Shore cable yellow PU 3x2,5/ per mtr		16 A	Yellow;Yellow		33668325
Shore power cable yellow PU 3x4/ per mtr.		32 A	Yellow		120301400

Mastervolt shorepower adapter cable

A safe and carefree power connection is necessary for a comfortable and smooth onboard experience during your stay. Mastervolt offers you everything you need for a high quality grid connection. The green shorepower cables are supplied with moulded connections.

CE

Description	Length	Max. current	Color	Suitable for	Item no.
Adapter, from CEE 7/7 to CEE plug, with current indicator	0,3 m	16 A	Green	121160150, 121160250	121160900
Adapter, from CEE to CEE 7/7 plug	0,4 m	16 A	Green		121160910

Mastervolt Y-splitter

A safe and carefree power connection is necessary for a comfortable and smooth onboard experience during your stay. Mastervolt offers you everything you need for a high quality grid connection. The green shorepower Y-splitter is supplied with moulded connections.

CE

Description	Length	Max. current	Color	Suitable for	Item no.
Splitter for CEE plug with current indicator	0,6 m	16 A	Green	121160150, 121160250	121160920

Glendinning Cablemaster CRM-series

Your shore power cable is neatly stored with the Cable master. When you need the cable, you simply pull the lenght of the cable from the reel. If you want to store the cable again, press and hold the button on the Cablemaster. The cable then winds back automatically. Available in 16 or 32 Ampères. Will be supplied with yellow shorepower cable with standard plug.

W x D x H : 268,62 x 326,36 x 341,63 mm

Description	Voltage	Current	Length	Item no.
Cablemaster type CRM16	12 V	16 A	25 m	CRM16-12-25M
Cablemaster type CRM16	24 V	16 A	25 m	CRM16-24-25M
Cablemaster type CRM32	12 V	32 A	15 m	CRM32-12
Cablemaster type CRM32	24 V	32 A	15 m	CRM32-24

Glendinning Cablemaster CM-series

This is a unique type of cord reel which can handle a wide variety of portable cable sizes and lengths. The unique design of this product eliminates the need for slip rings. The Cablemaster is motor powered, just push a button to extend and retract your power cable. The Cablemaster will be supplied with transit and motor unit, but without cable and optional safe. The system can be expanded with various assembly sets.

Pos.	Description	Voltage	Current	Item no.
1	Glendinning Cablemaster type CM4	12 V	16/32 A	05010
1	Glendinning Cablemaster type CM4	24 V	16/32 A	05013
2	Glendinning Cablemaster type CM7	12 V	63 A	04020
2	Glendinning Cablemaster type CM7	24 V	63 A	04022
3	Glendinning Cablemaster type CM8	24 V	100 A	04091
-	Glendinning Cablemaster type CM9	24 V	150 A	04097-21-24
-	Glendinning Cablemaster type CM9	24 V	150 A	04097-25-24
2	Cable safe stainless steel for CRM Cablemasters			04049-CRM

AC transfer systems

Mastervolt Masterswitch

With multiple 230 Volt suppliers on board, a switching system is indispensable. In addition to manual switching via selector switch, Mastervolt delivers a completely automatic Masterswitch. The Masterswitch automatically switches between AC power, for example shorepower, generator or inverter. The Masterswitch Fuses model includes circuit breakers.

CE

Model - Type	Power	W x D x H	Item no.
Masterswitch 5 2x in, 1 x out	5 kW	110 x 115 x 200 mm	55006010
Masterswitch 10 2x in, 1 x out	10 kW	110 x 115 x 200 mm	55006015
Masterswitch 25 2x in, 1 x out	25 kW	241 x 168 x 291 mm	55003500
Masterswitch fuses	5 kW	255 x 115 x 200 mm	55006060

Mastervolt System switch

With multiple 230 Volt suppliers on board, a switching system is indispensable. In addition to manual switching via selector switch, Mastervolt delivers a completely automatic Masterswitch. The Masterswitch automatically switches between AC power, for example shorepower, generator or inverter. The Mastervolt System Switch has 3 inputs, and 3 or 4 outputs to AC power groups. The System Switch can be connected to the MasterBus network.

Model - Type	Power	W x D x H	Item no.
Mass system switch 6	6 kW	261 x 144 x 340 mm	55008005
Mass system switch 10	10 kW	261 x 144 x 340 mm	55008105
Mass system switch 16	16 kW	261 x 144 x 340 mm	55008205

Mastervolt Isolation transformers

Mass GI-series

The Mass GI is features the latest high-frequency switching technology as well as Soft Start for peak loads when connecting to the grid. LED lights on the casing indicate load and overload. The transformer can be remote controlled and has the option to automatically start the generator when there is an AC current overload. The Mass GI is 75% lighter and 60% smaller than the low frequency transformers.

Input voltage AC : 90-255 V

Model - Type	Power	W x D x H	Item no.
Mass / GI 3,6	3,5 kW	261 x 144 x 340 mm	88000355
Mass / GI 8	7,0 kW	261 x 250 x 340 mm	88000705

Mastervolt EasyCharge

For people on the move, the EasyCharge portable battery charger offers a rugged solution that can be used on the boat, car, motorcycle, and camper van. With a rugged, ergonomic construction, and waterproof to IP65 standard (the 6 and 10A models are waterproof to the IP68 standard), the portable chargers have an intuitive control panel, and are available in 120V/60Hz and 230V/50Hz models of either 1.1 A or 4.3 A. Users can quickly select between 6V (ideal for toys, classic cars and motorcycles) and 12V operation. The units include 1.8m of DC cable that connects to either a 61cm lead with ring terminals, or a 61cm lead with alligator clips, for easy installation and a variety of applications; both leads are included in the package. The battery chargers have the ability to charge wet, AGM and gel batteries, with a universal input (120-230 V) for total worldwide freedom.

Pos.	Model - Type	Voltage	Description	Battery capacity	Battery voltage	Charging current	Input voltage AC	Input voltage frequency	Item no.
1	EasyCharge	6/12 V	Portable battery charger	2,2 - 40 Ah	6/12 V	1.1 A	110/230 V	50-60 Hz	43510100
2	EasyCharge	6/12 V	Portable battery charger	14 - 120 Ah	6/12 V	4.3 A	110/230 V	50-60 Hz	43510400
3	EasyCharge	12 V	Battery charger	10 - 120 Ah	12 V	6 A	110/230 V	50-60 Hz	43310600
4	EasyCharge	12/24 V	Battery charger	10 - 120 Ah	12/24 V	10 / 5 A	110/230 V	50-60 Hz	43321000

Mastervolt Chargemaster

Chargemaster battery chargers are compact and can be built in almost anywhere. The small models of battery chargers 12/10 and 24/6 are waterproof to the IP65 standard and can even be placed in humid areas. The Chargemaster 12/15-2 is waterproof to the IP21 standard. The Chargemaster 12/15-2 has 2 outputs, the total output is 15A, and can charge multiple separate batteries. These chargers are not MasterBus compatible.

Pos.	Model - Type	Voltage	Description	Battery capacity	Battery voltage	Charging current	Charging current 2nd output	Input voltage AC	Input voltage frequency	Consumption@ full load	Item no.
1	ChargeMaster 12/10	12 V	Battery charger	25 - 100 Ah	12 V	10 A		230 V	50-60 Hz	170 W	43011000
2	ChargeMaster 12/15-2	12 V	Battery charger	30 - 150 Ah	12 V	15 A	15 A	230 V	50-60 Hz	250 W	43011500
1	ChargeMaster 24/6	24 V	Battery charger	25 - 70 Ah	24 V	6 A		230 V	50-60 Hz	210 W	43020600

Mastervolt Solar Chargemasters

Mastervolt offers 2 MPPT Solar Chargemasters type SCM25 MPPT and SCM60 MPPT-MB (25 and 60A). The SCM25 MPPT is the smallest MPPT Solar charge controller and just as powerful as its big brother. With 200 to 700 WP of solar panels, switchable output and buzzer, this Solar charging device is ideal for small and medium-sized systems. SCM60 MPPT-MB is Masterbus compatible. Mastervolt also offers 2 non-MPPT Solar Chargemasters of 20 and 40A.

Model - Type	Voltage	Description	Battery voltage	Charging current	Item no.
Solar chargemaster SCN-N 20	12/24 V	Solar charger			131802000
Solar Chargemaster SCM-25 MPPT	12/24 V	Solar charge regulators	12/24 V	25 A	131902500
Solar chargemaster SCN-N 40	12/24 V	Solar charger			131804000
Solar Chargemaster SCM-60 MPPT	12/24/48 V	Solar charge regulators	0-32;1,5;0-32;1,5 V	60 A	131906000

Mastervolt Chargemaster

Make the most of your batteries with the ChargeMaster, plugging in and charging anywhere in the world. Mastervolt's ChargeMaster guarantees fast and complete charging of your batteries no matter where you are. The ChargeMaster can charge multiple battery banks simultaneously thanks to its combined functionality. Moreover, all ChargeMasters can be easily connected to a MasterBus network with only one cable and one connection. You also have the option of central, local or remote monitoring, configuration and control of your system. The ChargeMaster is available in various models to guarantee you the ideal battery charger for any situation and demand.

Charging your batteries with every voltage. The Mastervolt ChargeMaster supplies a maximum capacity wherever you are via auto-ranging. Auto-ranging ensures perfect fully automatic operation anywhere in the world, regardless of the available mains voltage (90-265 V AC, 50 or 60 Hz). The 3-step+ charging technology guarantees fast and complete charging, while the cos phi 1 regulation gets the most out of limited generator capacity.

The ChargeMaster series has three equal charge outputs. Those of the smaller ChargeMaster models are pre-installed with two metres of cable for a plug & play solution, while the heavier models (12/70-3, 12/100-3, 24/40-3, 24/60-3, 24/80-3, 24/100-3) have one full output (for example for your service battery) and two outputs of 10 A, ideal for your starter batteries.

Model - Type	Voltage	Description	Battery capacity	Battery voltage	Charging current	Charging current 2nd output	Charging current 3th output	Input voltage AC	Input voltage frequency	Consumption@ full load	Item no.
ChargeMaster 12/25-3	12 V	Battery charger	50 - 250 Ah	12 V	25 A	25 A	25 A	110/230 V	50-60 Hz	450 W	44010250
ChargeMaster 12/35-3	12 V	Battery charger	70 - 350 Ah	12 V	35 A	35 A	35 A	110/230 V	50-60 Hz	575 W	44010350
ChargeMaster 12/50-3	12 V	Battery charger	100 - 500 Ah	12 V	50 A	50 A	50 A	110/230 V	50-60 Hz	825 W	44010500
ChargeMaster 12/70-3	12 V	Battery charger	140 - 700 Ah	12 V	70 A	10 A	10 A	110/230 V	50-60 Hz	1200 W	44010700
ChargeMaster 12/100-3	12 V	Battery charger	200 - 1000 Ah	12 V	100 A	10 A	10 A	110/230 V	50-60 Hz	1700 W	44011000
ChargeMaster 24/12-3	24 V	Battery charger	24 - 120 Ah	24 V	12 A	12 A	12 A	110/230 V	50-60 Hz	435 W	44020120
ChargeMaster 24/20-3	24 V	Battery charger	40 - 200 Ah	24 V	20 A	20 A	20 A	110/230 V	50-60 Hz	660 W	44020200
ChargeMaster 24/30-3	24 V	Battery charger	60 - 300 Ah	24 V	30 A	30 A	30 A	110/230 V	50-60 Hz	925 W	44020300
ChargeMaster 24/40-3	24 V	Battery charger	80 - 400 Ah	24 V	40 A	10 A	10 A	110/230 V	50-60 Hz	1400 W	44020400
ChargeMaster 24/60-3	24 V	Battery charger	120 - 600 Ah	24 V	60 A	10 A	10 A	110/230 V	50-60 Hz	2000 W	44020600
ChargeMaster 24/80-3	24 V	Battery charger	160 - 800 Ah	24 V	80 A	10 A	10 A	110/230 V	50-60 Hz	2700 W	44020800
ChargeMaster 24/100-3	24 V	Battery charger	200 - 1000 Ah	24 V	100 A	10 A	10 A	110/230 V	50-60 Hz	3375 W	44021000

Mastervolt Mass

High quality battery and reliability. The Mastervolt Mass battery chargers feature a three-stage charging characteristic, temperature compensation, short circuit protection and cooling. Mass battery chargers meet CE standards, have very high efficiency and are low noise. A number of Mass models are standard with high / low voltage alarm. Some types are provided with a second output. The 24/75 and 24/100 battery chargers can be connected in parallel to create one large charger of, for example, 3x 100A = 24V / 300A. This can then be operated with one panel. The 24/75 and 24/100 battery chargers are also standard DNV, Lloyds, Bureau Veritas, RS and Germanischer Lloyds certified. The Mass battery charger are directly MasterBus compatible.

Model - Type	Voltage	Description	Battery capacity	Battery voltage	Charging current	Charging current 2nd output	Input voltage AC	Input voltage frequency	Consumption@ full load	Item no.
Mass 24 / 15-2	24 V	Battery charger	30 - 150 Ah	24 V	15 A	3 A	230 V	50-60 Hz	550 W	40020156
Mass 24 / 25-2	24 V	Battery charger	50 - 250 Ah	24 V	25 A	3 A	230 V	50-60 Hz	880 W	40020256
Mass 24 / 25-2 CSI, DNV certified	24 V	Battery charger	50 - 250 Ah	24 V	25 A	3 A	230 V	50-60 Hz	880 W	40720266
Mass 24 / 50-2	24 V	Battery charger	100 - 500 Ah	24 V	50 A	3 A	230 V	50-60 Hz	1800 W	40020506
Mass 24 / 75	24 V	Battery charger	150 - 750 Ah	24 V	75 A	-	230 V	50-60 Hz	2600 W	40020756
Mass 24 / 100	24 V	Battery charger	200 - 1000 Ah	24 V	100 A	-	230 V	50-60 Hz	3500 W	40021006
Mass 48 / 25	48 V	Battery charger	100 - 500 Ah	48 V	25 A	-	230 V	50-60 Hz	1800 W	40040256
Mass 48 / 50	48 V	Battery charger	100 - 500 Ah	48 V	50 A	-	230 V	50-60 Hz	3500 W	40040506

Inverters

Mastervolt AC Master inverters

The AC Master inverter is ideal for small and medium-sized applications, while Mass Sine and the advanced Mass Sine Ultra inverters are mainly intended for larger systems and for professional purposes. These inverters range from 300 up to 1500 watt continuous rating power. The AC Masters are not Masterbus compatible. The control panel is compatible with the model types ranging from 700 watt and up continuous rating power.

Model - Type	Battery voltage	Continuous rating power	Peak power	Item no.
AC Master 12/300	12 V	300 VA	600 W	28010300
AC Master 12/500	12 V	500 VA	800 W	28010500
AC Master 12/700	12 V	700 VA	1230 W	28010700
AC Master 12/1000	12 V	1000 VA	1750 W	28011000
AC Master 12/1500	12 V	1500 VA	2650 W	28011500
AC Master 24/300	24 V	300 VA	600 W	28020300
AC Master 24/500	24 V	500 VA	800 W	28020500
AC Master 24/700	24 V	700 VA	1230 W	28020700
AC Master 24/1000	24 V	1000 VA	1750 W	28021000
AC Master 24/1500	24 V	1500 VA	2650 W	28021500
Control panel				INVR-1

Mastervolt Mass Sine inverters

The Mass Sine inverter is ideal for professional applications. These inverters range from 800 up to 5000 watt continuous rating power. The Mass Sine inverters are Masterbus compatible using an inverter interface.
The Mass Sine Ultra design is based on over 20 years experience with the Mass Sine range, using the latest technology in power electronics and digital control. Its highly efficient V6 high frequency power electronics allow for very high power density, saving both weight and volume, bringing silent operation and extremely low battery current ripple, extending the life of your batteries. The latest and fastest in digital signal processing prevents nuisances like flickering and dips.
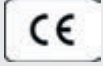
Model - Type	Battery voltage	Power P30	Peak power	Item no.
Mass Sine 12 / 800	12 V	800 W	1600 W	24010800
Mass Sine 12 / 1200	12 V	1200 W	2400 W	24011200
Mass Sine 12 / 2000	12 V	2000 W	4000 W	24012000
Mass Sine 24 / 800	24 V	800 W	1600 W	24020800
Mass Sine 24 / 1500	24 V	1500 W	2900 W	24021500
Mass Sine 24 / 2500	24 V	2500 W	5000 W	24022500
Mass Sine Ultra 24 / 4000	24 V	4000 W	7000 W	26024000
Mass Sine 24 / 5000	24 V	5000 W	9000 W	24095100

Mastervolt DC Master inverters

The required voltage for DC current can vary. Some equipment requires 24V, while onboard equipment usually requires 12V. For custom DC current, Mastervolt offers a series of compact and made to measure DC-DC converters for both 12V and 24V battery systems that offer stable power with the right current for any connected consumer. There is a wide range of DC Master converters available, including insulated (81500...) and non-insulated (81400...) models.

Model - Type	Max. current	Battery voltage	Power P30	Peak power	Item no.
DC Master 12/12-3A	3 A	12 V	41 W	54 W	81500600
DC Master 12/12-6A	6 A	12 V	81 W	108 W	81500700
DC Master 24/12-3A	3 A	24 V	41 W	82 W	81500100
DC Master 24/12-6A	6 A	24 V	82 W	136 W	81500200
DC Master 24/12-12A	12 A	24 V	164 W	245 W	81500300
DC Master 24-12-24A	24 A	24 V	326 W	408 W	81500350
DC Master 24/24-3A	3 A	24 V	82 W	109 W	81500400
DC Master 24/24-7A	7 A	24 V	191 W	245 W	81500500
DC Master 12/24-3A	3 A	12 V	82 W	109 W	81400400
DC Master 12/24-7A	7 A	12 V	191 W	245 W	81400500
DC Master 24/12-3A	3 A	24 V	41 W	82 W	81400100
DC Master 24/12-6A	6 A	24 V	82 W	136 W	81400200
DC Master 24/12-12A	12 A	24 V	164 W	245 W	81400300
DC Master 24/12-24A	24 A	24 V	326 W	408 W	81400330
DC Master 24/12-50A	50 A	24 V	500 W	720 W	81400350
DC Master 48/12-6A	6 A	48 V	82 W	109 W	81400600
DC Master 48/12-9A	9 A	48 V	108 W	132 W	81400700
DC Master 48/12-20A	20 A	48 V	272 W	326 W	81400800

Mastervolt DC-DC inverters Mac & Magic

The Mac and Magic DC-DC converters are designed for the toughest conditions for professional, semi-professional and recreational purposes. The required direct current voltage may differ quite a lot. The bow thruster and anchor winch often require 24V, while the navigation and audio equipment is usually focused on 12V. The DC-DC converter provides the solution. The Mac and Magic series provide continuous power. They transform the voltage to the desired voltage and stabilize the current, so for example, your halogen lighting lasts longer. Instead of the converting function this product also has a battery charger and dimmer function (only one function can be active). The Magic series is completely shielded by the galvanically separated input and output. The DC-DC converters are MasterBus compatible using a Serial Interface (77030450).

Model - Type	Charging current	Max. current	Battery voltage	Power P30	Peak power	Item no.
Magic 12/12-20	16 A	20 A	24 V	270 W	300 W	81200100
Magic 12/24-10	8 A	10 A	12 V	300 W	300 W	81300300
Magic 12/12-20	16 A	20 A	12 V	300 W	300 W	81300400
Magic 24/12-20	16 A	20 A	24 V	300 W	300 W	81300100
Magic 24/24-20	16 A	20 A	24 V	580 W	580 W	81300200

Mastervolt Mass Combi HF

A Mastervolt Mass Combi offers best price/quality ratio. The exceptionally reliable Mass Combi series offers a lot of power at a highly competitive price. In addition, the four models are also available in two customer-friendly variations with remote control or MasterBus. The powerful 3-step+ battery charger guarantees maximum battery life and can simultaneously charge two battery banks. The inverter with high peak power starts even the heaviest loads, with the Mass Combi 12/1600 being easily sufficient for your espresso machine. A built-in distribution system switches between grid and inverter power, while two separate AC outputs allow users to connect critical loads to a preferred group. Power Assist: extra power assistance from the batteries in case of limited grid or generator power (prevents blown fuses). The power sharing system ensures that the available shore power is distributed to the users on board and the battery charger. If more inverter power is required, you can operate two Mass Combis in parallel.

Model / type	Description	Charging current	Battery voltage	Battery capacity	H x W x D	Protection class	Item no.
Mastervolt Mass Combi	Mass Combi 12/1600-60 230V	60 A	12 V	160-530 Ah	371,0 x 318 x 143 mm	IP23	36011600
Mastervolt Mass Combi	Mass Combi 12/1600-60 incl. ICC&APC	60 A	12 V	160-530 Ah	371,0 x 318 x 143 mm	IP23	36011601
Mastervolt Mass Combi	Mass Combi 12/1600-60 + MB Interface	60 A	12 V	160-530 Ah	371,0 x 318 x 143 mm	IP23	36011602
Mastervolt Mass Combi	Mass Combi 12/2200-100 230V	100 A	12 V	220-730 Ah	496 x 318 x 156 mm	IP23	36012200
Mastervolt Mass Combi	Mass Combi 12/2200-100 incl. ICC&APC	100 A	12 V	220-730 Ah	496 x 318 x 156 mm	IP23	36012201
Mastervolt Mass Combi	Mass Combi 12/2200-100 + MB Interface	100 A	12 V	220-730 Ah	496 x 318 x 156 mm	IP23	36012202
Mastervolt Mass Combi	Mass Combi 24/1800-35 230V	35 A	24 V	85-360 Ah	371 x 318 x 143 mm	IP23	36021800
Mastervolt Mass Combi	Mass Combi 24/1800-35 incl. ICC&APC	35 A	24 V	85-360 Ah	371 x 318 x 143 mm	IP23	36021801
Mastervolt Mass Combi	Mass Combi 24/1800-35 + MB Interface	35 A	24 V	85-360 Ah	371 x 318 x 143 mm	IP23	36021802
Mastervolt Mass Combi	Mass Combi 24/2600-60 230V	60 A	24 V	120-520 Ah	496 x 318 x 156 mm	IP23	36022600
Mastervolt Mass Combi	Mass Combi 24/2600-60 incl. ICC&APC	60 A	24 V	120-520 Ah	496 x 318 x 156 mm	IP23	36022601
Mastervolt Mass Combi	Mass Combi 24/2600-60 + MB Interface	60 A	24 V	120-520 Ah	496 x 318 x 156 mm	IP23	36022602
Mass Combi	Mass Combi cable1m Master/slave panel						130010905

Mastervolt Mass Combi Ultra

The Mass Combi Ultra series comprises several models, varying from 3000 W to 3500 W. For higher capacities up to 35 kW the Combi Ultra can be used in parallel or 3-phase configurations. An efficient and integrated solar charge regulator helps make the most of your solar panels. The Mass Combi Ultra is equipped with the latest technologies. The new 'V6' inverter technology ensures a uniquely low stand-by use, while an ultra-fast Digital Signal Processor guarantees seamless switching between all available energy sources. Power Assist prevents power dips and failures, even with a weak electricity connection or small generator. The Mass Combi Ultra has seperate inputs for generator and solar power. The 24V and 48V model can combine 12V and 24V battery banks on the secondary DC output. Moreover, all Mass Combi Ultra models are equipped with MasterBus.

Model / type	Description	Charging current	Battery voltage	Battery capacity	H x W x D	Protection class	Item no.
Mass Combi Ultra 12/3000-150	Mass Combi Ultra 12/3000-150	150 A	12 V	300-900 Ah	472 x 318 x 178 mm	IP23	38013000
Mass Combi Ultra 12/3000-150	Mass Combi Ultra 24/3500-100	100 A	24 V	200-600 Ah	472 x 318 x 178 mm	IP23	38023500
Mass Combi Ultra 48/3500-50	Mass Combi Ultra 48/3500-50	50 A	48 V	100-300 Ah	472 x 318 x 178 mm	IP23	38343500
Mass Combi Ultra	Sync cable 1 metre						6502000010
Mass Combi Ultra	Sync cable 3 metre						6502000030

Mastervolt Mass Combi Pro

The Mass Combi Pro series consists of two models, ranging in 3000 and 3500 watt. For higher capacities up to 40 kW the Combi Pro can be used in parallel or 3-phase configurations. The Mass Combi Pro is equipped with the latest technologies. The new 'V6' inverter technology ensures a uniquely low stand-by use, while an ultra-fast Digital Signal Processor guarantees seamless switching between all available energy sources. Power Assist prevents power dips and failures, even with a weak electricity connection or small generator. The Mastervolt Mass Combi Pro series features all Ultra functions, but without the solar input and secondary battery charger. Moreover, all Mass Combi Pro models are equipped with MasterBus.

Model / type	Description	Charging current	Battery voltage	Battery capacity	H x W x D	Protection class	Item no.
Mass Combi Pro	Mass Combi Pro 12/3000-150 (230 V)	150 A	12 V	300-900 Ah	472 x 318 x 178 mm	IP23	38513000
Mass Combi Pro	Mass Combi Pro 24/3500-100	100 A	24 V	200-600 Ah	472 x 318 x 178 mm	IP23	38523500

Mastervolt Alternators

Robust alternator, high power output at low speed, maintenance-free, ignition protected, isolated ground and three-step loading characteristics. Standard delivered with Alpha Pro MB charge regulator for an optimal performance and longer-lasting batteries. Using a Battery Mate or battery isolator in conjunction with an Alpha alternator makes it possible to easily charge two or three separate battery sets simultaneously.

CE
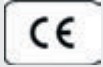
Model - Type	Charging current	Voltage	Output voltage DC	Item no.
12/90	90 A	12 V	12 V	48512090
12/130	130 A	12 V	12 V	48512130
12/130 Multi-groove	130 A	12 V	12 V	48512131
24/75	75 A	24 V	24 V	48524075
24/75 Multi-groove	95 A	24 V	24 V	48524076
24/110	110 A	24 V	24 V	48524110
24/150	150 A	24 V	24 V	48524150

Mastervolt Alpha Pro charge regulators

The charge regulator measures the battery temperature and adjusts the charging process accordingly, resulting in a safe and fast charge. Therefore the battery is always kept in good condition. Easy operation LEDs on the body of the charge regulator indicate the charge phase. The Alpha Pro MB is designed as a 'fit all' solution. Just one unit is needed for both 12 and 24 V applications, with a simple selector switch to set the regulator to the right voltage. The charge regulator can also be used on any other brand of alternator that has a standard Bosch connector, using a Bosch adapter cable (optional). The Alpha Pro MB is compatible with MasterBus, allowing easy monitoring via a MasterView touchscreen. In a MasterBus system the voltage drop over the battery cable and the battery temperature is compensated automatically.

CE M

Model - Type	Item no.
MV Bosch Adapter for Alpha Pro II / III	45510500

Mastervolt charge regulators

In an energy system where multiple batteries are to be charged separately, it is necessary to either install a manual switch between the battery charger and the batteries or to install a charging current distributor. This is needed for example on the board battery, starter battery and boiler battery. With a charging current distributor, the charging process works automatically. The Battery Mate (BM-types) is an electronic charging current distributor that keeps the output voltage constant at an optimal level. Thus there is no 0.6V voltage drop as with the standard separation diode (BI types).

$C\epsilon$

Pos.	Model - Type	Max. current	Nr. of batteries	Max amp. charger	Max. amp. dynamo	H x W x D	Item no.
1	BI 702S	70 A	2 pcs	50 A	70 A	157 x 140 x 80 mm	83007021
1	BI 703	70 A	3 pcs	50 A	70 A	207 x 140 x 80 mm	83007030
1	BI 1202S	120 A	2 pcs	80 A	120 A	207 x 140 x 80 mm	83012021
1	BI 1203S	120 A	3 pcs	80 A	120 A	207 x 140 x 80 mm	83012031
2	BM 1602 IG	160 A	2 pcs	120 A	160 A	207 x 140 x 80 mm	83116025
2	BM 1603 IG	160 A	3 pcs	120 A	160 A	207 x 140 x 80 mm	83116035
2	BM 2503 IG	250 A	3 pcs	200 A	250 A	207 x 140 x 80 mm	83125035

Mastervolt Battery Watch

The Battery Watch is an indispensable device for long battery life. The undervoltage protection is very precise, so that the battery is protected from excessive discharge. Protection of your precious equipment is achieved by switching off the load. The Battery Watch can be used as a battery main switch.

Model - Type	Max. current	H x W x D	Item no.
Battery Watch	150 A	157 x 140 x 80 mm	83200150
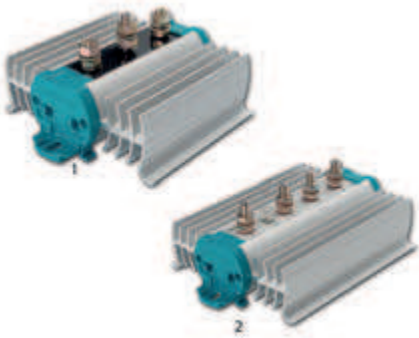
Xunzel SolarX Batteries

SolarX offers a range of 12V AGM batteries. The batteries are completely maintenance-free and sealed. The batteries are safe and leak free. These SolarX deep-cycle batteries are ideal for Off-Grid and Off-shore applications and designed for frequent loading and unloading cycles. The batteries have low internal resistance and can be mounted vertically or horizontally.

Model / type	Description	Battery voltage	Battery capacity	Nett Weight	L x W x H	Item no.
SolarX	SOLAR BATTERY SOLARX XUNZEL 3Ah-12V	12 V	3 Ah	0,97 kg	6,6x35x175 mm	solarx003
SolarX	SOLAR BATTERY SOLARX XUNZEL 8Ah-12V	12 V	8 Ah	2,00 kg	97x65x151 mm	solarx008
SolarX	SOLAR BATTERY SOLARX XUNZEL 14Ah-12V	12 V	14 Ah	3,60 kg	99x99x151 mm	solarx014
SolarX	SOLAR BATTERY SOLARX XUNZEL 30Ah-12V	12 V	30 Ah	8,10 kg	167x125x175 mm	solarx030
SolarX	SOLAR BATTERY SOLARX XUNZEL 48Ah-12V	12 V	48 Ah	13,00 kg	165x170x197 mm	solarx048
SolarX	SOLAR BATTERY SOLARX XUNZEL 78Ah-12V	12 V	78 Ah	21,00 kg	167x180x355 mm	solarx078
SolarX	SOLAR BATTERY SOLARX XUNZEL 120Ah-12V	12 V	120 Ah	30,00 kg	170x225x325 mm	solarx120
SolarX	SOLAR BATTERY SOLARX XUNZEL 240Ah-12V	12 V	240 Ah	60,00 kg	240x225x525 mm	solarx240

Xunzel SolarPro AGM batteries

Model / type	Description	Battery capacity	Nett Weight	L x W x H	Item no.
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 30,7KWH-1280AH-24V	1280 Ah	851,60 kg	1290x386x710 mm	XBCPVV1280.12
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 61,4KWH-1280AH-48V	1280 Ah	1651,20 kg	2580x386x710 mm	XBCPVV1280.24
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 15,4KWH-1280AH-12V	1280 Ah	412,80 kg	645x386x710 mm	XBCPVV1280.6
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 7,5KWH-314AH-24V	314 Ah	232,80 kg	630x416x420 mm	XBCPVV314.12
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 15,1KWH-314AH-48V	314 Ah	465,60 kg	1260x416x420 mm	XBCPVV314.24
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 3,8KWH-314AH-12V	314 Ah	116,40 kg	315x416x420 mm	XBCPVV314.6
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 14KWH-583AH-24V	583 Ah	376,80 kg	756x416x535 mm	XBCPVV583.12
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 28KWH-583AH-48V	583 Ah	753,60 kg	1512x416x535 mm	XBCPVV583.24
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 7KWH-583AH-12V	583 Ah	188,40 kg	378x416x535 mm	XBCPVV583.6
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 19,9KWH-788AH-24V	788 Ah	508,80 kg	1008x416x535 mm	XBCPVV788.12
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 37,8KWH-788AH-48V	788 Ah	1017,60 kg	2016x416x535 mm	XBCPVV788.24
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 9,5KWH-788AH-12V	788 Ah	254,40 kg	504x416x535 mm	XBCPVV788.6
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 23,2KWH-968AH-24V	968 Ah	612,00 kg	882x416x710 mm	XBCPVV968.12
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 46,5KWH-968AH-48V	968 Ah	1224,00 kg	1764x416x710 mm	XBCPVV968.24
SolarPro	BATTERY BANK SOLARPRO-GEL XUNZEL 11,6KWH-968H-12V	968 Ah	306,00 kg	441x416x710 mm	XBCPVV968.6

Mastervolt 6V AGM batteries

In AGM batteries, the electrolyte (mixture of water and sulphuric acid) is largely absorbed in glass fibre. This type of battery is entirely maintenance-free and there is no gas formation with normal use. Not requiring any ventilation, these batteries can be installed anywhere. Their construction gives a very fast discharge at very high currents so AGM batteries are ideal for systems that require high currents (for instance when starting an engine). The battery poles can be unscrewed and this type of battery can be combined with every standard battery terminal.

Model / type	Description	Battery capacity	Nett Weight	L x W x H	Item no.
AGM 6 / 260	Mastervolt AGM-battery	260 Ah	36,00 kg	295 x 180 x 298 mm	61002600
AGM 6 / 400	Mastervolt AGM-battery	400 Ah	55,70 kg	295 x 180 x 428 mm	61004000

Mastervolt 12V AGM batteries

In AGM batteries, the electrolyte (mixture of water and sulphuric acid) is largely absorbed in glass fibre. This type of battery is entirely maintenance-free and there is no gas formation with normal use. Not requiring any ventilation, these batteries can be installed anywhere.
Their construction gives a very fast discharge at very high currents so AGM batteries are ideal for systems that require high currents (for instance when starting an engine). The battery poles can be unscrewed and this type of battery can be combined with every standard battery terminal.

Model / type	Description	Battery capacity	Nett Weight	L x W x H	Item no.
AGM 12 / 55	Mastervolt AGM-battery	55 Ah	17,00 kg	257 x 132 x 207 mm	62000550
AGM 12 / 70	Mastervolt AGM-battery	70 Ah	22,00 kg	348 x 167 x 181 mm	62000700
AGM 12 / 90	Mastervolt AGM-battery	90 Ah	28,00 kg	330 x 173 x 237 mm	62000900
AGM 12 / 130	Mastervolt AGM-battery	130 Ah	38,00 kg	410 x 177 x 225 mm	62001300
AGM 12 / 160	Mastervolt AGM-battery	160 Ah	43,00 kg	485 x 177 x 242 mm	62001600
AGM 12 / 225	Mastervolt AGM-battery	225 Ah	63,00 kg	522 x 240 x 241 mm	62002250
AGM 12 / 270	Mastervolt AGM-battery	270 Ah	75,00 kg	522 x 268 x 243 mm	62002700

Mastervolt AGM 12V SlimLine batteries

In AGM batteries, the electrolyte (mixture of water and sulphuric acid) is largely absorbed in glass fibre. This type of battery is entirely maintenance-free and there is no gas formation with normal use. Not requiring any ventilation, these batteries can be installed anywhere. Their construction gives a very fast discharge at very high currents so AGM batteries are ideal for systems that require high currents (for instance when starting an engine). The battery poles can be unscrewed and this type of battery can be combined with every standard battery terminal. SlimLine batteries are very compact. They off er up to 30% space saving and are 15% lighter than regular AGM batteries. Two batteries take the same place as one traditional battery.

Model / type	Description	Battery capacity	Nett Weight	L x W x H	Item no.
Mastervolt AGM 12V SlimLine batteries	AGM-SL 12 / 150	150 Ah	41,00 kg	493 x 96 x 246 mm	63001500mv
Mastervolt AGM 12V SlimLine batteries	AGM-SL 12 / 185	185 Ah	51,20 kg	493 x 96 x 246 mm	63001850mv

Mastervolt 12V Gel batteriers

In gel batteries, the electrolyte is absorbed by a gel. This type of battery is entirely maintenance free and has no gas formation with normal use. As no extra ventilation is required gel batteries can be installed anywhere. They are ideal as service battery and for cyclical use, and can be charged very quickly. The gel technology allows fast charging with high power, up to 50% of the battery capacity. The best battery for maritime use.

Model / type	Description	Battery capacity	Nett Weight	L x W x H	Item no.
MVG 12 / 55	Mastervolt Gel Batteries	55 Ah	19,05 kg	293 x 175 x 175 mm	64000550
MVG 12 / 85	Mastervolt Gel Batteries	85 Ah	31,00 kg	330 x 171 x 236 mm	64000850
MVG 12 / 120	Mastervolt Gel Batteries	120 Ah	40,00 kg	513 x 189 x 223 mm	64001200
MVG 12 / 140	Mastervolt Gel Batteries	140 Ah	47,30 kg	513 x 223 x 225 mm	64001400
MVG 12 / 200	Mastervolt Gel Batteries	200 Ah	70,50 kg	518 x 291 x 242 mm	64002000

Mastervolt MVSV 2V Gel batteries

These durable 2 volt battery cells are completely maintenance-free gel batteries and are used for larger installations and intensive use. These cells can be mounted both horizontally and vertically so that the space can be used efficiently. The gel technology allows fast charging with high power, up to 50% of the battery capacity. Due to the improved technology, the product warranty for the 2 Volt cells is 7 years (demand for terms). Including standard cables, other cable lengths available upon request.

Dimensions including height poles.

Model / type	Description	Battery capacity C10	Nett Weight	L x W x H	Item no.
Mastervolt MVSV 2V Gel batteries	Mastervolt MVSV 2V Gel battery	500 @ 2V Ah	37,00 kg	147 x 208 x 515 mm	68000500
Mastervolt MVSV 2V Gel batteries	Mastervolt MVSV 2V Gel battery	580 @ 2V Ah	42,00 kg	168 x 208 x 515 mm	68000580
Mastervolt MVSV 2V Gel batteries	Mastervolt MVSV 2V Gel battery	750 @ 2V Ah	50,00 kg	147 x 208 x 690 mm	68000750
Mastervolt MVSV 2V Gel batteries	Mastervolt MVSV 2V Gel battery	1000 @ 2V Ah	68,00 kg	212 x 193 x 690 mm	68001000
Mastervolt MVSV 2V Gel batteries	Mastervolt MVSV 2V Gel battery	1250 @ 2V Ah	82,00 kg	212 x 235 x 690 mm	68001250
Mastervolt MVSV 2V Gel batteries	Mastervolt MVSV 2V Gel battery	1500 @ 2V Ah	98,00 kg	212 x 277 x 690 mm	68001500
Mastervolt MVSV 2V Gel batteries	Mastervolt MVSV 2V Gel battery	1650 @ 2V Ah	115,00 kg	212 x 277 x 759 mm	68001651
Mastervolt MVSV 2V Gel batteries	Mastervolt MVSV 2V Gel battery	2200 @ 2V Ah	153,00 kg	216 x 400 x 816 mm	68002200
Mastervolt MVSV 2V Gel batteries	Mastervolt MVSV 2V Gel battery	2700 @ 2V Ah	196,00 kg	214 x 489 x 816 mm	68002700

Mastervolt Lithium ION batteries MLI

The MLI Ultra series is designed to be able to enjoy all the best properties of Lithium Ion technology in the harshest conditions (high charge/discharge currents, wet environment, mechanical shock or vibrations). To do this the MLI Ultra batteries bring two things on top of a selection of the finest Lithium-iron phosphate cells: a sturdy, waterproof housing and the best Battery Management System (BMS). The BMS includes active cell balancing for optimal use of each individual cell, even during fast charge and discharge, integrated battery monitoring to always have the best information on the state of your battery. Last but not least, it has MasterBus communication to the Mastervolt battery charger to ensure the best possible recharging and lifetime of the battery.

Model / type	Description	Battery capacity	Nett Weight	L x W x H	Power	Item no.
Lithium ION-battery MLI	Lithium ION-battery	180 Ah	31,00 kg	341 x 197 x 355 mm	2,5kWh @ 13,25V kWh	66012500
Lithium ION-battery MLI	Lithium ION-battery	360 Ah	58,00 kg	622 x 197 x 355 mm	5,0kWh @ 13,25V kWh	66015000
Lithium ION-battery MLI	Lithium ION-battery	180 Ah	58,00 kg	622 x 197 x 355 mm	5,0kWh @ 26,5V kWh	66025000
Lithium ION-battery MLI	Latching relay 12V/300A		1,00 kg			79007700
Lithium ION-battery MLI	Latching relay 24V/500A		1,00 kg			79007702

Mastervolt Lithium ION batteries MLS

The new MLS batteries are suited for many different applications where capacity up to 90 Ah is needed. Its compactness and low weight plus the fact that it is mountable in multiple orientations, make it ideal for portable applications such as mobile communications. The MLS is also often used for (UPS) backup power. Applications range from small boats and vehicles to security systems and industrial applications.

Model / type	Description	Battery capacity	Nett Weight	L x W x H	Power	Item no.
MLS 12/80	Lithium ION-battery	6 Ah	0,80 kg	90 x 70 x 109 mm	77Wh @ 12,8V kWh	65010006
MLS 12/130	Lithium ION-battery	10 Ah	1,50 kg	151 x 65 x 103 mm	128Wh @ 12,8V kWh	65010010
MLS 12/260	Lithium ION-battery	20 Ah	3,10 kg	180 x 77 x 161 mm	256Wh @ 12,8V kWh	65010020
MLS12/390	Lithium ION-battery	30 Ah	4,90 kg	182 x 127 x 140 mm	384Wh @ 12,8V kWh	65010030
MLS24/260	Lithium ION-battery	10 Ah	3,10 kg	180 x 77 x 161 mm	256Wh @ 25,6V kWh	65020010

Remote control & Monitoring

Battery monitoring AC & DC

The battery usage meter DC can be used separately from the inverter or battery charger and can be inserted into any power system. With these consumption meters, the battery capacity or voltage of, for example, generator can be measured at any time. The BTM-3 comes standard with shunt.

Twisted cable needed

Model - Type	Description	Voltage	Max. battery capacity	W x D x H	Suitable for	Item no.
BTM-III	Battery monitor	8-50 V	9999 A	120 x 40 x 65 mm		70403163
Shunt 1000 A/100 mV	for BTM-III				BTM-III	70904180
Twisted pairs shielded 3x2x0.25 mm², for BTM	Twisted pairs shielded 3x2x0.25 mm², for BTM					6801601100

BEP AC system monitor

This AC monitoring system has a 2.8 "QVGA color display and illuminated buttons. AC system is used to control AC voltage, current and frequency and has 3 programs to be programmed freely. Displays data in digital, analog and graphical display. Programmable high / low, audio / visual alarm for each input.
Includes AC voltage sensor equipped with 3 voltage inputs (AC-VSEN-4) and 2 pcs power sensors (CT-10-3). Operating voltage: 8 - 32 volts DC Dimensions display h x b (mm): 100 x 90 AC voltage sensor l x b x h (mm): 69 x 140 x 50 AC power sensor l x b x h (mm): 38 x 39 x 14

Model - Type	Description	Voltage	L x H	Item no.
ACSM	System Monitor C/W 2 X CT + VSEN4 MC4	8-32 V	90 x 100 mm	80-600-0023-00

BEP DC System monitor

The DC control and monitoring system has a 2.8 "QVGA color display and illuminated buttons. The DC system measures the board voltage of up to 2 battery cells (12-24 volts DC). Displays charge and discharge current of up to 2 battery cells as well as the level of various Tanks and battery capacity in Ah. Suitable for both installation and installation. Up to 8 pieces of programmable inputs. Programmable high / low, audio / visual alarm for voltage, current, tank levels and system status. Displays data in digital, analog and graphical display The shunt and a 5 meter connection cable are included with the set. An additional shunt for measuring the second battery bank can be ordered separately. Dimensions display hxb (mm): 100 x 90 Operating voltage: 8 - 32 Volt DC.

Model - Type	Description	Voltage	Max. current	Length	L x H	Suitable for	Item no.
DSCM	System monitor C/W Shunt + cable MC4	8-32 V			90 x 100 mm	600-DCM-5M, 600-DCM-10M	80-600-0021-00
Shunt 450 A/50mV	for DCSM		450 A			DCSM monitor	LB-450-50
DCSM	Connection cable			5 m		80-600-0021-00	600-DCM-5M
DCSM	Connection cable			10 m		80-600-0021-00	600-DCM-10M

Mastervolt control panels

Remote control and control panels for automatic battery chargers. These panels show the status of the charging process. The C3-RS, Masterlink MICC and APC panel offer more functionality, for example Power Sharing.

Pos.	Model - Type	Description	L x H	Suitable for	Item no.
1	C3-RS	Remote control battery charger	120 x 65 mm	Mass, IVO Smart charger	70403040
2	Masterlink/MICC dig	Monitor for HF combi and charger/inverter	140 x 85 mm	HF Combi, separate charger/inverter	70403105
3	C4-RB	Basic control excl. flow control	65 x 60 mm	Mass, IVO Smart charger	70404100
-	C4-RI converter panel on/off	Control on/off	65 x 60 mm	Mass Sine inverter	70404110
4	Remote ICC	Basic control Combi	140 x 52 mm	HF Combi	70405000
5	Remote APC	Basic control incl. AC consumption control Combi	140 x 52 mm	HF Combi	70405010
6	Remote CC	Control loading / flow control	140 x 52 mm	Mass, IVO Smart charger	70405030

Mastervolt Masterview

Controlling your Mastervolt system has never been easier. The EasyView 5 features a sharp, waterproof display which is clearly readable in daylight. Thanks to the colour touchscreen and multi-language menu, the display is a pleasure to operate. Easily customizable favourite pages show all relevant system information at a glance.

Masterview remote panel with 6 leds for reading the charge status of your battery charger, including error notifications.
If your dashboard is full and does not off er space for a MasterView panel, this module allows you to integrate the MasterView Read-out into your own control panel.

Model - Type	Description	W x D x H	Suitable for	Item no.
Masterview	Module read-out	65 x 25 x 60 mm		77010030
Masterview	Mastervolt EasyView 5 panel	127 x 113 x 7 mm	Digital switching	77010310
Masterview	Charge monitor 6 LED panel	65 x 25 x 60 mm		77010050

Mastervolt DC distribution

The DC Distribution 500 is the smallest distribution model available. It connects up to four DC devices to the DC groups, such as a battery charger, inverter, alternators and solar panels. With the included plug & play cable it can be easily connected to the MasterBus network.

Model - Type	Description	Voltage	W x D x H	Suitable for	Item no.
DC500	Digital distribution center	12 - 24 - 48 V	216 x 65 x 150 mm	Digital switching	77020200

Mastervolt BattMan

Battery monitor, 12/24VDC with large, splash proof display (IP65) and power bar. An aff ordable battery monitor that does exactly that: providing critical information about the status of your battery. bank under all circumstances. Moreover it will warn you when your battery bank is empty. The Battman Lite only shows live information whereas the Battman Pro can also show historical battery information, alarms and remaining time. The Mastervolt Battman also features a second input for measuring the voltage of another battery bank.

Cut out size Ø   : 52 mm

Twisted cable needed

Model - Type	Description	Voltage	Max. battery capacity	Item no.
Battman Lite	Battery monitor	9-35 V	9999 A	70405060
Battman Pro	Battery monitor	9-35 V	9999 A	70405070

Mastervolt Mastershunt

MasterShunt is the heart of every MasterBus energy system. This integrated battery monitor shares information about the battery bank with other Mastervolt devices such as battery chargers, Combis, and displays. No surprises: allowing complete automation of your system, MasterShunt improves comfort, prolongs battery life and extends your runtime.

The MasterShunt 500 provides all information needed for monitoring your battery bank and control of your system, such as voltage, current, state of charge and time remaining. All information is made available to the system by a single MasterBus cable.

Max. current continuous 300A, max. current intermittent 400A (10 min), 500A (5 min), 600A (2 min).

Model - Type	Description	Voltage	Max. current	Max. battery capacity	W x D x H	Suitable for	Item no.
Mastershunt 500	Shunt incl. main fuse 500A	12 - 24 - 48 V	300 A	10000 A	65 x 150 x 150 mm	Digital switching	77020110

Masterbus interfaces

Mastervolt Wi-Fi module

Mastervolt has produced a Wireless Interface that allows your iPad to interface with an onboard digital switching system for full monitoring and control of the electrical equipment via a clear and intuitive display. The interface acts as a hub for the seamless connection between the two popular Digital Switching protocols of MasterBus and CZone.

Description	Item no.
Wireless Interface	80-911-0090-00
Wireless Interface Masterbus connector	80-911-0095-00

Mastervolt Masterbus interface

Most Mastervolt products are now MasterBus compatible. But not all components are directly compatible. Often an interface is needed to connect the devices to the MasterBus network. The table below lists all available interfaces.

Pos.	Description	Item no.
1	MasterBus USB interface	77030100
2	MasterBus Tanklevel interface	77030300
3	MasterBus Serial interface	77030450
3	MasterBus Combi interface	77030475
4	Multipurpose contact (NO-C 6A potential free contact)	77031500
5	Multipurpose contact (NO-C-NC 1A potential free contact)	77030500
3	MasterBus Converter interface	77030700
5	MasterBus ModBus interface	77030800
6	Digital input 4 channels	77030900
7	MasterBus GPRS Module	77031000
4	MasterBus Repeater	77031100
8	AC power analyzer for AC-measurements	77031200
9	MasterBus NMEA2000 Interface	77031800
4	MasterBus Power Interrupter	77031550
9	MasterBus Firecan Interface	77032400

Mastervolt cables

Masterbus cables

Suitable for data traffic and powering peripheral equipment, this is the only cable you need for your MasterBus network. MasterBus compatible products come standard with two ports, while other equipment requires an interface. The terminators ensure interference-free operation, prevent reflection of data signals and ensure high communication
speeds.

Pos.	Description	Length	Item no.
1	MaterBus terminator (end plug)		77040000
2	MasterBus cable 0,2 m	0,2 m	77040020
2	MasterBus cable 0,5 m	0,5 m	77040050
2	MasterBus cable 1 m	1 m	77040100
2	MasterBus cable 3 m	3 m	77040300
2	MasterBus cable 6 m	6 m	77040600
2	MasterBus cable 10 m	10 m	77041000
2	MasterBus cable 15 m	15 m	77041500
2	MasterBus cable 25 m	25 m	77042500

Battery terminals tin plated

Battery clamps, tin brass with clamp bracket fitted with clamp.

Description	Item no.
Battery clamp min	AKB121NHDT
Battery clamp plus	AKB121PHDT
Battery clamp min	AKB122NT
Battery clamp plus	AKB122PT
Battery clamp min bolt M10	AKB123N
Battery clamp plus bolt M10	AKB123PM10
Battery clamp min fastening nut	AKB166P
Battery clamp plus fastening nut	AKB167N

Battery terminals bronze

Battery pole

Description	Item no.
Battery pole	AK54062
Battery pole	AK54162
Battery clamp min	AKB121NHD
Battery clamp plus	AKB121PHD
Battery clamp min	AKB122N
Battery clamp plus	AKB122P
Battery clamp min wing nut M8	AKB162N
Battery clamp plus wing nut M10	AKB162P
Battery clamp plus for block fuse	AKB28712K

Battery terminal covers

Plastic protection caps to click on the battery clips. The red covers are for the positive poles, the black covers are for the negative.

Pos.	Description	Color	Item no.
1	Isolation cover, single M10	Red	68457302
-	Isolation cover, single M10	Black	68457314
2	Isolation cover, double clamp +	Red	68451902
-	Isolation cover, double clamp -	Black	68451914
3	Isolation cover, single clamp +	Red	68454002
4	Isolation cover, single clamp -	Black	68453014

Battery box Xunzel

Battery box suitable for type 24 accu series. Made of high-grade plastic, acid-resistant. Supplied with mounting belt. medium size.

Description	L x W x H	Item no.
Universal battery box - belt included	290 x 244 x 219 mm	xbatboxun

Battery box

Battery box suitable for type 24 accu series. Made of high-grade plastic, acid-resistant. Supplied with mounting material.

Description	L x W x H	Item no.
Battery box Medium	279 x 197 x 200 mm	EP-11526
Battery box Large	343 x 194 x 229 mm	EP-11527
Battery box with USB-connection	343 x 194 x 229 mm	EP-11517
Battery box with USB-connection and 50A-10A fuses	343 x 194 x 229 mm	EP-115372

Battery trays

Battery tray fitted with fastening strap. Suitable for type 24 accu series.

Description	Item no.
Battery tray 178 x 279mm	EP-11488S
Battery tray 178 x 330mm	EP-11499S

Insulated studs and covers I

These insulated distribution studs are ideal for use as a coupling point/distributor point. The covers ard available in red and black.

Pos.	Description	Color	Item no.
1	Insulated distribution stud M8		6409880200
2	Insulated distribution studs 3 x stud M8		6409880400
3	Insulation cap for connection clamp M8	Red	A111186
4	Insulation cap for connection clamp M8	Black	A111187

Insulated studs and covers II

These insulated connecting studs are ideal for use as a coupling point/distribution point. The covers are available in red and black.

Pos.	Description	Item no.
1	Insulated Distribution Stud Single 10mm 3/8"	IS-10MM-1
2	Insulated Distribution Stud 10mm 3/8"	IS-10MM-1R
3	Insulated Disttribution Stud 10mm 3/8" Dual	IS-10MM-2
4	Insulated Stud Cover - Positive - Red	ISC-10R
4	Insulated Stud Cover - Negative - Black	ISC-10BK
-	Double Insulated 6mm Stud Cover - Black	ISC-6-2

Bus bars and covers

Easy to install connection strips, equipped with 6 pcs stainless steel screws (M4). The connection strips are copper/tinned and fitted with plastic mounting brackets. There are cover caps available in red or black.

Pos.	Description	Voltage	Max. current	Item no.
1	Buss bar - 6 Way - 100A with 2 Input Studs	0-32 V	100 A	BB-6W-2S
2	Buss Bar cover - 6 Way - Positive - Red			BBC-6WR
3	Buss Bar Cover - 6 Way - Negative - Black			BBC-6WBK
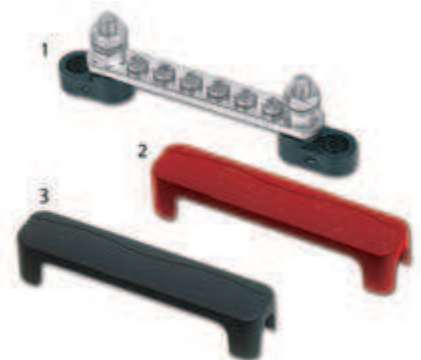
Terminal strips

This terminal block is ideal for isolated connections up to 30A and suitable for connecting tails from AC and DC panels.

Voltage : max. 300 V

Description	Max. current	Item no.
Terminal strip, 6 connections	30 A	TB-118-6P
Terminal strip, 10 connections	30 A	TB-118-10P

Heavy Duty terminal strip and bus bar

The plastic housing has removable sides and two independent pre-installed connection strips that can be connected to one connection strip.

Pos.	Description	Item no.
1	Multi-Purpose Bus Bar 6 Way 100A AC/DC	BB-6W-2
2	Distribution Buss 300 Amps with 4x3/8"Studs	703-300A
	Connector for HD connector strip	708-64.5

Scanstrut Junction boxes

This carefully designed Snacstrut welding boxes are optiionally made with 5 or 10 screw terminals and can be made with the optional sealkit IP67 for exterior mounting. By default, the cable glands of these welding boxes are already IP66.

Description	Cable diameter	Item no.
Kit IP67 for junction box SB-8 incl. 2 seals		SB-2G
Junction box Standard / 5 screw-down terminals	4-12 mm	SB-8-5
Junction box Deluxe / 10 Fast-fit terminals	4-12 mm	SB-8-10

Tyraps

These UV-resistant cable tyraps are packed per 100 pieces.

Description	Item no.
Black tyraps (100 pieces) length: 10cm	199203
Black tyraps (100 pieces) length: 20cm	199207
Black tyraps (100 pieces) length: 28cm	199211
Black tyraps (100 pieces) length: 35cm	199215

Eyelet terminals

Eyelet crimp ring terminal, copper tinned, according to DIN46234 , ideal to connect large diameter cable for batterys and power electronics.

Description	Cable diameter	Packaging unit	Item no.
Crimp Ring Terminal 6mm² M06	6 mm	10 pcs.	PKDIN0606
Crimp Ring Terminal 6mm² M08	6 mm	10 pcs.	PKDIN0608
Crimp Ring Terminal 6mm² M10	6 mm	10 pcs.	PKDIN0610
Crimp Ring Terminal 10mm² M06	10 mm	10 pcs.	PKDIN1006
Crimp Ring Terminal 10mm² M08	10 mm	10 pcs.	PKDIN1008
Crimp Ring Terminal 10mm² M10	10 mm	10 pcs.	PKDIN1010
Crimp Ring Terminal 16mm² M06	16 mm	10 pcs.	PKDIN1606
Crimp Ring Terminal 16mm² M08	16 mm	10 pcs.	PKDIN1608
Crimp Ring Terminal 16mm² M10	16 mm	10 pcs.	PKDIN1610
Crimp Ring Terminal16mm² M12	16 mm	10 pcs.	PKDIN1612
Crimp Ring Terminal 25mm² M08	25 mm	10 pcs.	PKDIN2508
Crimp Ring Terminal 25mm² M10	25 mm	10 pcs.	PKDIN2510
Crimp Ring Terminal 35mm² M08	35 mm	10 pcs.	PKDIN3508
Crimp Ring Terminal 35mm² M10	35 mm	10 pcs.	PKDIN3510
Crimp Ring Terminal 35mm² M12	35 mm	10 pcs.	PKDIN3512
Crimp Ring Terminal 50mm² M08	50 mm	5 pcs.	PKDIN5008
Crimp Ring Terminal 50mm² M10	50 mm	5 pcs.	PKDIN5010
Crimp Ring Terminal 50mm² M12	50 mm	5 pcs.	PKDIN5012
Crimp Ring Terminal 70mm² M10	70 mm	5 pcs.	PKDIN7010
Crimp Ring Terminal 70mm² M12	70 mm	5 pcs.	PKDIN7012
Crimp Ring Terminal 95mm² M12	95 mm	5 pcs.	PKDIN9512

Connectors AMP - Crimp receptacle/Crimp Tab Terminal (vinyl)

High quality connectors with a standard vinyl insulation, as used in many industries.
- Maximum working voltage 300V
- Temperature rating 75 ° Celsius
- According requirement   UL94V0

Description	Color	Cable diameter	Packaging unit	Item no.
Crimp receptacle, female, 6.3mm, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP1541RED-BL
Crimp receptacle, female, 6.3mm, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP1541RED-DS
Crimp receptacle, female, 6.3mm, vinyl, fully insulated	Blue	1,5-2,5 mm	10 pcs.	AMP1542BLU-BL
Crimp receptacle, female, 6.3mm, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP1542BLU-DS
Crimp receptacle, female, 6.3mm, vinyl, fully insulated	Yellow	2,5-6 mm	5 pcs.	AMP1543YLW-BL
Crimp receptacle, female, 6.3mm, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP1543YLW-DS
Crimp tab terminal, male, 6.3mm, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP540RED-BL
Crimp tab terminal, male, 6.3mm, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP540RED-DS
Crimp receptacle, female, 6.3mm, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP541RED-BL
Crimp receptacle, female, 6.3mm, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP541RED-DS
Crimp receptacle, female, 6.3mm, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP542BLU-BL
Crimp receptacle, female, 6.3mm, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP542BLU-DS
Crimp receptacle, female, 6.3mm, vinyl	Yellow	2,5-6 mm	5 pcs.	AMP543YLW-BL
Crimp receptacle, female, 6.3mm, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP543YLW-DS
Crimp tab terminal, male, 6.3mm, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP740BLU-BL
Crimp tab terminal, male, 6.3mm, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP740BLU-DS
Crimp tab terminal, male, 6.3mm, vinyl	Yellow	2,5-6 mm	5 pcs.	AMP840YLW-BL
Crimp tab terminal, male, 6.3mm, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP840YLW-DS

Connectors AMP - Crimp receptacle/Crimp Tab Terminal (nylon)

High quality connectors with a improved nylon insulation , resulting in a higher temperature rating then standard vinyl. Ideal for in high temperature areas like engine room, high power lighting , etc.
- Maximum working voltage 300V
- Temperature rating 105° Celsius
- According requirement   UL94V0

Description	Color	Cable diameter	Packaging unit	Item no.
Crimp receptacle, female, 6.3mm, nylon	Red;Red	0,5-1,5 mm	10 pcs.	AMP1541NRED-BL
Crimp receptacle, female, 6.3mm, nylon	Red;Red	0,5-1,5 mm	50 pcs.	AMP1541NRED-DS
Crimp receptacle, female, 6.3mm, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP1542NBLU-BL
Crimp receptacle, female, 6.3mm, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP1542NBLU-DS
Crimp receptacle, female, 6.3mm, nylon	Yellow	2,5-6 mm	5 pcs.	AMP1543NYLW-BL
Crimp receptacle, female, 6.3mm, nylon	Yellow	2,5-6 mm	25 pcs.	AMP1543NYLW-DS
Crimp tab terminal, male, 6.3mm, nylon	Red	0,5-1,5 mm	10 pcs.	AMP540NRED-BL
Crimp tab terminal, male, 6.3mm, nylon	Red	0,5-1,5 mm	50 pcs.	AMP540NRED-DS
Crimp tab terminal, male, 6.3mm, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP740NBLU-BL
Crimp tab terminal, male, 6.3mm, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP740NBLU-DS
Crimp tab terminal, male, 6.3mm, nylon	Yellow	2,5-6 mm	5 pcs.	AMP840NYLW-BL
Crimp tab terminal, male, 6.3mm, nylon	Yellow	2,5-6 mm	25 pcs.	AMP840NYLW-DS

Connectors AMP - Crimp Spade Connectors (vinyl)

High quality crimp spade connectors with a standard vinyl insulation, as used in many industries.
- Maximum working voltage 300V
- Temperature rating 75 ° Celsius
- According requirement   UL94V0

Description	Color	Cable diameter	Packaging unit	Item no.
Crimp spade connector, 5mm, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP665BLU-BL
Crimp spade connector, 5mm, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP665BLU-DS
Crimp spade connector, 5mm, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP645RED-BL
Crimp spade connector, 5mm, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP645RED-DS
Crimp spade connector, 6mm, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP666BLU-BL
Crimp spade connector, 6mm, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP666BLU-DS
Crimp spade connector, 6mm, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP646RED-BL
Crimp spade connector, 6mm, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP646RED-DS
Crimp spade connector, 6mm, vinyl	Yellow	2,5-6 mm	5 pcs.	AMP686YLW-BL
Crimp spade connector, 6mm, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP686YLW-DS
Crimp spade connector, 8mm, vinyl	Yellow	2,5-6 mm	5 pcs.	AMP688YLW-BL
Crimp spade connector, 8mm, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP688YLW-DS
Crimp spade connector, 10mm, vinyl	Yellow	2,5-6 mm	5 pcs.	AMP690YLW-BL
Crimp spade connector, 10mm, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP690YLW-DS

Connectors AMP - Crimp Spade Connectors (nylon)

High quality connectors with a improved nylon insulation, resulting in a higher temperature rating then standard vinyl. Ideal for in high temperature areas like engine room, high power lighting , etc.
- Maximum working voltage 300V
- Temperature rating 105° Celsius
- According requirement UL94V0

Description	Color	Cable diameter	Packaging unit	Item no.
Crimp spade connector, 5mm, nylon	Red	0,5-1,5 mm	10 pcs.	AMP645NRED-BL
Crimp spade connector, 5mm, nylon	Red	0,5-1,5 mm	50 pcs.	AMP645NRED-DS
Crimp spade connector, 6mm, nylon	Red	0,5-1,5 mm	10 pcs.	AMP646NRED-BL
Crimp spade connector, 6mm, nylon	Red	0,5-1,5 mm	50 pcs.	AMP646NRED-DS
Crimp spade connector, 5mm, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP665NBLU-BL
Crimp spade connector, 5mm, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP665NBLU-DS
Crimp spade connector, 6mm, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP666NBLU-BL
Crimp spade connector, 6mm, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP666NBLU-DS

Connectors AMP - Crimp Bullet connector (vinyl)

High quality connectors with a standard vinyl insulation, as used in many industries.
- Maximum working voltage 300V
- Temperature rating 75 ° Celsius
- According requirement UL94V0

Description	Color	Cable diameter	Packaging unit	Item no.
Crimp bullet connector, female, 4mm, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP1549BLU-BL
Crimp bullet connector, female, 4mm, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP1549BLU-DS
Crimp bullet connector, male, 4mm, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP1550BLU-BL
Crimp bullet connector, male, 4mm, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP1550BLU-DS
Crimp bullet connector, male, 4mm, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP547RED-BL
Crimp bullet connector, male, 4mm, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP547RED-DS
Crimp bullet connector, female, 4mm, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP548RED-BL
Crimp bullet connector, female, 4mm, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP548RED-DS
Crimp bullet connector, male, 5.5mm, shrinkable	Red	0,5-1,5 mm	10 pcs.	AMPB1067401-BL
Crimp bullet connector, male, 5.5mm, shrinkable	Red	0,5-1,5 mm	50 pcs.	AMPB1067401-DS
Crimp bullet connector, male, 6mm, shrinkable	Blue	1,5-2,5 mm	10 pcs.	AMPB1067502-BL
Crimp bullet connector, male, 6mm, shrinkable	Blue	1,5-2,5 mm	50 pcs.	AMPB1067502-DS
Crimp bullet connector, female, 5.5mm, shrinkable	Red	0,5-1,5 mm	10 pcs.	AMPB1068401-BL
Crimp bullet connector, female, 5.5mm, shrinkable	Red	0,5-1,5 mm	50 pcs.	AMPB1068401-DS
Crimp bullet connector, female, 6mm, shrinkable	Blue	1,5-2,5 mm	10 pcs.	AMPB1068502-BL
Crimp bullet connector, female, 6mm, shrinkable	Blue	1,5-2,5 mm	50 pcs.	AMPB1068502-DS

Connectors AMP - Crimp Bullet connector (nylon)

High quality connectors with a improved nylon insulation, resulting in a higher temperature rating then standard vinyl. Ideal for in high temperature areas like engine room, high power lighting , etc.
- Maximum working voltage 300V
- Temperature rating 105° Celsius
- According requirement UL94V0
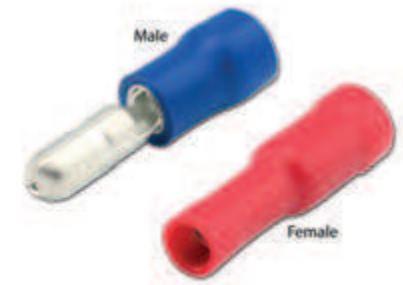
Description	Color	Cable diameter	Packaging unit	Item no.
Crimp bullet connector, female, 4mm, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP1549NBLU-BL
Crimp bullet connector, female, 4mm, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP1549NBLU-DS
Crimp bullet connector, male, 4mm, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP1550NBLU-BL
Crimp bullet connector, male, 4mm, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP1550NBLU-DS
Crimp bullet connector, male, 4mm, nylon	Red	0,5-1,5 mm	10 pcs.	AMP547NRED-BL
Crimp bullet connector, male, 4mm, nylon	Red	0,5-1,5 mm	50 pcs.	AMP547NRED-DS
Crimp bullet connector, female, 4mm, nylon	Red	0,5-1,5 mm	10 pcs.	AMP548NRED-BL
Crimp bullet connector, female, 4mm, nylon	Red	0,5-1,5 mm	50 pcs.	AMP548NRED-DS

Connectors AMP - Crimp Ring Terminal (vinyl)

High quality connectors with a standard vinyl insulation, as used in many industries.
- Maximum working voltage 300V
- Temperature rating 75 ° Celsius
- According requirement UL94V0

Description	Color	Cable diameter	Packaging unit	Item no.
Crimp ring terminal, ring M12, vinyl	Yellow	2,5-6 mm	5 pcs.	AMP525YLW-BL
Crimp ring terminal, ring M12, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP525YLW-DS
Crimp ring terminal, ring M8, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP527BLU-BL
Crimp ring terminal, ring M8, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP527BLU-DS
Crimp ring terminal, ring M10, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP528BLU-BL
Crimp ring terminal, ring M10, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP528BLU-DS
Crimp ring terminal, ring M12, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP529BLU-BL
Crimp ring terminal, ring M12, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP529BLU-DS
Crimp ring terminal, ring M6, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP531RED-BL
Crimp ring terminal, ring M6, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP531RED-DS
Crimp ring terminal, ring M8, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP532RED-BL
Crimp ring terminal, ring M10, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP532RED-DS
Crimp ring terminal, ring M10, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP533RED-BL
Crimp ring terminal, ring M10, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP533RED-DS
Crimp ring terminal, ring M10, vinyl	Yellow	2,5-6 mm	5 pcs.	AMP554YLW-BL
Crimp ring terminal, ring M10, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP554YLW-DS
Crimp ring terminal, ring M5, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP557RED-BL
Crimp ring terminal, ring M5, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP557RED-DS
Crimp ring terminal, ring M6, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP560BLU-BL
Crimp ring terminal, ring M6, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP560BLU-DS
Crimp ring terminal, ring M8, vinyl	Yellow	2,5-6 mm	5 pcs.	AMP563YLW-BL
Crimp ring terminal, ring M8, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP563YLW-DS

Connectors AMP - Crimp Ring Terminal (nylon)

High quality connectors with a improved nylon insulation, resulting in a higher temperature rating then standard vinyl. Ideal for in high temperature areas like engine room, high power lighting , etc.
- Maximum working voltage 300V
- Temperature rating 105° Celsius
- According requirement UL94V0

Description	Color	Cable diameter	Packaging unit	Item no.
Crimp ring terminal, ring M12, nylon	Yellow	2,5-6 mm	5 pcs.	AMP320NYLW-BL
Crimp ring terminal, ring M12, nylon	Yellow	2,5-6 mm	25 pcs.	AMP320NYLW-DS
Crimp ring terminal, ring M6, nylon	Red	0,5-1,5 mm	10 pcs.	AMP636NRED-BL
Crimp ring terminal, ring M6, nylon	Red	0,5-1,5 mm	50 pcs.	AMP636NRED-DS
Crimp ring terminal, ring M8, nylon	Red	0,5-1,5 mm	10 pcs.	AMP638NRED-BL
Crimp ring terminal, ring M8, nylon	Red	0,5-1,5 mm	50 pcs.	AMP638NRED-DS
Crimp ring terminal, ring M10, nylon	Red	0,5-1,5 mm	10 pcs.	AMP640NRED-BL
Crimp ring terminal, ring M10, nylon	Red	0,5-1,5 mm	50 pcs.	AMP640NRED-DS
Crimp ring terminal, ring M6, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP656NBLU-BL
Crimp ring terminal, ring M6, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP656NBLU-DS
Crimp ring terminal, ring M8, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP658NBLU-BL
Crimp ring terminal, ring M8, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP658NBLU-DS
Crimp ring terminal, ring M10, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP660NBLU-BL
Crimp ring terminal, ring M10, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP660NBLU-DS
Crimp ring terminal, ring M8, nylon	Yellow	2,5-6 mm	5 pcs.	AMP678NYLW-BL
Crimp ring terminal, ring M8, nylon	Yellow	2,5-6 mm	25 pcs.	AMP678NYLW-DS
Crimp ring terminal, ring M10, nylon	Yellow	2,5-6 mm	5 pcs.	AMP680NYLW-BL
Crimp ring terminal, ring M10, nylon	Yellow	2,5-6 mm	25 pcs.	AMP680NYLW-DS

Connectors AMP - Crimp Butt Splice Terminals (vinyl)

High quality connectors with a standard vinyl insulation, as used in many industries.
- Maximum working voltage 300V
- Temperature rating 75 ° Celsius
- According requirement UL94V0

Description	Color	Cable diameter	Packaging unit	Item no.
Crimp butt splice terminal, vinyl	Red	0,5-1,5 mm	10 pcs.	AMP545/16RED-BL
Crimp butt splice terminal, vinyl	Red	0,5-1,5 mm	50 pcs.	AMP545/16RED-DS
Crimp butt splice terminal, vinyl	Blue	1,5-2,5 mm	10 pcs.	AMP546/16BLU-BL
Crimp butt splice terminal, vinyl	Blue	1,5-2,5 mm	50 pcs.	AMP546/16BLU-DS
Crimp butt splice terminal, vinyl	Yellow	2,5-6 mm	5 pcs.	AMP551/16YLW-BL
Crimp butt splice terminal, vinyl	Yellow	2,5-6 mm	25 pcs.	AMP551/16YLW-DS

Connectors AMP - Crimp Butt Splice Terminals (nylon)

High quality connectors with a improved nylon insulation, resulting in a higher temperature rating then standard vinyl. Ideal for in high temperature areas like engine room, high power lighting , etc.
- Maximum working voltage 300V
- Temperature rating 105° Celsius
- According requirement UL94V0

Description	Color	Cable diameter	Packaging unit	Item no.
Crimp butt splice terminal, nylon	Red	0,5-1,5 mm	10 pcs.	AMP545NRED-BL
Crimp butt splice terminal, nylon	Red	0,5-1,5 mm	50 pcs.	AMP545NRED-DS
Crimp butt splice terminal, nylon	Blue	1,5-2,5 mm	10 pcs.	AMP546NBLU-BL
Crimp butt splice terminal, nylon	Blue	1,5-2,5 mm	50 pcs.	AMP546NBLU-DS
Crimp butt splice terminal, nylon	Yellow	2,5-6 mm	5 pcs.	AMP551NYLW-BL
Crimp butt splice terminal, nylon	Yellow	2,5-6 mm	25 pcs.	AMP551NYLW-DS

Cable bushings

Cable bushings

Waterproof cable gland brass chrome plated

Description	Cable diameter	Item no.
Cable gland	6 mm	020006
Cable gland	8 mm	020008
Cable gland	10 mm	020010
Cable gland	12 mm	020012
Cable gland	16 mm	020016
Cable gland	19 mm	020019

Thru deck cable bushing SS316

Curved cabel glands high polished stainless steel 316, the 19mm en 27mm are extreme heavy duty casting versions.

Description	Cable diameter	Item no.
Cable gland	19 mm	501013
Cable gland	27 mm	501012
Cable gland	49 mm	501011

Scanstrut Deck seals

IPX7 waterproof cable glands to prevent unwanted water from entering your cabling. Available in plastic or stainless steel 316 outer ring. Very easy to assemble. Also suitable for cables already mounted with a plug.

Description	Model / type	Version	Cable diameter	Diameter connector	Protection class	Item no.
Deck seal transit	Horizontal	Micro	2-6 mm		IPX7	DS6-P
Deck seal gland	Mini	Mini	2-8 mm	16 mm	IPX7	DS16-P
Deck seal gland	Mini	Mini	2-8 mm	16 mm	IPX7	DS16-S
Deck seal gland	Small	Small	4-9 mm	21 mm	IPX7	DS21A-P
Deck seal transit	Small	Small	4-9 mm	21 mm	IPX7	DS21A-S
Deck seal transit	Small	Small	9-14 mm	21 mm	IPX7	DS21B-P
Deck seal transit	Small	Small	9-14 mm	21 mm	IPX7	DS21B-S
Deck seal transit	Medium	Medium	9-14 mm	30 mm	IPX7	DS30-P
Deck seal transit	Medium	Medium	9-14 mm	30 mm	IPX7	DS30-S
Deck seal transit	Large	Large	12-15 mm	40 mm	IPX7	DS40-P
Deck seal transit	Large	Large	12-15 mm	40 mm	IPX7	DS40-S
Deck seal transit	Horizontal	Horizontal	6-10 mm		IPX7	DS-H10
Deck seal transit	Micro	Horizontal	2-6 mm		IPX7	DS-H6
Deck seal transit	Multi	Multi	18 mm		IPX7	DS-MULTI

Scanstrut bulkheads

IP67 waterproof cable passage for different cable thicknesses or a combination of cables. Very easy to install. Molded heavy duty nylon.
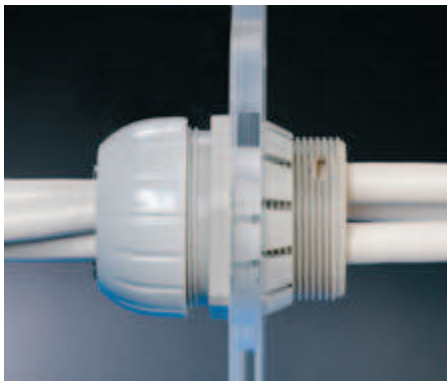
Description	Cable diameter	Protection class	Item no.
Cable passage	4 x 16 mm	IP67	TBH-4
Cable passage	10 x 7 mm	IP67	TBH-10

Recessed and surface mount connections

Watertight DC sockets

DC-plug with anti-moisture seal and theaded cord output. Equipped with a LED voltage indicator and replaceable 10 Ampére fuse. Applicable in all standard 12 volt sockets.

Pos.	Description	Item no.
1	Plug	12VPG
2	Socket	12VRCW.OEM
3	Extension cable	12VXT

Heavy Duty watertight DC sockets

HD waterproof DC deckconnector.

Pos.	Description	Item no.
1	Socket plug 2-pole	020202
-	Socket plug 3-pole	020203
-	Socket plug 4-pole	020204
2	Socket plug 2-pole HD	020222
-	Socket plug 3-pole HD	020223
-	Socket plug 4-pole HD	020224

Circuit breakers & Switches

Circuit breakers

Earth switches are used as protection against insulation failure in electrical circuits. They switch off if the differential current exceeds 30mA. Double pole executed, CE-rated, VDE-marked, DIN rail mounting.

Description	Voltage	Current	Sensitivity	Width	Item no.
Earth leakage switch	230 V	25 A	30 mA	35 mm	031001
Earth leakage switch	230 V	40 A	30 mA	35 mm	031003

Residual circuit breakers

An earth leakage switch is used as a protection against insulation failure and as protection against excessive current in electrical circuits. This earth leakage machine turns off the current voltage if the differential current exceeds 30mA or if the total power taken exceeds 16A. Single pole with zero. This machine follows the C characteristic and has CE-certification and VDE-mark. DIN-rail mounting.

Description	Voltage	Current	Sensitivity	Width	Item no.
Earth leakage switch	230 V	16 A	30 mA	35 mm	031005

Installation boxes

Made of plastic

Pos.	Description	No. of circuit breakers	L x W x H	W x H	Item no.
1	Installation cabinet	4 pcs		105 x 170 mm	0314
1	Installation cabinet	6 pcs		135 x 170 mm	0315
1	Installation cabinet	10 pcs		220 x 170 mm	0316
2	Installation cabinet	2 pcs		47 x 133 mm	030002
2	Installation cabinet	4 pcs		82 x 133 mm	030004
2	Installation cabinet	6 pcs		119 x 160 mm	030012
2	Installation cabinet	8 pcs		155 x 160 mm	030016
3	Installation cabinet	2 pcs	46 x 145 x 58,5 mm		032102
4	Installation cabinet	4 pcs	82 x 145 x 58,5 mm		032104
5	Installation cabinet	10 pcs	200 x 145 x 58,5 mm		032110

Circuit breakers

Single pole circuit breakers are used in 12, 24 or 48 volts installations. The machines follow the C characterestic and have CE-certification and VDE-mark. DIN rail mounting.

Description	Current	Width	Item no.
Circuit breakers	6 A	17,5 mm	031006
Circuit breakers	10 A	17,5 mm	031010
Circuit breakers	16 A	17,5 mm	031016
Circuit breakers	20 A	17,5 mm	031020
Circuit breakers	25 A	17,5 mm	031025
Circuit breakers	32 A	17,5 mm	031032
Circuit breakers	50 A	17,5 mm	031050

Circuit breakers with zero

Double pole circuit breakers are used in a 230V AC system. The machined follow the C characteristic and have CE-certification and VDE-mark. DIN rail mounting.

Description	Current	Width	Item no.
Circuit breaker with zero	6 A	35 mm	032006N
Circuit breaker with zero	10 A	35 mm	032010N
Circuit breaker with zero	16 A	35 mm	032016N
Circuit breaker with zero	20 A	35 mm	032020N
Circuit breaker with zero	25 A	35 mm	032025N
Circuit breaker with zero	32 A	35 mm	032032N
Circuit breaker with zero	40 A	35 mm	032040N
Circuit breaker with zero	50 A	35 mm	032050N
Circuit breaker with zero	63 A	35 mm	032063N

Mounting accessories for cicuit breakers

For 56 or 28 single pole circuit breakers.

Pos.	Description	No. of circuit breakers	Item no.
1	Connection bracket for single pole device, 56 modules	56 pcs	032201
1	Connection bracket for single pole device with zero, 28 modules	28 pcs	032211
	Dinrail for machines and switches		0323
2	End piece	56 pcs	032200

Bosch ignition switch

Description	Version	Item no.
Ignition switch (on/off/start)	Without glow-plug switch	0231

Ignition switches

Bosch starting switch

Pos.	Description	Version	Item no.
1	Ignition switch without glow function	Without glow-plug switch	47200
2	Ignition switch with glow function	with glow-plug switch	47201

Sockets

This socket is made of high-grade plastic. Doulbe pole +RA, suitable for 16A and 250V. These sockets can also be provided with a hinged cover, which you can order seperately

Installation diam.   : 42,5 mm
L x W   : 60 x 60 mm
Bolt distance   : 46 x 46 mm

Color	Version	Installation depth	Item no.
Brown	Texture	31 mm	10020-35BR
Grey	Texture	31 mm	10020-35G
Gold gloss	Plane	31 mm	10020-35GTHGAG
Silver gloss	Plane	31 mm	10020-35GTHGAS
Silver matt	Plane	31 mm	10020-35GTMGAS
Black gloss	Plane	31 mm	10020-35HGSCH
White gloss	Plane	31 mm	10020-35HGUW
Black	Texture	31 mm	10020-35SCH
Silver matt	Texture	31 mm	10020-35STMGAS
White	Texture	31 mm	10020-35W

Cigarette sockets

Socket for cigarette lighter. Available in different colours. Double pole

Installation diam.   : 40 mm
 x W   : 60 x 60 mm
Bolt distance   : 46 x 46 mm

Pos.	Voltage	Current	Color	Version	Item no.
1	6-24 V	10 A	Brown	Texture	10021-35BR
1	6-24 V	10 A	Grey	Texture	10021-35G
1	6-24 V	10 A	Black	Texture	10021-35SCH
1	6-24 V	10 A	White	Texture	10021-35W
2	6-24 V	20 A	Grey	Texture	10022-35G
2	6-24 V	20 A	White	Texture	10022-35W

Antenna sockets

This socket is made of high-grade plastic. For connecting the (coax)cable of television and satellite.

Installation diam.   : 29 mm
L x W   : 60 x 60 mm
Bolt distance   : 46 x 46 mm

Color	Version	Installation depth	Item no.
Grey	Texture	14 mm	10046TVSATG
Black	Texture	14 mm	10046TVSATSCH
White	Texture	14 mm	10046TVSATW

DVD- / TV-adapter

This socket is made of high-grade plastic. For connecting the (coax)cable of television and DVD-player. The top connections are both for coax, the bottom connection is a cinch.

Installation diam.	: 29 mm
L x W	: 60 x 60 mm
Bolt distance	: 46 x 46 mm

Color	Version	Installation depth	Item no.
Grey	Texture	14 mm	100433DVDTVG
Black	Texture	14 mm	100433DVDTVSCH
White	Texture	14 mm	100433DVDTVW

Dimmers

These dimmers are indispensable on each ship. Within a instant you create mood lightning, or just enough light to read. Suitable for halogen as well as light bulbs. For the 10055 and 10058-dimmers you have to order seperately the cover, switch knob and frame (standard of Softline)

Installation diam.	: 57 mm
L x W	: 53 x 53 mm
Bolt distance	: 46 x 46 mm

Voltage	Installation depth	Item no.
230 V	34 mm	10055/105
230 V	34 mm	10055/350
12 V	34 mm	10058/60

Switches

Built-in switch made of high-grade plastic. The alteration switch is suitable for normal "on/off" as well as for the two-way switch. Beside that there are also single pole switches (the multi-circuit switches) onwhich double covers can be used.

Installation diam.	: 42,5 mm
L x W	: 60 x 60 mm
Bolt distance	: 46 x 46 mm

Pos.	Color	Version	Nr. of switches	Installation depth	Item no.
1	White	1-pole	1	10 mm	10710/1
1	White	1-pole	1	25 mm	10705/1
1	White	2-poles	1	25 mm	10705/2
1	White		1	10 mm	10710/6
1	White		1	25 mm	10705/6
2	White	2x 1-pole	2	10 mm	10710/5
2	White	2x 1-pole	2	25 mm	10705/5
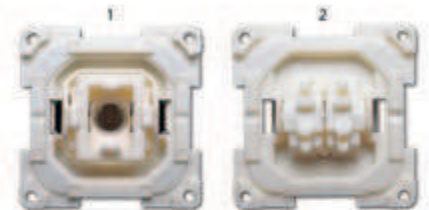
Switches with light

Built-in switch made of high-grade plastic. If the switch is "on", the light will shine in the middle. Please keep in mind by ordering of a fitting cover that this one is provided with a lens. The light bulb works on 230V. The switch is also available in single pole, double pole or alteration switch. The alteration switch is suitable for normal "on/off" as well as for the two-way switch.

Installation diam.	: 42,5 mm
L x W	: 60 x 60 mm
Bolt distance	: 46 x 46 mm

Color	Version	Installation depth	Item no.
White	2-poles	25 mm	10196/2
White		25 mm	10196/6
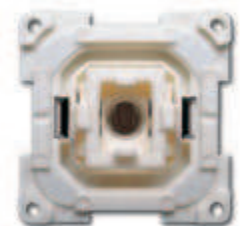
Pulse switches
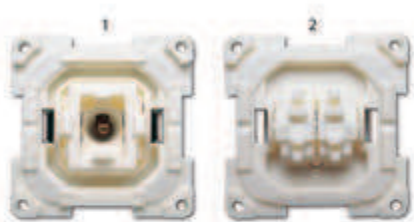
These built-in momentary switches (push button switches) aremade of hogh-grade plastic. There are single and double switches. Also the single switch is available with a built-in light bulb. This light bulb works on 230V and will give light constantly, therefore this switch is particularly easy to use in dark areas (for example the eingine room). For the switch with continuous lightning you have to use a cover with lens. Finally there is also a so called blind switch, which you can push for a longer time (for example to roll shutters uo and down). These blind switches are also auitable for the dimmer of Hella, which you find in the chapter "Lightning". Please take into account the number of switches if you order the covers. The single switches are available in two different built-in depths.

Installation diam.   : 42,5 mm
L x W   : 60 x 60 mm
Bolt distance   : 46 x 46 mm

Pos.	Color	Version	Nr. of switches	Installation depth	Item no.
1	White	1-pole	1	10 mm	10510
-	White	1-pole	1	25 mm	10520
-	White	1-pole	2	25 mm	10520D
-	White	2x 1-pole	1	25 mm	10520GL
2	White	1-pole	2	25 mm	10328/1D

Shielding wall boxes
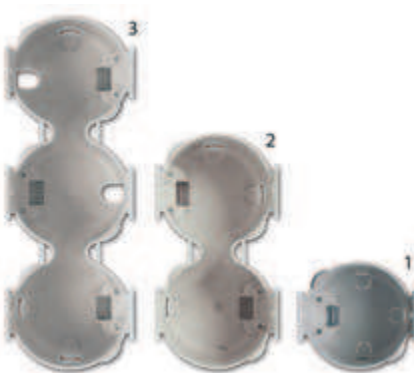
Standard shielding/mounting boxes in one piece. Available in single-, double- or triple implementation. The boxes are provided with strain relief.

Installation diam.   : 50 mm

Pos.	Color	Installation depth	Item no.
1	Grey	42,0 mm	D50/42ZR
2	Grey	40,5 mm	D2-50ZR
3	Grey	40,5 mm	D3-50ZR

Modular swichting material - Finishings

Covers for switches - Single

Made of high-grade plastic. The button is suitable for single switches and single momentary switches. Available in various colours and with a rough or smooth surface.

Color	Version	Item no.
Brown	Texture	10000BR
Grey	Texture	10000G
Gold gloss	Plane	10000GTHGAG
Silver gloss	Plane	10000GTHGAS
Silver matt	Plane	10000GTMGAS
Black gloss	Plane	10000HGSCH
White gloss	Plane	10000HGUW
Black	Texture	10000SCH
Silver matt	Texture	10000STMGAS
White	Texture	10000W

Covers for switches - Double

Made of high-grade plastic. The button is suitable for double and/or multi-circuit switches and for double momentary switches. Available in various colours and with a rough or smooth surface.

Color	Version	Item no.
Brown	Texture	10005BR
Grey	Texture	10005G
Gold gloss	Plane	10005GTHGAG
Silver gloss	Plane	10005GTHGAS
Silver matt	Plane	10005GTMGAS
Black gloss	Plane	10005HGSCH
White gloss	Plane	10005HGUW
Black	Texture	10005SCH
Silver matt	Texture	10005STMGAS
White	Texture	10005W

Covers for switches - with light

Made of high-grade plastic. This button is suitable for single switches or single momentary switches with built-in light. The button is provided with a yellow lens which makes that the light of the built-in light remains visible. Available in brown, grey, black and white.

Color	Version	Item no.
Brown	Texture	10000KBR
Grey	Texture	10000KG
Black	Texture	10000KSCH
White	Texture	10000KW

Covers and rotary knobs for dimmers

Made of high-grade plastic. The set consists of a cover plate and a turn knob, which are suitable for the Exalto dimmers. Available in brown, grey, black and white.

Color	Version	Item no.
Brown	Texture	10050BR
Grey	Texture	10050G
Black	Texture	10050SCH
White	Texture	10050W

Hinged lids

Made of high-grade plastic. The cover has a built-in spring so that the cover remains firmly closed if the contact is not in use. The hinged cover can be mounted on a Exalto wall socket and finished with a cover frame.

Color	Version	Item no.
Brown	Texture	35KL/FBR
Grey	Texture	35KL/FG
Gold gloss	Plane	35KL/FGTHGAG
Silver gloss	Plane	35KL/FGTHGAS
Silver matt	Plane	35KL/FGTMGAS
White gloss	Plane	35KL/FHGUW
Black	Texture	35KL/FSCH
Silver matt	Texture	35KL/FSTMGAS
White	Texture	35KL/FW

Spring tensioned hinged lids

Made of high-grade plastic. This cover has a built-in spring so that the cover remains firmly closed if the contact is not in use. The covers have a dimension of 60x60mm. By mounting this cover you do not need a cover frame anymore.

Color	Version	Item no.
Brown	Texture	60KL/FBR
Grey	Texture	60KL/FG
Silver gloss	Plane	60KL/FGTHGAS
Silver matt	Plane	60KL/FGTMGAS
Black gloss	Plane	60KL/FHGSCH
White gloss	Plane	60KL/FHGUW
Black	Texture	60KL/FSCH
Silver matt	Texture	60KL/FSTMGAS
White	Texture	60KL/FW

Blind cover

Color	Item no.
White	10015W
Brown	10015BR
Black	10015SCH

Cover frames - Standard

Made of high-grade plastic. With this cover frame your socket or switch is nicely finished. Available in various colours and in single-, double- or triplesided variant.
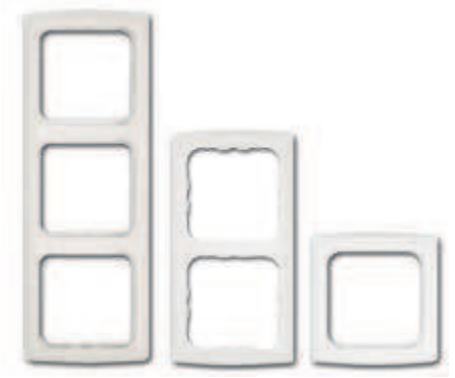
Color	Version	Nr. of holes	W x L	Item no.
Brown	Texture	1	60 x 60 mm	10071BR
Grey	Texture	1	60 x 60 mm	10071G
Gold gloss	Plane	1	60 x 60 mm	10071GTHGAG
Silver gloss	Plane	1	60 x 60 mm	10071GTHGAS
Silver matt	Plane	1	60 x 60 mm	10071GTMGAS
Black gloss	Plane	1	60 x 60 mm	10071HGSCH
White gloss	Plane	1	60 x 60 mm	10071HGUW
Black	Texture	1	60 x 60 mm	10071SCH
Silver matt	Texture	1	60 x 60 mm	10071STMGAS
White	Texture	1	60 x 60 mm	10071W
Brown	Texture	2	60 x 113 mm	10072BR
Grey	Texture	2	60 x 113 mm	10072G
Gold gloss	Plane	2	60 x 113 mm	10072GTHGAG
Silver gloss	Plane	2	60 x 113 mm	10072GTHGAS
Silver matt	Plane	2	60 x 113 mm	10072GTMGAS
Black gloss	Plane	2	60 x 113 mm	10072HGSCH
White gloss	Plane	2	60 x 113 mm	10072HGUW
Black	Texture	2	60 x 113 mm	10072SCH
Silver matt	Texture	2	60 x 113 mm	10072STMGAS
White	Texture	2	60 x 113 mm	10072W
Brown	Texture	3	60 x 166 mm	10073BR
Grey	Texture	3	60 x 166 mm	10073G
Gold gloss	Plane	3	60 x 166 mm	10073GTHGAG
Silver gloss	Plane	3	60 x 166 mm	10073GTHGAS
Silver matt	Plane	3	60 x 166 mm	10073GTMGAS
Black gloss	Plane	3	60 x 166 mm	10073HGSCH
White gloss	Plane	3	60 x 166 mm	10073HGUW
Black	Texture	3	60 x 166 mm	10073SCH
Silver matt	Texture	3	60 x 166 mm	10073STMGAS
White	Texture	3	60 x 166 mm	10073W
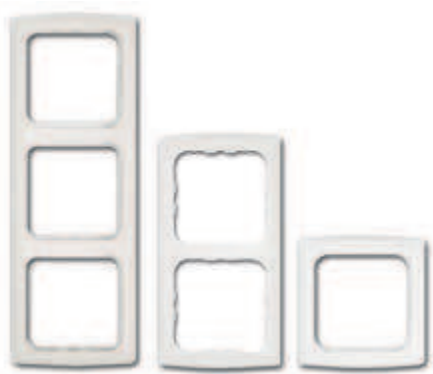
Cover frames - Softline

Made of high-grade plastic. The design of the Softline range is outstanding and modern, due to the lack of tight lines. With these cover frames your socket or switch is nicely finished. Available in various colours and in single-, double-, or triplesided variant.

Color	Version	Nr. of holes	W x L	Item no.
Brown	Texture	1	60 x 64 mm	10171BR
Black	Texture	1	60 x 64 mm	10171SCH
Grey	Texture	2	60 x 117 mm	10172G
Black	Texture	2	60 x 117 mm	10172SCH
Silver matt	Texture	2	60 x 117 mm	10172STMGAS
White	Texture	2	60 x 117 mm	10172W
Brown	Texture	3	60 x 170 mm	10173BR
Black	Texture	3	60 x 170 mm	10173SCH

Relays

Hollex relays

Description	Voltage	Max. current	Item no.
Change over relais	12 V	65 A	0219
Change over relais	24 V	65 A	0220
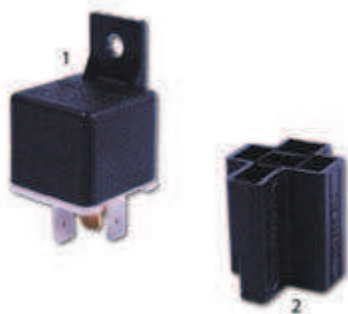
Changeover relays

Relay with make-break function. Break contact 20A, make contact 30A.

Pos.	Description	Item no.
1	Change over relay for 12V -20-30A	4RD003 520-081
-	Change over relay for 24V - 15-20A	4RD003 520-091
2	Mounting block	8JA715 606-101

Charging current relays

Load current relay with make function, also useable as universal make relay.

Description	Item no.
Seperation relay 24V-50A	A112261

Digital isolating relays

Safely charge two battery banks from one charge such as an alternator or battery charger. Charges engine starting batteries before combining auxiliary bank for charging. Protect start batteries from becoming flattened by domestic loads. Isolates electronics from harmful electrical surges from starter motors. Simple to install 3 wire connection leaves alternator wiring intact.No volt drop vs diode isolators. Ignition protected. Surface or panel mountable. Multi voltage, auto selects between 12 and 12 V DC operation. Digital circuits provide very low power consumption and enhanced performance. Remote status LED outlet option.

Description	Voltage	Max. current	L x W x H	Item no.
Digital Voltage Sensing Relay (DVSR)	12/24 V	140 A	69 x 69 x 50 mm	710-140A

Switches

Mastervolt Switches

Every electric switch onboard has to meet the highest demands. Mastervolt offers a wide choice of stylish, waterproof switches for a range of onboard functions. All fully waterproof switches (IP66) supplied by Mastervolt are tested for frequent use at -40 °C to 85 °C, and designed to last more than 150,000 cycles. They are available in single or double pole versions and in various configurations. Brackets around ON and OFF in product name denote momentary connection only. Light color: green.

Voltage	: 10-30 V
Max. current	: 15 A
Switched current	: 15 A
Current continuous	: 15 A

Pos.	Description	Item no.	Pos.	Description	Item no.
1	MV switch ON/OFF 1 P no LED	70906405	2	MV switch ON/ON 2 P	70906460
1	MV switch ON/OFF 1P	70906410	2	MV swich ON/OFF/ON 1 P	70906470
1	MV switch ON (-OFF) 1P	70906415	2	MV switch ON/OFF/ON 2 P	70906480
1	MV switch ON/OFF 2P	70906420	2	MV switch ON-OFF-(ON) 1 P	70906485
1	MV switch OFF/ON/ON, 1-P (wiper)	70906425	2	MV switch ON/OFF/(ON) 2 P	70906490
1	MV switch (ON)/OFF 1P	70906430	2	MV switch (ON)-OFF-(ON) 1 P	70906495
1	MV switch (ON)/OFF 2 P	70906440	2	MV switch (ON) OFF (ON) 2 P	70906500
1	MV switch ON/ON 1P	70906450			

Mastervolt Switch covers with symbol

This weather-resistant control button from Mastervolt, made of polycarbonate composite, can be easily clicked onto the base waterproof switch. There are more than 60 different pictograms/symbols in stock. A key for removing the control button again is also available (the control button remove key).

Description	Item no.		Description	Item no.		Description	Item no.
Blank	70906600		Hot air ventilator	70906623		Working light	70906649
Without light	70906601		Gas	70906624		Floodlight	70906651
Horn	70906602		Slow	70906625		Windshield wiper/ sprayer	70906653
Floodlights	70906603		Bilge pump 1	70906626		Warning	70906654
Main light switch	70906604		Bilge pump 2	70906627		Airco	70906658
Fan	70906605		Bilge pump 3	70906628		Window heating	70906659
Wiper	70906606		Fast	70906629		Glow	70906661
Bilge pump auto/hand	70906607		Air tank	70906630		Drivers light	70906667
Anchor light	70906608		Steering system	70906631		Side lightning lamp	70906668
Main switch	70906609		Dashboard lightning	70906632		Fog lamp	70906669
Flood / anchor light	70906610		Arrow down	70906633		Windshield heating	70906676
Search light	70906611		Arrow up	70906634		Blinker	70906685
Okay sign	70906612		Working lights	70906635		Water pump	70906689
Light	70906613		Trim level	70906636		Dimmer	70906696
Boat trim	70906614		Motor start	70906638		Rear fog lamp	70906699
Anchor	70906615		Motor stop	70906639		Careful elec. Wiring	70906700
Working light	70906616		Emergency start	70906641		Sink pump	70906705
Speaker	70906617		Outboard valve	70906644		Depth gauge	70906706
Cylinder speed	70906618		Spotlight	70906645		Anchor glands on/off	70906707
Engine room ventilation	70906619		Deck spotlight	70906646		Rear wiper	70906708
Window sprayer	70906621		Sideway light	70906647			
Drink water pump	70906622		Interior lightning	70906648			

Mastervolt Switch frames

Convenience is a blessing: a Mastervolt waterproof switch is inserted into a weather-resistant installation sheath. Mount in the existing dashboard using sealant or glue or in the accompanying ready-made installation frame. Using such an installation frame guarantees a quick installation and smart appearance, for example on the outside helmsman's station. Use a electrical connection block (VCH) for insulating and securing the connections. Parts of frames with separate end segments are also available. If you wish to leave room for future expansion, use a blank auxiliary hole plug for places in which you have not (yet) placed any switches.

Pos.	Description	Voltage	Version	Item no.
1	Frame for 1 switch	10-30 V	flush mount	70906301
2	Frame for 3 switches	10-30 V	flush mount	70906304
3	Frame for 6 switches	10-30 V	flush mount	70906305
4	End piece	10-30 V	flush mount	70906302
5	Middle piece	10-30 V	flush mount	70906303
6	Blind plate	10-30 V	flush mount	70906330
7	Switch remove key	10-30 V	flush mount	70906310
8	Connection block	10-30 V	flush mount	70906320

-

BEP LED Switches

BEP built-in switch with LED ring. Made in SS 304 and available in both lock and spring return. Available in a 12V and 24V with LED in several colours. This LED ring can be connected seperately, allowing multiple functions, such as on/off recognition or alarm.

Voltage	:	12 V
Max. current	:	5 A
Switched current	:	5 A

Pos.	Description	Voltage	Version	Lightcolor	Item no.
1	Led switch	12 V	Momentary	Red	020230
-	Led switch	12 V	Latching on/off	Red	020231
-	Led switch	12 V	Momentary	Blue	020232
2	Led switch	12 V	Latching on/off	Blue	020233
-	Led switch	24 V	Momentary	Red	020234
-	Led switch	24 V	Latching on/off	Red	020235
-	Led switch	24 V	Momentary	Blue	020236
-	Led switch	24 V	Latching on/off	Blue	020237
3	Buzzer	12 V	Buzzer	Red	020238
-	Buzzer	24 V	Buzzer	Red	020239

Hollex LED Switches

Hollex built-in switch with LED ring. Made in aluminum and available in both lock and spring return. Available in a 12V and 24V with LED in several colours. This LED ring can be connected seperately, allowing multiple functions, such as on/off recognition or alarm.

Voltage : 12 V
Max. current : 5 A
Switched current : 5 A

1

2

Description	Voltage	Version	Lightcolor	Item no.
Led switch	12 V	Momentary	Red	020250
Led switch	12 V	Momentary	Blue	020252
Led switch	12 V	Momentary	Green	020254
Led switch	12 V	Momentary	White	020256
Led switch	24 V	Momentary	Red	020260
Led switch	24 V	Momentary	Blue	020262
Led switch	24 V	Momentary	Green	020264
Led switch	24 V	Momentary	White	020266
Led switch	12 V	Latching / on-off	Red	020251
Led switch	12 V	Latching / on-off	Blue	020253
Led switch	12 V	Latching / on-off	Green	020255
Led switch	12 V	Latching / on-off	White	020257
Led switch	24 V	Latching / on-off	Red	020261
Led switch	24 V	Latching / on-off	Blue	020263
Led switch	24 V	Latching / on-off	Green	020265
Led switch	24 V	Latching / on-off	White	020267

BEP Switches

Switch with copper, nickel plated contacts. This switch has a lever length of 6,4 mm

Voltage : 230 V
Max. current : 10 A

Pos.	Description	Voltage	Version	Item no.
1	Nickel plated brass toggle switch	230 V	Toggle, 1-pole	555010
2	Waterproof toggle switch boot			555105
3	Toggle switch on/off	12/24 V	toggle, latching	SW-32111
3	Toggle switch on/off	12-24 V	Toggle on/off/on	SW-32114
3	Toggle switch on/off	12-24 V	Momentary on/off	SW-32115
3	Momentary on/off toggle switch	12-24 V	Momentary on/off/on (on momentary)	SW-32120
4	Splash proof Toggle switch boot cover		Splash Proof Toggle Switch Boot Cover	SW-M331

Hollex push pull switches

Pos.	Description	Item no.
-	Pull switch	020118
1	Push pull switch chrome	020120
2	Push button waterproof	020211

Ignition switches

Pos.	Description	Version	Item no.
1	Ignition switch (on/off/start)	Without glow-plug switch	0231
2	Ignition switch without glow function	Without glow-plug switch	47200
3	Ignition switch with glow function	with glow-plug switch	47201

Main power switches

Mainpower switch 250A continuously, 2500A for 5 seconds. IP67 rated. Removable handle with chain. When handle is removed the switch can be protected by sealing cap (supplied as standard).

Voltage : 12/24 V
Max. current : 2500 A
Current continuous : 250 A

Description	Voltage	Item no.
Cupa mainpower switch	12/24 V	443810

Hella Main power switches steel

For battery- and contact current, with key. Optinally switch to min or plus. Key is removable in switched off position. Screw mounting. Key side is IP X4 protected, the connection side is IP 53 protected. The specified values are measured at an ambient temperature of 60˚ with 50mm² cable attached with ring tongues.

Voltage : 12/24 V
Current continuous : 100 A
Current momentary : 2500 V

Description	Voltage	Item no.
Battery switch 2500 A	12/24 V	0242

Hella Main power switches plastic

For battery- and contact current, with key. Optinally switch to + or - wiring. Key is removable in the "off" position and has a interruoted power supply as result. The switch has two switch modes (0=off, 1=on) and will be connected with 2 screws.

Voltage : 12/24 V   Current momentary : 1250 V
Max. current : 500 A
Current continuous : 100 A
Current intermittend : 500 A

Description	Voltage	Item no.
500 A	12/24 V	0201

BEP Battery switches

Provided with a patented Contour Lock System which makes it possible to link several switches fast and perfeclty. The selection button cannot be removed in the ON or OFF position. By turning the selection switch 45 degrees to the right you can take this one of. There are several labels available which can be applied on the selection switch. The sides of the housing are removable to feed through the cables. The terminals of the switch are seperated from each other by means of a cover cap. Can be mounted on or in each surface, the hole size is 52 mm.

Pos.	Description	Voltage	Current continuous	Current intermittend	Current momentary	Item no.
1	Battery master switch "Easyfit"	0-48 V	275 A	455 A	1250 A	700
2	Contour battery master switch	12/24 V	275 A	455 A	1250 A	701
3		12-48 V	275 A	455 A	1250 A	701-PM
4	Heavy duty battery switch	12/24 V	600 A	800 A	2500 A	720

Hella Battery switches

Switched current : 275 A

Pos.	Description	Voltage	Current continuous	Current intermittend	Current momentary	Item no.
1	Battery master switch on/off 275 A	0-48 V	275 A	455 A	1250 A	0207
2	Battery master switch 500 A	0-48 V	600 A	800 A	2500 A	0206

BEP Battery selector switches

Provided with a patented Contour Lock System which makes it possible to link several switches fast and perfeclty. The selection button cannot be removed in the ON or OFF position. By turning the selection switch 45 degrees to the right you can take this one of. There are several labels available which can be applied on the selection switch. The sides of the housing are removable to feed through the cables. The terminals of the switch are seperated from each other by means of a cover cap. Can be mounted on or in each surface, the hole size is 52 mm.

Voltage	: Max. 48 V
Current continuous	: 200 A
Current intermittend	: 300 A
Current momentary	: 1000 V

Pos.	Description	Voltage	Item no.
1	Mini battery selector switch	Max. 48 V	701S
2	Heavy duty battery selector switch	Max. 48 V	721

Hollex Battery selector switches

This battery selector switch has a continious power of 230A and a momentum power (intermittent) of 345A.

Voltage	: 10-32 V	Current momentary	: 500 V
Switched current	: 230 A		
Current continuous	: 230 A		
Current intermittend	: 345 A		

Description	Voltage	Item no.
Battery switch	10-32 V	0202

These "on/off" swtiches are applied when the distance battery and battery switch is slighty larger. This saves assembly time and extra costs of thick, long cables. The nbattery switch can be placed close to the battery. Equipped with manual "overrride" function in accordance with CE and LEd indication. Also has the same characteristics as the 701 and 701S. Power recording in "off" mode 12mA, in "on" mode 15mA, when switching "on/off" for 3 sec. 120mA (at 12 volts). Type 720-MDO can also be used in + and - leads and may have larger currents.

Voltage	: 9,5-32 V

Pos.	Description	Voltage	Current continuous	Current intermittend	Current momentary	Item no.
1	Remote operated battery switch	9,5-32 V	275 A	455 A	1250 A	701-MD
2	Remote operated battery switch with optical sensor	9,5-32 V	500 A	700 A	2500 A	720-MDO
3	Wireless remote control kit					80-911-0045-00
4	Remote on/off key switch					80-724-0006-00

BEP Terminal links

The BEP terminal links connect you quickly and effortlessly to main switches, fuses and studs.

Cut out size Ø   : 10 mm

Description	Bolt distance	Cut out size Ø	Item no.
Terminal link	43 mm	10 mm	708-42.5
Terminal link	55 mm	10 mm	708-54.5
Terminal link	62 mm	12 mm	708-62.0
Terminal link	69 mm	10 mm	708-68.5
Terminal link	102 mm	12 mm	708-102

BEP Single engine connectionset

Description	Item no.
Single engine connection set	715-V

Buzzers

Hollex built-in switch with LED ring. Made in aluminum and available in both lock and spring return. Available in a 12V and 24V with LED in several colours. This LED ring can be connected seperately, allowing multiple functions, such as on/off recognition or alarm.

Voltage   : 12 V

Description	Voltage	Version	Lightcolor	Item no.
Buzzer	12 V	Buzzer	Red	020270
Buzzer	24 V	Buzzer	Red	020271

Switch panels

Easterner Led switchpanel WAVE

The WAVE 12V switch panel is made of hard ABS with reinforced corners. The switch panel is provided with 5 waterproof switches (20A) and 15 fuses. In addition the panel has a 12V cigarette lighter contact. A red led indicates when the switches are on. The panel will be supplied with a sealing.

Voltage	W x H	Item no.
12 V	107 x 96 mm	EP-91341LED

Easterner Led switchpanel WAVE USB

The WAVE 12V switch panel is made of hard ABS with reinforced corners. The switch panel is provided with 3 waterproof switches (20A) and 15 fuses. In addition the panel has a USB charger with 1A and 2A connection. A red led indicates when the switches are on. The panel will be supplied with a sealing.

Voltage	W x H	Item no.
12 V	107 x 96 mm	EP-91359LED

Mastervolt Juniorpanel

Especially for the lighter customers up to 15A there is a quality panel with 6 outgoing groups. Next to the on/off switch there is the fuse. In addition, you will find the function label system that you can compile yourself with the label printing system at: www.mastervolt.com/support/software.

Voltage	Nr. of switches	Color	W x H	Item no.
12/24 V	6	Grey	130 x 120 mm	75001000

BEP Switch panel 901H

Eight-way DC switch panel provided with automatic/switches, red LED indication and green lichtning behind the text labels. The surface is of powder coated aluminum. The panel is pre-wired. Dimensions (L x H): 239 x 115

Nr. of switches	Version	Color	W x H	Item no.
8	2x 5A + 2x 10A + 3x 15A + 1x 20A	Black	115 x 239 mm	901H

BEP Switch panel 900-5WPS

Waterproof 5-way switch panel, with tumbles switches "on/off" up to 20 ampère. The switches have watertightt tules. Including exchangeable mini fused and a label set.

Voltage	Nr. of switches	Color	H x W x D	Item no.
0-32 V	5	Black	95 x 107 x 65 mm	900-5WPS

Hella Switch panel Compact

Waterproof front panel with four on/off tumbler switches. Each switch is protected with a neopreen housing. The fuse is located behind the panel. The panels comply with IP X5 protection class. The maximum load for these panels is 12 V/20A. Will be supplied including srews and label set.

Pos.	Voltage	Nr. of switches	Color	H x W x D	Item no.
1	12 V	4	Grey	95 x 107 x 55 mm	020611
2	12 V	6	Grey	95 x 107 x 55 mm	020613
3	12 V	6	White	95 x 107 x 55 mm	020614

Hella Switch panel Contour

This fine panel with four switches is made of impact resistant plastic. The base plate is made of powder coated aluminum and between that the LED panel illumination provides the required readability. The labels have green lights, de on-function is indicated by red LED's.In this panel the auto switches are integrated to interrupt the circuit if necessary. The panel is pre-wired, will be supplied including connection parts and is suitable for 1borh 2 and 24 Volt systems.

Pos.	Voltage	Version	Color	H x W x D	Item no.
1	12/24 V	1x 5A, 2x 10A, 1x 15A	Grey	115 x 127 x 65 mm	020616
2	12/24 V	2x 5A, 2x 10A, 3x 15A, 1x 20A	Grey	115 x 239 x 65 mm	020617
3	12/24 V	2x 5A, 2x 10A, 3x 15A, 1x 20A	Grey	200 x 127 x 65 mm	020618

Jabsco & Rule Bilge Switch panels

Illuminated water resistant switch panels for bilge pump with 3-way switch: "Automatic", "Off" and "On". The mode "Automatic" is shown by an indicator light. The Jabsco switch is available in 12V and 24V. The switch panel comes complete with mounting materials.

Pos.	Voltage	W x H	Item no.
1	12 V	73 x 60 mm	0237
1	24 V	73 x 60 mm	0238
2	12/24 V	100 x 60 mm	29140-0000

Fuses and accessories

Surge protection module

This module ensures that your electronics on board are protected against sudden harmful peak voltages. When the module detects a peak, it switches to protection mode and suppresses the peak voltage.

Description	Voltage	L x W x H	Item no.
Voltage protection module	12 V	69 x 69 x 50 mm	80-707-0004-00
Voltage protection module	24 V	69 x 69 x 50 mm	80-707-0005-00

ANL Blade fuses

These fuses have tinned connection strips and are equipped with a control window.

Description	Voltage	Current	Item no.
Fuse ANL 50A	Max. 48 V	50 A	A330865
Fuse ANL 60A	Max. 48 V	60 A	A330866
Fuse ANL 80A	Max. 48 V	80 A	A330867
Fuse ANL 100A	Max. 48 V	100 A	A330868
Fuse ANL 125A	Max. 48 V	130 A	A330869
Fuse ANL 160A	Max. 48 V	160 A	A330870
Fuse ANL 200A	Max. 48 V	200 A	A330872
Fuse ANL 250A	Max. 48 V	250 A	A330874
Fuse ANL 300A	Max. 48 V	300 A	A330876
Fuse ANL 500A	Max. 48 V	500 A	A330879
Fuse ANL 80A	Max. 48 V	80 A	IP80
Fuse ANL 100A	Max. 48 V	100 A	IP100
Fuse ANL 150A	Max. 48 V	150 A	IP150
Fuse ANL 200A	Max. 48 V	200 A	IP200
Fuse ANL 250A	Max. 48 V	250 A	IP250
Fuse ANL 300A	Max. 48 V	300 A	IP300
Fuse ANL 425A	Max. 48 V	425 A	IP425
Fuse ANL 500A	Max. 48 V	500 A	IP500

ANL Fuse holders

These fuse holders are ideal for protecting today's demanding onboard power electronics technology. For ANL fuses. Equipped with control window.

Pos.	Item no.
2	2581010
2	A330851
3	A330852

BEP ANL Fuse holder

BEP fuse holder for ANL fuse. Suitable for currents of 80-500A. The fuse holder is placed in a plastic housing and has removable sides. Also provided with a control window. CE approved.

Description	Item no.
ANL fuse holder	704-ANL

Maxi Blade fuses

Applicable in, amoung other things, Maxi flate-rate fuse.

Voltage	Current	Item no.
0-32 V	30 A	BFHD-30A
0-32 V	40 A	BFHD-40A
0-32 V	50 A	BFHD-50A
0-32 V	60 A	BFHD-60A
0-32 V	70 A	BFHD-70A
0-32 V	80 A	BFHD-80A
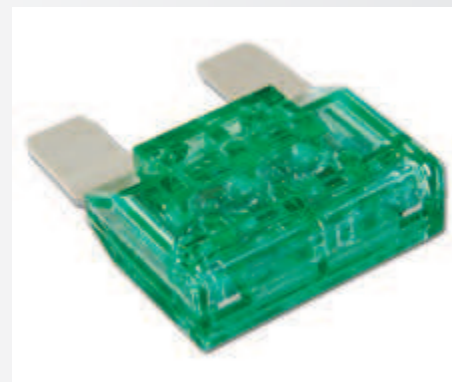
Maxi Fuse holders

The MAXI flat-rate fuse holder is ideal for securing battery chargers. Fuse values 30-80 Amps to be applied. The connections have a diameter of 6 mm and the maximum artery thickness is 25 mm2 in an eye of 6 mm. The fuse is clamped into two tinned copper contacts. Provided with a plastic cover. The in-line fuse holder is designed for low-space installations and a fuse between a cable must be placed.

Pos.	Description	Voltage	Max. fuse value	L x W x H	Item no.
1	Maxi flat-rate fuse holder	Max. 32 V	30/80 A	71 x 53 x 36 mm	702-MFH
2	In-line fuse holder MAXI	Max. 32 V	30/80 A	80 x 55 x 15 mm	HDBFH

ATC Blade fuse

ATC flat-rate fuses are corrosion resistant. At short circuit and overload they quickly turn on to protect your system.

Voltage	Current	Item no.
Max. 32 V	3 A	J03A
Max. 32 V	5 A	J05A
Max. 32 V	7,5 A	J7.5A
Max. 32 V	10 A	J10A
Max. 32 V	15 A	J15A
Max. 32 V	20 A	J20A
Max. 32 V	25 A	J25A
Max. 32 V	30 A	J30A

ATC fuse holders

This fuse box is compact and easy to install. The fuses are quick to replace and easily accesible in the fuse box. Fuse boxes can be "stand alone" or used in conjunction. The cover is closed by a click system and, like the fuse holder, is manufactured from poly carbonate. The wiring is fixed by means of screws in the connectors for a fixed and firm connection. It is possible to to place spare fuses.
Max fuse value: 30 Ampère
Max power through fuse box: 100 Ampère

Voltage	L x W x H	Item no.
Max. 32 V	80 x 90 x 47 mm	ATC-6W

BEP Single pole thermal breakers

Single pole thermal breakers sealed for use in engine compartments and bilge area applications. Featuring an unique reset mechanism providing visible indication of tripped postion. These thermal breakers have a switchable reset and can be switched manually to isolate the circuit.

Voltage	Current	Item no.
Max. 30 V	50 A	185050F/DSP
Max. 30 V	80 A	185080F/DSP
Max. 30 V	100 A	185100F-01-1
Max. 30 V	150 A	185150F-01-1

Battery cable

Description	Color	Cable diameter	Item no.
Battery cable per 50 mtr	Black	10 mm	BK10FLEXBLK
Battery cable per 50 mtr	Red	10 mm	BK10FLEXRED
Battery cable per 50 mtr	Black	16 mm	BK16FLEXBLK
Battery cable per 50 mtr	Red	16 mm	BK16FLEXRED
Battery cable per 25 mtr	Black	25 mm	BK25FLEXBLK
Battery cable per 25 mtr	Red	25 mm	BK25FLEXRED
Battery cable per 25 mtr	Black	35 mm	BK35FLEXBLK
Battery cable per 25 mtr	Red	35 mm	BK35FLEXRED
Battery cable per 25 mtr	Black	50 mm	BK50FLEXBLK
Battery cable per 25 mtr	Red	50 mm	BK50FLEXRED
Battery cable per 15 mtr	Black	70 mm	BK70FLEXBLK
Battery cable per 15 mtr	Red	70 mm	BK70FLEXRED
Battery cable per 15 mtr	Black	95 mm	BK95FLEXBLK
Battery cable per 15 mtr	Red	95 mm	BK95FLEXRED

Prebit high-power interior led lighting combines energy-saving leds with a modern design. Mark our words: you will definitely find the lighting that meets your needs!

Multivolt High-power led

High-power led means a high output of light, but low electricity consumption and little heat development. The leds have a guaranteed long lifetime of approximately 50,000 burning hours. For this number of burning hours you would need 50 light bulbs or 12 halogens. Prebit led lighting is suitable for a multivolt power source of 12 till 30 V DC. This makes this lighting suitable for almost every vessel.

Lighting Groups and group dimming

If multiple luminaires are in one space, it's often desirable to switch several lights on or off simultaneously or to dim one group at once. With Prebit lighting this is very simple, which is unique. The so-called "Master and Slave" system builds a lighting group quickly and easily. The master luminair is the leader of the group, through this fixture you can turn a group on or off, or dim the lights of the group. The Slave luminaires follow the Master and are therefore not independently operable. Both master and slave luminaires can also be mounted as "stand alone". For Slave luminaires you always need an external switch then. The master can be used without external switch. If you want to turn on (or off) the Master at two locations, you have to mount an external switch with the Master.

The following wiring diagram shows you how to apply Prebit lighting in a group. Because the schedule is so intelligent and simple, this system saves a lot of installation time. It is also possible to control the group dimming with the Masterbus system. For more information ask our Parts sales team.

Exalto
Parts • Wipers • Propulsion
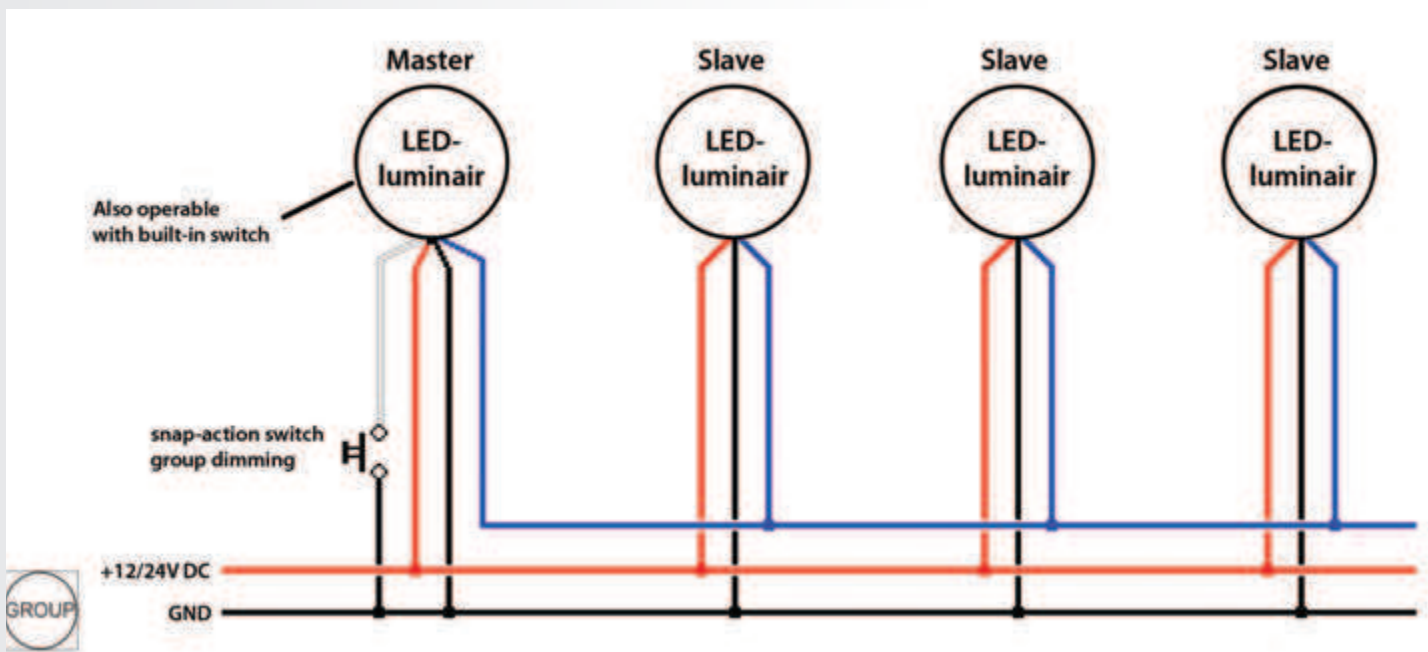
Prebit Downlight EB12

This model is continous dimmable and available in different types for color and finish and materials. For a complete lightingsystem , you can connect the EB12-2 (Master) to the EB12-1 (Slave) and EB12-3. The EB12-3 master and EB12-3 slave are versions with switchable colors, available in warm white / red and warm white/blue. It is also possible to combine the EB12-3 master together with EB12-3 slaves and EB12-1 slave. With this feature all the lights wil be on in warm white, but when you switch color, the EB12-1 slave (only warm white) will be turned of.
Through the so-called Master-Slave system you can dim multiple lights with one single button. Furthermore it is possible to control the master versions via a integrated switch or external momentary switch of your choice (this will work also when both are connected).

CE | 3000K WARM WHITE | 285 Lm | GROUP | DIMMER INSIDE | ø62

Voltage	: 10-30 V
Power	: 3 W
Diam. x Height	: 70 x 3.5 mm
Installation diam. x depth	: 60 x 18 mm

Brightness : 285 Lm

Model / type	Version	Color luminaire	Lightcolor	Dimmable	Item no.
EB12-2 Master	Master	Chrome	Warm white	Yes	22943105
EB12-1 Slave	Slave	Chrome	Warm white	External	22923105
EB12-3 Master	Master	Chrome	Warm white / red	Yes	22963105
EB12-3 Slave	Slave	Chrome	Warm white / red	External	22963005
EB12-3 Master	Master	Chrome	Warm white / blue	Yes	22863105
EB12-3 Slave	Slave	Chrome	Warm white / blue	External	22863005
EB12-2 Master	Master	Chrome matt	Warm white	Yes	22943107
EB12-1 Slave	Slave	Chrome matt	Warm white	External	22923107
EB12-3 Master	Master	Chrome matt	Warm white / red	Yes	22963107
EB12-3 Slave	Slave	Chrome matt	Warm white / red	External	22963007
EB12-3 Master	Master	Chrome matt	Warm white / blue	Yes	22863107
EB12-3 Slave	Slave	Chrome matt	Warm white / blue	External	22863007
EB12-2 Master	Master	Gold	Warm white	Yes	22943109
EB12-1 Slave	Slave	Gold	Warm white	External	22923109
EB12-3 Master	Master	Gold	Warm white / red	Yes	22963109
EB12-3 Slave	Slave	Gold	Warm white / red	External	22963009
EB12-3 Master	Master	Gold	Warm white / blue	Yes	22863109
EB12-3 Slave	Slave	Gold	Warm white / blue	External	22863009
EB12-2 Master	Master	SS316 polished	Warm white	Yes	22943104
EB12-1 Slave	Slave	SS316 polished	Warm white	External	22923104
EB12-3 Slave	Slave	Black	Warm white / red	External	22963003

Prebit finishing ring

These rings are designed to finish prebit spotlight neat. It prevents any visible traces of previous mounting. You can also vary these rings in design. For example, you can combin the gold spot with the chrome ring.

Model / type	Color luminaire	Item no.
EB12-1 rim	Chrome	50002305
EB12-1 rim	Chrome matt	50002307
EB12-1 rim	Gold	50002309

Prebit Downlight EB15

The EB15 is tiltable and available in various materials and colors. This ceiling connoisseur can be used in a group circuit: through a master in combination with 1 or more slaves, this group will be jointly controlled and dimmed. This ceiling fan is also available in a reversible warm white / red or warm white / blue version. Importantly, if one wants to take care of this for a complete or partial group, the master must in any event be a convertible version.

CE | **3000K WARM WHITE** | **285 Lm** | **GROUP** | **DIMMER INSIDE** | **ø76**

Voltage	: 10-30 V	Brightness	: 285 Lm
Power	: 3 W		
Diam. x Height	: 88 x 3,5 mm		
Installation diam. x depth	: 74 x 18 mm		

Model / type	Version	Color luminaire	Lightcolor	Dimmable	Item no.
EB15-2 Master	Master	Chrome	Warm white	Yes	22243105
EB15-1 Slave	Slave	Chrome	Warm white	External	22223105
EB15-3 Master	Master	Chrome	Warm white / red	Yes	22273105
EB15-3 Slave	Slave	Chrome	Warm white / red	External	22273005
EB15-3 Master	Master	Chrome	Warm white / blue	Yes	22273305
EB15-3 Slave	Slave	Chrome	Warm white / blue	External	22273205
EB15-2 Master	Master	Chrome matt	Warm white	Yes	22243107
EB15-1 Slave	Slave	Chrome matt	Warm white	External	22223107
EB15-3 Master	Master	Chrome matt	Warm white / red	Yes	22273107
EB15-3 Slave	Slave	Chrome matt	Warm white / red	External	22273007
EB15-3 Master	Master	Chrome matt	Warm white / blue	Yes	22273307
EB15-3 Slave	Slave	Chrome matt	Warm white / blue	External	22273207
EB15-2 Master	Master	Gold	Warm white	Yes	22243109
EB15-1 Slave	Slave	Gold	Warm white	External	22223109
EB15-3 Master	Master	Gold	Warm white / red	Yes	22273109
EB15-3 Slave	Slave	Gold	Warm white / red	External	22273009
EB15-3 Master	Master	Gold	Warm white / blue	Yes	22273309
EB15-3 Slave	Slave	Gold	Warm white / blue	External	22273209

Prebit Downlight EB22

This model is continous dimmable and available in diff erent types for color and fi nish and materials.For a complete lightingsystem , you can connect the EB22-2 (Master) to the EB22-1 (Slave) and EB22-3. The EB22-3 master and EB22-3 slave are versions with switchable colors, available in warm white / red and warm white/blue. It is also possible to combine the EB22-3 master together with EB22-3 slaves and EB22-1 slave. With this feature all the lights wil be on in warm white, but when you switch color, the EB22-1 slave (only warm white) will be turned of.
Through the so-called Master-Slave system you can dim multiple lights with one single button.

| | | | 3000K WARM WHITE | 560 Lm | GROUP | DIMMER INSIDE | ø92 |

Voltage : 10-30 V
Power : 6 W
Diam. x Height : 110 x 4.75 mm
Brightness : 780 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
EB22-2 Master	Chrome	Warm white	Yes	23843105
EB22-1 Slave	Chrome	Warm white	External	23823105
EB22-3 Master	Chrome	Warm white / red	Yes	23863105
EB22-3 Slave	Chrome	Warm white / red	External	23863005
EB22-2 Master	Chrome matt	Warm white	Yes	23843107
EB22-1 Slave	Chrome matt	Warm white	External	23823107
EB22-3 Master	Chrome matt	Warm white / red	Yes	23863107
EB22-3 Slave	Chrome matt	Warm white / red	External	23863007
EB22-2 Master	Gold	Warm white	Yes	23843109
EB22-1 Slave	Gold	Warm white	External	23823109
EB22-3 Master	Gold	Warm white / red	Yes	23863109
EB22-3 Slave	Gold	Warm white / red	External	23863009
EB22-3 Master	White	Warm white / red	Yes	23863101
EB22-3 Slave	White	Warm white / red	External	23863001

Prebit Downlight EB13

The EB13 is an IP67, waterproof, built-in led lamp made out of SS316. Available in multiple colors LED and very suitable for orientation or courtesy lighting.

| | | | 3000K WARM WHITE | DIMMABLE EXTERNAL | IP 67 |

Voltage : 10-30 V
Power : 1 W
Diam. x Height : 60 x 3.5 mm
Brightness : 40-70 Lm

Model / type	Color luminaire	Lightcolor	Item no.
EB13	SS316 polished	Warm white	23013111
EB13	SS316 polished	White	23033111
EB13	SS316 polished	Red	23023111
EB13	SS316 polished	Blue	23043111
EB13	SS316 polished	Green	23053111

Prebit Downlight EB32

Because of the high protection class, these lights are very suitable for marine applications. These types are steplessly dimmable. You can connect the EB32-2 (Master) to the EB32-1 (Slave) and type EB42-2 (Master) to the EB42-1 (Slave). Through the so-called Master-Slave system you can dim multiple lights with one single button. The EB32 has three LED lights. The EB42 is a bigger light and has six LEDs.

| CE | 3000K WARM WHITE | 285 Lm | GROUP | DIMMER INSIDE | ø60 |

Voltage	: 10-30 V	Brightness	: 285 Lm
Power	: 3 W		
Diam. x Height	: 85 x 4.7 mm		
Installation diam. x depth	: 60 x 16.5 mm		

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
EB32-2 Master	SS316 polished	Warm white	Yes	23303205
EB32-1 Slave	SS316 polished	Warm white	External	23303105
EB32R-2 Master	SS316 polished	Warm white	Yes	23323205
EB32R-1 Slave	SS316 polished	Warm white	External	23323105
EB32R-3	SS316 polished	Warm white / red	Yes	23323305

Prebit Downlight EB42

Because of the high protection class, these lights are very suitable for marine applications. These types are steplessly dimmable. You can connect the EB32-2 (Master) to the EB32-1 (Slave) and type EB42-2 (Master) to the EB42-1 (Slave). Through the so-called Master-Slave system you can dim multiple lights with one single button. The EB32 has three LED lights. The EB42 is a bigger light and has six LEDs.

| CE | 3000K WARM WHITE | 780 Lm | GROUP | DIMMER INSIDE | ø90 |

Voltage	: 10-30 V	Brightness	: 780 Lm
Power	: 6 W		
Diam. x Height	: 120 x 4.7 mm		
Installation diam. x depth	: 90 x 22 mm		

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
EB42-2 Master	SS316 polished	Warm white	Yes	23304205
EB42-1 Slave	SS316 polished	Warm white	External	23304105

Prebit Downlight D1

These lamps have a satin acrylic lens, making the space comfortable illuminated. Available in three types. Type D1-1 (Slave) without dimmer. Types D1-2 (Master) and D1-3 with dimmer, to steplessly dim the light. Through the master-slave system , you can use the D1-2 (Master) to dim several D1-1 (slaves).
The D1-3 offers switching between red light and warm white light. Red light is ideal during the night.

CE | 3000K WARM WHITE | 285 Lm | GROUP | DIMMER INSIDE
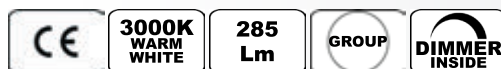
Voltage	: 10-30 V
Power	: 3 W
Diam. x Height	: 60 x 20 mm
Brightness	: 285 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
D1-2 Master	Chrome	Warm white	Yes	23143105
D1-1 Slave	Chrome	Warm white	External	23123105
D1-3 Master	Chrome	Warm white / red	Yes	23163105
D1-3	Chrome	Warm white / red	Yes	20963105
D1-3 Master	Chrome	Warm white / blue	Yes	23163305
D1-3 Slave	Chrome	Warm white / blue	External	23163205
D1-3 Slave	Chrome	Warm white / red	External	23163005
D1-2 Master	Chrome matt	Warm white	Yes	23143107
D1-1 Slave	Chrome matt	Warm white	External	23123107
D1-3 Master	Chrome matt	Warm white / red	Yes	23163107
D1-3	Chrome matt	Warm white / red	Yes	20963107
D1-3 Slave	Chrome matt	Warm white / red	External	23163007
D1-3 Master	Chrome matt	Warm white / blue	Yes	23163307
D1-3 Slave	Chrome matt	Warm white / blue	External	23163207
D1-2 Master	Gold	Warm white	Yes	23143109
D1-1 Slave	Gold	Warm white	External	23123109
D1-3 Master	Gold	Warm white / red	Yes	23163109
D1-3	Gold	Warm white / red	Yes	20963109
D1-3 Slave	Gold	Warm white / red	External	23163009
D1-3 Master	Gold	Warm white / blue	Yes	23163309
D1-3 Slave	Gold	Warm white / blue	External	23163209

Prebit Wall / downlight W6

This wall light features high-power LEDs with a pleasantly warm white colour. The lamp can swivel 20 °. With the soft-touch switch the light can be dimmed easily.

CE | 3000K WARM WHITE | 440 Lm | DIMMER INSIDE

Voltage	: 10-30 V	Lampshade Ø x L	: 37,5 x 230 Lm
Power	: 6 W		
Brightness	: 440 Lm		
Base Ø x h	: 55 x 20 mm		

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
W6	Chrome	Warm white	Yes	20016105
W6	Chrome matt	Warm white	Yes	20016107
W6	Gold	Warm white	Yes	20016109

Prebit Wall / downlight W10

This modern light is available with lampshades in three colours. The light colour is warm white. The shade can be rotated. With the soft-touch dim switch the light can be dimmed steplessly.

CE | 3000K WARM WHITE | 670 Lm | DIMMABLE EXTERNAL

Voltage	: 10-30 V	Bracket W x H x D	: 58 x 100 x 48 V
Power	: 8 W	Ø lampshade	: 120 Lm
Brightness	: 670 Lm		
Diam. x Height	: 120 x 120 mm		

Model / type	Color luminaire	Color lampshade	Lightcolor	Dimmable	Item no.
LUCY	Chrome matt	White	Warm white	External	25014101
LUCY	Chrome matt	Gloss chrome	Warm white	External	25014103
LUCY	Chrome matt	Black	Warm white	External	25014105

Prebit Wall / downlight R1-1

This modern light is available with lampshades in three colours. The light colour is warm white. The shade can be rotated. With the soft-touch dim switch the light can be dimmed steplessly.

CE | 3000K WARM WHITE | 285 Lm | DIMMER INSIDE

Voltage	: 10-30 V
Power	: 3 W
Brightness	: 285 Lm
Base Ø x h	: 55 x 20 mm

Model / type	Color luminaire	Color lampshade	Lightcolor	Dimmable	Item no.
R1-1	Chrome	Chalk white	Warm White	Yes	20011905
R1-1	Chrome	Grey	Warm white	Yes	20012105
R1-1	Chrome	Brown	Warm white	Yes	20012305
R1-1	Chrome matt	Chalk white	Warm white	Yes	20011907
R1-1	Chrome matt	Grey	Warm white	Yes	20012107
R1-1	Chrome matt	Brown	Warm white	Yes	20012307
R1-1	Gold	Chalk white	Warm white	Yes	20011909
R1-1	Gold	Grey	Warm white	Yes	20012109
R1-1	Gold	Brown	Warm white	Yes	20012309

Prebit Wall / downlight R2-1

This LED-light for mounting on wall or ceiling includes high-power LED's with neutral white coloured light. The light can be rotated. With the integrated switch, the light can be dimmed.

CE | 3000K WARM WHITE | 440 Lm | DIMMER INSIDE

Voltage	: 10-30 V	Ø lampshade	: 60 Lm
Power	: 9 W		
Brightness	: 440 Lm		
Base Ø x h	: 55 x 20 mm		

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
R2-1	Chrome	Warm white	Yes	20002605
R2-1	Chrome matt	Warm white	Yes	20002607

Prebit Wall / downlight R4

Type R4 has a beam angle of 25°. The lightshade can be rotated. With the soft-touch switch the warm white light can be dimmed easily.

CE | 3000K WARM WHITE | 140 Lm | DIMMER INSIDE

Voltage	: 10-30 V	Ø lampshade	: 28 Lm
Power	: 3 W		
Brightness	: 140 Lm		
Base Ø x h	: 55 x 20 mm		

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
R4	Chrome	Warm white	Yes	20525105
R4	Chrome matt	Warm white	Yes	20525107

Prebit Wall / downlight UB01

Wall lamp UB01 is the new generation LED bar of Prebit; Tiltable, smooth appearance and changeable from warm white to red. Suitable as wall lamp, but also for foundation. The UB01-01 is the fixed version and the UB01-03 features swiveling.

CE | 3000K WARM WHITE | 570 Lm | DIMMER INSIDE | Red/White
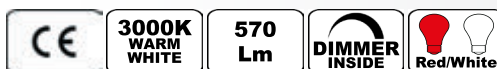
Voltage	: 10-30 V
Power	: 6 W
Brightness	: 570 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
UB01-1R/W	Chrome matt	Warm white / red	Yes	21833137
UB01-1R/W	Gold	Warm white / red	Yes	21833139
UB01-3 R/W	Gold	Warm white / red	Yes	21873139
UB01-1R/W	Chrome	Warm white / red	Yes	21833135
UB01-3 R/W	Chrome	Warm white / red	Yes	21873135

Prebit Wall / downlight UB02-3

The UB02 is a very compact LED light wit bright and pleasant warm white light (3.000 K). Continuous dimmable via external dimmer or Master-light. The memory function saves the last setting. The UB02 can rotate 270 °.

CE | 3000K WARM WHITE | 285 Lm | DIMMER INSIDE | Red/White

Voltage	: 10-30 V
Power	: 3 W
Brightness	: 285 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
UB02-3	Chrome	Warm white	Yes	21973105
UB02-3	Chrome matt	Warm white	Yes	21973107
UB02-3	Gold	Warm white	Yes	21973109

Prebit wall light W1-1

The modern wall light type W1-1 includes three high-power LED's with a warm white coloured light. Can be dimmed steplessly by means of the integrated switch.

CE | 3000K WARM WHITE | 285 Lm | DIMMER INSIDE

Voltage	: 10-30 V	Base Ø x h	: 55 x 20 mm
Power	: 3 W		
Brightness	: 285 Lm		
Diam. x Height	: 37 x 110 mm		

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
W1-1	Chrome	Warm white	Yes	20012005
W1-1	Chrome matt	Warm white	Yes	20012007

Prebit wall light W2

This modern wall light has warm white light. The light is equipped with a soft-touch switch to dim.

CE | 3000K WARM WHITE | 450 Lm | DIMMER INSIDE

Voltage	: 10-30 V	Base Ø x h	: 55 x 20 mm
Power	: 6 W		
Brightness	: 450 Lm		
Diam. x Height	: 37,5 x 201 mm		

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
W2	Chrome	Warm white	Yes	20012905
W2	Chrome matt	Warm white	Yes	20012907
W2	Gold	Warm white	Yes	20012909

Prebit finishing ring for wall / downlight

These rings are designed to finish the prebit wall/Downlights neat. It prevents visible traces of previous mounting. You can also make combinations with different designs lamps and rings. The picture shows a shiny chrome wall light with a shiny chrome ring.

Diameter : 92 mm

Model / type	Color luminaire	Item no.
ADR92	Chrome	50002405
ADR92	Chrome matt	50002407
ADR92	Gold	50002409
Cover ring	SS316 polished	50010032

Prebit Table light NOVA

This new series of Prebit table lamps features a padded foot, which provides increased stability. Of course, these lamps are dimmable and available in multiple finishes.

CE | 3000K WARM WHITE | DIMMER INSIDE

Voltage : 10-30 V
Power : 9 W
Brightness : 400 Lm
Base Ø x h : 120 mm

Model / type	Color luminaire	Lightcolor	Dimmable	Length	Item no.
NOVA	Chrome	Warm white	Yes	355 mm	25014705
NOVA	Chrome matt	Warm white	Yes	355 mm	25014707
NOVA	Gold	Warm white	Yes	355 mm	25014709

Prebit Table light KATI

This new series of Prebit table lamps features a padded foot, which provides increased stability. Of course, these lamps are dimmable and available in multiple finishes.

CE | 3000K WARM WHITE | DIMMER INSIDE

Voltage : 10-30 V
Power : 9 W
Brightness : 400 Lm
Base Ø x h : 120 mm

Model / type	Color luminaire	Lightcolor	Dimmable	Length	Item no.
KATI	Chrome	Warm white	Yes	355 mm	25114705
KATI	Chrome matt	Warm white	Yes	355 mm	25114707
KATI	Gold	Warm white	Yes	355 mm	25114709

Prebit Wall light CORA-LYNN

The CORA-LYNN is an elegant wall lamp is complete with flex-arm reading light and USB charger for your phone or tablet. This wall lamp is also available on request without reading light and charger.

CE | 3000K WARM WHITE | USB | DIMMER INSIDE

Voltage : 10-30 V
Power : 9 + 3 W
Brightness : 440 + 140 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
CORA-LYNN	Chrome	Warm white	Yes	25323305
CORA-LYNN	Chrome matt	Warm white	Yes	25323307
CORA-LYNN	Gold	Warm white	Yes	25323309

Prebit Wall light JANA-LYNN

This new wall lamp is complete with flexible reading light and USB charger for your phone or tablet. The reading lamp is free to operate. This wall lamp is also available on request without reading light and charger.

CE | 3000K WARM WHITE | USB | DIMMER INSIDE

Voltage : 10-30 V
Power : 9 + 3 W
Brightness : 440 + 140 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
JANA-LYNN	Chrome	Warm white	Yes	25323705
JANA-LYNN	Chrome matt	Warm white	Yes	25323707
JANA-LYNN	Gold	Warm white	Yes	25323709

Prebit Wall light LANA

This new wall lamp of Prebit is equipped with the latest technology in LED dimming; Homogeneous dimming. This means that during dimming the light color changes from 3000K at full power to 2300 K in the lowest position. Also, this model features dimmable nightlight function in amber, red or blue.

CE | 3000K WARM WHITE | DIMMER INSIDE

Voltage : 10-30 V
Brightness : 710 Lm
Base Ø x h : 82 x 35 mm

Model / type	Color luminaire	Lightcolor	Dimmable	Length	Item no.
LANA	Chrome	Warm white / amber	Yes	180 mm	25113005
LANA	Chrome	Warm white / red	Yes	180 mm	25113035
LANA	Chrome	Warm white / blue	Yes	180 mm	25113055
LANA	Chrome matt	Warm white / amber	Yes	180 mm	25113007
LANA	Chrome matt	Warm white / red	Yes	180 mm	25113037
LANA	Chrome matt	Warm white / blue	Yes	180 mm	25113057

Prebit Wall light NOVA-LYNN

This new wall lamp is complete with flexible reading light and USB charger for your phone or tablet. The reading lamp is free to operate. This wall lamp is also available on request without reading light and charger.

CE | 3000K WARM WHITE | DIMMER INSIDE | USB

Voltage : 10-30 V
Power : 9 + 3 W
Brightness : 440 + 140 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
NOVA-LYNN	Chrome	Warm white	Yes	25323905
NOVA-LYNN	Chrome matt	Warm white	Yes	25323907
NOVA-LYNN	Gold	Warm white	Yes	25323909

Prebit Chart and reading light 01

This reading light has a flexible arm which can be bend in any position. The beam angle is 25°. This means the light is gathered, so you can still read on a larger distance. The warm white light makes reading a pleasure, because the light doesn't shine brightly in your eyes, nor reflects on your map or book pages. The dimmer is controlled by a soft-touch switch on the support.

CE | **3000K WARM WHITE** | **140 Lm** | **DIMMER INSIDE**

Voltage : 10-30 V
Power : 3 W
Lampshade Ø x L : 28 x 42 mm

Model / type	Color luminaire	Lightcolor	Length	Dimmable	Item no.
Flex 01	Chrome	Warm white	300 mm	Yes	20113305
Flex 01	Chrome matt	Warm white	300 mm	Yes	20113307
Flex 01	Gold	Warm white	300 mm	Yes	20113309

Prebit Chart and reading light 04

Type 04 is a flexible reading light. The shade is made of matt white glass. This reading light has a warm white coloured light, so it doesn't shine in your eyes brightly, nor reflects on the map or paper in front of you. Equipped with an integrated switch to dim.
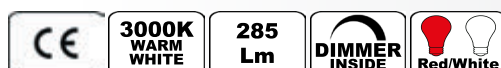
CE | **3000K WARM WHITE** | **285 Lm** | **DIMMER INSIDE**

Voltage : 10-30 V
Power : 3 W
Lampshade Ø x L : 37 .5 x 41.5 mm

Model / type	Color luminaire	Lightcolor	Length	Dimmable	Item no.
Flex 04	Chrome	Warm white	300 mm	Yes	21713305
Flex 04	Chrome matt	Warm white	300 mm	Yes	21713307
Flex 04	Gold	Warm white	300 mm	Yes	21713309

Prebit Chart and reading light 05

This light is ideal for (map)reading. Type 05 has a flexible arm which can be bowed in any position. Type 05 has a fixed light that can turn 350° and swivel 90°. The warm white light makes reading a pleasure, because the light doesn't shine brightly in your eyes, nor reflects on your map or book pages. You can also switch to red light. Each seperate colour can be dimmed steplessly. The dimmer is controlled by a soft-touch switch on the support.

CE | **3000K WARM WHITE** | **285 Lm** | **DIMMER INSIDE** | **Red/White**

Voltage : 10-30 V   Note : On request also available in 230V mm
Power : 3 W
Lampshade Ø x L : 60 x 21.5 mm
Brightness : 285 Lm

On request also available in 230V

Model / type	Color luminaire	Lightcolor	Length	Dimmable	Item no.
Flex 05	Chrome	Warm white / red	300 mm	Yes	21913305
Flex 05	Chrome matt	Warm white / red	300 mm	Yes	21913307

Prebit Chart and reading light 05-G

This lamp is ideal as a card reading lamp. Type Flex 05-G has a wire sleeve M10 at the beginning of the flexible arm, which allows this lamp to be mounted in locations with very limited space. The warm white light provides a pleasant reading light that does not shine in the eyes or reflects on your card or book. You can also switch to red light. The dimmer is controlled by a switch built into the lamp head.
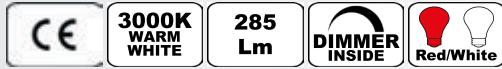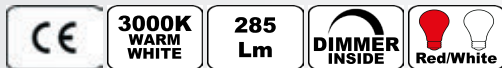
CE | **3000K WARM WHITE** | **285 Lm** | **DIMMER INSIDE** | **Red/White**

Voltage : 10-30 V
Power : 3 W
Brightness : 285 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Length	Item no.
Flex 05-G	Chrome	Warm white / red	Yes	300 mm	21993105
Flex 05-G	Chrome matt	Warm white / red	Yes	300 mm	21993107
Flex 05-G	Gold	Warm white / red	Yes	300 mm	21993109

Prebit Chart and reading light F5

This light is ideal for (map)reading. Type 05 has a flexible arm which can be bowed in any position. Type 05 has a fixed light that can turn 350° and swivel 90°. The warm white light makes reading a pleasure, because the light doesn't shine brightly in your eyes, nor reflects on your map or book pages. You can also switch to red light. Each seperate colour can be dimmed steplessly. The dimmer is controlled by a soft-touch switch on the support.

CE | **3000K WARM WHITE** | **285 Lm** | **DIMMER INSIDE** | **Red/White**

Voltage : 10-30 V   Note : On request also available in 230V mm
Power : 3 W
Lampshade Ø x L : 60 x 22 mm

On request also available in 230V

Model / type	Color luminaire	Lightcolor	Length	Dimmable	Item no.
F5	Chrome	Warm white / red	115 mm	Yes	21923305
F5	Chrome matt	Warm white / red	115 mm	Yes	21923307
F5	Gold	Warm white / red	115 mm	Yes	21923309

Prebit Chart and reading light F5 IP68

This lamp is ideal as a (map) reading lamp. Type F5 IP68 has a fixed-mounted lamp that can turn 350 ° and tilt 90 °. The warm white light provides a pleasant reading light that does not shine in the eyes or reflects on your card or book. You can also switch to red or blue light. The lamp can be operated by an external pulse switch. This is also the waterproof version.

CE | **3000K WARM WHITE** | **285 Lm** | **DIMMER INSIDE** | **IP 68** | **Blue/White**

Voltage : 10-30 V
Power : 3 W
Brightness : 285 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
F5 IP68	Black anodized	Warm white / red	Yes	21913303
F5 IP68	Black anodized	Warm white / blue	Yes	21913403

Prebit Chart and reading light 07

Reading lamp Flex 07 has a flexible arm that can be bent in any position and the lamp itself is rotatable. Equipped with nightlight function in red. Also available with a leather finish of the flexible arm.

CE | 3000K WARM WHITE | 250 Lm | DIMMER INSIDE | Red/White

Voltage   : 10-30 V
Power   : 3 W

Model / type	Color luminaire	Lightcolor	Length	Dimmable	Item no.
Flex 07	Chrome	Warm white / red	300 mm	Yes	24800005
Flex 07	Chrome matt	Warm white / red	300 mm	Yes	24800007
Flex 07	Gold	Warm white / red	300 mm	Yes	24800009
Flex 07 Leather	Chrome	Warm white / red	300 mm	Yes	25830015
Flex 07 Leather	Chrome matt	Warm white / red	300 mm	Yes	25830017
Flex 07 Leather	Gold	Warm white / red	300 mm	Yes	25830019

Prebit Chart and reading light 07-1

The flexible wall lamp 2.0: beautiful and extremely convenient to use. The flexible arm can be bent into any position and the light itself is fully rotatable. The pleasant warm white light is steplessly dimmable by a soft-touch switch on the support.
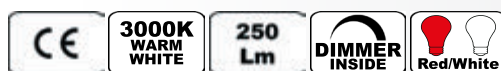
CE | 3000K WARM WHITE | 250 Lm | DIMMER INSIDE | Red/White

Voltage   : 10-30 V
Power   : 3 W
Brightness   : 250 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Length	Item no.
Flex 07	Chrome	Warm white / red	Yes	300 mm	24830005
Flex 07	Chrome matt	Warm white / red	Yes	300 mm	24830007
Flex 07	Gold	Warm white / red	Yes	300 mm	24830009
Flex 07	Chrome	Warm white / red	Yes	300 mm	26830015
Flex 07	Chrome matt	Warm white / red	Yes	300 mm	26830017
Flex 07	Gold	Warm white / red	Yes	300 mm	26830019

Prebit Chart and reading light KIRA

New design wall lamp with hinged fixed arm parts. Executed with a reversible red night lighting. Continous dimmable with memory for remembering the last dimming position.

CE | 3000K WARM WHITE | 250 Lm | Red/White

Voltage   : 10-30 V
Power   : 3 W
Brightness   : 250 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
KIRA	Chrome	Warm white / red	Yes	25500005
KIRA	Chrome matt	Warm white / red	Yes	25500007
KIRA	Gold	Warm white / red	Yes	25500009

Hella downlight LED Slim Line Round

This LED lighting fixture can be used as ceiling or courtesy lighting. These lamps are equipped with four leds and are available with various color plastic rings. The polished ring is made of stainless steel 316. The lighting is waterproof according to IP67 (DIN 40060) and can therefore be placed inside or outside. The Slim Line Round series is CE-approved and pre-wired with 120 mm marine grade cable. These lights are externally dimmable via a LED suitable dimmer.

Voltage	: 12 V
Power	: 0,5 W
Max. draw	: 0,5 W
Installation diam. x depth	: 50 x 13 mm

Color luminaire	Lightcolor	Outer diam.	Item no.
Polished stainless steel	White	72 mm	010122

Hella downlight LED Slim Line Rakino

The Hella Slim Line LED mood lighting is available in light white and warm white. The Rakino white gives a powerful white light. For a softer and warmer light, you can choose the Rakino warm white. The light of the Rakino spread series spreads at an angle of 32 °. With the waterproof housing and a 18.5 mm fitting depth, you can install the Rakino Spread series almost anywhere in your interior and exterior. To dim the Rakino spots, the Hella dimmer (5XA998572-001) or Hollex Dimperfect (0100.31021) are very suitable. The Slim Line Rakino series is CE-approved, UV resistant and pre-wired with 120 mm marine cable. Also suitable for Mastervolt digital switching.

Max. draw	: 0,8 W
Installation diam. x depth	: 18.5 x 50 mm

Voltage	Color luminaire	Lightcolor	Outer diam.	Item no.
12 V	Polished stainless steel	Warm white	72 mm	2JA959 596-051
24 V	Polished stainless steel	Warm white	72 mm	2JA959 596-151
12 V	Polished stainless steel	White	72 mm	2JA959 599-051
24 V	Polished stainless steel	White	72 mm	2JA959 599-151

Hella downlight 3231/3232

Model 3231 can be placed on your ship in many places. The lamp has an integrated on / off switch, but can also be operated remotely via a light switch. Model 3232 is a larger version of the 3231.

| Version	Voltage	Max. power	Diameter	Item no.
Switch included	12/24 V	15 W	103 mm	0106
Switch included	12/24 V	20 W	145 mm	0107

Hella Interior light TL/PL 7372/7373

Transistor lighting with built-in TL tube or 2G7 lamp. The luminaires are equipped with on / off switch and disrupted according to VDE 0879 standardization. This illumination consumes only 1/5 of the amount of energy consuming a halogen lamp of equal yield. Both lamps are CE-approved.

Pos.	Model / type	Voltage	Power	L x W x H	Item no.
1	7372	12 V	8 W	442 x 60 x 35 mm	0101
1	7372	24 V	8 W	442 x 60 x 35 mm	0102
1	7372	12 V	13 W	700 x 60 x 35 mm	0103
1	7372	24 V	13 W	700 x 60 x 35 mm	0104
2	7373	12 V	7 W	255 x 60 x 35 mm	0108
2	7373	24 V	7 W	255 x 60 x 35 mm	0109
2	7373	12 V	9 W	285 x 60 x 35 mm	0110
2	7373	24 V	9 W	285 x 60 x 35 mm	0111
2	7373	12 V	11 W	355 x 60 x 35 mm	0112
2	7373	24 V	11 W	355 x 60 x 35 mm	0113

Hella Interior light LED 7373

This led light is only 35 mm high and therefore extremely suitable for low (machine) spaces. The lamp has an integrated on / off switch. The lens and frame are made of sturdy and impact resistant material. Consumption max. (At 12 leds): 0.30A Consumption max. (At 24 leds): 0.58A
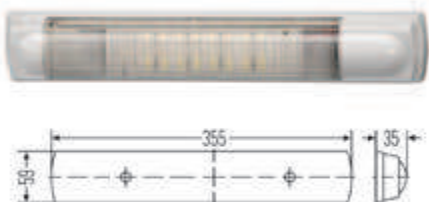
Voltage	Power	Nr. of LED's	Lightcolor	Item no.
10-30 V	3,5 W	12	White	2JA007 373-151
10-30 V	7 W	24	White	2JA007 373-161

Hella Ceiling light 0630 EuroLED Touch

Dual colour EuroLED Touch lamps with dimming and remote momentary switch control. Touch the colour pad for ON/OFF, hold finger on the pad to cycle through dimming levels.

Voltage   : 9-33 V
Power   : 4 W
Brightness   : 175 Lm
Diam. x Height : 150 x 5 mm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
EuroLED Touch 150	White	Warm white / red	Yes	2JA980 630-101
EuroLED Touch 150	SS polished	Warm white / red	Yes	2JA980 630-111

Hella DuraLED

Heavy duty marine lamps. Outstanding light intensity, class leading efficiency and proven durability. DuraLed lamps provide powerful white light (5000K) and a safe, energy efficient and reliable alternative to incandescent and fluorescent lighting. Each lamp is completely sealed, impact resistant and shock resistant, ensuring an ultra long service life. Each lamp is pre-wired with 2.5m of twin core marine cable. DuraLed lamps are surface mounted and feature a unique installation system where the fastening load is taken up by a heavy duty nylon bush to eliminate possible stress on the lamp housing. These lamps are certified Ignition Protected and reverse polarity protected.

Voltage : 9-33 V
Power : 2,5 W
Brightness : 80 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Item no.
9700 / DuraLED 12	White	White	No	2JA959 700-101
9700 / DuraLED 12	Black	White	No	2JA959 700-121
0608 / DuraLED 20	White	White	No	2JA980 608-001
9037 / DuraLED 36	White	White	No	2JA959 037-521
0629 / DuraLED 50LP spread	White	White	No	2JA980 629-001
0629 / DuraLED 50LP wide spread	White	White	No	2JA980 629-501

Hella Surface Strip Lamp

The Surface Mount Strip lamps from Hella marine feature an innovative waterproof switch for reliable operation. Completely sealed, UV and corrosion resistant and an ultra-low profile these install lamps are easy to install and ideal for interior or exterior applications. Also available without switch from warm white to red or blue. As an accessory, a mounting plate is available at an angle of 45 °. Thanks to the Hella dimmer or the Hollex Dimperfect, this lighting can be dimmed.
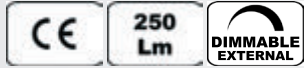
Voltage : 12 V
Power : 3 W
Brightness : 250 Lm

Model / type	Color luminaire	Lightcolor	Dimmable	Length	Item no.
SSL LED with switch	White	Warm white / red	Yes (PWM)	283 mm	2JA958 121-101
SSL LED with switch	White	Warm white / blue	Yes (PWM)	283 mm	2JA958 121-111
SSL LED with switch	White	Warm white / red	Yes (PWM)	283 mm	2JA958 121-501
SSL LED with switch	White	Warm white / blue	Yes (PWM)	283 mm	2JA958 121-511
SSL LED with switch	White	Warm white	Yes (PWM)	283 mm	2JA958 123-101
SSL LED with switch	White	Warm white	Yes (PWM)	283 mm	2JA958 123-501
SSL LED no switch	White	Warm white	Yes (PWM)	283 mm	2JA958 124-101
SSL LED no switch	White	Warm white	Yes (PWM)	283 mm	2JA958 124-501

Hella Surface strip light bracket

This 45-foot bracket is applicable to Hella's new SSL LED series, with this addition you can radiate the led strip at an angle.

Item no.
8HG958 000-011

Hella Chart and reading light 4192/4532

Ideal berth or chart reading lamps. Shutter tilts to switch lamp ON and OFF. Adjustable light opening.

CE

Max. power   : 10 W

Pos.	Model / type	Color luminaire	Lightcolor	Voltage	Power	Length	Item no.
1	4192	Black	White	12/24 V	10 W		0129
1	4192	Black	Red	12/24 V	10 W		0131
2	4532	Black	White	12 V	5 W	600 mm	0145
2	4532	Black	White	12 V	5 W	270 mm	0146
2	4532	Black	White	24 V	5 W	600 mm	0148

Hella Chart and reading LED Flexispot

These Hella LED Flexispot chart read lamps combine high light output with low power consumption. A big advantage of these lamps is lthe low heat output. The lamp is extremely shock resistant and has a long life. The map reading lamps are multivolt so they are suitable for voltages between 9 and 31 volts. The LED Flexispot llamps are available in two lengths: 150 mm and 400 mm. The power switch is located conveniently in the head of the lamp. The Flexispot is available with white light and red light. Red light is ideal in so-called "night running" situations. Important instruments or navigation cards remain well-lit with red light, and the outside view remains good. In white light, the eyes must adjust more if looking out in the dark. The Flexispot has a black housing and comes with 120 mm cable.

CE   UV RESISTANT   IP 53   5 YR WARRANTY

Voltage   : 9-31 V
Power   : 2 W
Max. power   : 2 W
Lamphead L x W x H   : 104 x 45 x 36 mm

Color luminaire	Lightcolor	Length	Item no.
Black	White	150 mm	2JA343 720-022
Black	Red	150 mm	2JA343 720-052
Black	Red	400 mm	2JA343 720-152

LED Downlight Mika

The Hollex downlight LED series will provide excellent quality and pricing. These downlights offer a broad range in pricing and models, but all the models are tested for durability, warm light color, high Lumen output and are dimmable. Also when the dimperfect dimmer is used, which has an integrated DC/DC converter, even the 12Vdc downlights can be used in a 24Vdc system. Absolutely noise and flickering free, guaranteed!
The " Mika " line provides outstanding design with the highest quality; 2700K , dimmable and multivolt. Of course these are long life versions with the highest quality COB LED module and oversized heat sink. The Hollex Mika is already proven and recognized by internationally known Dutch yachtbuilders , very often fitted as a OEM product in luxurious (super)yachts. Available in different versions.

CE | **295 Lm**

Pos.	Description	Voltage	Power	Color luminaire	Lightcolor	Dimmable	Brightness	Installation diam. x depth	Outer diam.	Item no.
3	LED downlight	10-30 V	3 W	Chrome	Warm white	Yes	295 Lm	55 x 20 mm	70 mm	0100.13723
-	LED downlight	10-30 V	3 W	Brushed nickel	Warm white	Yes	295 Lm	55 x 20 mm	70 mm	0100.13713

LED Downlight Tycho

The Hollex downlight LED series will provide excellent quality and pricing. These downlights offer a broad range in pricing and models, but all the models are tested for durability, warm light color, high Lumen output and are dimmable. Also when the dimperfect dimmer is used, which has an integrated DC/DC converter, even the 12Vdc downlights can be used in a 24Vdc system. Absolutely noise and flickering free, guaranteed! The "Tycho" line provides a LED downlight for a very competitive price, and is often used for smaller boats, cabinets, closets, etc. Also a surface mounted version is available.

CE | **170 Lm**

Pos.	Description	Voltage	Power	Color luminaire	Lightcolor	Dimmable	Brightness	Installation diam. x depth	Outer diam.	Item no.
1	LED downlight	12 V	3 W	Aluminum	Warm white	Yes	170 Lm	52 x 9 mm	60 mm	0100.11171
2	LED downlight	12 V	3 W	Aluminum	Warm white	Yes	170 Lm	63 x 12 mm	76 mm	0100.11172

Ceiling light LED

With this range led building congestion in different versions is it now possible to apply lighting in any price range of the hunting construction. This series is also recommended for refit projects. These lamps are all very good dimmable with our new DIMPERFECT led dimmer, and by using this dimmer, therefore, it can also be used in a 24V system. The color of the LEDs is warm white.

CE | **170 Lm**

Pos.	Description	Voltage	Power	Dimmable	Brightness	Lightcolor	Diam. x Height	Item no.
1	LED downlight	12 V	3 W	Yes	170 Lm	Warm white	60 x 11 mm	0100.11170
2	LED downlight	10-30 V	3 W	Yes	170 Lm	Warm white	68 x 7 mm	0100.11153
2	LED downlight	10-30 V	3 W	No	170 Lm	Warm white	68 x 7 mm	0100.11163

Surface mounted light

This lamp is made of brushed steel and is equipped with a switch. The lamp is ideal for substructure, for example over the counter mounted on the bottom of a kitchen cabinet.

CE | **131 Lm**

Description	Voltage	Power	Dimmable	Brightness	Lightcolor	Item no.
LED Light - spot	12 V	1.6 W	No	131 Lm	Warm white	0100.13033

LED panel square

Hollex LED panel modules are the perfect choice for interior lighting, cabinet lighting, engine room lighting, kitchen lighting, mosaic design etc.
• Only 5mm thin design, easy to integrate;
• Warm white, high light output, 50 lm / W;
• Excellent light distribution;
• Simple installation, Plug-and-play;
• OLED look and better priced;
• Longer life and reliability than OLED.
There are currently 5 shapes available: Square, Rectangle (2 sizes),
Triangle and Quartz circle, incl. Fixing and finishing materials

CE | **140 Lm**

Description	Voltage	Power	Dimmable	Brightness	Color luminaire	Lightcolor	L x W x H	Item no.
LED panel square	12 V	3 W	Yes	140 Lm	White	Warm white	100 x 100 x 5 mm	010162
LED panel square	12 V	3 W	Yes	140 Lm	Silver	Warm white	100 x 100 x 5 mm	010162.s

LED panel rectangular;LED panel rectangular

Hollex LED panel modules are the perfect choice for interior lighting, cabinet lighting,
Machine room lighting, kitchen lighting, mosaic design etc.
• Only 5mm thin design, easy to integrate;
• Warm white, high light output, 50 lm / W;
• Excellent light distribution;
• Simple installation, Plug-and-play;
• OLED look and better priced;
• Longer life and reliability than OLED.
There are currently 5 shapes available: Square, Rectangle (2 sizes),
Triangle and Quartz circle, incl. Fixing and finishing materials

CE | **330 Lm**

Description	Voltage	Power	Color luminaire	Lightcolor	Dimmable	Brightness	L x W x H	Item no.
LED panel rectangular	12 V	6 W	White	Warm white	Yes	330 Lm	200 x 100 x 5 mm	010163
LED panel rectangular	12 V	9 W	White	Warm white	Yes	475 Lm	300 x 100 x 5 mm	010164

LED panel triangle

Hollex LED panel modules are the perfect choice for interior lighting, cabinet lighting, achinekamer lighting, kitchen lighting, mosaic design etc.
• Only 5mm thin design, easy to integrate;
• Warm white, high light output, 50 lm / W;
• Excellent light distribution;
• Simple installation, Plug-and-play;
• OLED look and better priced;
• Longer life and reliability than OLED.
There are currently 5 shapes available: Square, Rectangle (2 sizes),
Triangle and Quartz circle, incl. Fixing and finishing materials

CE 100 Lm

Description	Voltage	Power	Color luminaire	Lightcolor	Dimmable	Brightness	L x W x H	Item no.
LED panel triangular	12 V	2 W	White	Warm white	Yes	100 Lm	100 x 100 x 100 mm	010160

LED panel bow

Hollex LED panel modules are the perfect choice for interior lighting, cabinet lighting, achinekamer lighting, kitchen lighting, mosaic design etc.
• Only 5mm thin design, easy to integrate;
• Warm white, high light output, 50 lm / W;
• Excellent light distribution;
• Simple installation, Plug-and-play;
• OLED look and better priced;
• Longer life and reliability than OLED.
There are currently 5 shapes available: Square, Rectangle (2 sizes),
Triangle and Quartz circle, incl. Fixing and finishing materials

CE 475 Lm

Description	Voltage	Power	Color luminaire	Lightcolor	Dimmable	Brightness	L x W x H	Item no.
LED panel bow	12 V	7 W	White	Warm white	Yes	475 Lm	300 x 100 x 5 mm	010161

LED bar aluminum

A robust simple lighting, warm white and IP65. This lamp is ideal as, for example, engine room lighting.
To connect you need a 3.5-female connection cable.

CE

Pos.	Description	Voltage	Power	Dimmable	Brightness	Lightcolor	Color luminaire	Material	L x W x H	Item no.
3	Adapter 180°									0100.41001
4	Adapter 90°									0100.41002
1	LED bar	10-30 V	3.5 W	External	236 Lm	Warm white	Aluminum	Aluminum	300 x 25 x 9 mm	0100.11053
2	LED bar	10-30 V	3.5 W	Yes	236 Lm	Warm white	Aluminum	Aluminum	300 x 25 x 9 mm	0100.11073
5	LED bar	12 V	4.3 W	Yes	250 Lm	Warm white	White	PVC	600 x 16 x 22 mm	0100.11303
1	LED bar	10-30 V	5.5 W	External	384 Lm	Warm white	Aluminum	Aluminum	500 x 25 x 9 mm	0100.11056
2	LED bar	10-30 V	5.5 W	Yes	384 Lm	Warm white	Aluminum	Aluminum	500 x 25 x 9 mm	0100.11076
1	LED bar	10-30 V	8.5 W	External	620 Lm	Warm white	Aluminum	Aluminum	800 x 25 x 9 mm	0100.11059
2	LED bar	10-30 V	8,5 W	Yes	620 Lm	Warm white	Aluminum	Aluminum	800 x 25 x 9 mm	0100.11079

LED Miniflex & Minispot reading light

Modern reading lamps made with high power led, made with switch and brushed surface, these lamps are nickel plated. Available in two versions.

CE   Lm 90

Pos.	Description	Voltage	Power	Dimmable	Brightness	Lightcolor	Length	Item no.
1	LED mini spot, reading lamp	12 V	1.5 W	No	90 Lm	Warm white	90 mm	0100.13503
2	LED mini flex	12 V	1.5 W	No	90 Lm	Warm white	220 mm	0100.13603

Light fixtures

With these fixtures it is possible to use Led replacement lamps in your ship. Available in various versions.

CE

Pos.	Description	Color luminaire	Installation diam. x depth	Outer diam.	Cut out size Ø	Item no.
1	Armature	Chrome satin	68 - 72 x 80 mm	83 mm	68 - 72 mm	0100.53113
2	Armature	Chrome	68 - 72 x 80 mm	83 mm	68 - 72 mm	0100.53123
3	Armature	Brass	68 - 72 x 80 mm	83 mm	68 - 72 mm	0100.53133
4	Armature	Brushed chroom	68 - 72 x 90 mm	83 mm	65 - 72 mm	0100.63241

Courtesy lights

Hella Courtesy lamp 8537

This LED lighting is suitable for indoor and outdoor use. The lamps can be used properly for lighting stairs or as emergency lighting. Model 9560 is useful as an emergency lighting for emergency lighting or lighting of stairs and storage spaces. The lighting is waterproof in accordance with IP6K6 / IP6K7 standards (DIN 40050). Type 9073 and 8537 are led-emitting lamps and waterproof in accordance with IP5K6 standards (DIN 40050). These two models are CE-approved. All models are pre-wired and are supplied with marine cable: 500 mm with type 9560, 2.5 m with type 9073 and 120 mm with type 8537. Consumption max. Type 9560 and 8537: 0.5W Mounting depth type 8537: 20 mm

CE

Pos.	Description	Voltage	Power	Color luminaire	Lightcolor	Item no.
3	Led lighting	12 V	0,5 W	Black	Red	010108
-	Stainless steel rim type 8538			Chrome satin		9AR959 685-061
-	Cover for type 8537			Chrome		9AR998 019-001
-	Stainless steel rim type 8537			Brass		9AR998 019-011
3	Led lighting	10-33 V	0,5 W	Black	White	010109

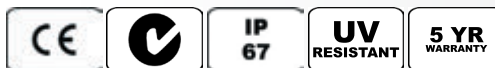## Hella Courtesy light 8560

Attractive and timeless LED courtesy lighting for a wide variety of interior and exterior lighting applications. Light is radiated downward at an angle of 30° making these lamps ideal for illuminating on board areas such as steps, stairs, toe kicks, storage areas, companion ways, deck fittings, signs and switches. Dualvolt electronics ensure constant light output in 12V or 24V DC systems. Easy Fit series lamps are completely sealed, shock and vibration resistant and represent reliable 'fit and forget' technology.Each lamp is pre-wired with 120mm of marine tinned cable and supplied with stainless steel screws.
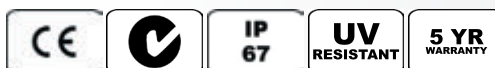
Pos.	Description	Voltage	Power	Color luminaire	Lightcolor	Item no.
1	Step lamp	12/24 V	0,5 W	Chrome	White	010124
	Step lamp	12/24 V	0,5 W	Chrome	Warm white	010130
2	Step lamp	12/24 V	0,5 W	White	White	010125

Hella Courtesy light 9680

Completely sealed and ultra durable, Hella marine LED step lamps are proven the worldwide. 9680 series lamps feature engineered optics to direct light downwards at 30 degrees safely illuminating deck and step tread surfaces without shining into the eyes. MultivoltTM electronics ensure consistent illumination across a range of input voltages and lamp protection for an ultra long service life.

Description	Voltage	Power	Color luminaire	Lightcolor	Item no.
Step lamp	10-33 V	0,5 W	Chrome	White	010126
Step lamp	10-33 V	0,5 W	Chrome	Red	010127
Step lamp	10-33 V	0,5 W	Chrome	Warm white	010129

Hella Courtesy light 9560

This LED lighting is suitable for indoor and outdoor use. The lamps can be used properly for lighting stairs or as emergency lighting. Model 9560 is useful as an emergency lighting for emergency lighting or lighting of stairs and storage spaces. The lighting is waterproof in accordance with IP6K6 / IP6K7 standards (DIN 40050). The models are pre-wired and are supplied including marine cable: 500 mm.

L x W   : 60 x 38 mm

Pos.	Description	Voltage	Power	Color luminaire	Lightcolor	L x W x H	Item no.
1	Led lighting	12/24 V	0,5 W	Black	White	38 x 60 x 30 mm	010101
1	Led lighting	12/24 V	0,5 W	Black	Red	38 x 60 x 30 mm	010102

Hella Courtesy light 9073

This LED lighting is suitable for indoor and outdoor use. The lamps can be used properly for lighting stairs or as emergency lighting. All models are pre-wired and are supplied with marine cable: 0.5m in the construction lamp strips and 2.5 at the mounting strip. Consumption max. Type 9073: 2W

Pos.	Description	Voltage	Power	Color luminaire	Lightcolor	Installation dimensions H x W x D	L x H	Item no.
3	Ledlampstrip	12 V	2 W	White	White	20 x 217 x 25,5 mm	265 x 33 mm	010105
3	Ledlampstrip	24 V	2 W	White	White	20 x 217 x 25,5 mm	265 x 33 mm	010106

Hollex Courtesy light

This new traffic light is on the front side IP67 and the back is cast. Available in three different colors and with or without aluminum finishing ring. Available only in 12V, but with a DC converter you can also apply this lighting to a 24V system. These lamps are dimmable

Installation diam. x depth : 22 x 17,2 mm
Outer diam. : 38 mm

Description	Voltage	Power	Lightcolor	Color luminaire	Item no.
Steplamp	12 V	1 W	Warm white	Aluminum	010140
Step lamp	12 V	1 W	Red	Aluminum	010142
Step lamp	12 V	1 W	Blue	Aluminum	010141
Step lamp	12 V	1 W	Warm white	Clear	010145
Steplamp	12 V	1 W	Red	Clear	010147
Step lamp	12 V	1 W	blue	Clear	010146

Prebit Courtesy light EB33

The EB33 series is a waterproof, IP67, RVS316 executed courtesy / traplamp with lamellas, which shines the angle at an angle and does not blind. Available in a Master and Slave version as well as switchable to red or blue

CE | 3000K WARM WHITE

Description	Version	Voltage	Power	Lightcolor	Color luminaire	Item no.
Courtesy light, step lamp with dimmer	Master	10-30 V	3 W	Warm white	SS316 polished	23333205
Courtesy light, step lamp no dimmer	Slave	10-30 V	3 W	Warm white	SS316 polished	23333105
Courtesy light, step lamp with dimmer	Master	10-30 V	3 W	Warm white	SS316 polished	23343205
Courtesy light, step lamp no dimmer	Slave	10-30 V	3 W	Warm white	SS316 polished	23343105
Courtesy light, step lamp with dimmer	Master	10-30 V	3 W	Warm white / red	SS316 polished	23333505
Courtesy light, step lamp with dimmer	Master	10-30 V	3 W	Warm white / red	SS316 polished	23343605
Courtesy light, step lamp no dimmer	Slave	10-30 V	3 W	Warm white / red	SS316 polished	23343505

Prebit Courtesy light EB42

The EB42 series is a waterproof, IP67, built-in stainless steel built-in lamp. Available in a Master and Slave version as well as switchable to red or blue.

CE | 3000K WARM WHITE

Description	Voltage	Power	Lightcolor	Color luminaire	Item no.
LED downlight, with dimmer	10-30 V	6 W	Warm white / red	SS316 polished	23304305
LED downlight, no dimmer	10-30 V	6 W	Warm white / red	SS316 polished	23304405

Hella Naviled Pro

The Naviled Pro is characterized by an extremely long service life with very low power consumption. Once installed, you do not need to service the led lamps. The lamp is sealed in a seawater resistant unit, pre-wired and equipped with 2.5 meter cable. Naviled Pro is shockproof and vibration resistant even under extreme conditions. With the Naviled Pro you can see up to two or three navy miles.

CE | ✔ | IMO COLREG 72 | USCG | RINA | RCD

W x H x D : 87 x 90 x 57 mm

*Specifed maximum consumption is a combination of starboard, port and fence light.

Pos.	Voltage	Description	Color luminaire	Lightcolor	Light range	Max. power	W x H x D	Item no.
-	9-33 V	Port light	Black	Red	2 NM	3,2 W	87 x 90 x 57 mm	2LT959 900-001
2	9-33 V	Starboard navigation lamp	Black	Green	2 NM	3,2 W	87 x 90 x 57 mm	2LT959 908-001
-	9-33 V	Stern navigation lamp	Black	White	2 NM	3,2 W	87 x 90 x 57 mm	2LT959 909-001
-	9-33 V	Port light	Black	Red	3 NM	3,2 W	87 x 90 x 57 mm	2LT959 900-201
2	9-33 V	Starboard navigation lamp	Black	Green	3 NM	3,2 W	87 x 90 x 57 mm	2LT959 908-201
-	9-33 V	Stern navigation lamp	Black	White	3 NM	3,2 W	87 x 90 x 57 mm	2LT959 909-201
4	9-33 V	Top light	Black	White	3 NM	3,2 W	87 x 90 x 57 mm	2LT959 940-201
1	9-33 V	Port light	White	Red	2 NM	3,2 W	87 x 90 x 57 mm	2LT959 900-011
-	9-33 V	Starboard navigation lamp	White	Green	2 NM	3,2 W	87 x 90 x 57 mm	2LT959 908-011
3	9-33 V	Stern navigation lamp	White	White	2 NM	3,2 W	87 x 90 x 57 mm	2LT959 909-011
1	9-33 V	Port light	White	Red	3 NM	3,2 W	87 x 90 x 57 mm	2LT959 900-211
-	9-33 V	Starboard navigation lamp	White	Green	3 NM	3,2 W	87 x 90 x 57 mm	2LT959 908-211
3	9-33 V	Stern navigation lamp	White	White	3 NM	3,2 W	87 x 90 x 57 mm	2LT959 909-211
-	9-33 V	Top light	White	White	3 NM	3,2 W	87 x 90 x 57 mm	2LT959 940-211

Hella Naviled Pro (BSH-approval)

The Naviled Pro BSH has all the features of the Naviled Pro but comes with BSH approval so that it can also be used in Germany. Once installed, you do not need to service the led lights. The lamp is sealed in a seawater resistant unit, pre-wired and equipped with 2.5 meter cable. Naviled Pro BSH is shock and vibration resistant even under extreme conditions. With the Naviled Pro BSH you are visible to no less than two, three or five navy miles.

CE | C | IMO COLREG 72 | USCG | ⊙ | BSH

W x H x D   : 87 x 90 x 57 mm

Specified maximum consumption is a combination of starboard, port and fence light.

Pos.	Voltage	Description	Color luminaire	Lightcolor	Light range	Max. power	Item no.
-	9-33 V	Port light	Black	Red	2 NM	3,2 W	2LT959 900-501
2	9-33 V	Starboard navigation lamp	Black	Green	2 NM	3,2 W	2LT959 908-501
-	9-33 V	Stern navigation lamp	Black	White	2 NM	3,2 W	2LT959 909-501
-	9-33 V	Bi-Colour light	Black	Red / green	2 NM	3,2 W	2LT959 941-001
5	9-33 V	Top light	Black	White	3 NM	3,2 W	2LT959 940-601
-	9-33 V	Top light	Black	White	5 NM	3,2 W	2LT959 940-401
1	9-33 V	Port light	White	Red	2 NM	3,2 W	2LT959 900-511
-	9-33 V	Starboard navigation lamp	White	Green	2 NM	3,2 W	2LT959 908-511
3	9-33 V	Stern navigation lamp	White	White	2 NM	3,2 W	2LT959 909-511
4	9-33 V	Bi-Colour light	White	Red / green	2 NM	3,2 W	2LT959 941-011
-	9-33 V	Top light	White	White	3 NM	3,2 W	2LT959 940-611
-	9-33 V	Top light	White	White	5 NM	3,2 W	2LT959 940-411

Hella Navigation lights

Hella Naviled Pro HD

The Naviled Pro HD has all of the Naviled Pro and BSH features, with an extra heavy lens in Grilamid, which can damage it less quickly. Once installed, you do not need to service the led lamps. The lamp is sealed in a seawater resistant unit, pre-wired and equipped with 2.5 meter cable. Naviled Pro HD is shock and vibration resistant even under extreme conditions. With the Naviled Pro HD you can see up to two, three or five navy miles.

CE | C | IMO COLREG 72 | USCG | ⊙ | BSH

W x H x D   : 87 x 90 x 57 mm

Specifed maximum consumption is a combination of starboard, port and fence light.

Pos.	Voltage	Description	Color luminaire	Glass color	Light range	Max. power	Item no.
-	9-33 V	Port light	Black		2 NM	3,2 W	2LT959 900-601
1	9-33 V	Port light	White		2 NM	3,2 W	2LT959 900-611
2	9-33 V	Starboard navigation lamp	Black	Clear	2 NM	3,2 W	2LT959 908-601
-	9-33 V	Starboard navigation lamp	White	Clear	2 NM	3,2 W	2LT959 908-611
-	9-33 V	Sternlight	Black		2 NM	3,2 W	2LT959 909-601
3	9-33 V	Sternlight	White		2 NM	3,2 W	2LT959 909-611

Hella Naviled Compact

The shockproof housing gives the illumination a sleek look, giving the Naviled Compact a perfect fit for both classic and modern boats. The lamps are multivolt to optimally function between 8 and 28 volts. Of course, the lamp is fully sealed, so moisture is not likely. Low power consumption (less than 2 watts) and long life are characteristic of all LED lighting. The Naviled Compact is available with bright or colored glass. The lamp comes with 120 mm marine cable, and an easy fastening system.

CE | ✓ | IMO COLREG 72 | USCG | RINA | RCD

| W x H x D | : 71 x 53 x 33 mm |
| Bolt distance | : 50 mm |

Pos.	Voltage	Description	Color luminaire	Lightcolor	Glass color	Light range	Max. power	Item no.
-	12/24 V	Port light	Black	Red		2 NM	2 W	2LT980 520-001
3	12/24 V	Starboard navigation lamp	Black	Green		2 NM	2 W	2LT980 520-201
2	12/24 V	Port light	Black	Red		2 NM	2 W	2LT980 520-101
-	12/24 V	Starboard navigation lamp	Black	Green		2 NM	2 W	2LT980 520-301
5	12/24 V	Stern navigation lamp	Black	White		2 NM	2 W	2LT980 520-501
	12/24 V	Tow light	White	Amber	Clear	2 NM	2 W	2LT980 520-611
1	12/24 V	Port light	White	Red		2 NM	2 W	2LT980 520-011
-	12/24 V	Starboard navigation lamp	White	Green		2 NM	2 W	2LT980 520-211
-	12/24 V	Port light	White	Red		2 NM	2 W	2LT980 520-111
4	12/24 V	Starboard navigation lamp	White	Green		2 NM	2 W	2LT980 520-311
6	12/24 V	Stern navigation lamp	White	White		2 NM	2 W	2LT980 520-511
	12/24 V	Tow light	Black	Amber	Clear	2 NM	2 W	2LT980 520-601

Hella Navigation light 3562

Matt black or white lamphouse of seawater resistant anti-magnetic material. Mounting directly on the wall. Approved for sports boats on inland waterways up to 7 meters in length. Comes with 12-volt tube lamp SV8.5. Watertightness: IP54

CE | IMO COLREG 72 | USCG | RCD | ABYC A16 | IP 54

| W x H x D | : 63 x 75 x 53 mm |

Pos.	Voltage	Description	Color luminaire	Lightcolor	Light range	Item no.
4	12 V	Starboard navigation lamp	Black	Green	1 NM	0841.01
2	12 V	Port light	Black	Red	1 NM	0841.02
3	12 V	Top light	Black	White	2 NM	0843
1	12 V	Stern navigation lamp	Black	White	2 NM	0844
-	12 V	Bi-Colour light	Black	Red / green	1 NM	0845
6		Mounting bracket	Black			0846
-	12 V	Starboard navigation lamp	White	Green	1 NM	0871.01
-	12 V	Port light	White	Red	1 NM	0871.02
-	12 V	Top light	White	White	2 NM	0873
-	12 V	Stern navigation lamp	White	White	2 NM	0874
-	12 V	Bi-Colour light	White	Red / green	1 NM	0875

Hella Navigation light 2984

CE IMO COLREG 72 USCG RCD ABYC A16 BSH

Pos.	Voltage	Description	Color luminaire	Lightcolor	Light range	Item no.
1	12 V	Starboard navigation lamp	Black	Green	2 NM	0851.01
-	12 V	Port light	Black	Red	2 NM	0851.02
3	12 V	Top light	Black	White	3 NM	0853
-	12 V	Stern navigation lamp	Black	White	2 NM	0854
-	12 V	Bi-Colour light	Black	Red / green	2 NM	0810
-	12 V	Starboard navigation lamp	White	Green	2 NM	0861.01
2	12 V	Port light	White	Red	2 NM	0861.02
-	12 V	Top light	White	White	3 NM	0863
-	12 V	Stern navigation lamp	White	White	2 NM	0864
-	12 V	Bi-Colour light	White	Red / green	2 NM	0811
4		Mounting bracket				0852
5		Pedestal	Black			0857
-		Pedestal	White			0858

Hella NaviLED Trio Tri colour navigation light

This new three-color lamp with anchor light is made of high-quality materials and features state-of-the-art art technology. The lamp is equipped with an advanced heavy duty lens and a robust, UV and shock resistant housing. The lamp has been sealed, so no penetration of sea water is possible. The energy-efficient leds for port, starboard and fence lights consume less than 3.5 watts; The anchor light consumes less than 1.5 watts. The multivolt lamp guarantees constant, safe lighting at a voltage between 8 and 28 volts. The stainless steel 316 mounting tube provides reliable, easy-to-use and reliable protection of electrical connections. Pre-wired with 400 mm marine cable.

CE C IMO COLREG 72 USCG BSH ABYC A16

Diam. x Height : 95 x 85 mm

Voltage	Description	Color luminaire	Lightcolor	Light range	Max. power	Item no.
12/24 V	Tri Colour nagivation lamp + anchor light	Black	Red / green / white	2 NM	3,5 / 1,5 W	2LT980 650-001

Hella Navigiation lights 2984

Tri-Colour lamps, and Tri-Colour lamps with an integrated All Round White / Anchor Lamp for attachment to yacht masts.

CE | IMO COLREG 72 | USCG | RCD | ABYC A16 | BSH

Diam. x Height : 88 x 107 mm

Pos.	Voltage	Description	Color luminaire	Lightcolor	Light range	Item no.
1	12 V	Tri-Colour nagvigation lamp	Black	Red / green / white	2 NM	0802
2	12 V	Tri-Colour / Anchor navigation lamp	Black	Red / green / white	2 NM	0801
3	12 V	Signal light red	Black	Red	2 NM	0804
-	12 V	Signal light green	Black	Green	2 NM	0805
-	12 V	Signal light white	Black	White	2 NM	0803
4	12 V	Signal light white	White	White	2 NM	0813

Hella Anchorlight NaviLED 360 compact

Hella marine NaviLED 360 lamps feature single LED efficiency, advanced MultivoltTM electronics and precision optics for reliable and highly visible all round lighting. The restyled NaviLED 360 Compact All Round / Anchor lamp Hella marine series exists of pole mounted versions with fixed, fold down and plug-in base options. The NaviLED 360 Compact series is long term durable in demanding marine environments. A power consumption of less than 1W power offers exceptional power efficiency for a 2 NM all round anchor lamp. Each lamp is completely sealed (IP67) and manufactured using Swiss Made Grilamid with unsurpassed properties. Long term stability against UV degradation coupled with high impact and chemical resistant meaning these lamps will not yellow, become embrittled or corrode. Internationally approved the NaviLED 360 series meets the requirements of COLREG, USCG, ABYC-16, RCD and WHEELMARK. MultivoltTM circuitry provides constant illumination and circuit protection from 9-33V DC.

CE

Voltage	Description	Color luminaire	Lightcolor	Length	Light range	Diam. x Height	Item no.
12/24 V	Anchor light	Black	White		2 NM	60 x 56 mm	2LT980 960-001
12/24 V	Anchor light fixed	Black	White	167 mm	2 NM		2LT980 960-201
12/24 V	Anchor light foldable	Black	White	605 mm	2 NM		2LT980 960-341
12/24 V	Anchor light foldable	Black	White	1015 mm	2 NM		2LT980 960-461
12/24 V	Anchor light	White	White		2 NM	60 x 56 mm	2LT980 960-011
12/24 V	Anchor light fixed	White	White	167 mm	2 NM		2LT980 960-211
12/24 V	Anchor light foldable	White	White	605 mm	2 NM		2LT980 960-351
12/24 V	Anchor light foldable	White	White	1015 mm	2 NM		2LT980 960-471

Hella Anchorlight NaviLED 360 compact surface mount

The Naviled 360 anchor lights are energy efficient and reliable. This all round lamp is available with a waterproof and UV and corrosion resistant black or white house that is suitable for build-up. With less than 2 watts of power, a white light beam is produced from at least 2 nautical miles. Using high-quality materials, the lights are maintenance-free and have a long service life. The lamps are multivolt to optimally function between 9 and 33 volts. The anchor lights are pre-wired with marine cable.

Diam. x Height : 90 x 83 mm

Pos.	Voltage	Description	Color luminaire	Lightcolor	Light range	Max. power	Item no.
1	12/24 V	Anchor light	Black	White	2 NM	2 W	2LT980 910-101
2	12/24 V	Anchor light	White	White	2 NM	2 W	2LT980 910-111

Hella Anchorlight 2492

This anchor light is seawater resistant, anti-magnetic and has low power consumption. This makes it ideal as a lantern on small boats. The light is available with a white or black housing, is easy to assemble and comes with a 12V light bulb BA15S.

Pos.	Voltage	Description	Color luminaire	Lightcolor	Light range	Item no.
1	12 V	Anchor light	Black	White	2 NM	0819
2	12 V	Anchor light	White	White	2 NM	818

Hella Anchorlights 2492 with support

This anchor light is seawater resistant, anti-magnetic and has low power consumption. This makes it ideal as a lantern on small boats. The light is available with a white or black housing, is easy to assemble and comes with a 12V light bulb BA15S.

Voltage	Description	Color luminaire	Length	Light range	Item no.
12 V	Anchor light	Black	935 mm	2 NM	2LT002 492-221
12 V	Anchor light	White	935 mm	2 NM	2LT002 492-241

Hella Floodlights LED Megabeam Retro module 70

In this Megabeam specially developed for the maritime sector, four led lamps produce a huge light beam comparable to that of a building or work lamp. And that with low power consumption! This compact lamp is ideal as a floodlight or floodlight. Even on boats that are subject to heavy shocks and strong vibrations, the Megabeam is a reliable and maintenance-free lamp. The Hella led Megabeam comes with a stainless steel mounting bracket for standing mounting, and two meter cable. The lamp is fully sealed and therefore protected against (sea) water. The CE-approved Megabeam LED is equipped with Hella multivolt technology. That is, the lamp can be used in both 12V and 24V circuitry, and is protected against peaks and drops between 9 and 30 volts.

Pos.	Model - Type	Power	Color luminaire	Brightness	W x H x D	Item no.
1	Megabeam	15 W	Black	800 Lm	83 x 83 x 74 mm	1G0996 276-452
2	Megabeam	15 W	White	800 Lm	83 x 83 x 74 mm	1G0996 276-452

Hella Floodlights LED Module 70

Despite its small dimensions, the new Module 70 Gen 4 has three high-performance LEDs that generate 2100 lumens of crisp white light while consuming just 21W of power. (1.75A @ 12V DC). The close-range lens offers a wide and even distribution, ideal for cockpit, foredeck and work area illumination. Completely sealed (IP6K9K) and coated with the new CoroSafe technology this lamp is particularly suitable for the tough marine environment. Offering improved protection from damage with two extra layers and the combination of different coating processes, making the work lamp substantially more resistant to corrosion. Advanced Multivolt 9-33V electronics ensure reliable illumination and lamp protection even under sever voltage fluctuations and low battery conditions. Pre-wired with marine cable and a single bolt 316 stainless steel bracket, this work light can be installed quickly. Like all Hella marine LED lamps the Module 70 is supported with a 5 year warranty forcomplete peace of mind.

Model - Type	Voltage	Power	Color luminaire	Brightness	Item no.
Hella Module 70 "Close" black 2500LM 9-33V	9-33 V	21 W	Black	2100 Lm	1G0996 476-211
Hella Module 70 "Long " black 2500LM 9-33V	9-33 V	21 W	Black	2100 Lm	1G0996 476-221
Hella Module 70 "Close" white 2500LM 9-33V	9-33 V	21 W	White	2100 Lm	1G0996 476-191
Hella Module 70 "Long" white 2500LM 9-33V	9-33 V	21 W	White	2100 Lm	1G0996 476-201

Hella Floodlights LED Megabeam Gen. III

In this Megabeam specially developed for the maritime sector, four led lamps produce a huge light beam comparable to that of a building or work lamp. And that with low power consumption! This compact lamp is ideal as a floodlight or floodlight. Even on boats that are subject to heavy shocks and strong vibrations, the Megabeam is a reliable and maintenance-free lamp. The Hella led Megabeam comes with a stainless steel mounting bracket for standing mounting, and two meter cable. The lamp is fully sealed and therefore protected against (sea) water. The CE-approved Megabeam LED is equipped with Hella multivolt technology. That is, the lamp can be used in both 12V and 24V circuitry, and is protected against peaks and drops between 9 and 30 volts.

Pos.	Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Item no.
2	Megabeam	9-30 V	13 W	Black	800 Lm	110 x 120 x 83 mm	1GM996 136-351
1	Megabeam	9-30 V	13 W	White	800 Lm	110 x 120 x 83 mm	1GM996 136-342

Hella Docking lights Xenon & Halogen

Compact, recessed arc spotlight with an advanced 'DE' lens. The lens provides a wide light angle that illuminates the immediate environment on the front of the bow. The principle of a 'DE' lamp is similar to a projector. An ellipsoid reflector directs the light onto a bulky lens that projects the light on the cleverly designed light distribution. Made with polished stainless steel 316 housing. Protection class IP67. The Xenon lamp consumes less power than the halogen lamp, gives 2.5 times more light and goes five times longer.

Pos.	Model - Type	Voltage	Power	Version	Color luminaire	Item no.
1	Bow searchlight	12 V	55 W	Halogen (H3 lamps included)	SS316 polished	1NB998 546-841
2	Bow searchlight	12 V	35 W	Xenon (D25 lamps included)	SS316 polished	1NB998 546-861

Hella Floodlights Halogen

The Hella deck searchlight are made of robust plastic and can withstand a push. They ensure a homogeneous lighting of your deck, with the "square" 0121 the largest lighting field. The spotlights are supplied including halogen lamp. For easy mounting, a sturdy bracket is available.

Pos.	Model - Type	Description	Voltage	Color luminaire	Item no.
1	7118	Deck search light	12 V	White	0122
2	8517	Deck search light	12 V	White	0121
3	7118, 8517	Bracket for 0121 and 0122			0122.01

Hella Floodlights Oval 100

The Hella covers are made of robust plastic and can withstand a push. They ensure a homogeneous lighting of your deck, with the "square" 0121 the largest lighting field. The spotlights are supplied including halogen lamp. For easy mounting, a sturdy bracket is available.

Model - Type	Voltage	Color luminaire	W x H x D	Item no.
Oval 100	12 V	White	165 x 105 x 74 mm	1GA996 361-131
Oval 100	24 V	White	165 x 105 x 74 mm	1GA996 361-391

Hella Floodlight Seahawk

The Sea Hawk & Flush series is available on board. For example, consider the wheelhouse, the engine room and the front and rear deck. The led lights give an intense bright white light, are energy-saving, lightweight and they are made of high-quality materials. The housing is made of robust plastic. The holder of the Sea Hawk is made of polished stainless steel 316. You can easily rotate this holder. These wide radiators are suitable for the deck, the engine room and the wheelhouse. For those who want to install the lamp, the Flush is available. New is the Sea Hawk in XL version. This has three rows of leds, instead of the standard two rows. The XL is dimmable in two steps.

Pos.	Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Installation dimensions L x W x D	Item no.
1	Sea Hawk spread	9-33 V	3 W	Black	200 Lm	136 x 42 x 49 mm		2LT980 670-301
-	Sea Hawk spread	9-33 V	3 W	White	200 Lm	136 x 42 x 49 mm		2LT980 670-311
2	Sea Hawk XL spread	9-33 V	12 W	Black	750 Lm	170 x 55 x 58 mm		2LT980 950-001
-	Sea Hawk XL spread	9-33 V	12 W	White	750 Lm	170 x 55 x 58 mm		2LT980 950-011
3	Sea Hawk flush spread	9-33 V	3 W	Black	200 Lm	176 x 50 x 12 mm	132 x 42x 35 mm	2LT980 747-101
-	Sea Hawk Flush spread	9-33 V		White	200 Lm	176 x 50 x 12 mm	132 x 42x 35 mm	2LT980 747-111

Hella Floodlight Seahawk (spot)

The Sea Hawk & Flush series is available on board. For example, consider the wheelhouse, the engine room and the front and rear deck. The led lights give an intense bright white light, are energy-saving, lightweight and they are made of high-quality materials. The housing is made of robust plastic. The holder of the Sea Hawk is made of polished stainless steel 316. You can easily rotate this holder. The Spot lamp gives a more bundled beam of light. This is used, for example, to relieve masts. This lamp is available as a spread version. New is the Sea Hawk in XL version. This has three rows of leds, instead of the standard two rows. The XL is dimmable in two steps.

Pos.	Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Item no.
-	Sea Hawk spot	9-33 V	3 W	Black	200 Lm	136 x 42 x 49 mm	2LT980 670-201
1	Sea Hawk spot	9-33 V	3 W	White	200 Lm	136 x 42 x 49 mm	2LT980 670-211
-	Sea Hawk spot XL	9-33 V	12 W	Black	750 Lm	170 x 55 x 58 mm	2LT980 950-201
2	Sea Hawk spot XL	9-33 V	12 W	White	750 Lm	170 x 55 x 58 mm	2LT980 950-211

Hella Floodlight LED Sea Hawk XLB (spot)

The XLB floodlights generate over 2200 lumens of crisp, white light to illuminate the hardest to see places while continuing the durability and efficiency advantages accustomed to the proven Sea Hawk range. Sea Hawk-XLB housings are precision injection moulded from thermally conductive ceramic polymer. This advanced material draws heat from internal electronics for reliable long-term operation and eliminates the need for an aluminum housing removing corrosion risks in the harsh marine environment. Integrated dual outputsHigh output (2200 Lumens / 25W) and low light (220 lumens / 5W) intensity functions in both Spread and Spot lamps. * Not available in Pencil Beam lamps. Multivolt 9-33V DCAdvanced electronics ensure constant and reliable light output and lamp protection even under severe voltage fluctuations and low battery voltages.
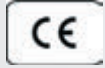
Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Item no.
Sea Hawk XLB spot	9-33 V	25 / 5 W	Black	2200 Lm	408 x 72 x 68 mm	2LT958 040-651
Sea Hawk XLB spot	9-33 V	25 / 5 W	White	2200 Lm	408 x 72 x 68 mm	2LT958 040-661

Hella Floodlight LED Sea Hawk XLB (spread)

The new XLB floodlights generate over 2200 lumens of crisp, white light to illuminate the hardest to see places while continuing the durability and efficiency advantages accustomed to the proven Sea Hawk range. Sea Hawk-XLB housings are precision injection moulded from thermally conductive ceramic polymer. This advanced material draws heat from internal electronics for reliable long-term operation and eliminates the need for an aluminum housing removing corrosion risks in the harsh marine environment. Integrated dual outputsHigh output (2200 Lumens / 25W) and low light (220 lumens / 5W) intensity functions in both Spread and Spot lamps. * Not available in Pencil Beam lamps. Multivolt 9-33V DCAdvanced electronics ensure constant and reliable light output and lamp protection even under severe voltage fluctuations and low battery voltages.

CE

Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Item no.
Sea Hawk XLB spread	9-33 V	25 / 5 W	Black	2200 Lm	408 x 72 x 68 mm	2LT958 040-701
Sea Hawk XLB spread	9-33 V	25 / 5 W	White	2200 Lm	408 x 72 x 68 mm	2LT958 040-711

Hella LED Sea Hawk bracket

With this bracket it is possible to mount two Seahawk XLB led lamps above each other. Made of stainless steel 316

Material	Item no.
SS 316	8HG958 128-811

Hella Floodlight LED Sea Hawk XLR (spot)

The model XLR has 1300 lumens of crisp, white, darkness-busting illumination with all the proven Sea Hawk durability and efficiency advantages. Sea Hawk XLR housings are precision injection moulded from thermally conductive ceramic polymer. This advanced material draws heat from internal electronics for reliable long-term operation and eliminates the need for an aluminum housing in this class of floodlight, removing corrosion risks in the harsh marine environment. Built-in convenience of switching between High level full intensity and low level dimmed output. Advanced electronics ensure reliable illumination and lamp protection even under severe voltage fluctuations and low battery voltages.

CE

Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Item no.
Sea Hawk XLR spot	9-33 V	18 / 2 W	Black	1300 Lm	170 x 68 x 58 mm	2LT980 740-201
Sea Hawk XLR spot	9-33 V	18 / 2 W	White	1300 Lm	170 x 68 x 58 mm	2LT980 740-211

Hella Floodlight LED Sea Hawk XLR (spread)

The model XLR has 1300 lumens of crisp, white, darkness-busting illumination with all the proven Sea Hawk durability and efficiency advantages. Sea Hawk XLR housings are precision injection moulded from thermally conductive ceramic polymer. This advanced material draws heat from internal electronics for reliable long-term operation and eliminates the need for an aluminum housing in this class of floodlight, removing corrosion risks in the harsh marine environment. Built-in convenience of switching between High level full intensity and low level dimmed output. Advanced electronics ensure reliable illumination and lamp protection even under severe voltage fluctuations and low battery voltages.

Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Item no.
Sea Hawk XLR spread	9-33 V	18 / 2 W	Black	1300 Lm	170 x 68 x 58 mm	2LT980 740-001
Sea Hawk XLR spread	9-33 V	18 / 2 W	White	1300 Lm	170 x 68 x 58 mm	2LT980 740-011

Hella Floodlight LED Sea Hawk R (spread)

Sea Hawk-R housings are 'Non-metal', precision injection moulded from thermally conductive ceramic polymer that is highly resistant to degradation, even under harsh UV. Effectively transferring heat away from internal electronics to external surfaces for reliable long-term operation, Hella marine's thermal polymer eliminates the requirement for an aluminum housing in this class of floodlight, removing potential surface deterioration and material corrosion risks associated with coated metal in the harsh marine environment. The Sea Hawk-R offers 550 lumens for only 7W of consumption. The engineered optical system illuminates with a wide, close-range spread over cockpits, foredecks or working areas on commercial and recreational vessels. Hella marine benchmarks such as protected 9-33V internal electronics, sealed, pre-wired cable assemblies, Grilamid lens for strength and UV resistance, easy friction based vertical adjustment, 316 stainless steel brackets and fastenings and the well-recognised 'Fit and Forget' 5 Year LED warranty are further advantages of the Sea Hawk series.
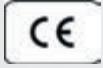
Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Item no.
Sea Hawk-R	9-33 V	7 W	Black	550 Lm	136 x 53 x 46 mm	2LT980 573-011
Sea Hawk-R	9-33 V	7 W	White	550 Lm	136 x 53 x 46 mm	2LT980 573-021

Hella Floodlight AS3 (spot)

A very powerful work lamp in led design with 2700 Lumen, available as a wide radiator and diffuser. The AS3 LED has 45 watts power consumption, at dim position 20W. The color temperature is 5000K, comparable to daylight. An integrated dimfunction can reduce the light output to about 50%, which is operated via an additional cable. The integrated thermal protection ensures a long life of the electrical components, even at extreme temperatures (- 40 ° to + 50 ° C). The lamp is also resistant to varying power supply. The housing has a coating that is resistant to dirt and salt and can be cleaned with a high pressure cleaner. The lamp comes with a stainless steel mounting bracket. Dimensions: W x H x D = 204 x 168 x 109 mm

Model - Type	Voltage	Power	Version	Color luminaire	Brightness	W x H x D	Item no.
AS3 LED spot	24 V	45 / 20 W	Spot	Black	2700 Lm	204 X 168 X 109 mm	2LT958 060-121
AS3 LED spot	12 V	45 / 20 W	Spot	Black	2700 Lm	204 X 168 X 109 mm	2LT958 060-511

Hella Floodlight AS3 (spread)

A very powerful work lamp in led design with 2700 Lumen, available as a wide radiator and diffuser. The AS3 LED has 45 watts power consumption, at dim position 20W. The color temperature is 5000K, comparable to daylight. An integrated dimfunction can reduce the light output to about 50%, which is operated via an additional cable. The integrated thermal protection ensures a long life of the electrical components, even at extreme temperatures (- 40 ° to + 50 ° C). The lamp is also resistant to varying power supply. The housing has a coating that is resistant to dirt and salt and can be cleaned with a high pressure cleaner. The lamp comes with a stainless steel mounting bracket. Dimensions: W x H x D = 204 x 168 x 109 mm
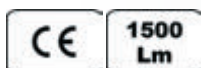

Model - Type	Voltage	Power	Version	Color luminaire	Brightness	W x H x D	Item no.
AS3 LED spread	24 V	45 / 20 W	Spread	Black	2700 Lm	204 X 168 X 109 mm	2LT958 060-021
AS3 LED spread	12 V	45 / 20 W	Spread	Black	2700 Lm	204 X 168 X 109 mm	2LT958 060-411

Hella Floodlight AS5000

CISPR25 Class 2 | ISO 13766 2006 | HD Grilamid lens | UV RESISTANT

Model - Type	Voltage	Power	Version	Color luminaire	Brightness	W x H x D	Item no.
Type AS 5000 led	9-33 V	60 W	Spread	Black	5000 Lm	204 x 168 x 160 mm	1GA011 293-081
Type AS 5000 led	9-33 V	60 W	Spot	Black	5000 Lm	204 x 168 x 160 mm	1GA011 293-091
Cable DT	9-33 V						8ES910 345-041

Hella Floodlight Hypalume

A very powerful work lamp in LED version with 20000 Lumen, available as a wide radiator. The ALS 5000LED has 240 watts power consumption (10 A @ 24V), and a color temperature of 5700 Kelvin, comparable to daylight. The integrated thermal protection ensures a long life of the electrical components, even at extreme temperatures (- 40 ° to + 50 ° C). The lamp is also resistant to varying power supply. The housing has a coating that is resistant to dirt and salt and can be cleaned with a high pressure cleaner. The lamp comes with a stainless steel mounting bracket.

CE | CISPR25 Class 2 | ISO 13766 2006 | HD Grilamid lens | UV RESISTANT

Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Item no.
HypaLUME	18-52 V	240 W	Black	20000 Lm	504 x 380 x 167 mm	1GA011 872-121

Hollex Floodlights rectangular

With these spotlights, available in a spot and spread version, you have an ideal worklight to explain your deck, for example. Equipped with EPISTAR quality leds, mounted in an aluminum housing with stainless steel bracket (stainless steel304, moderate to salt).

CE | 1500 Lm

Pos.	Model - Type	Voltage	Power	Color luminaire	Brightness	W x H x D	Item no.
2	Hollex Floodlights	10-30 V	48 W	Black	1500 Lm	165 x 40 x 45 mm	0100.58181
1	Hollex Floodlights	10-30 V	48 W	White	1500 Lm	165 x 40 x 45 mm	0100.58182
-	Hollex Floodlights	10-30 V	48 W	Black	1500 Lm	165 x 40 x 45 mm	0100.58186
-	Hollex Floodlights	10-30 V	48 W	White	1500 Lm	165 x 40 x 45 mm	0100.58187

Hollex searchlight square

These new line spotlights feature quality powerleds of the EPISTAR brand. The aluminum housing is equipped with cooling ribs and is coated. The mounting bracket is made of stainless steel (stainless steel304, moderate to salt). Available in a spot and a spread version.

CE | 4000 Lm

Model - Type	Voltage	Power	Version	Color luminaire	Brightness	W x H x D	Item no.
Hollex searchlight	10-30 V	48 W	Spot	Black	4000 Lm	110 x 110 x 72 mm	0100.58481
Hollex searchlight	10-30 V	48 W	Spread	Black	4000 Lm	110 x 110 x 72 mm	0100.58486

Hella Hand held searchlight

Long range search lights with the energy saving advantages of Hella marine LED technology. Hella marine hand held search lights are vital tools for night sailing and essential for spotting looming obstacles from a safe distance, or dependable light in an emergency. Rugged construction and a new Corosafe coating system is specifically designed for the harsh marine environments so ideal for Coast Guard, fishing vessels, sailing boats and all types of recreational and commercial vessels. MultivoltTM technology ensures reliable illumination and lamp protection even under severe voltage fluctuations and low battery conditions. Advanced electronics provide reverse polarity, spike and over-voltage protection for long life and reliable operation.

CE
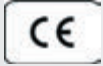
Description	Voltage	Power	Color luminaire	Brightness	Nr. of LED's	Item no.
Hand Held Search Light Long Range	10-30 V	30 W	Black	2500 Lm	3	1G0996 476-501
Hand Held Search Light Close Range	10-30 V	30 W	Black	2500 Lm	3	1G0996 476-511
Deck support Hella handsearchlight						8HG998 519-001

Hella Hand held searchlight (roof mount)

Searchlight for roof mounting, with cab control. This searchlight is made with a double lens and 2 lamps. Both lamps can be switched separately by means of 2 switches.

CE

Description	Voltage	Power	Color luminaire	Item no.
Hella searchlight roof mounting	12 V	2 x 55 W	Black	1H3998 502-021
Hella searchlight roof mounting	24 V	2 x 70 W	Black	1H3998 502-041

Marinco searchlights

This modern styled spotlight can be placed very easily. Bee
Installation, you only need to plug in a power supply and power, the operation goes completely wireless with the supplied remote control (model SPLR-2). This spotlight can also be mounted on the head without any problems.
Features:
• 370 ° rotation, 120 ° tilt (75 ° up, 45 ° downward)
• Maximum light intensity 210,000 candela
• Range: 300 mtr max.
• One-Touch Search, S.O.S. function
• UV and corrosion resistant housing
• 12V or 24V power supply, 100Watt H3 halogen lamp (12V mounted, 24V included)
• Includes wireless dashboard operation, wireless manual operation optional
• IP56

Remote control SPLR / 2 included, 12 volt lamp is mounted 24V version in the box

Description	Voltage	Power	Color luminaire	Item no.
Marinco SPL	12/24 V	100 W	Black	SPL-12B
Marinco SPL	12/24 V	100 W	Chrome	SPL-12C
Marinco SPL	12/24 V	100 W	White	SPL-12W
Bridge mount control				SPLR-2
Hand-held control				SPLR-1

Jabsco Searchlights SL

These Jabsco searchlights come complete with remote controls. Tough, weatherproof and corrosion resistant design. They are available in five types. Sealed beam halogen bulb. The 146 SL, 155 SL, 233 SL and 255 SL can move in two speeds, for easier searching the water surface. Supplied complete with watertight remote control for both horizontal and vertical movement by single joystick control and 2.5 m harness.
For your convenience, a second control panel complete with connections can be supplied as well.
Searchlight type 233 SL is a new model with some new features. This modern light has a Spot/Flood feature, to change the beam configuration steplessly from a spot to a flood. Another unique feature is the Auto Sweep. This means the light will continuously sweep ten degrees each side of the initial target spot. This powerful dual beam searchlight comes with a more advanced control compared to the other SL types.

CE

Model - Type	Voltage	Power	Current	Color luminaire	Turning radius horizontal	Turning cricle vertical	Candela	L x W x H	Item no.
135 SL	12 V	50 W	4 A	White	320° °	75° °	100.000	185 x 180 x 210 mm	013001
135 SL	24 V	50 W	2 A	White	320° °	75° °	100.000	185 x 180 x 210 mm	013002
146 SL	12 V	50 W	4 A	White	360° °	60° °	175.000	260 x 220 x 260 mm	013011
146 SL	24 V	50 W	2 A	White	360° °	60° °	175.000	260 x 220 x 260 mm	013012
155 SL	12 V	50 W	4 A	White	320° °	75° °	100.000	200 x 160 x 200 mm	61050-0012
155 SL	12/24 V	50 W	4 A	White	320° °	75° °	100.000	200 x 160 x 200 mm	61050-1224
233 SL	24 V	55 W	5 A	White	360° °	27° °	200.000	244 x 239 x 203 mm	60233-0024
255 SL	12 V	100 W	8 A	White	360° °	60° °	200.000	280 x 270 x 230 mm	013021
255 SL	24 V	100 W	4 A	White	360° °	60° °	200.000	280 x 270 x 230 mm	013022

Jabsco Searchlights RC

Jabsco's chromed or brass remote controlled searchlights are available in four models. All are with a sealed beam halogen bulb, only two models RC 150 are fitted with a Xenon HID (High Intensity Discharge) bulb. With the 12V-version of the RC 130 and RC 180 you can change the beam's width by the control panel. Variable speed remote control for both horizontal and vertical movement for fast search and precise targeting, by single joystick control. The searchlights are supplied with panel and 2.5 m harness (the RC 150 includes 4.5 m harness).
Of course we can supply you with longer cables and extra controls when desired.

Model - Type	Voltage	Power	Current	Turning radius horizontal	Turning cricle vertical	Candela	L x W x H	Item no.
RC 150	12/24 V	100 W	15,0 A	360 °	70 °	200.000	150 x 280 x 330 mm	63022-0012
RC 180	12 V	100 W	8,4 A	450 °	70 °	200.000	180 x 280 x 330 mm	013071
RC 180	24 V	170 W	7 A	450 °	70 °	230.000	180 x 280 x 330 mm	013072
RC 200	24 V	250 W	7,8 A	450 °	70 °	500.000	210 x 280 x 360 mm	013082

Parts for Jabsco searchlights

Geen tekst in de catalogus

Model - Type	Description	Voltage	Item no.
135 SL	Second control panel	12/24 V	013030
146 SL / 155 SL / 255 SL / RC 130 / RC 150 / RC 180	Second control panel	12 V	013031
255 SL / RC 150 / RC 180 / RC 200	Second control panel	24 V	013033
RC / SL	Wiring cable*		013040
RC / SL	Wiring cable*		013041
RC / SL	Wiring cable*		013042
RC / SL	Wiring cable*		013043
155 SL	Tubelight 12Volt 5Watt SV8.5 / 43mm	24 V	64044-0000
233 SL	Second control panel	12/24 V	63233-1224

Underwater light SMX

Lumishore Underwater lighting for yachts up to 18 meters. The lighting has an output of 800 - 2300 fixture lumens, works above and below water and features ATRB Active thermal roll-back. Suitable for 10-31V with a constant light output. The SM100 is equipped with warning system for low battery voltage and polarity protection. The housing is made of
corrosion-resistant polymer AOM.

CE **3200 Lm**

Model - Type	Voltage	Current	Brightness	Item no.
SMX100	10-31 V	3.0 / 1.5 A	3200 Lm	SMX100B
SMX100	10-31 V	3.0 / 1.5 A	3200 Lm	SMX100G
SMX100	10-31 V	3.0 / 1.5 A	3200 Lm	SMX100W
SMX20	10-31 V	1.0 / 0.5 A	1000 Lm	SMX20B
SMX20	10-31 V	1.0 / 0.5 A	1000 Lm	SMX20G
SMX20	10-31 V	1.0 / 0.5 A	1000 Lm	SMX20W
SMX50	10-31 V	1.5 / 0.75 A	1000 Lm	SMX50B
SMX50	10-31 V	1.5 / 0.75 A	2100 Lm	SMX50G
SMX50	10-31 V	1.5 / 0.75 A	2100 Lm	SMX50W

Dimmers

Dimperfect LED Dimmers

With this completely newly developed dimmer there are almost all the problems with it Dimming of LED solved. In the design, multiple functions are integrated to ensure that Make sure you can apply LED lighting easily. The main features
in a row:
- Fully silent, no buzz and screaming possible
- Pulse operated, rotary knob and touch also possible as an option
- DC stabilizer, voltage variations by chargers and the like are no longer affected
- DC-DC converter, you can use our 12V LED lights in a 24V system
- Ompool and temperature protected
- Compact dimensions
- Applicable to almost our complete program led replacement lamps and fixtures
- Memory function, dimposition is remembered without board voltage

CE
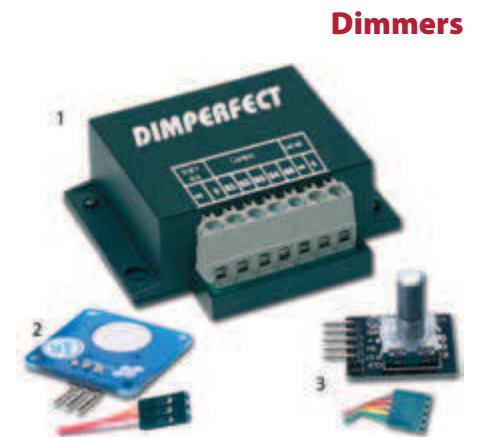
Pos.	Description	Voltage	Max. power	Item no.
1	Dimperfect 36W	10-30 V	36 W	0100.31021
-	Dimperfect 96W	10-30 V	96 W	0100.31024
3	Touchmodule for Dimperfect			0100.31022

Hollex PWM LED Dimmers Touch

This dimmer can be easily connected to the led bars by means of the plugged sockets. By simply touching the dimmer you can control it: short touch is on or it, finger stops activating the dimmer. Available in a build-up and built-in version.

Description	Voltage	Item no.
In-line Touch LED dimmer	12/24 V	0100.LEDC01
PIR sensor	10-30 V	0100.31009
Touch LED Dimmer 12/24V tbv Led Strips	12/24 V	0100.LEDC23

Hollex PWM LED Dimmers IR

This PWM dimmer can be used manually as well as with the supplied remote control. With this dimmer you can dimming both led and halogen lamps. The dimmer comes with a built-in cabinet, but it can also be mounted as a mounting.

Description	Voltage	L x W x H	Item no.
Dimmer infra-red	12/24 V	86 x 86 x 45 mm	0100.31005

Hella Halogen Dimmers

The 2 Group Dimmer increases bulb life through sophisticated internal voltage regulation, ensuring the lighting circuit voltage does not rise above 12V or 24V. As halogen bulbs also have a high inrush current on start up, the 2 Group Dimmer features 'soft-start' to further lengthen bulb life.

Description	Voltage	Power	Power per group	Item no.
Dimmer	12/24 V	200 / 400 W	100 / 200 W	5XA998 572-001

Inprojal Halogen Dimmers

These dimmers are indispensable on each ship. Within a instant you create mood lightning, or just enough light to read. Suitable for halogen as well as light bulbs. For the 10055 and 10058-dimmers you have to order seperately the cover, switch knob and frame (standard of Softline)

Description	Voltage	Permitted load	Item no.
Dimmer 12V 60W	12 V	60 W	10058/60
Dimmer 20 tot 105 VA	230 V	20 - 150 VA	10055/105
Dimmer 20 tot 350 VA	230 V	20 - 350 VA	10055/350

Accessories lights

Hollex LED Drivers

If you do not want to dimming your lighting, or if it is fitted with a
Integrated dimmer, you can apply these DC-DC converters. By using a DC-DC converter, it is possible to use, for example, 12V fed products in a 24V board system. Furthermore, the converter provides a stable voltage; Sensitive equipment is better protected and your LED lights will last longer. We recommend that you use a DC-DC converter or stabilizer for all LED lights. Available in three power modes, you must adjust these converters to the desired output voltage.
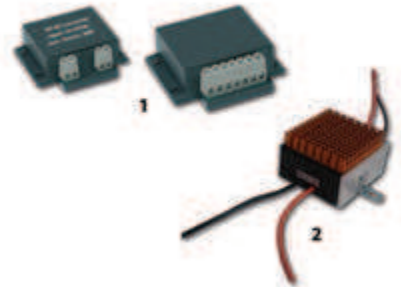
Description	Voltage	Item no.
Voltage stabilizer 6-30V : 2-28V 120W 10 Amp	10-30 V	0100.21105
DC Converter 10-30V / 36W / 3Amp	10-30 V	0100.31028
DC Converter 10-30V / 54W / 4,5Amp	10-30 V	0100.31029

Hollex LED Accessories

Here you will find all the necessary tools to connect your led bars and ceiling nipples through standard power jacks. Except that this ensures faster installation time, it also makes it easy to connect the lighting. With the mentioned distribution box it is possible to set up a complete lighting group, which is centrally dimmed and switched.

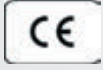| Description	Item no.
Adapter cable 3.5/1.35 - male/male = 1000	0100.41003
Adapter cable 3.5/1.35 - female/male = 1001	0100.41004
Adapter cable 3.5/1.35 - male/male = 1000	0100.41005
Adapter cable 3.5/1.35 - male/male = 1000	0100.41006
Distribution box 58x30x13 mm incl. montage	0100.41007
Adapter cable 5.5/2.1 - female/wire L =300	0100.41008
Adapter cable 5.5/2.1 - male/wire L =300	0100.41009
Adapter cable 3.5/1.35 - female/wire = 1000	0100.41010
Adapter cable 3.5/1.35 femaile - 3.5/1.35 male	0100.41011
DC Connector/adapter 5.5/2.1 - Plug 5.5/2.1 male	0100.41012
DC Connector/adapter 5.5/2.1 - Plug 5.5/2.1 female	0100.41013
Connection cable 5.5/2.1 - female/wire IP65 L=300	0100.41091
Connection cable 5.5/2.1 - male/wire IP65 L=300	0100.41092
Connection cable set IP65 various colour	0100.41093

Hollex LED motion activated switches

Description	Voltage	Item no.
Dimmer with touch sensor	10-30 V	0100.31005
Motion switch IR	10-30 V	0100.31008
Motion switch IR	12/24 V	0100.31020

Hollex twincable (roll)

Here you will find all the necessary tools to connect your led bars and ceiling nipples through standard power jacks. Except that this ensures faster installation time, it also makes it easy to connect the lighting. With the mentioned distribution box it is possible to set up a complete lighting group, which is centrally dimmed and switched.

Description	Item no.
Cable black/red 2x0.75 mm^2 / rol 25 mtr.	0100.41016.25
Cable black/red 2x0.75 mm^2 / rol 50 mtr.	0100.41016.50

Solar led lights

Solar led light

The Discovery is LED outdoor light with motion detector and can be set to time and sensitivity. Available in multiple colors and with or without solar panel.

Description	Color luminaire	Lightcolor	Item no.
LED lamp DISCOVERYICE WHITE	White	White	DISCOVERYAR
LED lamp DISCOVERY GREEN	Darkgreen	White	DISCOVERYGR
LED lamp SOLARDISCOVERY BLACK	Black	White	DISCOVERYSOL
LED lamp SOLARMOON MOODS RGB	Black	RGB	SOLARMOODS
LED lamp SOLARMOON BLACK	Black	White	SOLARMOONBK
LED lamp SOLARMOON WHITE	White	White	SOLARMOONBL
LED lamp SOLARMOON ORANGE	Orange	White	SOLARMOONOR
LED lamp SOLARMOON PISTACHE	Pistache	White	SOLARMOONPS
LED lamp SOLARWALL BLACK	Black	White	SOLARWALLBK
LED lamp SOLARWALL MOS	Green	White	SOLARWALLMO
LED lamp SOLARWALL STONE	Stone	White	SOLARWALLST
LED lamp SOLARTWAIN ICE WHITE	White	White	TWAINSOLBCO
LED lamp SOLARTWAIN BLACK	Black	White	TWAINSOLBK

Galaxxi led light

The Galaxy worklight is a solid LED working lamp for indoors and outdoors, in a new design. Available in various capabilities, colors and performances.

CE | 5000K COOL WHITE

Description	Color luminaire	Lightcolor	Item no.
LED lamp GALAXXI NATURE 3W W 12/24Vdc	White	White	GALAXXI03BCO
LED lamp GALAXXI NATURE 3W Z 12/24Vdc	Black	White	GALAXXI03BK
LED lamp GALAXXI NATURE 10W GR 12/24Vdc	Grey	White	GALAXXI10AL
LED lamp GALAXXI SECURITY 10W BR 12/24Vdc	Brown	White	GALAXXIS10BR

Solarlife kit

The Solarlife is a lighting set available in various power solar panels and batteries. Each set comes complete with panel, solar controller, battery, battery box, lamps and connectors. Ideal as lighting system in locations without power supply, such as boats, gazebos, tents and further in all places you want lighting.

CE | 4000K NEUTRAL WHITE

Description	Lightcolor	Item no.
SOLARLIFE kit, battery 8Ah, 2xLED, 5W panel	White	SOLARLIFE05i
SOLARLIFE kit, battery 8Ah, 2xLED, 10W panel	White	SOLARLIFE10i
SOLARLIFE kit, battery 8Ah, 2xLED, 15W panel	White	SOLARLIFE15i
SOLARLIFE kit, battery 14Ah, 2xLED, 30W panel	White	SOLARLIFE30i
SOLARLIFE kit, battery 30Ah, 3xLED, 60W panel	White	SOLARLIFE60i
SOLARLIFE kit, battery 8Ah, Galaxxi , 5W panel	White	SOLARLIFEG05
SOLARLIFE kit, battery 8 Ah, Galaxxi, 20W panel	White	SOLARLIFEG20

Replacement light bulbs

Led light E14

CE | 270 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	315 Lm	Warm white	Yes	30 x 76 mm	0100.57611
10-30 V	400 Lm	Warm white	Yes	30 x 85 mm	0100.57613

Led light E27

CE 21 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	315 Lm	Warm white	Yes	30 x 76 mm	0100.680
10-30 V	400 Lm	Warm white	Yes	30 x 85 mm	0100.681

Led light Ba9S

CE 42 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	42 Lm	Red	Yes	11 x 30 mm	0100.55044
10-30 V	35 Lm	Warm white	Yes	11 x 30 mm	0100.641
10-30 V	100 Lm	Warm white	Yes	13 x 38 mm	0100.640

Led light Ba15S

CE 62 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	62 Lm	Warm white	Yes	25,4 x 51 mm	0100.57078
10-30 V	220 Lm	Warm white	Yes	22 x 54 mm	0100.57008

Led light Ba15D

CE | Lm 90

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	90 Lm	Warm white	Yes	25,4 x 51 mm	0100.630
10-30 V	80 Lm	Warm white	Yes	26,6 x 37,5 mm	0100.631
10-30 V	220 Lm	Warm white	Yes	22 x 54 mm	0100.57208
10-30 V	250 Lm	Warm white	Yes	22 x 67 mm	0100.632
10-30 V	62 Lm	Warm white	Yes	25,4 x 51 mm	0100.57478
10-30 V	220 Lm	Warm white	Yes	22 x 54 mm	0100.57408

Led light G4/GU4 backpin

CE | 60 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	60 Lm	Warm white	Yes	8 x 21 mm	0100.605
10-30 V	90 Lm	Warm white	Yes	11,5 x 33 mm	0100.692
10-30 V	90 Lm	Warm white	Yes	13 x 30 mm	0100.606
10-30 V	80 Lm	Warm white	Yes		0100.601
10-30 V	140 Lm	Warm white	Yes		0100.603
10-30 V	270 Lm	Warm white	Yes		0100.51668

Led light G4/GU4 side connection

CE | 80 Lm
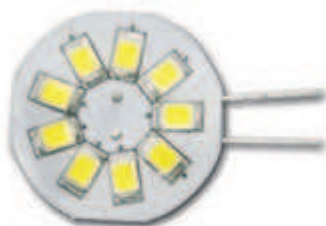
Voltage	Brightness	Lightcolor	Dimmable	Diameter	Item no.
10-30 V	80 Lm	Warm white	Yes	23 mm	0100.600
10-30 V	140 Lm	Warm white	Yes	31,5 mm	0100.602
10-30 V	210 Lm	Warm white	Yes	35 mm	0100.604

Led light MR11

CE | 100 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	100 Lm	Warm white	Yes	35 x 48 mm	0100.52213
10-30 V	110 Lm	Warm white	Yes	35 x 27 mm	0100.671
10-30 V	110 Lm	Warm white	Yes	35 x 32 mm	0100.670
10-30 V	150 Lm	Warm white	Yes	35 x 48 mm	0100.52223

Led light MR16

CE | 200 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	200 Lm	Warm white	Yes	50 x 50 mm	0100.53033
10-30 V	210 Lm	Warm white	Yes	50 x 47 mm	0100.675
10-30 V	210 Lm	Warm white	Yes	50 x 47 mm	0100.676

Led light Festoon

CE | 50 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	50 Lm	Warm white	Yes	31 x 16 mm	0100.620
10-30 V	40 Lm	Warm white	Yes	42 x 10 mm	0100.621
10-30 V	120 Lm	Warm white	Yes	42 x 24 mm	0100.623
10-30 V	80 Lm	Warm white	Yes	42 x 13 mm	0100.624
10-30 V	82 Lm	Warm white	Yes	37 x 16 mm	0100.54218
10-30 V	80 Lm	Warm white	Yes	42 x 16 mm	0100.622
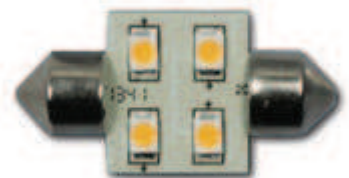
Led lights Festoon (navigation)

CE | 120 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-16 V	120 Lm	White	Yes	42 x 13 mm	0100.660
10-16 V	120 Lm	Red	Yes	42 x 13 mm	0100.661
10-16 V	120 Lm	Green	Yes	42 x 13 mm	0100.662

Led lights Bay15D (navigation)

CE | 70 Lm

Voltage	Brightness	Lightcolor	Dimmable	Diam. x Height	Item no.
10-30 V	71 Lm	White	Yes	25,4 x 51 mm	0100.654
10-30 V	90 Lm	White	Yes	25,4 x 51 mm	0100.650
10-30 V	250 Lm	White	Yes	22 x 67 mm	0100.651
10-30 V	250 Lm	Red	Yes	23,2 x 55 mm	0100.652
10-30 V	250 Lm	Green	Yes	23,2 x 55 mm	0100.653

Adapter Ba15D -> G4 / GU / G5.3

CE
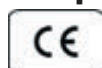
Voltage	Item no.
10-30 V	0100.610

Adapter Ba15S -> G4 / GU4 / G5.3

CE
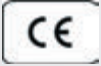
Voltage	Item no.
10-30 V	0100.611

Adapter Bay15D -> G4 / GU4 / G5.3

CE

Voltage	Item no.
10-30 V	0100.612

Adapter B22 -> G4 / GU4 / G5.3

CE

Voltage	Item no.
10-30 V	0100.615

Adapter E14 -> G4 / GU4 / G5.3

CE

Voltage	Item no.
10-30 V	0100.613

Adapter E27 -> G4 / GU4 / G5.3

CE

Voltage	Item no.
10-30 V	0100.614

Longlifelamp Bay15D

CE

Voltage	Power	Item no.
12 V	10 W	0100.010
12 V	25 W	0100.020
24 V	10 W	0100.030
24 V	25 W	0100.040

Light bulb SV8,5

CE

Voltage	Power	Item no.
12 V	5 W	0100.310
12 V	10 W	0100.320
12 V	15 W	0100.330
24 V	5 W	0100.360
24 V	10 W	0100.370
24 V	15 W	0100.380

Light bulb BA15S I

CE

Voltage	Power	Item no.
12 V	5 W	0100.410
12 V	10 W	0100.420
12 V	15 W	0100.430
24 V	5 W	0100.460
24 V	10 W	0100.470
24 V	15 W	0100.480

Light bulb BA15S II

CE

Voltage	Power	Item no.
12 V	12 W	0100.173
24 V	12 W	0100.177

Light bulb Ba9S

CE

Voltage	Power	Item no.
12 V	2 W	0100.200
24 V	2 W	0100.210
12 V	4 W	0100.220
24 V	4 W	0100.230

Light bulb G4

CE

Voltage	Power	Item no.
12 V	5 W	0100.110
12 V	10 W	0100.120
12 V	20 W	0100.130
24 V	10 W	0100.171
24 V	20 W	0100.172

Light bulb H3

CE

Voltage	Dimmable	Item no.
12 V	No	202319
24 V	No	202320

Halogen MR11

CE

Voltage	Power	Item no.
12 V	20 W	100485
24 V	20 W	0100.495
12 V	10 W	0100.490
12 V	20 W	0100.500
12 V	50 W	0100.505
24 V	20 W	0100.510
24 V	50 W	0100.515

Light bulb PK22s

CE
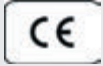
Voltage	Power	Item no.
12 V	55 W	0100.090
24 V	70 W	0100.100

Light bulb TL

CE
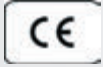
Voltage	Power	Item no.
12/24 V	8 W	0100.910
12/24 V	13 W	0100.920

Light bulb PL 2G7

CE

Voltage	Power	Item no.
12/24 V V	7 W	0100.922
12/24 V	9 W	0100.924
12/24 V	11 W	0100.926

Replacement light bulbs Jabsco

CE

Model - Type	Voltage	Power	Item no.
135 SL	12/24 V	50 W	013050
146 SL	12/24 V	50 W	013051
155 SL	12/24 V	50 W	18753-0528
255 SL	12/24 V	50 W	013052
RC 130	12 V	100 W	013065
RC 150	12/24 V	100 W	64046-0006
RC 150 HID	12/24 V	35 W	64046-0007
RC 180	12 V	400 W	013075
RC 180	24 V	400 W	013076
RC 200	24 V	250 W	013086

Jensen Bluetooth stereo JHD40BTR

This Bluetooth stereo features a water tight (IPX6) front. This stereo allows you to wirelessly enjoy your favourite music fom e.g. your smartphone, iPhone® or other bluetooth supporting medium. The JHD40BTR is specially developed for streaming audio via Bluetooth. It features an AM/ FM tuner and on the back side an Aux input and an USB input can be found. This USB port allows you to listen to the music you have on your iPhone®/iPod®, smartphone, MP3 player, USB stick or external hard drive. Please note that you will need the unique USB/Aux in interface set (JENAUX). With this option, you will be able to enjoy full control over the USB connected device with the buttons on the stereo. As with all Jensen quality marine audio, this stereo is UV-, salt and moist protected according to ASTM standards. Features Receives Bluetooth streaming audio (A2DP) and controls devices (AVRCP), AM/FM electronic tuner (US/Euro) USB input at back side, Full iPod®-control iPod®/iPhone®/Smartphone ready, Coated circuit boards, Waterproof (IPX6), White LED backlit dot matrix LCD display and buttons Low battery warning Non-volatile memory for presets and user settings, FCC, CE en RoHS. Pay attention: Not for use with remote control

Installation dimensions H x W x D: 93 x 143 x 50 (radius 10,1) mm

Description	Power	Voltage	Item no.
Jensen Marine stereo AM/FM/WB/USB bluetooth	4 x 40 W	12 V	JHD40BTR

Jensen Bluetooth stereo MS2A

If you are looking for the latest advancements in boating entertainment than look no further than the new MS2A AM/FM/USB/Bluetooth waterproof stereo with app control! This 160 watt stereo features a modern design and Bluetooth interface capabilities with A2DP/AVRCP technology as well as app control techology allowing users to control all of the primary functions of their stereo from their mobile device. The unit also has a rear auxiliary input along with a USB input. In addition, the low battery alert and zero current memory draw will keep you informed at all times. The MS2A was built specifically for the marine environment by featuring a solid top chassis, UV resistant materials and a corrosion resistant finish.
As an option the remote control, type MWR150 is available.

Visit your iTunes or Google Play store to download the jControl app.

Installation dimensions H x W x D: 52 x 182 x 173 mm

Description	Power	Voltage	Item no.
MS2A	4 x 40 W	12 V	MS2A

Jensen Bluetooth stereo MS3A

The JENSEN Marine MS3A is a self-contained AM/FM/USB/Bluetooth compact 3.5" round waterproof stereo with app control which allows users to control all of the stereo's primary functions directly from their mobile device by downloading the JENSEN jControl app! It features 160 watts, a USB input along with an auxiliary input and a line out (RCA). The MS3A has a large, daylight readable LCD display with blue backlit controls to offer boaters a user-friendly interface. This economical stereo fits a 3" gauge hole and has UV resistant finishes and corrosion resistant materials to guarantee it withstands life in a rough mobile environment.

Visit your iTunes or Google Play store to download the jControl app.

Outer diam.   : 102 mm
Installation diam.   : 76,5 mm

Description	Power	Voltage	Item no.
Jensen stereo MS3A AM/FM/USB/iPod/bluetooth/app control	4 x 40 W	12 V	MS3A

Speakers and subwoofers

Jensen Speakers AMS602

These coaxial, waterproof speakers are available in black and white. The one-piece-design speakers are made of UV resistant plastic to resist fading from the sun and the speakers are corrosion resistant. With a 10 oz magnet.

Note: this speaker is sold a piece.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Jensen Marine speaker white	60 W	180 mm	130 mm	60 mm	AMS602W

Jensen Speakers MS5006

This compact slimline speaker is waterproof, UV resistant and corrosion resistant. Ideal for outdoor use, like all Jensen speakers! This speaker has a 2,9 oz magnet. Available in black and white.

Note: this speaker is sold a piece.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Jensen Marine speaker black	30 W	150 mm	115 mm	40 mm	MS5006B
Jensen Marine speaker white	30 W	150 mm	115 mm	40 mm	MS5006W

Jensen Speakers MS6007

The JENSEN MS6007BR Black waterproof speaker is specifically designed for outdoor entertainment. This speaker is completely waterproof and engineered with UV resistant materials to withstand the outdoor elements. Available in Black, Silver and White.

Features:
• 6.5" Coaxial Waterproof Black Speaker
• Max power handling: 60 watts
• Waterproof
• ASTM B117 Salt Spray Exposure Standard Compliant:
• ASTM D4329 UV Exposure Standard Compliant:
• Speaker color: Silver (MS6007SR), Black (MS6007BR), White (MS6007WR)

Note: these speakers are sold as a set of two speakers.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Jensen Marine speaker black	60 W	180 mm	130 mm	59 mm	MS6007B
Jensen Marine speaker silver	60 W	180 mm	130 mm	59 mm	MS6007S
Jensen Marine speaker white	60 W	180 mm	130 mm	59 mm	MS6007W

Jensen Speakers JXHD30HPC

This compact High Performance speaker has a diameter of a mere 9 centimeters. But with an output of 30 W (maximum output of 60W) it is noticable in your audio set. The speaker features a watertight woofer, tweeter and seals. Corrosion resistant according to ASTM standards. This is an ideal size to built into your dashboad at the helm.

Note: this speaker is sold a piece.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Jensen Speaker silver/black 90mm 60W	60 W	90 mm	76,5 mm	84 mm	JXHD30HPC

Jensen Speakers MS650RTL

Two 6.5" Coaxial Speakers.

Features:
 - Max Power Handling: 50 W
 - Sensitivity: 86dB
 - Frequency: 50Hz-20KHz
 -Tweeter: Mylar
 - Polypropylene woofer 6"
 - Mounting hole diameter: 5"
 - Mounting depth: 2.4"
 - ASTM D4329 UV exposure standard compliant

Two RG65SS Silver Grilles
Two RG65SB Black Grilles
Two RG65HW White Grilles
Two UMCX650LK1 Light kits

Note: these speakers are sold as a set of two speakers.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Jensen Speakerset incl. LED-kit	2 x 50 W	180 mm	130 mm	59 mm	MS650RTL

Jensen Speakers MSX60SR

The MSX series exceeds all expectations! The 2 x 65 Watt speaker set features a distinctive high gloss polished chrome plated grill. This is the best speaker set in the MSX series. Your ears will not be withheld any high or low tones anymore, for the frequency range of 65Hz up to 20kHz is amazingly wide. The speaker is equipped with an 11 oz magnet to prevend interferrance with other equipment. Behind the grill you will find a woofer made of polypropylene and a suspended tweeter.

Note: these speakers are sold as a set of two speakers.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Jensen Marine speakerset silver, blue cone	2 x 65 W	180 mm	130 mm	59 mm	MSX60SR

Jensen Speakers MSX60CPR

The MSX series exceeds all expectations! The 2 x 75 Watt speaker set features a distinctive high gloss polished chrome plated grill. This is the best speaker set in the MSX series. Your ears will not be withheld any high or low tones anymore, for the frequency range of 65Hz up to 20kHz is amazingly wide. The speaker is equipped with an 11 oz magnet to prevend interferrance with other equipment. Behind the grill you will find a woofer made of polypropylene and a suspended tweeter.

Note: these speakers are sold as a set of two speakers.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Jensen Marine speakerset	2 x 75 W	180 mm	130 mm	59 mm	MSX60CPR

Jensen Speakers MSX65R

The MSX series exceeds all expectations! The 2 x 75 Watt speaker set features a distinctive high gloss polished chrome plated grill. This is the best speaker set in the MSX series. Your ears will not be withheld any high or low tones anymore, for the frequency range of 65Hz up to 20kHz is amazingly wide. The speaker is equipped with an 11 oz magnet to prevend interferrance with other equipment. Behind the grill you will find a woofer made of polypropylene and a suspended tweeter.

Note: these speakers are sold as a set of two speakers.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Jensen Marine speakerset beige	2 x 75 W	165 mm	130 mm	59 mm	MSX65R

Jensen Active subwoofer JMPSW800

- Max Power Handling: 200 watts
- Power System: 12VDC
- Slim design
- Built-in amplification
- Black anodized all aluminum enclosure
- Mate-in-lock connectors for easy installation
- Adjustable gain and crossover
- Low (line) level inputs
- Frequency: 60Hz-200Hz
- Vertical and horizontal mounting provisions
- Dimensions: 13.6"W x 10.4"H x 2.9"D

Description	Power	Item no.
Jensen Marine active Subwoofer	200 W	JMPSW800

Jensen Active subwoofer MSW10RTL

Since nothing sounds better than a song that really pumps out the bass, we advice a Jensen waterproof marine subwoofer. It meets the ASTM standards for salt spray exposure and for UV exposure. It has conformal coated circuit boards. The subwoofer can be mounted vertical as well as horizontal.
The waterproof (IPX6) non-amplified subwoofer is made of corrosion and UV resistant materials according to the ASTM standards: an aluminum chassis with silver powder coating finish. The subwoofer can be mounted with or without the ABS grill (cover) with a diameter of 254 mm. This subwoofer requires a seperate amplifier.

In the box there are 3 grilles, White, Black, Silver and comes with a led Kit.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Jensen Marine passive subwoofer	300 W	254 mm	228,6 mm	122 mm	MSW10RTL

Jensen Amplifiers

Jensen Amplifiers Power 760 & Power 4002

If you need a bigger and better sound from your Jensen marine stereo you can use the Jense marine amplifiers. The Power-amplifiers have a 40-300Hz low-tone filter and a high-tone filter of 12DB/Octave. The Power-amplifiers are protected against thermic overload and use coated baseplates. To connect the Power-amplifiers to your radio we have all the RCA cables you need.

Description	Power	Voltage	L x W x H	Item no.
Jensen Marine Amplifier	4 x 100 W	12 V	318 x 229 x 634 mm	POWER760

Accessories for audio

Jensen Extension- and Y-cables

Pos.	Description	Suitable for	Cable diameter	Length	Item no.
	Extension cable	MW, MS-serie	5 mm	5,8 m	MWREXT
	Y-cable	MW, MS-serie	5 mm	0,25 m	MWRYCBLS

Jensen USB- AUX socket

The USB / 1/8"Aux-in interface set is a usefull accessory with your stereo. With the over three metres cable, you can install a
USB interface e.g. on your flying bridge. The interface has a waterproof cover (IPX5) and is
made of Corrosion and UV resistant materials.

Pos.	Description	Installation diam.	Installation depth	Item no.
test	USB/AUX socket	38 mm	40 mm	JENAUX

Antennas

The rubber antenne 1181067 can be used for all Jensen marine Stereo's.

Pos.	Description	Length	Voltage	Item no.
1	Rubber antenna	0,50 m		1181067
2	Amplifying antenna	2,00 m	12 V	AN150SR
3	Soft wire antenna	0,75 m		ANT1B

RCA cables

The Marine Audio MARCAC cables are made to connect your Jensen/Polk radio to your amplifier. The cables are
Marine Grade and are ideal to use on board of your ship.

Pos.	Description	Suitable for	Length	Item no.
1	RCA cable 1M	All audio products	1 m	MARCAC1R
1	RCA Cable 2M	All audio products	2 m	MARCAC2R
1	RCA Cable 4M	All audio products	4 m	MARCAC4R
1	RCA Cable 6M	All audio products	6 m	MARCAC6R
2	RCA Cablel 1 Male / 2 Female	All audio products	0,25 m	MARCAYMFFR
3	RCA Cable 1 Female / 2 Males	All audio products	0,25 m	MAYFMMR

Speaker cable

Cables to connect your Jensen speaker set to your Jensen stereo. Available in 2 x 1,5 mm2 or 2 x 2,5 mm2. Can be supplied in 100m, 50m or 30m lengths.

Description	Cable diameter	Length	Item no.
Speaker cable	2 x 1,5 mm	30 m	361647.30
Speaker cable	2 x 1,5 mm	50 m	361647.50
Speaker cable	2 x 1,5 mm	100 m	361647.100
Speaker cable	2 x 2,5 mm	30 m	361655.30
Speaker cable	2 x 2,5 mm	50 m	361655.50
Speaker cable	2 x 2,5 mm	100 m	361655.100

Jensen Stereo mounting plate

The Jplate is the new adition from Jensen to change your 1-din mounting hole to a clean area to fit your Jensen marine radio.

Description	Item no.
Mounting plate for various Jensen stereos	JPLATE

Polk Stereos

Polk Stereo PA4A

The 200 watt PA4A has been designed and engineered with a solid, marine grade construction ensuring it will withstand the harsh elements encountered in a marine environment such as temperature fluctuations and UV and corrosion damage. This high-tech system features a two-piece modular design with a waterproof commander (IPX6) for the helm and hideaway module (IPX5). The commander features a detachable chrome trim ring, silicone rubber face cover and conformal coated circuit boards which prevent damage from high humidity and salt. It also has the capability to be easily integrated with a boat's digital control panel. Once the two systems are connected, the main control panel is able to perform all of the functions of the PA4A commander.

Visit your iTunes or Google Play store to download the Ultramarine app.

Head unit dimension L x W x H
: 182x173x52,2 mm
Installation depth   : 11 mm

Description	Power	Voltage	Installation depth	Item no.
Polk Bluetooth stereo	4 x 50 W	12 V	11 mm	PA4A

Polk Speakers DB652

The powerful DB652 speakers have 300 watts of maximum power output and feature a quick, easy installation. Besides offering top-of-line features, the DB652 has been built durable so it will withstand any of the elements commonly encountered in a marine environment. If you are searching for the perfect stereo speaker to upgrade your audio entertainment system, look no further than the Polk D652 speaker!
Feautures:
• Maximum power output: 300W
• 100 Watt RMS
• Sensitivity @1W/Meter (dB): 92
• Frequency response (Hz-kHz): 40-22
• Tweeter type: Dome
• Material: Polypropyleen
• Dynamic Balance Driver Technology for pure, distortion free sound
• Full-range mounting depth - top mount: 1.77"/ 45mm
• Full-range mounting depth - bottom mount: 2.12"/ 53,8mm
• Maritime certified IP55
Note: These speakers are sold per pair.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Polk speakerset black	2 x 300 W	165 mm	128,5 mm	58 mm	DB652

Polk Speakers UM200

The brand new Polk UM200HBRTL is a set of two speakers that will only let you hear the high and middle frequencies. These speakers will be delivered with a passive crossover and are easy to install. The max power of these speakers are 300 watts. The speakers are tested for UV- and waterproof.
Note: These speakers are sold per pair.

Description	Power	Outer diam.	Installation diam.	Installation depth	Item no.
Polk speakerset	2 x 300 W	64 mm	58 mm	36 mm	UM200HBRTL

Polk Speakers UM650

The water doesn't have to be the only crystal clear thing on your next boat outing. Try the Marine Audio MS650 6.5" Coaxial Speakers. These high powered marine speakers deliver the sound you crave and the clarity your boating companions will covet. Also built to endure harsh marine environments, these coaxial speakers will pump you up while you boat around.
Note: These speakers are sold per pair.

Description	Power	Outer diam.	Installation diam.	Installation depth	Color	Item no.
Polk speakerset choise of 2 grills	2 x 175 W	165 mm	128,5 mm	60 mm		UMCX650
Polk gril black, for UMXCS650					Black;Black	UMCX650SGB
Polk gril silver, for UMXCS650					Silver;Silver	UMCX650SGS
Polk speakers UM650HRTL White with Led	2 x 175 W	165 mm	128,5 mm	60 mm	White;White	UM650HRTL
Polk speakers with 2 grills and Led light	2 x 175 W	165 mm	128,5 mm	60 mm	White;Silver;White;Silver	UM650SRTL

Polk Subwoofer UMSW1000

The brand new UMSW1000 is the newest subwoofer in the Polk Ultramarine range. The subwoofer is made for marine enviroment and is tested. The polk Ultramarine subwoofer has 175 watt RMS power. The subwoofer can be finished with one of the seperate grills that will be delivered including the LED-ring that can be placed in the center off the grill.

Description	Power	Outer diam.	Installation diam.	Item no.
Polk Subwoofer UMSW1000	175 W	254 mm	231,8 mm	UMSW1000
Grill with ledring				UM1000HRTL
Grill with ledring				UM1000SBRTL
Grill with ledring				UM1000SSRTL

Polk Amplifier PAD-series

The Polk amplifiers will stay a beautiful addition to our Polk product range. Quality and Durabillity are key to these products. It will give your exsisting audio system a whole new dimension. The PAD-amplifiers have a frequency range of 20Hz till 20 Khz and a high-tone filter of 12DB/Octave. The PAD-amplifiers are made of Stainless steel and all connectors are nikkel plated. To connect the PAD-amplifier to your radio we have all the RCA cables you need.

Power	Voltage	L x W x H	Item no.
4 x 200 W	12 V	18 x 34 x 5 mm	PAD4000.4
4 x 100 (1 x 400W SUB) W	12 V	18 x 34 x 5 mm	PAD5000.5

Polk Accessories

Polk Remote controls

These remote controls are waterproof (IPX6) and UV and salt water resistant. The PRC200BC shows the stereo options in a white backlit LCD display, that is even readable in bright sunshine. Both controls have button illumination, white on the PRC200B and blue on the PRC100BC. Both remote controls have CE approval. They come complete with 5.5 meters connection cables. Both remote controls can be used with the Polk marine stereo PA450UM. Use the Y cable and extension cable to create remote control in another area.

• Black face, chrome bezel

• White (PRC200BC) or blue (PRC100BC) backlight illumination

• Meets ASTM B117 (salt/fog exposure)

• Meets ASTM D4329 (UV exposure)

• Meets IPX6 (water ingress protection)

Description	Suitable for	Dimensions front W x H x D	Outer diam.	Installation diam.	Installation depth	Cable diameter	Item no.
Polk remote control	PA450UM		60 mm	51 mm	32 mm	5 mm	PRC100BC
Polk remote control with display	PA450UM	110 x 18 x 6 mm				5 mm	PRC200BC

Polk Extension- and Y-cables

Pos	Description	Suitable for	Cable diameter	Length	Item no.
1	Extension cable for remote control	PA4A, PRC100BC, PRC200BC	5 mm	5.50 m	PRCEC18
2	Y-cable for remote controls	PA4A, PRC100BC, PRC200BC	5 mm	0.25 m	PRCYC1

The Acqualink instruments aredesigned for performance, with ease of use remaining an important attribute. The use of solely premium material, such as mineral glass lenses, guarantees the highest level of reliability and readability, as well as low energy consumption.

All Acqualink instruments are lead free, a token of our commitment to environmental responsibility. In line with this, our production plant is ISO 14001:2009 certified. In addition, the timelessly elegantly stylish yet modern design of Acqualink displays and gauges provides your cockpit with pleasant clarity.

Every component of the Acqualink series fulfills highest standards with regard to functionality, design and quality.

The benefits of using Acqualink:

• Maximum precision and the deployment of pioneering technologies are equallyimportant as ease of use and stylish design.

• All Acqualink components are made out of high class materials, like mineral glass, stainless steel and aluminum.

• All products are ISO / TS 9001 certified.

• Our plug and play solution design concept offers a high level of installation flexibility for panel and flush mounting instruments.

• A cross-platform standard offers maximum freedom in respect of cockpit customization.

• We ensure seamless integration and optimum utilisation of Acqualink devices for extreme conditions at sea.

• Harmonised dashboard look.

VDO Acqualink TFT Displays

Acqualink® multifunction TFT displays are available in 4.3" and 7" sizes. The full 24 bit / 16 million colors optically bonded displays feature transmissive layer technology for unprecedented and unsurpassed readability even in direct sunlight. The TFT display a wide array of data received from the Acqualink® NavBox or NMEA 2000®. Users can customize up to 40 different data pages with single, double, treble or quad grid layouts.
TFT displays can be daisy chained with other Acqualink® gauges, displays or NavControls using the unique VDO Bus or directly connected to the NMEA 2000® backbone (optional adapter cable required) for simple installation on any yacht.
7" TFTs are equipped with capacitive multi touch screens to slide between pages whereas 4.3" displays require the use of a NavControl unit for data input and operation.
• 1x plug with 2x Video Input
• 2x VDO Bus connectors
• Operating temperature range -20 °C / +70 °C
• Protection level front and rear IPX6, IPX9K

Description	Voltage	Item no.
Multifunction Display 4.3" Black	12/24 V	A2C59501996
Multifunction Display 7" Black	12/24 V	A2C59501997

M

VDO Acqualink NavContol

The Acqualink® NavControl can assume control of any Acqualink® TFT display connected to the VDO Bus or NMEA 2000® network. Even multiple units can be connected to the same Bus without conflicts.

• 2x VDO Bus connectors
• Operating temperature range -20 °C / +70 °C
• Protection level front and rear IPX6, IPX9K

Description	Item no.
Nav Control Black	A2C59501982
Nav Control White	A2C3997620001

VDO Acqualink Tachometer

The VDO Tachometer displays RPM information received from the VDO Acqualink® NavBox or the NMEA 2000® data bus and distributes additional engine information to optional 52 mm Acqualink® EasyLink Gauges.

• 2x VDO Bus connectors, 1x AMP Superseal EasyLink
• < 150 mA
• Reverse polarity protection
• Anti-fog coated mineral glass lens
• Front & rear side protection rating IPX6, IPX9K
• Operating temperature range -20 °C / +70 °C

Description	Voltage	Range	Diameter	Item no.
Tachometer Black	12/24 V	0 - 3000 rpm	Ø 110 mm	A2C59501913
Tachometer White	12/24 V	0 - 3000 rpm	Ø 110 mm	A2C1338910001
Tachometer Black	12/24 V	0 - 5000 rpm	Ø 110 mm	A2C59501914
Tachometer White	12/24 V	0 - 5000 rpm	Ø 110 mm	A2C1338920001
Tachometer Black	12/24 V	0 - 7000 rpm	Ø 110 mm	A2C59501915
Tachometer White	12/24 V	0 - 7000 rpm	Ø 110 mm	A2C1338930001

VDO Acqualink Compass

The VDO Navigation Gauges display depth, Speed over Ground, Speed through Water, Rudder Angle or Compass information received from the VDO Acqualink® NavBox or the NMEA 2000® data bus.

• 2x VDO Bus connectors
• < 150 mA
• Reverse polarity protection
• Anti-fog coated mineral glass lens
• Front & rear side protection rating IPX6, IPX9K
• Operating temperature range -20 °C / +70 °C

Description	Voltage	Range	Diameter	Item no.
Compass Black	12/24 V	360°	Ø 110 mm	A2C59501911
Compass White	12/24 V	360°	Ø 110 mm	A2C1338790001

VDO Acqualink Wind Angle

The VDO Wind Gauges display wind speed and angle information receivedfrom the VDO Acqualink® NavBox or the NMEA 2000® data bus.

- 2x VDO Bus connectors
- < 150 mA
- Reverse polarity protection
- Anti-fog coated mineral glass lens
- Front & rear side protection rating IPX6, IPX9K
- Operating temperature range -20 °C / +70 °C

Description	Voltage	Range	Diameter	Item no.
Wind Angle Black	12/24 V	360°	Ø 110 mm	A2C59501900
Wind Angle White	12/24 V	360°	Ø 110 mm	A2C1338770001
Wind Angle Magnified Black	12/24 V	360°	Ø 110 mm	A2C59501901
Wind Angle Magnified White	12/24 V	360°	Ø 110 mm	A2C1338780001
Wind Angle Black	12/24 V	0 – 50 knots	Ø 110 mm	A2C59501902
Wind Angle White	12/24 V	0 – 50 knots	Ø 110 mm	A2C1338940001

VDO Acqualink Rudder Angle

The VDO rudder angle.

- < 100 mA
- Reverse polarity protection
- Anti-fog coated mineral glass lens
- Front & rear side protection rating IPX6, IPX9K
- Operating temperature range -20 °C / +70 °C

Description	Voltage	Range	Diameter	Item no.
Rudder Angle Black	12/24 V	90°	Ø 52 mm	A2C59501939
Rudder Angle White	12/24 V	90°	Ø 52 mm	A2C1338680001
Rudder Angle Black	12/24 V	80°	Ø 110 mm	A2C59501912
Rudder Angle White	12/24 V	80°	Ø 110 mm	A2C1338860001
Rudder Angle Sensor for single station	6/24 V	-45° to +45°		A2C11029500
Rudder AngleSensor for dual station	6/24 V	-45° to +45°		A2C11029600

VDO Acqualink Speed through Water (LOG®)

The VDO Navigation Gauges display depth, Speed over Ground, Speed through Water, Rudder Angle or Compass information received from the VDO Acqualink® NavBox or the NMEA 2000® data bus.

• 2x VDO Bus connectors
• < 150 mA
• Reverse polarity protection
• Anti-fog coated mineral glass lens
• Front & rear side protection rating IPX6, IPX9K
• Operating temperature range -20 °C / +70 °C

Description	Voltage	Range	Diameter	Item no.
Speed SOG Black	12/24 V	12 kn	Ø 110 mm	A2C59501905
Speed SOG White	12/24 V	12kn	Ø 110 mm	A2C1338830001
Speed SOG Black	12/24 V	50 kn	Ø 110 mm	A2C59501906
Speed SOG White	12/24 V	50kn	Ø 110 mm	A2C1338850001
Speed SOG Black	12/24 V	70mph	Ø 110 mm	A2C59501907
Speed SOG White	12/24 V	70mph	Ø 110 mm	A2C1338840001

VDO Acqualink Speed over Ground (SOG)

The VDO Navigation Gauges display depth, Speed over Ground, Speed through Water, Rudder Angle or Compass information received from the VDO Acqualink® NavBox or the NMEA 2000® data bus.

• 2x VDO Bus connectors
• < 150 mA
• Reverse polarity protection
• Anti-fog coated mineral glass lens
• Front & rear side protection rating IPX6, IPX9K
• Operating temperature range -20 °C / +70 °C

Description	Voltage	Range	Diameter	Item no.
Speed SOG Black	12/24 V	12 kn	Ø 110 mm	A2C59501908
Speed SOG White	12/24 V	12kn	Ø 110 mm	A2C1338870001
Speed SOG Black	12/24 V	35mph	Ø 110 mm	A2C59501910
Speed SOG White	12/24 V	70mph	Ø 110 mm	A2C1338880001
Speed SOG Black	12/24 V	70mph	Ø 110 mm	A2C59501909
Speed SOG White	12/24 V	50kn	Ø 110 mm	A2C1338900001

VDO Acqualink Depth

The VDO Navigation Gauges display depth, Speed over Ground, Speed through Water, Rudder Angle or Compass information received from the VDO Acqualink® NavBox or the NMEA 2000® data bus.

- 2x VDO Bus connectors
- < 150 mA
- Reverse polarity protection
- Anti-fog coated mineral glass lens
- Front & rear side protection rating IPX6, IPX9K
- Operating temperature range -20 °C / +70 °C

Description	Voltage	Range	Diameter	Item no.
Depth 0-200m Black	12/24 V	0-200m	Ø 110 mm	A2C59501903
Depth 0-200m White	12/24 V	0-200m	Ø 110 mm	A2C1338810001
Depth 0-600ft Black	12/24 V	0-600ft	Ø 110 mm	A2C59501904
Depth 0-600ft White	12/24 V	0-600ft	Ø 110 mm	A2C1338820001

VDO Acqualink Fuel Level

Liquid Level

- AMP Superseal Easylink connector
- <100 mA
- 270 ° angle of rotation
- Reverse polarity protection
- Anti-fog mineral glass lens
- Front and back protection IPX6, IPX9K
- Operating temperature range -20 ° C / + 70 ° C

Description	Voltage	Range	Diameter	Item no.
Fuel Level Black	12/24 V	E - ½ - F	Ø 52 mm	A2C59501930
Fuel Level White	12/24 V	E - ½ - F	Ø 52 mm	A2C1338650001

VDO Acqualink Fresh Water

Liquid Level

- AMP Superseal Easylink connector
- <100 mA
- 270 ° angle of rotation
- Reverse polarity protection
- Anti-fog mineral glass lens
- Front and back protection IPX6, IPX9K
- Operating temperature range -20 ° C / + 70 ° C

Description	Voltage	Range	Diameter	Item no.
Fresh Water Black	12/24 V	E - ½ - F	Ø 52 mm	A2C59501929
Fresh Water White	12/24 V	E - ½ - F	Ø 52 mm	A2C1338640001

VDO Aqcualink Waste Water

Liquid Level

• AMP Superseal Easylink connector
• <100 mA
• 270 ° angle of rotation
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front and back protection IPX6, IPX9K
• Operating temperature range -20 ° C / + 70 ° C

Description	Voltage	Range	Diameter	Item no.
Waste Water Black	12/24 V	E - ½ - F	Ø 52 mm	A2C59501928
Waste Water White	12/24 V	E - ½ - F	Ø 52 mm	A2C1338760001

VDO Acqualink Engine Oil Temperature

Temperature Gauges

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Voltage	Range	Diameter	Item no.
Engine Oil Pressure Black	12/24 V	150°C / 300°F	Ø 52 mm	A2C59501926
Engine Oil Pressure White	12/24 V	150°C / 300°F	Ø 52 mm	A2C1338620001
Engine Oil Pressure Black	12/24 V	300°F / 150°C	Ø 52 mm	A2C59501927
Engine Oil Pressure White	12/24 V	300°F / 150°C	Ø 52 mm	A2C1338630001

VDO Acqualink Coolant temperature

Temperature Gauges

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Voltage	Range	Diameter	Item no.
Coolant Temperature Black	12/24 V	120°C / 250°F	Ø 52 mm	A2C59501931
Coolant Temperature White	12/24 V	120°C / 250°F	Ø 52 mm	A2C3968900001
Coolant Temperature Black	12/24 V	250°F / 120°C	Ø 52 mm	A2C59501932
Coolant Temperature White	12/24 V	250°F / 120°C	Ø 52 mm	A2C1338570001

VDO Acqualink Engine Oil Temperature

Pressure Gauges

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Voltage	Range	Diameter	Item no.
Engine Oil Pressure Black	12/24 V	10 bar / 150 psi	Ø 52 mm	A2C59501935
Engine Oil Pressure White	12/24 V	10 bar / 150 psi	Ø 52 mm	A2C1338600001
Engine Oil Pressure Black	12/24 V	150 psi / 10 bar	Ø 52 mm	A2C59501936
Engine Oil Pressure White	12/24 V	150 psi / 10 bar	Ø 52 mm	A2C1338610001

VDO Acqualink Pyrometers

Temperature Gauges

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Voltage	Range	Diameter	Item no.
Pyrometer Black	12/24 V	900°C / 1650°F	Ø 52 mm	A2C59501933
Pyrometer White	12/24 V	900°C / 1650°F	Ø 52 mm	A2C1338660001
Pyrometer Black	12/24 V	1650°F / 900°C	Ø 52 mm	A2C59501934
Pyrometer White	12/24 V	1650°F / 900°C	Ø 52 mm	A2C1338670001

VDO Acqualink Transmission Oil Pressure
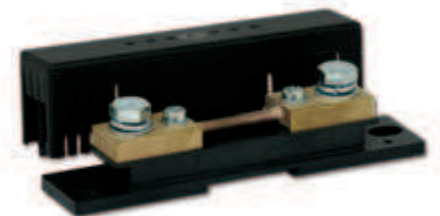
Pressure Gauges

- AMP Superseal Easylink connector
- <100 mA
- 270° pointer deflection angle
- Reverse polarity protection
- Anti-fog mineral glass lens
- Front & rear protection rating IPX6, IPX9K
- Operating temperature range -20°C / +70°C

Description	Voltage	Range	Diameter	Item no.
Transmission Oil Pressure Black	12/24 V	30 bar / 440 psi	Ø 52 mm	A2C59501937
Transmission Oil Pressure White	12/24 V	30 bar / 450 psi	Ø 52 mm	A2C1338690001
Transmission Oil Pressure Black	12/24 V	450 psi / 30 bar	Ø 52 mm	A2C59501938
Transmission Oil Pressure White	12/24 V	450 psi / 30 bar	Ø 52 mm	A2C1338700001

VDO Acqualink Boost Pressure

Pressure Gauges

- AMP Superseal Easylink connector
- <100 mA
- 270° pointer deflection angle
- Reverse polarity protection
- Anti-fog mineral glass lens
- Front & rear protection rating IPX6, IPX9K
- Operating temperature range -20°C / +70°C

Description	Voltage	Range	Diameter	Item no.
Boost Pressure Black	12/24 V	2 bar / 30 psi	Ø 52 mm	A2C59501944
Boost Pressure White	12/24 V	2 bar / 30 psi	Ø 52 mm	A2C1338720001
Boost Pressure Black	12/24 V	30 psi / 2 bar	Ø 52 mm	A2C59501945
Boost Pressure White	12/24 V	30 psi / 2 bar	Ø 52 mm	A2C1338730001

VDO Acqualink Voltmeter

Battery Status

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Voltage	Range	Diameter	Item no.
Voltmeter White	12/24 V	8 - 16V	Ø 52 mm	A2C1338740001
Voltmeter Black	12/24 V	8 - 16V	Ø 52 mm	A2C59501940
Voltmeter White	12/24 V	16 - 32V	Ø 52 mm	A2C1338750001
Voltmeter Black	12/24 V	16 - 32V	Ø 52 mm	A2C59501941

VDO Acqualink Ampmeter

Battery Status

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Voltage	Range	Diameter	Item no.
Ampmeter Black	12/24 V	60A - 150A	Ø 52 mm	A2C59501942
Ampmeter White	12/24 V	60A - 150A	Ø 52 mm	A2C1338540001
Ampmeter Black	12/24 V	150A - 60A	Ø 52 mm	A2C59501943
Ampmeter White	12/24 V	150A - 60A	Ø 52 mm	A2C1338550001

VDO Acqualink Shunt

A shunt is a resistor that causes a small voltage drop. This voltage drop is mVolt is proportional with the current in ampère that goes through the resistor. This voltage is measured by the Ammeter. The advantage of the shunt is that thick wires are no longer needed at a high current (>10A). To measure the total flow you only need two thin wires from the measuring instrument to the shunt in the earth connection of the main system.

Description	Voltage	Range	Item no.
Shunt 60A	12/24 V	- 60A / 0 / + 60A	A2C59514043
Shunt 150A	12/24 V	- 150A / 0 / + 150A	A2C59514047

VDO Acqualink Engine Trim

The VDO Trimmeter for the best tuning of your boat.

- < 100 mA
- Reverse polarity protection
- Anti-fog coated mineral glass lens
- Front & rear side protection rating IPX6, IPX9K
- Operating temperature range -20 °C / +70 °C

Description	Voltage	Range	Diameter	Item no.
Trim Black	12/24 V	Up / Down	Ø 52 mm	A2C59501925
Trim White	12/24 V	Up / Down	Ø 52 mm	A2C1338710001

VDO Acqualink Bezels

The front bezels are available in two colours: white or black. You can mount the bezels easily on the instruments by means of a clip-on system.

Description	Color	Diameter	Item no.
Acqualink Bezel	White	Ø 52 mm	A2C3979480001
Acqualink Bezel	Black	Ø 52 mm	A2C59501965
Acqualink Bezel	White	Ø 52 mm	A2C3979510001
Acqualink Bezel	Black	Ø 52 mm	A2C59501966
Acqualink Bezel	White	Ø 110 mm	A2C3979530001
Acqualink Bezel TFT 4.3 "	Black	Ø 110 mm	A2C59501963
Acqualink Bezel TFT 4.3"	White		A2C3983920001
Acqualink Bezel	Black		A2C59501967
Acqualink Fontring NavControl 4.3"	Black		A2C1156050001
Acqualink Fontring NavControl 4.3"	White		A2C3997600001

VDO AcqualinkConnection cables & Mounting kits

Description	Color	Item no.
BUS Infield Connector / Analog Wind		A2C38804900
BUS Male-Female Adapter		A2C38805500
BUS Cable		A2C38805700
Connector	Black	A2C39308500
Connector	Black	A2C39310500
Terminator	Black	A2C39310600
Terminator	Black	A2C39311000
Terminator	Black	A2C39312500
Terminator	Black	A2C39312700
NMEA 2000 Power Cable	Yellow	A2C39312900
NMEA-2000® Cable 30 mtr	Grey	A2C59501950
Acqualink Silicone cover	Black	A2C59501971
Silicone cover	Black	A2C59501972
Silicone cover for HMI		A2C59501974
NMEA-2000® Cable female 0.5 mtr	Grey	A2C96243700
NMEA-2000® Cable female 2 mtr	Grey	A2C96243800
NMEA-2000® Cable female 6 mtr	Grey	A2C96244000
NMEA-2000® Cable female 10 mtr	Grey	A2C96244200
Bus Cable 0.3 mtr		A2C96244600
Bus to NMEA 2000® Adapter		A2C96244900
Bus Cable 5 mtr		A2C96245000
Bus Cable 10 mtr		A2C96245100
Termination Resistor		A2C99793900
J1939 Termination Resistor, Inline J1939	Black	A2C99794200

Media-Box

The VDO MediaBox features a waterproof, compact and black box design that can be mounted literally everywhere on the boat. Listen to Radio and weather forecasts with it's built in AM / FM Tuner or connect a MP3 player or smartphone via USB or Bluetooth to enjoy your favorite music. The MediaBox is NMEA 2000® certified and can be used with any compatible NMEA 2000® head unit or with the VDO Acqualink® or OceanlinkTFT Displays. Additionally VDO offers a free Remote App so the MediaBox can be used as a stand alone radio.

• AM / FM radio tuner with RDS – Backup memory
• Bluetooth audio player
• USB memory device MP3 player or smartphone
• Three band equalizer with volume control
• Power amplifier 4x 28 W (D class)
• NMEA 2000® certified
• IPX5 protection rating
• Operating temperature range -20 ℃ / +70 ℃

Description	Voltage	Item no.
Media-Box	12/24 V	A2C59501980

Nav Sensor

The multifunctional Acqualink® Nav Sensor is the gem of all sensors. The inertial sensor complements the inbuilt satellite receiver module to provide accurate readings of the speed of travel as well as the pitch & roll (up and down) and YAW (sideways) motion of the boat. Compass readings can be displayed electronically thanks to the embeded compass, which also facilitate course corrections in electronic autopilots. The barometer and air temperature sensors are early indicators of forthcoming weather conditions.

• Standard MicroC connector for NMEA 200
• NMEA 2000® certified
• IP65 protection rating
• GPS Module: Position, time, boats vector, signal quality, satellites
• Compass: +/-40° tilt angle, <2° accuracy, alarm (rapid field strength change,
   tilt angle overrun, undervoltage condition)
• Barometer: Air pressure, air temperature inside the sensor
• Air temperature: -20℃ / +65℃
• Inertial sensor: Resolution 1°/s
• YAW-range 100°/s, linearity +/-3°/s
• Acceleration-range 50 m/s2
, linearity +/-1 m/s2
• Calculated heeling, pitch & roll-range +/-50°
• Operating temperature range -20℃ / +70℃

| Description	Voltage	Item no.
NAV Sensor 360	12/24 V	A2C59501981

NMEA 2000® Wind Sensor

The wind vane turns in the direction of the wind and steers the wind direction gauge. The wind cups records the relative wind speed which in turn is displayed on the wind speed gauge.

Description	Voltage	Item no.
Windsensor Long	12/24 V	A2C59501984

NMEA 2000® Fresh Water Capacitive Sensors

Description	Item no.
NMEA 2000® Fresh Water Capacitive Sensors	A2C1364680001
NMEA 2000® Fresh Water Capacitive Sensors	A2C1364690001
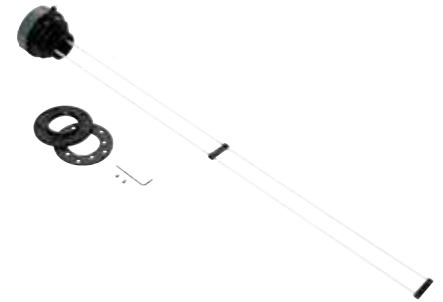
Description	Item no.
NMEA 2000® Waste Water Capacitive Sensors	A2C1364660001
NMEA 2000® Waste Water Capacitive Sensors	A2C1364670001
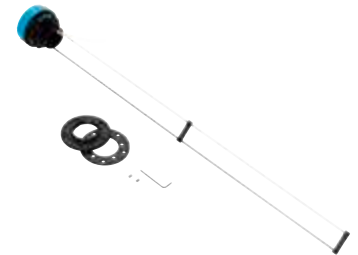
Oceanlink

The Oceanlink series focuses on the needs of the modern sports and leisure boats market. It provides a modular instrumentation concept for electronic navigation and engine monitoring with NMEA 2000®, J1939 and analogue connecivity. The product line offers a wide range of functions as well as great flexibility in installation and design.

The Oceanlink series provides two different master instruments as centerpieces of the system: a 4.3"TFT and a round master instrument. Both instruments are information powerhouses, multifunctional tachometers and NMEA 2000® gateways with direct access to the engine CAN Bus. They display all available data (e. g. engine data, depth, course over ground and speed over ground), and send it to all NMEA 2000® devices and to up to 16 additional satellite instrument. All instruments come in a new and stylish design, with perfect to read modern dials

The benefits of using Oceanlink:

• Easy and effective use.

• Perfectly readable engine monitoring thanks to increased performance presentation.

• The EasyLink data connection and the Plug & Play solution provide a flexible installation of panel and flush mounting instruments.

• Decades of experience guarantee a fully reliable, modern navigation and engine monitoring system with NMEA 2000®.

• A solid housing design completely sealed against dust and highly water resistant (IPX5 front and rear).

• High quality precision instruments

VDO Oceanlink TFT Displays

Oceanlink TFT Display

The new Oceanlink 4.3" multifunction TFT display features a full 24 bit / 16 milion colors optically bonded display with transmissive layer technology for perfect readability even in direct sunlight. The TFT displays and distributes a wide array of data received from NMEA 2000® and J1939 CAN Bus systems and analogue sensors directly connected to the display. Users can customize up to 40 different data pages with single, double, treble or quad grid layouts.

The Oceanlink 4.3"TFT sends the received data to up to 20 satellite 52 mm Oceanlink gauges. It also converts and sends J1939 and analogue data to the NMEA 2000® network and can be used as CAN Bus gateway.

• 1x NMEA 2000® connector
• 1x J1939 and 4x analogue input
• 1x Frequency input
• Operating temperature range -20 °C / +70 °C
• Optical bonded mineral glass lens
• Front & rear side protection rating IPX9

Description	Item no.
Multifunction Display 4.3	A2C1352150001

VDO Oceanlink Tachometer

Master Tachometer

The new Oceanlink Tachometer automatically presents all the key data up to 256 standard measurement values ranging from oil pressure and fuel consumption to operating hours – on a generously proportioned inverted dot matrix digital display. Besides a CAN interface with NMEA 2000® certified and SAE J1939 data protocol it features two inputs for analogue sensors. The innovative EasyLink data connection make the installation easy and cost effective. Satellite instruments for further dynamic measurement values receive updates from the central instrument every 20 ms.

Oceanlink is available in various designs and a number of bezel colour options. The instruments can also be conveniently integrated into customer-specific panel solutions.

The VDO Tachometer displays all inportant engine related data and distribute it to up to sixteen 52 mm satellite gauges.

• 1x NMEA 2000® input
• 1x J1939 and analogue input
• Reverse polarity protection
• Protection rating IPX5
• Operating temperature range -20 °C / +70 °C

Description	Range	Diameter	Item no.
Tachometer Black	0 - 3000 rpm	Ø 110 mm	A2C1065660001
Tachometer White	0 - 3000 rpm	Ø 110 mm	A2C1065670001
Tachometer Black	0 - 5000 rpm	Ø 110 mm	A2C1065720001
Tachometer White	0 - 5000 rpm	Ø 110 mm	A2C1065800001
Tachometer Black	0 - 7000 rpm	Ø 110 mm	A2C1065810001
Tachometer White	0 - 7000 rpm	Ø 110 mm	A2C1065820001

VDO Oceanlink Rudder Angle

The VDO rudder angle.

• < 100 mA
• Reverse polarity protection
• Anti-fog coated mineral glass lens
• Front & rear side protection rating IPX6, IPX9K
• Operating temperature range -20 °C / +70 °C

Description	Range	Diameter	Item no.
Rudder Angle Black	90°	Ø 52 mm	A2C1066080001
Rudder Angle White	90°	Ø 52 mm	A2C1066090001

VDO Oceanlink Speed GPS

GPS Speedometer

The new Oceanlink GPS Speedometer features an embedded GPS antenna, an inverted dot matrix LCD and NMEA 2000® connectivity. The LCD displays information like position, date and time and – if connected to a NMEA 2000® network – sea water temperature, depth and speed through water information. The IP65 waterproof design allows the installation on open or enclosed boats. Up to 20 satellite gauges of 52 mm each, can be connected thanks to the integrated EasyLink connectivity.

• 1x connector NMEA 2000®
• Reverse polarity protection
• Front & rear side protection rating IPX5
• Operating temperature range -20 °C / +70 °C

Description	Range	Diameter	Item no.
GPS Speedometer Black	0-14 knots / kmh / mph	Ø 85 mm	A2C1351970001
GPS Speedometer White	0-14 knots / kmh / mph	Ø 85 mm	A2C1352010001
GPS Speedometer Black	0-35 knots / kmh / mph	Ø 85 mm	A2C1351980001
GPS Speedometer White	0-35 knots / kmh / mph	Ø 85 mm	A2C1352080001
GPS Speedometer Black	0-70 knots / kmh / mph	Ø 85 mm	A2C1351990001
GPS Speedometer White	0-70 knots / kmh / mph	Ø 85 mm	A2C1352090001

VDO Oceanlink Fuel

Liquid Level

• AMP Superseal Easylink connector
• <100 mA
• 270 ° angle of rotation
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front and back protection IPX6, IPX9K
• Operating temperature range -20 ° C / + 70 ° C

Description	Range	Diameter	Item no.
Fuel Level Black	E - ½ - F	Ø 52 mm	A2C1065930001
Fuel Level White	E - ½ - F	Ø 52 mm	A2C1065940001

VDO Oceanlink Fresh Water

Liquid Level

- AMP Superseal Easylink connector
- <100 mA
- 270 ° angle of rotation
- Reverse polarity protection
- Anti-fog mineral glass lens
- Front and back protection IPX6, IPX9K
- Operating temperature range -20 ° C / + 70 ° C

Description	Range	Diameter	Item no.
Fresh Water Black	E - ½ - F	Ø 52 mm	A2C1065910001
Fresh Water White	E - ½ - F	Ø 52 mm	A2C1065920001

VDO Oceanlink Waste Water

Liquid Level

- AMP Superseal Easylink connector
- <100 mA
- 270 ° angle of rotation
- Reverse polarity protection
- Anti-fog mineral glass lens
- Front and back protection IPX6, IPX9K
- Operating temperature range -20 ° C / + 70 ° C

Description	Range	Diameter	Item no.
Waste Water Black	E - ½ - F	Ø 52 mm	A2C1065890001
Waste Water White	E - ½ - F	Ø 52 mm	A2C1065900001

VDO Oceanlink Coolant Temperature

Temperature Gauges

- AMP Superseal Easylink connector
- <100 mA
- 270° pointer deflection angle
- Reverse polarity protection
- Anti-fog mineral glass lens
- Front & rear protection rating IPX6, IPX9K
- Operating temperature range -20°C / +70°C

Description	Range	Diameter	Item no.
Coolant Temperature Black	120°C / 250°F	Ø 52 mm	A2C1065950001
Coolant Temperature White	120°C / 250°F	Ø 52 mm	A2C1065970001
Coolant Temperature Black	250°F / 120°C	Ø 52 mm	A2C1065980001
Coolant Temperature White	250°F / 120°C	Ø 52 mm	A2C1065990001

VDO Oceanlink Engine Oil Temperature

Temperature Gauges

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Range	Diameter	Item no.
Engine Oil Pressure Black	150°C / 300°F	Ø 52 mm	A2C1065850001
Engine Oil Pressure White	150°C / 300°F	Ø 52 mm	A2C1065860001
Engine Oil Pressure Black	300°F / 150°C	Ø 52 mm	A2C1065870001
Engine Oil Pressure White	300°F / 150°C	Ø 52 mm	A2C1065880001

VDO Oceanlink Engine Oil Pressure

Pressure Gauges

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Range	Diameter	Item no.
Engine Oil Pressure Black	10 bar / 150 psi	Ø 52 mm	A2C1066000001
Engine Oil Pressure White	10 bar / 150 psi	Ø 52 mm	A2C1066010001
Engine Oil Pressure Black	150 psi / 10 bar	Ø 52 mm	A2C1066020001
Engine Oil Pressure White	150 psi / 10 bar	Ø 52 mm	A2C1066030001

VDO Oceanlink Pyro

Temperature Gauges

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Range	Diameter	Item no.
Pyrometer Black	900°C / 1650°F	Ø 52 mm	A2C1349690001
Pyrometer White	900°C / 1650°F	Ø 52 mm	A2C1349710001
Pyrometer Black	1650°F / 900°C	Ø 52 mm	A2C1349700001
Pyrometer White	1650°F / 900°C	Ø 52 mm	A2C1349730001

VDO Oceanlink Transmission Oil Pressure

Pressure Gauges

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Range	Diameter	Item no.
Transmission Oil Pressure Black	30 bar / 450 psi	Ø 52 mm	A2C1066040001
Transmission Oil Pressure White	30 bar / 450 psi	Ø 52 mm	A2C1066050001
Transmission Oil Pressure Black	450 psi / 30 bar	Ø 52 mm	A2C1066060001
Transmission Oil Pressure White	450 psi / 30 bar	Ø 52 mm	A2C1066070001

VDO Oceanlink Boost Pressure

Pressure Gauges

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Range	Diameter	Item no.
Boost Pressure Black	2 bar / 30 psi	Ø 52 mm	A2C1066140001
Boost Pressure White	2 bar / 30 psi	Ø 52 mm	A2C1066150001
Boost Pressure Black	30 psi / 2 bar	Ø 52 mm	A2C1066160001
Boost Pressure White	30 psi / 2 bar	Ø 52 mm	A2C1066170001

VDO Oceanlink Voltage

Battery Status

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Range	Diameter	Item no.
Voltmeter Black	8 - 16V	Ø 52 mm	A2C1066100001
Voltmeter White	8 - 16V	Ø 52 mm	A2C1066110001
Voltmeter Black	16 - 32V	Ø 52 mm	A2C1066120001
Voltmeter White	16 - 32V	Ø 52 mm	A2C1066130001

VDO Oceanlink Ampmeter

Battery Status

• AMP Superseal Easylink connector
• <100 mA
• 270° pointer deflection angle
• Reverse polarity protection
• Anti-fog mineral glass lens
• Front & rear protection rating IPX6, IPX9K
• Operating temperature range -20°C / +70°C

Description	Range	Diameter	Item no.
Ampmeter Black	60A - 150A	Ø 52 mm	A2C1349640001
Ampmeter White	60A - 150A	Ø 52 mm	A2C1349660001
Ampmeter Black	150A - 60A	Ø 52 mm	A2C1349650001
Ampmeter White	150A - 60A	Ø 52 mm	A2C1349680001

VDO Oceanlink Trimmeter

The VDO Trimmeter for the best tuning of your boat.

• < 100 mA
• Reverse polarity protection
• Anti-fog coated mineral glass lens
• Front & rear side protection rating IPX6, IPX9K
• Operating temperature range -20 °C / +70 °C

Description	Range	Diameter	Item no.
Trim Black	Up / Down	Ø 52 mm	A2C1065830001
Trim White	Up / Down	Ø 52 mm	A2C1065840001

VDO Oceanlink Bezels

The front bezels are available in two colours: white or black. You can mount the bezels easily on he instruments by means of a clip-on system.

Description	Color	Diameter	Item no.
Oceanlink Bezel	Black	Ø 52 mm	A2C1141440001
Oceanlink Bezel	White	Ø 52 mm	A2C1352110001
Oceanlink Bezel	Chrome	Ø 52 mm	A2C5336487001
Oceanlink Bezel	Black	Ø 85 mm	A2C1111380001
Oceanlink Bezel	White	Ø 85 mm	A2C1352140001
Oceanlink Bezel	Chrome	Ø 85 mm	A2C1141580001
Oceanlink Bezel 4.3"	White		A2C1152980001
Oceanlink Bezel 4.3"	Black		A2C1083230001

Viewline

The Viewline instruments are certified by Germanischer Lloyd. The dial is available in black and white. Viewline instruments are fitted with highly visible, high intensity LED warning and indicator lights. The backlit lighting (from behind the dial) provides the instruments with a stylish look.

The reliable instruments have double lenses and are airtight sealed to prevent condensation (front according to IP 67, back according to IP52). Distracting reflections are practically eliminated and resistance to seawater is guaranteed.

Bezels

The VDO Viewline is a modular system. The instruments are standard supplied with a black round bezel or a white round bezel, some instruments also have a triangular chrome bezel as a standard. But you can easily replace the bezel to fit the Viewline instruments perfectly to your wheelhouse. You can choose the look of it as the front bezels are available in three colours: black, white and chrome. Each colour bezel is available in three variations: round, flat and triangular. You can mount the bezels easily on the instruments by means of an unique clip-on system. You can also choose for flushmount mounting of the Viewline instruments, but you will need a flushmount mounting set for that.

Order information

For fast and easy mounting of the instruments a Spinlock screw ring is supplied as a standard. Viewline instruments have a built-in diameter of 52 mm and/or 85 mm.

Engine control

VDO Viewline instruments monitor all engine functions. In the Viewline series a tachometer, engine hours counter, temperature gauges and an oil pressure gauge is developed.

VDO Viewline Tachometer and hours counter

The Viewline tachometers indicate the number of revolutions of the motor. The tachometer is available with or without operating hours counter (digital display). The display shows operating hours, voltage and time. One LED warning light is integrated as a standard. The tachometer with LCD will be programmed by Exalto. Therefore we need the following information: number of stator poles, diameter crankshaft pulley and diameter pulley dynamo. The operating hours counter makes it easy to stick to a proper maintenance schedule. It is only activated when the engine is running, so only genuine engine operating hours are counted. The operating hours counter is not preset or reset. The tachometers are suitable for the dynamo W-connection. For the other input signals you can contact our Sales Department Parts.
All gauges with other measurable ranges are available upon request.

Description	Voltage	Range	Diameter	Item no.
Tachometer, Hour Counter Black	12/24 V	0 - 3000 rpm	Ø 85 mm	A2C59512390
Tachometer, Hour Counter White	12/24 V	0 - 3000 rpm	Ø 85 mm	A2C59512396
Tachometer, Hour Counter Black	12/24 V	0 - 4000 rpm	Ø 85 mm	A2C59512391
Tachometer, Hour Counter White	12/24 V	0 - 4000 rpm	Ø 85 mm	A2C59512397

VDO Viewline hours counter

Description	Voltage	Diameter	Item no.
Hour Counter Black	12/24 V	Ø 52 mm	A2C59512453
Hour Counter White	12/24 V	Ø 52 mm	A2C59512454

VDO Viewline Tachometer

The Viewline tachometers indicate the number of revolutions of the motor. The tachometer is available with or without operating hours counter (digital display). The display shows operating hours, voltage and time. One LED warning light is integrated as a standard. The tachometer with LCD will be programmed by Exalto. Therefore we need the following information: number of stator poles, diameter crankshaft pulley and diameter pulley dynamo. The operating hours counter makes it easy to stick to a proper maintenance schedule. It is only activated when the engine is running, so only genuine engine operating hours are counted. The operating hours counter is not preset or reset. The tachometers are suitable for the dynamo W-connection. For the other input signals you can contact our Sales Department Parts.
All gauges with other measurable ranges are avaolable upon request.

Description	Voltage	Range	Diameter	Item no.
Tachometer Black	12/24 V	0 - 3000 rpm	Ø 85 mm	A2C59512430
Tachometer White	12/24 V	0 - 3000 rpm	Ø 85 mm	A2C59512433
Tachometer Black	12/24 V	0 - 4000 rpm	Ø 85 mm	A2C59512431
Tachometer White	12/24 V	0 - 4000 rpm	Ø 85 mm	A2C59512434

VDO Viewline Rudder Angle

The Viewline rudder angle instrument for wheel-controlled yachts and pleasure boats displays the current rudder position at all times. This indicator makes it easier to navigate out of harbours or through locks. The gauge is available in 52 and 85 mm installation diameters. Only rudder instruments of the same diameter can be combined.

Description	Voltage	Range	Diameter	Item no.
Rudder angle White	12/24 V	-45° to +45°	Ø 52 mm	A2C59514230
Rudder angle Black	12/24 V	-45° to +45°	Ø 52 mm	A2C59514154
Rudder angle White	12/24 V	-45° to +45°	Ø 85 mm	A2C59512411
Rudder angle Black	12/24 V	-45° to +45°	Ø 85 mm	A2C59512410
Rudder angle sensor for single station	6/24 V	-45° to +45°		A2C11029500
Rudder angle sensor for dual station	6/24 V	-45° to +45°		A2C11029600

VDO Viewline Speed over Ground (SOG)

This multifunctional gauge with segment display is intended for use in the marine market in open boats.
Based on the ViewLine housing concept, the cluster provides an ideal IP protection class, a modern appearance and high quality standards. It provides many parameters in NMEA 2000® and there are several customization opportunities to meet specific customer demands

Description	Voltage	Range	Diameter	Item no.
GPS Speedometer Blackt	12 V	0 - 35 Kn.	Ø 110 mm	A2C59501782
GPS Speedometer Black	12 V	0 - 70 Kn.	Ø 110 mm	A2C59501781

VDO Viewline Speed through Water (LOG®)

On the analogue scale, this sumlog shows the vessel's speed. The digital display can show several functions, e.g. total distance or day/trip distance. The integrated warning led can be set to maximum speed.
A complete sumlog set consists of: sumlog gauge, sender unit, vane wheel, sealable skin fitting and set of plugs. The complete sumlog set log consists of: sumlog gauge, sender unit, paddle wheel, sealable skin fitting and set of plugs.

Description	Voltage	Range	Diameter	Item no.
Sumlog Black	12/24 V	0 - 12 Kn.	Ø 85 mm	A2C595CPL11
Sumlog White	12/24 V	0 - 12 Kn.	Ø 85 mm	A2C595CPL13
Sumlog Black	12/24 V	0 - 50 Kn.	Ø 85 mm	A2C595CPL12
Sumlog White	12/24 V	0 - 50 Kn.	Ø 85 mm	A2C595CPL14
Sumlog Black	12/24 V	0 - 12 Kn.	Ø 85 mm	A2C59512404
Sumlog White	12/24 V	0 - 12 Kn.	Ø 85 mm	A2C59512407
Sumlog Black	12/24 V	0 - 50 Kn.	Ø 85 mm	A2C59512405
Sumlog White	12/24 V	0 - 50 Kn.	Ø 85 mm	A2C59512408
Sumlog Paddlewheel 8/12/18 Kn				270023005003D
Sumlog Paddlewheel 30/50 Kn				270023005005D
Sumlog through-hull fitting 0 - 30 - 50kn			Ø 39 mm	270023005010X

VDO Viewline Depth

The designer of this new VDO depth sounder clearly took the readability of the instrument at heart. You can read the depth on both the analogue scale and the digital display. The depth sounder works with a NMEA 0183 sensor. The integrated warning led can be used as a "shallow waters alarm".
For a complete depth sounder set, you will need an instrument, a NMEA 0183 triducer set and an adaptor cable.

Description	Voltage	Range	Diameter	Item no.
Depth 0-30m Black	12/24 V	0 - 30 m	Ø 85 mm	A2C59514247
Depth 0-30m White	12/24 V	0 - 30 m	Ø 85 mm	A2C59514250
Triducer NMEA-0183 Sensor Thru-Hull Mount Kit			Ø 39 mm	X11719000058

VDO Viewline Combi Depth

The VDO Combi depth log shows the vessel's speed at the analogue scale. The distance made and the day/trip distance can be read on the digital display. This instrument can take two different sensors: either the vane wheel from the sumlog (for speed and distance), or the triducer (NMEA 0183, for speed, depth and water temperature). integrated warning led can be set to maximum speed.
For a complete combi depth log set, you will need a sumlog instrument, a triducer set and an adaptor cable.

Description	Voltage	Range	Diameter	Item no.
Depth LOG 0-12kn Black	12/24 V	0 - 12 Kn.	Ø 85 mm	A2C595CPL01
Depth LOG 0-12kn White	12/24 V	0 - 12 Kn.	Ø 85 mm	A2C595CPL03
Depth LOG 0-50kn Black	12/24 V	0 - 50 Kn.	Ø 85 mm	A2C595CPL02
Depth LOG 0-50kn White	12/24 V	0 - 50 Kn.	Ø 85 mm	A2C595CPL04

VDO Viewline Fuel Level

The Viewline fuel gauge provides information about the fuel level in the tank. The gauge is equipped with a red warning LED as a standard. By connecting a makepoint swithc to the instrument, the warning LED can swithc on when he fuel level reaches a minimum level. For fule level measuring are two types of sensors available: the float sensor unit is mainly used in flat tanks with a limited height; seagoing vessels with a tanks height of maximum 1050 mm are advised to use a tubular sensor unit. The type of sensor decides which instrument should be ordered. The fuel gauge for a tubular sensor has to be adjusted to the sensor after installing the instrument.
N.B: After the choice for a particular type of gauge is made, a different type of sensor cannot be used!
The float sender unit has a resistance range of empty 0 - full 180 Ohm.
The tubular sender unit has a resistance range of empty 60 - full 30 Ohm.

* Can also be used in combination with TS1 Ultrasonic transducer.

Description	Voltage	Range	Diameter	Item no.
Fuel level lever arm Black*	12/24 V	0 - 1/1	Ø 52 mm	A2C59514082
Fuel level lever arm White*	12/24 V	0 - 1/1	Ø 52 mm	A2C59514184
Fuel level tubular Black	12/24 V	0 - 1/1	Ø 52 mm	A2C59514079
Fuel level tubular White	12/24 V	0 - 1/1	Ø 52 mm	A2C59514182
Fuel level lever arm White*	6/24 V	150 - 600 mm	Ø 54 mm	226801015001G
Fuel level tubular ø 54	6/24 V	404,5 mm	Ø 54 mm	224011010404G
Fuel level tubular ø 54	6/24 V	463,5 mm	Ø 54 mm	224011010463G
Fuel level tubular	6/24 V	846,0 mm	Ø 80 mm	X10224021006

VDO Viewline Fresh Water

This fresh water gauge indicates the level of drinking water in the fresh water tank. The gauge should match the sensor: a capacity sender unit or a float sensor. The special water sender unit of two pins has no moving parts and is therefore very durable and reliable. Length of the sender can be adjusted to the depth of the tank. The alarm level of the fresh water gauge (capacity) is set at an LED alarmlevel from a tank capacity of 15% and lower. The material of which your fresh water tank is manufactured, decides which sender unit you must choose. A metallic tank needs a galvanic separated sender. You can also choose to measure the level of fresh water by means of a float sensor. With the instruments for a float sensor you will need to order a dropping resistor (check Accessories).
N.B: After the choice for a particular type of gauge is made, a different type of sensor cannot be used!

* Can also be used in combination with TS1 Ultrasonic transducer.

Description	Voltage	Range	Diameter	Item no.
Fresh water lever arm Black*	12/24 V	0 - 1/1	Ø 52 mm	A2C59514097
Fresh water lever arm White*	12/24 V	0 - 1/1	Ø 52 mm	A2C59514192
Fresh water lever arm*	6/24 V	200 - 600 mm	Ø 54 mm	226828001001K
Fresh water black capacitive	12/24 V	0 - 1/1	Ø 52 mm	A2C59514676
Fresh water white capacitive	12/24 V	0 - 1/1	Ø 52 mm	A2C59514677
Waste water sensor capacitive	12/24 V	80 - 600 mm	Ø 80 mm	N02240902
Waste water sensor capacitive	12/24 V	600 - 1200 mm	Ø 80 mm	N02240904
Waste water sensor capacitive	12/24 V	600 - 1200 mm	Ø 80 mm	N02240906

VDO Viewline Voltmeter

The voltmeter displays the status of generator and battery and their loads on a voltage scale. Values exceeding the normal charging voltages can therefore be monitored exactly. Even potential deep discharges can be detected.

Description	Voltage	Range	Diameter	Item no.
Voltmeter Black	12 V	8 - 16V	Ø 52 mm	A2C59512545
Voltmeter White	12 V	8 - 16V	Ø 52 mm	A2C59512546
Voltmeter Black	24 V	18 - 32V	Ø 52 mm	A2C59512458
Voltmeter White	24 V	18 - 32V	Ø 52 mm	A2C59512459

VDO Viewline Waste Water

This water tank gauge indicates the level of black water. The capacity sensor can be adjusted to the depth of the water tank, with a maximum depth of 1500 mm. These galvanic separated sensors have a mounting flange for easy installation. The alarm level of the waste water gauge (capacity) is set at an LED alarmlevel from a tank capacity of b5% and higher.

Description	Voltage	Range	Diameter	Item no.
Waste water sensor Black	12/24 V	0 - 1/1	Ø 52 mm	A2C59512342
Waste water sensor White	12/24 V	0 - 1/1	Ø 52 mm	A2C59512343
Waste water sensor capacitive	12/24 V	80 - 600 mm	Ø 80 mm	N02240902
Waste water sensor capacitive	12/24 V	600 - 1200 mm	Ø 80 mm	N02240904
Waste water sensor capacitive	12/24 V	600 - 1200 mm	Ø 80 mm	N02240906
Mounting flange sender units				X10224000007

Ultrasoonsensor

This transducer is multivolt. It is suitable for measuring levels of fuel, fresh water and waste water. Completely free of any moving parts. Can be set to the tank dimensions via computer, it measures with a precision of 2mm. The sensor can be applied in both metal as in non-metallic tanks. This transducer has a low profile design and a standard SAE5 hole mounting pattern, allowing it to fit perfectly to the mounting pattern SAE5. Using the programming tool, you can set the output to 240-33 Ohm, 10-180 Ohm or 0-5V. The maximum tank depth is 2000mm. Matching instruments from VDO Viewline are: A2C59514082/A2C59514184 for fuel and A2C59514097/A2C59514192 for (waste) water that utilise a float sender unit. With these instruments, the output from the transducer must be set to 10-180 Ohm.

Description	Voltage	Diameter	Item no.
Ultrasoon tranducer	12/24 V	Ø 52 mm	BEPTS1
Ultrasoon transducer program kit			BEPTS1PK

VDO Viewline Coolant Temperature

This gauge displays the temperature of the cooling water. A warning LED is integrated as a standard. A makepoint switch or a sender unit with alarm contact can be connected to this gauge, to turn the LED on when the temperature rises to a critical point.
AC = Alarm contact
Other VDO sensors available upon request.

Description	Voltage	Range	Switch point	Outer thread	Diameter	Item no.
Coolant Temperature Black	12/24 V	120°C / 250°F			Ø 52 mm	A2C59514170
Coolant Temperature White	12/24 V	120°C / 250°F			Ø 52 mm	A2C59514237
Coolant Temperature + wc	6/24 V	40°C - 120°C		M14x1,5		323805001001N
Coolant Temperature + wc	6/24 V	40°C - 120°C		M14x1,5		325805003001C
Coolant Temperature + wc	6/24 V	40°C - 120°C	90 °c	M14x1,5		323803001004D
Coolant Temperature + wc	6/24 V	40°C - 120°C	96 °c	M14x1,5		323803001006D

VDO Viewline Engine Oil Temperature

This gauge displays the termperature of the oil in the engine or gearbox. This instrument has a double scale; the main scale is in ºC. The integrated warning LED ensures that a critical oil temperature can be quickly detected. The warning point depends on the used temperature sensor with warning contact or can be programmed by a make-point switch (check Accessories) which is connected to the instrument.
AC = Alarm contact
Other VDO sensors available upon request.

Description	Voltage	Range	Switch point	Outer thread	Diameter	Item no.
Engine Oil Pressure Black	12/24 V	150°C / 300°F			Ø 52 mm	A2C59514160
Engine Oil Pressure White	12/24 V	150°C / 300°F			Ø 52 mm	A2C59514231
Oil temperature sender	6/24 V	50°C - 150°C	130 °c	M14x1,5		323803002007D
Temperature switch 93°	6/24 V	93°C	93 °c	M14 x 1,5		232011017016D

VDO Viewline Outdoor Temperature Meters

This temperature meter shows the outside temperature. You can also place the sensor in the engine compartment to keep an eye on the temperature.

Description	Voltage	Range	Diameter	Item no.
Outside air temperature sender Black	12/24 V	-25°C - +50°C	Ø 52 mm	A2C59512336
Outside air temperature sender White	12/24 V	-25°C - +50°C	Ø 52 mm	A2C59512338

VDO Viewline Pyrometers

This temperature gauge indicates the exhaust temperature in the near direction of the cilinder head (up to 900°C). The instrument measures the dry exhaust gas temperature.The relationship of this value to the maximum permitted exhaust temperature shows how efficient combustion is at that particular load. A rise in temperature is therefore an important early warning signal. You can extend the measuring cable only with the compensation-cable N03320268). You can compile a complete pyrometer set by ordering the following products: instrument, sensor, compensation cable and weld fitting.
Do NOT shorten the standard cable lengths.

Description	Voltage	Range	Diameter	Item no.
Pyrometer Black	12/24 V	100°C - 900°C	Ø 52 mm	A2C59512332
Pyrometer White	12/24 V	100°C - 900°C	Ø 52 mm	A2C59512333
Pyrometer thermocouple probe	6/24 V	100°C - 900°C		N03320264
Exhaust pyrometer temperature sensor cable 6m				N03320268
Exhaust pyrometer temperature sensor welding flange				N03320266

VDO Viewline Engine Oil Pressure

This gauge displays the engine or gearbox oil's pressure. This instrument is equipped with a red warning LED as a standard. The warning point depends on the chosen pressure sensor with warning contact or can be controlled by installing a makepoint switch (see accessories). The oil pressure of the hydraulic gear is an important indication of the overall condition of the gearbox.
AC = Alarm contact
Other VDO sensors available upon request.

Description	Voltage	Range	Outer thread	Diameter	Item no.
Engine Oil Pressure Black	12/24 V	0- 5 bar		Ø 52 mm	A2C59514123
Engine Oil Pressure Black	12/24 V	0-10 bar		Ø 52 mm	A2C59514111
Engine Oil Pressure White	12/24 V	0- 5 bar		Ø 52 mm	A2C59514211
Engine Oil Pressure White	12/24 V	0-10 bar		Ø 52 mm	A2C59514199
Engine Oil Pressure Black	12/24 V	0-25 bar		Ø 52 mm	A2C59514136
Engine Oil Pressure Black	12/24 V	0-30 bar		Ø 52 mm	A2C59514141
Engine Oil Pressure White	12/24 V	0-25 bar		Ø 52 mm	A2C59514206
Engine Oil Pressure White	12/24 V	0-30 bar		Ø 52 mm	A2C59514208
Oil Pressure sender	6/24 V	0- 5 bar / 0- 72 PSI	M10x1		360081029001C
Oil Pressure sender 2 instr.	6/24 V	0- 5 bar / 0- 72 PSI	1/8x27 NPTF		362081001001K
Oil Pressure sender + wc	6/24 V	0- 5 bar / 0- 72 PSI	M10x1		360081030002C
Oil Pressure sender	6/24 V	0- 5 bar / 0- 72 PSI	1/8x27 NPTF		360081039002C
Oil Pressure sender	6/24 V	0-10 bar / 0-145 PSI	M10x1		360081032003C
Oil Pressure sender 2 instr.	6/24 V	0-10 bar / 0-145 PSI	1/8x27 NPTF		362081001002K
Oil Pressure sender + wc	6/24 V	0-10 bar / 0-145 PSI	M10x1		360081030009C
Oil Pressure sender	6/24 V	0-10 bar / 0-145 PSI	1/8x27 NPTF		360081039003C
Oil Pressure sender	6/24 V	0- 2 bar / 0- 30 PSI	1/8x27 NPTF		360081032025C
Oil Pressure sender	6/24 V	0- 5 bar / 0- 72 PSI	M10x1		360081032002C
Oil Pressure sender	6/24 V	0-25 bar / 0-360 PSI	1/8x27 NPTF		360081038003C
Pressure switch	6/24 V		M10x1con.		230112003015C
Pressure switch insulated return	6/24 V		M10x1con.		230112005006C

VDO Viewline Shunt

A shunt is a resistor that causes a small voltage drop. This voltage drop is mVolt is proportional with the current in ampère that goes through the resistor. This voltage is measured by the Ammeter. The advantage of the shunt is that thick wires are no longer needed at a high current (>10A). To measure the total flow you only need two thin wires from the measuring instrument to the shunt in the earth connection of the main system.

Description	Voltage	Range	Item no.
Shunt 60A	12/24 V	- 60A / 0 / + 60A	A2C59514043
Shunt 150A	12/24 V	- 150A / 0 / + 150A	A2C59514047

VDO Viewline Ampmeter

The ampmeter shows you the level of current being drawn and the supply current on a clearly readable dial. The shunt (a measurement resistor) can be inserted into the measurement point in a matter of seconds. The fine connecting cable that runs from the shunt to the gauge is safe and easy to lay without taking up much space. A 6 meter cable is supplied for the shunt. The shunt must be ordered separately.

Description	Voltage	Range	Diameter	Item no.
Ampmeter Black	12/24 V	- 60A / 0 / + 60A	Ø 52 mm	A2C59512328
Ampmeter White	12/24 V	- 60A / 0 / + 60A	Ø 52 mm	A2C59512330
Ampmeter Black	12/24 V	- 150A / 0 / + 150A	Ø 52 mm	A2C59512329
Ampmeter White	12/24 V	- 150A / 0 / + 150A	Ø 52 mm	A2C59512331

VDO Viewline Bezels

The front bezels are available in three colours: black, white and chrome. Each colour bezel is available in three variations: round, flat and triangular. You can mount the bezels easily on the instruments by means of a clip-on system. You can also choose for flushmount mounting of the Viewline instruments. Then, you will need the flushmount mounting set.

Description	Color	Diameter	Item no.
Viewline bezel	Black	Ø 52 mm	A2C53186040
Viewline bezel	White	Ø 52 mm	A2C53186022
Viewline bezel	Chrome	Ø 52 mm	A2C53186023
Viewline bezel	Black	Ø 52 mm	A2C53186027
Viewline bezel	White	Ø 52 mm	A2C53186028
Viewline bezel	Chrome	Ø 52 mm	A2C53186029
Viewline bezel	Black	Ø 52 mm	A2C53186024
Viewline bezel	White	Ø 52 mm	A2C53186025
Viewline bezel	Chrome	Ø 52 mm	A2C53186026
Viewline bezel	Black	Ø 85 mm	A2C53192911
Viewline bezel	White	Ø 85 mm	A2C53192912
Viewline bezel	Chrome	Ø 85 mm	A2C53192910
Viewline bezel	Black	Ø 85 mm	A2C53192913
Viewline bezel	White	Ø 85 mm	A2C53192916
Viewline bezel	Chrome	Ø 85 mm	A2C53192914
Viewline bezel	Black	Ø 85 mm	A2C53192917
Viewline bezel	White	Ø 85 mm	A2C53192920
Viewline bezel	Chrome	Ø 85 mm	A2C53192918
Adapter	Black	Ø 52 - 60 mm	140670145162

VDO Viewline Connection cables & Mounting kits

All Viewline instruments come complete with connection cables. Please check below for replacement.
If you already have an Ocean Line instruments set, and you want to replace an instrument by one from the Viewline series, then you can connect this Viewline instrument with the adapter cable easily to your instruments set.
With the dropping resistor you can use 12 volts Ø 52 mm instruments on a voltage of 24 volts.

Description	Diameter	Item no.
Flushmount Kit	Ø 52 mm	A2C53215640
Flushmount Kit	Ø 85 mm	A2C53215641
Adapter cable for Ø 52 mm instruments (excl. RPM) for connecting Viewline instrument to Ocean Line set		A2C59510852
Suspension resistor for 12V instruments in 24V grid		A2C59510853
Suspension resistor for 12V instruments in 24V grid		NL-VL8pinvw24V

Adapters for sensors and switches

Description	Outer thread	Item no.
Adapter	M14 x 1,5	8539910014
Adapter	M18 x 1,5	8539910018
Adapter	M14 x 1,5	8539912014
Adapter	M12 x 1,5	8539914012
Adapter	M16 x 1,5	8539914016
Adapter	M20 x 1,5	8539914020
Adapter	M22 x 1,5	8539914022
Adapter	3/8-18 NPTF	8539914038
Adapter	5/8 - 18 un	8539914058
Adapter	R1/2	8539914112
Adapter	M18 x 1,5	8539914118
Adapter	M22 x 1,5	8539978022

Makepointswitch & Alarm

The Viewline instruments are equipped with a LED warning light. This light warns you for critical situations. If a sensor unit without alarm contact is connected to an instrument, you can install the makepoint switch to upgrade the sensor unit. The makepoint switch is easy to install: simply plug the switch into the instrument and connect the sensor to the switch. An acoustic alarm can make you aware of a dangerous situation. VDO offers two types alarms: a waterproof 12/24V recessed alarm and a surface mounted type that is not waterproof.

Description	Color	Item no.
Alarm buzzer ressed Ø 52 mm	Black	N03230702
Alarm buzzer surface mounted	Black	X10236000003
Alarm buzzer surface mounted	Black	X10236000002
Makepoint	Black	A2C59510886

Glendinning electronic engine control

Glendinning's electronic engine control can control one or more engines, and it supports up to six separate helm control stations. The intelligent controls and actuators are the most important elements of this system.

The Glendinning electronic engine control can be installed for a mechanical as well as electronic controlled gearbox and throttle. For each system a complete installation set is compiled, controls and cables for one helm station are included. The renewed Smart Actuator II is now also suitable for mechanical controlled gearbox and throttle, for inboard as well as for outboards and sterndrives.

Glendinning

Glendinning offers a solution for:
• a mechanical system.
• an electronic system.
• or a combination of both.

Easy installation

The electronic engine control is easy to install, thanks to:
• a small number of components. Therefore the system is not only easy to install, but this reduces the chance of interference as well.
• "plug-and-play" wiring
• the use of one type of communication cable, with identical connectors on either end. So no mistakes can be made when connecting the cables.

Easy in use

An important issue in developing the system was to make the engine control easy to use. This resulted in:
• Easy configuration of the system.
• When you change control station, you don't have to change to neutral first.
• You can choose to start in neutral warm position, where you are able to accelerate with the coupling in its neutral position.
• The possibility of automatic synchronisation of your engines ("open loop" or optional "closed loop").
• A clear manual with trouble-shooting chapter.
• The possibility of increasing or decreasing the rpm by means of buttons (throttle bump).

Smart Actuator II – for mechanical controlled gearbox and throttle

The electro-mechanical actuator converts the electronic commands that are generated by the control head into specific positions at the engine's gear and throttle. Communication goes through the proven CAN-bus-system.
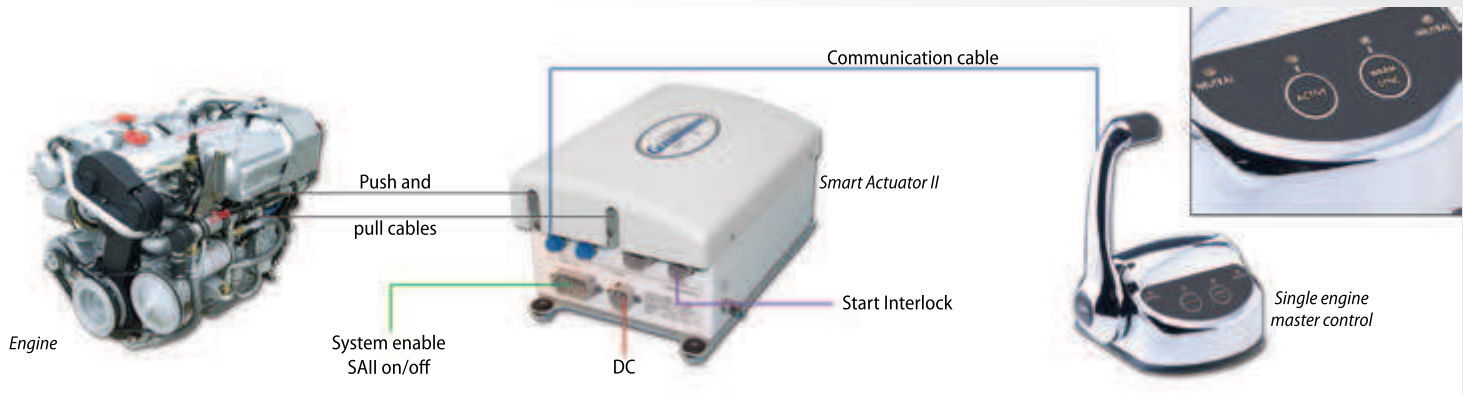The Smart Actuator II is smaller and lighter in weight than the first generation actuators. This actuator features the newest software and is suitable for inboard as well as for outboards and sterndrives. To protect your actuator even more from dust, filth and water, an elegant cover is supplied as a standard. You can turn the actuator on and off by means of a switch, which can be built into your dashboard

EEC Control Processor – for electronic controlled gearbox and throttle

With an electronial controlled throttle the installation of an EEC control processor is necessary for the electronic translation between control head and throttle. Brand and type of your engine are important to know for an optimum configuration of the electronic engine control. The EECs will be supplied fully configurated; you only have to install the components and cables.

Controls

The intelligent single lever controls are available in single and twin versions. With one lever you can control both gear and throttle. The buttons on the control head provide you with extra functions. The solid housing guarantees stability and durability in even the most extreme marine environments. The controls included in the sets are chrome plated as a standard. On request the control heads can be supplied in metallic black or golden look finish. The controls comply with IP66.

Communication cable

Smart Actuator II

Push and

pull cables

Start Interlock

Single engine master control

Engine

System enable SAII on/off

DC

Mechanical throttle and gear - inboard

No matter what type of propulsion system is equipped with, Glendinning is offering fit for purpose engine control systems. The Smart Actuator 2 electronic control system provide complete control of mechanically throttled and shifted engines. Check the table to find the right inboard set for single or twin engine applications. The sets are available in 12V and 24V. All sets include one master control for top mounting, smart actuator(s) and cables for installation. A communication cable in the right length (for the control) needs to be ordered seperately.

Additional control stations (slave) are optional and require one extra communication cable for each additional control.

Smart Actuator II sets - inboard

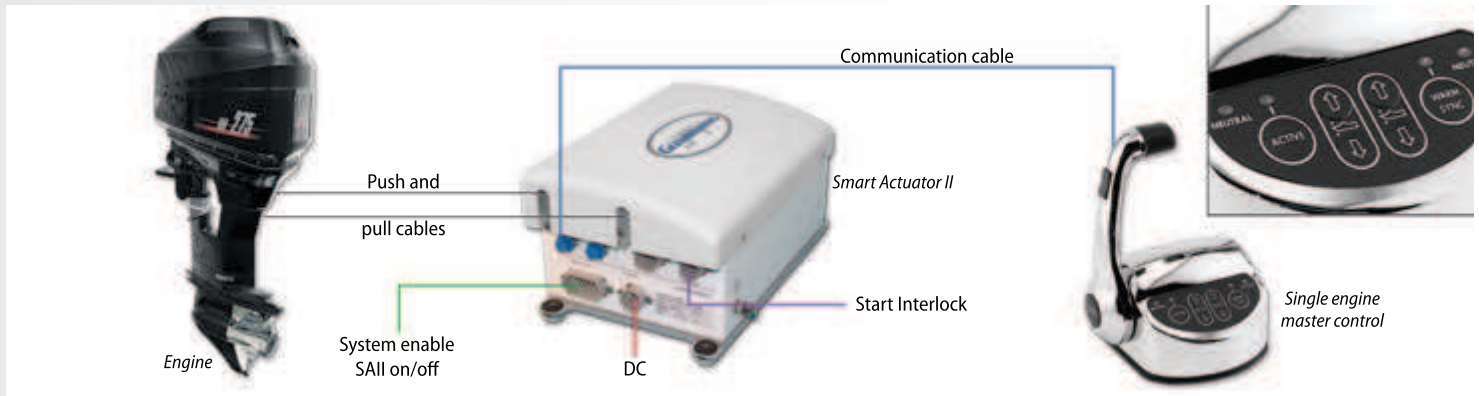| Description	Cat. no.	single engine Qua.	twin engine Qua.
Smart Actuator II STB/SGL	11314xxTMGS*	1	1
Smart Actuator II PORT	11314xxTMGP*		1
Master control single	11415CCPSGL	1	
Master control twin	11415CCP		1
Communication cable, 6 m	116000220		1
Communication cable, 12 m	116000240	1	1
Terminating resistor	11600TRF	2	2
Power supply harness	1160101	1	2
Harness start interlock	1160203	1	2
Harness ignition enable	1160302IGN40	1	1
Harness system enable plug jumper	1160302IGNSGL	1	
Harness system enable plug jumper (STB)	1160302IGNS		1
Harness system enable / Tach input (Port)	1160302IGNP		1

*xx= 12 at 12V-set, 24 at 24V-set

Components extra control station

Description	Cat. no.	single engine Qua.	twin engine Qua.
Control single chroom	11415C2SGL	1	
Control twin chroom	11415C2		1
Communication cable	1160002xxx**	1	1

** xxx= depending on cable length

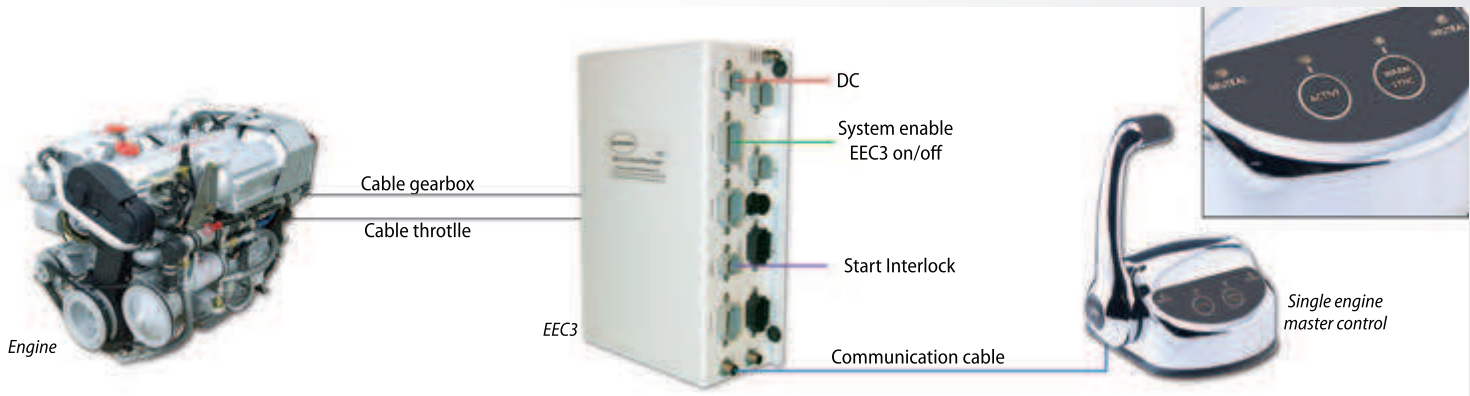| Description	Voltage	Length	Suitable for	Item no.
Glendinning Set inboard single engine 12V	12 V		Mechanical throttle / shift	SA2-1E-INBD12
Glendinning Set inboard single engine 24V	24 V		Mechanical throttle / shift	SA2-1E-INBD24
Glendinning Set inboard twin engine 12V	12 V		Mechanical throttle / shift	SA2-2E-INBD12
Glendinning Set inboard twin engine 24V	24 V		Mechanical throttle / shift	SA2-2E-INBD24
Single control for additional helm, inboard			Single engine	11415CSGL
Twin control for additional helm, inboard			Twin engines	11415C
Station cable		6 m	Glendinning electronic engine control	116000220
Station cable		12 m	Glendinning electronic engine control	116000240
Station cable		18 m	Glendinning electronic engine control	116000260

Communication cable

Push and
pull cables

Smart Actuator II

Start Interlock

System enable
SAII on/off

DC

Engine

*Single engine
master control*

Mechanical throttle - outboard / sterndrive

For outboard or sterndrive systems with mechanically throttled and shifted engines.
Glendinning offers engine control systems with integrated trim function. Check the table to find the right inboard set for single or twin engine applications. The sets are available in 12V and 24V. All sets include one master control for top mounting, smart actuator(s) and cables for installation. A communication cable in the right length (for the control) needs to be ordered seperately.

Additional control stations (slave) are optional and require one extra communication cable for each additional control. The slave control systems also feature the integrated trim function.

Description	Voltage	Length	Suitable for	Item no.
Glendinning Set outboard / sterndrive single engine 12V	12 V		Mechanical throttle / shift	**SA2-1E-OBSD12**
Glendinning Set outboard / sterndrive single engine 24V	24 V		Mechanical throttle / shift	**SA2-1E-OBSD24**
Glendinning Set outboard / sterndrive twin engine 12V	12 V		Mechanical throttle / shift	**SA2-2E-OBSD12**
Glendinning Set outboard / sterndrive twin engine 24V	24 V		Mechanical throttle / shift	**SA2-2E-OBSD24**
Single control - for additional helm - outboard/sterndrive			Single engine	**11416CSGL**
Twin control - for additional helm - outboard/sterndrive			Twin engines	**11416C**
Station cable		6 m	Glendinning electronic engine control	**116000220**
Station cable		12 m	Glendinning electronic engine control	**116000240**
Station cable		18 m	Glendinning electronic engine control	**116000260**

Smart Actuator II sets - outboard

Description	Cat. no.	single engine	twin engine
		Qua.	
Smart Actuator II STB/SGL	11314xxTMGS*	1	1
Smart Actuator II PORT	11314xxTMGP*		1
Master control single	11416CCPSGL	1	
Master control twin	11416CCP		1
Communication cable, 6m	116000220		1
Com. cable, 12 m	116000240	1	1
Terminating resistor	11600TRF	2	2
Power supply	1160101	1	2
Harness system enable STB/tacho inputs	1160304IGNS		1
Harness system enable Port	1160304IGNP		1
Harness system enable SGL	1160304IGNSGL	1	
Harness for trim Port/SGL	1161110IGN20	1	1
Harness for trim STB	116111020		1

* xx= 12 at 12V-set, 24 at 24V-set

Components extra control station

Description	Cat. no.	single engine	twin engine
		Qua.	
Control single chroom	11416C2SGL	1	
Control twin chroom	11416C2		1
Communication cable		1	1

Engine control

Electronic engine control

Engine

Cable gearbox

Cable throtlle

EEC3

DC

System enable
EEC3 on/off

Start Interlock

Communication cable

Single engine
master control

Electronic throttle- and gear

Glendinning EEC electronic engine control for electronically throttled and shifted engines. The EEC control processor translates electronic orders from control to gearbox and throttle. The sets come complete with
cables and chrome plated master control for top mounting. The EEC control systems will be pre-configured for the required type of engine. After installation of the components and the cables the system is ready for use.
 If you want to install additional control stations, please order an (slave) control and one communication cable for each additional control.

EEC3 sets

Description	Cat. no.	single engine	twin engine
		Qua.	
EEC3	11230...*	1	1
Master control single	11415CSGL	1	
Master control twin	11415C		1
Communication cable 12m	116000240	1	1
Communication cable 6 m	116000220		1
Terminating resistor	11600TRF	1	1
Power supply harness	1160101	1	1
Harness start interlock	1160203	1	2
System enable harness	11603xx20**	1	1
Cable for gearbox	11605...*	1	2
Cable for throttle	11604...*	1	2

* ... = depends on engine type
** xx = depends on Volt

Components extra control station

Description	Cat. no.	single engine	twin engine
		Qua.	
Control single chroom	11415CSGL	1	
Control twin chroom	11415C		1
Communication cable		1	1

For the configuration of the EEC3 information about your motor (brand / type) is needed. Please contact our Parts sales dept.

Description	Voltage	Length	Suitable for	Item no.
Glendinning Set elelctronic single engine 12V	12 V		Electronic throttle / shift	526EE01-12-XXX
Glendinning Set elelctronic single engine 24V	24 V		Electronic throttle / shift	526EE01-24-XXX
Glendinning Set elelctronic twin engine 12V	12 V		Electronic throttle / shift	526EE02-12-XXX
Glendinning Set elelctronic twin engine 24V	24 V		Electronic throttle / shift	526EE02-24-XXX
Single control for additional helm, inboard			Single engine	11415CSGL
Twin control for additional helm, inboard			Twin engines	11415C
Station cable		6 m	Glendinning electronic engine control	116000220
Station cable		12 m	Glendinning electronic engine control	116000240
Station cable		18 m	Glendinning electronic engine control	116000260

Remote control - wired

The handheld remote control allows you to operate your electronic engine control system from virtually anywhere on board. The remote control features all standard functions of the stationary control(s). The remote control comes with a relay box. With this relay box accessories, for example a bow thruster or electronic rudder, can be controlled. There are two types of remote controls:
• Plug-in version: anywhere plug-in connectors are installed you're able to create an extra control station with the remote control. Please order an extra communication cable.

• Hardwired version: connect the handheld remote control to your "fixed" control station.

Description	Suitable for	Item no.
Pretech handheld remote control "plug-in"	Glendinning electronic engine control system	11470625P
Pretech handheld remote control - "hardwired"	Glendinning electronic engine control system	11470635

ProPilot joystick control

The ProPilot allows simple and intuitive boat handling. Manoeuvering and docking by using the single joystick control. By simply moving or rotating the joystick, the engine and thrusters will effortlessly activate to move the boat in the required direction. The ProPilot system is suitable for installation on all inboard power boats and sailboats with thrusters. The ProPilot system can be used with any type of engine or transmission – single or twin engine and is compatible with any Glendinning "Complete Control" system. The control includes integrated thruster control buttons. Installation is extremely easy.

Description	Suitable for	Item no.
Joystick control kit single thruster	Vetus thruster	KJCSSTSSV
Joystick control kit single thruster	Sidepower SE thruster	KJCSSTSSS
Joystick control kit single thruster	Thruster with proportional, analog control	KJCSSTPROA
Joystick control kit single thruster	Sidepower SEP thruster	KJCSSTPROS
Joystick control kit single thruster	Sidepower ABT thruster	KJCSSTPROABT
Joystick control kit single thruster	Glendinning ProPilot single thruster	KJCSSTREM
Joystick control kit dual thruster	Vetus thruster	KJCSDTSSV
Joystick control kit dual thruster	Sidepower SE thruster	KJCSDTSSS
Joystick control kit dual thruster	Thruster with proportional, analog control	KJCSDTPROA
Joystick control kit dual thruster	Sidepower SEP thruster	KJCSDTPROS
Joystick control kit dual thruster	Sidepower ABT thruster	KJCSDTPROABT
Joystick control kit dual thruster	Glendinning ProPilot dual thruster	KJCSDTREM
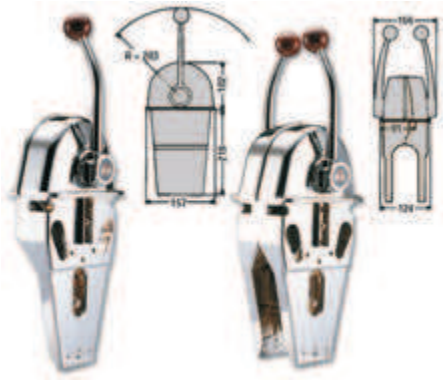
Pretech Top mount control TS

The TS Single topcontrol is suitable for one engine (gearbox and throttle), the TS Twin for two engines. Positive dentent in forward, neutral and reverse. Full neutral throttle run-up for starting. Fully chromed. Both controls come complete with fittings for all cables mentioned.

Description	Version	Suitable for	Color	Item no.
Pretech topcontrol TS Single	Top mount, dual lever control	MAXFLEX 3300, 33c, EXTREME, supreme, 4300, 43c	Chrome	308601
Pretech topcontrol TS Twin	Top mount, dual lever control	MAXFLEX 3300, 33c, EXTREME, supreme	Chrome	308602
Connectionkit topcontrol TS Twin		MAXFLEX 4300, 43c	Chrome	378742

Pretech Top mount control TM

The TM Single topcontrol is suitable for one gearbox or one throttle. The TM control has a polished stainless steel cover and hanger plate. A neutral safety kit is optional.

Description	Version	Suitable for	Color	Item no.
Pretech topcontrol TM Single	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme, 4300, 43c	Chrome	30010

Pretech Top mount control TC

The TC Single topcontrol can control one clutch or one throttle. The TC Twin is suitable for one clutch and one throttle or for two clutches or two throttles. The TC control is a heavy-duty lever control with positive brake and shut off position for heavy throttles.

Description	Version	Suitable for	Color	Item no.
Pretech topcontrol TC Single for engine	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme, 4300, 43c	Chrome	31001
Pretech topcontrol TM Single for gear	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme, 4300, 43c	Chrome	31002
Pretech topcontrol TC Twin engine & gear	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme, 4300, 43c	Chrome	36468
Pretech topcontrol TC Twin engine & engine	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme, 4300, 43c	Chrome	36469
Pretech topcontrol TC Twin gear & gear	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme, 4300, 43c	Chrome	36470

Teleflex Side mount control CH1700

The CH1700 dual action controls have an ergonomic design and advanced features. The control features neutral interlock, throttle (neutral) warm-up, and start-in-gear protection, drag adjustment. Power trim/tilt and emergency cut off switches come as an option. CH1700 controls are suitable for use both universal (3300 type) or OEM type control cables without adaptation. The CH1700 controls can be used in dual station applications.

Description	Version	Suitable for	Color	Item no.
Teleflex sidecontrol CH1700	Side mount	MAXFLEX 3300, 33c, EXTREME, supreme	Black / Chrome	221700

Teleflex Side mount control CH2800/CH2850

The CH2800 features unique twistgrip momentary switch for control of bow thruster or windlass and neutral "warm up" button for throttle only operation. Designed for steering pedestal or cockpit well mounting. Polished stainless steel lever with composite knob. Dual action design. Suits 3300, 33c type cables. The control can be mounted with or without cover plate. Suitable for use in dual station applications.

Description	Version	Suitable for	Color	Item no.
Teleflex sidecontrol CH2800 with switch	Side mount	MAXFLEX 3300, 33c, EXTREME, supreme	Chrome	222800
Teleflex sidecontrol CH2850	Side mount	MAXFLEX 3300, 33c, EXTREME, supreme	Chrome	222850

Teleflex Side mount control SL3

The SL3 side mount controls are dual action (throttle/shift) controls. The controls features start "in gear" protection, neutral interlock (side mount only), neutral engine warm up, adjustable drag. Suits 3300, 33c, OMC and Mercury cables. Easy to install due to various cable entry angles. Closed gear mechanism. Dual station application require the use of a DS unit.

Description	Version	Suitable for	Color	Item no.
Teleflex control SL3	Side mount	MAXFLEX 3300, 33c, EXTREME, supreme	Black	2272

Manual engine controls Single & Twin

Teleflex Side mount control STB

The ST and STB controls have a simple, classic design and durable chrome finish. The single-function lever is voor one cable only. Versions are available for 3300/33C and 4300/43 type cables with or without external, adjustable throttle brake. The STB control includes a throttle brake.

Description	Version	Suitable for	Color	Item no.
Teleflex control STB	Side mount	MAXFLEX 4300, 43c	Chrome	2237
Teleflex control STB	Side mount	MAXFLEX 3300, 33c, EXTREME, supreme	Chrome	2246

Teleflex Top mount control CH7500

The CH7500 controls are advanced and have an ergonomic design.The controls feature throttle (neutral) warm-up and start-in-gear protection features, drag adjustment and optional neutral interlock and power trim/tilt function. The CH7500 controls suit both universal type (3300, 33c) or OEM type control cables without the need for adaptation. Can be use in dual station application with a DS-unit.

Description	Version	Suitable for	Color	Item no.
Teleflex control	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme	Black /Chrome	227500

Teleflex Top mount control MT3

The MT3 controls are dual action topmount controls with a classic design. The sturdy controls have a chrome finish and are available in single or twin engine versions. The controls feature a built-in friction drag which reduces slippage and throttle creep. Comes with hardware for mentioned cables. For dual stations applications the use of a DS-unit is required.

Description	Version	Suitable for	Color	Item no.
Teleflex topcontrol MT3 Single	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme	Chrome	2261
Teleflex topcontrol MT3 Single	Top mount	MAXFLEX 4300, 43c	Chrome	2262
Teleflex topcontrol MT3 Twin	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme	Chrome	2263

Teleflex Top mount control SL3

The SL3 top mount controls are dual action (throttle/shift) (also available for side mount). The black satin finished controls are available for single or twin engine applications with or without trim and/or tilt switches. The controls features start "in gear" protection, neutral interlock (side mount only), neutral engine warm up, adjustable drag. Suits 3300, 33c, OMC and Mercury cables. Easy to install due to various cable entry angles. Closed gear mechanism. Dual station application require the use of a DS unit.
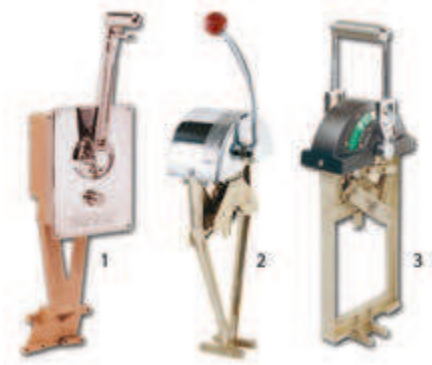
Description	Version	Suitable for	Color	Item no.
Teleflex topcontrol SL3 Single	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme	Black	2271
Teleflex topcontrol SL3 Twin	Top mount	MAXFLEX 3300, 33c, EXTREME, supreme	Black	2273

Kobelt Top- and Side mount controls

Kobelt controls are primarily used for managing propulsion on marine vessels. The controls are durable, high quality push-pull systems. The housing is made of bronze and makes the controls long lasting and dependable even in the harshest of environments. Kobelt controls are easy to installl and maintain. Connection kits need to be ordered seperately. Controls are available in many versions, in case of special requirements contact our Parts sales dept.

V= T-bar handle with plastic grips, Y= T-bar handle (standard), Z= with riveted metal labels.

Pos.	Description	Version	Suitable for	Color	Item no.
1	Kobelt sidecontrol 2042 brass	2042	Single engine	Gold / brass	530010
2	Kobelt topcontrol 2046. VZ brass	2046.VZ	Single engine	Gold / brass	530006
2	Kobelt topcontrol 2046.Y brass	2046.Y	Single engine	Gold / brass	530002
-	Kobelt topcontrol 2047. VZ brass	2047.VZ	Twin engines	Gold / brass	530081
-	Kobelt topcontrol 2095 brass	2095	Single engine	Gold / brass	530019
-	Kobelt sidecontrol 2042 chrome	2042	Single engine	Chrome	530011
-	Kobelt topcontrol 2046. VZ chrome	2046.VZ	Single engine	Chrome	530005
-	Kobelt topcontrol 2046.Y chrome	2046.Y	Single engine	Chrome	530001
-	Kobelt topcontrol 2047. VZ chrome	2047.VZ	Twin engines	Chrome	530080
-	Kobelt sidecontrol 2095 chrome	2095	Single engine	Chrome	530018
-	Kobelt sidecontrol 2042 black	2042	Single engine	Black	530012
-	Kobelt topcontrol 2046. VZ black	2046.VZ	Single engine	Black	530007
-	Kobelt topcontrol 2046.Y black	2046.Y	Single engine	Black	530003
-	Kobelt topcontrol 2047. VZ black	2047.VZ	Twin engines	Black	530082
3	Kobelt topcontrol 2095 black	2095	Single engine	Black	530020

Kobelt Dual Controls

The Kobelt 2091 / 2093 control system is a two station mechanical control system. One control is the master control and the other the slave (remote) control. Both controls work in tandem, moving at the same time to sync controls across multiple stations.
The 2091 / 2093 are made of solid bronze and stainless steel. Typical use is for a single engine configuration, with clutch and throttle functionality built into the single lever. The 2091 has a pull-out handle for overiding throttle. The 2091 maximum clutch stroke is 2 3/4" (70mm) and maximum throttle stroke is 2 1/4" (57mm), and requires a cable connection kit.

Example

Description	Version	Suitable for	Color	Item no.
Kobelt dual control 2091/2093 brass	Top mount	Twin engines	Gold / Brass	530040
Kobelt dual control 2091/2093 chrome	Top mount	Twin engines	Chrome	530041
Kobelt dual control 2091/2093 black	Top mount	Twin engines	Black	530042

Kobelt connection kits

Kobelt connection kits offer ease of connectivity when configuring push-pull systems. When ordering Kobelt controls connection kits need to be ordered separately (one connection kit for each cable).

Description	Suitable for	Item no.
Connection kit	MAXFLEX 3300, 33c, EXTREME, supreme	530050
Connection kit	MAXFLEX 4300, 43c	530051

Exalto DS-unit

Easy to control your engine or gearbox from different helms. Made of brass and stainless steel.

Description	Suitable for	Item no.
Hollex DS-unit	MAXFLEX 3300, 33c, EXTREME, supreme	2208

Hollex Dual station unit

Dual station unit which, in case of dual station command, can be used for throttle only. Comes complete with stainless steel double cable clamp. Made of brass and stainless steel.

Description	Suitable for	Item no.
Hollex DS unit (throttle only) with cable clamp	MAXFLEX 3300, 33c, EXTREME, supreme	2245

Morse DS-units

Dual station unit for single or twin engine systems. Two dual station units per motor must be used in case of dual station command. One for the throttle lever and one for the gearbox lever. The dual station unit can be mounted on or remotely from the engine. Pos 1 is for throttle use only; pos 2 for gearbox use only.
The gearbox unit is equipped with a latch control. The function of this control is to isolate
the unattended control by using a station selector and a cable. The
station selector and cable have to be ordered seperately.

Pos.	Description	Suitable for	Item no.
1	Teleflex DS unit	MAXFLEX 3300, 33c, EXTREME, supreme	2243
1	Teleflex DS unit	MAXFLEX 4300, 43c	2244
2	Teleflex DS unit, with latch	MAXFLEX 3300, 33c, EXTREME, supreme	2219
2	Teleflex DS unit, with latch	MAXFLEX 4300, 43c	2220

Morse T-control

The T-control is used to control the latch control of the gearbox dual station unit. The station selector has connections for one or
two MAXFLEX 3300 or 33c cables (can be used to lock one or two gearboxes).
Pos. 1: DS-unit for throttle
Pos. 2: DS-unit with latch control for gear
The T-control controls the latch control of the DS-unit on pos. 2.

Description	Suitable for	Item no.
Teleflex T-control	MAXFLEX 3300, 33c, EXTREME, supreme	2249

Pretech Stop system

Max bend radius   : 8 /203 "/mm
Pull force   : 70 kg
Push force   : 38 kg
Travel length   : 3 / 75 inch/mm

Description	Length	Item no.
Pretech stopsystem 2,50m	2500 mm	3180250
Pretech stopsystem 4,00m	4500 mm	3180400
Pretech stopsystem 5,00m	5000 mm	3180500
Pretech stopsystem 8,00m	8000 mm	3180800
Pretech stopsystem 10,00m	10000 mm	31801000
Stop T-handle (see picture inset)		31780

Pretech kill switch type SD

T-handle kill switch for top mounting. Features an adjustable brake. Ideal for throttles, chokes and fuel shut down. Enables
MAXFLEX 330 or 33c cables to be converted for use as a stop cable. All visible parts of the
SD are chrome plated. The optional bracket for side mounting is made of stainless steel.

Pos.	Description	Suitable for	Item no.
1	Pretech topcontrol SD	MAXFLEX 3300, 33c, EXTREME, supreme	31916
2	Pretech mountingbracket SD (for sidemount)	31916 SD-control	31917
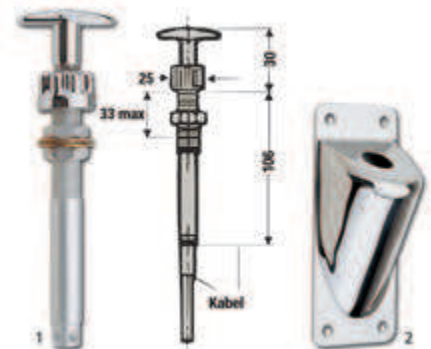
Maxflex 3300 - Extreme - Maxflex 4300

Corrosion resistant construction and high efficiency. Durable UV-resistant outers resist abrasion and withstand the effects of salt water, petrol and oil. Each cable is lifetime lubricated and sealed at the factory. Maxflex cables are suitable for replacement of other cables, the threads and connections are identical.

MAXFLEX 3300
Min. radius	: 8/203 "/mm
Pull	: 70 kg
Push	: 38 kg
Thread	: 10/32 UNF
Travel	: 3/75 in/mm

EXTREME
Min. radius	: 6/152,4 "/mm
Pull	: 90 kg
Push	: 48 kg
Thread	: 10/32 UNF
Travel	: 3/75 in/mm

MAXFLEX 4300
Min. radius	: 8/203 "/mm
Pull	: 90 kg
Push	: 48 kg
Thread	: 1/4-28 UNF
Travel	: 3/75 in/mm

MAXFLEX 3300

Length	Item no.	Length	Item no.	Length	Item no.	Length	Item no.	Length	Item no.
1 m	3300100	3,5 m	3300350	6 m	3300600	8,5 m	3300850	14 m	33001400
1,25 m	3300125	3,75 m	3300375	6,25 m	3300625	8,75 m	3300875	15 m	33001500
1,5 m	3300150	4 m	3300400	6,5 m	3300650	9 m	3300900	16 m	33001600
1,75 m	3300175	4,25 m	3300425	6,75 m	3300675	9,25 m	3300925	17 m	33001700
2 m	3300200	4,5 m	3300450	7 m	3300700	9,5 m	3300950	18 m	33001800
2,25 m	3300225	4,75 m	3300475	7,25 m	3300725	9,75 m	3300975	19 m	33001900
2,5 m	3300250	5 m	3300500	7,5 m	3300750	10 m	33001000	20 m	33002000
2,75 m	3300275	5,25 m	3300525	7,75 m	3300775	11 m	33001100	21 m	33002100
3 m	3300300	5,5 m	3300550	8 m	3300800	12 m	33001200	22 m	33002200
3,25 m	3300325	5,75 m	3300575	8,25 m	3300825	13 m	33001300		

EXTREME

Length	Item no.	Length	Item no.	Length	Item no.	Length	Item no.	Length	Item no.
1 m	6300100	3,5 m	6300350	6 m	6300600	8,5 m	6300850	14 m	63001400
1,25 m	6300125	3,75 m	6300375	6,25 m	6300625	8,75 m	6300875	15 m	63001500
1,5 m	6300150	4 m	6300400	6,5 m	6300650	9 m	6300900	16 m	63001600
1,75 m	6300175	4,25 m	6300425	6,75 m	6300675	9,25 m	6300925	17 m	63001700
2 m	6300200	4,5 m	6300450	7 m	6300700	9,5 m	6300950	18 m	63001800
2,25 m	6300225	4,75 m	6300475	7,25 m	6300725	9,75 m	6300975	19 m	63001900
2,5 m	6300250	5 m	6300500	7,5 m	6300750	10 m	63001000	20 m	63002000
2,75 m	6300275	5,25 m	6300525	7,75 m	6300775	11 m	63001100	21 m	63002100
3 m	6300300	5,5 m	6300550	8 m	6300800	12 m	63001200	22 m	63002200
3,25 m	6300325	5,75 m	6300575	8,25 m	6300825	13 m	63001300		

MAXFLEX 4300

Length	Item no.	Length	Item no.	Length	Item no.	Length	Item no.	Length	Item no.
1 m	6500100	3,5 m	6500350	6 m	6500600	8,5 m	6500850	14 m	65001400
1,25 m	6500125	3,75 m	6500375	6,25 m	6500625	8,75 m	6500875	15 m	65001500
1,5 m	6500150	4 m	6500400	6,5 m	6500650	9 m	6500900	16 m	65001600
1,75 m	6500175	4,25 m	6500425	6,75 m	6500675	9,25 m	6500925	17 m	65001700
2 m	6500200	4,5 m	6500450	7 m	6500700	9,5 m	6500950	18 m	65001800
2,25 m	6500225	4,75 m	6500475	7,25 m	6500725	9,75 m	6500975	19 m	65001900
2,5 m	6500250	5 m	6500500	7,5 m	6500750	10 m	65001000	20 m	65002000
2,75 m	6500275	5,25 m	6500525	7,75 m	6500775	11 m	65001100	21 m	65002100
3 m	6500300	5,5 m	6500550	8 m	6500800	12 m	65001200	22 m	65002200
3,25 m	6500325	5,75 m	6500575	8,25 m	6500825	13 m	65001300		

Accessories for cable

Pos.	Description	Suitable for	Item no.
1	Cable clamp	MAXFLEX 3300, 33c, EXTREME	332010-1
1	Cable clamp	MAXFLEX 4300, 43c	2214
2	Shim	MAXFLEX 3300, 33c, EXTREME, supreme, 4300, 43c	331538-1
3	Cable clip	MAXFLEX 3300, 33c, EXTREME	2234
3	Cable clip	MAXFLEX 4300, 43c	2235
4	Double cable clamp	MAXFLEX 3300, 33c, EXTREME	2252
5	Cable break	MAXFLEX 3300, 33c, EXTREME, supreme, 4300, 43c, 64bc	2233
6	Anti-vibration kit for	MAXFLEX 3300, 33c, EXTREME	2222
6	Anti-vibration kit	MAXFLEX 4300, 43c	2223
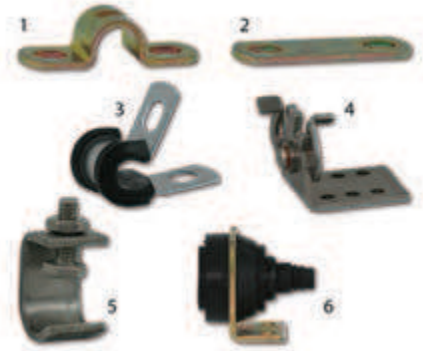
Accessories for connection to engine/gear

Pos.	Description	Suitable for	Item no.
1	Eye	MAXFLEX 4300, 43c	2212
1	Terminal eye	MAXFLEX 3300, 33c, EXTREME	331980
2	Pivot	MAXFLEX 3300, 33c	2238
2	Pivot	MAXFLEX 4300, 43c	2239

Ball joints

Description	Suitable for	A	B	C	D	E	Item no.
Ball joint type K -Small for MAXFLEX 3300 / 3300EXTREME / 33c / supreme	MAXFLEX 3300, 33c	10-32 UNF	10-32 UNF	23 mm	11,9 mm	11,1 mm	2227.01
Ball joint type G Large for MAXFLEX 3300 / 3300 EXTREME / 33c / supreme	MAXFLEX 3300, 33c	10-32 UNF	1/4-28 UNF	25 mm	11,9 mm	14,3 mm	2227.02
Ball joint	MAXFLEX 4300, 43c	1/4-28 UNF	1/4-28 UNF	25 mm	11,9 mm	14,3 mm	2228

Clevis
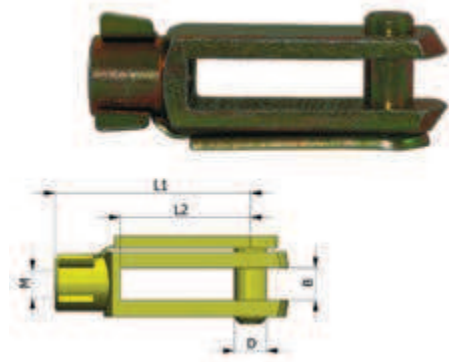
Description	Suitable for	A	B	C	D	E	Item no.
Clevis type K -Small for MAXFLEX 3300/ 3300 EXTREME / 33c / supreme	MAXFLEX 3300, 33c	10-32 UNF	6,8 mm	6,0 mm	24 mm	36 mm	2224.01
Clevis type G Large for MAXFLEX 3300 / 3300 EXTREME 33c / supreme	MAXFLEX 3300, 33c	10-32 UNF	7,4 mm	6,4 mm	26 mm	51 mm	2224.02
Clevis	MAXFLEX 4300, 43c	1/4-28 UNF	8,7 mm	7.9 mm	37 mm	58 mm	2225

Dockmate wireless docking system

Dockmate is the wireless support for easy and safe docking.
Dockmate offers easy control of your engine, yacht horn and as an option your bowthruster, sternthruster and anchorwinch.

Dockmate is a wireless extension of your engine controls. Everywhere on board you are in control.
The Dockmate offers easy control with the tips of your fingers. State-of-art electronics ensures seamlessly integration with the newest marine engines.
Dockmate offers a modular system. Choose your modules and compile your own Dockmate system.
Depending on your engine Dockmate offers three kinds of integration:

1. Analog
2. Digital CanBus technology
3. Directly on gearbox

The Dockmate system offers as a standard engine and Yacht horn control. For Dockmate pricing please inform at our sales department.

Dockmate Twist wireless docking system

Dockmate Twist makes manoeuvering even more responsive with the TWIST joystick control. The joystick controls both the gearbox and throttle of each engine plus the bow- and stern thrusters. With the Dockmate TWIST you can also operate 1 or 2 anchor winches and the horn. Another new feature is that the Dockmate TWIST comes with the brand new wireless charger.
The Dockmate Twist is a wireless extension of your engine controls. Everywhere on board you are in control.
State-of-art electronics ensures seamlessly integration with the newest marine engines.
Dockmate offers a modular system. Choose your modules and compile your own Dockmate system.
Depending on your engine Dockmate offers three kinds of integration:

1. Analog
2. Digital CanBus technology
3. Directly on gearbox

For Dockmate pricing please inform at our sales department.

Kill switch clips

Kill switch key with lanyard for specific outboardmotors. There are also lanyards available with a set of keys for most common brand outboardmotors.

Pos.	Description	Item no.
A	Kill switch lanyard Honda (old) - OMC	EP-10284HO
B	Kill switch lanyard Mercury	EP-10284MC
C	Kill switch lanyard OMC - Johson Evinrude	EP-10284OJ
D	Kill switch lanyard Yamaha-9mm (diam.)	EP-10284YA
E	Kill switch lanyard Suzuki (old) - Johnson	EP-10284JN
F	Kill switch lanyard OMC (new)	EP-10284OM
G	Kill switch lanyard Tohatsu	EP-10284TO
H	Kill switch lanyard Suzuki (new)	EP-10284SZ
I	Kill switch lanyard Kawasaki	EP-10284KW
J	Kill switch lanyard Honda (new)	EP-10284HD
-	Kill switch lanyard Yamaha-13,9mm (diam.)	EP-10284YA1
-	Kill switch lanyard incl. all 11 clips	EP-10284

Kill switch

Pos.	Description	Item no.
1	Kill switch inboard	TG-01001
2	Kill switch outboard	TG-01002

Wireless kill switch - Mob+ basepack

MOB+™ sets a new standard for wireless man overboard devices and safety onboard. MOB+ is developed to provide 100% stability and save you in just one second should you fall over board. WiMEA® Protocol is a revolutionizing wireless technology developed specifically for its purpose; to give you as a boat driver freedom and safety.
With 100% requirements for robustness and durability, only the most advanced wireless technology does the job. FELL Marine has therefore developed WiMEA® Protocol – Wireless Marine Electronics Algorithm.

MOB+™ basepack contains:
• MOB+™ xHub
• External antenna
• MOB+™ xFob
• Connector cable
• Battery
• Connectors

Description	Color	Voltage	Item no.
MOB+™ Basepack Kit Grey	Grey	10-32 V	72.380.116

Wireless Kill switch - xBand

With the MOB+ xBAND you get a highly marine durable silicon wristband. This enables you to use the xFOB at your wrist, always on – never intrusive. Available in several colors and designs that match your style.

Description	Color	Item no.
xBAND	Red	72.380.301
xBAND	Black	72.380.302
xBAND	Blue	72.380.303
xBAND	Yellow	72.380.304
xBAND	Pink	72.380.305

Wireless Kill switch - xTag

Let everyone who uses the boat have their personal kill switch. MOB+ xHUB has a memory for up to 20 xFOBs, this makes it possible for everyone in the family to use their xFOB when driving. No more hassle with finding that one cord for your boat. Select your favorite way of using the MOB+ Wireless Cut-Off Switch, using the xBAND or the xTAG option.

Description	Color	Item no.
xTAG red with black clip	Red	72.380.307

Wireless Kill switch - xFOB

Let every member of the family have their own xFOB for convenience and personalize the way they carry it.

Description	Color	Item no.
xFOB™ Transmitter	Red	72.380.117

Multi motor diode - Mob+

Diode style harness kit designed to be used with the MOB+ xHUB for multiple outboard installations. Typically, this accessory is only needed for Yamaha powered multiple engine boats but can be used in other situations. Kit is suitable for up to triple engine configured boats.

| Description	Color	Item no.
MOB+ Multi Engine Harness	Black	72.380.401

Electric thrusters ThrustEMS

ThrustEMS bowthrusters have a low noise and vibration level. The hydrodynamically shaped leg is made of seawater resistant bronze. The durable transmission uses hardened spiral gears to ensure a long lifetime. As a standard the bowthruster comes with a 6-blade skewback propeller and protective anode.
In both directions the bowthruster has an equal thrust. There are smart controls available as an option. With these controls several personal preferences can be set.

S030-12S   S060-12T   S080-xxS   S090-xxT   S100-xxT

Model / type	Power	Thrust	Tunnel diam.	Voltage	C2	F	G	Item no.
S030	1,5 kW	30 kgf	125 mm	12 V		114 mm	125 mm	S030-12S
S040	2,2 kW	40 kgf	125 mm	12 V		114 mm	125 mm	S040-12S
S055	3 kW	55 kgf	150 mm	12 V		128 mm	150 mm	S055-12S
S060	3 kW	60 kgf	185 mm	12 V		128 mm	185 mm	S060-12S
S060	3 kW	60 kgf	150 mm	12 V	132 mm	128 mm	150 mm	S060-12T
S080	4,4 kW	80 kgf	185 mm	12 V		128 mm	185 mm	S080-12S
S080	4,4 kW	80 kgf	185 mm	24 V		128 mm	185 mm	S080-24S
S090	4,7 kW	90 kgf	185 mm	12 V	140 mm	128 mm	185 mm	S090-12T
S090	4,7 kW	90 kgf	185 mm	24 V	140 mm	128 mm	185 mm	S090-24T
S100	5,7 kW	100 kgf	185 mm	12 V	140 mm	158 mm	185 mm	S100-12T
S100	5,7 kW	100 kgf	185 mm	24 V	140 mm	158 mm	185 mm	S100-24T
S120	7,5 kW	120 kgf	185 mm	24 V	140 mm	160 mm	185 mm	S120-24T
S125	6,0 kW	125 kgf	250 mm	24 V	220 mm	160 mm	250 mm	S125-24T

Exalto
Parts · Wipers · Propulsion
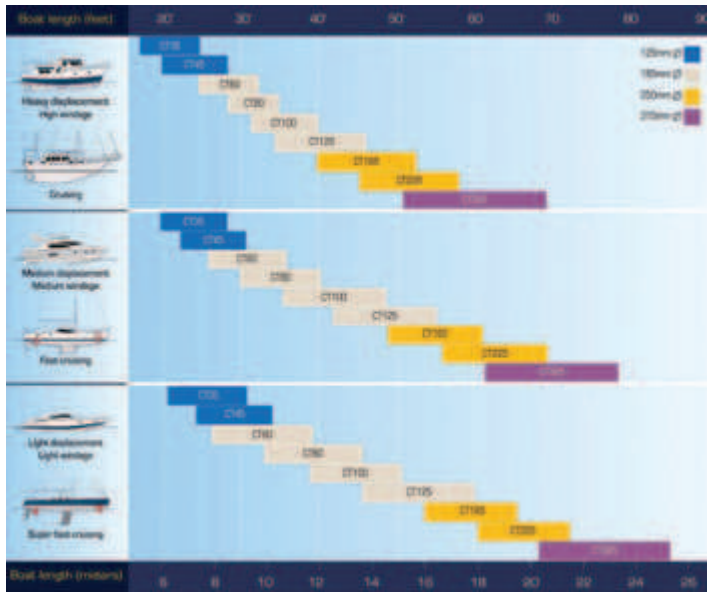
Founded in 1987, Max Power has developed a wide variety of products, destined for yachts of all types and sizes. Bow thrusters and stern thrusters have become a necessity even for the most skilled boatsman. Marinas have become overcrowded and docking manoeuvres cannot be applied easily and for that reason, the chances of damaging your boat have increased substantially. In order to gain total manoeuvring control of your boat, Max Power offers a wide variety of bow thrusters

Positioning thrusters is often as important as choosing the right thrust output when seeking maximum manoeuvring performance for your boat. Thruster turbines need to be placed one full propeller diameter under the water line to achieve optimum thrust. The thruster must also be positioned as far forward in the bow or as far back in the stern as possible.

How to choose the correct Thruster

For every boat owner it is important to chose the correct thrust rating (or relative power) whether it will be a tunnel thruster or a retractable thruster. For a boat of any given length, the area it offers to a direct side wind can vary from one design to another. The underwater shape and total weight can also differ greatly.

To help simplify the complicated calculations associated with the many variables in a boat design, we have designed the following chart to make your decision easier:

Electric Thrusters

Max Power offers a complete range of 12V/24V electric tunnel thrusters to suit motor boats and deep footed sailing yachts from 17' to 85' feet. The tunnel thrusters are designed for performance & durability. The patented composite drive legs have corrosion free composite drive legs eliminate the need for anodes and offer high manufacturing tolerances. The drive legs are pre-filled with oil and then sealed for life for zero maintenance. Case hardened spiro-conical gears guarantee a silent, smooth operation, and a long lifespan. Line shields protect oil seals from fishing lines and fouling. Max Power's high efficiency, purpose built DCmotors ensure outstanding performance and long runtime ratings. An electronic control offers unique and unrivaled safety features. Solid copper contact bars guarantee safe, high power connections. Purpose built high specification DC contactors are both safe and durable. Max Power tunnel thrusters can be mounted in the bow or stern (for which an adapter is required).

CT 35   CT 45   CT 60   CT 80   CT 100 / CT 125   CT 165 / CT 225   CT 325

Model / type	Power	Thrust	Power	Tunnel diam.	Voltage	C	D	T	Item no.
CT 35	2,69 kW	35 kgf	3,6 pk	125 mm	12 V	210 mm	125 mm	4 - 5 mm	MPSPC212
CT 45	3,23 kW	45 kgf	4,3 pk	125 mm	12 V	210 mm	125 mm	4 - 5 mm	MPSPC312
CT 60	4,35 kW	58 kgf	5,8 pk	185 mm	12 V	275 mm	125 mm	5 - 6 mm	MPSPC412
CT 60	4,4 kW	63 kgf	5,9 pk	185 mm	24 V	275 mm	125 mm	5 - 6 mm	MPSPC424
CT 80	4,79 kW	69 kgf	6,4 pk	185 mm	12 V	275 mm	125 mm	5 - 6 mm	MPSPC512
CT 80	5,28 kW	75 kgf	7,1 pk	185 mm	24 V	275 mm	125 mm	5 - 6 mm	MPSPC524
CT 100	7,1 kW	96 kgf	9,5 pk	185 mm	12 V	360 mm	154 mm	5 - 6 mm	MPSPC812
CT 125	8,56 kW	117 kgf	11,5 pk	185 mm	24 V	360 mm	154 mm	5 - 6 mm	MPSPC824
CT 165	11,88 kW	160 kgf	15,9 pk	250 mm	24 V	310 mm	170 mm	7 - 8 mm	MPSPC924
CT 225	14,96 kW	195 kgf	20 pk	250 mm	24 V	415 mm	171 mm	7 - 8 mm	MPSPC1124
CT 325	19,69 kW	255 kgf	26,4 pk	315 mm	24 V	480 mm	191 mm	9 - 10 mm	MPSP3024

Hydraulic thrusters

Max Power Hydraulic Tunnelthrusters are very maintenance-free and have a long life span. These bow thruster are very popular with ships that already have a hydraulic system. Hydraulic bow thruster can be installed in a humid environment, while there are no electrical components. Hydraulic installations can control the force proportionally, resulting in a variable thrust. Hydraulic bow thrusters have a long operating time. All hydraulic bow thrusters are fitted with two propellers.

CT HYD 125 **CT HYD 225** **CT HYD 325**

Model / type	Material	Thrust	Flow	Tunnel diam.	Pressure	C	D	T	Nett Weight	Item no.
CT HYD125	Composite	80 - 125 kgf	33/35 l/min.	185 mm	130/140 bar	225 mm	125 mm	6-7 mm	12,00 kg	MPHYC800
CT HYD125	Composite	80 - 100 kgf	17/19 l/min.	185 mm	200/210 bar	225 mm	125 mm	6-7 mm	12,00 kg	MPHYC810
CT HYD125	Composite	80 - 125 kgf	24/26 l/min.	185 mm	200/220 bar	225 mm	125 mm	6-7 mm	12,00 kg	MPHYC815
CT HYD225	Composite	140 - 225 kgf	33/35 l/min.	250 mm	200/220 bar	225 mm	154 mm	7-8 mm	19,00 kg	MPHYC1100
CT HYD325	Bronze	180 - 250 kgf	35/38 l/min.	315 mm	200/220 bar	265 mm	171 mm	9-10 mm	24,00 kg	MPHY3150
CT HYD325	Bronze	220 - 325 kgf	38/45 l/min.	315 mm	220/240 bar	265 mm	191 mm	9-10 mm	24,00 kg	MPHY3155

Retractable Thrusters

Max Power's Compact Retract system provides a reliable and retractable bow thruster system for fast, modern sailing yachts from 11.5 to 15 meters. This system provides the solution to problems with installation depth and tunnel length in ships with a very slim hull shape. The compact system is available in 12 and 24 volts. The Compact Retract is equipped with two propellers and has a maintenance-free leg. In order to build the Compact Retract, you need a mounting flange. Available in polyester and aluminum. The Compact Retract comes with the control panel and intermediate cable. The assembly flange for the Compact Retract must be ordered separately. If your ship has a polyester hull, you can laminate the polyester mounting flange. An aluminum mounting flange is available for aluminum ships.

Voltage	Power	Power	Thrust	Item no.
12 V	6,4 pk	4,79 kW	70 kgf	RTE085012
24 V	7,1 pk	5,28 kW	85 kgf	RTE085024

Mounting flanges compact retractable thrusters

Max Power's Compact Retract system provides a reliable and retractable bow thruster system for fast, modern sailing yachts from 11.5 to 15 meters. This system provides the solution to problems with installation depth and tunnel length in ships with a very slim hull shape. The compact system is available in 12 and 24 volts. The Compact Retract is equipped with two propellers and has a maintenance-free tailpiece. In order to build the Compact Retract, you need a mounting flange. Available in polyester and aluminum. The Compact Retract comes with the control panel and intermediate cable. The assembly flange for the Compact Retract must be ordered separately. If your ship has a polyester skin, you can laminate the polyester mounting flange. An aluminum mounting flange is available for aluminum ships.

Description	Item no.
Max Power mounting flange aluminum for Compact Retract	RT085019
Max Power mounting flange polyester for Compact Retract	RT085020

Controls for thrusters - wired

Max Power's thruster control systems are childproof and incorporate unique safety features.

The control system software monitors for incoherent signals, stray voltage, and abnormally long thrust signals in order to help protect against malfunctions caused by water ingress and short circuits. Visual and audio alarms provide a 10 second warning before the overheat shutdown function is activated. If left idle for thirty minutes, the system itself switches off automatically.

Designed with technical details such as independent control power supply (protects relays against damage due to low voltage), and standard remote electric battery isolator control, Max Power's system is clearly ahead of the competition. These effective mechanisms ensure that your Max Power thruster is both safe and reliable thus guaranteeing peace of mind onboard.

Pos.	Description	Color	Item no.
1	Max Power single joystick black	Black	MPOP8105
2	Max Power single joystick grey	Grey	MPOP8105/G
3	Max Power double joystick black	Black	MPOP8068
4	Max Power double joystick black	Grey	MPOP8068/G
5	Max Power control panel push button black	Black	MPOP8055
6	Max Power control panel push button grey	Grey	MPOP8055/G
-	Cable for control panel		MPOP3184
-	Joystick Extra for Compact Retract and VIP Black	Black	VP088042
-	Joystick Extra for Compact Retract and VIP Grey	Grey	VP088042/G

Controls for thrusters - wireless

Max Power's radio remote control is designed to work with our entire range of tunnel and retractable thrusters. The remote control can also be used to operate additional onboard equipment such as windlasses, passarelles, cranes, etc.
• Supports up to 8 independently controlled channels
• Each receiver can switch 4 channels (12/24 V - 5 A)
• Each transmitter can handle 2 receivers (8 channels)
• Digital recognition avoids accidental activation of other systems
• Available in 868 MHz (Europe/Australia) and 915 MHz (USA/Canada)
• Transmitter power supply: 12/24V dc
• Zero power consumption when in standby mode (transmitter)
• Easy to install and set up, simple to use

Description	Color	Item no.
Additional Radio remote control		MPOP5720/EU
Additional Radio remote control		MPOP5721/EU
Max Power universal wireless remote control	Black	MPOP5722/EU

Tunnel - GRP

Manufactured from fully isophtalic resin and pre-gel coated, Max Power's high quality tunnels have the added advantage of a first coat of matt before being filament wound.Cutting and drilling can therefore be carried out without the risk of damaging the gel coat on the inside surface of the tunnel. With an adapter the composite tunnel can also be used for a sternthruster, in which case an adapter is needed.

Material	Suitable for	Length	Tunnel diam.	Item no.
GRP	CT35, CT45	500 mm	125 mm	4931250500
GRP	CT35, CT45	750 mm	125 mm	4931250750
GRP	CT35, CT45	1000 mm	125 mm	4931251000
GRP	CT60, CT80, CT100, CT125	750 mm	185 mm	4931850750
GRP	CT60, CT80, CT100, CT125	1000 mm	185 mm	4931851000
GRP	CT60, CT80, CT100, CT125	1500 mm	185 mm	4931851500
GRP	CT165, CT225	1000 mm	250 mm	4932501000
GRP	CT165, CT225	1500 mm	250 mm	4932501500
GRP	CT325	1500 mm	315 mm	MP202000
GRP	CT325	2000 mm	315 mm	MP202010

Tunnel - steel

The steel bowthruster tunnels are available in various sizes. The bowthruster tunnels come without mounting holes and are provided with a protective coating.

Material	Suitable for	Length	Tunnel diam.	Item no.
Steel	CT35, CT45	1000 mm	125 mm	5031251000
Steel	CT35, CT45	1500 mm	125 mm	5031251500
Steel	CT60, CT80, CT100, CT125	1000 mm	185 mm	5031851000
Steel	CT60, CT80, CT100, CT125	1500 mm	185 mm	5031851500
Steel	CT60, CT80, CT100, CT125	3000 mm	185 mm	5031853000
Steel	CM125, CM150, CM170, CT165, CT225	1000 mm	250 mm	CMBG.250.22100
Steel	CM125, CM150, CM170, CT165, CT225	1500 mm	250 mm	CMBG.250.22150
Steel	CM125, CM150, CM170, CT165, CT225	3000 mm	250 mm	CMBG.250.22300

Tunnel - aluminum

The aluminum bowthruster tunnels are available in various sizes. The bowthruster tunnels come without mounting holes. The bow thruster tunnels are made of AL 6082 ensuring a high corrosion resistance and good weldability.

Material	Suitable for	Length	Tunnel diam.	Item no.
Aluminum	CT35, CT45	1000 mm	125 mm	6081251000
Aluminum	CT60, CT80, CT100, CT125	1000 mm	185 mm	6081851000

Sternthruster - adapter

Manufactured from fully isophtalic resin, Max Power's range of stern adaptors are SMC moulded (sheet moulding compound) in a male / female steel mould. This ensures perfect resin fibre ratio and exceptional reproduction of form.

Description	Suitable for	Item no.
Sterntunnel adapter	CT60, CT80, CT100, CT125	MPOP2162
Sterntunnel adapter	CT165, CT225	MPOP2172
Sterntunnel adapter	CT325	MPOP2175

Automatic battery main switch

Voltage	Description	Item no.
12 V	Automatic battery main switch	OPTI3160/3
24 V	Automatic battery main switch	OPTI3170/3

Parts for thrusters

Description	Voltage	Suitable for	Item no.
Leg composite	12 V	CT35	MP028000
Leg composite	12 V	CT45	MP028002
Leg composite	12 V	CT60	MP058100
Leg composite	12 V	CT80, CT100, CT125	MP088100
Leg composite	12 V	CT165, CT225	MP118100
Propeller composite	12 V	CT35, CT45	MP025000
Propeller composite	12 V	CT60, CT80, CT100, CT125	MPOP8080
Propeller composite	12 V	CT165, CT225	MPOP5400

Cupa bow and stern thrusters

Manoeuvring safely

With a Cupa bow thruster, every helmsman can manoeuvre his vessel precisely. Busy harbours, full locks and mooring with strong wind are no longer a problem. The reliable bow thruster gives the helmsman full control over his vessel.

Features Cupa bow thrusters:

- no loss of space in the vessel, because the motor is installed in the cross-pipe
- no chain driven propulsion, and therefore noise-free and efficient
- motor is cooled completely by the surrounding water
- reliable construction
- thermal secured
- easy to install
- easy serviceable because the complete unit can be taken out
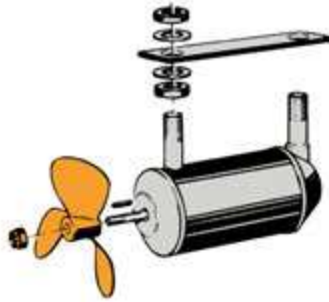
A Cupa bow thruster for every vessel:

CP40

With a thrust of 40 kgf (400 Newton) this is especially designed for vessels up to a length of 10 metres. The voltage is 12V. This model can be used in almost all types of vessel.
Thrust: 273 x 6.3 mm.

CP50

With a thrust of 50 kgf (500 Newton) the CP50 is very suitable for vessels up to 14 metres in length.
Thrust: 273 x 6.3 mm.

CP90

Even for vessels with a length up to 18 metres a reliable Cupa bow thruster has been developed. The CP90 has a thrust of 90 kgf (900 Newton)!
Thrust: 324 x 6.4 mm.

The CP50 and CP90 can also be used perfectly as stern thrusters.

Installation

A Cupa bow thruster is easy to install. It is fitted in a cross-pipe made of steel, which is welded in the vessel. The bronze Kaplan propeller is directly fitted on the motor in the cross-pipe.

You can connect multiple control panels, so the bow thruster can be controlled from different helms.
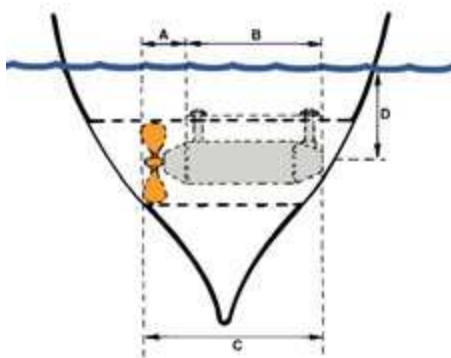
|	A (mm)	B (mm)	C (mm)	D (mm)
CP40/50:	110	285	395	ca. 285
CP90:	120	310	430	ca. 360
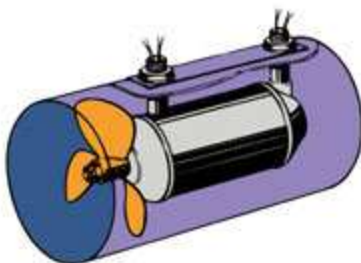
Cupa Bow thrusters

The sets comes with a motor, a bronze Kaplan propeller, an electric control (not shown) and a clear manual. The motors are thermical secured. The Kaplan propellers of the CP40 an CP50 have a diameter of 10", the CP90 propeller measures 12". If you wish to use the CP50 in a 12V electrical system, be sure to order a serial parallel switch with your bow thruster (see Accessories).
N.B.: Please don't forget to order a joystick and cable with your Cupa. See Joysticks and cables.
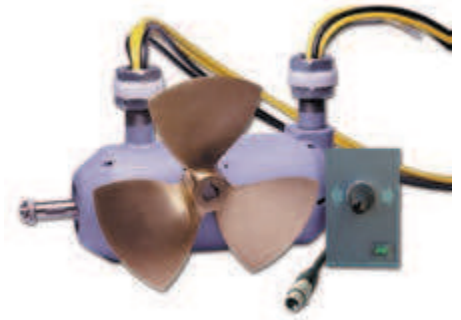
On request available in 48V.

Model / type	Voltage	Power	Thrust	Item no.
CP40	12 V	2,3 kW	40 kgf	1040
CP50	24 V	3,7 kW	50 kgf	1050
CP90	24 V	7 kW	90 kgf	1090

To control your Cupa bow thruster, we offer a range of joysticks. These panels are all prewired for quick and easy plug and play installation.
To connect your bow thruster to the panel, you will need an extension cable. Extension cables are available in 8, 12 or 15 metres.

Pos.	Description	Suitable for	Item no.
1	**Cupa joystick**		121931
2	**Cupa joystick bow- and stern thruster**		121932
3	**Cupa extension cable 8m**	CP40 / CP50 / CP90	121908
3	**Cupa extension cable 12m**	CP40 / CP50 / CP90	121912
3	**Cupa extension cable 15m**	CP40 / CP50 / CP90	121915

Thruster tunnels

The steel bowthruster tunnels are available in various sizes. The bowthruster tunnels come with welded mounting-plate are the outside of the tunnels has a protective coating.

Material	Suitable for	Length	Diam. x wall thickness	Item no.
Steel	CP40 / CP50	1000 mm	273 x 6,3 mm	11410
Steel	CP40 / CP50	1200 mm	273 x 6,3 mm	11412
Steel	CP40 / CP50	1500 mm	273 x 6,3 mm	11415
Steel	CP90	1000 mm	324 x 6,4 mm	11910
Steel	CP90	1200 mm	324 x 6,4 mm	11912
Steel	CP90	1500 mm	324 x 6,4 mm	11915

Accessories & parts for Cupa thrusters

Description	Voltage	Suitable for	Item no.
Cupa motor	12 V	CP40	172440
Cupa motor	24 V	CP50	172450
Cupa motor	24 V	CP90	172490
Cupa joystick 10A 2 positions	12 V		167999
Cupa mainpower switch	12/24 V		443810
Cupa relay 12V CP40 (CP50 combined with a serial parallel switch)	12 V	CP40 or CP50 (12V)	121821
Cupa relay 24V	24 V	CP50	121823
Cupa relay 24V	24 V	CP90	121825
Cupa serial parallel switch (2 x 12V) CP50		CP50	121632
Cupa Kaplan propeller 10"		CP40 / CP50	140106
Cupa Kaplan propeller 12"		CP90	141006
Welding plate		CP40 /CP50	11420
Welding plate CP90		CP90	11920

Proportional controls for thrusters

Proportional control for thruster

Proportional control to steplessly adjust the thrust of a bow- or sternthruster from 0 to 100 percent. The control system ensures a soft start of your bow thruster ensuring a longer lifetime of bowthruster motor and batteries. Two versions, both 24V, are available: 450A (max. 5kW) and 650A (max. 11kW). On request also available for 48V. The stepless proportional joystick (41700) and the desired joystick cable length (41701) both need to be ordered seperately.

Joystick and cable need to be ordered separately.

Description	Voltage	Suitable for	Item no.
Bowthruster proportional control 24V-5Kw	24 V	24V bowthrusters up to 5Kw	10502
Bowthruster proportional control 24V-11Kw	24 V	24V bowthrusters up to 11Kw	10503
Joystick proportional			41700
Cable 12x1 for proportional joystick p/mtr			41701

Softstarter for thrusters

With the Soft-Start control, any bow thruster (new and existing) will perform more quietly. The control ensures that the bow thruster motor starts gradually, causing water to be moved immediately. The ship starts moving before the bow thruster-propeller starts to hit air (cavitation). This also reduces the power consumption of the battery, which improves lifetime of both battery and switching contacts. There are two versions for 24V: 450A (max. 5kW) and 650A. (max. 11kW). Also available on request 48V.

Description	Voltage	Suitable for	Item no.
Soft-start bowthruster control 24V-5Kw	24 V	24V bowthrusters up to 5Kw	10902
Soft-start bowthruster control 24V-11Kw	24 V	24V bowthrusters up to 11Kw	10903

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