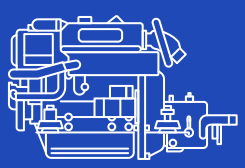
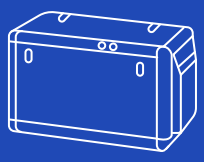
Solé Diesel

Catalogue 2021-2022

Marine Engines

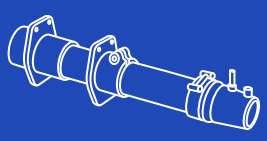


Marine Generators



Propellers

Accessories



Solé S.A. seeks to constantly improve its final products, and so the design, description, dimensions, configuration and other technical specifications given herein appear only for informational purposes and should not be taken as a binding offer with respect to the final product.

Technical specifications and presentation are subject to variations and modifications without previous notice.

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Enrique Solé

Marieli Solé

Solé Diesel is a centenarian family business which was founded in 1912 and is consolidated in the marine sector with our wide range of marine engines, gensets and accessories. The enterprise is currently managed by Solé third-generation, Mr. Enrique Solé Matas.

Solé Diesel bets on innovation and the continuous improvement, offering a fast and effective after-sales service which provides relief to any sailor who needs it. More than 100 years of experience and being present in more than 50 countries speak for themselves.

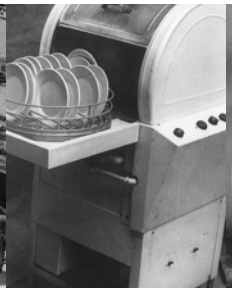
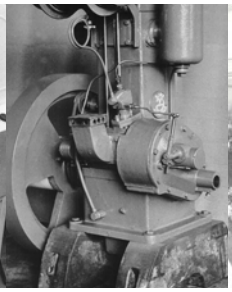
Nowadays, we are a reference brand in the industrial engine marinization both, in the domestic and international market, and personalized customer service is what makes us stand out.

Our philosophy is based on always offering the best solution to our customers' needs, providing them with the best advice and seeking the best alternatives for both leisure and commercial boats.

Our products are manufactured in Martorell (Barcelona) under the highest quality standards, constantly seeking the customer's satisfaction as a target. Therefore, we work with the best brands in the market: Mitsubishi, Kubota, Deutz, Hyundai, Meccalte and Sincro.

The successful final result of our products lays in the combination of knowledge from our most experienced workers, and the new techniques provided by the new generations, along with the total control of the manufacturing process.

CRONOLOGY


1912
Solé's foundation by Mr. Enrique Solé Jorba. First activity was focused on the carriage construction and repair.

1929
First car work shop and petrol station opening.

1936
Mr. Enrique Solé Jorba (the founder). Passed away during the Civil War.

1940
Company change the name to Vda. de Enrique Solé. Mr. Enrique and Ramón Solé (the founder's sons), take the company chart.

1949
The Company initiates its activity producing marine engines.

1960
The subsidiary company; Solsuc, initiates its activity producing tractors.

1962
Production for industrial dishwashers.

1965
All production is moved to the new facilities.

1970
Launching the first MINI series engine. 5 HP engine on one cylinder.

1972
Agreement with Perkins Hispania, to marinize the engine range up to 115 HP.

1977
Agreement with MERCEDES BENZ.

1978
Launching the first marine engine with MITSUBISHI base engine.

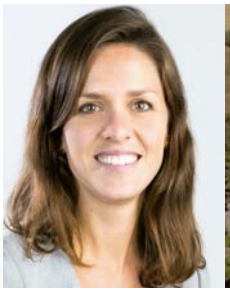
1979
Expansion of the current facilities with a new warehouse.

1988
First unit from one of the most emblematic model; MINI-17.

1989
First units on HINO base engine.

1990
First units on MAZDA base engine.






1992
Enrique Solé Matas, founder's grandson, takes the company control.

1995
10.000 MITSUBISHI units sold.

1996
First units on VM and NEW HOLLAND base engine.

2003
First units on NISSAN base engine.

2009
First units on DEUTZ base engine.

2009
Solé achieves the 25.000 Mitsubishi units sold.

2012
100th Solé Diesel anniversary.

2012
The company introduce in the market the new gen sets range GT and GTC (canopy version).

2014
Marieli Solé Toledano, the 4th generation incorporates into the chart.

2016
SDAMET (Solé Diesel Applied Marine Engineering Program). This program is signed with the Barcelona Maritime University (UPC). It will be focus on the talent detection and getting closer the brand to the new generations.

2018
Solé Diesel and Mitsubishi have been cooperating for 40 years.

WHY SOLÉ DIESEL?

WE ARE MANUFACTURERS

One of our hallmarks is the marinization of our engines. More than 70 years of experience in marine components manufacturing speak for themselves. Hence, and thanks to the constant effort of our engineering team, our products meet the highest quality and performance standards.

SERVICE NEAR YOU

Our distribution and service network offers a global coverage providing you support in response to an incident anywhere in the world. Thanks to our integrated logistics, we supply the spare parts you need in a minimum time.

INNOVATION AND SYSTEMS

Our Engineering Department constantly works in the innovation of our products to adapt them to current market demands. We truly believe in listening to our customers providing them with reliable products, easy installation and maintenance, and also offering an efficient customer service.

Because of this, we have adapted our production plant and our know-how over the years to achieve efficiency thanks to innovation and search of continuous improvement.

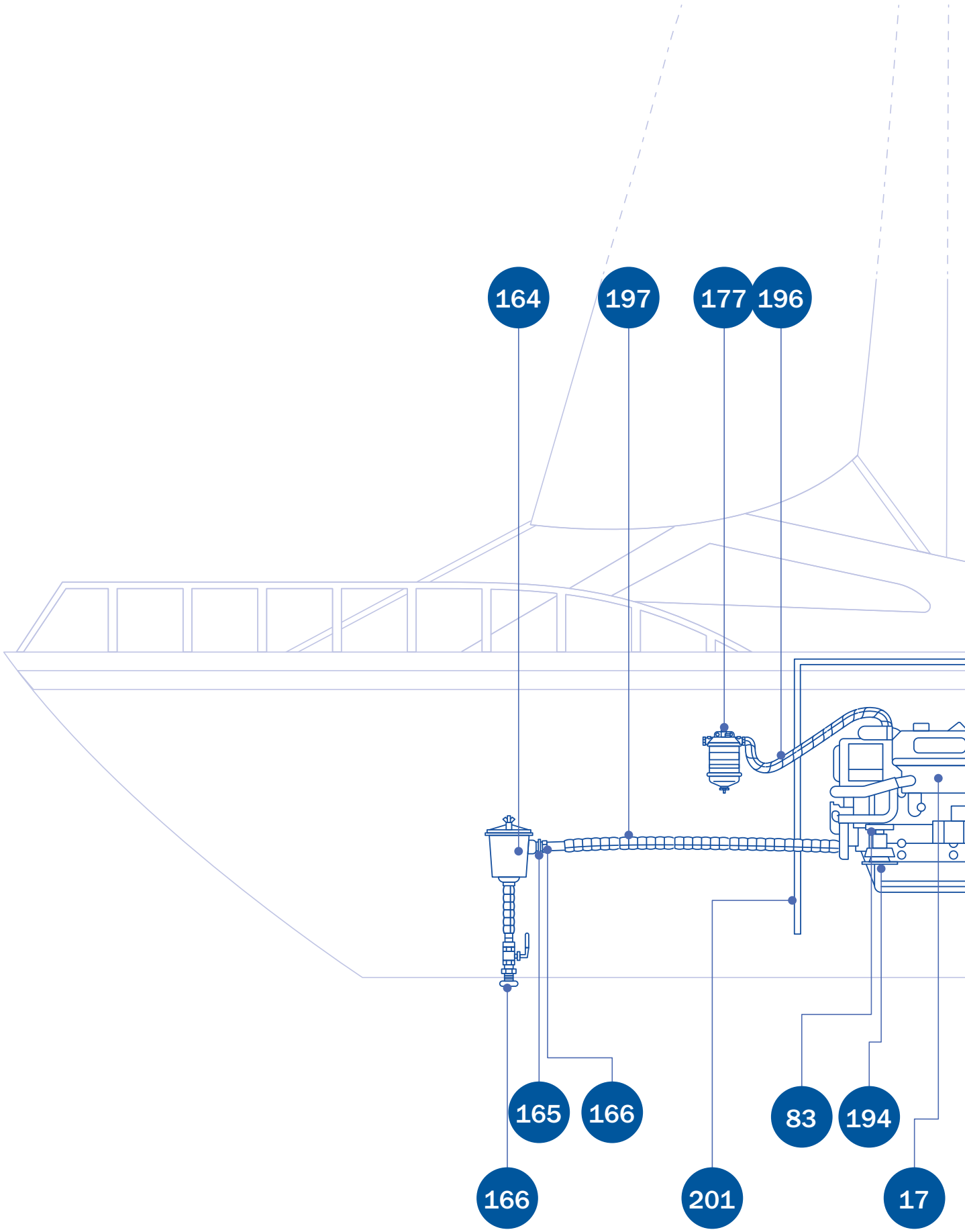
We are specialized in designing customized equipment and offering the best personal advice throughout the product lifetime.
Therefore, we do not offer only products. Solé Diesel is service and relief.

MARINE ENGINES, MARINE GENSETS AND MORE.

Solé Diesel **marine engines** are characterized by their durability, robustness and reliability. We work with industry leader suppliers such as Deutz, Kubota and Mitsubishi, with whom we maintain a 30 years business relationship.

Our range is designed for both leisure and commercial boats.
Besides, we produce a wide range of **marine gensets for boats,** known by its compact design and low noise performance. Solé Diesel marine gensets are adaptable to multiple settings and applications. They can be customized depending on the customer's needs. Available also with synchronization system for parallel operation.
Do not hesitate to consult the available models with Type Approval certification manufactured to work under the most demanding conditions.

But Solé Diesel is not just engines and marine gensets. We provide a wide range of accessories, from the engine to the propulsion line, which completes your equipment transforming it into a complete solution for your needs.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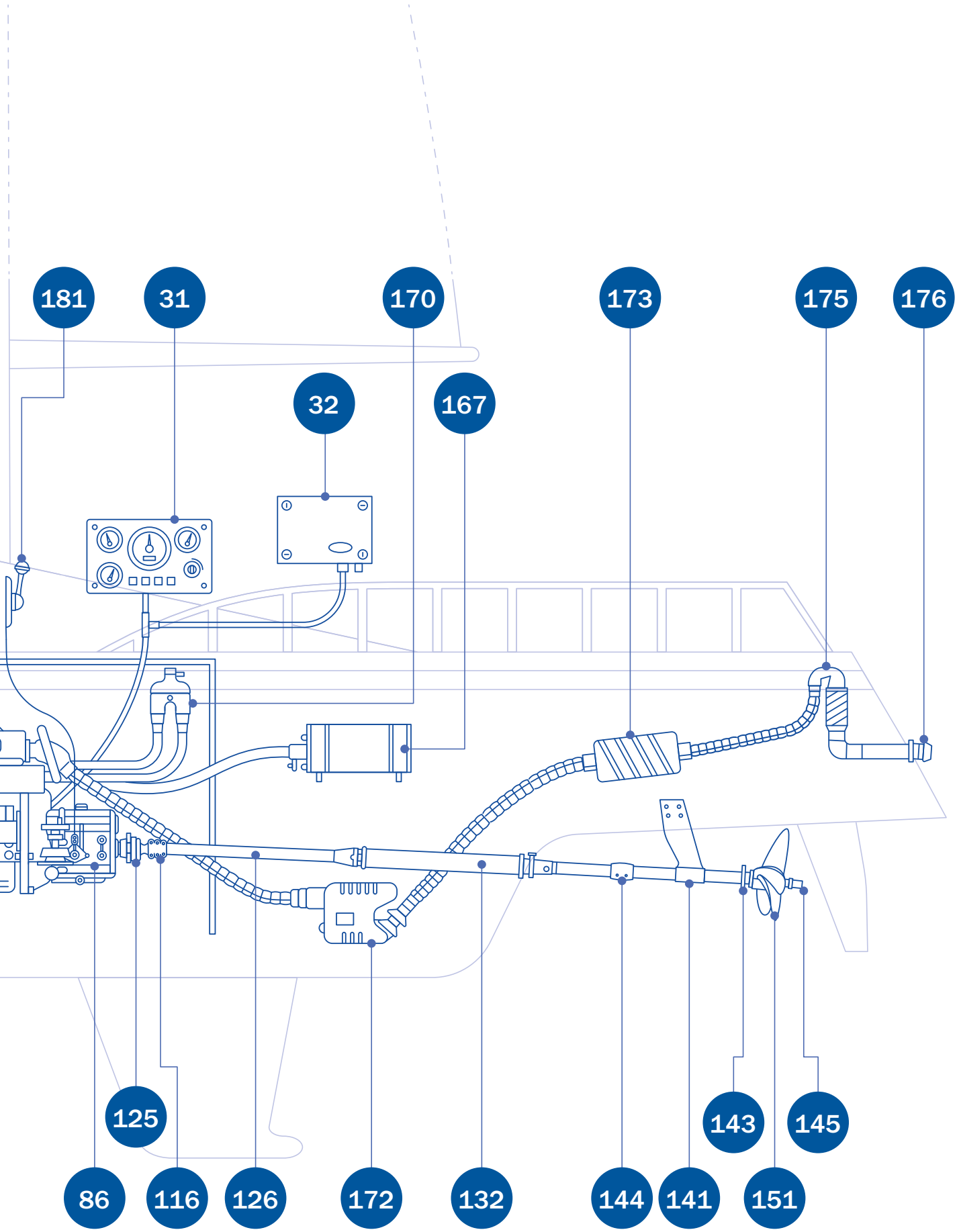
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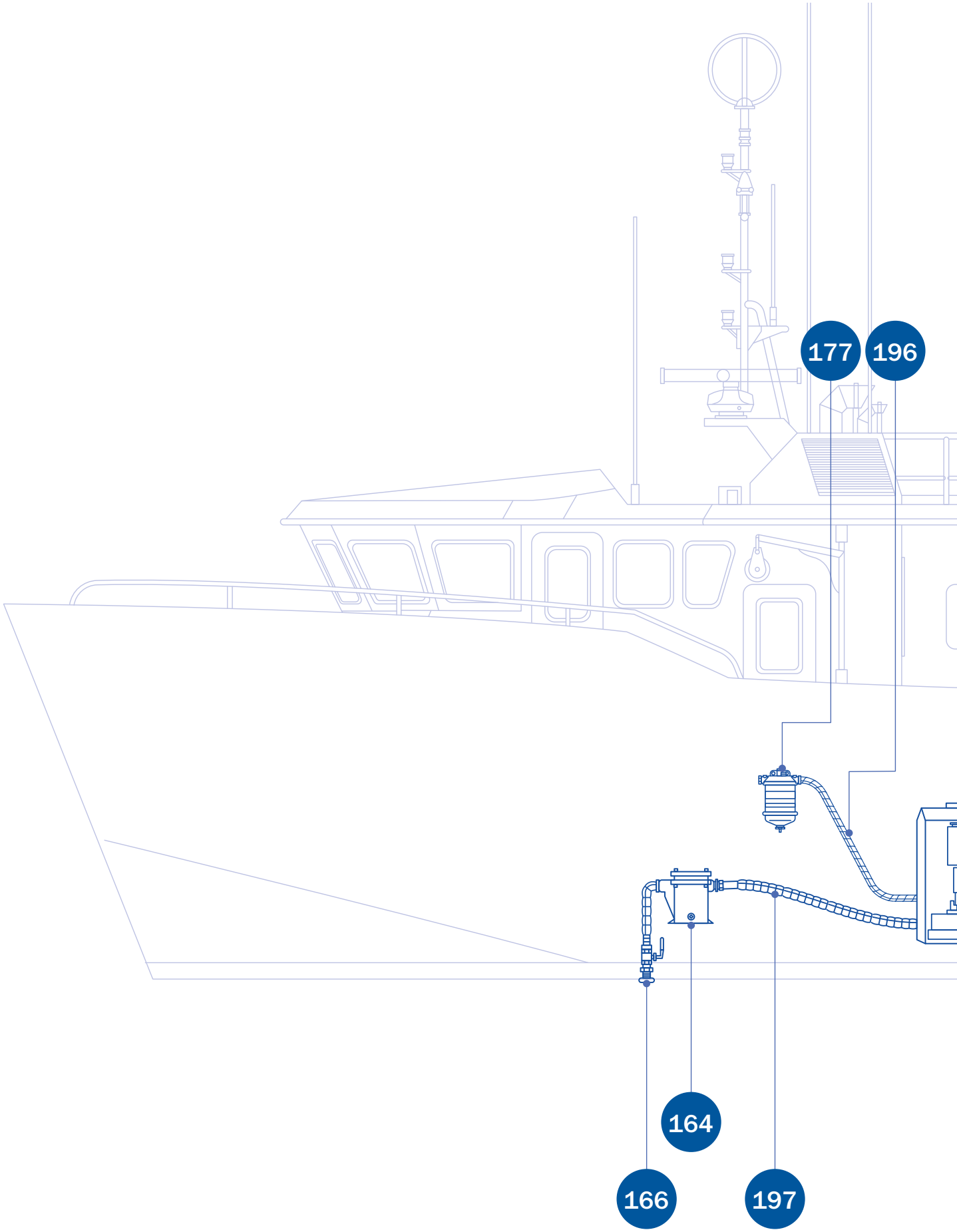
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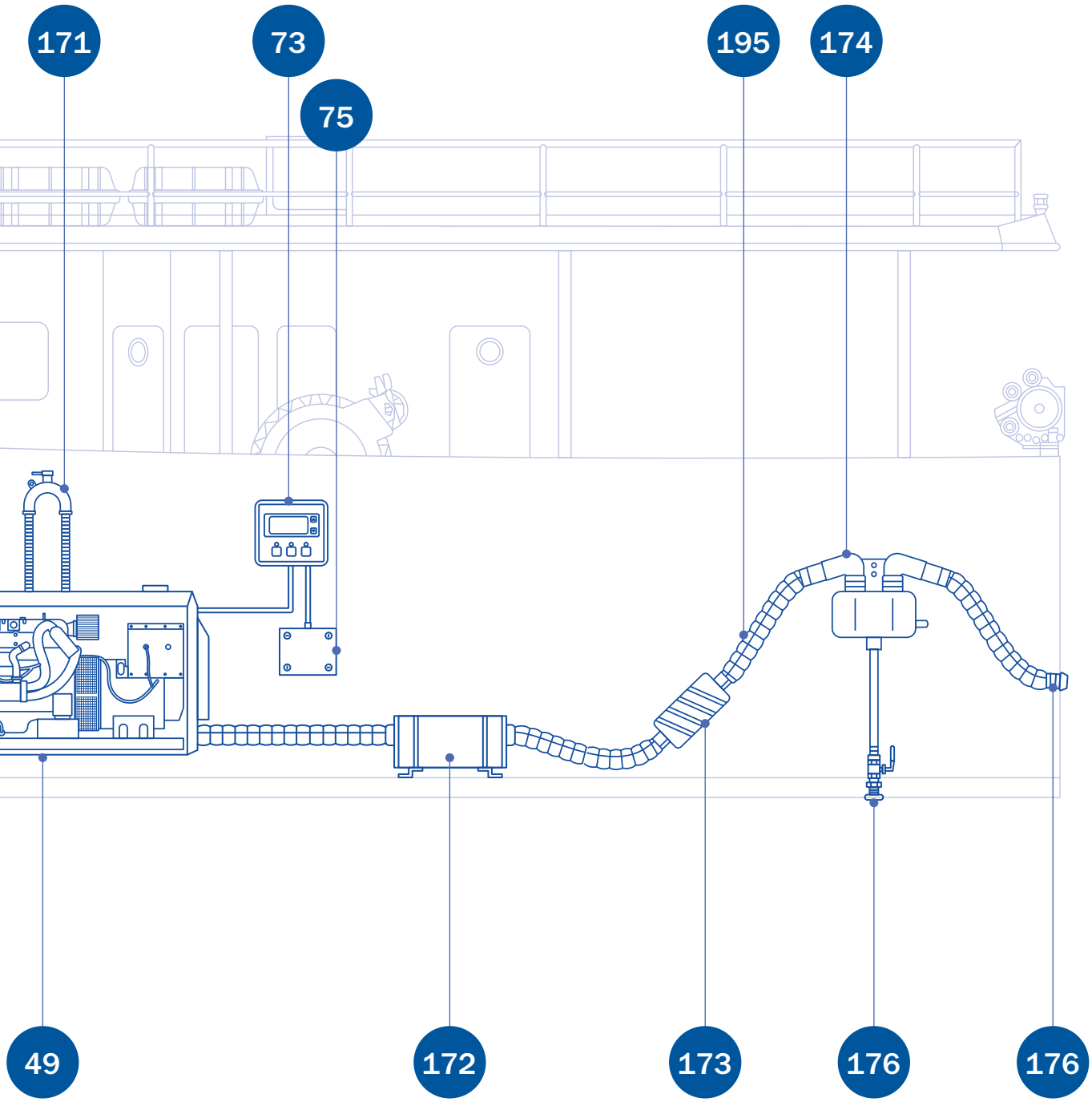
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Solé Diesel
MINI-55

Solé Diesel

ENGINES

DIESEL MARINE ENGINES

from 16 hp to 272 hp

MITSUBISHI

Solé Diesel has been working with Mitsubishi for over 40 years, gaining experience that stands behind its products. It offers a complete line of Mitsubishi-based Solé Diesel engines ranging from 16 up to 103 hp, meaning they can be used with a wide range of commercial vessels and pleasure craft. These engines are synonymous of reliability, robustness, and durability.

MODEL	POWER		RPM	NO. OF CYLINDERS	CYLINDER CAPACITY
MINI-17	11,8 kW	16,0 hp	3600	2	635 cc
MINI-29	20 kW	27,2 hp	3600	3	952 cc
MINI-33	23,1 kW	31,4 hp	3000	3	1318 cc
MINI-44	30,9 kW	42 hp	3000	4	1758 cc
MINI-55	36,8 kW	50 hp	3000	4	1758 cc
MINI-62	43,4 kW	59 hp	3000	4	2311 cc
MINI-74	47 kW	63,9 hp	2500	4	3331 cc
SM-82	60,3 kW	82 hp	2500	4	3331 cc
SM-94	69 kW	93,8 hp	2500	4	3331cc
SM-103	75,8 kW	103 hp	2500	6	4996 cc

KUBOTA

KUBOTA is the largest producer of industrial diesel engines, so the KUBOTA-based Solé Diesel is designed to offer reliability and long-lasting durability. This engine is especially suited for vessels with displacement hulls, sailboats, and small fishing vessels.

MODEL	POWER		RPM	NO. OF CYLINDERS	CYLINDER CAPACITY
SK-60	44 kW	59,8 hp	2700	4	2434 cc

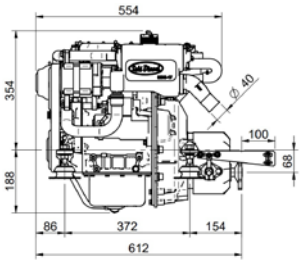
DEUTZ

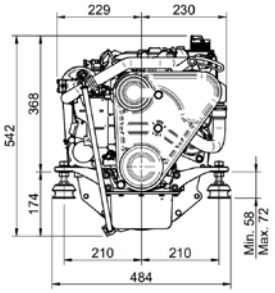
DEUTZ-based marine-quality Solé Diesel engines come with powers ranging from 165 to 272 hp. These engines are specially designed for continuous service, getting more for less thanks to their low RPM scheme: a high level of engine torque with lower fuel consumption. They are perfect for vessels with displacement hulls that require engines that can generate high power for long periods of time.

MODEL	POWER		RPM	NO. OF CYLINDERS	CYLINDER CAPACITY
SDZ-165	118 kW	160,3 hp	2300	4	4764 cc
SDZ-205	143,9 kW	195,5 hp	2300	6	7146 cc
SDZ-280	200 kW	271,7 hp	2300	6	7146 cc

MINI-17

2 cylinders 16 hp (11,8 kW) at 3600 RPM





Equipment

Standard equipment
- Instrument panel SVT 20
- 3 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- SVT 30 Panel
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

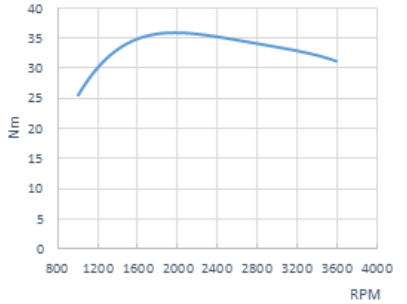
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	2
Intake system	Naturally aspirated
Bore x stroke (mm)	76 x 70
Total displacement (cc)	635
Compression ratio	23:1
Intermittent power rating (per ISO 3046/1)	16 hp (m) (11,8 kW)
Continuous output	14,4 hp (m) (10,6 kW)
Fuel injection system	Mechanical and indirect
Alternator	12 V - 75 A
Engine Max. installation angle	25°
ID. Ø Salt water hose	20 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	5 mm
Emission compliance	EU: RCD II, BSO II
Rating	Intermittent power: S3 Continuous power: S2

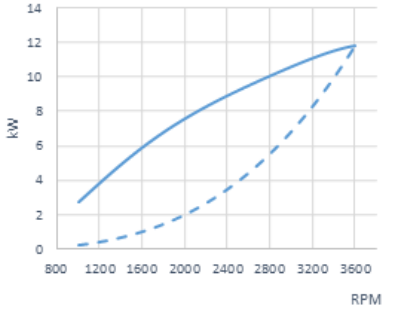
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
SP 60	Sail drive M.	0°	2.15:1 - 2.38:1	-	138 kg (304 lb)
TMC-40P	Mechanical	0°	1.45:1 - 2.00:1 - 2.60:1	1.45:1 - 2.00:1 - 2.60:1	104 kg (229 lb)
TMC-60A	Mechanical	7°	2.00:1 - 2.45:1	2.00:1 - 2.45:1	109 kg (240 lb)
TMC-60P	Mechanical	0°	2.00:1 - 2.45:1	2.00:1 - 2.45:1	109 kg (240 lb)
ZF 15 MIV	V-Drive M.	15°	2.13:1	2.13:1	115 kg (254 lb)

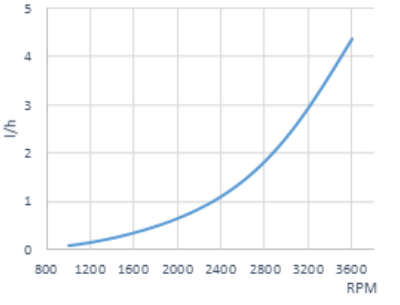
Engine Torque



Power*



Fuel consumption

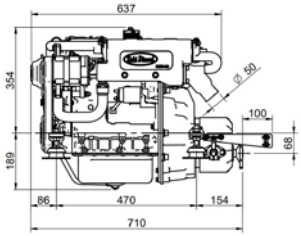


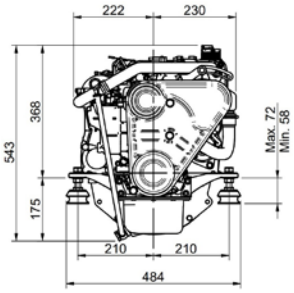
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

MINI-29

3 cylinders 27,2 hp (20 kW) at 3600 RPM





Equipment

Standard equipment
- Instrument panel SVT 20
- 3 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

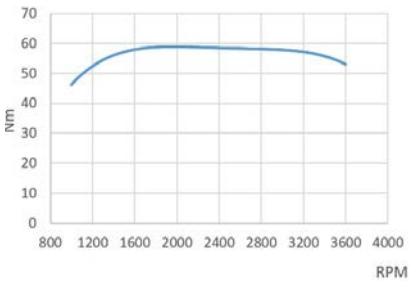
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	3
Intake system	Naturally aspirated
Bore x stroke (mm)	76 x 70
Total displacement (cc)	952
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	27 hp (m) (20 kW)
Continuous output	24,5 hp (m) (18 kW)
Fuel injection system	Mechanical and indirect
Alternator	12 V - 75 A
Engine Max. installation angle	25°
ID. Ø Salt water hose	20 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	5 mm
Emission compliance	EU: RCD II, BSO II
Rating	Intermittent power: S3 Continuous power: S2

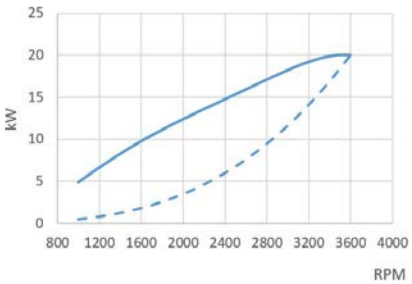
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
SP 60	Sail drive M.	0°	2.15:1	-	161 kg (355 lb)
TM-345	Hydraulic	0°	2.00:1 - 2.47:1	2.00:1 - 2.47:1	143 kg (315 lb)
TM-345A	Hydraulic	8°	2.00:1 - 2.47:1	2.00:1 - 2.47:1	143 kg (315 lb)
TMC-40P	Mechanical	0°	2.00:1 - 2.60:1	2.00:1	127 kg (280 lb)
TMC-60A	Mechanical	7°	2.00:1 - 2.45:1	2.00:1 - 2.45:1	132 kg (291 lb)
TMC-60P	Mechanical	0°	2.00:1 - 2.45:1	2.00:1 - 2.45:1	132 kg (291 lb)
ZF 15 MIV	V-Drive M.	15°	2.13:1	2.13:1	138 kg (304 lb)

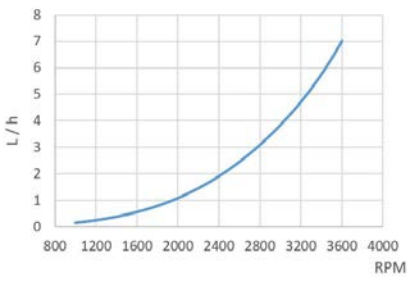
Engine Torque



Power*



Fuel consumption

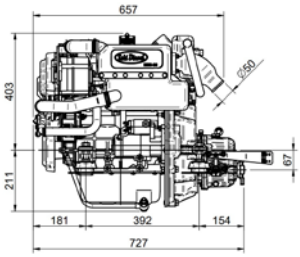


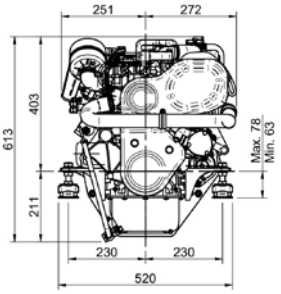
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

MINI-33

3 cylinders 31,4 hp (23,1 kW) at 3000 RPM





Equipment

Standard equipment
- Instrument panel SVT 20
- 3 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- SVT 30 Panel
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

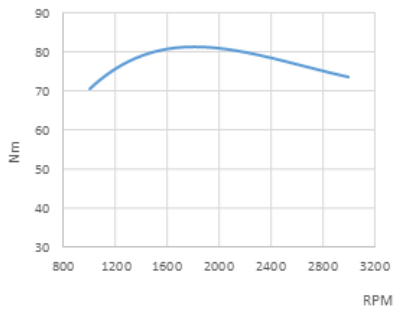
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	3
Intake system	Naturally aspirated
Bore x stroke (mm)	78 x 92
Total displacement (cc)	1318
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	31 hp (m) (23,1 kW)
Continuous output	28,3 hp (m) (20,8 kW)
Fuel injection system	Mechanical and indirect
Alternator	12 V - 120 A
Engine Max. installation angle	15°
ID. Ø Salt water hose	20 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	5 mm
Emission compliance	EU: RCD II, BSO II
Certifications	SOLAS
Rating	Intermittent power: S3 Continuous power: S2

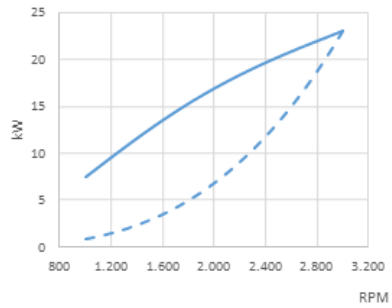
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
SP 60	Sail Drive M.	0°	2.15:1	-	200 kg (441 lb)
TM-345	Hydraulic	0°	2.00:1 - 2.47:1	2.00:1 - 2.47:1	182 kg (401 lb)
TM-345A	Hydraulic	8°	2.00:1 - 2.47:1	2.00:1 - 2.47:1	182 kg (401 lb)
TMC-260	Mechanical	0°	2.88:1	2.88:1	175 kg (386 lb)
TMC-40P	Mechanical	0°	1.45:1 - 2.00:1	1.45:1	166 kg (366 lb)
TMC-60A	Mechanical	7°	2.00:1 - 2.45:1	2.00:1 - 2.45:1	171 kg (377 lb)
TMC-60P	Mechanical	0°	2.00:1 - 2.45:1 - 2.83:1	2.00:1 - 2.45:1 - 2.83:1	171 kg (377 lb)
ZF 15 MIV	V-Drive M.	15°	2.13:1	2.13:1	177 kg (390 lb)

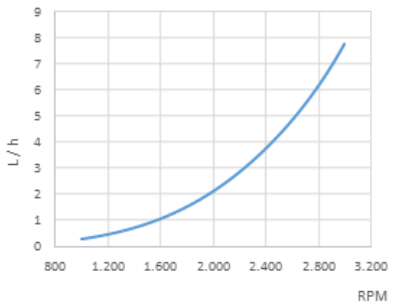
Engine Torque



Power*



Fuel consumption

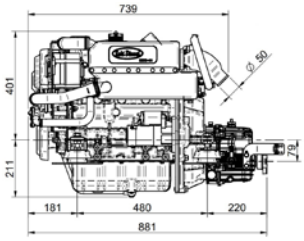


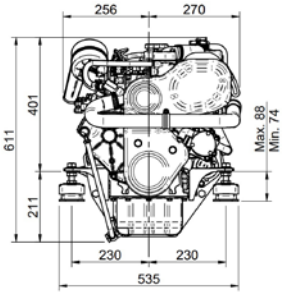
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

MINI-44

4 cylinders 42 hp (30,9 kW) at 3000 RPM





Equipment

Standard equipment
- Instrument panel SVT 20
- 3 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

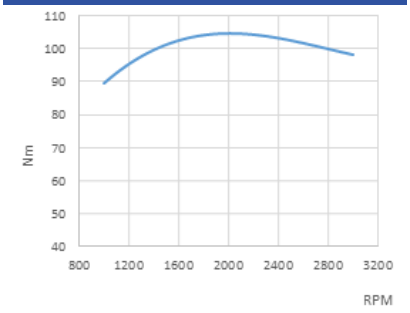
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	4
Intake system	Naturally aspirated
Bore x stroke (mm)	78 x 92
Total displacement (cc)	1758
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	42 hp (m) (30,9 kW)
Continuous output	37,8 hp (m) (27,8 kW)
Fuel injection system	Mechanical and indirect
Alternator	12 V - 120 A
Engine Max. installation angle	15°
ID. Ø Salt water hose	20 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	5 mm
Emission compliance	EU: RCD II, BSO II
Rating	Intermittent power: S3 Continuous power: S2

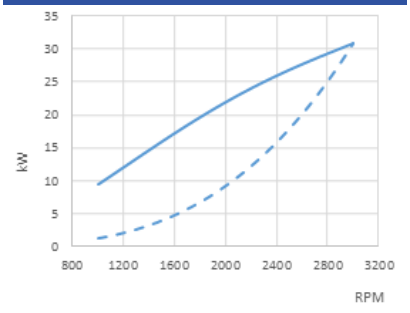
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
SP 60	Sail drive M.	0°	2.15:1	-	218 kg (481 lb)
TM-345	Hydraulic	0°	2.00:1 - 2.47:1	2.00:1 - 2.47:1	200 kg (441 lb)
TM-345A	Hydraulic	8°	2.00:1 - 2.47:1	2.00:1 - 2.47:1	200 kg (441 lb)
TM-93	Hydraulic	0°	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	228 kg (503 lb)
TMC-260	Mechanical	0°	2.47:1 - 2.88:1	2.47:1 - 2.88:1	193 kg (425 lb)
TMC-60A	Mechanical	7°	2.00:1 - 2.45:1	-	189 kg (417 lb)
TMC-60P	Mechanical	0°	1.55:1 - 2.00:1 - 2.45:1 - 2.83:1	1.55:1 - 2.00:1	189 kg (417 lb)
ZF 15 MIV	V-Drive M.	15°	2.13:1	2.13:1	195 kg (430 lb)

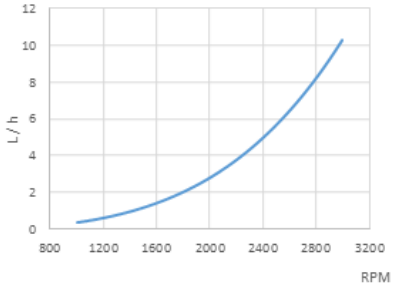
Engine Torque



Power*



Fuel consumption

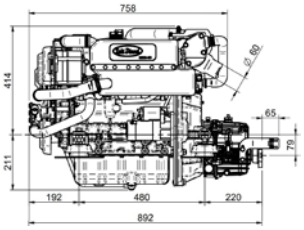


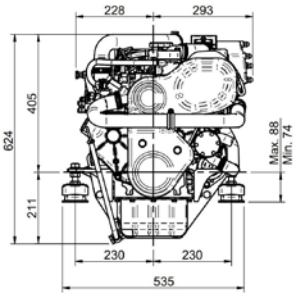
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

MINI-55

4 cylinders 50 hp (36,8 kW) at 3000 RPM





Equipment

Standard equipment
- Instrument panel SVT 20
- 3 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

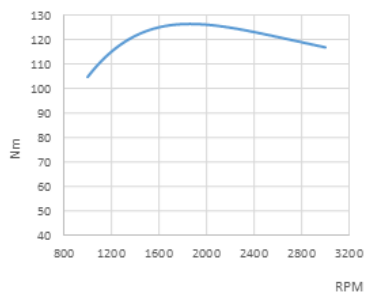
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	4
Intake system	Turbocharged
Bore x stroke (mm)	78 x 92
Total displacement (cc)	1758
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	50 hp (m) (36,8 kW)
Continuous output	45 hp (m) (33,1 kW)
Fuel injection system	Mechanical and indirect
Alternator	12 V - 120 A
Engine Max. installation angle	15°
ID. Ø Salt water hose	26 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	5 mm
Emission compliance	EU: RCD II
Rating	Intermittent power: S3 Continuous power: S2

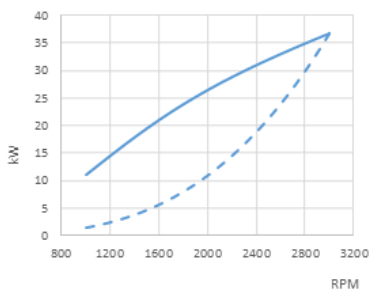
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
SP 60	Sail drive M.	0°	2.15:1	-	227 kg (500 lb)
TM-345	Hydraulic	0°	1.54:1 - 2.00:1 - 2.47:1	1.54:1 - 2.00:1 - 2.47:1	209 kg (461 lb)
TM-345A	Hydraulic	8°	2.00:1 - 2.47:1	2.00:1 - 2.47:1	209 kg (461 lb)
TM-93	Hydraulic	0°	2.09:1 - 2.40:1 - 2.77:1	2.09:1 - 2.40:1 - 2.77:1	237 kg (522 lb)
TMC-260	Mechanical	0°	2.00:1 - 2.47:1	2.00:1 - 2.47:1	202 kg (445 lb)
TMC-60A	Mechanical	7°	2.00:1 - 2.45:1	-	198 kg (437 lb)
TMC-60P	Mechanical	0°	1.55:1 - 2.00:1 - 2.45:1	1.55:1	198 kg (437 lb)
ZF 15 MIV	V-Drive M.	15°	2.13:1	-	204 kg (450 lb)

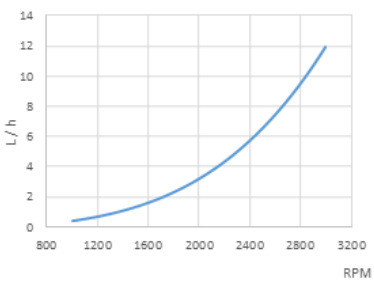
Engine Torque



Power*



Fuel consumption

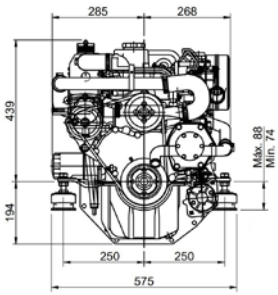


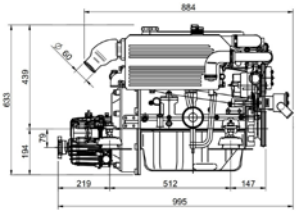
**Power rating per ISO 3046/1*

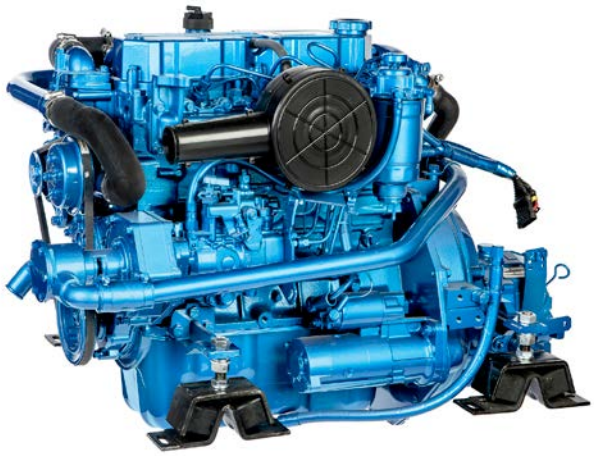
1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

MINI-62

4 cylinders 59 hp (43,4 kW) at 3000 RPM







Equipment

Standard equipment
- Instrument panel SVT 20
- 4 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- SVT 30 Panel
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

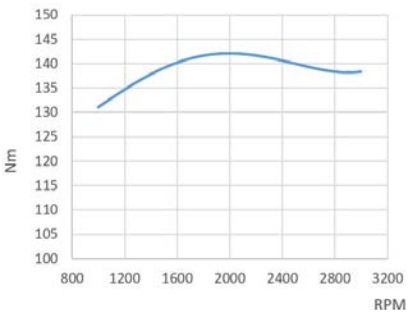
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	4
Intake system	Naturally aspirated
Bore x stroke (mm)	88 x 95
Total displacement (cc)	2311
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	59 hp (m) (43,4 kW)
Continuous output	53,2 hp (m) (39,1 kW)
Fuel injection system	Mechanical and indirect
Alternator	12 V - 95 A
Engine Max. installation angle	15°
ID. Ø Salt water hose	32 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	6 mm
Emission compliance	-
Certifications	SOLAS
Rating	Intermittent power: S3 Continuous power: S2

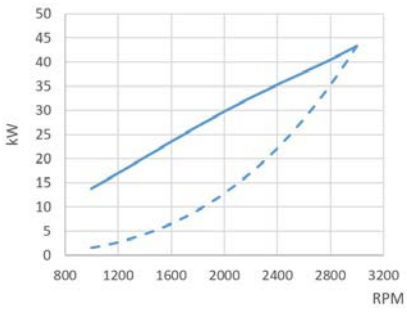
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
SP 60	Sail drive M.	0°	2.15:1	-	266 kg (586 lb)
TM-345	Hydraulic	0°	1.54:1 - 2.00:1 - 2.47:1	1.54:1 - 2.00:1 - 2.47:1	248 kg (547 lb)
TM-345A	Hydraulic	8°	1.54:1 - 2.00:1 - 2.47:1	1.54:1 - 2.00:1 - 2.47:1	248 kg (547 lb)
TM-93	Hydraulic	0°	2.09:1 - 2.40:1 - 2.77:1	2.09:1 - 2.40:1 - 2.77:1	276 kg (608 lb)
TM-93A	Hydraulic	8°	2.09:1 - 2.40:1	2.09:1 - 2.40:1	276 kg (608 lb)
TMC-260	Mechanical	0°	2.00:1 - 2.47:1	2.00:1 - 2.47:1	241 kg (531 lb)
TMC-60P	Mechanical	0°	2.00:1	-	237 kg (522 lb)
ZF 15 MIV	V-Drive M.	15°	2.13:1	-	243 kg (536 lb)

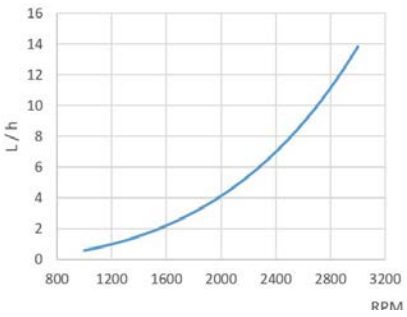
Engine Torque



Power*



Fuel consumption

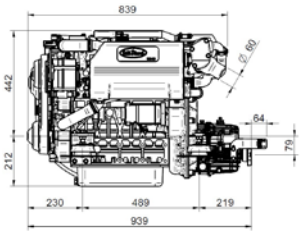


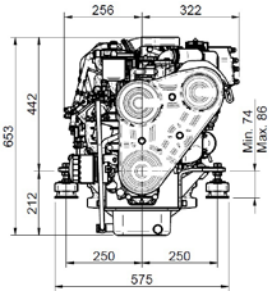
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

SK-60

4 cylinders 59,8 hp (44 kW) at 2700 RPM





Equipment

Standard equipment
- Instrument panel SVT 20
- 4 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- SVT 30 Panel
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

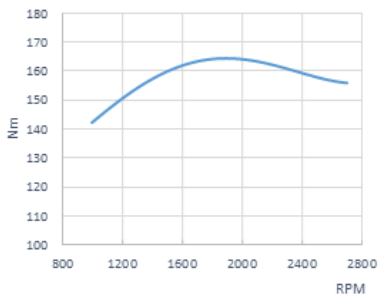
Technical especifications

Base	Kubota
Type	Diesel, 4 stroke
Cylinders	4
Intake system	Turbocharged
Bore x stroke (mm)	87 x 102,4
Total displacement (cc)	2434
Compression ratio	22.5:1
Intermittent power rating (per ISO 3046/1)	60 hp (m) (44 kW)
Continuous output	53,9 hp (m) (39,6 kW)
Fuel injection system	Mechanical and indirect
Alternator	12 V - 120 A
Engine Max. installation angle	20°
ID. Ø Salt water hose	32 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	5 mm
Emission compliance	EU: RCD II
Rating	Intermittent power: S3 Continuous power: S2

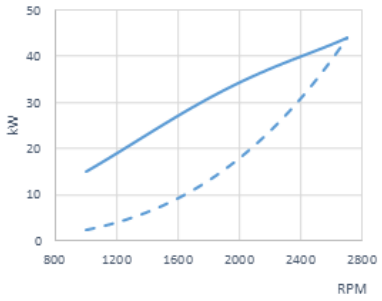
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
TM-345	Hydraulic	0°	1.54:1 - 2.00:1 - 2.47:1	1.54:1 - 2.00:1	243 kg (536 lb)
TM-345A	Hydraulic	8°	1.54:1 - 2.00:1 - 2.47:1	1.54:1 - 2.00:1	243 kg (536 lb)
TM-93	Hydraulic	0°	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	271 kg (597 lb)
TM-93A	Hydraulic	8°	1.51:1 - 2.09:1 - 2.40:1	1.51:1 - 2.09:1 - 2.40:1	271 kg (597 lb)
TMC-260	Mechanical	0°	1.54:1 - 2.00:1 - 2.47:1 - 2.88:1	1.54:1 - 2.00:1	236 kg (520 lb)
TMC-60P	Mechanical	0°	1.55:1	-	232 kg (511 lb)
ZF 68 IV	Hydraulic	12°	1.56:1 - 1.99:1	1.56:1 - 1.99:1	280 kg (617 lb)

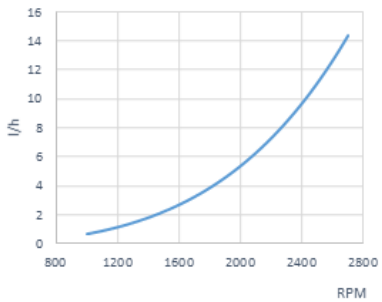
Engine Torque



Power*



Fuel consumption

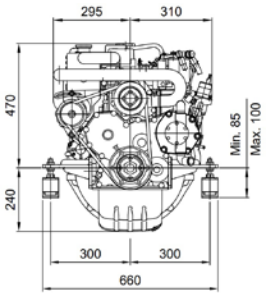


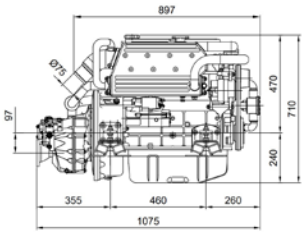
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

MINI-74

4 cylinders 63,9 hp (47 kW) at 2500 RPM





Equipment

Standard equipment
- Instrument panel SVT 30
- 4 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

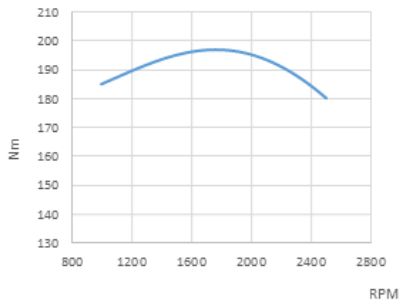
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	4
Intake system	Naturally aspirated
Bore x stroke (mm)	94 x 120
Total displacement (cc)	3331
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	64 hp (m) (47 kW)
Continuous output	57,5 hp (m) (42,3 kW)
Fuel injection system	Mechanical and indirect
Alternator	12 V - 95 A
Engine Max. installation angle	15°
ID. Ø Salt water hose	32 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	-
Emission compliance	EU: RCD II
Certifications	RRR
Rating	Intermittent power: S2 Continuous power: S1

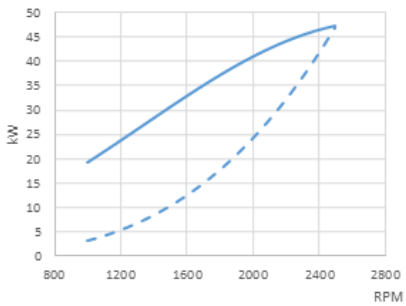
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
DMT-25AL	Hydraulic	0°	-	3.32:1	399 kg (880 lb)
DMT-50A	Hydraulic	0°	-	3.46:1	465 kg (1025 lb)
TM-345	Hydraulic	0°	2.00:1 - 2.47:1	2.00:1	347 kg (765 lb)
TM-345A	Hydraulic	8°	2.00:1 - 2.47:1	2.00:1	347 kg (765 lb)
TM-880A	Hydraulic	10°	2.60:1	2.60:1	376 kg (829 lb)
TM-93	Hydraulic	0°	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	375 kg (827 lb)
TM-93A	Hydraulic	8°	1.51:1 - 2.09:1 - 2.40:1	1.51:1 - 2.09:1 - 2.40:1	375 kg (827 lb)
ZF 68 IV	Hydraulic	12°	1.29:1 - 1.56:1 - 1.99:1	1.29:1 - 1.56:1 - 1.99:1	384 kg (847 lb)

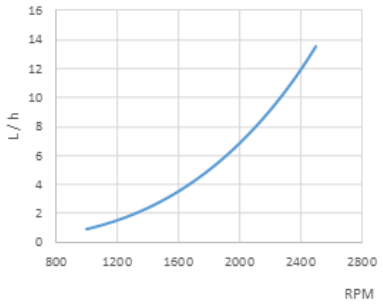
Engine Torque



Power*



Fuel consumption

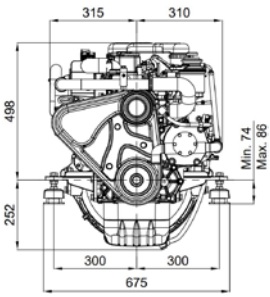


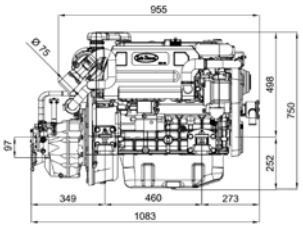
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

SM-82

4 cylinders 82 hp (60,3 kW) at 2500 RPM





Equipment

Standard equipment
- Instrument panel SVT 30
- 4 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

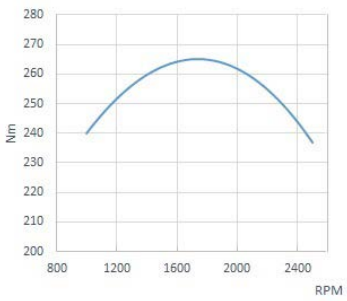
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	4
Intake system	Turbocharged
Bore x stroke (mm)	94 x 120
Total displacement (cc)	3331
Compression ratio	19.5:1
Intermittent power rating (per ISO 3046/1)	82 hp (m) (60,3 kW)
Continuous output	73,8 hp (m) (54,3 kW)
Fuel injection system	Mechanical and direct
Alternator	12 V - 95 A
Engine Max. installation angle	15°
ID. Ø Salt water hose	32 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	8 mm
Emission compliance	EU: RCD II
Rating	Intermittent power: S2 Continuous power: S1

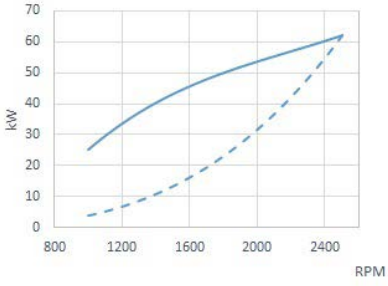
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
TM-170	Hydraulic	0°	1.50:1 - 2.04:1 - 2.50:1 - 2.94:1	1.50:1 - 2.04:1 - 2.50:1 - 2.94:1	390 kg (860 lb)
TM-345	Hydraulic	0°	1.54:1 - 2.00:1	-	340 kg (750 lb)
TM-345A	Hydraulic	8°	1.54:1 - 2.00:1	-	340 kg (750 lb)
TM-880A	Hydraulic	10°	1.53:1 - 2.08:1 - 2.60:1	1.53:1 - 2.08:1 - 2.60:1	369 kg (814 lb)
TM-93	Hydraulic	0°	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	368 kg (811 lb)
TM-93A	Hydraulic	8°	1.51:1 - 2.09:1 - 2.40:1	1.51:1	368 kg (811 lb)
ZF 68 IV	Hydraulic	12°	1.29:1 - 1.56:1 - 1.99:1 - 2.48:1	1.29:1 - 1.56:1 - 1.99:1 - 2.48:1	377 kg (831 lb)
ZF 25A	Hydraulic	8°	1.55:1 - 1.93:1 - 2.29:1 - 2.71:1	-	339 kg (747 lb)

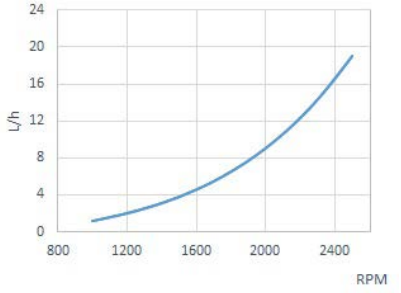
Engine Torque



Power*



Fuel consumption

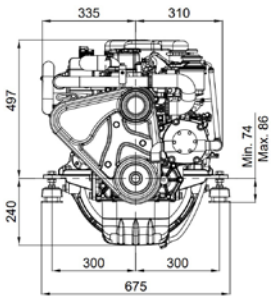


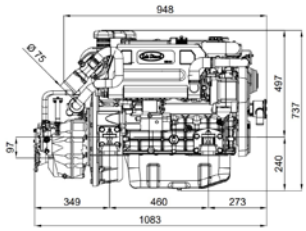
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

SM-94

4 cylinders 94 hp (69 kW) at 2500 RPM





Equipment

Standard equipment
- Instrument panel SVT 30
- 4 m electrical extension lead
- Silentblocks
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

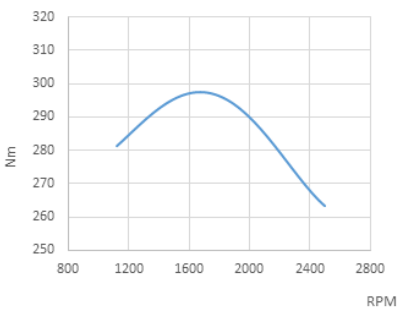
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	4
Intake system	Turbocharged
Bore x stroke (mm)	94 x 120
Total displacement (cc)	3331
Compression ratio	19:1
Intermittent power rating (per ISO 3046/1)	94 hp (m) (69 kW)
Continuous output	84,5 hp (m) (62,1 kW)
Fuel injection system	Mechanical and direct
Alternator	12 V - 95 A
Engine Max. installation angle	15°
ID. Ø Salt water hose	32 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	8 mm
Emission compliance	EU: RCD II
Rating	Intermittent power: S2 Continuous power: S1

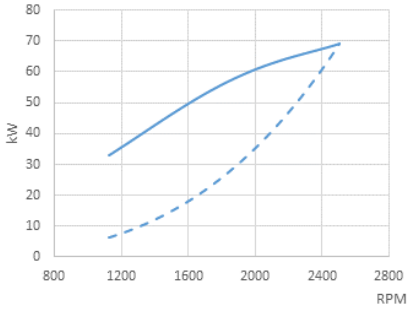
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
TM-170	Hydraulic	0°	1.50:1 - 2.04:1 - 2.50:1 - 2.94:1	1.50:1 - 2.04:1 - 2.50:1 - 2.94:1	383 kg (844 lb)
TM-345	Hydraulic	0°	2.00:1	-	333 kg (734 lb)
TM-345A	Hydraulic	8°	1.54:1 - 2.00:1	-	333 kg (734 lb)
TM-880A	Hydraulic	10°	1.53:1 - 2.08:1 - 2.60:1	1.53:1 - 2.08:1 - 2.60:1	362 kg (798 lb)
TM-93	Hydraulic	0°	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	361 kg (796 lb)
TM-93A	Hydraulic	8°	1.51:1 - 2.09:1 - 2.40:1	-	361 kg (796 lb)
ZF 68 IV	Hydraulic	12°	1.29:1 - 1.56:1 - 1.99:1 - 2.48:1	1.29:1 - 1.56:1 - 1.99:1 - 2.48:1	370 kg (816 lb)
ZF 25A	Hydraulic	8°	1.55:1 - 1.93:1	-	332 kg (732 lb)

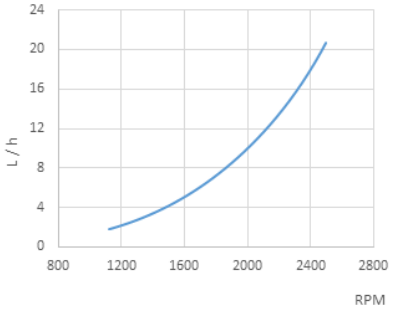
Engine Torque



Power*



Fuel consumption

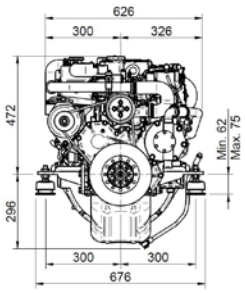


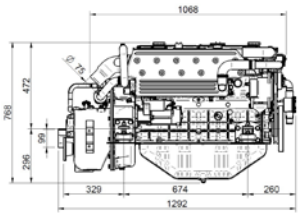
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

SM-103

6 cylinders 103 hp (75,8 kW) at 2500 RPM





Equipment

Standard equipment
- Instrument panel SVT 30
- 4 m electrical extension lead
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

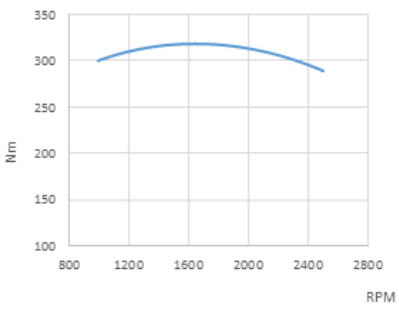
Technical especifications

Base	Mitsubishi
Type	Diesel, 4 stroke
Cylinders	6
Intake system	Naturally aspirated
Bore x stroke (mm)	94 x 120
Total displacement (cc)	4996
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	103 hp (m) (75,8 kW)
Continuous output	92,8 hp (m) (68,2 kW)
Fuel injection system	Mechanical and indirect
Alternator	12 V - 95 A
Engine Max. installation angle	15°
ID. Ø Salt water hose	32 mm
ID. Ø Diesel fuel intake hose	8 mm
ID. Ø Diesel fuel return hose	-
Emission compliance	-
Certifications	RRR
Rating	Intermittent power: S2 Continuous power: S1

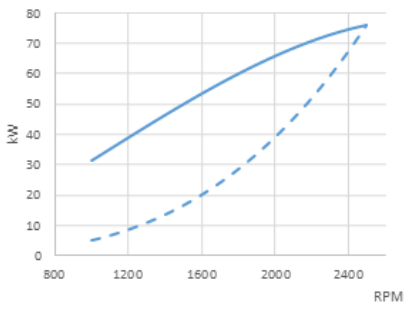
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
DMT-50A	Hydraulic	0°	-	3.46:1	551 kg (1215 lb)
PRM 500D	Hydraulic	0°	2.90:1	2.90:1	480 kg (1058 lb)
PRM 750C	Hydraulic	0°	2.57:1 - 2.90:1	2.57:1 - 2.90:1	501 kg (1105 lb)
TM-170	Hydraulic	0°	1.50:1 - 2.04:1 - 2.50:1 - 2.94:1	1.50:1 - 2.04:1 - 2.50:1 - 2.94:1	483 kg (1065 lb)
TM-880A	Hydraulic	10°	1.53:1 - 2.08:1 - 2.60:1	1.53:1 - 2.08:1 - 2.60:1	462 kg (1019 lb)
TM-93	Hydraulic	0°	1.51:1 - 2.09:1 - 2.40:1 - 2.77:1	1.51:1 - 2.09:1 - 2.40:1	461 kg (1016 lb)
TM-93A	Hydraulic	8°	1.51:1 - 2.09:1 - 2.40:1	-	461 kg (1016 lb)
ZF 68 IV	Hydraulic	12°	1.99:1 - 2.48:1	1.99:1 - 2.48:1	470 kg (1036 lb)

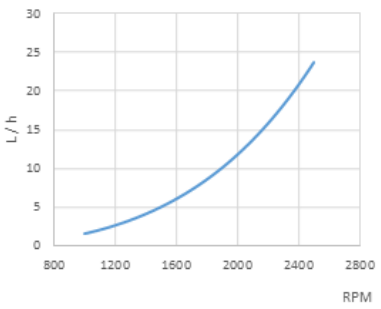
Engine Torque



Power*



Fuel consumption

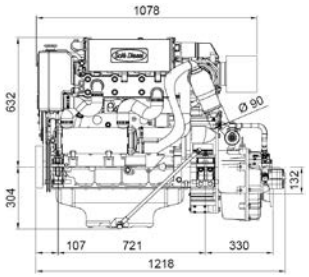


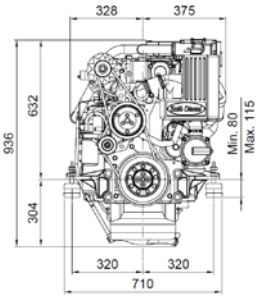
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

SDZ-165

4 cylinders 160,4 hp (118 kW) at 2300 RPM





Equipment

Standard equipment
- Instrument panel SVT 30
- 4 m electrical extension lead
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

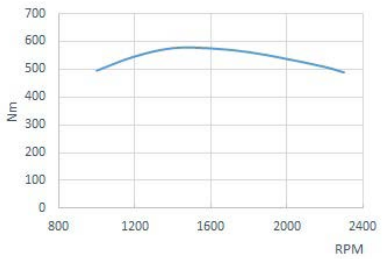
Technical especifications

Base	Deutz
Type	Diesel, 4 stroke
Cylinders	4
Intake system	Turbocharged with intercooler
Bore x stroke (mm)	108 x 130
Total displacement (cc)	4764
Compression ratio	17.5:1
Intermittent power rating (per ISO 3046/1)	160 hp (m) (118 kW)
Continuous output	144,4 hp (m) (106,2 kW)
Fuel injection system	Mechanical and direct
Alternator	24 V - 55 A
Engine Max. installation angle	10°
ID. Ø Salt water hose	42 mm
ID. Ø Diesel fuel intake hose	12 mm
ID. Ø Diesel fuel return hose	12 mm
Emission compliance	-
Rating	Intermittent power: S2 Continuous power: S1

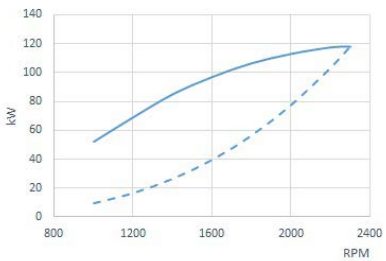
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
DMT-100HL	Hydraulic	0°	-	5.95:1	818 kg (1803 lb)
DMT-100IV	Hydraulic	14°	-	2.12:1	705 kg (1554 lb)
TM-170	Hydraulic	0°	1.50:1 - 2.04:1 - 2.50:1 - 2.94:1	1.50:1 - 2.04:1	630 kg (1389 lb)
TM-200B	Hydraulic	0°	-	3.60:1 - 4.48:1	790 kg (1742 lb)
TM-265	Hydraulic	0°	2.09:1 - 2.82:1	2.09:1 - 2.82:1	609 kg (1343 lb)
TM-265A	Hydraulic	7°	2.09:1 - 2.30:1	2.09:1	617 kg (1360 lb)
TM-880A	Hydraulic	10°	1.53:1 - 2.08:1 - 2.60:1	1.53:1 - 2.08:1	720 kg (1587 lb)
ZF 68 IV	Hydraulic	12°	1.56:1 - 1.99:1	-	720 kg (1587 lb)

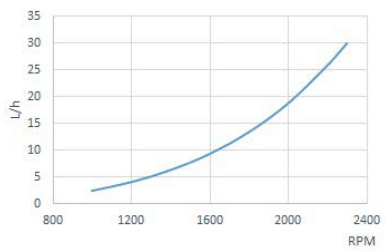
Engine Torque



Power*



Fuel consumption

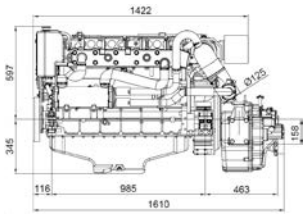


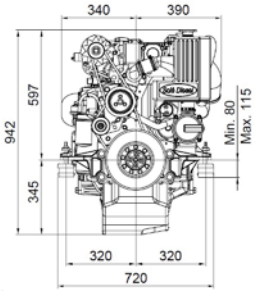
**Power rating per ISO 3046/1*

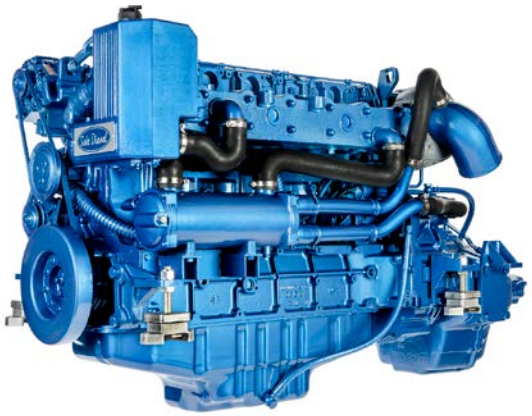
1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

SDZ-205

6 cylinders 195,7 hp (143,9 kW) at 2300 RPM







Equipment

Standard equipment
- Instrument panel SVT 30
- 4 m electrical extension lead
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

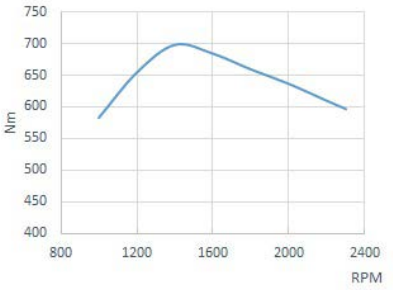
Technical especifications

Base	Deutz
Type	Diesel, 4 stroke
Cylinders	6
Intake system	Turbocharged
Bore x stroke (mm)	108 x 130
Total displacement (cc)	7146
Compression ratio	17.5:1
Intermittent power rating (per ISO 3046/1)	196 hp (m) (143,9 kW)
Continuous output	176,1 hp (m) (129,5 kW)
Fuel injection system	Mechanical and direct
Alternator	24 V - 55 A
Engine Max. installation angle	10°
ID. Ø Salt water hose	42 mm
ID. Ø Diesel fuel intake hose	12 mm
ID. Ø Diesel fuel return hose	12 mm
Emission compliance	-
Rating	Intermittent power: S2 Continuous power: S1

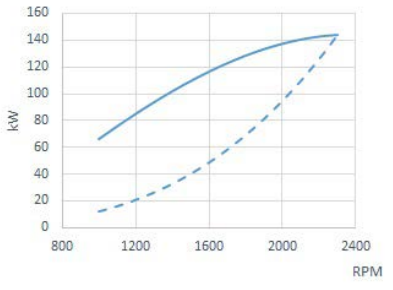
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
DMT-100HL	Hydraulic	0°	-	4.07:1 - 4.50:1 - 4.95:1 - 5.29:1	951 kg (2097 lb)
MG-5061SC	Mechanical	0°	3.00:1	3.00:1	791 kg (1744 lb)
TM-1200A	Hydraulic	7°	2.30:1	2.30:1	803 kg (1770 lb)
TM-170	Hydraulic	0°	1.50:1 - 2.04:1	1.50:1 - 2.04:1	763 kg (1682 lb)
TM-200B	Hydraulic	0°	-	3.60:1 - 4.48:1	923 kg (2035 lb)
TM-265	Hydraulic	0°	1.50:1 - 2.09:1 - 2.82:1	1.50:1 - 2.09:1 - 2.82:1	853 kg (1881 lb)
TM-265A	Hydraulic	7°	2.09:1 - 2.30:1	-	853 kg (1881 lb)
TM-880A	Hydraulic	10°	1.53:1 - 2.08:1	-	742 kg (1636 lb)

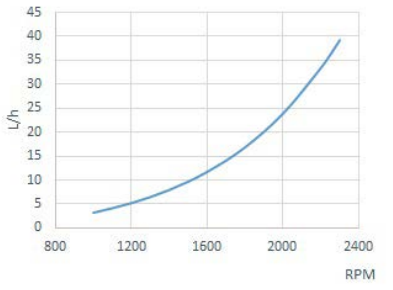
Engine Torque



Power*



Fuel consumption

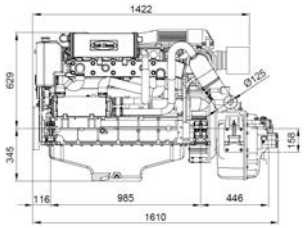


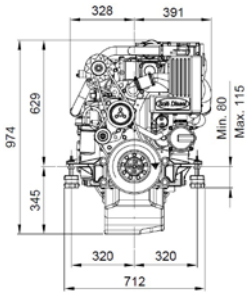
**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

SDZ-280

6 cylinders 272 hp (200 kW) at 2300 RPM





Equipment

Standard equipment
- Instrument panel SVT 30
- 4 m electrical extension lead
- Oil extraction pump
- Owner's Manual

Optional equipment
- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

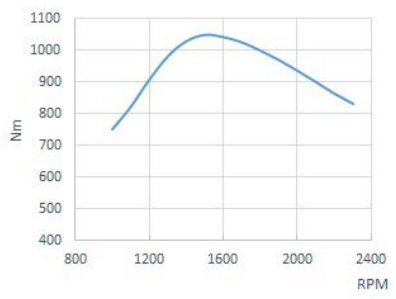
Technical especifications

Base	Deutz
Type	Diesel, 4 stroke
Cylinders	6
Intake system	Turbocharged with intercooler
Bore x stroke (mm)	108 x 130
Total displacement (cc)	7146
Compression ratio	17.5:1
Intermittent power rating (per ISO 3046/1)	272 hp (m) (200 kW)
Continuous output	244,8 hp (m) (180 kW)
Fuel injection system	Mechanical and direct
Alternator	24 V - 55 A
Engine Max. installation angle	10°
ID. Ø Salt water hose	42 mm
ID. Ø Diesel fuel intake hose	12 mm
ID. Ø Diesel fuel return hose	12 mm
Emission compliance	IMO MARPOL TIER II
Rating	Intermittent power: S2 Continuous power: S1

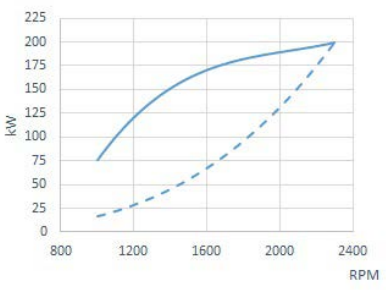
Transmissions

Model	Type	Down angle	Reduction (Light Duty)	Reduction (Cont. Duty)	Engine weight with gearbox
DMT-100HL	Hydraulic	0°	-	4.07:1 - 4.50:1 - 4.95:1 - 5.29:1	943 kg (2079 lb)
DMT-100IV	Hydraulic	14°	-	2.12:1	830 kg (1830 lb)
DMT-90A	Hydraulic	0°	-	3.12:1 - 3.46:1	839 kg (1850 lb)
TM-1200A	Hydraulic	7°	1.44:1 - 2.00:1 - 2.30:1	1.44:1 - 2.00:1	795 kg (1753 lb)
TM-265	Hydraulic	0°	1.50:1 - 2.09:1 - 2.82:1	-	845 kg (1863 lb)
TM-265A	Hydraulic	7°	1.44:1 - 2.09:1 - 2.30:1	-	845 kg (1863 lb)
TM-360	Hydraulic	0°	-	3.50:1 - 4.00:1	1095 kg (2414 lb)
TM-880A	Hydraulic	10°	1.53:1 - 2.08:1	-	734 kg (1618 lb)

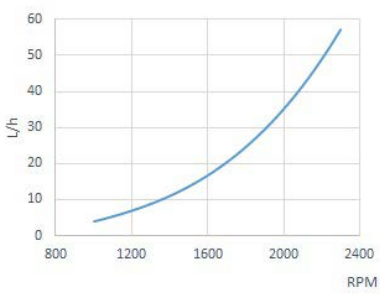
Engine Torque



Power*



Fuel consumption



**Power rating per ISO 3046/1*

1 kW ≅ 1,36 CV 1 kW ≅ 1,36 HP (metric) 1 kW ≅ 1,36 CH

SVT CONTROL PANELS

The SVT is the Solé Diesel range of control and protection panels sets used with our propulsion engine range. These panels allow starting engine and provide basic information with intuitive and easy indicators which include visual and acoustic alarms.

FEATURES

1. Plug and Play connections with IP67 water resistance protection.
2. Neoprene gasket for waterproof sealing.
3. Backside plastic panel for earth isolation.
4. Electronic circuit plate with protective coating and rubber protection.
5. Frontal protection with IP65 water resistance.
6. Starter protection to prevent the activation when the engine is running.
7. Luminescent indicator.
8. Improved design – new look and better gauge integration.

All panels include 5 position key:

- Engine Stop
- Turn Off Electronic Board
- Turn On Electronic Board
- Engine Preheating
- Engine Start-up

	SVT 10	SVT 20	SVT 30	SVT 40*
Electronic plate				
Pre-heating Pilot Light	✓	✓	✓	✓
Battery Alarm	✓	✓	✓	✓
High Temperature Alarm	✓	✓	✓	✓
Low Oil Pressure Alarm	✓	✓	✓	✓
5 positions key	✓	✓	✓	✓
Engine Stop	✓	✓	✓	✓
Turn Off Electronic Board	✓	✓	✓	✓
Turn On Electronic Board	✓	✓	✓	✓
Engine Preheating	✓	✓	✓	✓
Engine Start-up	✓	✓	✓	✓
Indicators				
Tachometer and Hour Meter	✗	✓	✓	✓
Coolant Temperature Gauge	✗	✓	✓	✗
Pressure Gauge	✗	✗	✓	✗
Voltmeter	✗	✗	✓	✗
Dimensions (mm)	175 x 65	205 x 155	255 x 160	205 x 155

* SVT40 panels are only supplied in double kit panels.
SVT 20/30/40 panels have an extra slot to install a sea water high temperature alarm.

SDC 2000

SDC2000 is an analog / digital signal to NMEA 2000 protocol converter. This product allows the connection between marine engine sensors and the boat's communication network. The user can control the engine status anywhere on the boat , both from the console center display as well as by connecting a multifunction display.

FEATURES

- Designed to be easily and quickly installed.
- Compatible with all current Solé Diesel marine engines from 2008.
- Compatible with Dual Panel Kit.
- Compatible with most current instruments.
- Converts the following signals to digital NMEA 2000 signals: RPM, oil pressure, oil temperature and battery.
- Converts audio signal alarms to digital NMEA 2000.

SCOPE OF SUPPLY

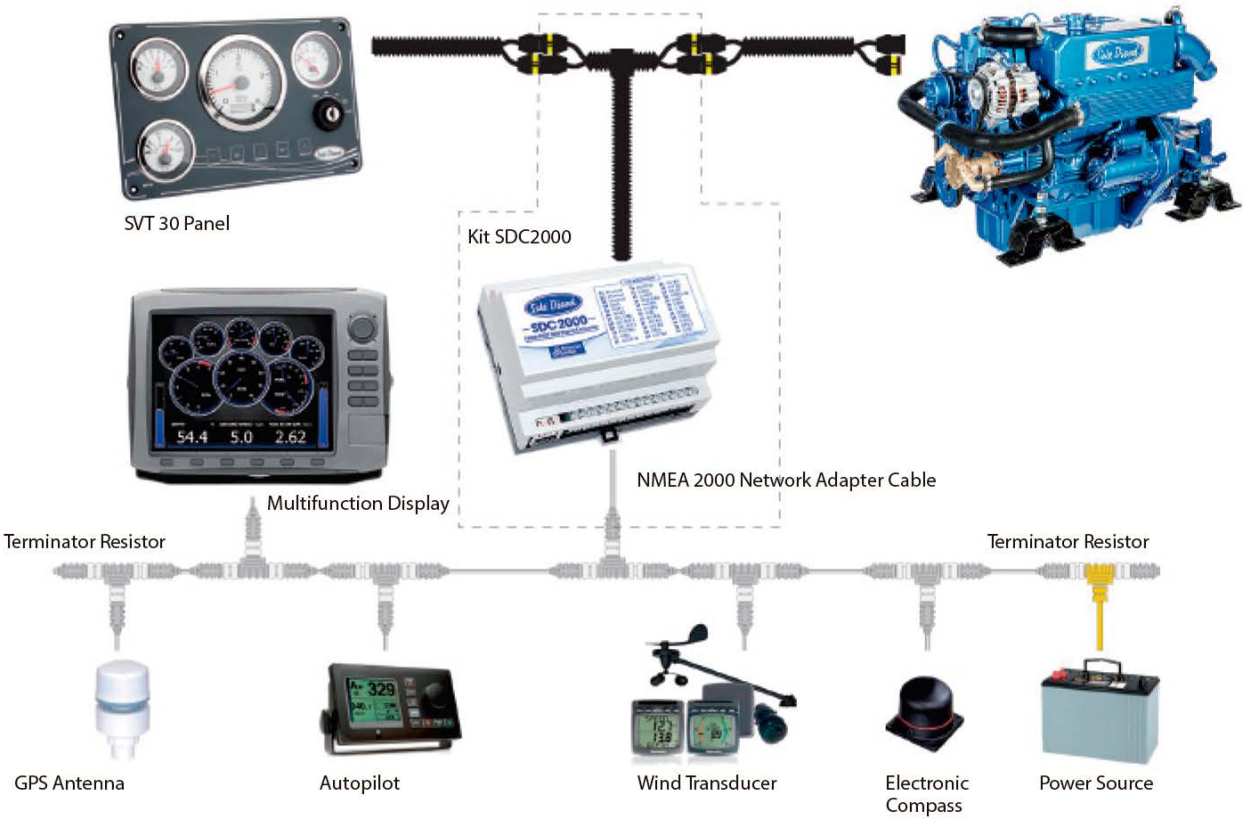
- SDC 2000 Converter Device.
- NMEA 2000 Cable (1 m).
- Electrical installation bypass.
- IP 55 protective case.

ELECTRICAL SPECIFICATIONS

- Operating Voltage: 9-18V DC from the NMEA 2000 bus
- Consumption: 150 mA

ENGINE'S INFORMATION

- Speed indication (RPM).
- Coolant Temperature.
- Oil Pressure Gauge.
- Battery voltage.
- Acoustic and visual low oil pressure and high temperature alarms.



MAINTENANCE PACKS

WELCOME PACK

The start-up pack is a packet of accessories including everything necessary for the initial start-up of a Solé Diesel engine: oil filter, diesel filter, impeller pack (impeller and gasket), belt, anode, fuse, air filter and all the necessary fluids to start the engine. Additionally, it contains three spray cans of primer, paint and dielectric protector, to keep the engine like new. It is an essential pack to have on board before any journey and allows basic maintenance to keep the boat's engine in good working condition. Available in the necessary variations for all our marine engine ranges.

Description	Part Number
4 GSCH v3 Welcome Pack	GD040300
Welcome pack SK-60 and Mechanic Gbox	1A040302
Welcome pack SK-60 and Hydraulic Gbox	1A040303
Welcome pack MINI-17 and Mechanic Gbox	13840103
Welcome pack MINI-17 Genset	13840103G
Welcome pack MINI-17/29 v6 and Mec. Gbox	13840303
MINI-26 Genset Welcome Pack	13940103
Welcome pack SM-81 Genset	17A40303G
Welcome pack MINI-62 and Mechanic Gbox.	17140104
Welcome pack MINI-63 Genset	17140105
Welcome pack MINI-62 and Hydraulic Gbox	17140303
Welcome pack MINI-33 and Mechanic Gbox	17240303
Welcome pack MINI-33 Genset	17240303G
Welcome pack MINI-33 v6 and Mec. Gbox	17240304
Welcome Pack MINI-33 Hydraulic GearBox	17240310
Welcome Pack MINI-33 v6 Hydraul. GearBox	17240311
Welcome pack MINI-44 and Mechanic Gbox	17340303
Welcome pack MINI-44 Genset	17340303G
Welcome Pack MINI-44 v6 Mechanic GearBox	17340305
Welcome Pack MINI-44 Hydraulic GearBox	17340310
Welcome Pack MINI-44 v6 Hydraul. GearBox	17340311
Welcome pack MINI-74 and Mechanic Gbox	17440104
Welcome pack MINI-74 and Hydraulic Gbox	17440303
Welcome pack MINI-74 Genset	17440303G
Welcome pack SM-105/103 and Hydr.Gbox	17540303
Welcome pack SM-105 Genset	17540303G
Welcome Pack SM-103	17540310
Welcome pack MINI-29 and Mechanic Gbox	17640303
Welcome pack MINI-55 and Mechanic Gbox	17740303
Welcome pack MINI-55 v6 and Hidr. Gbox	17740304
Welcome pack MINI-55 v6 and Mec. Gbox	17740305
Welcome Pack MINI-55 Hydraulic GearBox	17740310
Welcome pack SM-82 and Mechanic Gbox	17840302
Welcome pack SM-82 and Hydraulic Gbox	17840303
Welcome pack SM-94 and Hydraulic Gbox	17940303
Welcome Pack SM-94 Mechanic GearBox	17940310
Welcome pack SN-110 and Hydraulic Gbox	18340303
Welcome pack SDZ-165 and Hydraulic Gbox	19440104
Welcome pack SDZ-109/165 Genset	19440104G
Welcome pack SDZ-205 and TM-265 Gbox	19540104
Welcome pack SDZ-205 and TM-170 Gbox	19540303
Welcome pack SDZ-280 and Hydraulic Gbox	19640303
SDZ-280E Genset Welcome Pack	19640303G

MAINTENANCE PACKS

ON BOARD PACK

The cruise parts pack for marine engines enables the elemental maintenance of the boat engine and it is essential to have it on board for any journey. So as to be able to replace defective parts, it has an oil filter, diesel filter, air filter main element, anode with cap, belt and impeller pack (impeller and gasket).

Description	Part Number
On Board Spare Parts 4 GSCH v3 Pack	**GD040200**
On Board Pack SK-60	**1A040110**
On Board Pack MINI-17 v5	**13840210**
On Board Pack MINI-17 Grupo	**13840210G**
On Board Pack MINI-26 Grupo	**13940210G**
On Board Pack MINI-62	**17140210**
On Board Pack MINI-63 Grupo	**17140210G**
On Board Spare Parts MINI-33/44 v6 Pack	**17240110**
On Board Pack MINI-33/44	**17240210**
On Board Pack MINI-33/44 Grupo	**17240210G**
On Board Pack MINI-74	**17440210**
On Board Pack MINI-74 Grupo	**17440210G**
On Board Pack SM-103	**17540210**
On Board Pack SM-105 Grupo	**17540210G**
On Board Spare Parts MINI-17/29 v6 Pack	**17640110**
On Board Pack MINI-55	**17740210**
On Board Pack MINI-55 v6	**17740211**
On Board Pack SM-82	**17840110**
On Board Pack SM-94	**17940110**
On Board Pack SN-110	**18340210**
On Board Pack SDZ-165	**19440210**
On Board Pack SDZ-109/165/280 Grupo	**19440210G**
On Board Pack SDZ-205/280	**19540210**

MAINTENANCE PACKS

MAINTENANCE PACK 50 H

The 50-hour pack includes an oil filter, a diesel filter and an impeller pack (impeller and gasket) with a toolbox. It is an essential pack to have on board before any journey since it enables us to carry out basic engine maintenance. Available for all marine engine ranges.

Description	Part Number
Maintenance Pack 4 GSCH v3 50 Hours	**GD040100**
Maintenance Pack SK-60 50 Hours	**1A040112**
Box Maint. Pack MINI-17/29/33/44 50 H	**13840110**
Box Maintenance Pack SM-81 50 Hours	**17A40110**
Box Maintenance Pack MINI-62 50 Hours	**17140110**
Box Maintenance Pack MINI-63 50 Hours	**17140110G**
Maintenance Pack MINI-74 50 Hours	**17440110**
Maintenance Pack SM-105/103 50 Hours	**17540110**
Welcome Pack MINI-29 Hydraulic GearBox	**17640111**
Box Maintenance Pack MINI-55 50 Hours	**17740110**
Box Maintenance Pack SM-82/94 50 Hours	**17840112**
Box Maintenance Pack SN-85/110 50 Hours	**18240110**
Box Maint. Pack SDZ-165/205/280 50 Hours	**19440110**
Box Maint. Pack SDZ-165/205/280 DNV 50 H	**19440112**

MAINTENANCE PACKS

MAINTENANCE PACK 1600 H

The 1600-hour pack is an accessory pack for carrying out the 1600 working hour's maintenance of marine engines and generators. It includes all the elements necessary for carrying out the servicing of the boat engine or generator such as oil, diesel and air filters, washers belts and gaskets.

Description	Part Number
Maintenance Pack 4 GSCH v3 1600 Hours	GD040101
Maintenance Kit SK-60 1600 Hours	1A040100
Maintenance Pack MINI-17v6 1600 Hours	13840104
Maintenance Kit MINI-26 1600 Hours Gense	13940104G
1600 Hours Maintenance Kit SM-81 Genset	17A41600
Maintenance Pack MINI-62 1600 Hours	17140112
Maint.Pack MINI-63 1600 Hours Gense	17140112G
Maintenance Pack MINI-33 1600 Hours	17240103
Maint.Pack MINI-33 1600 Hours Gense	17240103G
Maintenance Pack MINI-33v6 1600 Hours	17240105
Maintenance Pack MINI-44 1600 Hours	17340104
Maint.Pack MINI-44 1600 Hours Gense	17340104G
Maintenance Pack MINI-44v6 1600 Hours	17340106
Maintenance Pack MINI-74 1600 Hours	17440102
Maint.Pack MINI-74 1600 Hours Gense	17440102G
Maint.Pack SM-105 1600 Hours Genset	17540104G
Maintenance Pack SM-103 1600 Hours	17540105
Maintenance Pack MINI-29v6 1600 Hours	17640102
Maintenance Pack MINI-55 1600 Hours	17740100
Maintenance Pack MINI-55v6 1600 Hours	17740102
Maintenance Pack SM-82 1600 Hours	17840100
Maintenance Pack SM-94 1600 Hours	17940100
Maintenance Pack SDZ-165 1600 Hours	19440106
Maintenance Pack SDZ-109/165G 1600 Hours	19440106G
Maintenance Pack SDZ-205/280 1600 Hours	19540105

MAINTENANCE PACKS

MAINTENANCE PACK 3000 H

The 3000-hour pack is an accessory pack for carrying out the 3000 working hour's maintenance of marine engines and generators. This pack has different elements depending on the engine or generator that is going to be serviced. The user manual specifies the elements contained in each. Some of the elements included are: diesel filters, air filter, gaskets, injector washers, oil filters and impellers.

Description	Part Number
Maintenance Pack 4 GSCH v3 3000 Hours	**GD040102**
Maintenance Kit SK-60 3000 Hours	**1A040101**
Maintenance Pack MINI-17v6 3000 Hours	**13840105**
Maintenance Kit MINI-26G 3000 Hours	**13940105G**
3000 Hours Maintenance Kit SM-81 Genset	**17A43000**
Maintenance Pack MINI-62 3000 Hours	**17140113**
Maint.Pack MINI-63 3000 Hours Gense	**17140113G**
Maintenance Pack MINI-33 3000 Hours	**17240104**
Maint.Pack MINI-33 3000 Hours Gense	**17240104G**
Maintenance Pack MINI-33v6 3000 Hours	**17240106**
Maintenance Pack MINI-44 3000 Hours	**17340105**
Maint.Pack MINI-44 3000 Hours Gense	**17340105G**
Maintenance Pack MINI-44v6 3000 Hours	**17340107**
Maintenance Pack MINI-74 3000 Hours	**17440103**
Maintenance Pack MINI-74G 3000 Hours	**17440103G**
Maintenance Pack SM-105G 3000 Hours	**17540103G**
Maintenance Pack SM-103 3000 Hours	**17540106**
Maintenance Pack MINI-29v6 3000 Hours	**17640103**
Maintenance Pack MINI-55 3000 Hours	**17740101**
Maintenance Pack MINI-55v6 3000 Hours	**17740103**
Maintenance Pack SM-82 3000 Hours	**17840101**
Maintenance Pack SM-94 3000 Hours	**17940101**
Maintenance Pack SDZ-165 3000 Hours	**19440107**
Maintenance Pack SDZ-109/165G 3000 Hours	**19440107G**
Maintenance Pack SDZ-205/280 3000 Hours	**19540106**

Solé Diesel

HYBRID AND ELECTRIC PROPULSION

SH RANGE

HM450

The HM450 module, with 8 kW of electric power, has been designed to easily adapt to any type of heat engine and transmission.
The mounted electric engine has a double function: it can work as an electric engine in electric propulsion mode, and as a generator in thermal propulsion or standard mode. As a result, a zero-emissions navigation is possible when needed.

Operating modes

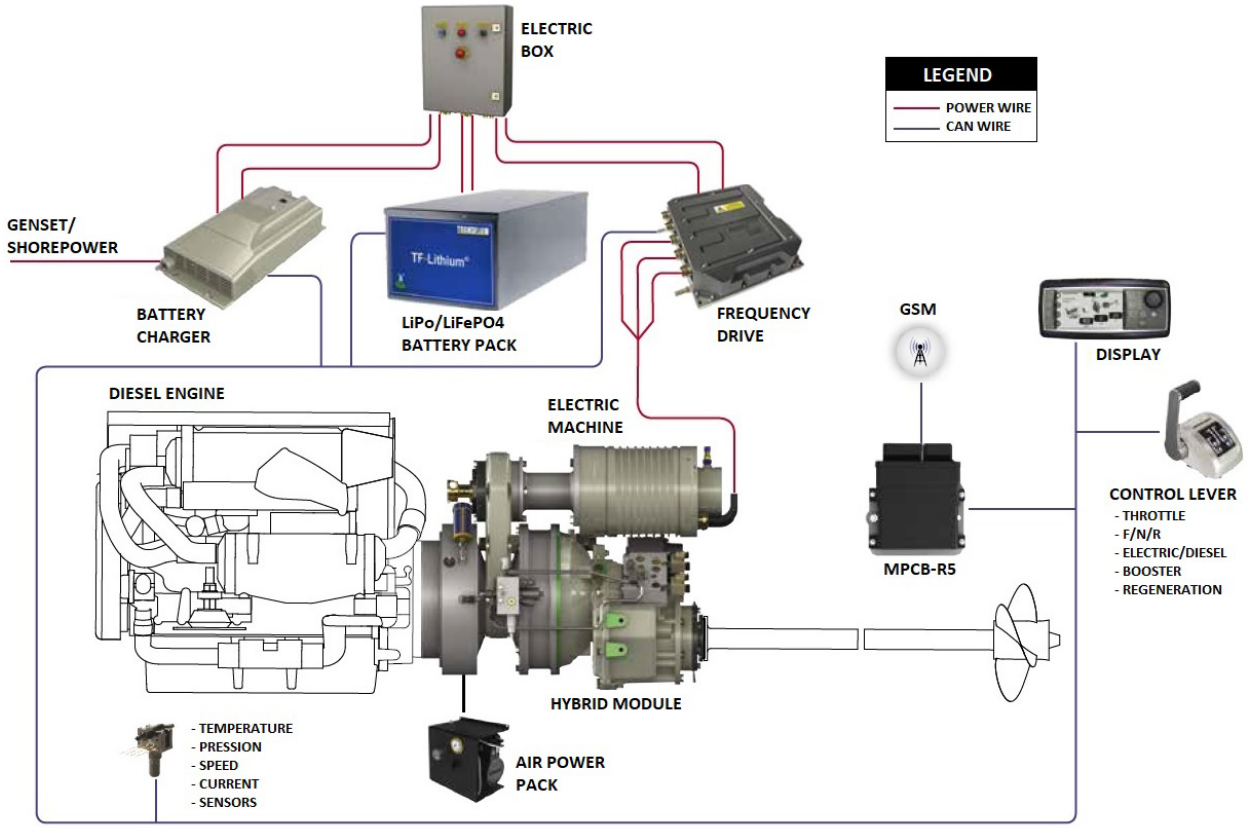
This hybrid module combines three use modes differentiated between them:
- Electric propulsion, to navigate with zero emissions and without the noise of the main engine.
- Main engine propulsion which uses the electric engine to charge the batteries.
- Booster function which adds an extra torque to the transmission line when an increase of acceleration is required.

Functioning

The connection between the module and the engine is controlled by a pneumatic system which acts on an integrated clutch. When the engine is uncoupled, it disconnects from the transmission line and enables to operate the vessel through the electric engine in the module. When the vessel is operated through the heat engine (the clutch is coupled to the hybrid module) the electric engine of the module becomes the generator and charges the batteries.
The third use of this module allows to operate the main engine along with the electric engine, obtaining an increase of the available total power (booster function).

Full equipment

- HM450 module
- EM180-08 (PM) electric engine
- Cooling fan for electric machine
- Air power pack to operate the clutch
- Air power pack to “come home” function
- MPCB-R5 controller which is the communication element among all components
- Power control lever and mode selection
- Display
- Frequency drive
- Electric box for the components and emergency devices
- CANbus cables (5 m)
- LiFePO4 battery
- CB NG3 battery charger



Technical data	
HM450 entrance	SAE 5 - 7,5"/8" (BW 6 - 5" available)
HM450 exit	SAE 5 - 7,5"/8" (BW 6 - 5" available)
Maximum input torque	450 Nm
Maximum input power	100 kW (marine use)
Maximum input speed	3800 rpm
Maximum allowable electrical power	35 kW (3000 rpm)
Nominal electrical power EM180-08 (PM)	8 kW (3000 rpm)
Generator electrical power EM180-08 (PM)	7 kW (3000 rpm)
Weight	95 kg

Applications

This module is compatible with SK-60 and MINI-62 Solé Diesel engine models.
In case of other needs, there is a **form available to request other hybrid modules according to the engine and its necessities.**

SE RANGE

DRIVEMASTER

DriveMaster is the new range of electric engines with permanent magnets and integrated cooling circuit prepared for being installed directly to the shafts line. It is the most efficient, quiet and compact solution for leisure boats.
Along with our marine gensets, it is the perfect solution to meet the needs of a quiet and zero-emissions propulsion without limiting its autonomy[1].

Range[2]				
MODEL	**Primer power**	**Intermittent power***	**Battery**	**RPM****
DriveMaster 3W	2.5 kW	3 kW	48 V	1500
DriveMaster 7W	5 kW	7 kW	48 V	1500
DriveMaster 10W	8 kW	10 kW	48 V	1500
DriveMaster 15W	10 kW	15 kW	48 V	1500
DriveMaster 20W EVO	15 kW	20 kW	48 V	1500
DriveMaster 20W	15 kW	20 kW	96 V	1500
DriveMaster 30W	25 kW	30 kW	144 V	1500
DriveMaster 45W	35 kW	45 kW	144 V	1500
DriveMaster 55W	45 kW	55 kW	144 V	1500

**1 minute at intermittent power, then reduce power for 9 minutes until returning to a stable temperature.*
***Cruising speed at 70 % of maximum rpm.*

DriveMaster equipment

- Engine with mounting brackets
- Integrated thrust bearing
- IP65 vector control inverter
- NMEA2000 compatibility
- Main switch and fuse
- DC-DC 12 Vdc converter
- 5 m cable
- Cooling system
- Colour display
- Control lever
- Shaft coupling plate

The cooling system includes

- Circulation pump
- Self priming pump
- Heat exchanger
- Brackets
- Ball valve
- Bronze water strainer
- 5 m hose
- Expansion vessel
- Barbs and clamps

1 The electric engine is powered by selected batteries and, at the same time, they can be charged through the marine genset or the available power supply.

2 There is a request form to facilitate the choice of model and the needs of batteries.

SE RANGE

SAILMASTER

SailMaster is the new range of electric engines with permanent magnets and integrated cooling circuit, saildrive type. It is the most efficient, quiet and compact solution for leisure boats.
Along with our marine gensets, it is the perfect solution to meet the needs of a quiet and zero-emissions propulsion without limiting its autonomy[1].

Range[2]				
MODEL	**Primer power**	**Intermittent power***	**Battery**	**RPM** engine**
SailMaster 3W	2.5 kW	3 kW	48 V	1500
SailMaster 7W	5 kW	7 kW	48 V	1500
SailMaster 10W	8 kW	10 kW	48 V	1500
SailMaster 15W	10 kW	15 kW	48 V	1500
SailMaster 18W	12 kW	18 kW	96 V	3000
SailMaster 25W	20 kW	25 kW	96 V	3000

**1 minute at intermittent power, then reduce power for 9 minutes until returning to a stable temperature.*
***Cruising speed at 70 % of maximum rpm. Reduction ratio 2.00:1.*

SailMaster equipment

- Engine with mounting brackets
- IP65 vector control inverter
- NMEA2000 compatibility
- Main switch and fuse
- DC-DC 12 Vdc converter
- 5 m cable
- Cooling system
- Colour display
- Control lever
- Saildrive transmission (propeller is not included)

The cooling system includes

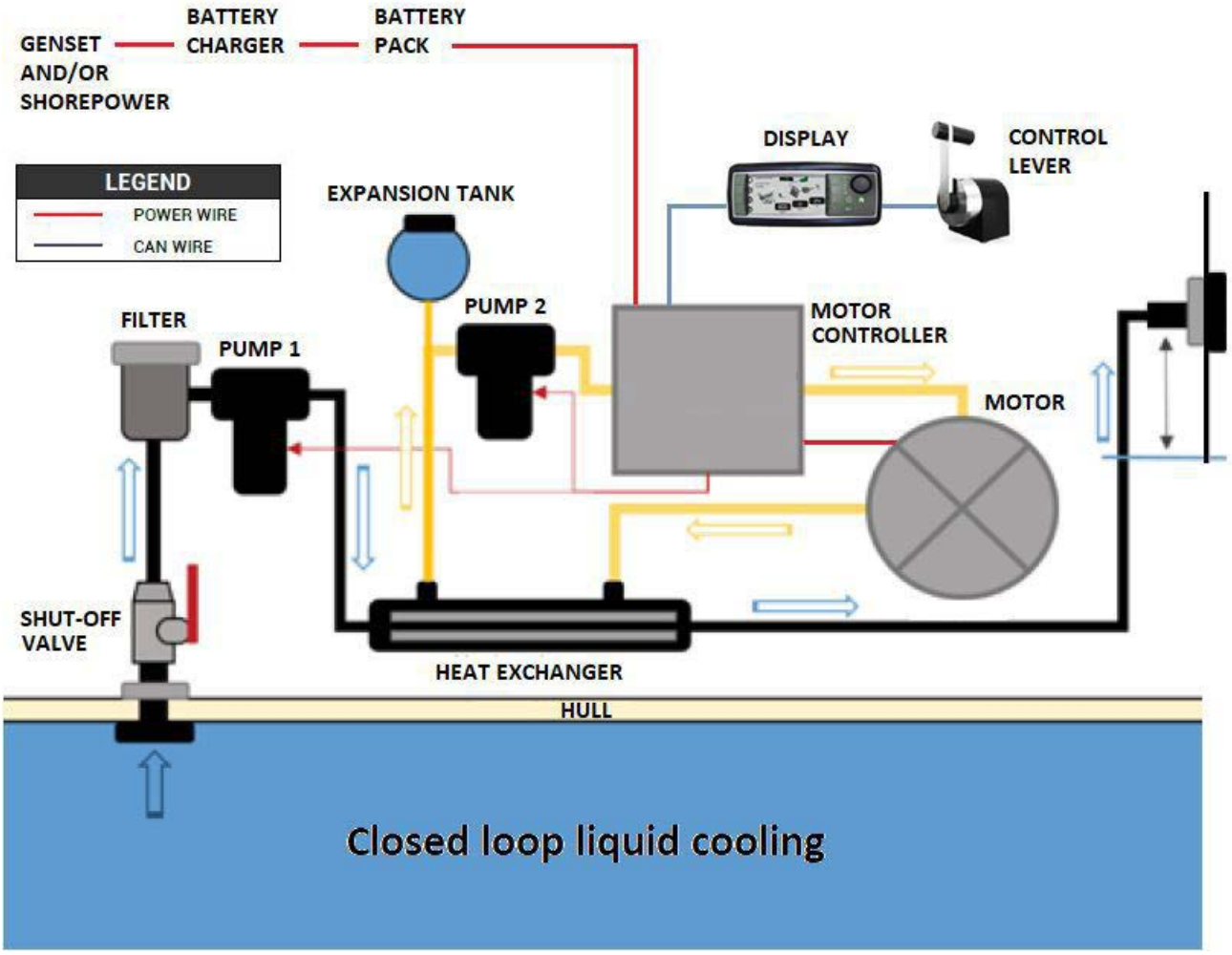
- Circulation pump
- Self priming pump
- Heat exchanger
- Brackets
- Ball valve
- Bronze water strainer
- 5 m hose
- Expansion vessel
- Barbs and clamps

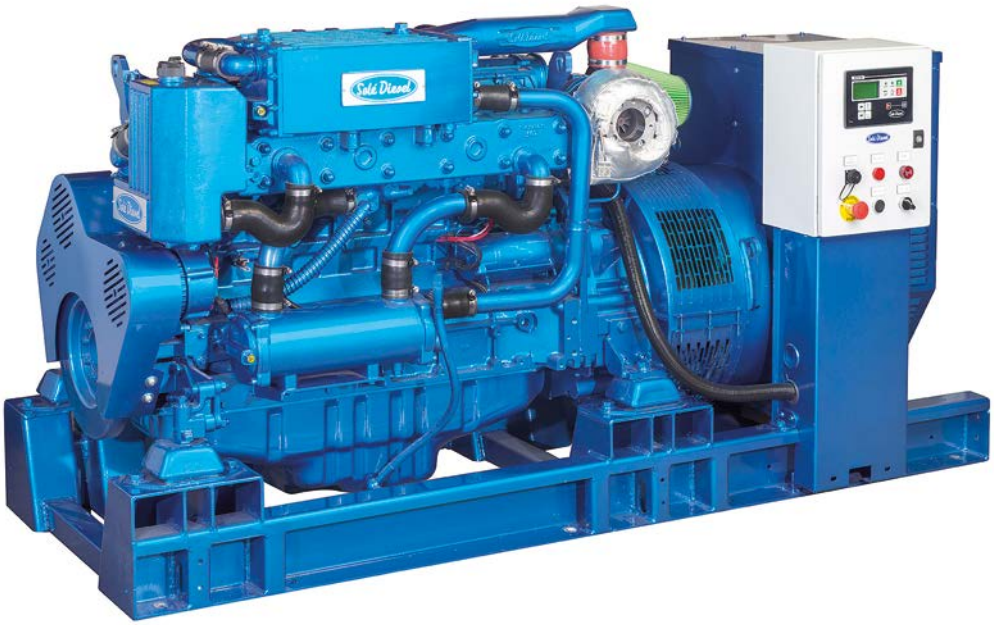
1 The electric engine is powered by selected batteries and, at the same time, they can be charged through the marine genset or the available power supply.

2 There is a request form to facilitate the choice of model and the needs of batteries.

SAILMASTER

WORK PROCESS




Solé Diesel


Solé Diesel
35 GTC

Solé Diesel

MARINE GENERATORS

MARINE GENERATORS

Solé Diesel manufactures marine generator sets at 50 and 60 hz and power range from 3 kVA (3 kW) up to 180 kVA (144 kW). Solé Diesel generator sets feature a compact size, low sound level, and are built with the most reliable bases in the market: Mitsubishi and Deutz.

RANGE 50 HZ AT 1,500 RPM					
MODEL	**BASE ENGINE**	**POWER***	**PHASES**	**FREQUENCY**	**RPM**
7 GS/GSC	MINI-26	6,6 kVA - 6,6 kW	1	50 Hz	1.500 rpm
8 GT/GTC	MINI-26	7,8 kVA - 6,3 kW	3	50 Hz	1.500 rpm
10 GS/GSC	MINI-33	9,4 kVA - 9,4 kW	1	50 Hz	1.500 rpm
11 GT/GTC	MINI-33	10,5 kVA - 8,4 kW	3	50 Hz	1.500 rpm
14 GS/GSC	MINI-44	13,9 kVA - 13,9 kW	1	50 Hz	1.500 rpm
17 GT/GTC	MINI-44	16,4 kVA - 13,2 kW	3	50 Hz	1.500 rpm
20 GS/GSC	MINI-63	20,1 kVA - 20,1 kW	1	50 Hz	1.500 rpm
25 GT/GTC	MINI-63	24,3 kVA - 19,5 kW	3	50 Hz	1.500 rpm
29 GS/GSC	MINI-74	28,4 kVA - 28,4 kW	1	50 Hz	1.500 rpm
35 GT/GTC	MINI-74	35,0 kVA - 28,0 kW	3	50 Hz	1.500 rpm
45 GT/GTC	SM-56	45,0 kVA - 36,0 kW	3	50 Hz	1.500 rpm
50 GT/GTC	SM-103	48,9 kVA - 39,2 kW	3	50 Hz	1.500 rpm
68 GT/GTC	SM-81	68,3 KVA - 54,7 KW	3	50 Hz	1.500 rpm
85 GT/GTC	SDZ-109	85,0 kVA - 68,0 kW	3	50 Hz	1.500 rpm
115 GT/GTC	SDZ-165	112,4 kVA - 90,0 kW	3	50 Hz	1.500 rpm
165 GT/GTC	SDZ-190E	165 KVA - 132 KW	3	50 Hz	1.500 rpm
RANGE 50 HZ AT 3,000 RPM					
MODEL	**BASE ENGINE**	**POWER**	**PHASES**	**FREQUENCY**	**RPM**
4 GSCH v3	YANMAR	3 kVA - 3 kW	1	50 Hz	3.000 rpm
G-8M-3	MINI-17	8 KVA - 8 kW	1	50 Hz	3.000 rpm
G-8T-3	MINI-17	8 KVA - 6,4 kW	3	50 Hz	3.000 rpm
G-15M-3	MINI-26	15 KVA - 15 kW	1	50 Hz	3.000 rpm
G-15T-3	MINI-26	15 KVA - 12 kW	3	50 Hz	3.000 rpm
G-25M-3	MINI-44	25 KVA- 25 kW	1	50 Hz	3.000 rpm
G-25T-3	MINI-44	25 KVA - 20KW	3	50 Hz	3.000 rpm
RANGE 60 HZ AT 1,800 RPM					
MODEL	**BASE ENGINE**	**POWER**	**PHASES**	**FREQUENCY**	**RPM**
8 GSA/GSAC	MINI-26	8,0 KVA - 8,0 kW	1	60 Hz	1.800 rpm
10 GTA/GTAC	MINI-26	9,4 KVA - 7,6 kW	3	60 Hz	1.800 rpm
12 GSA/GSAC	MINI-33	12,0 KVA - 12,0 kW	1	60 Hz	1.800 rpm
14 GTA/GTAC	MINI-33	13,6 KVA - 10,9 kW	3	60 Hz	1.800 rpm
17 GSA/GSAC	MINI-44	16,4 KVA - 16,4 kW	1	60 Hz	1.800 rpm
20 GTA/GTAC	MINI-44	19,5 KVA - 15,6 kW	3	60 Hz	1.800 rpm
25 GSA/GSAC	MINI-63	25,1 KVA - 25,1 kW	1	60 Hz	1.800 rpm
30 GTA/GTAC	MINI-63	30,0 KVA - 24,0 kW	3	60 Hz	1.800 rpm
32 GSA/GSAC	MINI-74	31,6 KVA - 31,6 kW	1	60 Hz	1.800 rpm
40 GTA/GTAC	MINI-74	39,0 KVA - 31,2 kW	3	60 Hz	1.800 rpm
60 GTA/GTAC	SM-103	58,3 KVA - 46,7 kW	3	60 Hz	1.800 rpm
84 GTA/GTAC	SM-81	83,60 KVA - 66,88 KW	3	60 Hz	1.800 rpm
100 GTA/GTAC	SDZ-109	97,3 KVA - 77,9 kW	3	60 Hz	1.800 rpm
120 GTA/GTAC	SDZ-165	120,0 KVA - 96,0 kW	3	60 Hz	1.800 rpm
180 GTA/GTAC	SDZ-280	180 KVA - 144 KW	3	60 Hz	1.800 rpm

Models available with parallel operation. For more information consult with the sales department.

** Maximum power: Power supplied at maximum capacity. See each data sheet for more information.*

50 HZ MODEL

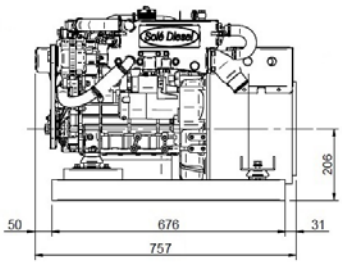
7 GS/GSC

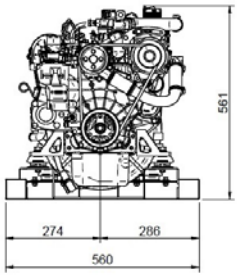
6,6 kVA (6,6 kW) 50 Hz

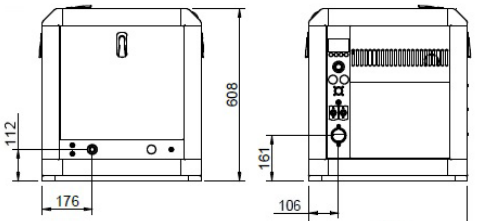
60 HZ MODEL

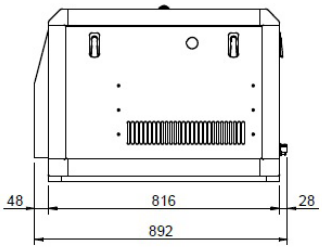
8 GSA/GSAC

8 kVA (8 kW) 60 Hz









Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	6,6	8
kVA*	6,6	8
Voltage (V)	230	240
Amps (A)	28,7	33,3
Phases	1	1
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	220	
Standard version (Dry)	198	
ALTERNATOR		
Brand	SINCRO	
Model	SK160SZ1	
Regulator type	Electronic AVR BL4	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	1	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN 60034-1, IEC 60034-1, ISO 8528-3	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-26	
Type	4 stroke	
Cylinders	3	
Displacement	952	
Bore x Stroke	76 x 70 mm	
Compression ratio	23:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	4	
Oil Type	SAE 15W40	
Coolant capacity (L)	3	
Housing	SAE 5	
Flywheel	SAE 6 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	10,1 hp (7,5 kW)	13,4 hp (10 kW)
Coolant flow rate (L/min)	24	27
Raw water rate (L/min)	12,33	17,24
Fuel consumption		
25%	0,8	1,1
50%	1,3	1,8
75%	1,7	2,4
100%	2,1	3
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	1,2	
Alternator (A)	40	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

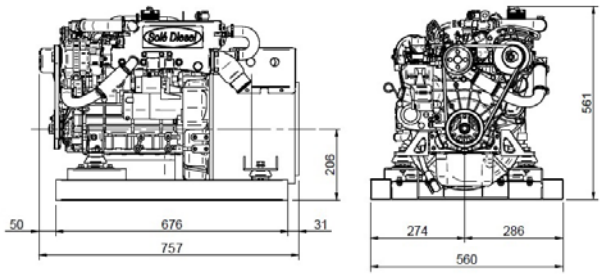
8 GT/GTC

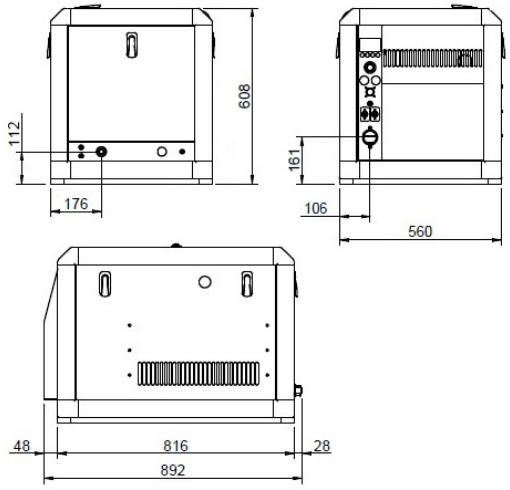
7,8 kVA (6,3 kW) 50 Hz

60 HZ MODEL

10 GTA/GTAC

9,4 kVA (7,5 kW) 60 Hz





Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	6,3	7,5
kVA*	7,8	9,4
Voltage (V)	400/230	480/277
Amps (A)	11,3	11,3
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	224	
Standard version (Dry)	201	
ALTERNATOR		
Brand	SINCRO	
Model	SK160SA	
Regulator type	Electronic AVR BL4	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Sí	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN 60034-1, IEC 60034-1, ISO 8528-3	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-26	
Type	4 stroke	
Cylinders	3	
Displacement	952	
Bore x Stroke	76 x 70 mm	
Compression ratio	23:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	4	
Oil Type	SAE 15W40	
Coolant capacity (L)	3	
Housing	SAE 5	
Flywheel	SAE 6 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	10,1 hp (7,5 kW)	13,4 hp (10 kW)
Coolant flow rate (L/min)	24	27
Raw water rate (L/min)	12,33	17,24
Fuel consumption		
25%	0,8	1,1
50%	1,3	1,8
75%	1,7	2,4
100%	2,1	3
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	1,2	
Alternator (A)	40	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

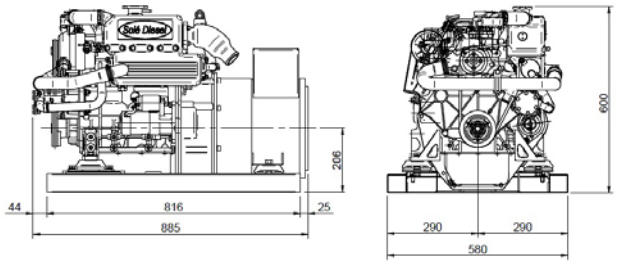
10 GS/GSC

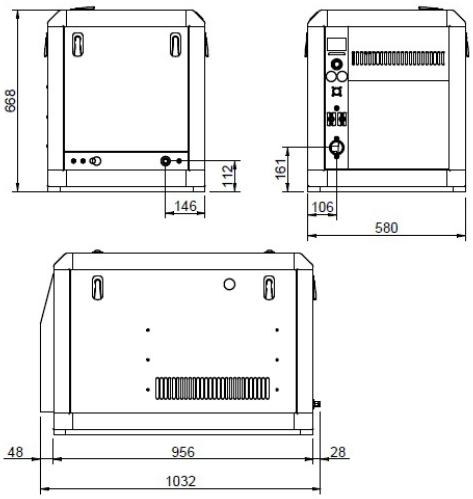
9,4 kVA (9,4 kW) 50 Hz

60 HZ MODEL

12 GSA/GSAC

12 kVA (12 kW) 60 Hz





Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	9,4	12
kVA*	9,4	12
Voltage (V)	230	240
Amps (A)	40,9	50
Phases	1	1
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	308	
Standard version (Dry)	271	
ALTERNATOR		
Brand	SINCRO	
Model	SK160CA1	
Regulator type	Electronic AVR BL4	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	1	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN 60034-1, IEC 60034-1, ISO 8528-3	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-33	
Type	4 stroke	
Cylinders	3	
Displacement	1318	
Bore x Stroke	78 x 92 mm	
Compression ratio	22:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	4	
Oil Type	SAE 15W40	
Coolant capacity (L)	5,7	
Housing	SAE 5	
Flywheel	SAE 7 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	14,3 hp (10,7 kW)	18,5 hp (13,8 kW)
Coolant flow rate (L/min)	40	47
Raw water rate (L/min)	16,5	19,83
Fuel consumption		
25%	1,2	1,4
50%	1,8	2,2
75%	2,5	2
100%	3,1	2,6
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	1,7	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

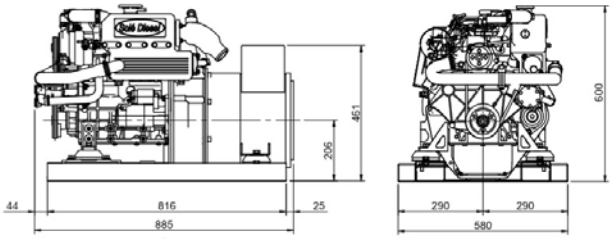
11 GT/GTC

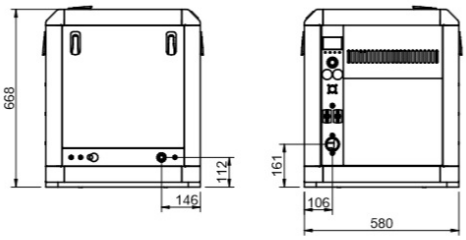
10,5 kVA (8,4 kW) 50 Hz

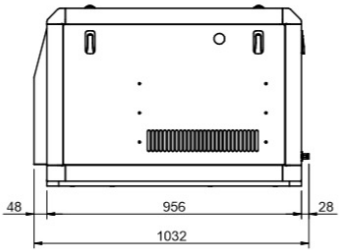
60 HZ MODEL

14 GTA/GTAC

13,6 kVA (10,9 kW) 60 Hz







Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	8,4	10,9
kVA*	10,5	13,6
Voltage (V)	400/230	480/277
Amps (A)	15,2	16,4
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	300	
Standard version (Dry)	264	
ALTERNATOR		
Brand	SINCRO	
Model	SK160CA	
Regulator type	Electronic AVR BL4	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Sí	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN 60034-1, IEC 60034-1, ISO 8528-3	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-33	
Type	4 stroke	
Cylinders	3	
Displacement	1318	
Bore x Stroke	78 x 92 mm	
Compression ratio	22:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	4	
Oil Type	SAE 15W40	
Coolant capacity (L)	5,7	
Housing	SAE 5	
Flywheel	SAE 7 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	14,3 hp (10,7 kW)	18,5 hp (13,8 kW)
Coolant flow rate (L/min)	40	47
Raw water rate (L/min)	16,5	19,83
Fuel consumption		
25%	1,2	1,3
50%	1,8	2
75%	2,5	2,4
100%	3,1	2,9
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	1,7	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

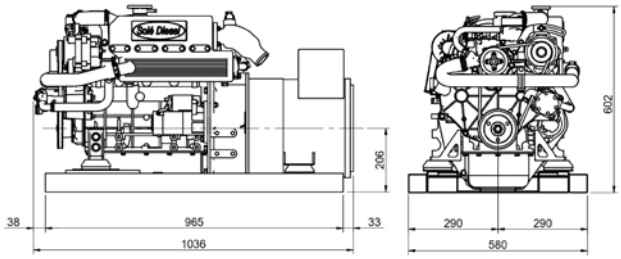
14 GS/GSC

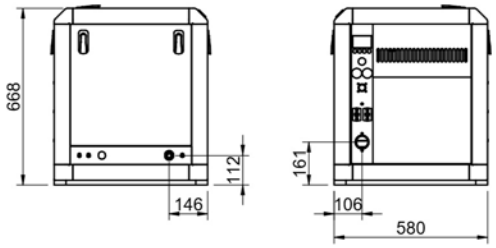
13,9 kVA (13,9 kW) 50 Hz

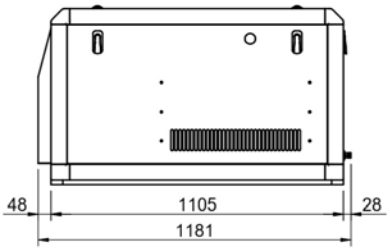
60 HZ MODEL

17 GSA/GSAC

16,4 kVA (16,4 kW) 60 Hz







Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	13,9	16,4
kVA*	13,9	16,4
Voltage (V)	230	240
Amps (A)	60,4	68,3
Phases	1	1
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	344	
Standard version (Dry)	294	
ALTERNATOR		
Brand	SINCRO	
Model	SK160MA1	
Regulator type	Electronic AVR BL4	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	1	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN 60034-1, IEC 60034-1, ISO 8528-3	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-44	
Type	4 stroke	
Cylinders	4	
Displacement	1758	
Bore x Stroke	78 x 92 mm	
Compression ratio	22:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	6	
Oil Type	SAE 15W40	
Coolant capacity (L)	8	
Housing	SAE 5	
Flywheel	SAE 7 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	20,1 hp (15 kW)	26,1 hp (19,5 kW)
Coolant flow rate (L/min)	55	66
Raw water rate (L/min)	16,5	20
Fuel consumption		
25%	1,8	1,8
50%	2,7	2,7
75%	3,5	3,3
100%	4,3	4
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	2	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

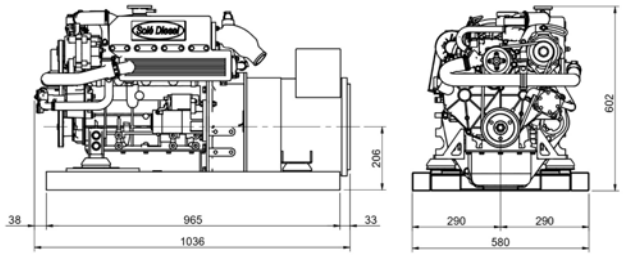
17 GT/GTC

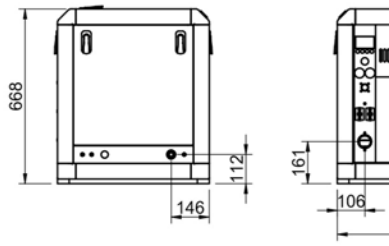
16,4 kVA (13,2 kW) 50 Hz

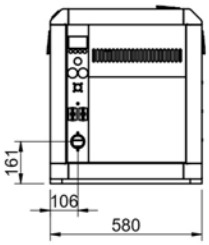
60 HZ MODEL

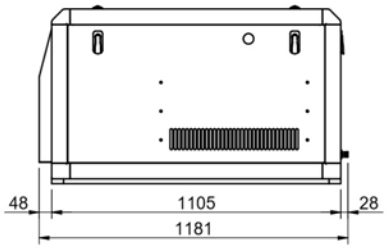
20 GTA/GTAC

19,5 kVA (15,6 kW) 60 Hz









Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	13,2	15,6
kVA*	16,4	19,5
Voltage (V)	400/230	480/277
Amps (A)	23,7	23,5
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	344	
Standard version (Dry)	282	
ALTERNATOR		
Brand	SINCRO	
Model	SK160MA	
Regulator type	Electronic AVR BL4	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN 60034-1, IEC 60034-1, ISO 8528-3	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-44	
Type	4 stroke	
Cylinders	4	
Displacement	1758	
Bore x Stroke	78 x 92 mm	
Compression ratio	22:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	6	
Oil Type	SAE 15W40	
Coolant capacity (L)	8	
Housing	SAE 5	
Flywheel	SAE 7 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	20,1 hp (15 kW)	26,1 hp (19,5 kW)
Coolant flow rate (L/min)	55	66
Raw water rate (L/min)	16,5	20
Fuel consumption		
25%	1,8	1,8
50%	2,7	2,7
75%	3,5	3,3
100%	4,3	4
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	2	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

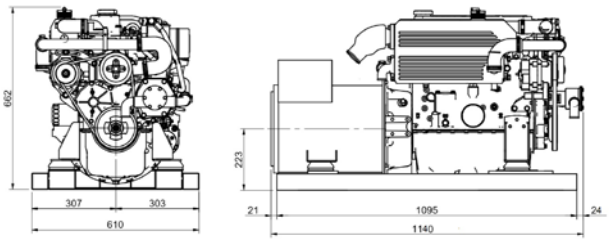
20 GS/GSC

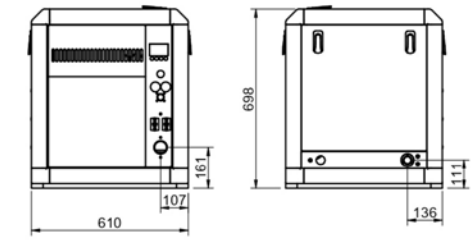
20,1 kVA (20,1 kW) 50 Hz

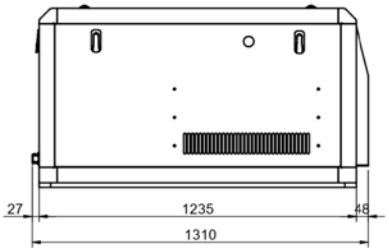
60 HZ MODEL

25 GSA/GSAC

25,1 kVA (25,1 kW) 60 Hz







Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	20,1	25,1
kVA*	20,1	25,1
Voltage (V)	230	240
Amps (A)	87,4	104,6
Phases	1	1
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	426	
Standard version (Dry)	402	
ALTERNATOR		
Brand	SINCRO	
Model	SK160LA1	
Regulator type	Electronic AVR BL4	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	1	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN 60034-1, IEC 60034-1, ISO 8528-3	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-63	
Type	4 stroke	
Cylinders	4	
Displacement	2505	
Bore x Stroke	88 x 103 mm	
Compression ratio	22:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	6,5	
Oil Type	SAE 15W40	
Coolant capacity (L)	9,5	
Housing	SAE 4	
Flywheel	SAE 7 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	28,8 hp (21,5 kW)	36,5 hp (27,2 kW)
Coolant flow rate (L/min)	52	65
Raw water rate (L/min)	38	45
Fuel consumption		
25%	2,4	2,9
50%	3,5	4,2
75%	4,75	5,5
100%	6,4	7,6
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	2	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

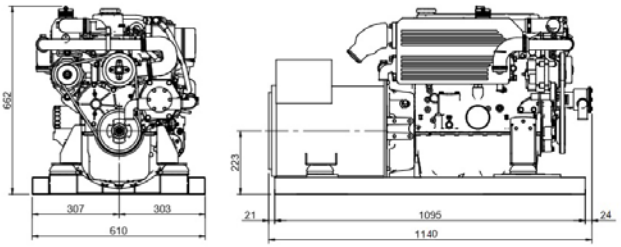
25 GT/GTC

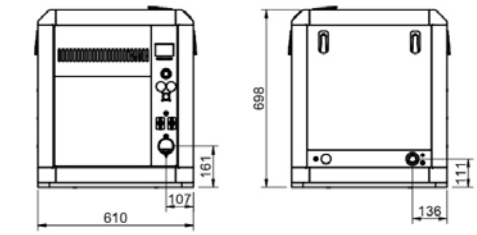
24,3 kVA (19,5 kW) 50 Hz

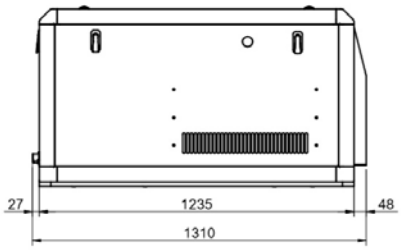
60 HZ MODEL

30 GTA/GTAC

30 kVA (24 kW) 60 Hz







Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	19,5	24
kVA*	24,3	30
Voltage (V)	400/230	480/277
Amps (A)	35,1	36,1
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	412	
Standard version (Dry)	351	
ALTERNATOR		
Brand	SINCRO	
Model	SK160LA	
Regulator type	Electronic AVR BL4	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN 60034-1, IEC 60034-1, ISO 8528-3	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-63	
Type	4 stroke	
Cylinders	4	
Displacement	2505	
Bore x Stroke	88 x 103 mm	
Compression ratio	22:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	6,5	
Oil Type	SAE 15W40	
Coolant capacity (L)	9,5	
Housing	SAE 4	
Flywheel	SAE 7 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	28,8 hp (21,5 kW)	36,5 hp (27,2 kW)
Coolant flow rate (L/min)	52	65
Raw water rate (L/min)	38	45
Fuel consumption		
25%	2,4	2,9
50%	3,5	4,2
75%	4,75	5,5
100%	6,4	7,6
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	2	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

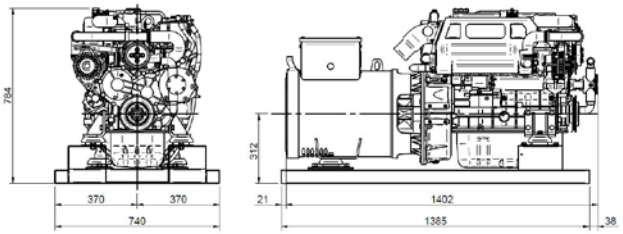
29 GS/GSC

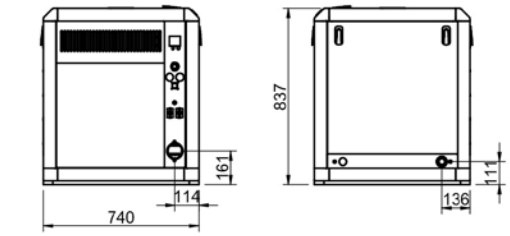
28,4 kVA (28,4 kW) 50 Hz

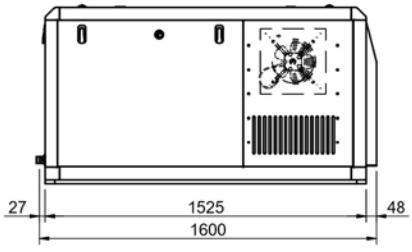
60 HZ MODEL

32 GSA/GSAC

31,6 kVA (31,6 kW) 60 Hz







Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 10 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	28,4	31,6
kVA*	28,4	31,6
Voltage (V)	230	240
Amps (A)	123,5	131,7
Phases	1	1
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	714	
Standard version (Dry)	680	
ALTERNATOR		
Brand	MECCALTE	
Model**	ECP32-1M/4C	
Regulator type	Electronic AVR DSR	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN60034-1, IEC 60034-1	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-74	
Type	4 stroke	
Cylinders	4	
Displacement	3331	
Bore x Stroke	94 x 120 mm	
Compression ratio	22:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	10	
Oil Type	SAE 15W40	
Coolant capacity (L)	13	
Housing	SAE 3	
Flywheel	SAE 11 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	41,3 hp (30,8 kW)	47,9 hp (35,7 kW)
Coolant flow rate (L/min)	105	140
Raw water rate (L/min)	37,5	44
Fuel consumption		
25%	2,9	3,1
50%	4,3	4,8
75%	6,1	6,8
100%	8,2	9,6
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	2,2	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

*** For the canopy models (29 GSC and 32 GSAC) the alternator model used is: ECP32-1M/4B.*

50 HZ MODEL

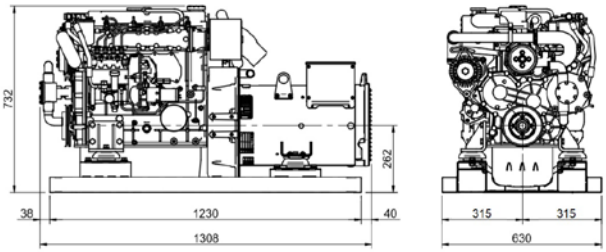
35 GT/GTC

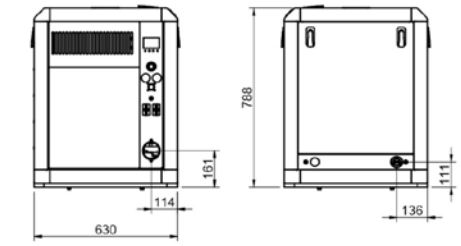
35 kVA (28 kW) 50 Hz

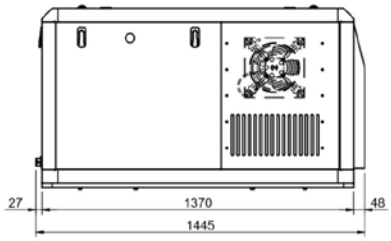
60 HZ MODEL

40 GTA/GTAC

39 kVA (31,2 kW) 60 Hz







Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 10 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	28	31,2
kVA*	35	39
Voltage (V)	400/230	480/277
Amps (A)	50,5	46,9
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	545	
Standard version (Dry)	494	
ALTERNATOR		
Brand	SINCRO	
Model	SK160WA	
Regulator type	Electronic AVR BL4	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN 60034-1, IEC 60034-1, ISO 8528-3	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	MINI-74	
Type	4 stroke	
Cylinders	4	
Displacement	3331	
Bore x Stroke	94 x 120 mm	
Compression ratio	22:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	10	
Oil Type	SAE 15W40	
Coolant capacity (L)	13	
Housing	SAE 3	
Flywheel	SAE 11 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	41,3 hp (30,8 kW)	47,9 hp (35,7 kW)
Coolant flow rate (L/min)	105	140
Raw water rate (L/min)	37,5	44
Fuel consumption		
25%	2,4	3,1
50%	4,1	4,8
75%	6	6,8
100%	8,3	9,6
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	2,2	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.soldiesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

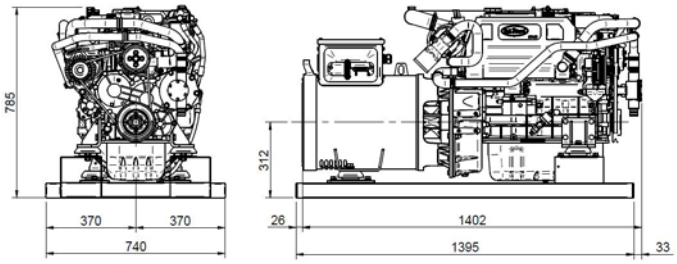
45 GT/GTC

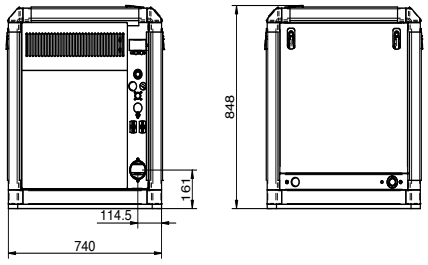
45 kVA (36 kW) 50 Hz

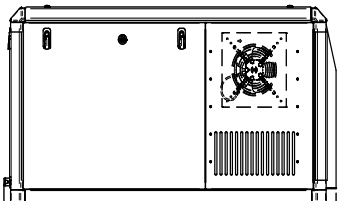
60 HZ MODEL

54 GTA/GTAC

53,5 kVA (42,8 kW) 60 Hz







	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW	36	42,8
kVA*	45	53,5
Voltage (V)	400/230	480/277
Amps (A)	65	64,4
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	598	
Standard version (Dry)	560	
ALTERNATOR		
Brand	MECCALTE	
Model**	ECP32-1M/4C	
Regulator type	Electronic AVR DSR	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Sí	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN60034-1, IEC 60034-1	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	SM-56	
Type	4 stroke	
Cylinders	4	
Displacement	3331	
Bore 4 Stroke	94 x 120 mm	
Compression ratio	17:1	
Injection	Mechanical and direct	
Aspiration type	Turbocharged	
Lube Oil capacity (L)	10	
Oil Type	SAE 15W40	
Coolant capacity (L)	13	
Housing	SAE 3	
Flywheel	SAE 11 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	55,1 hp (40,5 kW)	66,1 hp (48,6 kW)
Coolant flow rate (L/min)	105	140
Raw water rate (L/min)	38	45
Fuel consumption		
25%	3,2	4,1
50%	5,2	6,2
75%	7,4	8,9
100%	9,7	12,1
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	2,2	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 10 Panel
- Owner's and alternator manual

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

*** For the canopy models (45 GTC and 54 GTAC) the alternator model used is: ECP32-1M/4B.)*

50 HZ MODEL

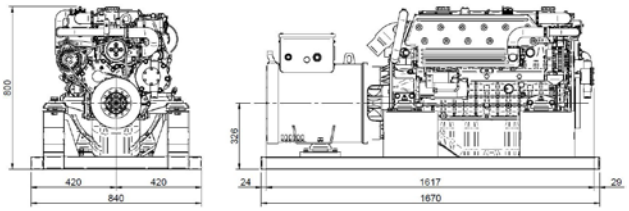
50 GT/GTC

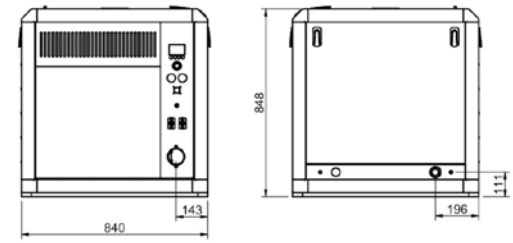
48,9 kVA (39,2 kW) 50 Hz

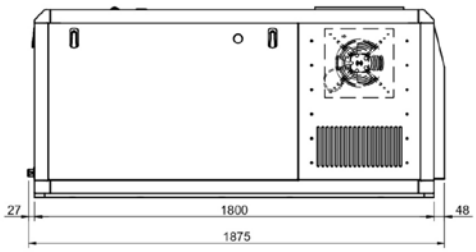
60 HZ MODEL

60 GTA/GTAC

58,3 kVA (46,6 kW) 60 Hz







Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 10 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	39,2	46,6
kVA*	48,9	58,3
Voltage (V)	400/230	480/277
Amps (A)	70,6	70,1
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	795	
Standard version (Dry)	690	
ALTERNATOR		
Brand	MECCALTE	
Model**	ECP32-1M/4C	
Regulator type	Electronic AVR DSR	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN60034-1, IEC 60034-1	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	SM-103	
Type	4 stroke	
Cylinders	6	
Displacement	4996	
Bore x Stroke	94 x 120 mm	
Compression ratio	22:1	
Injection	Mechanical and indirect	
Aspiration type	Natural aspiration	
Lube Oil capacity (L)	12	
Oil Type	SAE 15W40	
Coolant capacity (L)	21	
Housing	SAE 3	
Flywheel	SAE 11 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	58,2 hp (43,4 kW)	68,9 hp (51,4 kW)
Coolant flow rate (L/min)	80	110
Raw water rate (L/min)	38	45
Fuel consumption		
25%	4	5
50%	6,2	7,8
75%	9	11,2
100%	12,2	15,9
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	3	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

*** For the canopy models (50 GTC and 60 GTAC) the alternator model used is: ECP32-1M/4B.*

50 HZ MODEL

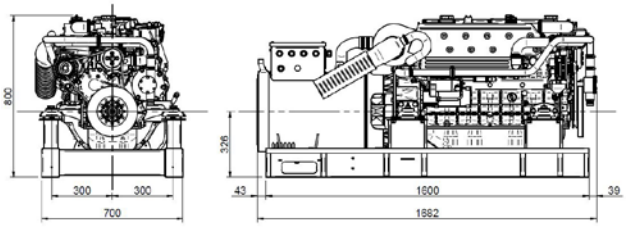
68 GT/GTC

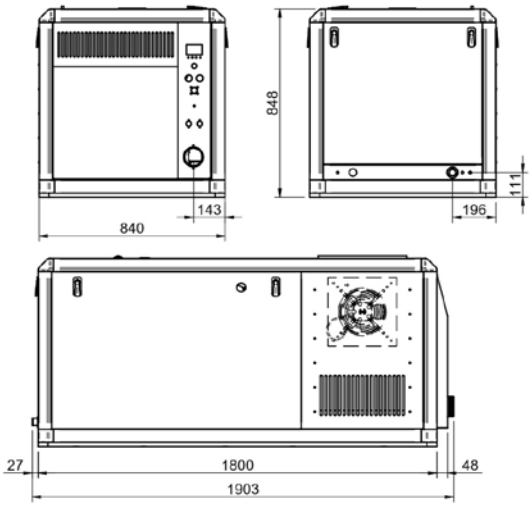
68,3 kVA (54,7 kW) 50 Hz

60 HZ MODEL

84 GTA/GTAC

83,6 kVA (66,9 kW) 60 Hz





Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 10 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	54,7	66,9
kVA*	68,3	83,6
Voltage (V)	400/230	480/277
Amps (A)	98,7	100,6
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	869	
Standard version (Dry)	759	
ALTERNATOR		
Brand	MECCALTE	
Model**	ECP32-1L/4C	
Regulator type	Electronic AVR DSR	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN60034-1, IEC 60034-1	
ENGINE specification		
Base	Mitsubishi	
Solé Diesel Engine Model	SM-81	
Type	4 stroke	
Cylinders	6	
Displacement	4996	
Bore x Stroke	94 x 120 mm	
Compression ratio	17:1	
Injection	Mechanical and indirect	
Aspiration type	Turbocharged	
Lube Oil capacity (L)	12	
Oil Type	SAE 15W40	
Coolant capacity (L)	21	
Housing	SAE 3	
Flywheel	SAE 11 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	79,9 hp (59,6 kW)	93,9 hp (70 kW)
Coolant flow rate (L/min)	70	96
Raw water rate (L/min)	38	45
Fuel consumption		
25%	4,8	6,2
50%	7,8	9,7
75%	11	13,2
100%	14,5	17,4
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	12	
Starter Motor (kW)	3	
Alternator (A)	50	
Stop Solenoid Type	ETR	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.soledesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

*** For the canopy models (68 GTC and 84 GTAC) the alternator model used is: ECP32-3L/4B.*

50 HZ MODEL

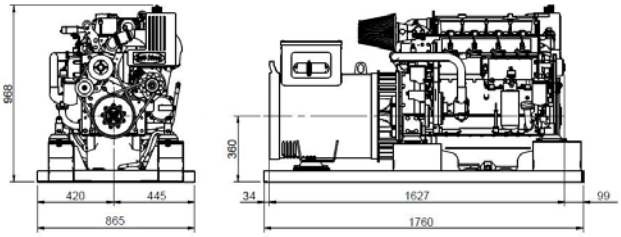
85 GT/GTC

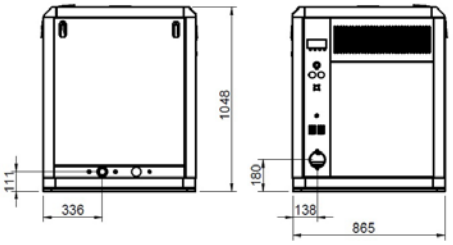
85 kVA (68 kW) 50 Hz

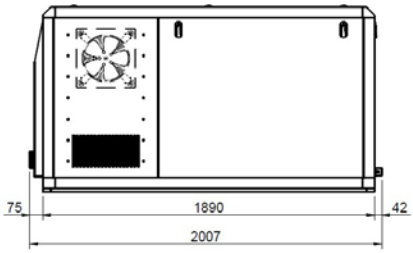
60 HZ MODEL

100 GTA/GTAC

97,3 kVA (77,8 kW) 60 Hz







Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 10 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	68	77,8
kVA*	85	97,3
Voltage (V)	400/230	480/277
Amps (A)	122,7	117
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	1100	
Standard version (Dry)	988	
ALTERNATOR		
Brand	MECCALTE	
Model**	ECP34-1S/4C	
Regulator type	Electronic AVR DSR	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN60034-1, IEC 60034-1	
ENGINE specification		
Base	Deutz	
Solé Diesel Engine Model	SDZ-109	
Type	4 stroke	
Cylinders	4	
Displacement	4764	
Bore x Stroke	108 x 130 mm	
Compression ratio	19:1	
Injection	Mechanical and direct	
Aspiration type	Turbocharged	
Lube Oil capacity (L)	11	
Oil Type	SAE 15W40	
Coolant capacity (L)	17,5	
Housing	SAE 2	
Flywheel	SAE 11 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	108,6 hp (81 kW)	114 hp (85 kW)
Coolant flow rate (L/min)	141,45	162,13
Raw water rate (L/min)	107,43	130,38
Fuel consumption		
25%	5,5	5,8
50%	10,2	11,2
75%	15	16,1
100%	19,9	20,9
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	24	
Starter Motor (kW)	4	
Alternator (A)	35	
Stop Solenoid Type	ETS	

Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

*** For the canopy models (85 GTC and 100 GTAC) the alternator model used is: ECP34-1S/4A.*

50 HZ MODEL

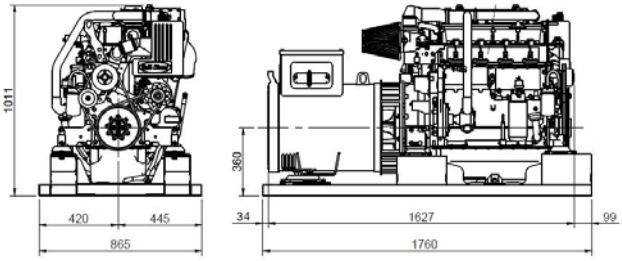
115 GT/GTC

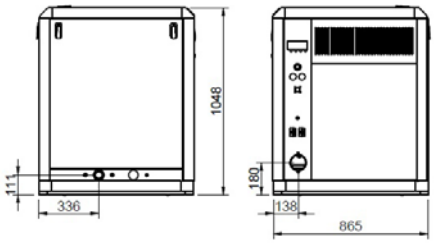
112,4 kVA (90 kW) 50 Hz

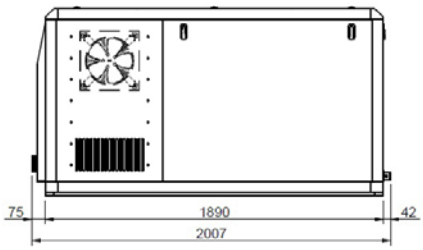
60 HZ MODEL

120 GTA/GTAC

120 kVA (96 kW) 60 Hz







Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 10 Panel
- Owner's and alternator manual

	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	90	96
kVA*	112,4	120
Voltage (V)	400/230	480/277
Amps (A)	162,2	144,3
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	1117	
Standard version (Dry)	1010	
ALTERNATOR		
Brand	MECCALTE	
Model**	ECP34-1M/4C	
Regulator type	Electronic AVR DSR	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN60034-1, IEC 60034-1	
ENGINE specification		
Base	Deutz	
Solé Diesel Engine Model	SDZ-165	
Type	4 stroke	
Cylinders	4	
Displacement	4764	
Bore x Stroke	108 x 130 mm	
Compression ratio	19:1	
Injection	Mechanical and direct	
Aspiration type	Turbocharged with intercooler	
Lube Oil capacity (L)	11	
Oil Type	SAE 15W40	
Coolant capacity (L)	17,5	
Housing	SAE 2	
Flywheel	SAE 11 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	130,1 hp (97 kW)	140,8 hp (105 kW)
Coolant flow rate (L/min)	141,45	162,13
Raw water rate (L/min)	107,43	130,38
Fuel consumption		
25%	6,3	8,3
50%	11,1	14,5
75%	16,2	21,1
100%	21,5	28
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	24	
Starter Motor (kW)	4	
Alternator (A)	35	
Stop Solenoid Type	ETS	

Dimensions in millimetres. This drawing is provided for reference only. For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset. For further information see the technical data sheet.*

*** For the canopy models (115 GTC and 120 GTAC) the alternator model used is: ECP34-1L/4A.*

50 HZ MODEL

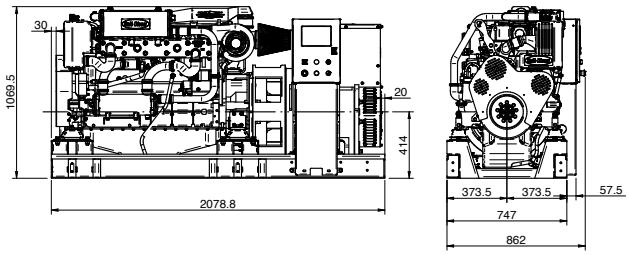
165 GT/GTC

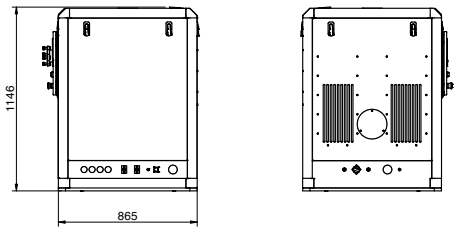
165 kVA (132 kW) 50 Hz

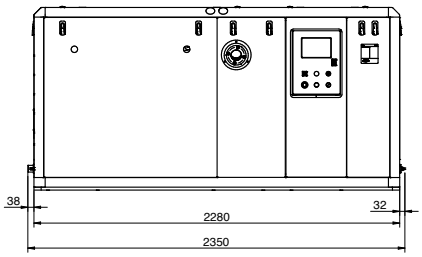
60 HZ MODEL

180 GTA/GTAC

180 kVA (144 kW) 60 Hz







	50 Hz MODEL	60 Hz MODEL
Model and ratings		
kW *	132	144
kVA*	165	180
Voltage (V)	400/230	480/277
Amps (A)	238,2	216,7
Phases	3	3
Hz	50	60
Engine RPM	1500	1800
Weight (Kg)		
Canopy version (Dry)	1630	
Standard version (Dry)	1410	
ALTERNATOR		
Brand	MECCALTE	
Model	ECO38-1S/4A	
Regulator type	Electronic AVR DSR	
Nr. of poles	4	
Insulation Type	H	
IP protection	23	
Cos phi	0,8	
Tropicalized	Yes	
Excitation system	Brushless	
Voltage regulation Accuracy	±1%	
Frequency Regulation	Synchronous	
Standards	EN60034-1, IEC 60034-1	
ENGINE specification		
Base	Deutz	
Solé Diesel Engine Model	SDZ-190E	
Type	4 stroke	
Cylinders	6	
Displacement	7146	
Bore x Stroke	108 x 130 mm	
Compression ratio	17.5:1	
Injection	Mechanical and direct	
Aspiration type	Turbocharged with intercooler	
Lube Oil capacity (L)	23	
Oil Type	SAE 15W40	
Coolant capacity (L)	23	
Housing	SAE 3	
Flywheel	SAE 11 1/2	
	50 Hz	**60 Hz**
RPM	1500	1800
Power (HP/kW)	186,4 hp (139 kW)	198,5 hp (148 kW)
Coolant flow rate (L/min)	141,45	162,13
Raw water rate (L/min)	107,43	130,38
Fuel consumption		
25%	10,4	14
50%	20	27
75%	28,5	38,4
100%	36,7	49,5
Diesel Liters/h at % load		
Electrical system		
Electrical System (V)	24	
Starter Motor (kW)	4	
Alternator (A)	55	
Stop Solenoid Type	ETS	

Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 10 Panel
- Owner's and alternator manual

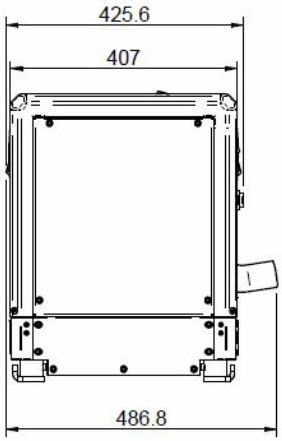
Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

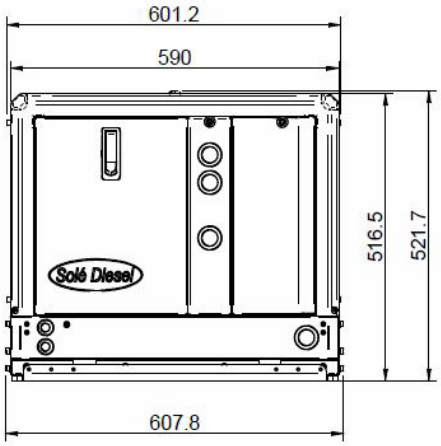
**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

4 GSCH V3

3 kVA (3 kW) 50 Hz





	50 Hz MODEL
Model and ratings	
kW *	3
kVA*	3
Voltage (V)	230
Amps (A)	13
Phases	1
Hz	50
Engine RPM	3000
Weight (Kg)	
Canopy version (Dry)	96
Standard version (Dry)	-
ALTERNATOR	
Brand	V.T.E
Model	V090
Regulator type	Capacitor
Nr. of poles	2
Insulation Type	-
IP protection	-
Cos phi	1
Tropicalized	Yes
Excitation system	Brushless
Voltage regulation Accuracy	±1%
Frequency Regulation	Synchronous
Standards	EN60034-1, IEC 60034-1, ISO 8528-3
ENGINE specification	
Base	Yanmar
Engine Model	YANMAR
Type	4 stroke
Cylinders	1
Displacement	320
Bore x Stroke	78 x 67 mm
Compression ratio	20:1
Injection	Mechanical and direct
Aspiration type	Natural aspiration
Lube Oil capacity (L)	1,1
Oil Type	SAE 15W40
Coolant capacity (L)	1,2
Housing	-
Flywheel	-
	50 Hz
RPM	3000
Power (HP/kW)	6,12 hp (4,5 kW)
Coolant flow rate (L/min)	-
Raw water rate (L/min)	-
Fuel consumption	
25%	0,4
50%	0,7
75%	1,1
100%	1,3
Diesel Liters/h at % load	
Electrical system	
Electrical System (V)	12
Starter Motor (kW)	1,2
Alternator (A)	-
Stop Solenoid Type	ETS

Standard equipment:

- 10 m electrical extension lead
- Oil extraction pump
- Base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

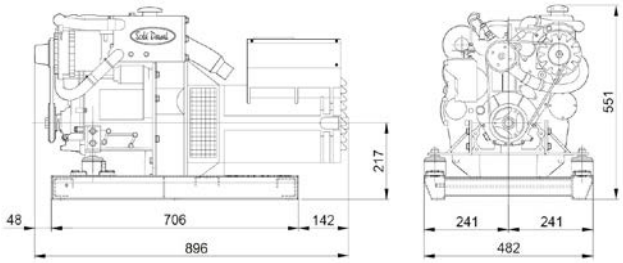
Dimensions in millimetres. This drawing is provided for reference only. For further information, please visit our website www.soledіesel.com

**Maximum power: Power supplied at maximum capacity of the genset. For further information see the technical data sheet.*

50 HZ MODEL

G-8M-3

8 kVA (8 kW) 50 Hz



	50 Hz MODEL
Model and ratings	
kW *	8
kVA*	8
Voltage (V)	230
Amps (A)	34,8
Phases	1
Hz	50
Engine RPM	3000
Weight (Kg)	
Canopy version (Dry)	-
Standard version (Dry)	165
ALTERNATOR	
Brand	MECCALTE
Model	ES20FS-130
Regulator type	AVR ASR
Nr. of poles	2
Insulation Type	H
IP protection	23
Cos phi	1
Tropicalized	Yes
Excitation system	Brush
Voltage regulation Accuracy	±2,5%
Frequency Regulation	Synchronous
Standards	EN60034-1, IEC 60034-1
ENGINE specification	
Base	Mitsubishi
Solé Diesel Engine Model	MINI-17
Type	4 stroke
Cylinders	2
Displacement	952
Bore x Stroke	76 x 70 mm
Compression ratio	23:1
Injection	Mechanical and indirect
Aspiration type	Natural aspiration
Lube Oil capacity (L)	2,8
Oil Type	SAE 15W40
Coolant capacity (L)	2,7
Housing	SAE 5
Flywheel	SAE 6 1/2
	50 Hz
RPM	3000
Power (HP/kW)	13,5 hp (10,1 kW)
Coolant flow rate (L/min)	28
Raw water rate (L/min)	29
Fuel consumption	
25%	1,3
50%	1,9
75%	2,6
100%	3,4
Diesel Liters/h at % load	
Electrical system	
Electrical System (V)	12
Starter Motor (kW)	1,2
Alternator (A)	40
Stop Solenoid Type	ETR

Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

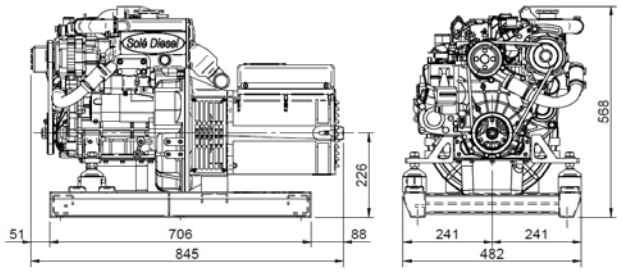
Dimensions in millimetres. This drawing is provided for reference only. For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset. For further information see the technical data sheet.*

50 HZ MODEL

G-8T-3

8 kVA (6,4 kW) 50 Hz



	50 Hz MODEL
Model and ratings	
kW *	6,4
kVA*	8
Voltage (V)	400/230
Amps (A)	11,5
Phases	3
Hz	50
Engine RPM	3000
Weight (Kg)	
Canopy version (Dry)	-
Standard version (Dry)	175
ALTERNATOR	
Brand	MECCALTE
Model	ET20FS-130
Regulator type	AVR ASR
Nr. of poles	2
Insulation Type	H
IP protection	23
Cos phi	0,8
Tropicalized	Yes
Excitation system	Brush
Voltage regulation Accuracy	±2,5%
Frequency Regulation	Synchronous
Standards	EN60034-1, IEC 60034-1
ENGINE specification	
Base	Mitsubishi
Solé Diesel Engine Model	MINI-17
Type	4 stroke
Cylinders	2
Displacement	952
Bore x Stroke	76 x 70 mm
Compression ratio	23:1
Injection	Mechanical and indirect
Aspiration type	Natural aspiration
Lube Oil capacity (L)	2,8
Oil Type	SAE 15W40
Coolant capacity (L)	2,7
Housing	SAE 5
Flywheel	SAE 6 1/2
	50 Hz
RPM	3000
Power (HP/kW)	13,5 hp (10,1 kW)
Coolant flow rate (L/min)	28
Raw water rate (L/min)	29
Fuel consumption	
25%	1,3
50%	1,9
75%	2,6
100%	3,4
Diesel Liters/h at % load	
Electrical system	
Electrical System (V)	12
Starter Motor (kW)	1,2
Alternator (A)	40
Stop Solenoid Type	ETR

Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

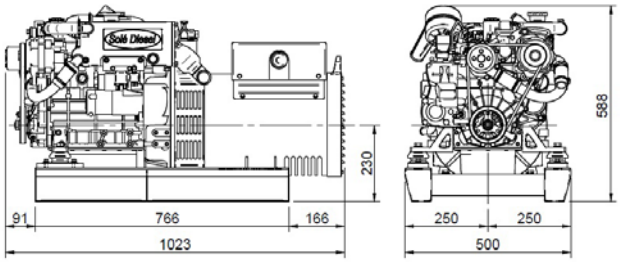
Dimensions in millimetres. This drawing is provided for reference only. For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset. For further information see the technical data sheet.*

50 HZ MODEL

G-15M-3

15 kVA (15 kW) 50 Hz



	50 Hz MODEL
Model and ratings	
kW *	15
kVA*	15
Voltage (V)	230
Amps (A)	65,2
Phases	1
Hz	50
Engine RPM	3000
Weight (Kg)	
Canopy version (Dry)	-
Standard version (Dry)	225
ALTERNATOR	
Brand	MECCALTE
Model	ECP-28 2L/2
Regulator type	Electronic AVR DSR
Nr. of poles	2
Insulation Type	H
IP protection	23
Cos phi	1
Tropicalized	Yes
Excitation system	Brushless
Voltage regulation Accuracy	±1%
Frequency Regulation	Synchronous
Standards	EN60034-1, IEC 60034-1
ENGINE specification	
Base	Mitsubishi
Solé Diesel Engine Model	MINI-26
Type	4 stroke
Cylinders	3
Displacement	952
Bore x Stroke	76 x 70 mm
Compression ratio	23:1
Injection	Mechanical and indirect
Aspiration type	Natural aspiration
Lube Oil capacity (L)	4
Oil Type	SAE 15W40
Coolant capacity (L)	3
Housing	SAE 5
Flywheel	SAE 6 1/2
	50 Hz
RPM	3000
Power (HP/kW)	21,9 hp (16,3 kW)
Coolant flow rate (L/min)	43
Raw water rate (L/min)	29,5
Fuel consumption	
25%	1,7
50%	3
75%	4,1
100%	5
Diesel Liters/h at % load	
Electrical system	
Electrical System (V)	12
Starter Motor (kW)	1,2
Alternator (A)	40
Stop Solenoid Type	ETR

Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

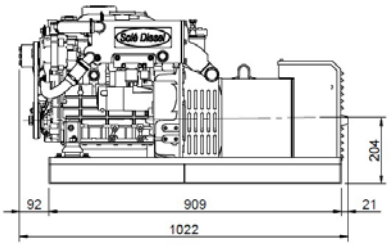
Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

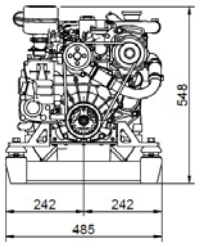
**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

G-15T-3

15 kVA (12 kW) 50 Hz





	50 Hz MODEL
Model and ratings	
kW *	12
kVA*	15
Voltage (V)	400/230
Amps (A)	21,7
Phases	3
Hz	50
Engine RPM	3000
Weight (Kg)	
Canopy version (Dry)	-
Standard version (Dry)	225
ALTERNATOR	
Brand	MECCALTE
Model	ECP3-1L/2
Regulator type	Electronic AVR DSR
Nr. of poles	2
Insulation Type	H
IP protection	23
Cos phi	0,8
Tropicalized	Yes
Excitation system	Brushless
Voltage regulation Accuracy	±1%
Frequency Regulation	Synchronous
Standards	EN60034-1, IEC 60034-1
ENGINE specification	
Base	Mitsubishi
Solé Diesel Engine Model	MINI-26
Type	4 stroke
Cylinders	3
Displacement	952
Bore x Stroke	76 x 70 mm
Compression ratio	23:1
Injection	Mechanical and indirect
Aspiration type	Natural aspiration
Lube Oil capacity (L)	4
Oil Type	SAE 15W40
Coolant capacity (L)	3
Housing	SAE 5
Flywheel	SAE 6 1/2
	50 Hz
RPM	3000
Power (HP/kW)	21,9 hp (16,3 kW)
Coolant flow rate (L/min)	43
Raw water rate (L/min)	29,5
Fuel consumption	
25%	1,7
50%	3
75%	4,1
100%	5
Diesel Liters/h at % load	
Electrical system	
Electrical System (V)	12
Starter Motor (kW)	1,2
Alternator (A)	40
Stop Solenoid Type	ETR

Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

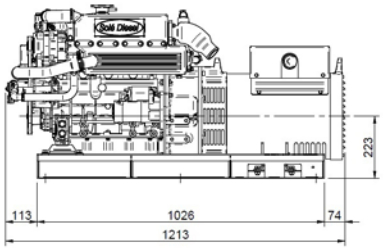
Dimensions in millimetres. This drawing is provided for reference only. For further information, please visit our website www.solediesel.com

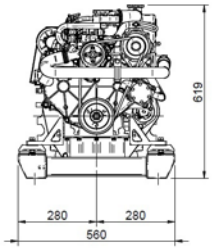
**Maximum power: Power supplied at maximum capacity of the genset. For further information see the technical data sheet.*

50 HZ MODEL

G-25M-3

25 kVA (25 kW) 50 Hz





	50 Hz MODEL
Model and ratings	
kW *	25
kVA*	25
Voltage (V)	230
Amps (A)	108,7
Phases	1
Hz	50
Engine RPM	3000
Weight (Kg)	
Canopy version (Dry)	-
Standard version (Dry)	335
ALTERNATOR	
Brand	MECCALTE
Model	ECP 28-VL/2
Regulator type	Electronic AVR DSR
Nr. of poles	2
Insulation Type	H
IP protection	23
Cos phi	1
Tropicalized	Yes
Excitation system	Brushless
Voltage regulation Accuracy	±1%
Frequency Regulation	Synchronous
Standards	EN60034-1, IEC 60034-1
ENGINE specification	
Base	Mitsubishi
Solé Diesel Engine Model	MINI-44
Type	4 stroke
Cylinders	4
Displacement	1758
Bore x Stroke	78 x 92 mm
Compression ratio	22:1
Injection	Mechanical and indirect
Aspiration type	Natural aspiration
Lube Oil capacity (L)	6
Oil Type	SAE 15W40
Coolant capacity (L)	8
Housing	SAE 5
Flywheel	SAE 7 1/2
	50 Hz
RPM	3000
Power (HP/kW)	41,4 hp (30,9 kW)
Coolant flow rate (L/min)	100
Raw water rate (L/min)	33
Fuel consumption	
25%	3,6
50%	5,1
75%	6,5
100%	7,8
Diesel Liters/h at % load	
Electrical system	
Electrical System (V)	12
Starter Motor (kW)	2
Alternator (A)	50
Stop Solenoid Type	ETR

Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

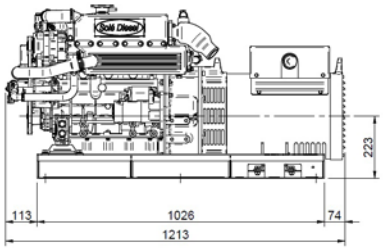
Dimensions in millimetres. This drawing is provided for reference only.
For further information, please visit our website www.solediesel.com

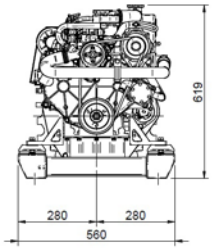
**Maximum power: Power supplied at maximum capacity of the genset.*
For further information see the technical data sheet.

50 HZ MODEL

G-25T-3

25 kVA (20 kW) 50 Hz





	50 Hz MODEL
Model and ratings	
kW *	20
kVA*	25
Voltage (V)	400/230
Amps (A)	36,1
Phases	3
Hz	50
Engine RPM	3000
Weight (Kg)	
Canopy version (Dry)	-
Standard version (Dry)	335
ALTERNATOR	
Brand	MECCALTE
Model	ECP-28 2L/2
Regulator type	Electronic AVR DSR
Nr. of poles	2
Insulation Type	H
IP protection	23
Cos phi	1
Tropicalized	Yes
Excitation system	Brushless
Voltage regulation Accuracy	±1%
Frequency Regulation	Synchronous
Standards	EN60034-1, IEC 60034-1
ENGINE specification	
Base	Mitsubishi
Solé Diesel Engine Model	MINI-44
Type	4 stroke
Cylinders	4
Displacement	1758
Bore x Stroke	78 x 92 mm
Compression ratio	22:1
Injection	Mechanical and indirect
Aspiration type	Natural aspiration
Lube Oil capacity (L)	6
Oil Type	SAE 15W40
Coolant capacity (L)	8
Housing	SAE 5
Flywheel	SAE 7 1/2
	50 Hz
RPM	3000
Power (HP/kW)	41,4 hp (30,9 kW)
Coolant flow rate (L/min)	100
Raw water rate (L/min)	33
Fuel consumption	
25%	3,6
50%	5,1
75%	6,5
100%	7,8
Diesel Liters/h at % load	
Electrical system	
Electrical System (V)	12
Starter Motor (kW)	2
Alternator (A)	50
Stop Solenoid Type	ETR

Standard equipment:

- 4 m electrical extension lead
- Oil extraction pump
- Welded steel base frame with silentblocks vibration attenuation
- SCO 5 Panel
- Owner's and alternator manual

Dimensions in millimetres. This drawing is provided for reference only. For further information, please visit our website www.solediesel.com

**Maximum power: Power supplied at maximum capacity of the genset. For further information see the technical data sheet.*

SCO 10 PANEL

TECHNICAL SPECIFICATIONS

GENERAL DESCRIPTION

- Graphic LCD with light, 128 x 64 pixels display
- 2 LED indicators
- Genset Measures (see Display Information)
- Configuration protected by password
- Running hour indication
- Multilanguage
- Genset protections (see Alarm Management)
- Preheating function
- D+ pre-excitation Terminal
- CAN bus information output with SAE J1939 protocol
- Two multipurpose timers
- Voltage supply: 12/24V DC with fuse protection
- Consumption: 80/51mA

DIMENSIONS AND WEIGHT

- Dimensions: 180 x 120 x 55 mm
- Weight: 450g

OPERATING CONDITIONS

- Operating temperature: -20 +70°C
- Humidity: 95% Without condensation
- Protection front panel: IP65

STANDARD CONFORMITY

- Low Voltage Directive: EN 61010-1:95 +A1:97
- Electromagnetic Compatibility: EN 50081-1:94, EN 50081-2:96, EN 50082-1:99, EN 50082-2:97

DISPLAY INFORMATION

- Measurement:
- L1-L3 Voltage (V)
- Frequency (Hz)
- Oil Pressure (bar)
- Coolant Temperature (°C)
- Battery Voltage (V DC)
- rpm
- Active Power* (kW)
- Apparent Power* (kVA)
- Current* (A)
- PF*
- History log

ALARM MANAGEMENT

- Shut Downs (SD)
- High coolant temperature
- Low oil pressure
- Overspeed
- Overload*
- Short circuit*
- Overcurrent*
- Over/Under voltage
- Over/Under frequency
- Emergency stop
- Warnings (WRN)
- High coolant temperature
- Low oil pressure
- High/Low battery voltage
- Maintenance request
- Sensor Fails (FLS)

FUNCTION DESCRIPTION

- OFF Mode
- MAN Mode (manual start/stop engine)
- AUT Mode (auto start/stop engine)

** The specific function requires the current transformer (optional equipment), in order to display the info on SCO10 panel.*

OPTIONAL EQUIPMENT

SCO 10 Double panel:

- SCO 10 Double panel allows the same operation and functionality as Main SCO 10. They are connected by RS485 port with a communication wire, available in 12/24/36 m.

Current transformers:

- Current (A), Active Power (kW), Apparent Power (kVA) and PF genset measures.

Isolated transformers:

- Voltage transformer unit to separate mains voltage and controller with voltage ratio 1:1.

Binary Input/Output extension module

IG-IB Internet communication bridge: for Ethernet/Internet communications

SCO 5 PANEL

TECHNICAL SPECIFICATIONS

GENERAL DESCRIPTION

Graphic LCD with light Display, 128 x 64 pixels
3 LED indicators
Marine genset measures (see display information)
Marine genset protections (see alarm management)
Running hour indicator
Type B USB for programming
Programming from the same panel
Universal Interface
Preheating function
D+ preexcitation terminal
CAN bus output with SAEJ1939 protocol
2 multipurpose timers

DIMENSIONS AND WEIGHT

Dimensions: 118 x 108 x 43 mm
Weight: 256g

OPERATING CONDITIONS

Operating temperature: -20 +70°C
Humidity: 95% Without condensation
Protection front panel: IP65

STANDARD CONFORMITY

Low Voltage Directive: EN 61010-1:95 +A1:97
Electromagnetic Compatibility: EN 50081-1:94, EN 50081-2:96, EN 50082-1:99, EN 50082-2:97

DISPLAY INFORMATION

Measurement:
L1-L3 Voltage (V)
Frequency (Hz)
Oil Pressure (bar)
Coolant Temperature (°C)
Battery Voltage (V DC)
rpm
Active Power* (kW)
Apparent Power* (kVA)
Current* (A)
PF*
History log

ALARM MANAGEMENT

Shut Downs (SD)
High coolant temperature
Low oil pressure
Overspeed
Overload*
Short circuit*
Overcurrent*
Over/Under voltage
Over/Under frequency
Emergency stop
Warnings (WRN)
High coolant temperature
Low oil pressure
High/Low battery voltage
Maintenance request
Sensor Fails (FLS)

FUNCTION DESCRIPTION

OFF Mode
MAN Mode (manual start/stop engine)
AUT Mode (auto start/stop engine)

** The specific function requires the current transformer (optional equipment), in order to display the info on SCO5 panel.*

OPTIONAL EQUIPMENT

Current transformers:

- Current (A), Active Power (kW), Apparent Power (kVA) and PF genset measures.

Isolated transformers:

- Voltage transformer unit to separate mains voltage and controller with voltage ratio 1:1.

SSO 10 GENERATOR SET PANEL

Panel developed by Solé Diesel. Controlled from an electronic control unit, this unit is designed to start and stop a generator set manually. Once the engine is running, the unit monitors failure conditions and stops the engine automatically in the event of an alarm. When the engine stops the corresponding alarm icon lights up on the front panel, as well as activating an audible alarm.

TECHNICAL SPECIFICATIONS

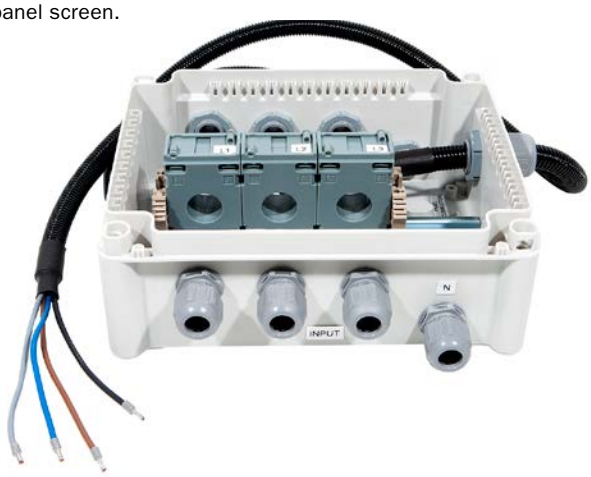
- Complies with EU directives:
  - 73/23/EEC and 93/68/EEC (low voltage).
  - 89/336/EEC, 92/31/EEC and 93/68/EEC (EMC).
- Power: 12 to 24 VDC.
- Energy consumption: 80 mA maximum (Relays disabled)
- Load fault trip voltage: 8 VDC.
- 50 / 60 Hz compatible.
- Operating temperature: -15 to 70 °C.
- Storage temperature: -20 to 80 °C.
- Maximum humidity: 95% non-condensing.
- Weight: approximately 550 g.
- Installation: Front panel mounting.

CURRENT TRANSFORMER KIT

The current transformer kit allows to measure the current flow and the generated power and provides this information to the SCO10 panel. This way we obtain a current (A) and power (kW) measurement that will be displayed On the SCO 10 and SCO 5 panel screen.

- The amperometric transformer Kit allows measuring the intensity and power generated by the marine genset.
- Once the Current Transformer Kit is installed, the previous information will be available in the SCO 10 and SCO 5 display.
- Prevent damages or faults caused by short circuit and Overload. Supplementing the circuit breaker.
- Phase imbalance protection.
- The renewed version is arranged in an electrical box so that the installation is carried out in a simpler way.
- With this box all cables are protected and sorted.
- Its installation is carried out in a safer way by directly passing the cables through the holes that make up the box.

Kits for single phase comes with 1 current transformer and 3-phases kits comes with 3 current transformers.



SINGLE PHASE				
Genset model 50 HZ	**Genset model 60 HZ**	**Transformer current**	**Lenght (m)**	**Kit current transformer part number**
7 GS	8 GSA	40/5	4 meters	60972161CMB.4
			12 meters	60972161CMB.12
10GS	12GSA	60/5	4 meters	60972162CMB.4
			12 meters	60972162CMB.12
14GS, 20GS	17 GSA	100/5	4 meters	60972163CMB.4
			12 meters	60972163CMB.12
29GS	25GSA, 32GSA	150/5	4 meters	60972164CMB.4
			12 meters	60972164CMB.12

3-PHASES				
Genset model 50 HZ	**Genset model 60 HZ**	**Transformer current**	**Lenght (m)**	**Kit current transformer part number**
8 GT-Y-Δ, 11 GT-Y-Δ, 17 GT-Y	10 GTA-Y-Δ, 14 GTA-Y-Δ, 20 GTA-Y	40/5	4 meters	60972161CTB.4
			12 meters	60972161CTB.12
17 GT-Δ, 25 GT-Y, 35 GT-Y,	20 GTA-Δ, 30 GTA-Y, 40 GTA-Y,	60/5	4 meters	60972162CTB.4
			12 meters	60972162CTB.12
25 GT-Δ, 35GT-Δ, 50GT-Y	30 GTA-Δ, 40 GTA-Δ, 60 GTA-Y,	100/6	4 meters	60972163CTB.4
			12 meters	60972163CTB.12
50 GT-Δ, 85GT-Y	60 GTA-Δ, 100 GTA-Y,	150/6	4 meters	60972164CTB.4
			12 meters	60972164CTB.12
115 GT-Y	120 GTA-Y	200/6	4 meters	60994164CTB.4
			12 meters	60994164CTB.12

Note:
Δ = Delta connection = 230V at 50 Hz or 277V at 60z.
Y = Star connection = 400/230V at 50 Hz or 480/277V at 60 Hz.

PARALLEL OPERATION

Choose your best option

GENSET PREPARED FOR PARALLEL OPERATION

- Available in standard version or canopy version.
- Scope of supply for Genset prepared for Parallel Operation
  - Generator set
  - Emergency stop button
  - Diagnostic button and Fault indicator lamp
  - Control wiring (6-meter length)*

Not included:
- Control panel · Generator circuit breaker
- Circuit transformers · Communication wiring · Power wiring

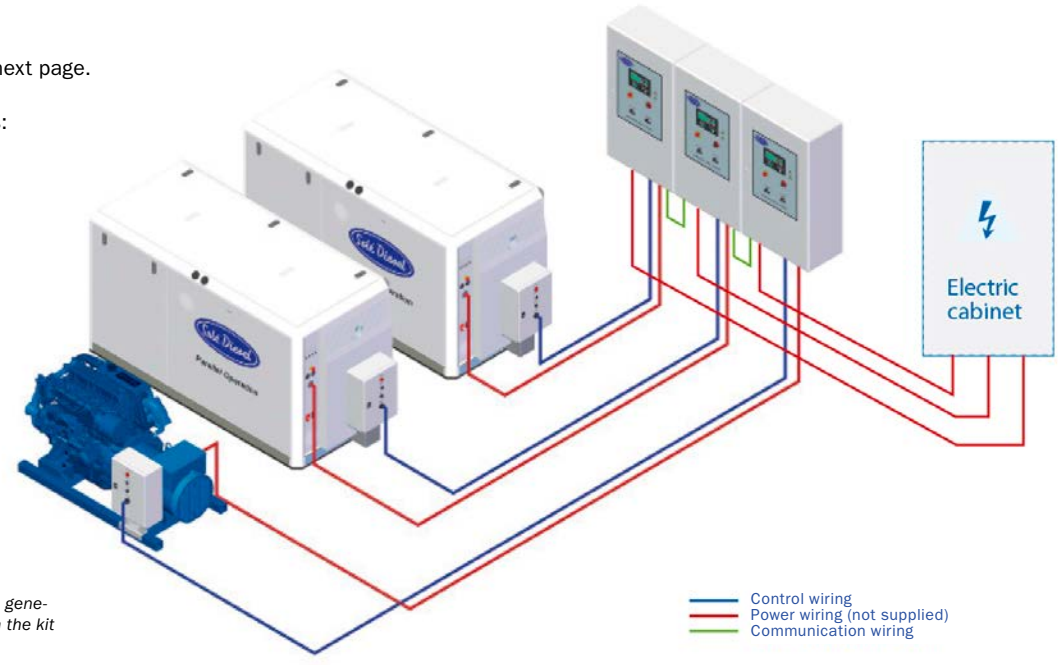
GENSET PREPARED FOR PARALLEL OPERATION & POWER AND CONTROL KIT

- Available in standard version or canopy version
- Scope of supply of Genset prepared for Parallel Operation
  - Generator set
  - Emergency stop button
  - Diagnostic button and Fault indicator lamp
- Scope of supply of Power and Control Kit
  - Control wiring (6-meter length)*
  - Power and Control cabinet - Panel:InteliCompact
  - Emergency stop button
  - Generator circuit breaker
  - Current transformers
  - Communication wiring (6-meter length)*

Not included:
- Power wiring

More information in the next page.

* Other available lengths:
12 and 24m.



Example of a system with three generators in parallel operation with the kit control and power.

CONTROL AND POWER PARALLEL KIT

Solé Diesel offers an effective solution for the synchronisation, switching, and distribution of loads to facilitate the start-up of generator sets in parallel.
It is a simple solution for clients, because the system is designed to be “plug and play”.
The cabinets have everything necessary for the units to function in parallel and all the most important protections.
The units are supplied fully configured for the needs of the application, allowing several generator sets to be connected in parallel, even if they are different models and have similar powers.
The client just has to install the power cables to connect the generator sets with the cabinets, and to connect the cabinets with the ship’s distribution panel.

MAIN FUNCTIONS

- Synchronisation and automatic switching of generator sets
- Configurable load distribution
- Display of all system parameters and notifications
- Log of events and alarms
- Manual and automatic operation
- Permanent protection of the generator set
- Option for functionality by load demand and automatic change of the main generator set depending on the hours of operation

SCOPE OF SUPPLY

- Full cabinet
- Communication cable between the generator set and cabinet (6 m blue cable in the diagram)
- Communication cable between cabinets (12 m)

MAIN CHARACTERISTICS OF THE CABINET

- Dimensions of the cabinet: 500x400x200 mm
- IP65 Cabinet
- Configured COMAP InteliCompact panel
- Emergency stop
- Illuminated alarm buzzer
- Power system for switching (fuses, contactors, isolators, amperometric transformers, etc.)

**Power cables are not provided due to the highly specific lengths and characteristics for each case.*

Solé Diesel

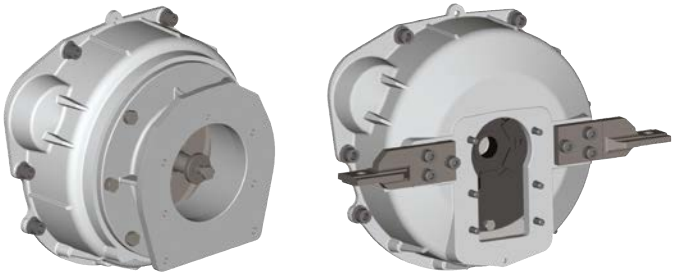
INSTALLATION KITS

CUSTOMISATION TO OTHER TRANSMISSIONS, SAILDRIVE OR STERN DRIVE

Solution to adapt other transmissions not supplied by Solé Diesel using an adaptive housing and elastic coupling.

COMPATIBLE TRANSMISSIONS:

- VOLVO Saildrive 100S/110S/120SB/120S/130S
- VOLVO Saildrive 270/280/290
- YANMAR Saildrive SD 20
- BUCK Saildrive DV10/DV20
- BORG WARNER
- HURTH 150A
- TECHNODRIVE



EXHAUST SYSTEM

DRY EXHAUST

Dry exhaust installation, specially designed for commercial boats. Three different options: flange, flange and flexible or flange, flexible and silencer.

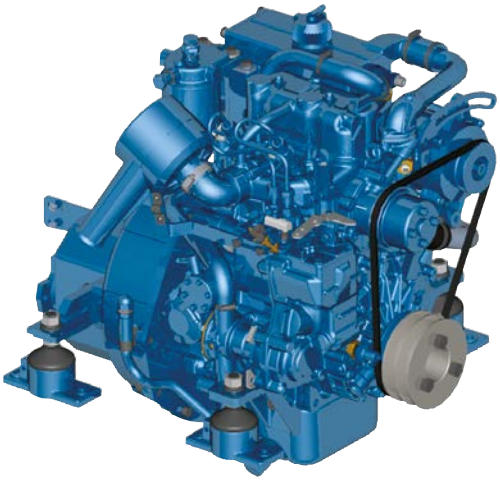
POWER TAKE-OFF

PULLEY / SHAFT

Axial pulley/shaft directly connected to the engine crankshaft able to supply power to other equipment on board.

TYPES AVAILABLE:

- 2 A groove pulley
- 2 B groove pulley
- 4 A groove pulley
- 4 B groove pulley
- Shaft



INSTRUMENT PANEL

- SVT 10 Panel
- SVT 20 Panel
- SVT 30 Panel
- SVT 20 + SVT 40 Double panel
- SVT 30 + SVT 40 Double panel

ELECTRICAL SYSTEM

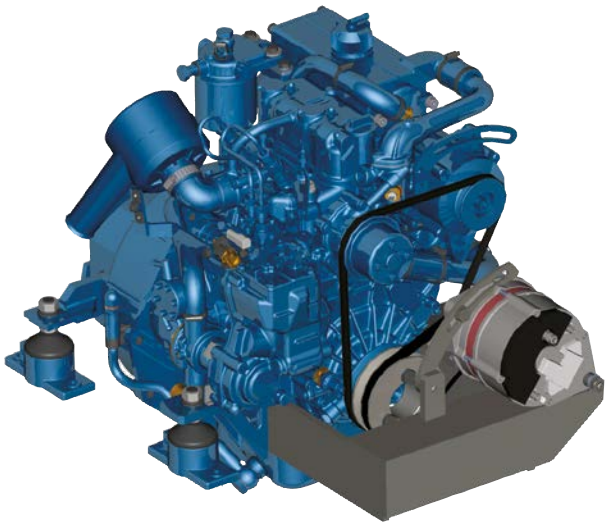
All engines (except DEUTZ) are at 12v. However, depending on customer, we can change it at 24v.

SECOND ALTERNATOR (FOR 12 OR 24V INSTALLATIONS)

Consists of assembling a second alternator connected to the crankshaft outlet via a pulley and a support. It can thus provide an electrical supply to other systems that need it, either at 12V or 24V.

AVAILABLE ALTERNATORS:

- 12V/70A Alternator
- 14V/90A Alternator
- 14V/110A Alternator
- 24V/55A Alternator
- 24V/140A Alternator

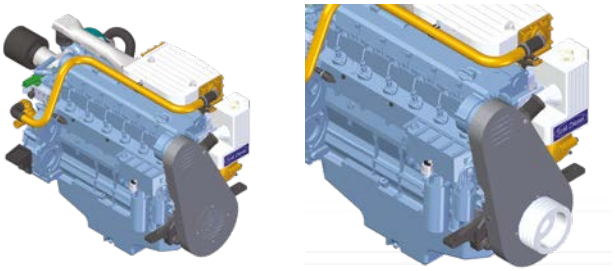


OTHERS

- Boiling kit
- Trolling valve
- Keel cooling

BELT PROTECTION

Belt protection element made from metal plate, compatible with power take-off installations.
It meets the requirements of the strictest classification societies (RRR, RMRS, DNV, B&V)*
Available for propulsion engines and generator sets.

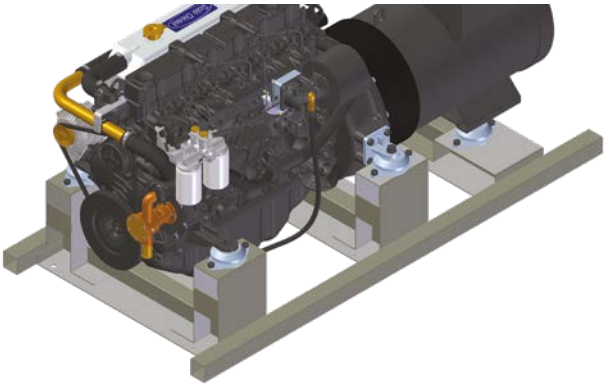


DOUBLE-WALL INJECTION PIPES AND LEAKAGE ALARM

System of double-wall injection pipes with alarm to detect possible fuel leaks and prevent spills.
It meets the requirements of the strictest classification societies (RRR, RMRS, DNV, B&V)*
Available for propulsion engines and generator sets.

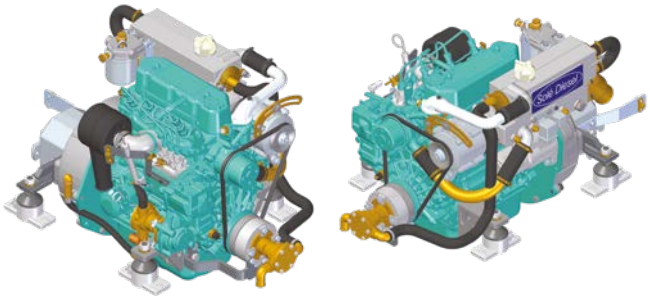
INTERCHANGEABLE DUAL GAS-OIL FILTER KIT

It consists of a system of two fuel filters with a three-position selector dial. This allows each filters to be replaced without having to stop the engine, improving safety.
It meets the requirements of the strictest classification societies (RRR, RMRS, DNV, B&V)*
Available for propulsion engines and generator sets.



MINI-17/29 FRONT SEA WATER PUMP

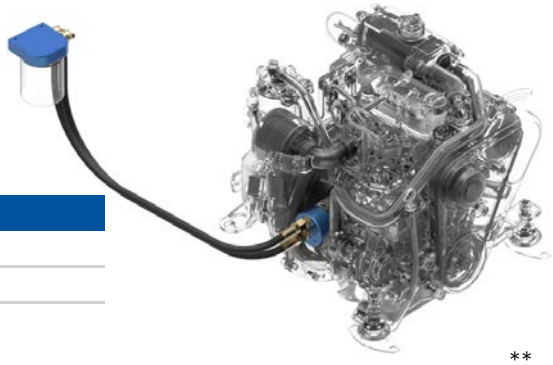
This facilitates maintenance tasks, especially in sailboats, connecting the salt water pump to the crankshaft pulley.
Available for MINI-17 and MINI-29 engines.



REMOTE OIL FILTER KIT

Assembly that allows to install the engine oil filter in a more accessible location, facilitating maintenance tasks.

Description	Engine models	Part Number
Kit Remote Oil Filter (1m)	MINI 17/29/33/44/55/63	**17712015**
Kit Remote Oil Filter (1m)	SM82/MINI-74/SM105	**17412015**
Kit Remote Oil Filter (1m)	SK-60	**1A012015**

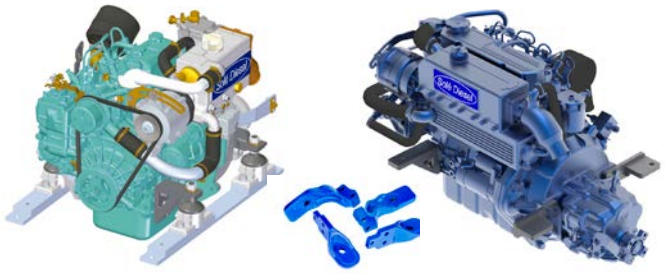


**

* According to SOLAS agreement.
** The remote oil filter kit is not painted and it doesn't include the filter element.

ENGINE BRACKET PACKS

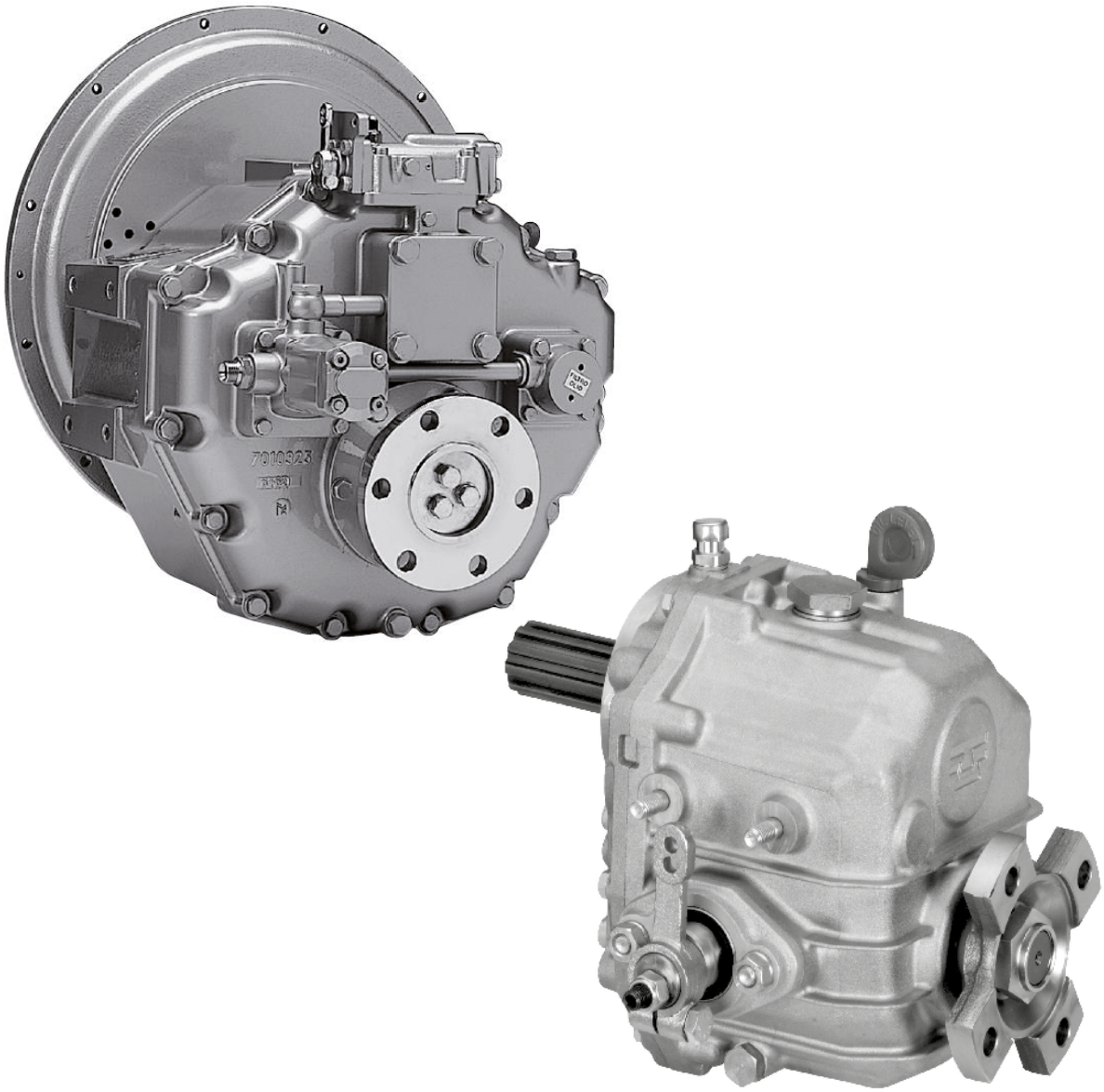
These replace the original supports of the new engine with others that are built to size. The width and height measurements are matched in order to avoid having to modify the baseplate and making it easier to install the new engine.



Repowering of Solé Diesel to Solé Diesel					
	MINI-17	MINI-29	MINI-33	MINI-44	MINI-55
MINI-1-2-3	13810050.6	17610050.6			
MINI-10	13810085	13910005			
MINI-11	13810084	13910006			
MINI-17 V2_V3	13810084	13910006			
MINI-17 V4	13810086	13910007			
MINI-18	13810089				
MINI-23		13910008	17210038		
MINI-26		13910009	17210039		
MINI-29 V0_V2_V3		13910009	17210039		
MINI-29 V4_V5		13910009	17210040		
MINI-32			17210045	17310013	
MINI-33 V0_V1_V3			17210046	17310014	
MINI-34			17210045	17310013	
MINI-48				17310015	17310015
PERKINS-4108					17710022
SM-615					17710023

Repowering of Volvo Penta to Solé Diesel				
	MINI-17	MINI-29	MINI-33	MINI-44
2001	13810094			
2002	13810093	13910031		
2003		13910030	17210047	
2003 Turbo		13910030	17210047	
MD6A	13810096			
MD7A	13810096			
MD11			17210054	
MD 11C			17210054	
MD17				17310024
MD 2010		13910012		
MD 2020		13910023	17210048	
MD 2030			17210048	
MD 2040				17310023
D1-13		13910023		
D1-20			17210048	
D1-30			17210053	
D2-40				17310022
MD3B				17310036

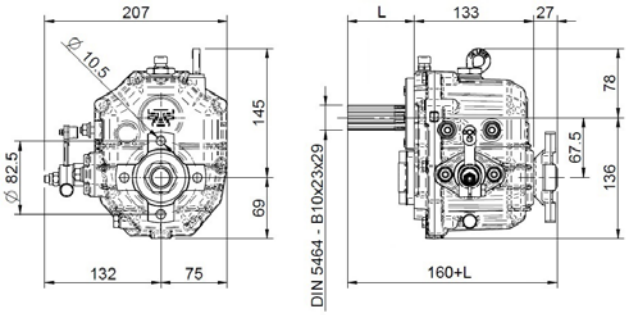
Repowering of Yanmar to Solé Diesel				
	MINI-17	MINI-29	MINI-33	MINI-44
1GM	13810097			
1GM10	13810097			
1GM10V	13810099			
2GM20	13810098			
2GM20F	13810098			
2GM20FV	13810109			
2QM20H			17210055	
2YM15		13910022		
3GM30		13910029		
3GM30F		13910029		
3GM30FV		13910024		
3HM		13910028		
3HM 35		13910028		
3HMF		13910028		
3JH2-E			17210056	
3JH2-TE				17310028
SB12/SB12G	13810112			
SB8/SB8G	13810110			



Solé Diesel

TRANSMISSIONS

TMC-40P TECHNODRIVE

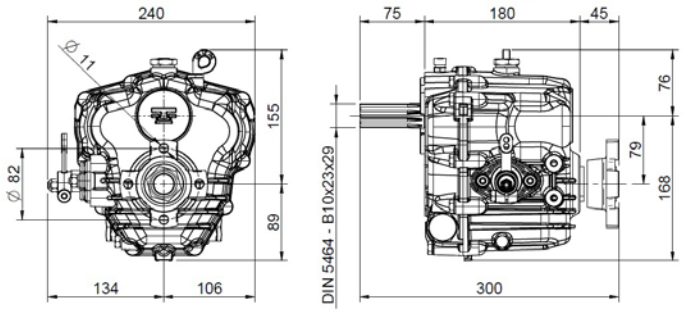


Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. Temp	Max. operating °	L	Part Number
				(Kg)	(L)		(°C)	(°)	(mm)	
2.00:1	2.13:1	Mechanical	Technical appendix	9	0,2	ATF	95	15	45	**24863000PC**
2.00:1	2.13:1	Mechanical	Technical appendix	9	0,2	ATF	95	15	57	**24863000P**
1:45:1	2.13:1	Mechanical	Technical appendix	9	0,2	ATF	95	15	45	**24862000PC**
1:45:1	2.13:1	Mechanical	Technical appendix	9	0,2	ATF	95	15	57	**24862000P**
2.60:1	2.13:1	Mechanical	Technical appendix	9	0,2	ATF	95	15	45	**24864000PC**
2.60:1	2.13:1	Mechanical	Technical appendix	9	0,2	ATF	95	15	57	**24864000P**

ACCESSORIES

Equipment	Description	Part Number
Included	Bracket engine control	-
Optional	BW housing coupling TMC	**24890021**
Optional	Adaptor Flange SAE 5 TMC	**24880021**
Optional	Flexible coupling type A D. 155	**13110040**
Optional	Flexible coupling type A D. 185	**14710070**
Optional	Flexible coupling type A SAE 6"1/2	**13810046**

TMC-60P TECHNODRIVE

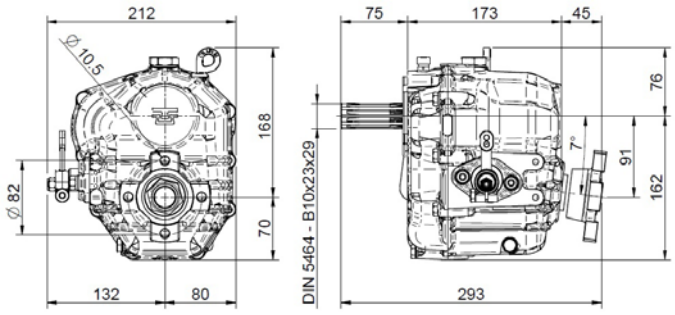


Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
				(Kg)	(L)		(°C)	(°)	
1.55:1	2.00:1	Mechanical	Technical appendix	14	0,65	ATF	95	15	**24882000P**
2.00:1	2.00:1	Mechanical	Technical appendix	14	0,65	ATF	95	15	**24883000P**
2.45:1	2.45:1	Mechanical	Technical appendix	14	0,65	ATF	95	15	**24884000P**
2.83:1	2.45:1	Mechanical	Technical appendix	14	0,65	ATF	95	15	**24885000P**

ACCESSORIES

Equipment	Description	Part Number
Included	Bracket engine control	-
Optional	BW housing coupling TMC	**24890021**
Optional	Adaptor Flange SAE 5 TMC	**24880021**
Optional	Flexible coupling type A D. 155	**13110040**
Optional	Flexible coupling type A D. 185	**14710070**
Optional	Flexible coupling type A SAE 6"1/2	**13810046**
Optional	Heat exchanger kit TMC-60P D. 20	**24880106**

TMC-60A TECHNODRIVE

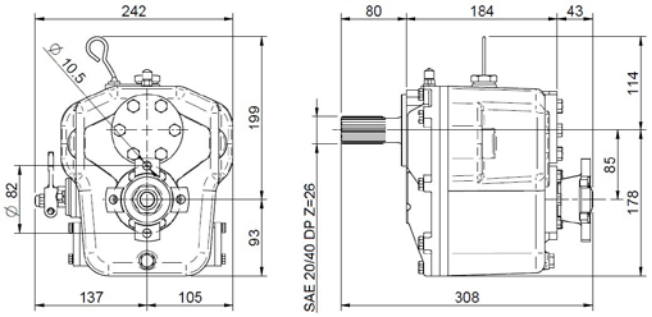


Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
			(°)		(Kg)	(L)		(°C)	(°)	
2.00:1	2.17:1	Mechanical	7	Technical appendix	14	0,65	ATF	95	15	**24883100**
2.45:1	2.17:1	Mechanical	7	Technical appendix	14	0,65	ATF	95	15	**24884100**

ACCESSORIES

Equipment	Description	Part Number
Included	Bracket engine control	-
Optional	BW housing coupling TMC	**24890021**
Optional	Adaptor Flange SAE 5 TMC	**24880021**
Optional	Flexible coupling type A D. 155	**13110040**
Optional	Flexible coupling type A D. 185	**14710070**
Optional	Flexible coupling type A SAE 6"1/2	**13810046**

TMC-260 TECHNODRIVE

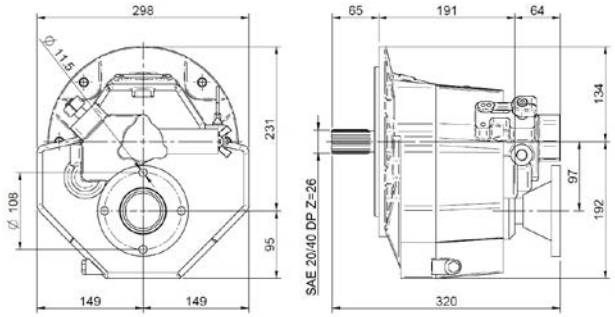


Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
				(Kg)	(L)		(°C)	(°)	
1.54:1	2.00:1	Mechanical	Technical appendix	18	1,2	ATF	95	15	**24892000**
2.00:1	2.00:1	Mechanical	Technical appendix	18	1,2	ATF	95	15	**24893000**
2.47:1	2.47:1	Mechanical	Technical appendix	18	1,2	ATF	95	15	**24894000**
2.88:1	2.47:1	Mechanical	Technical appendix	18	1,2	ATF	95	15	**24895000**

ACCESSORIES

Equipment	Description	Part Number
Included	Bracket engine control	-
Included	BW Coupling with TMC	-
Optional	Adaptor Flange SAE 5 TMC	**24880021**
Optional	Flexible coupling DS22 SAE 6" 1/2	**T4648004**
Optional	Flexible coupling Type B SAE 8"	**17110071**
Optional	Flexible coupling type C SAE 11"1/2	**16510170**

TM-345 TECHNODRIVE

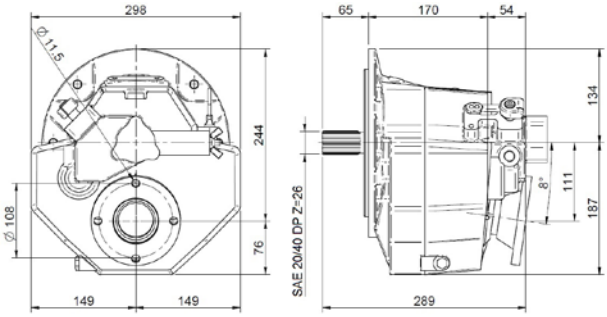


Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
				(Kg)	(L)		(°C)	(°)	
1.54:1	1.54:1	Hydraulic	Technical appendix	25	1,6	SAE 15W40	95	15	**24852000**
2.00:1	2.00:1	Hydraulic	Technical appendix	25	1,6	SAE 15W40	95	15	**24853000**
2.47:1	2.47:1	Hydraulic	Technical appendix	25	1,6	SAE 15W40	95	15	**24854000**

ACCESSORIES

Equipment	Description	Part Number
Included	BW Housing	-
Optional	SAE 5 housing (H=12,5 mm)	**T1070142**
Optional	SAE 5 housing Y3,4 JH3 (H=63 mm)	**T1070142Y**
Optional	SAE 4 housing TM-345/A (H=12,5 mm)	**24810033**
Optional	SAE 4 housing Y4JH3 (H=15,5 mm)	**T1070143**
Optional	SAE 3 housing gearbox	**14910012**
Optional	Flexible coupling DS22 SAE 6" 1/2	**T4648004**
Optional	Flexible coupling Type B SAE 8"	**17110071**
Optional	Flexible coupling type C SAE 11"1/2	**16510170**
Optional	Flexible coupling DS22 SAE 7" 1/2	**T4648005**
Optional	Flexible coupling DS Y3,4 JH3	**T4648053**
Optional	Flexible coupling DS Iveco	**T4648007**
Optional	Trolling valve kit TM-345/A	**17012345**
Optional	Heat exchanger pack TM-345/A	**24850601**
Optional	Yanmar heat exchanger kit 4JH	**T1023042**
Optional	Gearbox cable bracket pack	**24800400**

TM-345A TECHNODRIVE

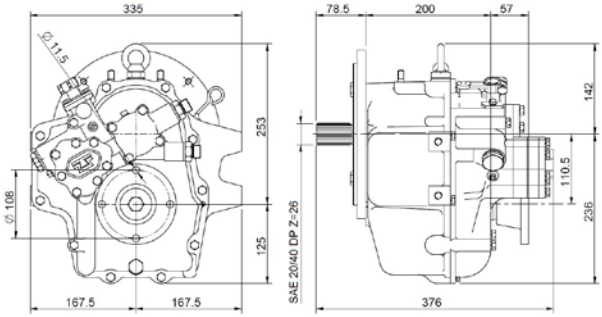


Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
			(°)		(Kg)	(L)		(°C)	(°)	
1.54:1	1.54:1	Hydraulic	8	Technical appendix	25	1,6	SAE 15W40	95	15	**24852100**
2.00:1	2.00:1	Hydraulic	8	Technical appendix	25	1,6	SAE 15W40	95	15	**24853100**
2.47:1	2.47:1	Hydraulic	8	Technical appendix	25	1,6	SAE 15W40	95	15	**24854100**

ACCESSORIES

Equipment	Description	Part number
Included	BW housing	-
Optional	SAE 5 housing (H=12,5 mm)	**T1070142**
Optional	SAE 5 housing Y3,4 JH3 (H=63 mm)	**T1070142Y**
Optional	SAE 4 housing TM-345/A (H=12,5 mm)	**24810033**
Optional	SAE 4 housing Y4JH3 (H=15,5 mm)	**T1070143**
Optional	SAE 3 housing gearbox	**14910012**
Optional	Flexible coupling DS22 SAE 6" 1/2	**T4648004**
Optional	Flexible coupling Type B SAE 8"	**17110071**
Optional	Flexible coupling type C SAE 11"1/2	**16510170**
Optional	Flexible coupling DS22 SAE 7" 1/2	**T4648005**
Optional	Flexible coupling DS Y3,4 JH3	**T4648053**
Optional	Flexible coupling DS Iveco	**T4648007**
Optional	Trolling valve kit TM-345/A	**17012345**
Optional	Heat exchanger pack TM-345/A	**24850601**
Optional	Yanmar heat exchanger kit 4JH	**T1023042**
Optional	Gearbox cable bracket pack	**24800400**

TM-93 TECHNODRIVE

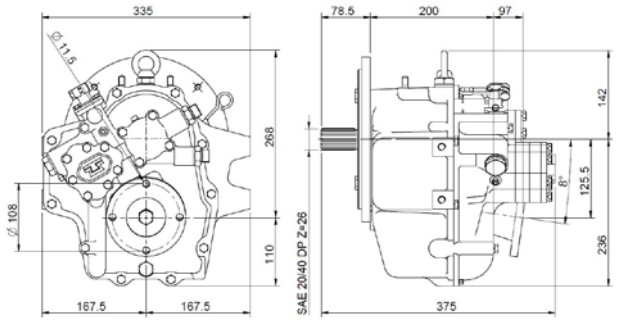


Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
				(Kg)	(L)		(°C)	(°)	
1.51:1	1.51:1	Hydraulic	Technical appendix	53	2,4	SAE 15W40	95	15	**24812000**
2.09:1	2.09:1	Hydraulic	Technical appendix	53	2,4	SAE 15W40	95	15	**24813000**
2.40:1	2.40:1	Hydraulic	Technical appendix	53	2,4	SAE 15W40	95	15	**24814000**
2.77:1	2.77:1	Hydraulic	Technical appendix	53	2,4	SAE 15W40	95	15	**24815000**

ACCESSORIES

Equipment	Description	Part Number
Optional	SAE 3 housing TM-93/A/170/880A (H=12,5 mm)	**24810021**
Optional	SAE 3 housing TM-93/A/170/880A (H=33 mm)	**24820021**
Optional	SAE 4 housing (H=12,5 mm)	**T1070156**
Optional	SAE 4 housing TM-93/A/170/880A (H=33 mm)	**24810021.3**
Optional	BW housing TM-93/170/485/545/880A (H=13,5 mm)	**24870021**
Optional	BW housing TM-93/A/170/880A (H=30 mm)	**24810022**
Optional	Flexible coupling DS25 10"	**24810010.1**
Optional	Flexible coupling type C SAE 11"1/2	**16510170**
Optional	Flexible coupling DS Iveco	**T4648007**
Optional	Flexible coupling RBD 10"	**T1054028**
Optional	Flexible coupling RBD 11"1/2 TM-93/880A	**19410072**
Optional	Trolling valve kit TM-93/A	**17012093**
Optional	Heat exchanger pack TM-93/A/170/880A	**24810600**
Optional	Gearbox cable bracket pack	**24800400**
Optional	Valve control electrical selector 12 V	**24816051**
Optional	Valve control electrical selector 24 V	**24890056**

TM-93A TECHNODRIVE

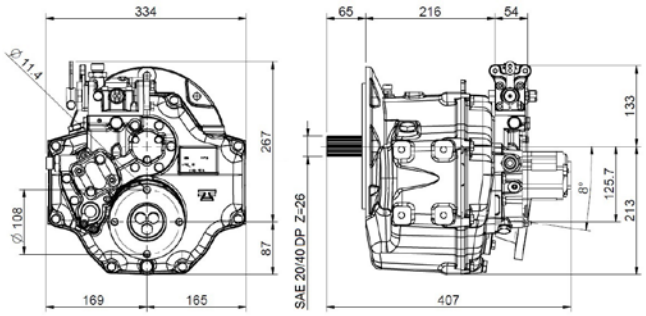


Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
			(°)		(Kg)	(L)		(°C)	(°)	
1.51:1	1.51:1	Hydraulic	8	Technical appendix	53	2,4	SAE 15W40	95	15	**24812100**
2.09:1	2.09:1	Hydraulic	8	Technical appendix	53	2,4	SAE 15W40	95	15	**24813100**
2.40:1	2.40:1	Hydraulic	8	Technical appendix	53	2,4	SAE 15W40	95	15	**24814100**

ACCESSORIES

Equipment	Description	Part Number
Optional	SAE 3 housing TM-93/A/170/880A (H=12,5 mm)	**24810021**
Optional	SAE 3 housing TM-93/A/170/880A (H=33 mm)	**24820021**
Optional	SAE 4 housing (H=12,5 mm)	**T1070156**
Optional	SAE 4 housing TM-93/A/170/880A (H=33 mm)	**24810021.3**
Optional	BW housing TM-93/170/485/545/880A (H=13,5 mm)	**24870021**
Optional	BW housing TM-93/A/170/880A (H=30 mm)	**24810022**
Optional	Flexible coupling DS25 10"	**24810010.1**
Optional	Flexible coupling type C SAE 11"1/2	**16510170**
Optional	Flexible coupling DS Iveco	**T4648007**
Optional	Flexible coupling RBD 10"	**T1054028**
Optional	Flexible coupling RBD 11"1/2 TM-93/880A	**19410072**
Optional	Trolling valve kit TM-93/A	**17012093**
Optional	Heat exchanger pack TM-93/A/170/880A	**24810600**
Optional	Gearbox cable bracket pack	**24800400**
Optional	Valve control electrical selector 12 V	**24816051**
Optional	Valve control electrical selector 24 V	**24890056**

TM-485A1 TECHNODRIVE

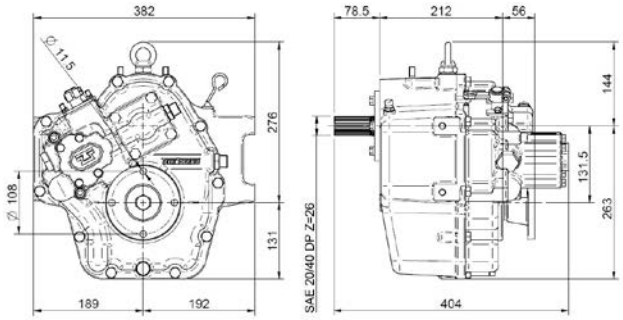


Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
			(°)		(Kg)	(L)		(°C)	(°)	
1.51:1	1.51:1	Hydraulic	8	Technical appendix	36	2,7	SAE 15W40	95	15	**24872200.1**
2.09:1	2.09:1	Hydraulic	8	Technical appendix	36	2,7	SAE 15W40	95	15	**24873200.1**
2.40:1	2.40:1	Hydraulic	8	Technical appendix	36	2,7	SAE 15W40	95	15	**24874200.1**

ACCESSORIES

Equipment	Description	Part Number
Included	BW housing	-
Optional	SAE 5 housing TM-485A1	**T2011333**
Optional	SAE 4 housing TM-485A1	**24870022**
Optional	SAE 3 housing gearbox	**14910012**
Optional	Flexible coupling DS25 10"	**24810010.1**
Optional	Flexible coupling DS25 8"	**T4648017**
Optional	Flexible coupling type C SAE 11"1/2	**16510170**
Optional	Flexible coupling CF-DS-22 Yanmar	**24810019**
Optional	Trolling valve kit TM-485A1	**18712485**
Optional	Heat exchanger pack TM-485A1	**24870600**
Optional	Electric control valve 12 V	**T1026012**
Optional	Gearbox cable bracket pack	**24800400**

TM-170 TECHNODRIVE

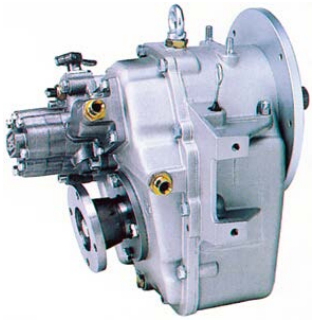


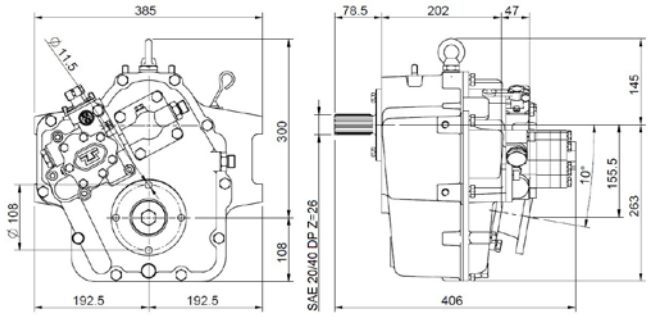
Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
				(Kg)	(L)		(°C)	(°)	
1.50:1	1.50:1	Hydraulic	Technical appendix	75	2,8	SAE 15W40	95	15	**24822000**
2.04:1	2.04:1	Hydraulic	Technical appendix	75	2,8	SAE 15W40	95	15	**24823000**
2.50:1	2.50:1	Hydraulic	Technical appendix	75	2,8	SAE 15W40	95	15	**24824100**
2.94:1	2.94:1	Hydraulic	Technical appendix	75	2,8	SAE 15W40	95	15	**24825000**

ACCESSORIES

Equipment	Description	Part Number
Optional	SAE 3 housing TM-93/A/170/880A (H=12,5 mm)	**24810021**
Optional	SAE 3 housing TM-93/A/170/880A (H=33 mm)	**24820021**
Optional	SAE 4 housing (H=12,5 mm)	**T1070156**
Optional	SAE 4 housing TM-93/A/170/880A (H=33 mm)	**24810021.3**
Optional	SAE 4 housing TM-93/170/880A (H=50 mm) Yanmar	**24810021.4**
Optional	BW housing TM-93/170/485/545/880A (H=13,5 mm)	**24870021**
Optional	BW housing TM-93/A/170/880A (H=30 mm)	**24810022**
Optional	Flexible coupling type C SAE 11"1/2	**16510170**
Optional	Flexible coupling CF-DS-22 Yanmar	**24810019**
Optional	Flexible coupling RBD 10"	**T1054028**
Optional	Flexible coupling RBD 11"1/2 TM-93/880A	**19410072**
Optional	Trolling valve kit TM-170	**19012170**
Optional	Heat exchanger pack TM-93/A/170/880A	**24810600**
Optional	Yanmar heat exchanger kit	**T1023043**
Optional	Gearbox cable bracket pack	**24800400**
Optional	Valve control electrical selector 12 V	**24816051**
Optional	Valve control electrical selector 24 V	**24890056**

TM-880A TECHNODRIVE



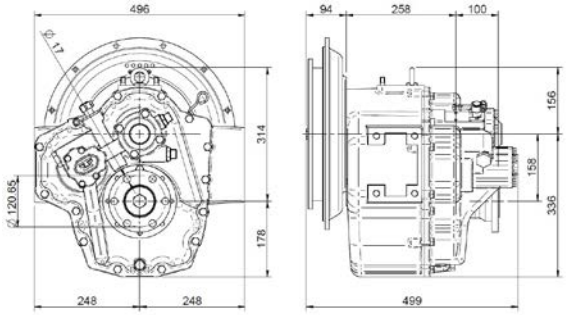


Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
			(°)		(Kg)	(L)		(°C)	(°)	
1.53:1	1.53:1	Hydraulic	10	Technical appendix	54	3,7	SAE 15W40	95	15	**24816000**
2.08:1	2.08:1	Hydraulic	10	Technical appendix	54	3,7	SAE 15W40	95	15	**24817000**
2.60:1	2.60:1	Hydraulic	10	Technical appendix	54	3,7	SAE 15W40	95	15	**24818000**

ACCESSORIES

Equipment	Description	Part Number
Optional	SAE 3 housing TM-93/A/170/880A (H=12,5 mm)	**24810021**
Optional	SAE 3 housing TM-93/A/170/880A (H=33 mm)	**24820021**
Optional	SAE 4 housing (H=12,5 mm)	**T1070156**
Optional	SAE 4 housing TM-93/A/170/880A (H=33 mm)	**24810021.3**
Optional	SAE 4 housing TM-93/170/880A (H=50 mm) Yanmar	**24810021.4**
Optional	BW housing TM-93/170/485/545/880A (H=13,5 mm)	**24870021**
Optional	BW housing TM-93/A/170/880A (H=30 mm)	**24810022**
Optional	Flexible coupling type C SAE 11"1/2	**16510170**
Optional	Flexible coupling RBD 10"	**T1054028**
Optional	Flexible coupling RBD 11"1/2 TM-93/880A	**19410072**
Optional	Trolling valve kit TM-880A	**19612880**
Optional	Heat exchanger pack TM-93/A/170/880A	**24810600**
Optional	Yanmar heat exchanger kit	**T1023043**
Optional	Gearbox cable bracket pack	**24800400**
Optional	Valve control electrical selector 12 V	**24816051**
Optional	Valve control electrical selector 24 V	**24890056**

TM-265 TECHNODRIVE

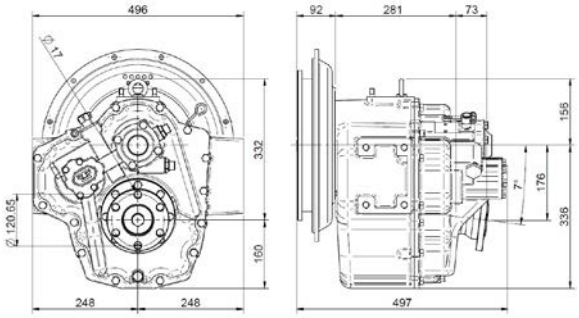


Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
				(Kg)	(L)		(°C)	(°)	(RPM)
1.50:1	1.50:1	Hydraulic	Technical appendix	165	6,6	SAE 15W40	95	15	**24842000**
2.09:1	2.09:1	Hydraulic	Technical appendix	165	6,6	SAE 15W40	95	15	**24843000**
2.82:1	2.82:1	Hydraulic	Technical appendix	165	6,6	SAE 15W40	95	15	**24845000**

ACCESSORIES

Equipment	Description	Part Number
Included	SAE 3 Housing	-
Included	Flexible Coupling RBD 11"1/2	-
Optional	SAE 2 housing	**24840010.1A**
Optional	SAE 1 housing	**24840010.1AA**
Optional	Flexible coupling DS40 11"1/2 TM-265/A	**24840020**
Optional	Flexible coupling CFR 136 11"1/2 TM-265/A	**19410070**
Optional	Flexible coupling Centa CF-DS40 14"	**24840005**
Optional	Trolling valve kit TM-265/A	**19112265**
Optional	Companion flange pack TM-265/A	**24840006K**
Optional	Heat exchanger pack TM-265/A	**24840600**
Optional	Gearbox bracket TM-265/A	**T1052002**
Optional	Gearbox cable bracket pack	**24800400**
Optional	Power take off hydraulic pump TM-265/A	**24845250**
Optional	Valve control electrical selector 12 V	**24816051**
Optional	Valve control electrical selector 24 V	**24890056**

TM-265A TECHNODRIVE

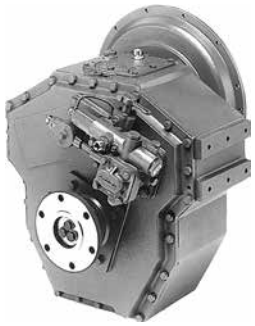


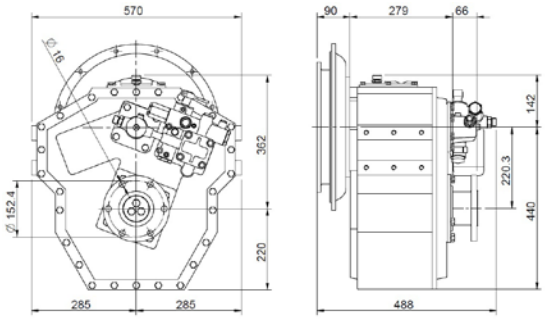
Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
			(°)		(Kg)	(L)		(°C)	(°)	
1.44:1	1.44:1	Hydraulic	7	Technical appendix	165	6,6	SAE 15W40	95	15	**24842100**
2.00:1	2.00:1	Hydraulic	7	Technical appendix	165	6,6	SAE 15W40	95	15	**24843100**
2.30:1	2.30:1	Hydraulic	7	Technical appendix	165	6,6	SAE 15W40	95	15	**24844000**

ACCESSORIES

Equipment	Description	Part Number
Included	SAE 3 Housing	-
Included	Flexible Coupling RBD 11"1/2	-
Optional	SAE 2 housing	**24840010.1A**
Optional	SAE 1 housing	**24840010.1AA**
Optional	Flexible coupling DS40 11"1/2 TM-265/A	**24840020**
Optional	Flexible coupling CFR 136 11"1/2 TM-265/A	**19410070**
Optional	Flexible coupling Centa CF-DS40 14"	**24840005**
Optional	Trolling valve kit TM-265/A	**19112265**
Optional	Companion flange pack TM-265/A	**24840006K**
Optional	Heat exchanger pack TM-265/A	**24840600**
Optional	gearbox bracket TM-265/A	**T1052002**
Optional	Gearbox cable bracket pack	**24800400**
Optional	Power take off hydraulic pump TM-265/A	**24845250**
Optional	Valve control electrical selector 12 V	**24816051**
Optional	Valve control electrical selector 24 V	**24890056**

TM-200B TECHNODRIVE



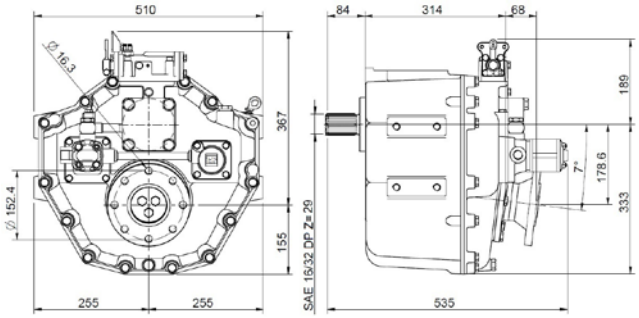


Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
				(Kg)	(L)		(°C)	(°)	
3.60:1	3.60:1	Hydraulic	Technical appendix	235	13,1	SAE 15W40	95	15	**24836100**
4.48:1	4.48:1	Hydraulic	Technical appendix	235	13,1	SAE 15W40	95	15	**24837000**

ACCESSORIES

Equipment	Description	Part Number
Included	SAE 3 Housing	-
Included	Flexible Coupling RBD 11"1/2	-
Optional	SAE 3 housing and 11" 1/2 RBD coupling	**T1070002**
Optional	SAE 1 housing and 11" 1/2 RBD coupling	**T1070001**
Optional	Heat exchanger pack TM-200B	**24830600**
Optional	gearbox cable bracket pack TM-200B	**24830404**

TM-1200A TECHNODRIVE

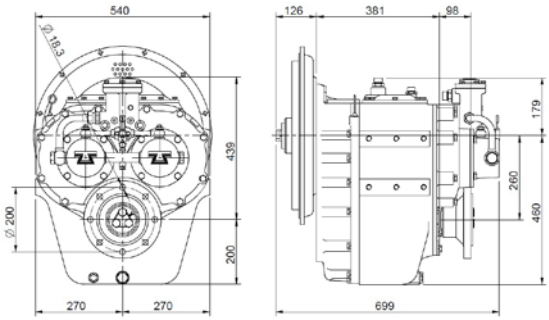


Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
			(°)		(Kg)	(L)		(°C)	(°)	
1.44:1	1.44:1	Hydraulic	7	Technical appendix	120	6,5	SAE 15W40	95	15	**24846000**
2.00:1	2.00:1	Hydraulic	7	Technical appendix	120	6,5	SAE 15W40	95	15	**24847000**
2.30:1	2.30:1	Hydraulic	7	Technical appendix	120	6,5	SAE 15W40	95	15	**24848000**

ACCESSORIES

Equipment	Description	Part Number
Optional	Electric control valve 12 V	**24846051**
Optional	SAE 3 housing TM-1200A	**24846021**
Optional	SAE 2 housing TM-1200A	**T1070179**
Optional	SAE 1 housing TM-1200A	**24840003**
Optional	Flexible coupling CFR 136 11" 1/2	**24846010**
Optional	Flexible coupling Vulkan 2K 341 11" 1/2	**TP10956A**
Optional	Flexible coupling Centa CF-R 138 14"	**24840004**
Optional	Trolling valve kit TM-1200A	**24846050**
Optional	Power take off TM-1200A	**T1068030**
Optional	Heat exchanger kit	**24846043**
Optional	Gearbox support TM-1200A	**T1052004**
Optional	SAE A power take off 2 bolts 9T TM-1200A	**T1051030**
Optional	SAE B power take off 2 bolts 13T TM-1200A	**T1051031**
Optional	Electric control valve 12 V TM-1200A	**T1026004**
Optional	Electric control valve 24 V TM-1200A	**T1026005**

TM-360 TECHNODRIVE



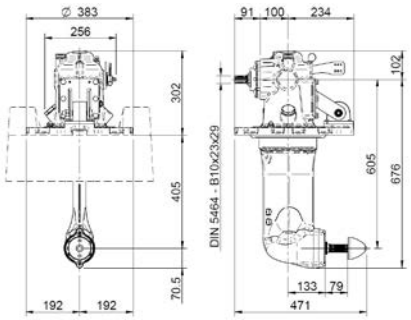
Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
				(Kg)	(L)		(°C)	(°)	
3.00:1	3.00:1	Hydraulic	Technical appendix	415	14	SAE 15W40	95	15	**24826000**
3.50:1	3.50:1	Hydraulic	Technical appendix	415	14	SAE 15W40	95	15	**24827000**
4.00:1	4.00:1	Hydraulic	Technical appendix	415	14	SAE 15W40	95	15	**24828000**
5.00:1	5.00:1	Hydraulic	Technical appendix	415	14	SAE 15W40	95	15	**24829000**

ACCESSORIES

Equipment	Description	Part Number
Optional	SAE 3 housing RBD 11" 1/2 TM-360 (TKN 860 Nm)	**24826010**
Optional	SAE 3 housing Vulkan 11" 1/2	**T1070195**
Optional	SAE 2 housing RBD 11" 1/2 TM-360 (TKN 860 Nm)	**24826011**
Optional	SAE 2 housing RBD 11" 1/2 (TKN 1700 Nm)	**T1070134**
Optional	SAE 1 housing RBD 14" (TKN 1400 Nm)	**T1070104**
Optional	SAE 1 housing Vulkan 14"	**T1070139**
Optional	SAE 1 housing TM-360	**24820003**
Optional	SAE 2 housing TM-360	**T2011267**
Optional	Flexible coupling DS45 14"	**T4648057**
Optional	Companion flange TM-360	**24826013**
Optional	Oil cooler kit TM-200B	**24826020**
Optional	Gearbox cable bracket pack	**24800400**
Optional	Gearbox support	**24826007**

SAIL DRIVE SP60 TECHNODRIVE

The SEAPROP 60 transmission is designed to be used in pleasure craft (boats with displacement hulls used for recreational purposes or amateur sailboats) or work vessels (sailboats with displacement hulls with intensive use, for hiring and professional activities). The body of the saildrive can be rotated 180°. Check which engines it can be mounted on. The transmission comes equipped with: 1) Housing 2) Elastic support bracket 3) Clamping flanges and watertight membranes for through-hull applications 4) Water intake for engine cooling.



Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. operating °	Part Number
				(Kg)	(L)		(°C)	(°)	
2.15:1	2.15:1	Mechanical	Technical appendix	43	2,8	ATF	95	0	**24813500A**
2.38:1	2.38:1	Mechanical	Technical appendix	43	2,8	ATF	95	0	**24813500A.2**

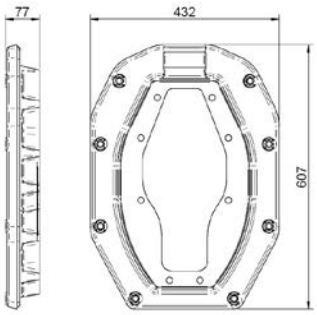
KIT SAIL DRIVE SP60 TECHNODRIVE

Additional accessories for optimum installation in order to get better performance from the Technodrive Sail Drive SP60 transmission. These kits consist of: fibreglass baseplate, exterior rubber seal, sensor kit, water leak alarm, and nut kit for a propeller with fixed blades.

Description	Part Number
Fiber Glass Bed SP60 (MINI-62/SK-60)	**24813507**
Fiber Glass Bed SP60 (MINI-17/26/29)	**24813509**
Fiber Glass Bed SP60 (MINI-33/44/55)	**24813506**
External Rubber Gasket for SP60	**24813508**
Kit Water Leak Sensor & Alarm SP60 12V	**24813510**
SP60 Fixed Propeller's Ogive Kit	**24813502**

TRANSOM ADAPTOR PLATE VOLVO TO MCM

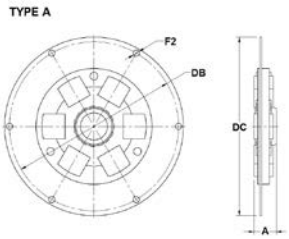
Stern Drive adaptive plate, for vessels equipped with VOLVO inboard-outboard engines to be refurbished with Hyundai Seasall with MerCruiser transmission. This plate facilitates the VOLVO to MerCruiser installation work, avoiding the need to do fibreglassing with possible imperfections.



Description	Part Number
Stern VOLVO Adaptation Carcase	**27101001**

FLEXIBLE COUPLING TYPE A

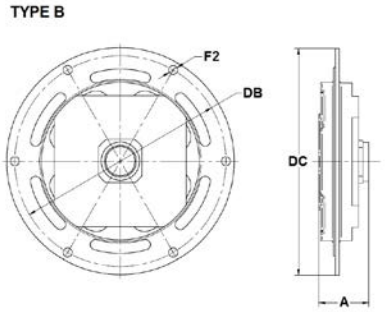
Type A elastic couplings transfer the marine engine torque to the reducing valve, absorbing and buffering the high torsional vibrations produced at low RPMs.



Ribbed type	DC	DB	F2	A	SAE	Max. torque	Part Number
	(mm)	(mm)	(mm)	(mm)	(in)	(Nm)	
10x23x29 DIN 5464	352,4	333,4	8x10,5	35	11" 1/2	-	**17410071**
10x23x29 DIN 5464	155	142	8x6,5	23	-	100	**13110040**
10x23x29 DIN 5464	215,9	200	6x8,5	23	6" 1/2	100	**13810046**
10x23x29 DIN 5464	185	175	6x6,5	23	-	130	**14710070**
10x23x29 DIN 5464	185	175	6x6,5	28	-	100	**17010070**
10x23x29 DIN 5464	263,5	244,5	6x10,5	23	8"	150	**17110070**
10x23x29 DIN 5464	185	175	6x6,5	23	-	100	**17310070**
10x23x29 DIN 5464	352,4	333,4	8x10,5	23	11" 1/2	115	**17410070**
10x23x29 DIN 5464	263,5	244,5	6x10,5	23	8"	210	**18210070**
10x23x29 DIN 5464	220	185	6x10,5	31	-	200	**1A010070**
SAE 1"3/4 Z=10	155	142	8x8,5	23	-	100	**13112004**
SAE 1"3/4 Z=10	155	142	8x6,5	17,5	-	100	**13510010**
SAE 1"3/4 Z=10	155	142	8x10,5	13	-	100	**13710010**
SAE 20/40 DP Z=26	300	262	6x8,5	22,5	-	75	**14910010**
SAE 20/40 DP Z=26	263,5	244,5	6x10,5	25	8"	75	**14910010.1**
SAE 20/40 DP Z=26	270	248	6x8,5	22,5	-	75	**15310050**
SAE 20/40 DP Z=26	352,4	333,4	8x11	25	11" 1/2	-	**17410040**
SAE 20/40 DP Z=26	310	290	6x8	28	-	For Hyundai S250P	**H001065S301**
SAE 20/40 DP Z=26	280	256	6x8	28	-	For Hyundai D170P	**H001067D301**

FLEXIBLE COUPLING TYPE B

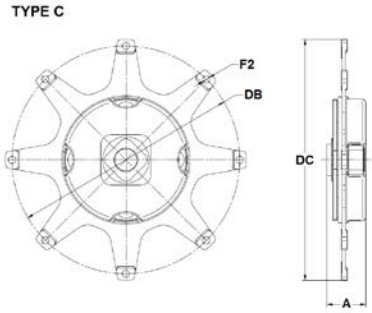
Type B elastic couplings are installed between the engine and the reducing valve to buffer unexpected load variations that cause high torsional vibrations.



Ribbed type	DC	DB	F2	A	SAE	Max. pleasure torque	Max. intermediate torque	Max. heavy duty torque	Part Number
	(mm)	(mm)	(mm)	(mm)	(in)	(Nm)	(Nm)	(Nm)	
SAE 20/40 DP Z=26	215,9	200	6x9	32	6" 1/2	150	120	100	**17210071**
SAE 20/40 DP Z=26	216	200	6x9	36	6" 1/2	258	200	150	**17310071**
SAE 20/40 DP Z=26	263,5	244,5	6x10,5	39	8"	258	200	150	**17110071**
SAE 20/40 DP Z=26	215,9	200	6x9	39	6" 1/2	258	200	150	**17110079**
SAE 20/40 DP Z=26	284	268	6x9	44	-	350	500	400	**18010171**
SAE 1" Z=10	284	268	6x9	45	-	650	500	400	**18010170**
SAE 1" Z=10	263,5	244,5	6x11	44	8"	650	500	400	**18310170**
SAE 20/40 DP Z=26	263,5	244,5	6x11	44	8"	650	500	400	**18310171**
SAE 20/40 DP Z=26	263,5	244,5	6x10,5	58	8"	700	520	420	**18510170**
SAE 20/40 DP Z=26	280	256	6x8,5	57	-	For Hyundai D170P	For Hyundai D170P	For Hyundai D170P	**10010170**
SAE 20/40 DP Z=26	306	290	6x8,5	60	-	For Hyundai S250P	For Hyundai S250P	For Hyundai S250P	**10110170**

FLEXIBLE COUPLING TYPE C

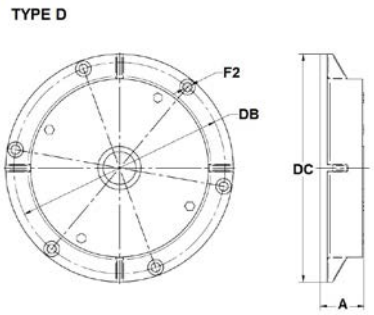
Type C elastic couplings transfer the engine torque to the reducing valve, absorbing and buffering unexpected load variations.



Ribbed type	DC	DB	F2	A	SAE	Max. Pleasure torque	Max. Intermediate Torque	Max. Heavy duty torque	Part Number
	(mm)	(mm)	(mm)	(mm)		(Nm)	(Nm)	(Nm)	
SAE 1" Z=10	352,4	333,4	8x11	50,5	11" 1/2	700	520	420	**16510172**
SAE 12/24 DP Z=14	352,4	333,4	8x11	48,7	11" 1/2	400	400	400	**17510243.2**
SAE 12/24 DP Z=26	352,4	333,4	8x11	60	11" 1/2	1000	800	600	**16710070**
SAE 20/40 DP Z=26	352,4	333,4	8x10,5	57	11" 1/2	700	520	420	**16510170**
SAE 24/48 DP Z=17	352,4	333,4	8x11	57	11" 1/2	700	520	420	**16510171**

FLEXIBLE COUPLING TYPE D

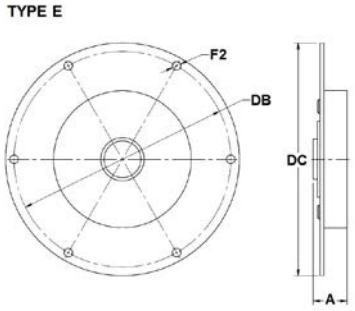
Type D elastic couplings are installed between the marine engine flywheel and the reducing valve, absorbing and buffering unexpected load variations.



Ribbed type	DC	DB	F2	A	SAE	Max. pleasure torque	Max. intermediate torque	Max. heavy duty torque	Part Number
	(mm)	(mm)	(mm)	(mm)	(in)	(Nm)	(Nm)	(Nm)	
SAE 20/40 DP Z=26	263,5	244,5	6x10,5	51,5	8"	700	560	490	**18310172**

FLEXIBLE COUPLING TYPE E

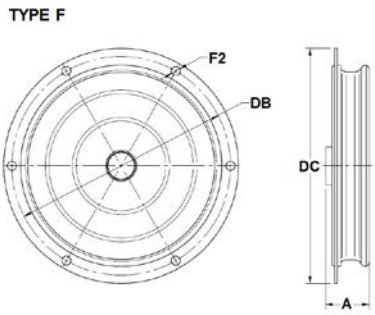
Type E elastic couplings transfer the engine torque to the reducing valve, absorbing and buffering unexpected load variations.



Ribbed type	DC	DB	F2	A	SAE	Max. torque	Part Number
	(mm)	(mm)	(mm)	(mm)	(in)	(Nm)	
10x23x29 DIN 5464	215,9	200	6x9	32	6" 1/2	135	**17210076**
10x23x29 DIN 5464	185	175	6x6,3	30,7	-	135	**17210077**
SAE 1" Z=10	215,9	200	6x8	32	6" 1/2	135	**17010072**
SAE 1" Z=10	263,5	244,5	6x9,5	35	8"	135	**17110073**
SAE 20/40 DP Z=26	215,9	200	6x8	31	6" 1/2	135	**17010071**
SAE 24/48 DP Z=17	215,9	200	6x9	32	6" 1/2	135	**17210072**

FLEXIBLE COUPLING TYPE F

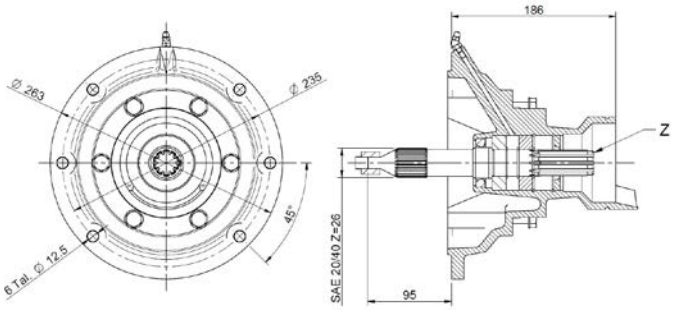
Type F elastic couplings transfer the torque and buffer unexpected load variations between the marine engine flywheel and the reducing valve.



Ribbed type	DC	DB	F2	A	SAE	Max. torque	Part Number
	(mm)	(mm)	(mm)	(mm)	(in)	(Nm)	
SAE 24/48 DP Z=20	175	163	6x6,8	33	-	240	**13810042**

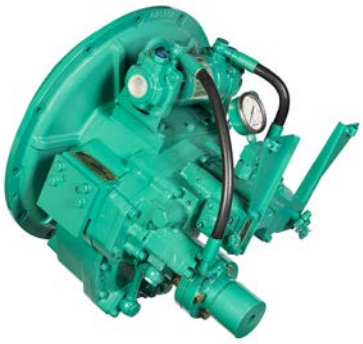
VOLVO Z DRIVE ADAPTER

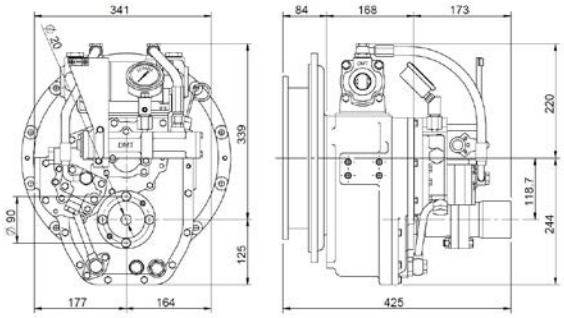
This kit has been specially designed to adapt Hyundai SeaSall engines to Volvo 270, 280 and 290 stern-drives.



Engine	Tooth num.	Kit	Part Number
D170P	10	ZDRIVE VOLVO 270/280/290	**10010100.1R**
D170P	26	ZDRIVE VOLVO 280/290	**10010110.1R**
S250P/S270P	26	ZDRIVE VOLVO 280/290	**10110110.1R**
S250P/S270P	10	ZDRIVE VOLVO 280/290	**10110110.3R**
U125P	10	ZDRIVE VOLVO 270/280/290	**10310100R**
U125P	26	ZDRIVE VOLVO 280/290	**10310110.1R**
R200P	10	ZDRIVE VOLVO 270/280/290	**10610100R**
R200P	26	ZDRIVE VOLVO 280/290	**10610110.1R**

DMT-25AL



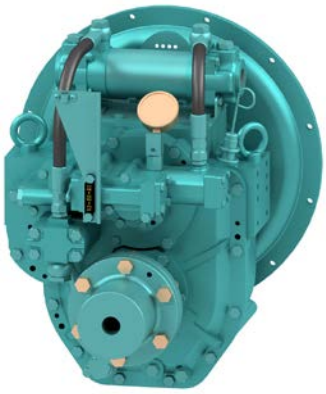


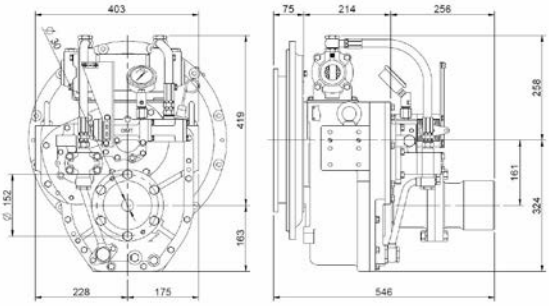
Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Part Number
				(Kg)	(L)		(ºC)	
1.64:1	1.64:1	Hydraulic	Technical appendix	77	2	SAE 30	90	**243D2000**
2.07:1	2.07:1	Hydraulic	Technical appendix	77	2	SAE 30	90	**243D3000**
2.52:1	2.52:1	Hydraulic	Technical appendix	77	2	SAE 30	90	**243D4000**
2.96:1	2.96:1	Hydraulic	Technical appendix	77	2	SAE 30	90	**243D5000**
3.32:1	3.32:1	Hydraulic	Technical appendix	77	2	SAE 30	90	**243DA000**

ACCESSORIES

Equipment	Description	Part Number
Included	Heat exchanger kit	-
Included	Companion flange transmission	-
Included	Bracket engine control	-
Included	SAE 5 bell housing and 7" 1/2 rubber block coupling	**D575RC**
Included	SAE 4 bell housing and 10" rubber block coupling	**D410RC**
Included	SAE 4 bell housing and 7" 1/2 rubber block coupling	**D475RC**
Included	SAE 3 bell housing and 11" 1/2 rubber block coupling	**D3115RC**
Optional	Mechanical trolling valve	**D140500T**
Optional	Electric selector valve 12 V	**D200570G**
Optional	Electric selector valve 24 V	**D200560G**
Optional	Electric valve 12 V and trolling	**D140590G**
Optional	Electric valve 24 V and trolling	**D140580G**

DMT-90A



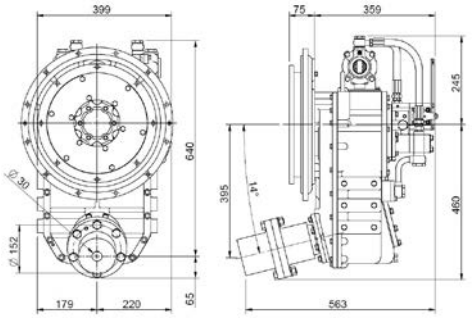


Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. Temp	Part Number
				(Kg)	(L)		(°C)	
1.61:1	1.61:1	Hydraulic	Technical appendix	159	3,5	SAE 30	90	**243L2000**
2.06:1	2.06:1	Hydraulic	Technical appendix	159	3,5	SAE 30	90	**243L3000**
2.45:1	2.45:1	Hydraulic	Technical appendix	159	3,5	SAE 30	90	**243L4000**
2.82:1	2.82:1	Hydraulic	Technical appendix	159	3,5	SAE 30	90	**243LF000**
3.12:1	3.12:1	Hydraulic	Technical appendix	159	3,5	SAE 30	90	**243L5000**
3.46:1	3.46:1	Hydraulic	Technical appendix	159	3,5	SAE 30	90	**243LA000**

ACCESSORIES

Equipment	Description	Part Number
Included	Heat exchanger kit	-
Included	Companion flange transmission	-
Included	Bracket engine control	-
Included	SAE 4 bell housing and 10" rubber block coupling	**D410RC**
Included	SAE 3 bell housing and 11" 1/2 dual stage coupling	**D3115DC**
Included	SAE 2 bell housing and 11" 1/2 dual stage coupling	**D2115DC**
Included	SAE 1 bell housing and 14" dual stage coupling	**D114DC**
Optional	Mechanical trolling valve	**D140500T**
Optional	Electric selector valve 12 V	**D200570G**
Optional	Electric selector valve 24 V	**D200560G**
Optional	Electric valve 12 V and trolling	**D140590G**
Optional	Electric valve 24 V and trolling	**D140580G**

DMT-100IV

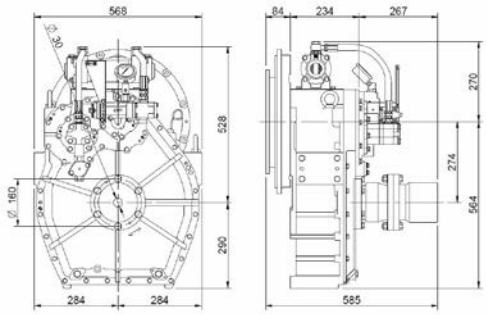


Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Part Number
			(°)		(Kg)	(L)		(°C)	
1.21:1	1.21:1	Hydraulic	14	Technical appendix	150	7	SAE 30	90	**24331000**
1.54:1	1.54:1	Hydraulic	14	Technical appendix	150	7	SAE 30	90	**24332000**
1.84:1	1.84:1	Hydraulic	14	Technical appendix	150	7	SAE 30	90	**2433E000**
2.12:1	2.12:1	Hydraulic	14	Technical appendix	150	7	SAE 30	90	**24302005**
2.52:1	2.52:1	Hydraulic	14	Technical appendix	150	7	SAE 30	90	**24334000**

ACCESSORIES

Equipment	Description	Part Number
Included	Heat exchanger kit	-
Included	Companion flange transmission	-
Included	Bracket engine control	-
Included	SAE 3 bell housing and 11" 1/2 dual stage coupling	**D3115DC**
Included	SAE 2 bell housing and 11" 1/2 dual stage coupling	**D2115DC**
Optional	Mechanical trolling valve	**D140500T**
Optional	Electric selector valve 12 V	**D200570G**
Optional	Electric selector valve 24 V	**D200560G**
Optional	Electric valve 12 V and trolling	**D140590G**
Optional	Electric valve 24 V and trolling	**D140580G**

DMT-100HL

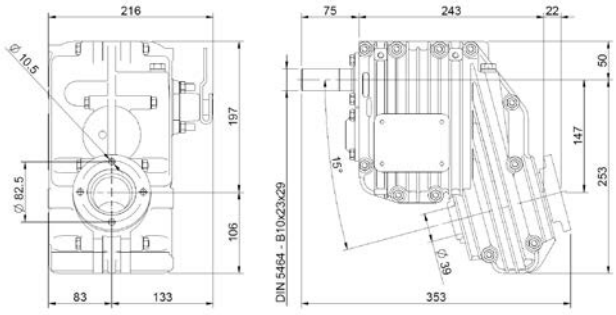


Forward	Reverse	Type	Max. power and speed	Weight	Oil cap.	Oil type	Max. Temp	Part Number
				(Kg)	(L)		(ºC)	
4.07:1	4.07:1	Hydraulic	Technical appendix	263	9,5	SAE 30	90	**24336000**
4.50:1	4.50:1	Hydraulic	Technical appendix	263	9,5	SAE 30	90	**24337000**
4.95:1	4.95:1	Hydraulic	Technical appendix	263	9,5	SAE 30	90	**24338000**
5.29:1	5.29:1	Hydraulic	Technical appendix	263	9,5	SAE 30	90	**24339000**
5.95:1	5.95:1	Hydraulic	Technical appendix	263	9,5	SAE 30	90	**2433B000**

ACCESSORIES

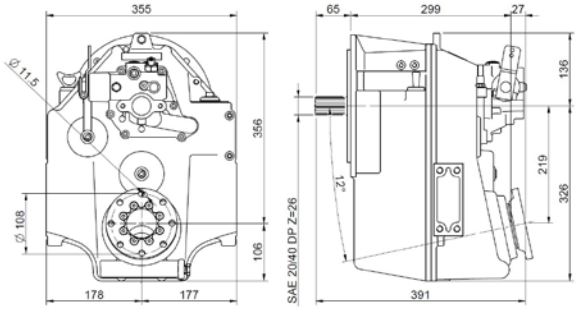
Equipment	Description	Part Number
Included	Heat exchanger kit	-
Included	Companion flange transmission	-
Included	Bracket engine control	-
Included	SAE 3 bell housing and 11" 1/2 dual stage coupling	**D3115DC**
Included	SAE 2 bell housing and 11" 1/2 dual stage coupling	**D2115DC**
Included	SAE 1 bell housing and 14" dual stage coupling	**D114DC**
Optional	Mechanical trolling valve	**D140500T**
Optional	Electric selector valve 12 V	**D200570G**
Optional	Electric selector valve 24 V	**D200560G**
Optional	Electric valve 12 V and trolling	**D140590G**
Optional	Electric valve 24 V and trolling	**D140580G**

ZF 15 MIV



Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. inst. °	Part Number
			(°)		(Kg)	(L)		(°C)	(°)	
2.13:1	2.22:1	V-DRIVE M.	15	Technical appendix	20	1	ATF	80	15	**24613400**

ZF 68 IV



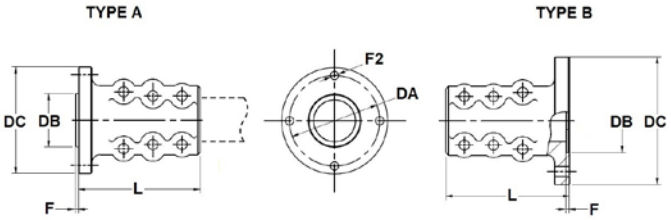
Forward	Reverse	Type	Output °	Max. power and speed	Weight	Oil cap.	Oil type	Max. temp	Max. inst. °	Part Number
			(°)		(Kg)	(L)		(°C)	(°)	
1.29:1	1.29:1	Hydraulic	12	Technical appendix	62	4,4	ATF	80	20	**24651000**
1.56:1	1.56:1	Hydraulic	12	Technical appendix	62	4,4	ATF	80	20	**24652400**
2.00:1	2.00:1	Hydraulic	12	Technical appendix	62	4,4	ATF	80	20	**24653400**
2.48:1	2.48:1	Hydraulic	12	Technical appendix	62	4,4	ATF	80	20	**24654400**

Solé Diesel

SHAFT LINES

CLAMP-ON COUPLINGS PACK

The clamp-on couplings casted in iron don't need a cotter pin. They are supplied with all the necessary screws. Including fixing screws for the gearbox. It is assembled between the gearbox output flange and the shaft. The clamp-on function is to fix the shaft to the gearbox.



TECHNICAL SPECIFICATIONS

Ø Shaft (mm)	Type	Num. of holes	F2 (mm)	DB (mm)	L (mm)	DA (mm)	DC (mm)	F	Part Number
19	A	3	9	33	64	50	62	3	**40019106K**
22	A	4	10,5	63,5	83	82,5	102	2	**40022106K**
22	A	2	9	53	65	77	93	2	**40022107K**
25	A	3	9	33	64	50	62	3	**40025103K**
25	A	4	10,5	63,5	81	82,5	102	2	**40025106K**
25	B	4	10,5	60	83	80	102	4	**40025108K**
25	A	4	10,5	50	82	78	100	3	**40025109K**
25	A	2	10	65	63	77	93	2	**40025117K**
30	A	4	10,5	63,5	104	82,5	102	2	**40030106K**
30	B	4	10,5	60	106	80	102	4	**40030107K**
30	A	4	11,5	63,5	105	108	127	2	**40030108K**
30	A	4	10,5	50	105	78	100	2	**40030109K**
30	A	4	10,5	65	105	100	120	2	**40030112K**
35	A	4	11,5	63,5	105	108	127	4	**40035106K**
35	A	4	10,5	63,5	105	82,5	102	2	**40035107K**
35	A	4	10,5	65	105	100	120	4	**40035108K**
35	A	4	12,5	63,5	105	108	130	4	**40035109K**
35	B	4	10,5	60	107	80	102	5	**40035111K**
35	A	8	11,5	63,5	105	108	127	4	**40035112K**
40	B	6	12,5	63,5	126	98,42	121	4	**40040106.1K**
40	A	4	11,5	63,5	126	108	127	4	**40040106K**
40	A	4	10	63,5	126	82,5	102	4	**40040107K**
40	A	4	12,5	63,5	126	108	130	4	**40040108K**
45	A	6	13	76,2	140	120,7	152	4	**40045107K**
45	A	4	11,5	63,5	140	108	127	4	**40045108K**
45	B	6	17	76,2	141	120,6	146	4	**40045109K**
50	A	6	13	76,2	146	120,7	152	4	**40050107K**
50	B	6	17	76,2	148	120,7	146	4	**40050108K**
50	B	6	12	63,5	148	98,4	121	4	**40050110K**

SHAFT FLANGE BY TYPE OF TRANSMISSION

Ø Shaft	Manufacturer	19	22	25	30	35	40	45	50
Gearbox									
AS-16	BONFIGLIOLI	-	40022107K	40025117K	-	-	-	-	-
BW Vdrive	BORG-WARNER	-	-	-	40030108K	40035106K	40040106K	40045108K	-
BW-71C	BORG-WARNER	-	-	-	40030108K	40035106K	40040106K	40045108K	-
BW-72C	BORG-WARNER	-	-	-	40030108K	40035106K	40040106K	40045108K	-
K45A	KANZAKI	-	-	-	-	40035109K	40040108K	-	-
KBW10E	KANZAKI	-	-	40025109K	40030109K	-	-	-	-
KBW20	KANZAKI	-	-	-	40030112K	40035108K	-	-	-
KBW21	KANZAKI	-	-	-	40030112K	40035108K	-	-	-
KM2P	KANZAKI	-	-	40025109K	40030109K	-	-	-	-
KM3A	KANZAKI	-	-	40025109K	40030109K	-	-	-	-
KM4A	KANZAKI	-	-	-	40030112K	40035108K	-	-	-
KMH4A	KANZAKI	-	-	-	40030112K	40035108K	-	-	-
KMH50A	KANZAKI	-	-	-	-	-	-	40045108K	-
PRM 1000	PRM	-	-	-	-	-	-	40045107K	40050107K
PRM 120	PRM	-	40022106K	40025106K	40030106K	40035107K	-	-	-
PRM 1500	PRM	-	40022106K	40025106K	40030106K	40035107K	-	-	-
PRM 160	PRM	-	-	-	40030108K	40035106K	40040106K	40045108K	-
PRM 260	PRM	-	-	-	40030108K	40035106K	40040106K	40045108K	-
PRM 302	PRM	-	-	-	-	-	-	40045107K	40050107K
PRM 402	PRM	-	-	-	-	-	-	40045107K	40050107K
PRM 601	PRM	-	-	-	-	-	-	40045107K	40050107K
PRM 750	PRM	-	-	-	-	-	-	40045107K	40050107K
PRM Delta	PRM	-	40022106K	40025106K	40030106K	40035107K	-	-	-
Ronim III	SOLÉ DIESEL	40019107K	-	40025107K	-	-	-	-	-
Ronim IV	SOLÉ DIESEL	-	40022106K	40025106K	40030106K	40035107K	-	-	-
SMI-R	SOLÉ DIESEL	-	40022106K	40025106K	40030106K	40035107K	40040107K	-	-
SMI-R2	SOLÉ DIESEL	-	40022106K	40025106K	40030106K	40035107K	40040107K	-	-
SMI-R3	SOLÉ DIESEL	-	40022106K	40025106K	40030106K	40035107K	40040107K	-	-
TM170	TECHNODRIVE	-	-	-	40030108K	40035106K	40040106K	40045108K	-
TM265	TECHNODRIVE	-	-	-	-	-	-	40045109K	40050108K
TM265A	TECHNODRIVE	-	-	-	-	-	-	40045109K	40050108K
TM345A	TECHNODRIVE	-	-	-	40030108K	40035106K	40040106K	40045108K	-
TM485A	TECHNODRIVE	-	-	-	40030108K	40035106K	40040106K	40045108K	-
TM545A	TECHNODRIVE	-	-	-	40030108K	40035106K	40040106K	40045108K	-
TM880A	TECHNODRIVE	-	-	-	40030108K	40035106K	40040106K	40045108K	-
TM93	TECHNODRIVE	-	-	-	40030108K	40035106K	40040106K	40045108K	-

CLAMP-ON COUPLINGS PACK

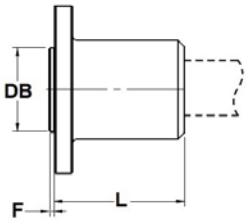
SHAFT FLANGE BY TYPE OF TRANSMISSION

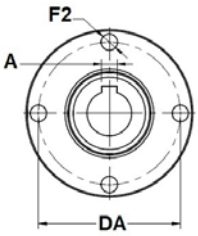
Ø Shaft	Manufacturer	19	22	25	30	35	40	45	50
Gearbox									
TMC40	TECHNODRIVE	-	40022106K	40025106K	40030106K	40035107K	-	-	-
TMC60	TECHNODRIVE	-	40022106K	40025106K	40030106K	40035107K	-	-	-
TTMC35A2	TECHNODRIVE	-	40022106K	40025106K	40030106K	40035107K	-	-	-
TTMC35P	TECHNODRIVE	-	40022106K	40025106K	40030106K	40035107K	-	-	-
M3P	VOLVO	-	-	40025109K	40030109K	-	-	-	-
Volvo HS-1	VOLVO	-	-	-	40030108K	40035106K	40040106K	40045108K	-
Volvo HS-1A	VOLVO	-	-	-	40030108K	-	-	-	-
Volvo HS-25A	VOLVO	-	-	-	-	40035106K	40040106K	40045108K	-
Volvo HS-45-A	VOLVO	-	-	-	-	-	40040106K	-	-
Volvo HS-63AE	VOLVO	-	-	-	-	-	40040106K	40045108K	-
Volvo MS-25-A	VOLVO	-	-	-	40030107K	40035111K	-	-	-
Volvo MS-25-L	VOLVO	-	-	-	40030107K	40035111K	-	-	-
Volvo MS-2A	VOLVO	-	-	40025108K	40030107K	40035111K	-	-	-
Volvo MS-2A-L	VOLVO	-	-	40025108K	40030107K	40035111K	-	-	-
Volvo MS-4	VOLVO	-	-	-	40030108K	40035106K	40040106K	40045108K	-
Volvo MS-45-A	VOLVO	-	-	-	-	40035106K	-	-	-
IRM220A	ZF	-	-	-	-	-	-	-	40050110K
ZF-100	ZF	-	40022106K	40025106K	40030106K	40035107K	-	-	-
ZF-125	ZF	-	40022106K	40025106K	40030106K	40035107K	-	-	-
ZF-150-A	ZF	-	40022106K	40025106K	40030106K	40035107K	-	-	-
ZF-150-V	ZF	-	40022106K	40025106K	40030106K	40035107K	-	-	-
ZF-250	ZF	-	40022106K	40025106K	40030106K	40035107K	-	-	-
ZF-250-A	ZF	-	-	-	40030106K	-	-	-	-
ZF-35	ZF	-	40022106K	40025106K	40030106K	40035107K	-	-	-
ZF-360-H	ZF	-	-	-	40030108K	40035106K	-	40045108K	-
ZF-40	ZF	-	40022106K	40025106K	40030106K	40035107K	-	-	-
ZF-450-A	ZF	-	-	-	40030108K	40035106K	-	40045108K	-
ZF-450-H	ZF	-	-	-	40030108K	-	-	-	-
ZF-450-V	ZF	-	-	-	-	40035106K	-	40045108K	-
ZF-50	ZF	-	40022106K	40025106K	40030106K	40035107K	-	-	-
ZF-630-A	ZF	-	-	-	40030108K	40035106K	-	40045108K	-
ZF-630-H	ZF	-	-	-	40030108K	40035106K	-	40045108K	-
ZF-630-V	ZF	-	-	-	40030108K	40035106K	-	40045108K	-

CONICAL CLAMP-ON COUPLINGS PACK

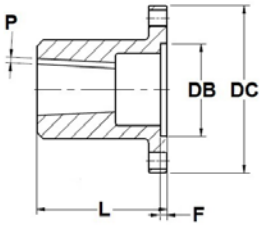
The F-114 conical clamp-on couplings have an easy assembly. They are supplied with all the screws to assemble the conical clamp-on on the gearbox.

TYPE A





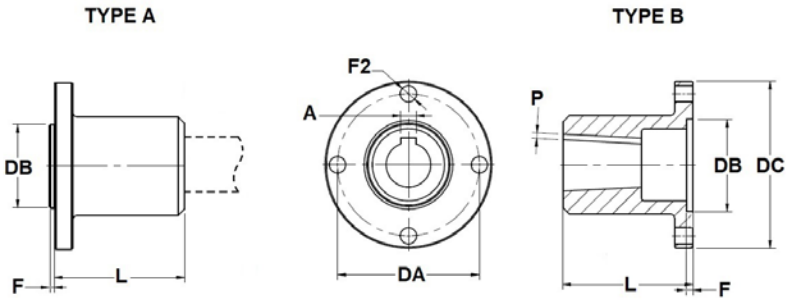
TYPE B



TECHNICAL SPECIFICATIONS

Ø Shaft	Type	Num. of holes	F2	DB	L	A	DA	DC	P	F	Part Number
(mm)			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			
35	A	4	11,5	63,5	84	10	108	127	3,7	4	**40035005AK**
35	A	4	10,5	65	97	10	100	120	3,7	4	**40035006AK**
40	A	4	11,5	63,5	84	12	108	127	3,7	4	**40040005AK**
40	B	6	16,5	76,2	90	12	108	146	3,7	5	**40040006AK**
40	A	4	12	63,5	88	12	120	127	3,7	4	**40040008AK**
40	B	6	12,5	63,5	86	12	98,4	121	3,7	4	**40040009AK**
45	A	4	11,5	63,5	86	14	108	127	4,2	4	**40045005AK**
45	B	6	16,5	76,2	86	14	120	146	4,2	5	**40045006AK**
45	B	6	19,5	95,25	105	14	152,4	184	4,2	5	**40045007AK**
45	B	6	16,5	72,6	91	14	120	146	4,2	5	**40045009AK**
45	B	10	16,2	100	86	14	125	155	4,2	7	**40045010AK**
45	A	4	11,3	63,5	60	14	108	127	4,2	4	**40045011BK**
45	B	6	12,5	63,5	86	14	98,4	121	4,2	4	**40045013AK**
50	A	4	12	63,5	86	14	108	127	4,2	4	**40050005AK**
50	B	6	16,5	76,2	86	14	120,7	146	4,2	5	**40050006AK**
50	A	4	12	63,5	76	14	108	127	4,2	4	**40050007AK**
50	A	4	11,25	63,5	60	14	108	127	4,2	4	**40050007BK**
50	B	6	12,5	63,5	86	14	98,4	121	4,2	4	**40050008AK**
50	B	6	13	76,2	80	14	120,7	146	4,2	5	**40050009AK**
50	B	10	16,2	100	86	14	125	155	4,2	7	**40050010AK**
50	B	6	19,5	95	105	14	152,4	184	4,2	5	**40050011AK**
50	B	10	16,2	100	110	14	125	155	4,2	7	**40050012AK**
50	B	10	18,5	140	105	14	170	205	4,2	7	**40050013AK**
50	B	12	16,5	115	105	14	140	170	4,5	7	**40050014AK**
55	B	6	13	76,2	78	18	146	146	5,3	4	**40055015AK**
60	A	6	13	76,2	100	18	120	152	5,3	5	**40060005K**
60	B	6	17	76,2	110	18	120,7	146	5,3	5	**40060006AK**
60	B	12	16,5	115	165	18	140	170	5,3	6	**40060007AK**
60	B	6	16,5	95,25	110	18	152,4	184	5,3	4	**40060008AK**
60	B	8	16,5	95,3	110	18	152,4	184	5,3	5	**40060009AK**
60	B	10	16,5	100	110	18	125	155	5,3	7	**40060013AK**
60	A	4	12	63,5	90	18	108	127	5,3	2,5	**40060014AK**
60	B	12	16,5	115	110	18	140	170	4,4	6	**40060016AK**
65	B	6	17	76,2	110	18	120,7	146	4,4	5	**40065006AK**
65	B	6	16,5	95,3	110	18	152,4	184	4,4	5	**40065007AK**
65	B	12	16,5	115	105	18	140	170	4,4	6	**40065008AK**
65	B	6	20	95,3	110	18	152,4	184	4,4	5	**40065009AK**
65	B	10	16,5	100	110	18	125	155	4,4	7	**40065013AK**

CONICAL CLAMP-ON COUPLINGS PACK



TECHNICAL SPECIFICATIONS

Ø Shaft	Type	Num. of holes	F2	DB	L	A	DA	DC	P	F	Part Number
(mm)			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			
70	B	6	17	76,2	110	20	120,7	146	4,9	5	**40070006AK**
70	B	6	16,3	93,5	110	20	152,4	184	4,9	5	**40070007AK**
70	B	12	16,5	115	115	20	140	170	4,9	5	**40070008AK**
70	B	10	18,5	140	115	20	170	205	4,9	6	**40070009AK**
70	A	6	20	126	118	20	180	218	4,9	5	**40070010AK**
70	B	6	21	140	113	20	220	257	4,9	7	**40070011AK**
70	B	6	16,3	95,3	110	20	152,4	184	4,9	5	**40070012AK**
70	B	8	15,5	110	115	20	160	200	4,9	7	**40070013AK**
70	B	8	17	80	123	20	196	225	4,9	7	**40070014AK**
75	B	6	16,3	95,3	115	20	152,4	184	4,9	5	**40075007AK**
75	B	12	16,5	115	115	20	140	170	4,9	6	**40075008AK**
75	B	10	18,5	140	115	20	170	205	4,9	6	**40075009AK**
75	A	6	20	126	118	20	180	218	4,9	5	**40075010AK**
75	B	6	21	140	118	20	220	257	4,9	7	**40075011AK**
75	B	8	17	80	123	20	196	225	4,9	7	**40075012AK**
75	B	6	20	95,3	115	20	152,4	184	4,9	5	**40075013AK**
75	B	6	22,5	152,4	123	20	190,5	228	4,9	7	**40075014AK**
75	B	0	21	140	115	20	156	218	4,9	6	**40075016AK**
80	B	6	16,3	95,3	130	22	152,4	184	5,4	5	**40080007AK**
80	B	10	18,5	140	130	22	170	205	5,4	6	**40080009AK**
80	A	6	20	126	133	22	180	218	5,4	5	**40080010AK**
80	B	6	21	140	133	22	220	257	5,4	7	**40080011AK**
80	B	6	17	140	133	22	196	225	5,4	7	**40080012AK**
80	B	6	21	150	133	22	240	278	5,4	7	**40080013AK**
80	B	8	22,5	152,4	133	22	190,5	228	5,4	7	**40080014AK**
80	B	8	20,2	152,4	133	22	190,5	228	5,4	7	**40080015AK**
80	B	8	15,5	110	130	22	160	200	5,4	7	**40080016AK**
80	B	8	15,5	140	133	22	190	230	5,4	8	**40080017AK**
85	B	6	16,5	95,3	140	22	152,4	184	5,4	5	**40085007AK**
85	B	10	20,3	140	143	22	218	260	5,4	7	**40085008AK**
85	A	0	21	140	143	22	180	210	5,4	5	**40085010AK**
85	B	6	21	140	143	22	220	257	5,4	7	**40085011AK**
85	B	8	17	140	143	22	196	225	5,4	7	**40085012AK**
85	B	6	21	150	143	22	240	278	5,4	7	**40085013AK**
85	B	6	25	160	143	22	240	287	5,4	7	**40085014AK**
85	B	8	22,5	152,4	143	22	190,5	228	5,4	7	**40085015AK**
85	B	8	20,2	152,4	143	22	190,5	228	5,4	7	**40085016AK**
85	B	8	15,5	140	143	22	190	230	5,4	8	**40085017AK**
85	B	10	20,3	140	143	22	218	260	5,4	7	**40085018AK**

TECHNICAL SPECIFICATIONS

Ø Shaft	Type	Num. of holes	F2	DB	L	A	DA	DC	P	F	Part Number
(mm)			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			
90	B	12	20,5	175	178	25	245	285	5,5	6	**40090014AK**
90	B	12	22,5	145	178	25	190	225	5,5	6	**40090015AK**
90	B	12	24,5	250	178	25	345	390	5,5	7	**40090016AK**
90	B	15	22,5	175	178	25	230	265	5,5	6,5	**40090017AK**
90	B	16	24,5	230	178	25	280	320	5,5	7	**40090018AK**
90	B	18	24,5	220	178	25	310	350	5,5	7,5	**40090019AK**
90	B	8	24,5	152,35	178	25	228,6	279,4	5,5	7,5	**40090020AK**
90	B	6	25	160	178	25	240	287	5,5	7	**40090022AK**
90	B	6	25	190	178	25	270	318	5,5	6	**40090023AK**
90	B	6	21	140	178	25	220	257	5,5	7	**40090024AK**
90	B	6	21	150	178	25	240	278	5,5	7	**40090025AK**
90	B	6	25	180	178	25	240	285	5,5	7	**40090026AK**
90	A	6	20,5	140	178	25	220	254	5,5	5	**40090008AK**
90	A	6	24,5	180	178	25	240	285	5,5	5	**40090021AK**
90	B	8	24,5	200	178	25	260	310	5,5	8	**40090013AK**
100	B	12	20,5	175	208	28	245	285	6,5	6	**40099014AK**
100	B	12	22,5	145	208	28	190	225	6,5	6	**40099015AK**
100	B	12	24,5	250	208	28	345	390	6,5	7	**40099016AK**
100	B	15	22,5	175	208	28	230	265	6,5	6,5	**40099017AK**
100	B	16	24,5	230	208	28	280	320	6,5	7	**40099018AK**
100	B	18	24,5	220	208	28	310	350	6,5	7,5	**40099019AK**
100	B	8	24,5	152,35	208	28	228,6	279,4	6,5	7,5	**40099020AK**
100	B	6	25	160	208	28	240	287	6,5	7	**40099021AK**
100	B	6	25	190	208	28	270	318	6,5	6	**40099022AK**
100	B	6	21	150	208	28	240	278	6,5	7	**40099023AK**
100	B	6	25	180	208	28	240	285	6,5	7	**40099024AK**
100	A	6	28	150	208	28	260	320	6,5	6	**40099025AK**
100	A	6	24,5	160	208	28	240	287	6,5	5	**40099008AK**
100	A	6	24,5	180	208	28	240	285	6,5	5	**40099009AK**
100	B	8	24,5	200	208	28	260	310	6,5	8	**40099013AK**

CONICAL CLAMP-ON COUPLINGS PACK

SHAFT FLANGE BY TYPE OF TRANSMISSION

Ø Shaft	Manufacturer	35	40	45	50	60	65	70
Gearbox								
BW Vdrive	BORG-WARNER	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
BW-71C	BORG-WARNER	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
BW-72C	BORG-WARNER	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
KBW20	KANZAKI	40035006AK	-	-	-	-	-	-
KM4A	KANZAKI	40035006AK	-	-	-	-	-	-
KMH40A	KANZAKI	40035006AK	40040005AK	40045005AK	-	-	-	-
KMH4A	KANZAKI	40035006AK	-	-	-	-	-	-
KMH50A	KANZAKI	-	40040005AK	40045005AK	40050005AK	-	-	-
KMH60A	KANZAKI	-	-	40045006AK	40050006AK	40060006AK	-	-
PRM 160	PRM	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
PRM 260	PRM	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
TM-170	TECHNODRIVE	40035005AK	40040005AK	40045005AK	40050005AK	40060014AK	-	-
TM-265	TECHNODRIVE	-	-	40045006AK	40050006AK	40060006AK	40065006AK	40070006AK
TM-265A	TECHNODRIVE	-	-	40045006AK	40050006AK	40060006AK		
TM-345	TECHNODRIVE	-	40040005AK	-	40050005AK	40060014AK	-	-
TM-345A	TECHNODRIVE	-	40040005AK	40045005AK	40050005AK	40060014AK	-	-
TM-485A	TECHNODRIVE	-	-	40045005AK	40050005AK	40060014AK	-	-
TM-545	TECHNODRIVE	-	40040005AK	-	40050005AK	-	-	-
TM-545A	TECHNODRIVE	40035005AK	40040005AK	40045005AK	40050005AK	40060014AK	-	-
TM-880A	TECHNODRIVE	40035005AK	40040005AK	40045005AK	40050005AK	40060014AK	-	-
TM-93	TECHNODRIVE	40035005AK	40040005AK	40045005AK	40050005AK	40060014AK	-	-
TM-93A	TECHNODRIVE	40035005AK	40040005AK	40045005AK	40050005AK	40060014AK	-	-
MG-5050A	TWIN DISC	-	-	40045006AK	40050006AK	40060006AK	-	-
MG-5061A	TWIN DISC	-	-	40045006AK	40050006AK	40060006AK	-	-
MG-5081A	TWIN DISC	-	-	-	40050011AK	-	-	-
MG-5085A	TWIN DISC	-	-	40045007AK	40050011AK	-	-	-
Volvo HS1A	VOLVO	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
Volvo HS45A	VOLVO	40035005AK	40040005AK	-	-	-	-	-
Volvo HS63AE	VOLVO	40035005AK	40040005AK	-	-	-	-	-
Volvo HS63IV	VOLVO	40035005AK	40040005AK	-	-	-	-	-
Volvo HS80EA	VOLVO	-	40040006AK	40045009AK	-	-	-	-
Volvo MS1	VOLVO	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
Volvo MS4	VOLVO	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
IRM220A	ZF	-	40040009AK	40045013AK	40050008AK	-	-	-
ZF 220	ZF	-	-	-	40050006AK	-	-	-
ZF 280	ZF	-	-	-	40050006AK	-	-	-
ZF 280A	ZF	-	-	40045006AK	40050006AK	40060006AK	-	-
ZF 286A	ZF	-	-	-	40050006AK	-	-	-
ZF 305A	ZF	-	-	40045010AK	40050010AK	40060013AK	-	-
ZF 325IV	ZF	-	-	-	40050013AK	-	-	40070008AK
ZF 360H	ZF	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
ZF 450AH	ZF	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
ZF 45A	ZF	40035005AK	-	40045005AK	-	-	-	-
ZF 630AH	ZF	40035005AK	40040005AK	40045005AK	40050005AK	-	-	-
ZF E630V	ZF	-	-	-	40050007AK	-	-	-
ZF 630V	ZF	-	-	-	40050007AK	-	-	-
ZF 63IV	ZF	-	40040008AK	40045011BK	-	-	-	-
ZF 800VI	ZF	-	-	-	40050009AK	-	-	-
ZF 80A	ZF	-	40040006AK	40045009AK	40050006AK	40060006AK	-	-
ZF 80IV	ZF	-	-	-	-	-	-	-

SHAFT FLANGE BY TYPE OF TRANSMISSION

Ø Shaft	Manufacturer	60	65	70	75	80	85	90	100
Gearbox									
DMT 150H	DONG-I	-	-	40070010AK	40075010AK	40080010AK	-	-	-
DMT 170HL	DONG-I	-	-	-	-	-	40085014AK	40090022AK	40099021AK
DMT 180HL	DONG-I	-	-	-	-	-	40085014AK	40090022A	40099021A
DMT190HL	DONG-I	-	-	-	-	-	-	40090023AK	40099022AK
DMT 190H	DONG-I	-	-	40070011AK	40075011AK	40080011AK	40085011AK		
DMT220DL	DONG-I	-	-	-	-	-	-	40090022AK	40099021AK
DMT 240H	DONG-I	-	-	-	40075011AK	40080011AK	40085011AK	40090024AK	-
DMT 260H	DONG-I	-	-	-	-	40080013AK	40085013AK	40090025AK	40099023AK
DMT260HL	DONG-I	-	-	-	-	-	-	40090023AK	40099022AK
DMT 280H	DONG-I	-	-	-	-	-	40085013AK	40090025AK	40099023AK
DMT300HL	DONG-I	-	-	-	-	-	-	40090023AK	40099022AK
DMT330DL	DONG-I	-	-	-	-	-	-	40090023AK	40099022AK
DMT400H	DONG-I	-	-	-	-	-	-	40090026AK	40099024AK
DMT430H	DONG-I	-	-	-	-	-	-	-	40099025AK
DMT550H	DONG-I	-	-	-	-	-	-	40090026AK	40099024AK
Masson NE3	MASSON	-	-	40070013AK	-	40080016AK	-	-	-
MASSON NF3	MASSON	-	-	-	-	40080017AK	40085017AK	-	-
ML 180	MASSON	-	-	-	-	-	-	-	40099008AK
ML 225	MASSON	-	-	-	-	-	-	40090008AK	-
ML 415	MASSON	-	-	-	-	-	-	40090021AK	40099009AK
MM W4000	MASSON	-	-	-	-	-	-	40090013AK	40099013AK
PRM 1500	PRM	-	-	40070007AK	40075007AK	40080007AK	40085007AK	-	-
PRM 1750	PRM	-	-	40070007AK	40075007AK	40080007AK	40085007AK	-	-
TM-200	TECHNODRIVE	40060008AK	40065007AK					-	-
TM-1200A	TECHNODRIVE	-	40065007AK	-	-	-	-	-	-
MG 5114 SC	TWIN DISC	-	-	-	-	40080014AK	40085015AK	-	-
MG 5135 SC	TWIN DISC	-	-	-	-	40080015AK	40085016AK	-	-
MG-5065-A	TWIN DISC	-	40065009AK	-	-	-	-	-	-
MG-5065-SC	TWIN DISC	-	40065009AK	-	-	-	-	-	-
MG-5082-A	TWIN DISC	-	-	40070012AK	-	-	-	-	-
MG-5082-SC	TWIN DISC	-	-	40070012AK	-	-	-	-	-
MG-5095-A	TWIN DISC	-	-	40070012AK	40075013AK	-	-	-	-
MG-5095-SC	TWIN DISC	-	-	40070012AK	40075013AK	-	-	-	-
MG-5114-A	TWIN DISC	-	-	-	40075014AK	-	-	-	-
MG-5114-SC	TWIN DISC	-	-	-	40075014AK	-	-	-	-
IRM325A	ZF	40060007AK	-	-	-	-	-	-	-
ZF 63A	ZF	40060014AK	-	-	-	-	-	-	-
ZF 305	ZF	-	40065013AK	-	-	-	-	-	-
ZF 311A	ZF	40060009AK	-	-	-	-	-	-	-
ZF 325	ZF	-	-	40070008AK	-	-	-	-	-
ZF 325-1	ZF	-	40065008AK	40070008AK	40075008AK	-	-	-	-
ZF 325-1A	ZF	-	40065008AK	40070008AK	-	-	-	-	-
ZF 325A	ZF	-	-	40070008AK	-	-	-	-	-
ZF 335A	ZF	-	-	40070009AK	40075009AK	-	-	-	-
ZF 360	ZF	-	40065008AK	40070009AK	40075009AK	40080009AK	-	-	-
ZF 360A	ZF	-	40065008AK	40070009AK	40075009AK	40080009AK	-	-	-
ZF 360IV	ZF	-	-	40070009AK	40075009AK	-	-	-	-
ZF W320	ZF	-	-	-	40075012AK	40080012AK	40085012AK	-	-
ZF W350-1	ZF	-	-	-	-	-	40085018AK	-	-
ZF 2200	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF 2250	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF 2260	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF 2270	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF 2275	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF 2300	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF 2350	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF 2360	ZF	-	-	-	-	-	-	40090014AK	40099014AK

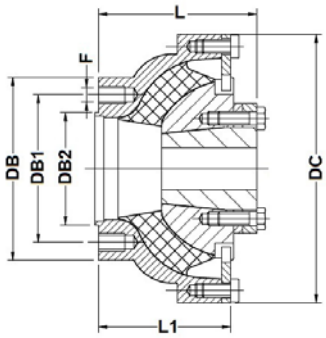
CONICAL CLAMP-ON COUPLINGS PACK

SHAFT FLANGE BY TYPE OF TRANSMISSION

Ø Shaft	Manufacturer	60	65	70	75	80	85	90	100
Gearbox									
ZF 2370	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF 2375	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF 3000	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3000 A	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3050	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3050 A	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3055	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3055 A	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3060	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3060 A	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3070	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3070 A	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3150 A	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3160 A	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3170 A	ZF	-	-	-	-	-	-	40090015AK	40099015AK
ZF 3310	ZF	-	-	-	-	-	-	40090016AK	40099016AK
ZF 3350	ZF	-	-	-	-	-	-	40090016AK	40099016AK
ZF 3360	ZF	-	-	-	-	-	-	40090016AK	40099016AK
ZF 3370	ZF	-	-	-	-	-	-	40090016AK	40099016AK
ZF 5000	ZF	-	-	-	-	-	-	40090017AK	40099017AK
ZF 5000 A	ZF	-	-	-	-	-	-	40090017AK	40099017AK
ZF 5050	ZF	-	-	-	-	-	-	40090017AK	40099017AK
ZF 5050 A	ZF	-	-	-	-	-	-	40090017AK	40099017AK
ZF 5055	ZF	-	-	-	-	-	-	40090017AK	40099017AK
ZF 5055 A	ZF	-	-	-	-	-	-	40090017AK	40099017AK
ZF 5060	ZF	-	-	-	-	-	-	40090017AK	40099017AK
ZF 5060 A	ZF	-	-	-	-	-	-	40090017AK	40099017AK
ZF 5200 A	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF 5250 A	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF 5260 A	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF 5300	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF 5350	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF 5360	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF 7600	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 7600 A	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 7650	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 7650 A	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 8000	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 8000 A	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 8050	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 8050 A	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 8055	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 8060	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 8060 A	ZF	-	-	-	-	-	-	40090018AK	40099018AK
ZF 9055	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF 9055 A	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF 9060	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF 9060 A	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF W2300	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF W2350	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF W2450	ZF	-	-	-	-	-	-	40090014AK	40099014AK
ZF W3310	ZF	-	-	-	-	-	-	40090016AK	40099016AK
ZF W3350	ZF	-	-	-	-	-	-	40090016AK	40099016AK
ZF W3355	ZF	-	-	-	-	-	-	40090016AK	40099016AK
ZF W3710	ZF	-	-	-	-	-	-	40090016AK	40099016AK
ZF W5300	ZF	-	-	-	-	-	-	40090019AK	40099019AK
ZF W650	ZF	-	-	-	-	-	-	40090020AK	40099020AK

CENTAFLEX FLEXIBLE COUPLING

This flexible connection resolves slight temporary misalignments and centring the shaft line. It also has the benefit of being easy to assemble, withstanding a 2° tolerance on the alignment and centring of the shaft over the inverter plate.



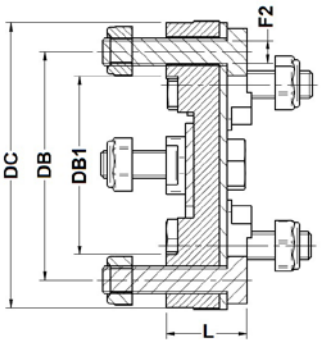
SELECTION EXAMPLE

P'= ENGINE POWER = 40 HP
N = maximum engine rpm = 3000 rpm
R = Gearbox Reduction Ratio = 2:1 = 2
N'= Shaft Revolutions = N / R = 3000 / 2 = 1500 rpm
P = Coupling - Permissible Power P = $\frac{N'}{100}$ x f → P_>P'
Our engine has an SMI-R3 (ØD=63.5)gearbox, so we look in the catalogue for a coupling that fits the gearbox's flange. We choose the 400.25.200 and determine its admissible power P.
P = (1500 7 100)x2.8 = 42 CV ≥ 40 CV → correct

Ø Shaft	DB	F	DB1	DB2	L1	L	DC	FC*	Part Number
(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)		
25	102	M10	82,5	63,5	75	95	150	2,8	**40025200**
30	102	M10	82,5	63,5	75	95	150	2,8	**40030200**
30	127	M10	82,5	63,5	97	125	195	5,6	**40030210**
35	127	M10	82,5	63,5	97	125	195	5,6	**40035200**

R&D FLEXIBLE COUPLING

The semi-elastic connections are made from hard but elastic polyurethane and can withstand slight temporary misalignments of the engine and the shaft. They are supplied with the necessary bolts and nuts to be installed.

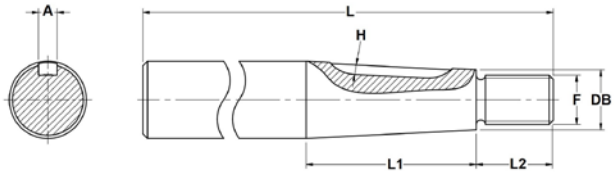


DC	F2	DB	DB1	L	FC*	Part Number
(mm)		(mm)	(mm)	(mm)		
102	4x9,9	82,55	63,5	28	3	**40025100**
102	4x9,9	82,55	63,5	31	8	**40030100**
142	4x11,2	108	63,5	41	13	**40040100**
142	4x11,2	108	63,5	52	20	**40045100**
152,4	6x12	120,6	102	55,4	37	**40050102**
155	6x16	120,6	76,2	50	28	**40050100**
223	10x18	170	140	124	75	**40050101**

**FC =power hp x 100 rpm on shaft*

DIAMETER FROM 25 TO 50 MM SHAFT PACK

The AISI-329 stainless steel marine shafts are highly durable and very strong, thanks to the high quality of their material. They are machined at the propeller side and include a key, nut with galvanic anode and lock washer. They are available in diameters of between 25 and 50 millimetres and a conicity of 1:10 under ISO-4566 standards. AISI-329 has superior mechanical properties to standard steel and allows the shaft to withstand greater stresses with a smaller diameter. This is advantageous for ships that need to increase their engine power and want to keep the old stern tube and shaft brackets, with significant economic savings when installing a new engine.

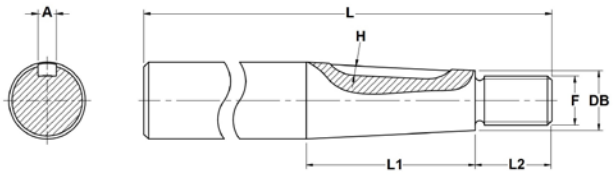


Ø Shaft	DB	A	F	H	L	L1	L2	Rotation	Part Number
(mm)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)		
25	19,5	6	M16x1,5	3,5	1200	55	25	LH	**40325120AM**
25	19,5	6	M16x1,5	3,5	1600	55	25	LH	**40325160AM**
25	19,5	6	M16x1,5	3,5	2000	55	25	LH	**40325200AM**
25	19,5	6	M16x1,5	3,5	2400	55	25	LH	**40325240AM**
25	19,5	6	M16x1,5	3,5	3000	55	25	LH	**40325300AM**
25	19,5	6	M16x1,5	3,5	4000	55	25	LH	**40325400AM**
25	19,5	6	M16x1,5	3,5	6000	55	25	LH	**40325600AM**
25	19,5	6	M16x1,5	4	1200	55	25	RH	**40425120AM**
25	19,5	6	M16X1,5	4	1600	55	25	RH	**40425160AM**
25	19,5	6	M16X1,5	4	2000	55	25	RH	**40425200AM**
25	19,5	14	M16X1,5	4	2400	55	25	RH	**40425240AM**
25	19,5	14	M16X1,5	4	3000	55	25	RH	**40425300AM**
25	19,5	14	M16X1,5	4	4000	55	25	RH	**40425400AM**
25	19,5	14	M16X1,5	4	6000	55	25	RH	**40425600AM**
30	22,7	8	M20x1,5	4	1200	73	25	LH	**40330120AM**
30	22,7	8	M20x1,5	4	1600	73	25	LH	**40330160AM**
30	22,7	8	M20x1,5	4	2000	73	25	LH	**40330200AM**
30	22,7	8	M20x1,5	4	2400	73	25	LH	**40330240AM**
30	22,7	8	M20x1,5	4	3000	73	25	LH	**40330300AM**
30	22,7	8	M20x1,5	4	4000	73	25	LH	**40330400AM**
30	22,7	8	M20x1,5	4	6000	73	25	LH	**40330600AM**
30	22,7	8	M20x1,5	4	1200	73	25	RH	**40430120AM**
30	22,7	8	M20x1,5	4	1600	73	25	RH	**40430160AM**
30	22,7	8	M20x1,5	4	2000	73	25	RH	**40430200AM**
30	22,7	8	M20x1,5	4	2400	73	25	RH	**40430240AM**
30	22,7	8	M20x1,5	4	3000	73	25	RH	**40430300AM**
30	22,7	8	M20x1,5	4	4000	73	25	RH	**40430400AM**
30	22,7	8	M20x1,5	4	6000	73	25	RH	**40430600AM**

Ø Shaft	DB	A	F	H	L	L1	L2	Rotation	Part Number
(mm)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)		
35	26,6	10	M24x2	5	1200	84	32	LH	**40335120AM**
35	26,6	10	M24x2	5	1600	84	32	LH	**40335160AM**
35	26,6	10	M24x2	5	2000	84	32	LH	**40335200AM**
35	26,6	10	M24x2	5	2400	84	32	LH	**40335240AM**
35	26,6	10	M24x2	5	3000	84	32	LH	**40335300AM**
35	26,6	10	M24x2	5	4000	84	32	LH	**40335400AM**
35	26,6	10	M24x2	5	6000	84	32	LH	**40335600AM**
35	26,6	10	M24x2	5	1200	84	32	RH	**40435120AM**
35	26,6	10	M24x2	5	1600	84	32	RH	**40435160AM**
35	26,6	10	M24x2	5	2000	84	32	RH	**40435200AM**
35	26,6	10	M24x2	5	2400	84	32	RH	**40435240AM**
35	26,6	10	M24x2	5	3000	84	32	RH	**40435300AM**
35	26,6	10	M24x2	5	4000	84	32	RH	**40435400AM**
35	26,6	10	M24x2	5	6000	84	32	RH	**40435600AM**
40	30,6	12	M24x2	5	1600	94	32	LH	**40340160AM**
40	30,6	12	M24x2	5	2000	94	32	LH	**40340200AM**
40	30,6	12	M24x2	5	2400	94	32	LH	**40340240AM**
40	30,6	12	M24x2	5	3000	94	32	LH	**40340300AM**
40	30,6	12	M24x2	5	4000	94	32	LH	**40340400AM**
40	30,6	12	M24x2	5	6000	94	32	LH	**40340600AM**
40	30,6	12	M24X2	5	1600	94	32	RH	**40440160AM**
40	30,6	12	M24X2	5	2000	94	32	RH	**40440200AM**
40	30,6	12	M24X2	5	2400	94	32	RH	**40440240AM**
40	30,6	12	M24x2	5	3000	94	32	RH	**40440300AM**
40	30,6	12	M24x2	5	4000	94	32	RH	**40440400AM**
40	30,6	12	M24x2	5	6000	94	32	RH	**40440600AM**
45	34,6	14	M30x2	5,5	1600	104	40	LH	**40345160AM**
45	34,6	14	M30x2	5,5	2000	104	40	LH	**40345200AM**
45	34,6	14	M30x2	5,5	2400	104	40	LH	**40345240AM**
45	34,6	14	M30x2	5,5	3000	104	40	LH	**40345300AM**
45	34,6	14	M30x2	5,5	4000	104	40	LH	**40345400AM**
45	34,6	14	M30x2	5,5	6000	104	40	LH	**40345600AM**
45	34,6	14	M30X2	6	1600	104	40	RH	**40445160AM**
45	34,6	14	M30X2	6	2000	104	40	RH	**40445200AM**
45	34,6	14	M30X2	6	2400	104	40	RH	**40445240AM**
45	34,6	14	M30x2	5,5	3000	104	40	RH	**40445300AM**
45	34,6	14	M30x2	5,5	4000	104	40	RH	**40445400AM**
45	34,6	14	M30x2	5,5	6000	104	40	RH	**40445600AM**
50	39	14	M36x3	5,5	2000	110	40	LH	**40350200AM**
50	39	14	M36x3	5,5	3000	110	40	LH	**40350300AM**
50	39	14	M36x3	5,5	4000	110	40	LH	**40350400AM**
50	39	14	M36x3	5,5	6000	110	40	LH	**40350600AM**
50	39	14	M36x3	5,5	2000	110	40	RH	**40450200AM**
50	39	14	M36x3	5,5	3000	110	40	RH	**40450300AM**
50	39	14	M36x3	5,5	4000	110	40	RH	**40450400AM**
50	39	14	M36x3	5,5	6000	110	40	RH	**40450600AM**

DIAMETER FROM 60 TO 100 MM SHAFT PACK

The AISI-329 stainless steel marine shafts are highly durable and very strong, thanks to the high quality of their material. They are machined at the propeller side and include a key, nut with galvanic anode and lock washer. They are available in diameters of between 60 and 100 millimetres and a conicity of 1:10 under ISO-4566 standards. AISI-329 has superior mechanical properties to standard steel and allows the shaft to withstand greater stresses with a smaller diameter. This is advantageous for ships that need to increase their engine power and want to keep the old stern tube and shaft brackets, with significant economic savings when installing a new engine.

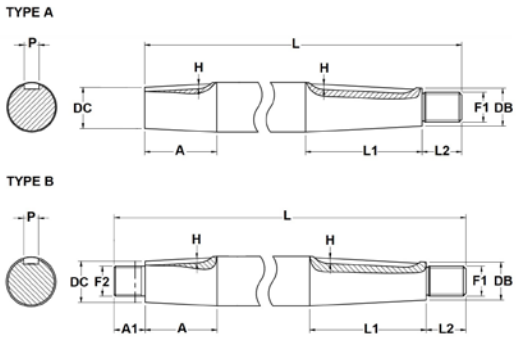


Ø Shaft	DB	A	F	H	L	L1	L2	Rotation	Part Number
(mm)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)		
60	47	18	M42x3	7	2000	130	50	LH	**40360200AM**
60	47	18	M42x3	7	3000	130	50	LH	**40360300AM**
60	47	18	M42x3	7	4000	130	50	LH	**40360400AM**
60	47	18	M42x3	7	6000	130	50	LH	**40360600AM**
60	47	18	M42x3	7	2000	130	50	RH	**40460200AM**
60	47	18	M42x3	7	3000	130	50	RH	**40460300AM**
60	47	18	M42x3	7	4000	130	50	RH	**40460400AM**
60	47	18	M42x3	7	6000	130	50	RH	**40460600AM**
65	51	18	M42x3	7	2000	140	50	LH	**40365200AM**
65	51	18	M42x3	7	3000	140	50	LH	**40365300AM**
65	51	18	M42x3	7	4000	140	50	LH	**40365400AM**
65	51	18	M42x3	7	6000	140	50	LH	**40365600AM**
65	51	18	M42x3	7	2000	140	50	RH	**40465200AM**
65	51	18	M42x3	7	3000	140	50	RH	**40465300AM**
65	51	18	M42x3	7	4000	140	50	RH	**40465400AM**
65	51	18	M42x3	7	6000	140	50	RH	**40465600AM**
70	55	20	M45x3	7,5	2000	150	60	LH	**40370200AM**
70	55	20	M45x3	7,5	3000	150	60	LH	**40370300AM**
70	55	20	M45x3	7,5	4000	150	60	LH	**40370400AM**
70	55	20	M45x3	7,5	6000	150	60	LH	**40370600AM**
70	55	20	M45x3	7,5	2000	150	60	RH	**40470200AM**
70	55	20	M45x3	7,5	3000	150	60	RH	**40470300AM**
70	55	20	M45x3	7,5	4000	150	60	RH	**40470400AM**
70	55	20	M45x3	7,5	6000	150	60	RH	**40470600AM**

Ø Shaft	DB	A	F	H	L	L1	L2	Rotation	Part Number
(mm)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)		
75	58,5	20	M45x3	7,5	2000	165	60	LH	**40375200AM**
75	58,5	20	M45x3	7,5	3000	165	60	LH	**40375300AM**
75	58,5	20	M45x3	7,5	4000	165	60	LH	**40375400AM**
75	58,5	20	M45x3	7,5	6000	165	60	LH	**40375600AM**
75	58,5	20	M45x3	7,5	2000	165	60	RH	**40475200AM**
75	58,5	20	M45x3	7,5	3000	165	60	RH	**40475300AM**
75	58,5	20	M45x3	7,5	4000	165	60	RH	**40475400AM**
75	58,5	20	M45x3	7,5	6000	165	60	RH	**40475600AM**
80	62,5	22	M56x4	9	2000	175	70	LH	**40380200AM**
80	62,5	22	M56x4	9	3000	175	70	LH	**40380300AM**
80	62,5	22	M56x4	9	4000	175	70	LH	**40380400AM**
80	62,5	22	M56x4	9	6000	175	70	LH	**40380600AM**
80	62,5	22	M56x4	9	2000	175	70	RH	**40480200AM**
80	62,5	22	M56x4	9	3000	175	70	RH	**40480300AM**
80	62,5	22	M56x4	9	4000	175	70	RH	**40480400AM**
80	62,5	22	M56x4	9	6000	175	70	RH	**40480600AM**
85	66,5	22	M56x4	9	2000	185	70	LH	**40385200AM**
85	66,5	22	M56x4	9	3000	185	70	LH	**40385300AM**
85	66,5	22	M56x4	9	4000	185	70	LH	**40385400AM**
85	66,5	22	M56x4	9	6000	185	70	LH	**40385600AM**
85	66,5	22	M56x4	9	2000	185	70	RH	**40485200AM**
85	66,5	22	M56x4	9	3000	185	70	RH	**40485300AM**
85	66,5	22	M56x4	9	4000	185	70	RH	**40485400AM**
85	66,5	22	M56x4	9	6000	185	70	RH	**40485600AM**
90	71	25	M64X4	9	2000	190	75	LH	**40390200AM**
90	71	25	M64X4	9	3000	190	75	LH	**40390300AM**
90	71	25	M64X4	9	4000	190	75	LH	**40390400AM**
90	71	25	M64X4	9	6000	190	75	LH	**40390600AM**
90	71	25	M64X4	9	2000	190	75	RH	**40490200AM**
90	71	25	M64X4	9	3000	190	75	RH	**40490300AM**
90	71	25	M64X4	9	4000	190	75	RH	**40490400AM**
90	71	25	M64X4	9	6000	190	75	RH	**40490600AM**
100	78,5	28	M64X4	10	2000	215	85	LH	**40399200AM**
100	78,5	28	M64X4	10	3000	215	85	LH	**40399300AM**
100	78,5	28	M64X4	10	4000	215	85	LH	**40399400AM**
100	78,5	28	M64X4	10	6000	215	85	LH	**40399600AM**
100	78,5	28	M64X4	10	2000	215	85	RH	**40499200AM**
100	78,5	28	M64X4	10	3000	215	85	RH	**40499300AM**
100	78,5	28	M64X4	10	4000	215	85	RH	**40499400AM**
100	78,5	28	M64X4	10	6000	215	85	RH	**40499600AM**

DIAMETER FROM 25 TO 50 MM DOUBLE TAPERED SHAFT PACK

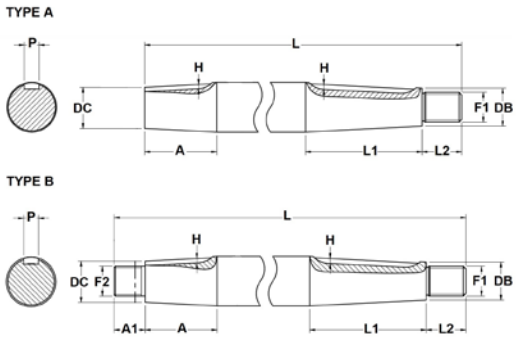
The AISI-329 stainless steel machine shafts are machined at both ends and include a cotter pin, nut and washer, with a 1:10 conicity and available in diameters of 25 to 50 mm. The good properties of AISI-329 stainless steel enables the marine shafts to withstand extremely high stresses with small diameters. These features make them a great option if you want to keep the old stern tube and shaft brackets when increasing the power of the marine engine, with significant economic savings.



Ø Shaft	Type	L	F1	L2	L1	A	P	H	DB	DC	F2	A1	Part Number
(mm)		(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	
25	B	2000	M16x1,5	25	55	43	6	3,5	19,5	20,7	M16x1,5	25	**40925200AM**
25	B	3000	M16x1,5	25	55	43	6	3,5	19,5	20,7	M16x1,5	25	**40925300AM**
25	B	4000	M16x1,5	25	55	43	6	3,5	19,5	20,7	M16x1,5	25	**40925400AM**
25	B	6000	M16x1,5	25	55	43	6	3,5	19,5	20,7	M16x1,5	25	**40925600AM**
30	B	2000	M20x1,5	25	73	43	8	4	22,7	25,7	M20x1,5	25	**40930200AM**
30	B	3000	M20x1,5	25	73	43	8	4	22,7	25,7	M20x1,5	25	**40930300AM**
30	B	4000	M20x1,5	25	73	43	8	4	22,7	25,7	M20x1,5	25	**40930400AM**
30	B	6000	M20x1,5	25	73	43	8	4	22,7	25,7	M20x1,5	25	**40930600AM**
35	B	1200	M24x2	32	84	58	10	5	26,6	29,2	M24x2	25	**40935120AM**
35	B	1600	M24x2	32	84	58	10	5	26,6	29,2	M24x2	25	**40935160AM**
35	B	2000	M24x2	32	84	58	10	5	26,6	29,2	M24x2	25	**40935200AM**
35	B	3000	M24x2	32	84	58	10	5	26,6	29,2	M24x2	25	**40935300AM**
35	B	4000	M24x2	32	84	58	10	5	26,6	29,2	M24x2	25	**40935400AM**
35	B	6000	M24x2	32	84	58	10	5	26,6	29,2	M24x2	25	**40935600AM**
40	B	1600	M24x2	32	94	58	12	5	30,6	34,2	M24x2	25	**40940160AM**
40	B	2000	M24x2	32	94	58	12	5	30,6	34,2	M24x2	25	**40940200AM**
40	B	3000	M24x2	32	94	58	12	5	30,6	34,2	M24x2	25	**40940300AM**
40	B	4000	M24x2	32	94	58	12	5	30,6	34,2	M24x2	25	**40940400AM**
40	B	6000	M24x2	32	94	58	12	5	30,6	34,2	M24x2	25	**40940600AM**
45	B	1600	M30x2	40	104	58	14	5,5	34,6	39,2	M27x2	27	**40945160AM**
45	B	2000	M30x2	40	104	58	14	5,5	34,6	39,2	M27x2	27	**40945200AM**
45	B	3000	M30x2	40	104	58	14	5,5	34,6	39,2	M27x2	27	**40945300AM**
45	B	4000	M30x2	40	104	58	14	5,5	34,6	39,2	M27x2	27	**40945400AM**
50	A	2000	M36x3	40	110	58	14	5,5	39	44,2	-	-	**40950200AM**
50	A	3000	M36x3	40	110	58	14	5,5	39	44,2	-	-	**40950300AM**
50	A	4000	M36x3	40	110	58	14	5,5	39	44,2	-	-	**40950400AM**
50	A	6000	M36x3	40	110	58	14	5,5	39	44,2	-	-	**40950600AM**

DIAMETER FROM 60 TO 100 MM DOUBLE TAPARED SHAFT PACK

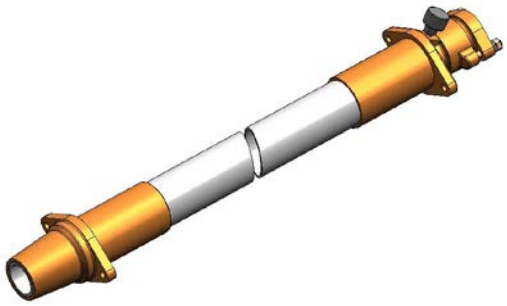
The AISI-329 stainless steel machine shafts are machined at both ends and include a cotter pin, nut and washer, with a 1:10 conicity and available in diameters of 60 to 100 mm. The good properties of AISI-329 stainless steel enables the marine shafts to withstand extremely high stresses with small diameters. These features make them a great option if you want to keep the old stern tube and shaft brackets when increasing the power of the marine engine, with significant economic savings.

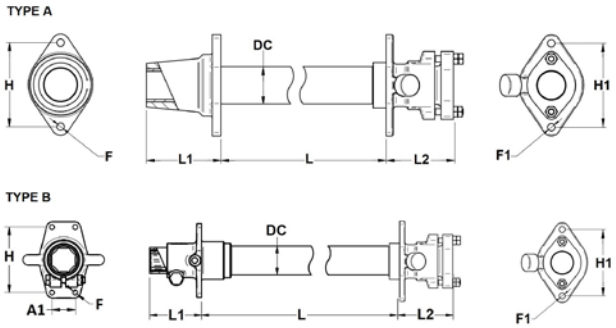


Ø Shaft	Type	L	F1	L2	L1	A	P	H	DB	DC	F2	A1	Part Number
(mm)		(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	
60	A	2000	M42X3	50	130	65	18	7	47	53,5	-	-	40960200AM
60	A	3000	M42X3	50	130	65	18	7	47	53,5	-	-	40960300AM
60	A	4000	M42X3	50	130	65	18	7	47	53,5	-	-	40960400AM
60	A	6000	M42X3	50	130	65	18	7	47	53,5	-	-	40960600AM
65	A	2000	M42X3	50	140	72	18	7	51	57,5	-	-	40965200AM
65	A	3000	M42X3	50	140	72	18	7	51	57,5	-	-	40965300AM
65	A	4000	M42X3	50	140	72	18	7	51	57,5	-	-	40965400AM
65	A	6000	M42X3	50	140	72	18	7	51	57,5	-	-	40965600AM
70	A	2000	M45X3	60	150	80	20	7,5	55	62	-	-	40970200AM
70	A	3000	M45X3	60	150	80	20	7,5	55	62	-	-	40970300AM
70	A	4000	M45X3	60	150	80	20	7,5	55	62	-	-	40970400AM
70	A	6000	M45X3	60	150	80	20	7,5	55	62	-	-	40970600AM
75	A	2000	M45X3	60	165	85	20	7,5	58,5	66,5	-	-	40975200AM
75	A	3000	M45X3	60	165	85	20	7,5	58,5	66,5	-	-	40975300AM
75	A	4000	M45X3	60	165	85	20	7,5	58,5	66,5	-	-	40975400AM
75	A	6000	M45X3	60	165	85	20	7,5	58,5	66,5	-	-	40975600AM
80	A	2000	M56X4	70	175	95	22	9	62,5	70,5	-	-	40980200AM
80	A	3000	M56X4	70	175	95	22	9	62,5	70,5	-	-	40980300AM
80	A	4000	M56X4	70	175	95	22	9	62,5	70,5	-	-	40980400AM
80	A	6000	M56X4	70	175	95	22	9	62,5	70,5	-	-	40980600AM
85	A	2000	M56X4	70	185	105	22	9	66,5	74,5	-	-	40985200AM
85	A	3000	M56X4	70	185	105	22	9	66,5	74,5	-	-	40985300AM
85	A	4000	M56X4	70	185	105	22	9	66,5	74,5	-	-	40985400AM
85	A	6000	M56X4	70	185	105	22	9	66,5	74,5	-	-	40985600AM
90	A	2000	M64X4	75	190	135	25	9	71	76,5	-	-	40990200AM
90	A	3000	M64X4	75	190	135	25	9	71	76,5	-	-	40990300AM
90	A	4000	M64X4	75	190	135	25	9	71	76,5	-	-	40990400AM
90	A	6000	M64X4	75	190	135	25	9	71	76,5	-	-	40990600AM
100	A	2000	M64X4	85	215	165	28	10	78,5	83,5	-	-	40999200AM
100	A	3000	M64X4	85	215	165	28	10	78,5	83,5	-	-	40999300AM
100	A	4000	M64X4	85	215	165	28	10	78,5	83,5	-	-	40999400AM
100	A	6000	M64X4	85	215	165	28	10	78,5	83,5	-	-	40999600AM

RIGID STERNTUBE

The A-316 rigid stern tubes are hollow structural elements that contain the shaft. Made completely from AISI-316 stainless steel, they are perfect for diameters up to 70 mm. Their rigid stuffing box means that they have excellent performance, high durability and low maintenance. They must be installed in marine engines on rigid frame.

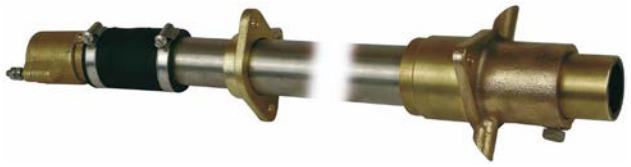


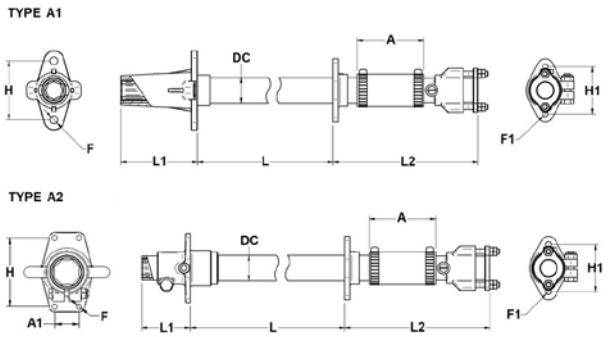


ø Shaft	Type	DC	L	L1	L2	F	H	A1	F1	H1	Part Number
(mm)		(mm)	(mm)	(mm)	(mm)		(mm)	(mm)		(mm)	
25	A	40	500	95	77	4x9,5	78	25	2x10,5	90	**48225050**
25	A	40	1000	95	77	4x9,5	78	25	2x10,5	90	**48225100**
25	A	40	1500	95	77	4x9,5	78	25	2x10,5	90	**48225150**
25	A	40	2000	95	77	4x9,5	78	25	2x10,5	90	**48225200**
25	A	40	2500	95	77	4x9,5	78	25	2x10,5	90	**48225250**
30	A	44,5	500	120	90	2x12	98	-	2x9	63	**48230050**
30	A	44,5	1000	120	90	2x12	98	-	2x9	63	**48230100**
30	A	44,5	1500	120	90	2x12	98	-	2x9	63	**48230150**
30	A	44,5	2000	120	90	2x12	98	-	2x9	63	**48230200**
30	A	44,5	2500	120	90	2x12	98	-	2x9	63	**48230250**
35	A	44,5	500	120	90	2x13	102	-	2x12	106	**48235050**
35	A	44,5	1000	120	90	2x13	102	-	2x12	106	**48235100**
35	A	44,5	1500	120	90	2x13	102	-	2x12	106	**48235150**
35	A	44,5	2000	120	90	2x13	102	-	2x12	106	**48235200**
35	A	44,5	2500	120	90	2x13	102	-	2x12	106	**48235250**
40	B	60,3	500	115	90	4x8,5	112	40	2x12	106	**48240050**
40	B	60,3	1000	115	90	4x8,5	112	40	2x12	106	**48240100**
40	B	60,3	1500	115	90	4x8,5	112	40	2x12	106	**48240150**
40	B	60,3	2000	115	90	4x8,5	112	40	2x12	106	**48240200**
40	B	60,3	2500	115	90	4x8,5	112	40	2x12	106	**48240250**
45	B	63	500	123	110	4x8	112	40	2x12	135	**48245050**
45	B	63	1000	123	110	4x8	112	40	2x12	135	**48245100**
45	B	63	1500	123	110	4x8	112	40	2x12	135	**48245150**
45	B	63	2000	123	110	4x8	112	40	2x12	135	**48245200**
45	B	63	2500	123	110	4x8	112	40	2x12	135	**48245250**
50	B	76	500	136	110	4x9	130	50	2x12	135	**48250050**
50	B	76	1000	136	110	4x9	130	50	2x12	135	**48250100**
50	B	76	1500	136	110	4x9	130	50	2x12	135	**48250150**
50	B	76	2000	136	110	4x9	130	50	2x12	135	**48250200**
50	B	76	2500	136	110	4x9	130	50	2x12	135	**48250250**
60	A	89	1000	224	173	4x12,5	136	70	4x12,5	136	**48260100.1**

FLOATING STERNTUBE WITH STUFFING BOX

Complete floating stern tube including rubber bearing and AISI-316 stainless steel stern tube.

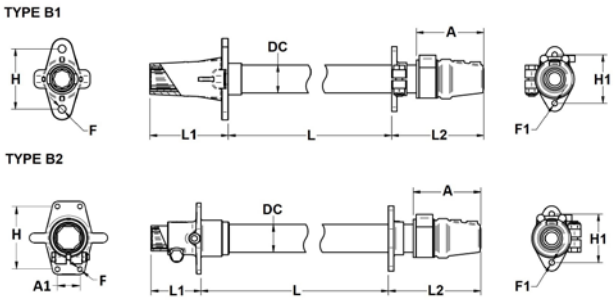




ø Shaft	Type	DC	L	L1	L2	F	H	A1	A	F1	H1	Part Number
(mm)		(mm)	(mm)	(mm)	(mm)		(mm)	(mm)	(mm)		(mm)	
25	A1	40	500	120	262	2x12	92	-	104	2x8,5	74	**49025050**
25	A1	40	1000	120	362	2x12	92	-	104	2x8,5	74	**49025100**
25	A1	40	1500	120	262	2x12	92	-	104	2x8,5	74	**49025150**
25	A2	40	500	81	262	2x8,5	86	-	104	2x8,5	74	**49125050**
25	A2	40	1000	81	362	2x8,5	86	-	104	2x8,5	74	**49125100**
25	A2	40	1500	81	262	2x8,5	86	-	104	2x8,5	74	**49125150**
30	A1	44,5	500	120	263	2x12	98	-	105	2x8,5	78	**49030050**
30	A1	44,5	1000	120	363	2x12	98	-	105	2x8,5	78	**49030100**
30	A1	44,5	1500	120	263	2x12	98	-	105	2x8,5	78	**49030150**
30	A2	44,5	500	75	263	2x8,5	94	-	105	2x8,5	78	**49130050**
30	A2	44,5	1000	75	363	2x8,5	94	-	105	2x8,5	78	**49130100**
30	A2	44,5	1500	75	263	2x8,5	94	-	105	2x8,5	78	**49130150**
35	A1	48,3	500	160	265	2x12	120	-	100	2x8,5	80	**49035050**
35	A1	48,3	1000	160	365	2x12	120	-	100	2x8,5	80	**49035100**
35	A1	48,3	1500	160	265	2x12	120	-	100	2x8,5	80	**49035150**
35	A2	48,3	500	105	265	2x10,5	98	-	100	2x8,5	80	**49135050**
35	A2	48,3	1000	105	365	2x10,5	98	-	100	2x8,5	80	**49135100**
35	A2	48,3	1500	105	265	2x10,5	98	-	100	2x8,5	80	**49135150**
40	A2	60,3	500	115	256	4x8,5	112	40	100	4x8,5	112	**49140050**
40	A2	60,3	1000	115	356	4x8,5	112	40	100	4x8,5	112	**49140100**
40	A2	60,3	1500	115	256	4x8,5	112	40	100	4x8,5	112	**49140150**
45	A2	60,3	500	123	275	4x8	112	40	125	4x8,5	112	**49145050**
45	A2	60,3	1000	123	375	4x8	112	40	125	4x8,5	112	**49145100**
45	A2	60,3	1500	123	275	4x8	112	40	125	4x8,5	112	**49145150**
50	A2	76	500	136	260	4x9	130	50	105	4x9	130	**49150050**
50	A2	76	1000	136	360	4x9	130	50	105	4x9	130	**49150100**
50	A2	76	1500	136	260	4x9	130	50	105	4x9	130	**49150150**

FLOATING STERNTUBE WITH RUBBER STUFFING BOX

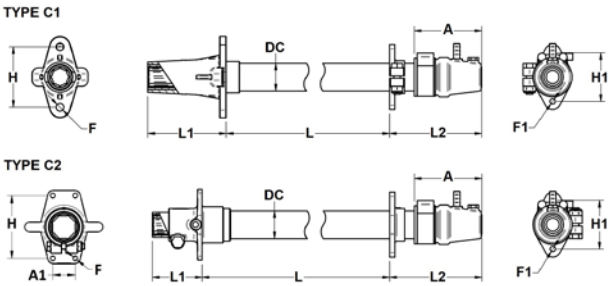
The A-316 C floating stern tubes are hollow structural elements that contain the shaft. They consist of a high-performance AISI 316 stainless steel tube, a bearing bushing assembly and a rubber stuffing box.



ø Shaft	Type	DC	L	L1	L2	F	H	A1	A	F1	H1	Part Number
(mm)		(mm)	(mm)	(mm)	(mm)		(mm)	(mm)	(mm)		(mm)	
25	B1	42,4	500	120	166	2x12	92	-	102	2x8,5	74	**49225050**
25	B1	42,4	1000	120	266	2x12	92	-	102	2x8,5	74	**49225100**
25	B1	42,4	1500	120	166	2x12	92	-	102	2x8,5	74	**49225150**
25	B2	42,4	500	81	166	2x8,5	86	-	102	2x8,5	74	**49325050**
25	B2	42,4	1000	81	266	2x8,5	86	-	102	2x8,5	74	**49325100**
25	B2	42,4	1500	81	166	2x8,5	86	-	102	2x8,5	74	**49325150**
30	B1	48,3	500	120	172	2x12	98	-	108	2x8,5	80	**49230050**
30	B1	48,3	1000	120	272	2x12	98	-	108	2x8,5	80	**49230100**
30	B1	48,3	1500	120	172	2x12	98	-	108	2x8,5	80	**49230150**
30	B2	48,3	500	75	172	2x8,5	94	-	108	2x8,5	80	**49330050**
30	B2	48,3	1000	75	272	2x8,5	94	-	108	2x8,5	80	**49330100**
30	B2	48,3	1500	75	172	2x8,5	94	-	108	2x8,5	80	**49330150**
35	B1	53	500	160	182	2x12	120	-	118	2x8,5	86	**49235050**
35	B1	53	1000	160	282	2x12	120	-	118	2x8,5	86	**49235100**
35	B1	53	1500	160	182	2x12	120	-	118	2x8,5	86	**49235150**
35	B2	53	500	105	182	2x10,5	98	-	118	2x8,5	86	**49335050**
35	B2	53	1000	105	282	2x10,5	98	-	118	2x8,5	86	**49335100**
35	B2	53	1500	105	182	2x10,5	98	-	118	2x8,5	86	**49335150**
40	B2	60,3	500	115	182	4x8,5	112	40	118	4x8,5	112	**49340050**
40	B2	60,3	1000	115	282	4x8,5	112	40	118	4x8,5	112	**49340100**
40	B2	60,3	1500	115	182	4x8,5	112	40	118	4x8,5	112	**49340150**
45	B2	63	500	123	192	4x8	112	40	128	4x8,5	112	**49345050**
45	B2	63	1000	123	292	4x8	112	40	128	4x8,5	112	**49345100**
45	B2	63	1500	123	192	4x8	112	40	128	4x8,5	112	**49345150**
50	B2	70	500	136	192	4x9	130	50	128	4x9	130	**49350050**
50	B2	70	1000	136	292	4x9	130	50	128	4x9	130	**49350100**
50	B2	70	1500	136	192	4x9	130	50	128	4x9	130	**49350150**

FLOATING STERNTUBE WITH COOLED STUF. BOX

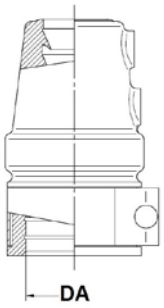
The A-316 C refrigerated floating stern tubes are structural elements that contain the shaft, with an elastic element to enable small deviations and making them highly versatile, easy to assemble and low maintenance. They consist of a highly durable AISI 316 stainless steel tube, a die holder and an additional dry rubber refrigeration seal.



ø Shaft	Type	DC	L	L1	L2	F	H	A1	A	F1	H1	Part Number
(mm)		(mm)	(mm)	(mm)	(mm)		(mm)	(mm)	(mm)		(mm)	
25	C1	42,4	500	120	166	2x12	92	-	102	2x8,5	74	**49425050**
25	C1	42,4	1000	120	266	2x12	92	-	102	2x8,5	74	**49425100**
25	C1	42,4	1500	120	166	2x12	92	-	102	2x8,5	74	**49425150**
25	C2	42,4	500	81	166	2x8,5	86	-	102	2x8,5	74	**49525050**
25	C2	42,4	1000	81	266	2x8,5	86	-	102	2x8,5	74	**49525100**
25	C2	42,4	1500	81	166	2x8,5	86	-	102	2x8,5	74	**49525150**
30	C1	48,3	500	120	172	2x12	98	-	108	2x8,5	80	**49430050**
30	C1	48,3	1000	120	272	2x12	98	-	108	2x8,5	80	**49430100**
30	C1	48,3	1500	120	172	2x12	98	-	108	2x8,5	80	**49430150**
30	C2	48,3	500	75	172	2x8,5	94	-	108	2x8,5	80	**49530050**
30	C2	48,3	1000	75	272	2x8,5	94	-	108	2x8,5	80	**49530100**
30	C2	48,3	1500	75	172	2x8,5	94	-	108	2x8,5	80	**49530150**
35	C1	53	500	160	182	2x12	120	-	118	2x8,5	86	**49435050**
35	C1	53	1000	160	282	2x12	120	-	118	2x8,5	86	**49435100**
35	C1	53	1500	160	182	2x12	120	-	118	2x8,5	86	**49435150**
35	C2	53	500	105	182	2x10,5	98	-	118	2x8,5	86	**49535050**
35	C2	53	1000	105	282	2x10,5	98	-	118	2x8,5	86	**49535100**
35	C2	53	1500	105	182	2x10,5	98	-	118	2x8,5	86	**49535150**
40	C2	60,3	500	115	182	4x8,5	112	40	118	4x8,5	112	**49540050**
40	C2	60,3	1000	115	282	4x8,5	112	40	118	4x8,5	112	**49540100**
40	C2	60,3	1500	115	182	4x8,5	112	40	118	4x8,5	112	**49540150**
45	C2	63	500	123	192	4x8	112	40	128	4x8,5	112	**49545050**
45	C2	63	1000	123	292	4x8	112	40	128	4x8,5	112	**49545100**
45	C2	63	1500	123	192	4x8	112	40	128	4x8,5	112	**49545150**
50	C2	70	500	136	192	4x9	130	50	128	4x9	130	**49550050**
50	C2	70	1000	136	292	4x9	130	50	128	4x9	130	**49550100**
50	C2	70	1500	136	192	4x9	130	50	128	4x9	130	**49550150**

STUFFING BOX IN METRIC SYSTEM

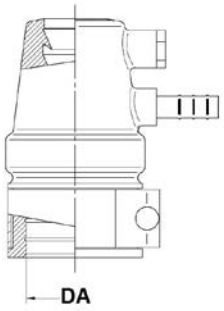
The rubber stuffing box has been proven effective at sealing stern tubes, offering effective functionality with quick and easy installation and without taking up any extra space. The only maintenance required is regular greasing.



Ø Shaft (mm)	DA (mm)	Part Number
25	43	**40025130**
30	49	**40030130**
35	55	**40035130**
40	60	**40040130**
45	65	**40045130**
50	70	**40050130**

COOLED RUBBER STUFFING BOX IN METRIC S.

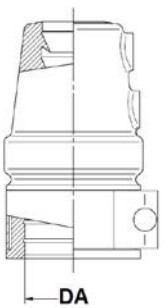
The rubber stuffing box has been proven effective at sealing stern tubes, offering effective functionality with quick and easy installation and without taking up any extra space. The only maintenance required is regular greasing. This model includes forced cooling.



Ø Shaft (mm)	DA (mm)	Part Number
25	43	**40025131**
30	49	**40030131**
35	55	**40035131**
40	60	**40040131**
45	65	**40045131**
50	70	**40050131**

RUBBER STUFFING BOX IN INCHES

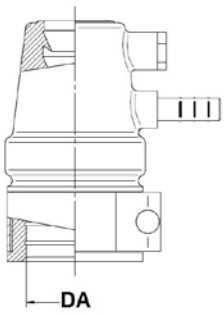
The rubber stuffing box has been proven effective at sealing stern tubes, offering effective functionality with quick and easy installation and without taking up any extra space. The only maintenance required is regular greasing.



Ø Shaft (in)	DA (mm)	Part Number
1	43	**40026130**
1,25	49	**40038130**
1,5	60	**40032130**
1,75	65	**40044130**
2	70	**40051130**

COOLED RUBBER STUFFING BOX IN INCHES

The rubber stuffing box has been proven effective at sealing stern tubes, offering effective functionality with quick and easy installation and without taking up any extra space. The only maintenance required is regular greasing. This model includes forced cooling.



Ø Shaft	DA	Part Number
(in)	(mm)	
1	43	**40026131**
1,25	49	**40038131**
1,5	60	**40032131**
1,75	65	**40044131**
2	70	**40051131**

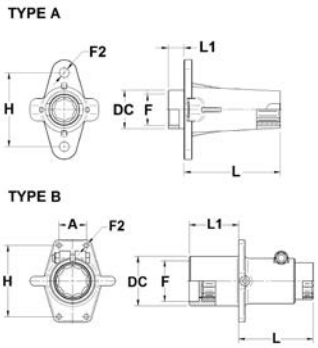
BLEED WATER LINE KIT

Connection kit for sea water cooled rubber stuffing boxes, comes with the necessary parts for these shafts assembly lubrication using refrigeration raw water from the engine's cooling system. This kit includes the "T" brass derivation and connecting racors, in addition to 3 meters of 10 mm diameter transparent hose and clamps for complete assembly installation.

Ø int. Hose	Part Number
(mm)	
15	**61700001**
19	**61700002**
20	**61700003**
22	**61700004**
25	**61700005**
28	**61700006**
30	**61700007**
32	**61700008**
35	**61700009**
38	**61700010**
40	**61700011**
42	**61700012**
45	**61700013**
51	**61700014**

BEARING BUSHING ASSEMBLY

Bearing bushing assembly equipped with seawater-lubricated rubber bearing.



Ø Shaft	Type	DC	F	F2	H	A	L1	L	Part Number
(mm)		(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	
19	A	48	M28x1,25	9	68	-	8	92	**40019165**
25	B	57,5	W Ø40 24h''	8,5	86	-	43	81	**40025166**
25	A	48	W Ø40 24h''	12	92	-	20	120	**40025168A**
25	B	55	W Ø42,4 24h''	8,5	86	-	43	81	**40025176**
25	A	48	W Ø42,4 24h''	12	92	-	20	120	**40025178**
30	B	64	W Ø44 24h''	8,5	94	-	50	75	**40030166**
30	A	52	M45x1,5	12	98	-	20	120	**40030168**
30	A	52	W Ø44 24h''	12	98	-	20	120	**40030168A**
30	B	64	W Ø48 24h''	8,5	94	-	50	75	**40030176**
30	A	56	W Ø48 24h''	12	98	-	20	120	**40030178**
35	B	68	W Ø48 24h''	10,5	98	-	57	105	**40035166**
35	A	56	W Ø48 24h''	12	120	-	20	160	**40035168A**
35	B	68	W Ø53 24h''	10,5	98	-	57	105	**40035176**
35	A	62	W Ø53 24h''	12	120	-	20	160	**40035178**
40	B	75	W Ø60,3 24h"	8,5	112	40	78	115	**40040166**
45	B	80	W Ø60,3 24h"	8	112	40	83	123	**40045166**
45	B	80	W Ø63,5 24h''	8	112	40	83	123	**40045176**
50	B	90	M76x1,25	9	130	50	90	136	**40050166**
50	B	90	W Ø70 24h''	9	130	50	90	136	**40050176**
60	A	110	M88x2	12,5	136	70	25	224	**40060167.1**

STUFFING BOX WITH FIX STUDS

Studded stuffing box for stern tubes.

Ø Shaft (mm)	Part Number
19	40019125
25	40025125A
30	40030125A
35	40035125A

THREADED STUFFING BOX

Water-cooled bronze stuffing box with packing, rubber hose and stainless steel clamps. The system allows for additional direct refrigeration. Threaded stuffing box for stern tubes.

Ø Shaft (mm)	Part Number
40	40040125
45	40045125
50	40050125

FLOATING BOX TOOL

Tool to tighten and loosen the stuffing box of rigid stern tubes.

Ø Shaft (mm)	Part Number
40	40040020
45	40045020
50	40050020

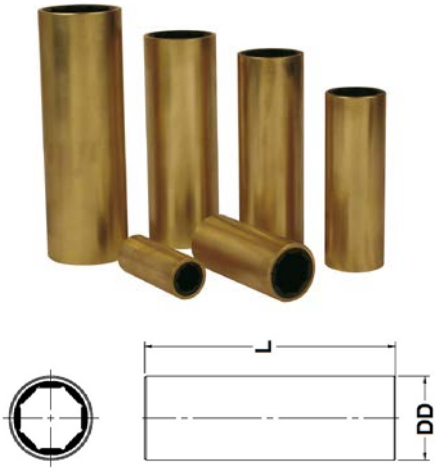
BRAIDED STUFFING PACKING

Braided stuffing packing for watertight stern tubes. Made with acrylic fibre threads and 40% Teflon-lubricated. Supplied by the metre.

Dimensions	Shaft	Max. Pressure	Temperature	Speed	Part Number
(mm)	(mm)	(bar)	(°C)	(m/s)	
6x6	30-40-45-50	100	250	15	**M95200060**
10x10	19-25-35	100	250	15	**M95200100**
8x8	60	100	250	15	**M95200080**

RUBBER BEARING

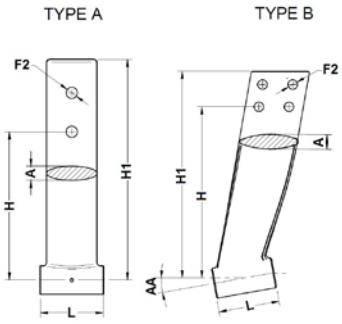
Brass-coated neoprene bearings. Lubricated with water.



Ø Shaft	DD	DD	L	Part Number
(mm)	(mm)	(in)	(mm)	
19	31,75	1,25	76,2	**40019070**
25	38,10	1,50	100,0	**40025070**
30	44,45	1,75	100,0	**40030070**
35	47,62	1,87	139,7	**40035070.1**
40	54,00	2,12	165,0	**40040070.1**
45	60,30	2,37	177,8	**40045070**
50	66,70	2,62	203,2	**40050070**
60	82,50	3,25	200,0	**40060070**

STRUTS / SHAFT BRACKET

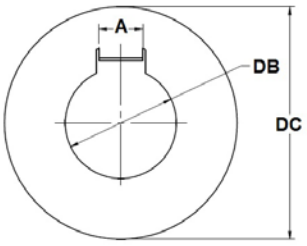
Bronze struts. Includes the self-lubricating rubber bearing.



Shaft	F2	A	AA	H	H1	L	Type	Part Number
(mm)		(mm)	(°)	(mm)	(mm)	(mm)		
19	14	18		230	340	76	A	**40019580**
25	16	22	8	208	400	103	B	**40025581.1**
30	18	28	10	323	400	115	B	**40030581.1**
35	25	30	10	360	450	142	B	**40035581.1**
40	25	32	10	362	450	165	B	**40040581.1**
45	25	36	10	460	530	182	B	**40045581.1**
50	25	39	10	460	540	205	B	**40050581.1**

PROPELLER NUT FASTENER

Made in standard stainless steel. This piece prevents the propeller nut from loosening.



Shaft	DC	DB	A	Part Number
(mm)	(mm)	(mm)	(mm)	
19	32	14,5	5	**40019090**
25	40	17	6	**40025090**
25	40	17	8	**40025090.1**
30	48	21	7,5	**40030090**
35	60	26	9,5	**40035090**
45	66	34	12	**40045090**
45	66	31	13	**40045090M**
50	66	37	13	**40050090M**
60-65	90	43	17	**40060090**
70	90	50	19	**40070090**
70-75	90	46	19	**40070090M**
80-85	103	57	21	**40080090M**
90	103	65	24	**40090090M**
100	110	65	27	**40099090M**

KIT RUBBER BEARING FOR STRUT

Assembly comprised of a rubber bearing and bearing attachment screw. This assembly is suitable for our shaft bracket and is available for different shaft sizes.

Shaft	Part Number
(mm)	
25	**40025070R**
30	**40030070R**
35	**40035070R**
40	**40040070R**
45	**40045070R**
50	**40050070R**

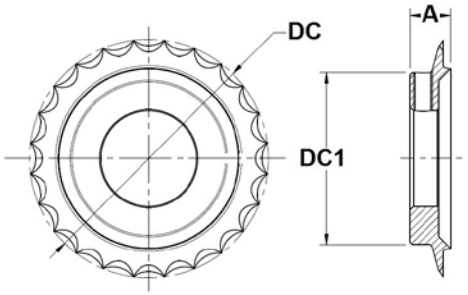
SOLÉ DIESEL ENGINES ANODES

Cathodic protection with zinc anodes is essential for any ship parts below the waterline. Solé Diesel anodes are placed in the engine areas indicated in the manual for each engine.

Length	Part Number	Engine	Marine Generator
(mm)			
-	**13110009**	MINI-18	-
29,5	**13811043**	MINI-17 to MINI-55	MINI-17 to MINI-44
30	**18511031**	SV-140/220/230	-
45	**18011031**	MINI-62/74; Range SK/SM/SDZ/SFN/SN	MINI-63/74; Range SM/SDZ

ROPE CUTTER IN INCHES

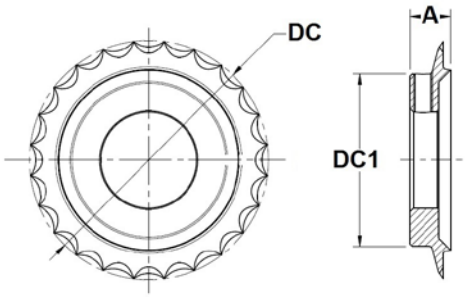
Made in AISI-316L stainless steel. This line cutter sections nylon ends, plastic mesh and flexible cables of up to 7 mm without interfering with the propeller, thus preventing more serious malfunctions. See notes for assembly. Use gloves, sharp edges.



Ø Shaft	DC	DC1	A	Part Number
(in)	(mm)	(mm)	(mm)	
1	80	53	17	**40025023**
1,25	80	53	17	**40032023**
1,5	100	72	17	**40038023**
1,75	120	92	17	**40044023**
2	120	82	17	**40051023**
2,25	120	92	17	**40057023**

ROPE CUTTER IN METRIC SYSTEM

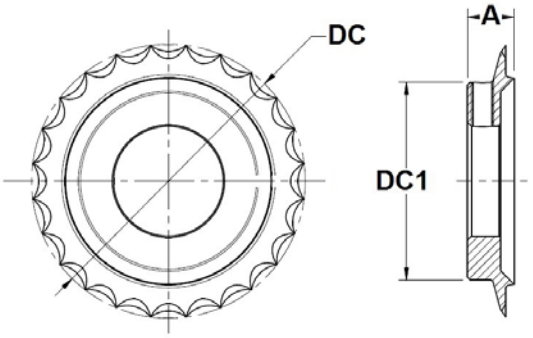
Made in AISI-316L stainless steel. We have several models by shaft diameter, ranging from 22 to 70 mm. This line cutter sections nylon ends, plastic mesh and flexible cable of up to 7 mm without interfering with the propeller, thus preventing more serious malfunctions. See notes for assembly. Use gloves, sharp edges.



Ø Shaft	DC	DC1	A	Part Number
(mm)	(mm)	(mm)	(mm)	
22	80	53	17	**40022022**
25	80	53	17	**40025022**
30	80	53	17	**40030022**
35	100	72	17	**40035022**
40	100	72	17	**40040022**
45	120	92	17	**40045022**
50	120	92	17	**40050022**
60	150	110	30	**40060022**
70	180	128	31,5	**40070022**
75	200	128	32,5	**40075022**
80	200	128	32,5	**40080022**

ROPE CUTTER FOR SAIL DRIVE

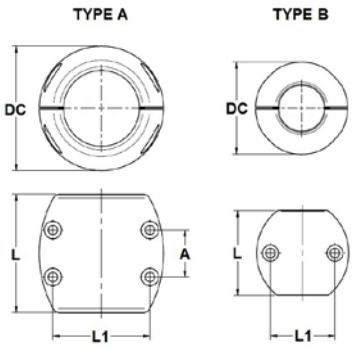
Made in AISI-316L stainless steel. This line cutter sections nylon ends, plastic mesh and flexible cable of up to 7mm without interfering with the propeller, thus preventing more serious malfunctions. See notes for assembly. Use gloves, sharp edges.



Ø Shaft	DC1	DC	A	Model	Part Number
(mm)	(mm)	(mm)	(mm)		
120	76,5	38	11	YANMAR SD20 / SD31	**40039022**
120	76,5	38	11	VOLVO 120S	**40039023**
120	76,5	38	11	VOLVO 130S	**40039025**
140	76,5	32	12	SPROP-60 (TechnoDrive)	**40039024**

PROPELLER SHAFT ZINC ANODES

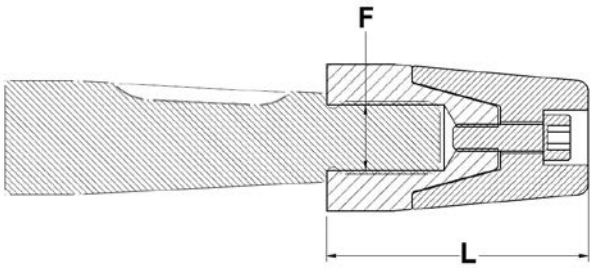
Collar zinc anode for the protection of the shaft.



Ø Shaft	DC	L	L1	A	Type	Part Number
(mm)	(mm)	(mm)	(mm)	(mm)		
25	55	55	40	-	A	**40025091**
30	60	55	42	-	A	**40030091**
35	69	63	50	-	A	**40035091**
40	70	64	53	-	A	**40040091**
45	81	73	60	32	B	**40045091**
50	82	78	64	31	B	**40050091**
55	-	-	-	-	B	**40055091**
60	107	95	76	36	B	**40060091**

ZINC ANODE NUTS

Cathodic protection with zinc anodes is essential for any metal ship parts below the waterline. Solé Diesel anodes are placed at the end of the shaft line and are manufactured under the most rigorous standards in existence. They are aerodynamic and fit perfectly to the shaft.



Ø Shaft	L	F	Thread type	Part Number	Anode
(mm)	(mm)				
25	58	3/8" GAS	LH	**40025193**	**40025092**
25	58	M16x1,5	LH	**40025193M**	**40025092**
25	58	3/8" GAS	RH	**40025194**	**40025092**
25	58	M16x1,5	RH	**40025194M**	**40025092**
30	69	M20x1,5	LH	**40030193M**	**40030092**
30	69	M20x1,5	RH	**40030194M**	**40030092**
35-40	69	1"W 16H	LH	**40035193**	**40035092**
35-40	85	M24x2	LH	**40035193M**	**40035092**
35-40	85	1"W 16H	RH	**40035194**	**40035092**
35-40	85	M24x2	RH	**40035194M**	**40035092**
45	110	M30x2	LH	**40045193M**	**40045092**
45	110	M30x2	RH	**40045194M**	**40045092**
50	115	M36x3	LH	**40050193M**	**40045092**
50	115	M36x3	RH	**40050194M**	**40045092**
60-65	147	M42x3	LH	**40060193M**	**40060092**
60-65	147	M42x3	RH	**40060194M**	**40060092**
70-75	139	M45x3	LH	**40070193M**	**40070092**
70-75	139	M45x3	RH	**40070194M**	**40070092**
80-85	144	M56x4	LH	**40080193M**	**40080092**
80-85	144	M56x4	RH	**40080194M**	**40080092**
90-100	144	M64X4,0	LH	**40090193M**	**40080092**
90-100	144	M64X4,0	RH	**40090194M**	**40080092**

Solé Diesel

PROPELLERS

2 BLADES SP60 FOLDING PROPELLERS

Marine propellers with two foldable nickel aluminium bronze blades, dynamically and statically balanced. They significantly reduce friction when sailing and are highly efficient. Their superior mechanical properties give it high resistance that is especially useful in controlling the cavitation phenomenon.

Compatible with:
Volvo 110S, Volvo 120S, Yanmar SD20/31/40-4T, BUCK, NANNI and SONIC Sail Drives

Ø	Pitch	BAR	Part Number
(in)	(in)	(%)	LH
14	7	25	**41101407**
14	8	25	**41101408**
15	10	25	**41101510**
17	9	25	**41101709**
18	9	25	**41101809**
18	10	25	**41101810**
18	11	25	**41101811**
18	12	25	**41101812**
18	13	25	**41101813**
18	14	25	**41101814**

2 BLADES SP60 FIXED PROPELLERS

Fixed aluminium propellers with two blades. Dynamically and statically balanced.

Compatible with:
Volvo 110S, Volvo 120S, Yanmar SD20/31/40-4T, BUCK, NANNI and SONIC Sail Drives

Ø	Pitch	BAR	Part Number
(in)	(in)	(%)	LH
14	8	30	**41111408**
14	9	30	**41111409**
16	9	30	**41111609**

3 BLADES SP60 FIXED PROPELLERS

Fixed aluminium propellers with three blades, dynamically and statically balanced.

Compatible with:
Volvo 110S, Volvo 120S, Yanmar SD20/31/40-4T, BUCK, NANNI and SONIC Sail Drives

Ø	Pitch	BAR	Part Number
(in)	(in)	(%)	LH
14	9	50	**43101409**
14	10	50	**43101410**
15	10	50	**43153826**
16	10	50	**43101610**
16	11	50	**43101611**
16	14	50	**43101614**
17	11	50	**43101711**
17	12	50	**43101712**
17	13	50	**43101713**
17	14	50	**43101714**
18	14	50	**43101814**

2 BLADES SELVA FOLDING PROPELLERS

Marine propellers with two foldable nickel aluminium bronze blades, dynamically and statically balanced. They significantly reduce friction when sailing and are highly efficient. Their superior mechanical properties give it high resistance that is especially useful in controlling the cavitation phenomenon.

Ø	Pitch	BAR	Part Number
(in)	(in)	(%)	RH
13	7	25	**42001307**
15	7	25	**42001507**
15	8	25	**42001508**
15	10	25	**42001510**
16	9	25	**42001609**
16	10	25	**42001610**
16	12	25	**42001612**

2 BLADES SHAFT FIXED PROPELLERS

Manganese bronze propellers with 2 blades, dynamically and statically balanced, with 1:10 cone (Except Ø19, 3° 30' propellers). Diameter and pitch in inches. These propellers have been specially designed to meet the requirements of applications with less resistance.

Shaft	Ø	Pitch	BAR	Part Number	Part Number
(mm)	(in)	(in)	(%)	RH	LH
19	7	6	30		41141816
	8	7	30		41142018
	13	9	30	42113322	
	15	8	30	42113721	
25	13	9	30	42213322	
	15	8	30	42213721	
	15	13	30	42213934	
	16	15	30	42214037	
	15	9	45	42243823	
	15	10	45	42243826	
	16	10	45	42244126	
	18	12	45	42244530	
30	15	15	30	42313839	
	15	13	30	42313934	
	16	14	30	42314035	
	16	15	30	42314037	
	15	10	45	42343826	
	18	12	45	42344530	

2 BLADES SHAFT FOLDING PROPELLERS

Nickel aluminium bronze propellers with 2 foldable blades, dynamically and statically balanced. Designed for sailboats, as they reduce friction when sailing. These propellers are exclusively adapted for peopeller shafts with 1:10 conicity.

Shaft	Ø	Pitch	BAR	Part Number
(mm)	(in)	(in)	(%)	RH
25	16	10	25	42201610
	16	12	25	42201612
	17	10	25	42201710
30	10	6	25	42342516

4 BLADES SRX PROPELLERS

Designed for boats with mid-to-high speeds of 15-35 knots or professional boats that require high performance and a high-pitch propeller when there are diameter limitations. Made in high-strength manganese bronze. High-precision elastic and dynamic balancing. The high-skew design considerably reduces the vibrations and noise produced in the hulls and helms of ships. The “airfoil-ogival” mixed blade profile was designed to achieve the best results in minimising cavitation and getting effective and progressive push. Propellers made with an anti-singing edge. Diameter and pitch in inches.

Shaft	Ø	Pitch	BAR	Part Number	Part Number
(mm)	(in)	(in)	(%)	RH	LH
25	16	16	75	46204141RC	
	16	18	75	46204146RC	45204146RC
	17	19	75	46204348RC	45204348RC
30	16	14	75	46304136RC	
	16	15	75	46304138RC	
	16	16	75	46304141RC	45304141RC
	16	17	75	46304143RC	
	16	18	75	46304146RC	45304146RC
	16	19	75	46304148RC	45304148RC
	17	19	75	46304348RC	45304348RC
	17	20	75	46304351RC	
	17	21	75	46304353RC	45304353RC
	18	19	75	46304648RC	
	18	20	75	46304651RC	
	18	22	75	46304656RC	45304656RC

4 BLADES SRX PROPELLERS

Shaft	Ø	Pitch	BAR	Part Number	Part Number
(mm)	(in)	(in)	(%)	RH	LH
35	16	14	75	46404136RC	
	16	15	75	46404138RC	
	16	16	75	46404141RC	45404141RC
	16	17	75	46404143RC	
	16	18	75	46404146RC	45404146RC
	16	19	75	46404148RC	45404148RC
	17	19	75	46404348RC	45404348RC
	17	20	75	46404351RC	
	17	21	75	46404353RC	45404353RC
	18	18	75	46404646RC	
	18	19	75	46404648RC	
	18	20	75	46404651RC	45404651RC
	18	21	75	46404653RC	
	18	22	75	46404656RC	45404656RC
	18	23	75	46404658RC	45404658RC
	18	25	75	46404663RC	
	19	25	75		45404863RC
40	16	19	75	46504148RC	
	18	18	75	46504646RC	
	18	19	75	46504648RC	
	18	20	75	46504651RC	45504651RC
	18	21	75	46504653RC	
	18	22	75	46504656RC	45504656RC
	18	23	75	46504658RC	45504658RC
	18	25	75	46504663RC	
	19	25	75	46504863RC	45504863RC
	21	23	75	46505358RC	45505358RC
	21	25	75	46505363RC	45505363RC
45	18	18	75	46604646RC	
	18	19	75	46604648RC	
	18	20	75	46604651RC	45604651RC
	18	21	75	46604653RC	
	18	22	75	46604656RC	45604656RC
	18	23	75	46604658RC	45604658RC
	19	25	75	46604863RC	45604863RC
	21	23	75	46605358RC	
	21	25	75	46605363RC	45605363RC
50	25	20	75	46706351RC	45706351RC
60	25	20	75	46906351RC	45906351RC

3 BLADES PROPELLERS

3 blade propellers are perfect for displacement boats of little tonnage or sailing boats which do not reach very high speed.
Material: Bronze manganese
BAR: 55%
Cone: 1:10

Propeller Ø	Pitch Range	Shaft Range	Part Number
(in)	(in)	(mm)	
9	5 - 8	19 - 25	**HEL3P09**
10	5 - 9	19 - 25	**HEL3P10**
11	6 - 10	19 - 25	**HEL3P11**
12	6 - 11	19 - 25	**HEL3P12**
13	7 - 12	19 - 25	**HEL3P13**
14	7 - 13	19 - 30	**HEL3P14**
15	8 - 14	19 - 30	**HEL3P15**
16	8 - 14	22 - 30	**HEL3P16**
17	9 - 15	22 - 35	**HEL3P17**
18	9 - 16	22 - 35	**HEL3P18**
19	10 - 17	30 - 35	**HEL3P19**
20	10 - 18	35 - 40	**HEL3P20**
21	11 - 19	35 - 40	**HEL3P21**
22	11 - 20	35 - 40	**HEL3P22**
23	12 - 21	40 - 45	**HEL3P23**
24	12 - 22	40 - 45	**HEL3P24**
25	13 - 23	40 - 45	**HEL3P25**
26	13 - 23	40 - 45	**HEL3P26**

4 BLADES PROPELLERS

4 blade propellers are perfect for semi-planing speed boats, both for leisure and commercial with moderate tonnage.
Material: Bronze manganese
BAR: 55%
Cone: 1:10

Propeller Ø	Pitch Range	Shaft Range	Part Number
(in)	(in)	(mm)	
13	7 - 18	19 - 25	**HEL4P13**
14	7 - 20	22 - 30	**HEL4P14**
15	8 - 21	22 - 30	**HEL4P15**
16	8 - 22	22 - 30	**HEL4P16**
17	9 - 24	22 - 40	**HEL4P17**
18	9 - 25	30 - 40	**HEL4P18**
19	10 - 27	30 - 35	**HEL4P19**
20	10 - 28	35 - 40	**HEL4P20**
21	11 - 29	35 - 50	**HEL4P21**
22	11 - 31	35 - 50	**HEL4P22**
23	12 - 32	35 - 50	**HEL4P23**
24	12 - 34	40 - 60	**HEL4P24**
25	13 - 35	40 - 60	**HEL4P25**
26	13 - 36	40 - 60	**HEL4P26**
27	14 - 38	45 - 60	**HEL4P27**
28	14 - 39	45 - 60	**HEL4P28**
29	15 - 41	45 - 60	**HEL4P29**
30	15 - 42	45 - 60	**HEL4P30**
31	16 - 43	50 - 60	**HEL4P31**
32	16 - 45	50 - 60	**HEL4P32**
33	17 - 46	50 - 60	**HEL4P33**

3 BLADES PROPELLERS PR

3-Blade propellers PR are perfect for semi-displacement and displacement boats intended for commercial use.

BAR: 50-55 %
Standard shaft conicity: 1/10 (Can be modified if necessary)

Propeller Ø	Pitch Range	Part Number
(in)	(in)	
30	18 - 39	**PR3P30**
31	19 - 40	**PR3P31**
32	19 - 42	**PR3P32**
33	20 - 43	**PR3P33**
34	20 - 44	**PR3P34**
35	21 - 46	**PR3P35**
36	22 - 47	**PR3P36**
37	22 - 48	**PR3P37**
38	23 - 49	**PR3P38**
39	23 - 51	**PR3P39**
40	24 - 52	**PR3P40**
41	25 - 53	**PR3P41**
42	25 - 55	**PR3P42**
43	26 - 56	**PR3P43**
44	26 - 57	**PR3P44**
45	27 - 59	**PR3P45**
46	28 - 60	**PR3P46**
47	28 - 61	**PR3P47**
48	29 - 62	**PR3P48**
49	29 - 64	**PR3P49**
50	30 - 65	**PR3P50**
51	31 - 66	**PR3P51**
52	31 - 68	**PR3P52**
53	32 - 69	**PR3P53**
54	32 - 70	**PR3P54**
55	33 - 72	**PR3P55**
56	34 - 73	**PR3P56**
57	34 - 74	**PR3P57**
58	35 - 75	**PR3P58**
59	35 - 77	**PR3P59**

4 BLADES PROPELLERS PR

4-Blade propellers PR are perfect for semi-displacement and displacement boats intended for commercial use.

BAR: 65-70 %
Standard shaft conicity: 1/10 (Can be modified if necessary)

Propeller Ø	Pitch Range	Part Number
(in)	(in)	
30	18 - 39	**PR4P30**
31	19 - 40	**PR4P31**
32	19 - 42	**PR4P32**
33	20 - 43	**PR4P33**
34	20 - 44	**PR4P34**
35	21 - 46	**PR4P35**
36	22 - 47	**PR4P36**
37	22 - 48	**PR4P37**
38	23 - 49	**PR4P38**
39	23 - 51	**PR4P39**
40	24 - 52	**PR4P40**
41	25 - 53	**PR4P41**
42	25 - 55	**PR4P42**
43	26 - 56	**PR4P43**
44	26 - 57	**PR4P44**
45	27 - 59	**PR4P45**
46	28 - 60	**PR4P46**
47	28 - 61	**PR4P47**
48	29 - 62	**PR4P48**
49	29 - 64	**PR4P49**
50	30 - 65	**PR4P50**
51	31 - 66	**PR4P51**
52	31 - 68	**PR4P52**
53	32 - 69	**PR4P53**
54	32 - 70	**PR4P54**
55	33 - 72	**PR4P55**
56	34 - 73	**PR4P56**
57	34 - 74	**PR4P57**
58	35 - 75	**PR4P58**
59	35 - 77	**PR4P59**

5 BLADES PROPELLERS PR

5-Blade propellers PR are perfect for semi-displacement and displacement boats intended for commercial use.

BAR: 80-85 %
Standard shaft conicity: 1/10 (Can be modified if necessary)

Propeller Ø	Pitch Range	Part Number
(in)	(in)	
30	18 - 39	**PR5P30**
31	19 - 40	**PR5P31**
32	19 - 42	**PR5P32**
33	20 - 43	**PR5P33**
34	20 - 44	**PR5P34**
35	21 - 46	**PR5P35**
36	22 - 47	**PR5P36**
37	22 - 48	**PR5P37**
38	23 - 49	**PR5P38**
39	23 - 51	**PR5P39**
40	24 - 52	**PR5P40**
41	25 - 53	**PR5P41**
42	25 - 55	**PR5P42**
43	26 - 56	**PR5P43**
44	26 - 57	**PR5P44**
45	27 - 59	**PR5P45**
46	28 - 60	**PR5P46**
47	28 - 61	**PR5P47**
48	29 - 62	**PR5P48**
49	29 - 64	**PR5P49**
50	30 - 65	**PR5P50**
51	31 - 66	**PR5P51**
52	31 - 68	**PR5P52**
53	32 - 69	**PR5P53**
54	32 - 70	**PR5P54**
55	33 - 72	**PR5P55**
56	34 - 73	**PR5P56**
57	34 - 74	**PR5P57**
58	35 - 75	**PR5P58**
59	35 - 77	**PR5P59**


TRANSPARENT VARNISH
GENUINE METALLIC PAINT
OIL FILTER
1A024051
PRIMER
FUEL FILTER
13114022
ANTI-FREEZE
50% -38ºC
ANTICONGELANTE
Solé Diesel

Solé Diesel

ACCESSORIES

ACCESSORIES PACK

PROFESSIONAL WATERLOCK PACK I-STR O-STR

This pack includes the water trap, clamps, and hull exhaust outlet with check valve. These packs are available in several sizes.

Ø	Capacity	Part Number
(mm)	(L)	
40	4	60702040
45	4	60716040
45	6	60721040
50	4	60705040
50	6	60706040
50	8	60722040
60	6	60707040
75	8	60709040
75	10	60725040
90	15	60711040
100	17	60718040
125	28	60713040

ACCESSORIES PACK

PROFESSIONAL WATERLOCK PACK I-STR O-INC

This pack includes the water trap, clamps, and hull exhaust outlet with check valve. These packs are available in several sizes.

Ø	Capacity	Part Number
(mm)	(L)	
40	4	60701040
45	4	60715040
45	6	60724040
50	4	60703040
50	6	60704040
50	8	60726040
60	6	60719040
75	8	60708040
75	10	60727040
90	15	60714040
100	17	60717040
125	28	60712040

ACCESSORIES PACK

EXHAUST PACK ACCESSORIES

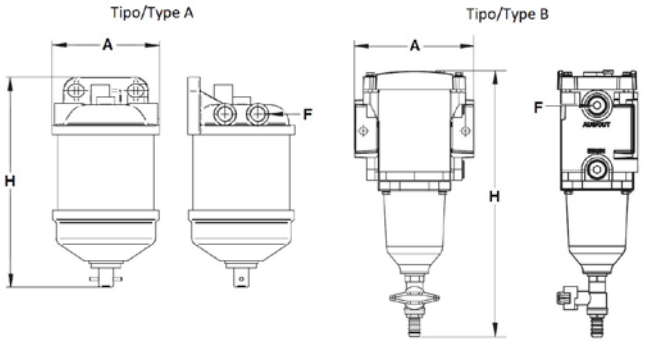
This kit consists of a manifold, a hull exhaust outlet, and connecting supports. Hose not included.

DA	Part Number
(mm)	
40	**60739040**
50	**60772040**
60	**60771040**
75	**60774040**
90	**60794040**

ACCESSORIES PACK

FUEL SYSTEM ACCESSORIES PACK

Diesel fuel filter with water separator and connectors. Hose not included.



Hose diameter	Flow rate	Weight	A	F	H	Filter w/o connectors p/n	Part Number	Type
(mm)	(l/h)	(Kg)	(mm)		(mm)			
8	300	1,59	140	M16X1,5	312,8	60300200.1	**60300220**	B
8	50	0,62	96	M14X1,5	170	60300115	**60339100**	A
10	300	1,59	140	M16X1,5	312,8	60300200.1	**60300210**	B
10	50	0,62	96	M14X1,5	170	60300115	**60339101**	A
12	300	1,59	140	M16X1,5	312,8	60300200.1	**60300230**	B

ACCESSORIES PACK

WATER/GAS SEPARATOR PACK

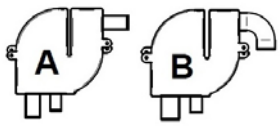
The water / smoke separator kit is a definitive solution for the noise produced by engine exhausts. It separates the cooling water from gases and reduces noise considerably. Hose not included.

Ø	Part Number
(mm)	
40	60739025
50	60772025

WATER EXHAUST SYSTEM

PROFESSIONAL WATER/GAS SEPARATOR

The water/gas separator kit offers an ultimate solution to the noises made by the exhausts of the engines. Noise is reduced significantly due to the separation from the cooling water and the exhaust gases. This professional range allows a higher workload without losing efficiency. Hose is not included.



Ø	Type	Part Number
(mm)		
50 - 50 - 38	A	60771038
60 - 50 - 38	A	60773038
75 - 76 - 50	B	60774050

ACCESSORIES PACK

METALLIC WATER ASPIRATION SYSTEM PACK

The metallic cooling water filter kit includes a brass filter, sea water tap, and supports for connecting the parts. Recommended for all kinds of installations, especially for applications in commercial ships. There is a transparent cover for easily inspecting the filter without the need for disassembly. Hose not included. Approved by the RINA.

Ø	Part Number
(mm)	
12	601B0101
20	60139101
27	60177101
32	60171101
42	60194101
45	60101101

ACCESSORIES PACK

METALLIC SYPHON BREAKER PACK

This pack includes a metallic airvent, transparent hose, and clamps. These packs are available in several sizes. This kit must be installed to prevent the siphon effect from damaging the engine

Ø (mm)	Type	Part Number
12	B	60731005
20	A	60730993
20	B	60731004
22	A	60730994
25	A	60730995
27	A	60730996
30	A	60730997
32	A	60730998
32	B	60731009
35	A	60730999
38	A	60731000
40	A	60731001
42	A	60731002
42	B	60731013
45	A	60731003

Type:
A = Propulsion or open genset
B = Genset with canopy

ACCESSORIES PACK

SHYPON BREAKER PACK

This kit must be installed to prevent the syphon effect from damaging the engine. This assumes that if the engine is below the waterline it is vulnerable to water entering the exhaust system, and then the engine itself.

Ø (mm)	Part Number
12	60730021
19	60730015
19	60730018
27	60730019
32	60730016
32	60730022

ACCESSORIES PACK

WATER ASPIRATION PACK

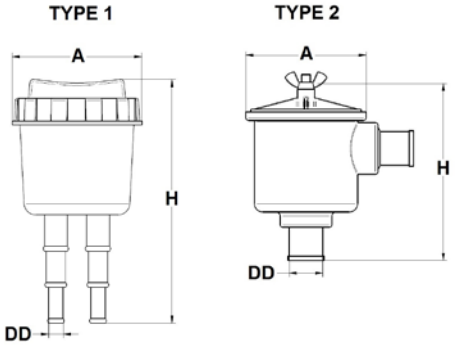
This kit comes with three pieces. The filter prevents the pump and the heat exchangers from blocking. The transparent plastic cover makes it easy to service and wash the piece. The base tap is the piece that lets water in to cool the engine. The clamps connect the parts. Hoses not included.

Ø (mm)	Part Number
12	601B0100
20	60139100
32	60171100
42	60194100
45	60110100

WATER STRAINER

PLASTIC WATER STRAINER

Plastic water filters prevent pumps and heat exchangers from blocking. The transparent plastic lid makes it easy to check and clean.

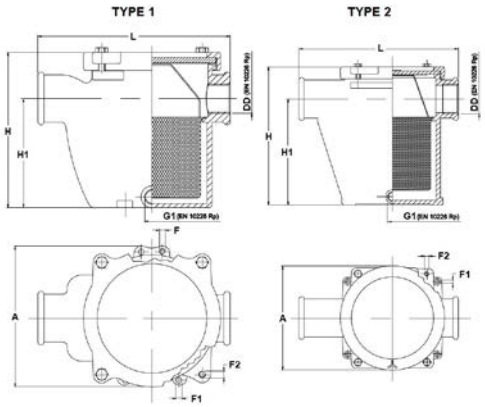


DD (mm)	DD (in)	A (mm)	H (mm)	Flow rate (l/min)	Type	Part Number
12 - 16 - 19	1/2 - 5/8 - 3/4	130	160 - 130 - 100	60 - 90	1	**60338000**
19 - 25 - 32	3/4 - 1 - 1 1/4	160	230 - 190 - 160	135 - 225 - 345	1	**60371000**
38	1 1/2	145	190	300	2	**60367100**
41	1 3/5	145	190	300	2	**60394000**
45	1 3/4	145	190	300	2	**60301000**

WATER STRAINER

METALLIC WATER STRAINER

Salt water filters with chrome-plated brass housing and plastic filter for good resistance in marine environments and easy maintenance. The fittings are supplied separately. (check sizes)



Flow Rate (0,1 bar) (l/h)	Flow Rate (1 bar) (l/h)	DD (in)	DD (mm)	Type	L (mm)	H (mm)	H1 (mm)	G1 (mm)	A (mm)	F (mm)	F1 (mm)	F2 (mm)	Part Number
2050	7000	1/2	12	2	139	119	87	1/4	98	N/A	5	M6	**60310012**
5800	20000	1	25	1	171	139	98	1/4	126	M5	5	M6	**60310100**
11750	40350	1 1/2	38	2	225	196	150	1/4	148	N/A	5	M6	**60310112**
19700	67600	2	50	2	273	221	163	1/4	190	N/A	6	M8	**60310200**
30500	104600	2 1/2	63	1	295	266	190	3/4	232	N/A	6	M8	**60310113**

WATER STRAINER

WATER PLASTIC STRAINER ELEMENT

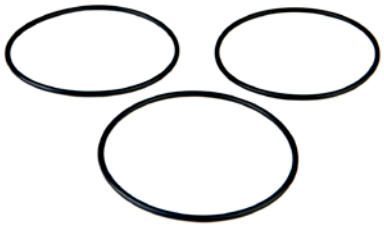
Plastic grid filtering element available for all brass / bronze water filter models.

DD (in)	DD (mm)	Part Number
1/2	12	60310012.3
1	25	60310100.3
1 1/2	38	60310112.3
2	50	60310200.3
2 1/2	63	60310113.3

WATER STRAINER

WATER STRAINER GASKET

Rubber toroidal seal to ensure the tightness of water filters.



Diameter (mm)	Thickness (mm)	Part Number
74	3,5	60310012.2
100	3,5	60310100.2
120	3,5	60310112.2

WATER STRAINER

HOSE REDUCTION FOR WATER STRAINER

Less brass to adapt to different water filter diameters.

Inlet diameter (in)	Outlet diameter (in)	Part Number
1/2	3/8	60394004
1	3/4	60394003
1 1/2	1 1/4	60394002

WATER STRAINER

HOSE CONNECTION FITTINGS FOR WATER STRAINER

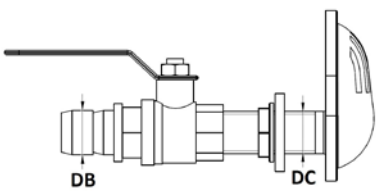
Different sizes of couplings.

Thread diameter	Hose diameter	Part Number
(in)	(mm)	
1	20	60371055
1	22	60371056
1	25	60371057
1	27	60371058
1	30	60371059
1	32	60371060
1	33	60371061
1	34	60371062
1	35	60371063
1 1/2	25	60394055
1 1/2	32	60394056
1 1/2	35	60394057
1 1/2	38	60394058
1 1/2	39	60394059
1 1/2	40	60394060
1 1/2	41	60394061
1 1/2	45	60394062
1 1/2	50	60394063
1 1/2	51	60394064
2	38	60310205
2	45	60310206
2	50	60310207
2	51	60310208
2	55	60310209
2	60	60310210
2	63	60310211
2	64	60310212
2	65	60310213

WATER STRAINER

SEA WATER COCK

Brass salt water intake for cooling. The element consists of a water intake with filtering mesh, through-hull, ball valve, and connection hoses. The filtering mesh must be installed facing the stern and the ball valve must always be below the flotation line.

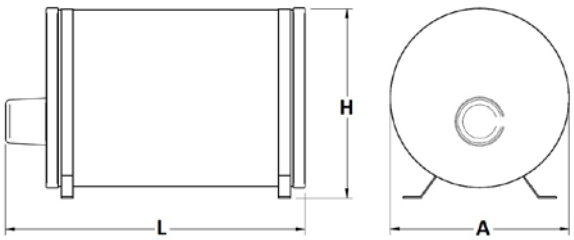


DB	DC	Valve	Part Number
(mm)	(mm)	(in)	
13	21	1/2	60121000
15	33	1	60151000.1
20	21	1/2	60132000
27	33	1	60151000
33	33	1	60146000
38	42	1 1/4	60167000
42	48	1 1/2	60194000
45	48	1 1/2	60101000

BOILER

CYLINDRICAL BOILER KIT

Glass-ceramic steel tank under DIN 4753, thermally insulated with closed-cell expanded polyurethane. It has been designed with 1200 W and 230V resistance for excellent results, allowing it to heat water even when the ship's engine is stopped.

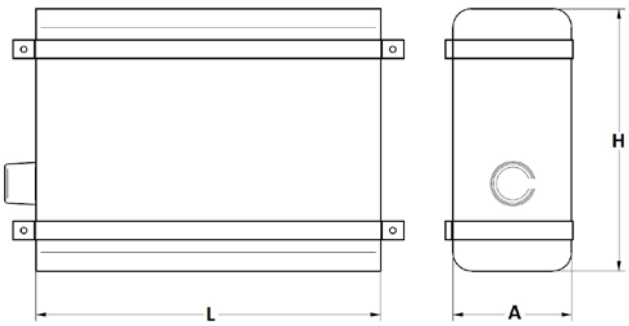


Capacity	Power	Voltage	Frequency	Max. Pressure (kpa)	Weight	L	H	A	Part Number
(L)	(w)	(V)	(Hz)	(kPa)	(Kg)	(mm)	(mm)	(mm)	
21	800	230	50	500	10	485	325	322	60800002
21	1200	230	50	500	10	485	325	322	60800003
22	550	230	50	700	10	490	334	320	60800004.1
22	850	230	50	700	10	490	334	320	60800005.1
22	1250	230	50	700	10	490	334	320	60800006.1
30	550	230	50	700	11,5	625	334	320	60800007.1
30	850	230	50	700	11,5	625	334	320	60800008.1
30	1250	230	50	700	11,5	625	334	320	60800009.1
45	550	230	50	700	15	885	334	320	60800010.1
45	850	230	50	700	15	885	334	320	60800011.1
45	1250	230	50	700	15	885	334	320	60800012.1
60	550	230	50	700	17,3	1070	334	320	60800013.1
60	850	230	50	700	17,3	1070	334	320	60800014.1
60	1250	230	50	700	17,3	1070	334	320	60800015.1

BOILER

RECTANGULAR BOILER KIT

The rectangular water heater is an accessory that lets you increase the domestic hot water temperature on-board work vessels or pleasure craft. It has been designed with 1200 W and 230V resistance for excellent results, allowing it to heat water even when the ship's engine is stopped.



Capacity	Power	Voltage	Frequency	Max. Pressure (kpa)	Weight	L	H	A	Part Number
(L)	(w)	(V)	(Hz)	(kPa)	(Kg)	(mm)	(mm)	(mm)	
20	1200	230	50	500	12,5	420	420	190	60800018
20	850	230	50	500	12,5	552	420	190	60800019

BOILER

WATER BOILER HEATER

The electrical resistance of the heater allows it to produce domestic hot water with the marine engine stopped. It is available in powers of 500, 800 and 1200 W and voltages of 120 and 230 V.

Power	Voltage	Part Number
(w)	(V)	
500	120	60800047
500	230	60800050
800	120	60800048
800	230	60800051
1200	120	60800049
1200	230	60800052

BOILER

ZINC ANODE FOR WATER BOILER

The anode is the essential element for protecting the heater from corrosion. A trade-off is required to ensure that the electrolytic reaction does not affect the heater.

Capacity	Part Number
(L)	
20 / 22	60800055
30 / 100 / 150 / 200	60800056
45 / 60	60800057

BOILER

OTHER SPARE PARTS FOR WATER BOILER

Wide range of spare parts for water boilers.

Description	Part Number
Gasket For Plug Holder Anode	60800059
Heater Element's Gasket	60800058
Hose Connection Kit	60800042
Pressure Relief and Not Return Valve	60800046
Themostatic Water Mixer Kit	60800041
Thermostat 20A	60800054

CLAMPS

HIGH PRESSURE CLAMP

Clamps for applications that require very high tightening and breaking torques, featuring high levels of tensile force.

Diameter (in)	Diameter (mm)	Associated hose	Part Number
1 11/16 - 1 7/8	43 - 47	-	**54083043**
1 7/8 - 2	47 - 51	Exhaust Hose D. 40	**54083047**
1 9/16 - 1 11/16	40 - 43	-	**54083040**
2 - 2 3/16	51 - 55	Exhaust Hose D. 45	**54083051**
2 1/2 - 2 11/16	63 - 68	Exhaust Hose D.55	**54083063**
2 11/16 - 2 7/8	68 - 73	Exhaust Hose D.60	**54083079**
2 3/16 - 2 5/16	55 - 59	-	**54083059**
2 5/16 - 2 1/2	59 - 63	Exhaust Hose D.51	**54083060**
2 7/8 - 3 1/8	73 - 79	-	**54083073**
3 1/8 - 3 3/8	79 - 85	-	**54083085**
3 13/16 - 4 1/6	97 - 104	Exhaust Hose D.90	**54086097**
3 3/8 - 3 9/16	85 - 91	Exhaust Hose D.76	**54083091**
3 9/16 - 3 13/16	91 - 97	Exhaust Hose D.80	**54083097**
4 1/16 - 4 7/16	104 - 112	Exhaust Hose D.90	**54083112**
4 3/4 - 5 1/8	121 - 130	Exhaust Hose D.120	**54083130**
4 7/16 - 4 3/4	112 - 121	Exhaust Hose D.102	**54083121**
5 1/8 - 5 1/2	130 - 140	Exhaust Hose D.127	**54083140**
6 3/8 - 6 7/8	162 - 174	Exhaust Hose D.152	**54083174**
7 3/8 - 7 7/8	187 - 200	Exhaust Hose D.175	**54083200**

CLAMPS

FIXING CLAMP

Rubber-coated clamps to absorb vibrations and noise while providing protection to increase the durability of the attachment.

Description	Part Number
Clamp	**59071504**
Clamp	**59072604**
Clamp 1 60/20 W1	**59071604**
Clamp 40/15 W1	**59071404**
Clamp 74/12 SMS with ABA W1	**59071745**
Clamp RSGU 1 06/15 W1	**59071064**
Clamp RSGU 1 16/12 W1	**59071161**
Clamp RSGU 1 22/15 W1	**59071224**
Clamp RSGU 1 30/15 W1	**59071304**
Clamp RSGU 1 32/15 W1	**59071324**

CLAMPS

ENDLESS CLAMP

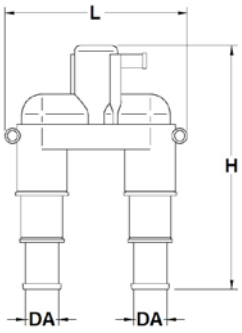
Clamps indicated for joining flexible pipes subject to high mechanical stresses, with uniform distribution of torque forces that are perfectly aligned over the hose to ensure a perfectly sealed connection.

Description	Part Number
Clamp DIN 3017 140-160/9 W1.	**54082033**
Clamp DIN 3017 100-120/12 W4	**54082100**
Clamp DIN 3017 110-130/12 W4	**54082110**
Clamp DIN 3017 12-22/9 W4	**54081012**
Clamp DIN 3017 130-150/12 W4	**54082130**
Clamp DIN 3017 16-27/9 W4	**54081016**
Clamp DIN 3017 20-32/9 W4	**54081020**
Clamp DIN 3017 23-35/9 W4	**54081023**
Clamp DIN 3017 25-40/12 W4	**54082025**
Clamp DIN 3017 25-40/9 W4	**54081025**
Clamp DIN 3017 32-50/12 W4	**54082032**
Clamp DIN 3017 40-60/12 W4	**54082040**
Clamp DIN 3017 50-70/12 W4	**54082050**
Clamp DIN 3017 50-70/9 W4	**54081050**
Clamp DIN 3017 60-80/12 W4	**54082060**
Clamp DIN 3017 70-90/12 W4	**54082070**
Clamp DIN 3017 80-100/12 W4	**54082080**
Clamp DIN 3017 8-12-7,5 W2	**54081007**
Clamp DIN 3017 8-16 W4	**54081008**
Clamp DIN 3017 90-110/12 W4	**54082090**

WATER EXHAUST SYSTEM

PLASTIC SYPHON BREAKER

Kit that prevents cooling water from entering inside the engine with the engine stopped as a result of the siphon effect. This dangerous situation can occur when the cooling water injection point inside the exhaust is located at least 15 cm above the waterline.

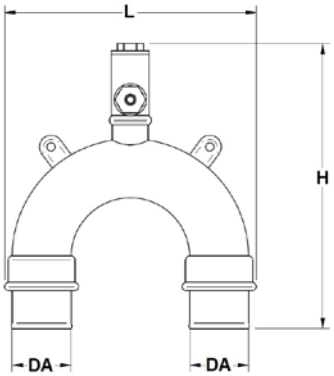


DA (mm)	H (mm)	L (mm)	Part Number
13 - 38	308	158	**60730012**
16 - 19 - 25 - 32	163	85	**60730013**

WATER EXHAUST SYSTEM

METALLIC SYPHON BREAKER

Kit that prevents cooling water from entering inside the engine with the engine stopped as a result of the syphon effect. This dangerous situation can occur when the cooling water injection point inside the exhaust is located at least 15 cm above the waterline.



DA	H	L	Material	Part Number
(mm)	(mm)	(mm)		
12	194	138	Brass	**60730042**
20	204	138	Brass	**60730039**
22	206	138	Brass	**60730041**
25	236	178	Brass	**60730029**
27	239	178	Brass	**60730031**
30	236	178	Brass	**60730033**
32	239	178	Brass	**60730035**
35	239	178	Brass	**60730037**
38	240	178	Brass	**60730011**
40	240	178	Brass	**60730027**
42	220	178	Brass	**60730014**
45	240	178	Brass	**60730026**

WATER EXHAUST SYSTEM

ACCESSORIES FOR METALLIC AIRVENT

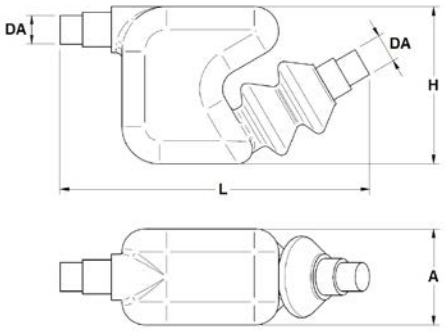
The Metallic Anti-syphon accessories include the 1 1/4” and 1” anti-syphon manifold the 1/2” anti-syphon valve and the 1/2” compact anti-syphon valve.

Description	Part Number
Anti-Syphon Collector 1 1/4"	**60730014.1**
Anti-Syphon Collector 1"	**60730014.4**
Anti-Syphon Valve 1/2"	**60730014.2**
Compact Anti-Syphon Valve 1/2"	**60730014.5**

WATER EXHAUST SYSTEM

PLASTIC WATERLOCK

Silent manifold that collects water from the exhaust hose after the engine stops. It prevents water from entering the marine engine or generator. This manifold has a built-in silencer.

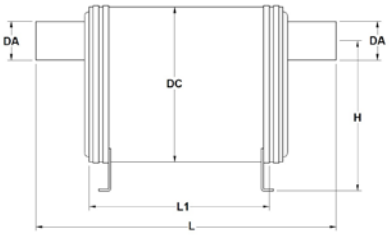


Type	DA	Capacity	L	H	A	Part Number
	(mm)	(L)	(mm)	(mm)	(mm)	
1	40,5 - 45,5 - 50,5	7	485	220	150	**60700040**
2	55 - 60 - 65	20	660	320	220	**60700041**
3	75 - 90	33	760	400	290	**60700042**
3	100 - 115	33	760	400	290	**60700044**

WATER EXHAUST SYSTEM

WATERLOCK (STRAIGHT INLET & OUTLET)

An efficient silencer made for the most demanding marine use with very good exhaust resistance and excellent waterlock function. The silencer comes in several sizes to adapt to any engine installation. Available for exhaust hoses with diameters of between 40 and 153 mm. Material: Heat-resistant rubber, lubricant and oil. Acid-resistant stainless steel clamps and lids.

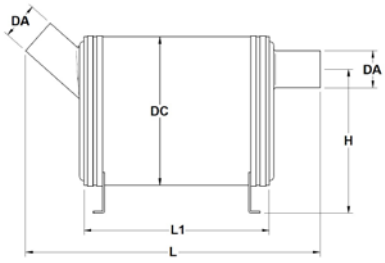


DA	DC	Capacity	L	L1	H	Part Number
(mm)	(mm)	(L)	(mm)	(mm)	(mm)	
40	160	4	310	200	155	**60700055**
45	160	4	310	200	155	**60700056**
45	160	6	410	300	155	**60700078**
51	160	4	320	200	150	**60700057**
51	160	6	410	300	150	**60700058**
51	160	8	510	400	150	**60700079**
57	160	6	420	300	150	**60700059**
60	160	6	420	300	150	**60700060**
63	160	6	420	300	150	**60700061**
76	160	8	560	400	140	**60700062**
76	160	10	660	500	140	**60700080**
89	215	15	640	450	190	**60700063**
100	215	17	680	500	190	**60700064**
125	265	28	750	550	230	**60700065**
153	265	28	800	550	215	**60700066**

WATER EXHAUST SYSTEM

WATERLOCK (STRAIGHT INLET,INCLIN.OUTLET)

An efficient silencer made for the most demanding marine use with very good exhaust resistance and excellent waterlock function. The silencer comes in several sizes to adapt to any engine installation. Available for exhaust hoses with diameters of between 40 and 153 mm. Material: Heat-resistant rubber, lubricant and oil. Acid-resistant stainless steel clamps and lids.

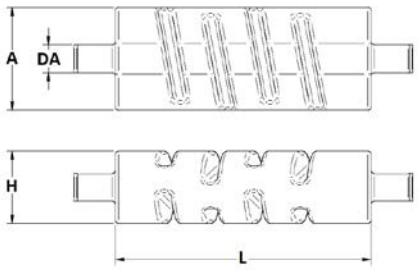


DA	DC	Capacity	L	L1	H	Part Number
(mm)	(mm)	(L)	(mm)	(mm)	(mm)	
40	160	4	320	200	155	**60700045**
45	160	4	320	200	155	**60700046**
45	160	6	420	300	155	**60700081**
51	160	4	330	200	150	**60700047**
51	160	6	430	300	150	**60700048**
51	160	8	520	400	150	**60700082**
57	160	6	480	300	150	**60700083**
60	160	6	470	300	145	**60700085**
63	160	6	470	300	145	**60700049**
76	160	8	590	400	140	**60700050**
76	160	10	660	500	140	**60700084**
89	215	15	660	450	190	**60700051**
100	215	17	710	500	190	**60700052**
125	265	28	820	550	230	**60700053**
153	265	28	900	550	215	**60700054**

WATER EXHAUST SYSTEM

EXHAUST SILENCER

Wet exhaust silencer with a particular inner structure which allows to significantly reduce noises produced by gases, creating an additional mixture with the exhaust water. In addition, the resistance of the water/smoke mixture passage is reduced to the minimum due to its design.

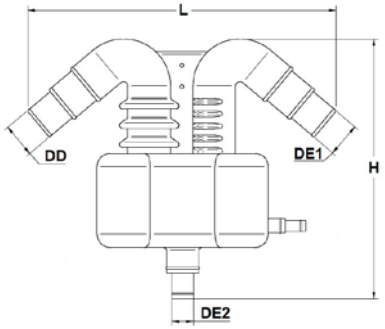


DA	L	A	H	Part Number
(mm)	(mm)	(mm)	(mm)	
40	372	150	105	**60700340**
45	372	150	105	**60700341**
50	372	150	105	**60700342**
60	372	150	105	**60700343**
75	372	150	105	**60700344**
90	460	183	135	**60700345**
102	460	183	135	**60700346**

WATER EXHAUST SYSTEM

WATER/GAS SEPARATOR

Water/gas separator for marine engines and generators. On-board engine exhausts and generator sets produce noise. The Solé Diesel water and gas separator prevents these noises and buffers them while under way, separating the cooling water injected into the exhaust. It can function as a gooseneck.

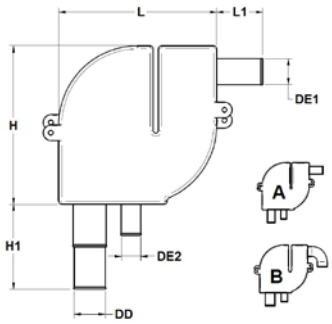


DD	DE1	DE2	L	H	Capacity	Part Number
(mm)	(mm)	(mm)	(mm)	(mm)	(L)	
40 - 45 - 50	40 - 45 - 50	25 - 38	370	310	2,5	60730025
40 - 45 - 50	40 - 45 - 50	25 -38	370	370	4,5	60730028

WATER EXHAUST SYSTEM

PROFESSIONAL WATER/GAS SEPARATOR

Professional water/gas separator for engines and marine gensets. The exhausts of the engines and marine gensets on board produce noises. The Solé Diesel water/gas separator prevents and reduces these noises during navigation, separating the injected cooling water into the exhaust. Besides, this professional range allows a higher workload without losing efficiency. In addition, this accessory functions also as a gooseneck

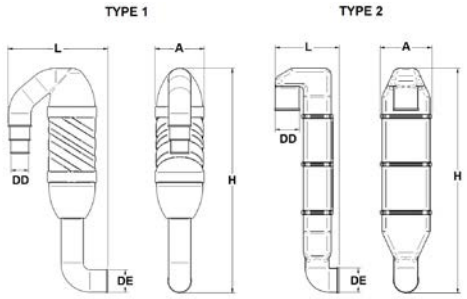


Type	DD	DE1	DE2	L	L1	HH	H1	Flow rate	Part Number
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(l/min)	
A	50	50	38	306	89	306	83	42	60730043
A	60 - 63,5	50	38	306	89	306	164	42	60730044
B	75	76	50	371	143	371	100	60	60730045

WATER EXHAUST SYSTEM

GOOSE NECK

The gooseneck prevents outside water from entering the engine.

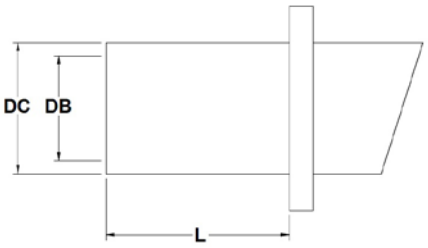


Type	DD	DE	L	A	H	Part Number
	(mm)	(mm)	(mm)	(mm)	(mm)	
1	40 - 45 - 50	50	110	110	480	**60700241**
2	50	50	182	135	502	**60700250**
2	60	60	182	135	502	**60700260**

WATER EXHAUST SYSTEM

RUBBER TRANSOM EXHAUST CONNECTION

Plastic element to allow gases and water to escape through the wet exhaust hose. It must be fixed to the hull at least 5 cm above the waterline.

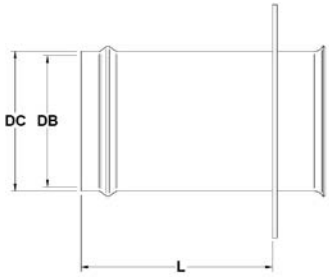


DC	DB	L	Part Number
(mm)	(mm)	(mm)	
60	40 - 45 - 50	104	**60700145**
93	90	110	**60700191**

WATER EXHAUST SYSTEM

INOX TRANSOM EXHAUST CONNECTION

Stainless steel element to allow gases and water to escape through the wet exhaust hose. It must be fixed to the hull at least 5 cm above the waterline.

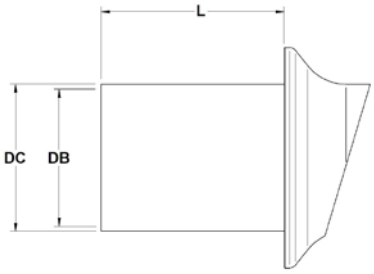


DC	DB	L	Part Number
(mm)	(mm)	(mm)	
60	57	110	**60700152**
75	73	110	**60700176**
90	85	111	**60700177**

WATER EXHAUST SYSTEM

TRANSOM EXHAUST CONNECTION WITH CHECK VALVE

Hull outlet in STAINLESS 316 with check valve to prevent water from entering.

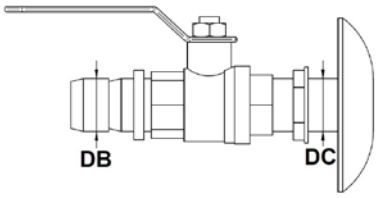


DC (mm)	DB (mm)	L (mm)	Part Number
40	36	75	**60700070**
45	41	75	**60700071**
51	45	75	**60700072**
60	56	75	**60700073**
76	70	90	**60700074**
90	86	110	**60700075**
100	96	115	**60700076**
125	121	140	**60700077**

WATER EXHAUST SYSTEM

SEA WATER COCK OUTFLOW

Sea water outlet valves.

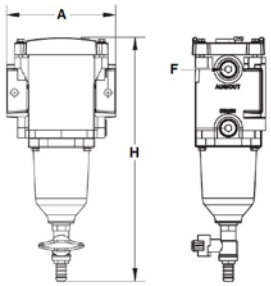


DB (mm)	DC (mm)	Part Number
20	21	**60139008**
25	26	**60139000**
25	33	**60139009**
25	42	**60139010**
25	48	**60139011**

FUEL FILTER WATER SEPARATOR

WATER SEPARATOR FUEL FILTER (SEPAR)

Fuel filters eliminate moisture and particles from diesel to protect the fuel circuits of marine engines. They consist of a water-fuel separator, a glass plate, a purge vent and an exchangeable filtering element. They are indicated for marine engines of up to 3,500 cc, with a maximum flow of up to 300 l/h.

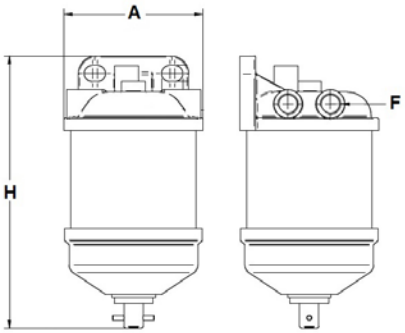


H (mm)	A (mm)	F	Flow rate (l/h)	Weight (Kg)	Filter element p/n	Part Number
312,8	140	M16x1,5	300	1,59	60300200.2	**60300200.1**

FUEL FILTER WATER SEPARATOR

WATER SEPARATOR FUEL FILTER (DELPHI)

Full decanting filter with glass vessel, purger, and interchangeable filtering element. For marine engines with maximum cylinder capacity of 3,500 CC. Maximum flow of 50 l/h. Installations with decanting filters are essential for avoiding blockage problems in the fuel system.



H	A	F	Flow rate	Weight	Filter element p/n	Part Number
(mm)	(mm)		(l/h)	(Kg)		
170	96	M14x1,5	50	0,62	12814028	**60300115**

FUEL FILTER WATER SEPARATOR

WATER SEPARATOR FUEL FILTER SPARE PARTS

The spare parts for diesel decanting filters contain all the elements required to interchange the main components of the marine engine diesel filter. These include the glass body, the decanting filter, and the decanting filter vessel. Fuel decanting filters must be serviced when they show signs of wear or blockage.

Description	Part Number
Deep Spherical Bowl for Filter	**60300203**
Flat Bowl for Filter	**60300103**
Spherical Bowl for Filter	**60300103I**

FUEL FILTER WATER SEPARATOR

WATER SEPARATOR FUEL FILTER ACCESSORIES

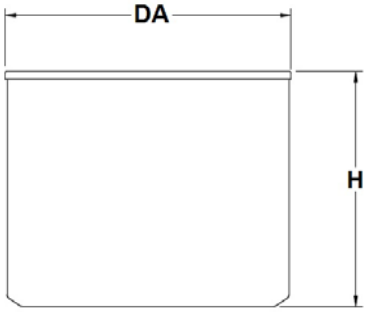
Decanting filter accessories include the fittings kit necessary for filtering marine diesel engine to prevent blockages in the fuel installation. They are available in diameters of 8 mm to 12 mm.

ø Hose	Type of filter	Part Number
(mm)		
8	DELPHI	**60300117**
10	DELPHI	**60300118**
8	SEPAR	**60300206**
10	SEPAR	**60300207**
12	SEPAR	**60300208**

FUEL FILTER WATER SEPARATOR

FUEL FILTER ELEMENT

Diesel filtering elements for removing fuel impurities in marine engines. It is available in 10 and 30 microns and includes a seal for the decanting filter. The filtering element prevents blockages in the circuit and guarantees proper functioning of the fuel systems of large and small marine engines.



DA	H		Filter element p/n	Part Number
(mm)	(mm)			
76	24	60300200.1	Separ Fuel Filter Water Separator	**60300200.2**
79	67	60300200	Fuel Filter Water Separator KWA 50	**60300201**
88,4	72,2	60300115	Fuel Filter Water Separator	**12814028**
89	54	60300200	Fuel Filter Water Separator KWA 50	**60300201.1**

MECHANICAL ENGINE REMOTE CONTROL

PUSH-PULL CABLES

Stainless steel cable with plastic casing, in several standard sizes based on specific needs. Does not require maintenance. Nut UNF10-32h.

L	L	Part Number
(m)	(ft)	
1,5	4,9	**60400015**
2	6,6	**60400020**
2,5	8,2	**60400025**
3	9,8	**60400030**
3,5	11,5	**60400035**
4	13,1	**60400040**
4,5	14,8	**60400045**
5	16,4	**60400050**
5,5	18	**60400055**
6	19,7	**60400060**
6,5	21,3	**60400065**
7	23	**60400070**
7,5	24,6	**60400075**
8	26,2	**60400080**
8,5	27,9	**60400085**
9	29,5	**60400090**
10	32,8	**60400100**
11	36	**60400110**
12	39,4	**60400120**

MECHANICAL ENGINE REMOTE CONTROL

PUSH-PULL XTREME CABLES

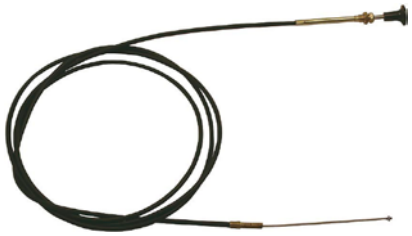
Stainless steel cable with a reinforced plastic casing, available in several sizes. It is more resistant and can therefore reach longer lengths.

L (m)	L (ft)	Part Number
13	42,6	60400130
14	45,9	60400140
15	49,2	60400150
16	52,5	60400160
17	55,8	60400170
18	59	60400180
19	62,3	60400190
20	65,6	60400200
21	68,9	60400210
22	72,2	60400220
23	75,4	60400230
24	78,7	60400240

MECHANICAL ENGINE REMOTE CONTROL

SHUT-DOWN CABLE

Made from steel wire with a plastic case and brass ends. They are sold in several standard lengths based on specific needs.

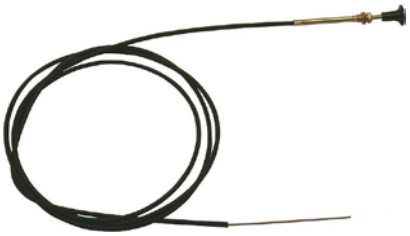


L (m)	L (ft)	Part Number
0,5	1,6	60900405.1
1	3,3	60900410.1
1,5	4,9	60900415.1
2	6,6	60900420.1
2,5	8,2	60900425.1
3	9,8	60900430.1
3,5	11,5	60900435.1
4	13,1	60900440.1
4,5	14,8	60900445.1
5	16,4	60900450.1
6	19,7	60900460.1

MECHANICAL ENGINE REMOTE CONTROL

THREADLESS TERMINAL SHUT-DOWN CABLE

Made from steel wire with a plastic case and brass ends.

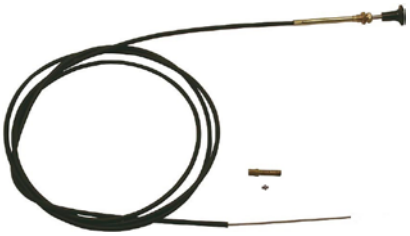


L (m)	L (ft)	Part Number
6	19,7	60900460VC
10	32,8	609004100C

MECHANICAL ENGINE REMOTE CONTROL

VARIABLE SHUT-DOWN CABLES

Made from steel wire with a plastic case and brass ends. They are sold in standard 6 m and 10 m lengths and can be adapted to the desired length by the user.



L (m)	L (ft)	Part Number
6	19,7	60900460V
10	32,8	609004100

MECHANICAL ENGINE REMOTE CONTROL

SHUT-DOWN CABLE ACCESSORIES

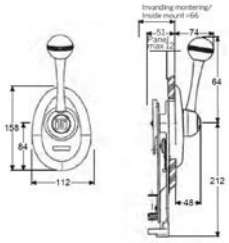
Attachment element for pair cables without threaded screw connection, required to attach the free end of the steel cable to the element being controlled.

Description	Part Number
Shut-Down Cablele Clamp	60900106

MECHANICAL ENGINE REMOTE CONTROL

STAINLESS STEEL SIDE CONTROL FOR SAILING BOAT

Engine throttle control grip with mechanical operation via cable and lateral installation. Finished in stainless steel.

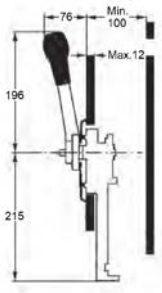


Description	Part Number
Stainless Side Control For Sailboat	60420101

MECHANICAL ENGINE REMOTE CONTROL

SIDE CONTROL FOR SAILING BOAT

Engine throttle control grip with mechanical operation via cable and lateral installation.

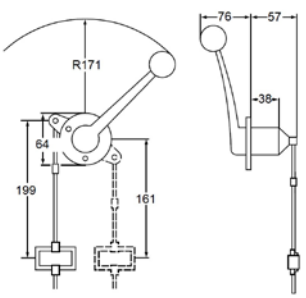


Description	Part Number
Side Mounting Control For Sailboat	60400001

MECHANICAL ENGINE REMOTE CONTROL

SIDE CONTROL FOR TROLLING VALVE

Engine throttle control grip for trolling with mechanical operation via cable and lateral installation. Finished in stainless steel.

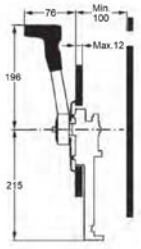


Description	Part Number
Side Control For Trolling Valve	60420002

MECHANICAL ENGINE REMOTE CONTROL

SIDE CONTROL

Engine throttle control grip with mechanical operation via cable and lateral installation.

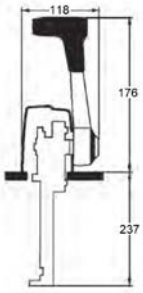


Description	Part Number
Side Mounting Control	60400004

MECHANICAL ENGINE REMOTE CONTROL

TOP MOUNTING CONTROL

Engine throttle control grip with mechanical operation via cable and console installation.

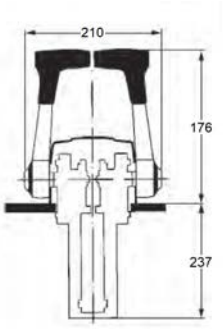


Description	Part Number
Top Mounting Control	60400002

MECHANICAL ENGINE REMOTE CONTROL

TOP MOUNTING CONTROL FOR TWIN ENGINES

Engine throttle control grip for dual-engine vessels with mechanical operation via cable and console installation.

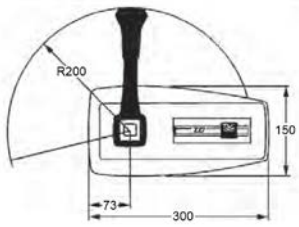


Description	Part Number
Top Mounting Twin Lever Control	60400003

MECHANICAL ENGINE REMOTE CONTROL

OUTBOARD ENGINE CONTROL

Engine throttle control grip for outboard applications. Mechanical operation via cable and lateral installation.

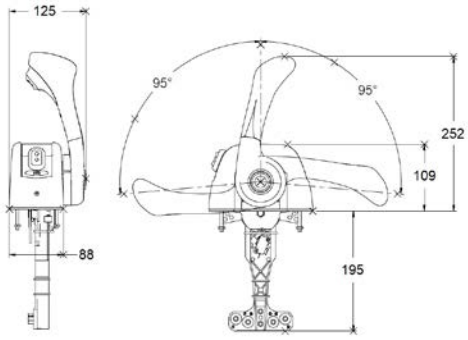


Description	Part Number
Outboard Engine Control	60400005

MECHANICAL ENGINE REMOTE CONTROL

TOP MOUNTING CONTROL TRIM

Engine throttle control grip with trim control, mechanical operation via cable, and console installation. Chrome-plated finish.



Description	Part Number
Top Mounting Control with Trim	60400007

MECHANICAL ENGINE REMOTE CONTROL

MECHANICAL CONTROL ACCESSORIES

Set of elements and mechanisms that comprise the mechanical throttle control grips for engines.

Description	Part Number
Control Mechanism	60400010
Control,Side Mount for SailBoats	60400101
Control,Side Mounted	60400104
Control,Top Mounted	60400102
Control,Top Mounted Dual	60400103
Dual Station Unit	60400006

ELECTRONIC CONTROL SYSTEM

Ultraflex mounting is an electronic control system for inboard and outboard engines specifically designed to offer a maximum comfort and manoeuvrability.

FEATURES

- Compatible with mechanical engines and electrical motors
- Compatible with hydraulic and mechanical transmissions and stern drives.
- Suitable for boats with double engines
- Suitable for multiple stations up to 4 controls
- Dock assist
- Working voltages of 12V and 24V
- Control station brightness regulator
- Communication with NMA 2000
- Compatible with trolling valve control

ACCESSORIES

- Power Cable
- Power Extension cable
- Hyundai V-Throttle Cable
- Electrical Inverter cable
- CA Cable

DOUBLE CONTROL SYSTEM WITH TRIM

SINGLE CONTROL SYSTEM WITHOUT TRIM

Number of Engines		Engine Regulation		Gearbox Regulation		Number of levers		Trim	Part number
1	2	Mechanical	Electrical	Mechanical	Electrical	1	2		
✓			✓		✓	✓		NO	60420189
✓			✓		✓		✓	NO	60420188
✓			✓	✓		✓		NO	60420193
✓			✓	✓		✓		YES	60420184
✓			✓	✓			✓	NO	60420194
✓			✓	✓			✓	YES	60420183
✓		✓		✓		✓		NO	60420195
✓		✓		✓		✓		YES	60420196
✓		✓		✓			✓	NO	60420197
✓		✓		✓			✓	YES	60420198
✓		✓			✓	✓		NO	60420219
✓		✓			✓		✓	NO	60420220
	✓		✓		✓	✓		NO	60420187
	✓		✓		✓		✓	NO	60420180
	✓		✓	✓		✓		NO	60420199
	✓		✓	✓		✓		YES	60420182
	✓		✓	✓			✓	NO	60420200
	✓		✓	✓			✓	YES	60420181
	✓	✓		✓		✓		NO	60420201
	✓	✓		✓		✓		YES	60420202
	✓	✓		✓			✓	NO	60420203
	✓	✓		✓			✓	YES	60420204
	✓	✓			✓	✓		NO	60420221
	✓	✓			✓		✓	NO	60420222

* Consult according to the type of engine.

ELECTRONIC ENGINE REMOTE CONTROL

ELECTRONIC CONTROL ACCESSORIES

Set of elements that comprise the electronic throttle control grips for engines.

Description	Part Number
Button	60400101.1
Can Cable 1 M	60420174
Can Cable 10 M	60420177
Can Cable 15 M	60420178
Can Cable 20 M	60420179
Can Cable 3 M	60420175
Can Cable 7 M	60420176
Config. et Doc. Commande Électronique	60420223
Control Unit	60420154
Lever, Control	25610424
Lever, Gas Control	12119071
Lever, Morse	17419002
Main Power Cable 1 M	60420160
Main Power Cable 3 M	60420161
Main Power Cable 7 M	60420162
Mechanical Actuator	60420152
Power Extension Cable 1 M	60420164
Power Extension Cable 10 M	60420167
Power Extension Cable 3 M	60420165
Power Extension Cable 7 M	60420166
Power Unit	60420150
Shift Unit	60420153
V-Throttle Hyundai	60420151

GAUGES

TACHOMETER COUNTER VT

Dial gauge showing engine revolutions.

Voltage (V)	RPM	Associated engine	Part Number
12	4000	MINI-17/26/29	**60938910**
12	4000	MINI-17/26	**60938911**
12	4000	MINI-62	**60971912**
12	4000	MINI-33/44	**60972912**
12	4000	MINI-74 SM-10	**60974911**
12	4000	SM-82/94	**60978900**
12	4000	SN-85/110	**60982911**
12	4000	SV 140	**60985911**
12	4000	SV 220/230	**60987911**
12	4000	SFN-100/160/210	**60990912**
12	4000	SK-60	**609A0900**
24	4000	SFN-100/160/210	**60990910**
24	4000	SDZ-165/205	**60994912**

GAUGES

TACHOMETER COUNTER MT

Dial gauge showing engine revolutions.

Voltage (V)	RPM	Associated engine	Part Number
12	4000	MINI-1/2/3	**60923710**
12	4000	MINI-18	**60931710**
12	4000	MINI-33/34/44	**60934710**
12	4000	MINI-23	**60936710**
12	4000	MINI-10	**60937710**
12	4000	MINI-11/17/26	**60938710**
12	4000	HS-121/150	**60965710**
12	4000	HS-270	**60967710**
12	4000	MINI-48	**60970710**
12	4000	MINI-62	**60971710**
12	4000	MINI-74	**60974710**
12	4000	SM-75/90	**60980710**
12	4000	SN-110	**60982710**
12	4000	SV-140/220	**60985710**
12	4000	SFN-100/160/210	60990710

GAUGES

TACHOMETER COUNTER TF

Dial gauge showing engine revolutions.

Voltage (V)	RPM	Associated engine	Part Number
12	4000	MINI-62	**60971910**
12	4000	MINI-33/44/55	**60972910**
12	4000	MINI-74 SM-105	**60974910**
12	4000	SN-85/110	**60982910**
12	4000	SV-140	**60985910**
12	4000	SV-230	**60987910**
24	4000	MINI-33/44/55	**60972911**
24	4000	SM-105	**60975911**
24	4000	SFN-160	**60992911**
24	4000	SDZ-165/205	**60994911**

GAUGES

WATER TEMPERATURE GAUGE VT

Dial gauge showing the temperature of the engine coolant. Available in 12 V and 24 V.

Voltage (V)	Part Number
12	**60900937**
24	**60900938**

GAUGES

WATER TEMPERATURE GAUGE MT

Dial gauge showing the temperature of the engine coolant. Available in 12 V and 24 V.

Voltage (V)	Part Number
12	**60900815**
12	**60900815M**
24	**60900816**
24	**60900816M**

GAUGES

WATER TEMPERATURE GAUGE TF

Dial gauge showing the temperature of the engine coolant. Available in 12 V and 24 V.

Voltage (V)	Part Number
12	60900915
24	60900916

GAUGES

OIL PRESSURE GAUGE VT

Dial gauge showing the pressure of the engine oil. Available in 12 V and 24 V.

Voltage (V)	Part Number
12	60900939
24	60900940

GAUGES

OIL PRESSURE GAUGE MT

Dial gauge showing the pressure of the engine oil. Available in 12 V and 24 V.

Voltage (V)	Part Number
12	60900820M
24	60900821
24	60900821M

GAUGES

OIL PRESSURE GAUGE TF

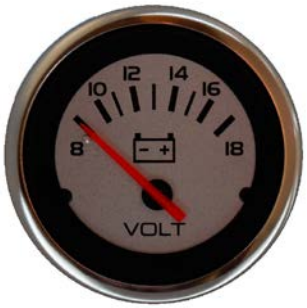
Dial gauge showing the pressure of the engine oil. Available in 12 V and 24 V.

Voltage	Part Number
(V)	
12	60900920R
24	60900921R

GAUGES

VOLTMETER VT

Dial gauge showing the voltage of the batteries. Available in 12 V and 24 V.



Voltage	Part Number
(V)	
12	60900941
24	60900942

GAUGES

VOLTMETER MT

Dial gauge showing the voltage of the batteries. Available in 12 V and 24 V.

Voltage	Part Number
(V)	
12	60900825M
24	60900826
24	60900826M

GAUGES

VOLTMETER TF

Dial gauge showing the voltage of the batteries. Available in 12 V and 24 V.

Voltage (V)	Part Number
12	60900925R
24	60900926R

GAUGES

GAUGE ACCESSORIES

Accessories for the different gauges.

Description	Part Number
Fuel level sensor	60900952
Fixing Nut Gauge+Terminal	60900910.2
Revolution Counter Fixing Bracket	60900910.1

GAUGES

HOUR METER

Dial gauge showing the engine operating time.

Voltage (V)	Part Number
12	60900918

GAUGES

FUEL LEVEL GAUGE

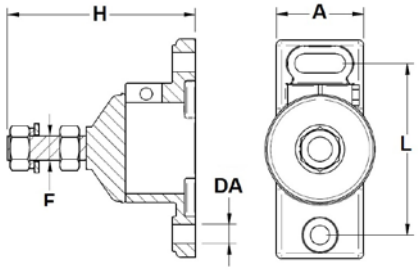
Dial gauge showing the fuel level. Available in 12 V.

Voltage	Part Number
(V)	
12	60900950R

SILENTBLOCKS

SILENTBLOCKS A

Flexible supports made from synthetic rubber and metal that can absorb the push of the propeller. Solé Diesel silentblocks are designed to eliminate engine vibrations and noise. They also facilitate easy alignment.

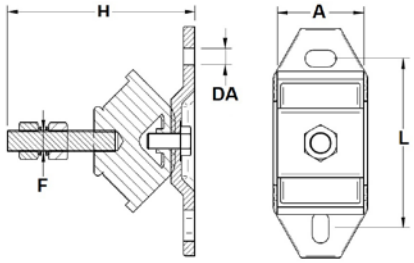


Load	Hardness	DA	H	L	A	F	Part Number
(Kg)	(Sh A)	(mm)	(mm)	(mm)	(mm)		
50	50	11	108	98	50	M14x1,5	61631100
60	60	11	125	98	11	M16x1,5	61651000

SILENTBLOCKS

SILENTBLOCKS B

Flexible supports made from synthetic rubber and metal flexible supports made from synthetic rubber and metal that can absorb the push of the propeller. Solé Diesel silentblocks are designed to eliminate engine vibrations and noise. They also facilitate easy alignment.

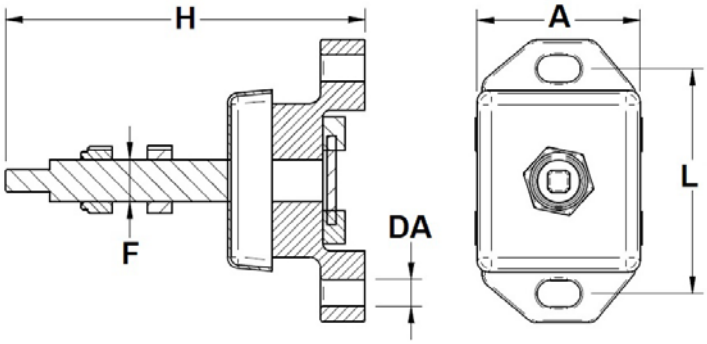


Load	Hardness	DA	H	L	A	F	Part Number
(Kg)	(Sh A)	(mm)	(mm)	(mm)	(mm)		
85	45	13	136	127	65	M16x1,5	61653000
85	45	13	136	127	65	M20x1,5	61665100
70	40	13	136	127	65	M16x1,5	61670000
100	63	13	136	127	65	M16x1,5	61685000

SILENTBLOCKS

SILENTBLOCKS C

Flexible supports made from synthetic rubber and metal that can absorb the push of the propeller. Solé Diesel silentblocks are designed to eliminate engine vibrations and noise. They also facilitate easy alignment.

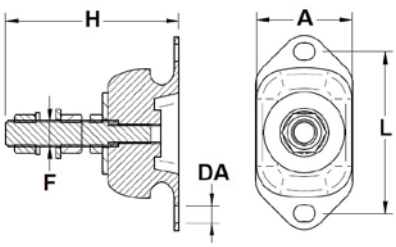


Load	Hardness	DA	H	L	A	F	Part Number
(Kg)	(Sh A)	(mm)	(mm)	(mm)	(mm)		
255	65	13	137	101,6	69,86	5/8 UNF	**61690058**
256	65	13	165	101,6	69,86	3/4 UNF	**61690000**
309	75	13	137	101,6	69,85	5/8 UNF	**61691058**
310	75	13	165	101,6	69,85	3/4 UNF	**61691000**
345	60	13	137	101,6	92,08	5/8 UNF	**61696058**

SILENTBLOCKS

SILENTBLOCKS D

Flexible supports made from synthetic rubber and metal that can absorb the push of the propeller. Solé Diesel silentblocks are designed to eliminate engine vibrations and noise. They also facilitate easy alignment.

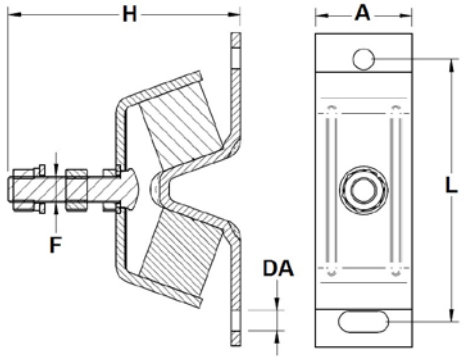


Load	Hardness	DA	H	L	A	F	Part Number
(Kg)	(Sh A)	(mm)	(mm)	(mm)	(mm)		
90	65	11	95	98	61	M14x1,5	**61639000**
70	55	11	106	100	60	M16x1,5	**61654000**
90	65	11	108	98	61	M16x1,5	**61661000**
225	55	13	105	140	75	M16x1,5	**61652000**
150	45	13	105	140	75	M16x1,5	**61652010**
300	65	13	120	140	75	M20x1,5	**61665000**
300	65	13	130	140	75	M16x1,5	**61665000.1**
300	65	13	110	140	75	M16x1,5	**61665200**
120	45	13	114	140	75	M16x1,5	**61673100**
220	55	13	110	140	75	M16x1,5	**61678000**
400	75	13	120	140	75	M20x1,5	**61694004**
350	45	18	114	182	112	M20x1,5	**61694001**
525	55	18	110	182	112	M20x1,5	**61694002**
525	55	18	152	186	112	M16X1,5	**61694006**

SILENTBLOCKS

SILENTBLOCKS E

Flexible supports made from synthetic rubber and metal that can absorb the push of the propeller. Solé Diesel silentblocks are designed to eliminate engine vibrations and noise. They also facilitate easy alignment.

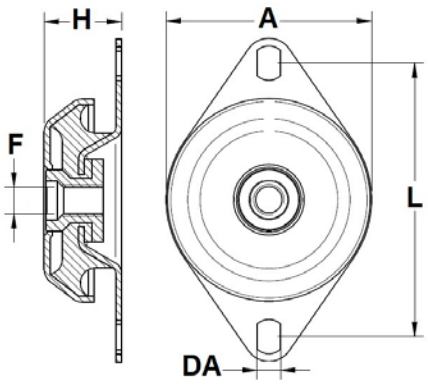


Load	Hardness	DA	H	L	A	F	Part Number
(Kg)	(Sh A)	(mm)	(mm)	(mm)	(mm)		
150	70	12	147	173	60	M16x1,5	**61682000.1**
70	67	13	145	175	60	M16x1,5	**61671000**
50	55	13	145	175	60	M16x1,5	**61672000**
60	60	13	145	175	60	M16x1,5	**61673000**
85	75	13	145	175	60	M16x1,5	**61682000**

SILENTBLOCKS

SILENTBLOCKS F

Flexible supports made from synthetic rubber and metal for marine generator. Solé Diesel silentblocks are designed to eliminate engine vibrations and noise. They also facilitate easy alignment.

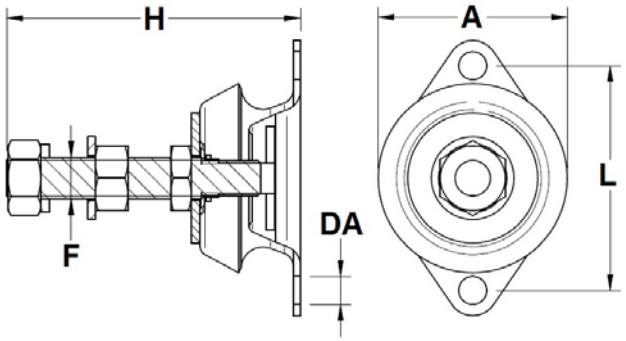


Load	Hardness	DA	H	L	A	F	Part Number
(Kg)	(Sh A)	(mm)	(mm)	(mm)	(mm)		
75	50	9	34	83,5	63	M12	**61638001**
200	35	10	34	123	94	M12	**61673001**
200	35	10,5	34	122	95	M10	**61674000**
200	40	12,5	41	143	108	M16	**61674001**
200	35	12,5	41	143	108	M12	**61674002**

SILENTBLOCKS

SILENTBLOCKS G

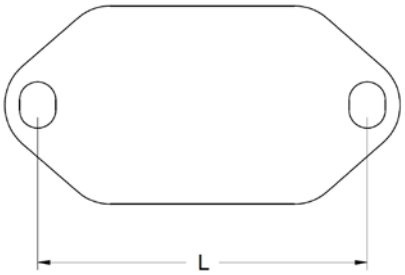
Flexible supports made from synthetic rubber and metal that can absorb the push of the propeller. Solé Diesel silentblocks are designed to eliminate engine vibrations and noise. They also facilitate easy alignment.



Load	DA	H	L	A	F	Part Number
(Kg)	(mm)	(mm)	(mm)	(mm)		
70	9,5	100	76	64	M14x1,5	**61638000R**
50	9,5	100	76	64	M14x1,5	**61676000R**

SHIMS

Accessories range the new height levellers, developed and suitable for the engine replacements. These shims provide a precise and secure adjustment. They are made of an anticorrosion covering with an electrolytic galvanizing, 12/15 microns thick.All the packs include the box and 12 shims (3 different sizes* / 4 pieces per size)
*Sizes: 3 / 5 / 10 mm



L	Associated engine	Part Number
(mm)		
76	Mini-17/Mini-29	**61638100**
100	Mini-17/Mini-29/Mini-33	**61654100**
140	Mini-44/Mini-55/Mini-62/SK-60/Mini-74/SM-82/SM-94/SM-103/U125/D170/R200/S270	**61673101**

HOSES

EXHAUST HOSE

Rubber hose with highly resistant textile reinforcement with spiral steel wire. Supplied by meters. The physical properties of the hose give an optimum flexibility and resistance to the engine exhaust. Approved by: 0474 R.I.N.A, DIP N. 128405/MI/2 - Lloyd's Register.

Ø int. (mm)	Ø ext. (mm)	Pressure (bar)	R curvature (mm)	Part Number
40	48	3	40	M88504052
45	53	3	45	M88504557
51	61	3	51	M88505062
55	65	3	55	M88505055
60	70	3	60	M88506072
76	86	3	76	M88507587
80	90	3	80	M88508092
90	100	3	90	M885090102
102	112	3	152	M8850102114
120	132	3	240	M88501202
127	139	3	255	M8850127139
152	164	3	305	M8850152164
175	191	3	525	M8850175187
203	219	3	815	M8850203218
254	272	3	1270	M8850254272
325	305	3	1830	M8850305325

HOSES

HIGH QUALITY REFRIGERATION HOSE

Cooling water suction hose for marine engines and generators, made from rubber. Supplied by meters. The physical properties of the hose give it optimum flexibility and resistance. This additional flexibility is what makes it perfect for all kinds of installations of generator sets and marine engines because it has the same suction and cooling water transport properties as a keel cooler. Perfect for suction of fresh water, salt water, and all cooling fluids. It can be used as an exhaust pipe.

Ø int. (mm)	Ø ext. (mm)	Pressure (bar)	R curvature (mm)	Part Number
15	23	5	55	M87501523
19	27	5	70	M87501927
20	28	5	70	M87502029
22	30	5	75	M87502230
25	33	5	85	M87502535
28	36	5	95	M87502838
30	38	5	100	M87503040
32	42	5	105	M87503242
38	48	5	130	M87503848
40	50	5	135	M87504050
42	52	5	140	M87504252
45	55	5	150	M87504555
51	61	5	165	M87505060
55	65	5	180	M87505565
60	70	5	200	M87506070
80	94	5	265	M87508094

HOSES

FUEL HOSE DIN 73379

Fuel hoses for vessel engines are made with high quality rubber and allow diesel, petrol, and oil to circulate at high working temperatures between -35° and +90°. Quality standards: SAE J 1527: 2004 USCG A1 R1, ISO 7840: 2004 A1 EC.

Ø int. (mm)	Ø ext. (mm)	Pressure (bar)	R curvature (mm)	Part Number
5	11	10	35	M86500512

HOSES

FUEL HOSE ISO 7840

Hoses intended for fuel propulsion. The hose is made from self-extinguishing black rubber which is resistant to sea water, oils, and ambient heat. Supplied by the meter. (-20°C / +80°C) Standards: SAE J 1527: 2004 USCG A1 - ISO 7840: 2004 A1 EC. Approved by: 0474 R.I.N.A – LLOYD'S REGISTER.

Ø int. (mm)	Ø ext. (mm)	Pressure (bar)	R curvature (mm)	Part Number
6	15	14	30	M81510616
8	16	14	45	M81510817
10	18	14	55	M81511019
12	21	10	70	M81511222
16	25	10	90	M81511626
19	29	10	130	M81511930
25	37	10	250	M81512520
30	40	10	300	M81523040
35	47	10	250	M81513547
38	52	10	380	M81513848
51	65	10	500	M81515063

HOSES

REINFORCED FUEL HOSE ISO 7840

The reinforced fuel hose is our best hose for diesel, petrol, and oil, and is available in 50-62 mm and 76-87 mm diameters. Its unique composition in flame-retardant rubber means it is highly effective for safe fuel transfers. SAE J 1527: 2004 USCG A1 R1, ISO 7840: 2004 A1 EC Approved by: 0474 R.I.N.A, DIP N. 128405/MI/2 - Lloyd's Register.

Ø int. (mm)	Ø ext. (mm)	Pressure (bar)	R curvature (mm)	Part Number
30	42	10	45	M81513040
38	48	10	60	M81513849
50	62	10	75	M81515062
76	87	10	150	M81517687

HOSES

WATER ASPIRATION HOSE

Marine water aspiration hose reinforced with high tensile textile plies and helix wire embedded, cover with black rubber resistant to abrasion, heat and marine environmnet. Also suitable for cooling the heat exchangers on private boats. Standards: SAE J 2006:03 R2 – ISO 13363:04 Type 2 Class B Approved by: LLOYD'S REGISTER nr. 96/00126 - RINA nr.DIP103514CS.

Ø int. (mm)	Presión (bar)	R curvatura (mm)	Referencia
19	3	84	M88500019
25	3	110	M88500025
30	3	135	M88500030
32	3	145	M88500032
35	3	155	M88500035
38	3	170	M88500038
40	3	180	M88500040
45	3	200	M88500045
50	3	230	M88500050
53	3	240	M88500053
60	3	270	M88500060
63	3	295	M88500063

HOSES

TRANSPARENT WATER HOSE WITH STEEL REINFORCMENT

High-quality transparent water hose indicated for water and liquids intended for human consumption. Made from PVC that is resistant to environmental wear and chemical products, reinforced with steel spiral. (-10°C / +60°C) Standards: DM 21/3/73 - EEC 90/128.

Ø int. (mm)	Ø ext. (mm)	Pressure (bar)	R curvature (mm)	Part Number
12	18	7	25	M87521218
14	20	6	30	M87521420
16	22	6	35	M87521622
20	27	5	50	M87522027
25	33	5	75	M87522533
30	38	4,5	90	M87523038
32	40	4,5	95	M87523240
35	44	4	105	M87523544
38	47	4	115	M87523847
40	48	3	120	M87524049
50	60	3	150	M87525060

HOSES

SANITARY WATER HOSE

Smooth-textured sanitary hose, extremely flexible, specially designed for service wastewater. The sanitary hose prevents sanitary drain odours from spreading. Made from vanilla-scented white rubber. Resistant to abrasion, ozone, seawater and marine agents, reinforced with a double steel spiral. (-40°C / +120°C) Standards: European, FDA and ISO 8099: 2000.

Ø int. (mm)	Ø ext. (mm)	Pressure (bar)	R curvature (mm)	Part Number
16	26	7	35	M87531626
19	29	7	40	M87531929
25	35	7	50	M87532535
38	48	7	80	M87533848

HOSES

AIR ASPIRATION HOSE

Ventilation hose designed for the suction of air, gas, smoke, or steam from the engine compartment. It is made from grey PVC with a steel spiral and is resistant to flames, ozone, and sunlight. The hose can be used on the entire ventilation system of a ship. (-25°C / +125°C) Fire resistance: CSTB M1 and DIN 4102.

Ø	Pressure	R curvature	Part Number
(mm)	(bar)	(mm)	
40	0,9	25	**M88564000**
45	0,9	30	**M88564500**
50	0,8	35	**M88565000**
60	0,8	42	**M88566000**
70	0,7	49	**M88567000**
76	0,6	53	**M88567600**

HOSES

CABLE PROTECTION HOSE

Highly flexible protective cable sleeve to adapt to any corner of a ship. Made from material that is highly resistant to marine corrosion.

Ø ext.	Ø int.	R curvature	Part Number
(mm)	(mm)	(mm)	
61	50	125	**M87535000**

ORIGINAL SPARE PARTS

PAINT CAN

High quality high-heat paint for touching up any damage caused by the pass of time.

Color	Capacity	Weight	Part Number
	(ml)	(Kg)	
Classic Blue 1603	750	0,9	**MPINA0750**
Metallic blue	1000	1,2	**MPINA1000**
Gray	750	0,9	**MPING0750**

ORIGINAL SPARE PARTS

SPRAY PAINT

Paint, varnish, and primer sprays allow several anti-corrosive layers to be applied with an elegant finish to protect marine engines from harsh sea conditions. Thanks to their aerosol format they are easy to apply and dry quickly.

Color	Capacity	Weight	Part Number
	(ml)	(Kg)	
Classic Blue 1603	400	0,4	**PINES400A**
Metallic blue	400	0,4	**PINES400**
Metallic blue with varnish	400	0,4	**PINES401**
White Ral 9016	400	0,4	**PINES400BL**
Gray Hyundai	400	0,2	**PINES600**
Gray MHI Marine Engine	400	0,2	**PINES500**
Primer	400	0,2	**PINIM400**
Dielectric protector	400	0,4	**MPINAH400**

ORIGINAL SPARE PARTS

GENUINE ENGINE SOLÉ DIESEL OIL

Multi-grade SAE 15W40 oil, specially designed for diesel marine engines and generator sets. This oil has been specially developed for harsh conditions with large loads and extreme temperatures. It provides longer change intervals, excellent corrosion protection, and keeps the inside of the engine clean.

Capacity	Part Number
(L)	
5	**A0105000**

ORIGINAL SPARE PARTS

ATF MECHANICAL GEAR OIL

The oils for Diesel ATF marine engines can reduce the rubbing and friction that occurs in marine mechanical transmissions. Thanks to their special additives, these oils provide superior anti-wear power, allowing for excellent power transmission and extending operating life with great resistance to aging and the formation of residues. Available in 1 and 5 liters.

Capacity	Part Number
(L)	
1	**A0201000**
5	**A0205000**

ORIGINAL SPARE PARTS

ENGINE COOLANT

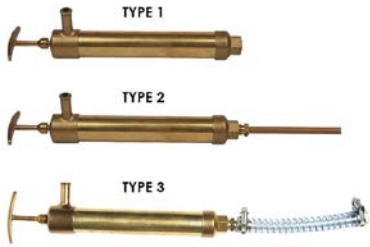
Solé Diesel cooling fluid is a high performance antifreeze coolant for direct use, formulated with the latest organic additives. It provides a long life of maintenance-free protection for the cooling systems of ships, automobiles, and farm machinery, among other vehicles. It prevents the oxidation of all metals present in cooling circuits. Available in 5 L and 20 L.

Capacity	Freezing point	Concentration	Part Number
(L)	(°C)	(%Vol.)	
5	-38	50	MA000001
20	-38	50	MA000002

ORIGINAL SPARE PARTS

OIL EXTRACTION PUMP

Manual pump for extracting engine oil.



Description	Type	Part Number
Oil Extraction Pump	1	14714001
Oil Extraction Pump Assy D.12	2	13812020
Oil Extraction Pump Assy D.8	3	14714101

SOUND INSULATOR

SOUND INSULATOR S1

Alveolar foam with self-extinguishing corrugated polyurethane border. Decorative thermal insulation with good acoustic absorption.

Thickness	Rw	Weight	Dimensions	Part Number
(mm)	(dB)	(Kg)	(mm)	
30	8	1,5	2000x1000	62000001

SOUND INSULATOR

SOUND INSULATOR S2

Noise insulation with aluminum coating, fiberglass support and absorbing polyurethane foam. Thermal insulation, M-1 classfire-resistant, good resistance to hydrocarbon.

Thickness	Rw	Weight	Dimensions	Part Number
(mm)	(dB)	(Kg)	(mm)	
25	19	0,8	1200x1000	**62002001**
40	19	1,86	1200x1000	**62002002**

SOUND INSULATOR

SOUND INSULATOR S2PRO

It is a perfect acoustic insulation for marine applications, with good properties due to its structure which includes an aluminium coating with fibreglass support and M-1 flame-retardant absorbent polyurethane foam interwoven with a 5 Kg/m2 viscoelastic heavy mass.

Thickness	Rw	Weight	Dimensions	Part Number
(mm)	(dB)	(Kg)	(mm)	
30	29	8,08	1200x1000	**62003001**

SOUND INSULATOR

SOUND INSULATOR S3

Insulation with aluminium coating with fibreglass support and composite polyurethane foam with 150 Kg/m3 of density. The higher density increases its properties, including its durability. It is highly effective at absorption.

Thickness	Rw	Dimensions	Part Number
(mm)	(dB)	(mm)	
40	24	2000x1000	**62001001**

SOUND INSULATOR

SOUND INSULATOR S4

Aluminium-coated insulation with absorbent fibreglass support, with M-1 and F-1 certifications. It functions as excellent thermal insulation, with M-1 fire-protection certification, and also impedes the spread of smoke.

Thickness (mm)	Rw (dB)	Weight (Kg)	Dimensions (mm)	Part Number
50	33	7,2	1000x610	**62004001**

SOUND INSULATOR

SOUND INSULATOR SHM

Heavy Mass manufactured with Elastomer mixed with Barite. The product is very dense yet thin. It is very useful for reducing direct noises of metallic elements and other sources of sound, like engines, improving the insulation in machine rooms.

Thickness (mm)	Rw (dB)	Weight (Kg)	Dimensions (mm)	Part Number
4	17	10	1230x1030	**62005001**

SOUND INSULATOR

SOUND INSULATOR ACCESSORIES

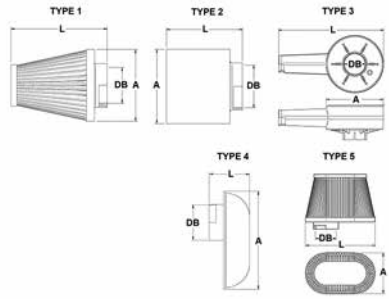
Mechanical attachment packs for products.

Description	Part Number
Fixing Nail 32MM Pack + Nautical Cover	**62006001**
Fixing Nail 44MM Pack + Nautical Cover	**62006002**

AIR FILTER

AIR FILTER

The air filters protect the inside of the marine engine from suspended particles, dust, and other elements that penetrate as a result of engine suction and can hinder combustion. We have a wide range of sizes and spare parts for our entire line of engines.

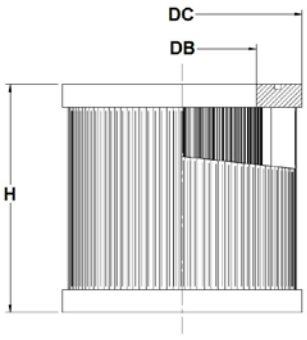


Type	DB	L	A	Part Number
	(mm)	(mm)	(mm)	
1	43	100	86	**17710012.1**
1	102	215	200	**19410032**
2	70	138	166	**17410030**
2	80	82	147	**18520030**
2	70	165	161	**18620030**
2	76	75	153	**19010030**
2	80	234	140	**19110030.1**
3	42	210	109	**13111012**
3	38	292	150	**13510012**
3	40	209	107	**13810074**
3	63	359	224	**16510030**
3	40	209	107	**17010030**
3	64	313	170	**17110030**
3	63	312	169	**17110030G**
3	50	95	172	**17110033**
3	64	313	170	**18210030**
4	58,5	71	128	**14710040**
4	59,5	61	129	**15310033**
5	45	84	75	**17710012.2**

AIR FILTER

FILTER ELEMENT (AIR)

The air filter is comprised of a filtering element that cleans the air that enters for engine combustion.



DB	DC	H	Part Number
(mm)	(mm)	(mm)	
48	78	80	**13810073**
80	81,6	64	**18210030.3**
105	150	141	**19110031**
106	149	45	**19010031**
140	166	120	**17410031**
148	200	58	**18210031**

ENGINE FILTERS SOLE DIESEL

SOLÉ DIESEL GAS-OIL FILTER

Diesel filters for all the Solé Diesel engines on the market. The diesel filter acts as a barrier against fuel impurities to ensure proper functioning of the engine circuits.

Associated article	Part Number
Hs-121/150	**16524204**
Hs-270	**16724204**
Mercedes 615/16	**15324020**
Mercedes 636	**15114022**
MINI-1/2/3	**11114095**
MINI-10/11/14/17/18/23/26/29/33/34/44/48/55	**13114022**
MINI-62	**17114022**
MINI-74 SM-105	**17414022**
SDZ-165/205/280	**19424020.3**
SDZ-165/205/280	**19424022**
SFN	**19024022.1**
SM-120	**13324028**
SN-85/110	**18224022**
Sv-220	**18524020**

ENGINE FILTERS SOLE DIESEL

SOLÉ DIESEL OIL FILTER

Oil filters for the wide range of Solé Diesel filters on the market. The oil filter is a basic element for proper engine functioning and keeps the lubrication circuit protected from impurities.

Associated article	Part Number
4 GSCH V2	**605B0163**
HS-121/150/270	**16524051**
Mercedes	**15314051**
MINI-1/2/3	**12114082**
MINI-10/11/14/17/18/23/26/29/33/34/44/55	**13124051**
MINI-28	**12825051**
MINI-50	**16124051**
MINI-62	**13924051**
MINI-74	**17424051**
Perkins	**14712100**
SDZ-165/205/280	**19424051**
SFN-100	**19024051.1**
SFN-100/130/160/210	**19024051**
SK-60	**1A024051**
SM-75/90/105	**17524051**
SV.140 SN-85/110	**18524051**

APPENDIX

DEFINITION OF SERVICE TYPES
IMPORTANT INFORMATION ABOUT THE APPLICATION RESPONSIBILITIES

Recreational craft service:

Very intermittent use, with a broad range of demands placed on the engine. The maximum rated power indicated is understood to be only for personal use of craft with a planing hull for which the operating time at the maximum rating is less than 10% of the total time. For the remaining time, the craft must be operated at a level equal to or less than 80% of its maximum rating. Mean limit of engine operating hours:

- 500 hours/year for hydraulic gear boxes (TM).
- 300 hours/year for mechanical gearboxes (TMC).

Typical applications: Private, non-charter use, sporting/ recreational activities.

Intermediate service:

Intermittent use, with a broad range of demands placed on the engine. Mean limit of engine operating hours: 2000 hours/ year. Typical applications: Private and charter use, sporting/recreational activities. Planing, semi-displacement and displacement hulls.

Continuous service:

Continuous use, with little or no variation in the power demands placed on the engine. Unlimited hours per year.

Typical applications: Intensive use in fishing or commercial craft.

Transmission ratios are based on the use of the gearbox in a system that is torsionally compatible with a torque coupler of suitable input.

- The ratio applies to diesel engines.
- Enquire with the factory about ratios that are applicable to petrol engines or other applications not included in the definition of a given service class.
- The ratios apply to right-turning engines (anticlockwise rotation of the flywheel when viewing the motor from the stern).
- The ratios are for full power in forward and reverse, unless otherwise indicated.
- The transmission ratios must be equal to or greater than those published for the engine for a given application. 1 kW = 1.34 HP.
- The data provided may be modified or corrected with no previous notice.

Responsibility for assuring that the torsional compatibility of the propulsion system is satisfactory lies with the installer of the propulsion equipment. Twin Disc Technodrive accepts no liability for noise or malfunctioning in the gear box, in the flexible coupling or in the transmission parts that may be caused by this type of vibration.

For further information and assistance, contact Twin Disc Technodrive.

MECHANICAL GEARBOXES PLEASURE

Model	Reduction ratios		Power rating/rpm		Max.	Power rating Max. -kW (Hp)						Weight*		Adaptors/comments
	Forward	Reverse	kW	Hp		2800		3000		3600		kg	lb	
TMC40P	1,45	2,13	0,0121	0,0162	4500	26	35	26	35	26	35	9	20	SAE 5, BW
	2,00	2,13	0,0094	0,0126	4500	26	35	26	35	26	35			Max input power 26 KW
	2,60	2,13	0,0073	0,0098	4500	20	27	22	29	26	35			Max power in reverse: 33% of listed ratings
TMC60P	1,55	2,00	0,0178	0,0239	5000	50	67	53	72	60	80	14	31	SAE 4, SAE 5, BW
	2,00	2,00	0,0157	0,021	5000	44	59	47	63	57	76			Max input power 60 KW
	2,45	2,45	0,0126	0,0168	5000	35	47	38	51	45	61			Max power in reverse: see note
	2,83	2,45	0,0105	0,014	5000	29	39	31	42	38	51			
TMC 60 A	2,00	2,17	0,0136	0,0182	4500	38	51	41	56	49	66	14	31	SAE 4, SAE 5, BW
	2,45	2,17	0,0136	0,0182	4500	38	51	41	56	49	66			"Max input power 52 KW Max power in reverse: 33% of listed ratings"
TMC 260	1,54	2,00	0,0272	0,0364	5000	76	102	82	109	84	113	18	40	SAE 4, SAE 5, BW
	2,00	2,00	0,0272	0,0364	5000	76	102	82	109	84	113			Max input power 84 KW
	2,47	2,47	0,022	0,0295	5000	62	83	66	88	79	106			Max power in reverse: see note
	2,88	2,47	0,0188	0,0252	5000	53	71	56	76	68	91			

MECHANICAL GEARBOXES INTERMEDIATE SERVICE

Model	Reduction ratios		Power rating/rpm		Max.	Power rating Max. -kW (Hp)						Weight*		Adaptors/comments
	Forward	Reverse	kW	Hp		2800		3000		3600		kg	lb	
TMC40P	1,45	2,13	0,0108	0,0145	4500	26	35	26	35	26	35	9	20	SAE 5, BW
	2,00	2,13	0,008	0,0107	4500	21	30	24	32	26	35			Max input power 26 KW
	2,60	2,13	0,0064	0,0085	4500	17	24	19	25	22	30			Max power in reverse: 33% of listed ratings
TMC60P	1,55	2,00	0,0151	0,0202	5000	42	57	45	61	54	73	14	31	SAE 4, SAE 5, BW
	2,00	2,00	0,0133	0,0178	5000	37	50	40	53	48	64			Max input power 60 KW
	2,45	2,45	0,0116	0,0155	5000	32	44	35	47	42	56			Max power in reverse: see note
	2,83	2,45	0,009	0,0121	5000	25	34	27	36	32	43			
TMC 60 A	2,00	2,17	0,0117	0,0156	4500	32	43	35	47	42	56	14	31	SAE 4, SAE 5, BW
	2,45	2,17	0,0117	0,0156	4500	32	43	35	47	42	56			"Max input power 52 KW Max power in reverse: 33% of listed ratings"
TMC 260	1,54	2,00	0,0231	0,031	5000	65	87	69	93	83	111	18	40	SAE 4, SAE 5, BW
	2,00	2,00	0,0231	0,031	5000	65	87	69	93	83	111			Max input power 84 KW
	2,47	2,47	0,0187	0,0251	5000	52	70	56	75	67	90			Max power in reverse: see note
	2,88	2,47	0,016	0,0214	5000	45	60	48	64	57	77			
SP 60	2,15	2,15	0,009	0,0121	3000	38	52	40	55	32	43	35		SAE 7" BW ref. / part no. 24813501

Notes * Weight without oil.
1 The power rating given refers to forward gear.

For reverse:
2.1 TMC 60 E red. 1.55: 80% of the reduction ratio 2.00
2.2 TMC 60 E red. 2.00 and 2.45: 80% of the value indicated
2.3 TMC 60 E red. 2.83 : 80% of the reduction ratio 2.5
2.4 TMC 260 red. 1.54 and 2.00: 80% of the value indicated
2.5 TMC 260 red. 2.47 and 2.88: 80% of the reduction ratio 2.47

MECHANICAL GEARBOXES CONTINUOUS SERVICE

Model	Reduction ratios		Power rating/rpm		Max.	Power rating Max. -kW (Hp)						Weight*		Adaptors/comments
	Forward	Reverse	kW	Hp		1800		2300		2600		kg	lb	
TMC40P	1,45	2,13	0,0099	0,0133	4500	18	24	23	31	26	35	9	20	SAE 5, BW Max input power 26 KW Max power in reverse: 33% of listed ratings
	2,00	2,13	0,0073	0,0098	4500	13	18	17	23	19	25			
	2,60	2,13	0,0052	0,007	4500	9	13	12	16	14	18			
TMC60P	1,55	2,00	0,0126	0,0169	5000	23	30	29	39	33	44	14	31	SAE 4, SAE 5, BW Max input power 44 KW Max power in reverse: see note
	2,00	2,00	0,0115	0,0154	5000	21	28	26	35	30	40			
	2,45	2,45	0,0094	0,0126	5000	17	23	22	29	24	33			
	2,83	2,45	0,0078	0,0105	5000	14	19	18	24	20	27			
TMC 60 A	2,00	2,17	0,0094	0,0126	4500	17	23	22	49	24	33	14	31	SAE 4, SAE 5, BW Max input power 52 KW Max power in reverse: 33% of listed ratings
	2,45	2,17	0,0094	0,0126	4500	17	23	22	49	24	33	14	31	
TMC 260	1,54	2,00	0,0199	0,0267	5000	36	48	46	61	52	69	18	40	SAE 4, SAE 5, BW Max input power 61 KW Max power in reverse: see note
	2,00	2,00	0,0199	0,0267	5000	36	48	46	61	52	69			
	2,47	2,47	0,0147	0,0197	5000	26	35	34	45	38	51			
	2,88	2,47	0,0115	0,0154	5000	21	28	26	35	30	40			

HYDRAULIC TRANSMISSIONS FOR LEISURE

Model	Reduction ratios		Power rating/rpm		Max.	Power rating Max. -kW (Hp)						Weight*		Adaptors/comments
	Forward	Reverse	kW	Hp		2600		2800		3300		kg	lb	
TM345	1,54	1,54	0,0361	0,0484	4500	94	126	101	135	110	147	25	55	SAE 3, 4, 5, BW max input power 110 kw
	2,00	2,00	0,0293	0,0393		76	102	82	110	97	130			
	2,47	2,47	0,022	0,0295		57	77	62	83	73	97			
TM345A	1,54	1,54	0,0361	0,0484	4500	94	126	101	135	110	147	25	55	
	2,00	2,00	0,0293	0,0393		76	102	82	110	97	130			
	2,47	2,47	0,022	0,0295		57	77	62	83	73	97			
TM93	1,51	1,51	0,0534	0,0716	4500	139	186	150	200	176	236	53	117	SAE 3, 4, YANMAR LH, BW max input power 184 kw
	2,09	2,09	0,0461	0,0618		120	161	129	173	152	204			
	2,40	2,40	0,0408	0,0547		106	142	114	153	135	180			
	2,77	2,77	0,0356	0,0477		93	124	100	134	117	157			
TM93A	1,51	1,51	0,0492	0,0659	4500	128	171	138	185	162	218	53	117	
	2,09	2,09	0,0408	80,054		106	142	114	153	135	180			
	2,40	2,40	0,0356	0,0477		93	124	100	134	117	157			
TM485A1	1,51	1,51	0,05	0,067	4500	130	174	140	188	165	221	36	79	SAE 3, 4, YANMAR 1 LH, BW max input power 210 kw
	2,09	2,09	0,05	0,067		130	174	140	188	165	221			
	2,40	2,40	0,0438	0,0587		114	153	123	164	145	194			
TM170	1,50	1,50	0,0785	0,1052	4000	204	273	220	295	257	344	75	165	SAE 3, 4, YANMAR LH, BW max input power r 1,50 / 2,04 257 kw r 2,50 / 2,94 220 kw
	2,04	2,04	0,0785	0,1052		204	273	220	295	257	344			
	2,50	2,50	0,0628	0,0842		163	219	176	236	207	278			
	2,94	2,94	0,0534	0,0716		139	186	150	200	176	236			
TM170A	1,53	1,53	0,0785	0,1052	4000	204	273	220	295	157	344	75	165	max input power r 1,53 / 2,08 257 kw r 2,60 220 kw”
	2,08	2,08	0,0785	0,1052		204	273	220	295	157	344			
	2,60	2,60	0,0628	0,0842		163	219	176	236	207	278			
TM880A	1,53	1,53	0,0921	0,1234	4000	239	321	258	346	295	395	54	119	SAE 3, 4, YANMAR LH, BW max input power 295 kw
	2,08	2,08	0,0921	0,1234		239	321	258	346	295	395			
	2,60	2,60	0,0628	0,0842		163	219	176	236	207	278			
TM265	1,17	1,17	0,1109	0,1486	3000	288	386	311	416	-	-	165	364	SAE 1, 2, 3
	1,50	1,50	0,1109	0,1486		288	386	311	416	-	-			
	2,09	2,09	0,1109	0,1486		288	386	311	416	-	-			
	2,82	2,82	0,1109	0,1486		288	386	311	416	-	-			
TM265A	1,44	1,44	0,1109	0,1486	3000	288	386	311	416	-	-	165	364	
	2,00	2,00	0,1026	0,1375		267	357	287	385	-	-			
	2,30	2,30	0,0932	0,1249		242	325	261	350	-	-			
TM200	3,60	3,60	-	-	3000	-	-	-	-	-	-	235	518	SAE 1, 2, 3
	4,48	4,48	-	-		-	-	-	-	-	-			
TM360	3,00	3,00	-	-	2600	-	-	-	-	-	-	415	915	SAE 1, 2, 3
	3,50	3,50	-	-		-	-	-	-	-	-			
	4,00	4,00	-	-		-	-	-	-	-	-			
	5,00	5,00	-	-		-	-	-	-	-	-			
TM1200A	1,44	1,44	0,1461	0,1957	3200	380	509	409	548	-	-	115	253	SAE 1, 2, 3
	2,00	2,00	0,1461	0,1957		380	509	409	548	-	-			
	2,30	2,30	0,125	0,1675		325	435	469	469	-	-			
ZF 68 IV	1,29	1,29	0,07	0,10	6000	185	248	199	267	235	315	62	137	SAE 3, 4, 5
	1,56	1,57	0,07	0,10		185	248	199	267	235	315			
	1,75	1,75	0,07	0,10		185	248	199	267	235	315			
	1,99	2,03	0,07	0,10		185	248	199	267	235	315			
	2,48	2,53	0,07	0,09		171	230	185	248	217	292			

HYDRAULIC GEARBOXES INTERMEDIATE SERVICE														
Model	**Reduction ratios**		**Power rating/rpm**		**Power rating Max. -kW (Hp)**						**Max.**	**Weight***		**Adaptors/comments**
	Forward	**Reverse**	**kW**	**Hp**	**2100**		**2500**		**2800**			**kg**	**lb**	
TM345	1,54	1,54	0,0225	0,0302	47	63	56	75	63	84	4500	25	55	SAE 3, 4, 5, BW
	2,00	2,00	0,0225	0,0302	47	63	56	75	63	84				
	2,47	2,47	0,0167	0,0224	35	47	42	56	47	63				
TM345A	1,54	1,54	0,0225	0,0302	47	63	56	75	63	84	4500	25	55	
	2,00	2,00	0,0225	0,0302	47	63	56	75	63	84				
	2,47	2,47	0,0167	0,0224	435	47	42	56	47	63				
TM93	1,51	1,51	0,0443	0,0594	93	125	111	148	124	166	4500	53	117	SAE 3, 4, YANMAR LH, BW max input power 184 kw
	2,09	2,09	0,0383	0,0513	80	108	96	128	107	144				
	2,40	2,40	0,0339	0,0454	71	95	85	114	95	127				
	2,77	2,77	0,0295	0,0395	62	83	74	99	83	111				
TM93A	1,51	1,51	0,0377	0,0505	79	106	94	126	106	141	4500	53	117	
	2,09	2,09	0,0314	0,0421	66	88	79	105	88	118				
	2,40	2,40	0,0272	0,0364	57	77	68	91	76	102				
TM485A1	1,51	1,51	0,0386	0,0517	81	109	96	129	108	145	4500	36	79	SAE 3, 4, YANMAR 1 LH, BW
	2,09	2,09	0,0386	0,0517	81	109	96	129	108	145				
	2,40	2,40	0,0329	0,0440	69	92	83	110	92	123				
TM170	1,50	1,50	0,0636	0,0852	134	179	159	213	178	239	4000	75	165	SAE 3, 4, YANMAR LH, BW
	2,04	2,04	0,0636	0,0852	134	179	159	213	178	239				
	2,50	2,50	0,0509	0,0682	107	143	127	171	143	191				
	2,94	2,94	0,0441	0,0591	93	124	110	148	123	165				
TM170A	1,53	1,53	0,0597	0,0800	125	168	149	200	167	224	4000	75	165	
	2,08	2,08	0,0597	0,0800	125	168	149	200	167	224				
	2,60	2,60	0,0471	0,0631	99	133	118	158	132	177				
TM880A	1,53	1,53	0,0700	0,0938	147	197	175	235	196	263	4000	54	119	SAE 3, 4, YANMAR LH, BW
	2,08	2,08	0,0700	0,0938	147	197	175	235	196	263				
	2,60	2,60	0,0471	0,0631	99	135	118	160	132	179				
TM265	1,17	1,17	0,0985	0,1320	207	277	246	330	276	370	3000	165	364	SAE 1, 2, 3
	1,50	1,50	0,0985	0,1320	207	277	246	330	276	370				
	2,09	2,09	0,0985	0,1320	207	277	246	330	276	370				
	2,82	2,82	0,0985	0,1320	207	277	246	330	276	370				
TM265A	1,44	1,44	0,0984	0,1319	207	277	246	330	276	369	3000	165	364	
	2,00	2,00	0,0911	0,1221	191	256	228	305	255	342				
	2,30	2,30	0,0827	0,1108	174	233	207	277	232	310				
TM200	3,60	3,60	-	-	-	-	-	-	-	-	3000	235	518	SAE 1, 2, 3
	4,48	4,48	-	-	-	-	-	-	-	-				
TM360	3,00	3,00	-	-	-	-	-	-	-	-	2600	415	915	SAE 1, 2, 3
	3,50	3,50	-	-	-	-	-	-	-	-				
	4,00	4,00	-	-	-	-	-	-	-	-				
	5,00	5,00	-	-	-	-	-	-	-	-				
TM1200A	1,44	1,44	0,1284	0,1721	269	361	320	430	359	482	3200	115	253	SAE 1, 2, 3
	2,00	2,00	0,1284	0,1721	269	361	320	430	359	482				
	2,30	2,30	0,1096	0,1469	230	308	274	367	307	411				
ZF 68 IV	1,29	1,29	0,0578	0,0775	121	163	145	145	162	217	6000	62	137	SAE 3, 4, 5
	1,56	1,57	0,0539	0,0723	113	152	135	135	151	202				
	1,75	1,75	0,0539	0,0723	113	152	135	135	151	202				
	1,99	2,03	0,0539	0,0723	113	152	135	135	151	202				
	2,48	2,53	0,0518	0,0695	109	146	130	130	145	195				

HYDRAULIC GEARBOXES CONTINUOUS SERVICE

Model	Reduction ratios		Power rating/rpm		Power rating Max. -kW (Hp)						Max.	Weight*		Adaptors/comments
	Forward	Reverse	kW	Hp	1800		2100		2400			kg	lb	
TM345	1,54	1,54	0,0194	0,0260	35	47	41	55	47	62	4500	25	55	SAE 3, 4, 5, BW
	2,00	2,00	0,0194	0,0260	35	47	41	55	47	62				
	2,47	2,47	0,0147	0,0197	26	35	31	41	35	47				
TM345A	1,54	1,54	0,0194	0,0260	35	47	41	55	47	62	4500	25	55	
	2,00	2,00	0,0194	0,0260	35	47	41	55	47	62				
	2,47	2,47	0,0147	0,0197	26	35	31	41	35	47				
TM93	1,51	1,51	0,0408	0,0547	73	98	86	115	98	131	4500	53	117	SAE 3, 4, YANMAR LH, BW
	2,09	2,09	0,0356	0,0477	64	86	75	100	85	114				
	2,40	2,40	0,0319	0,0427	57	77	67	90	77	103				
	2,77	2,77	0,0277	0,0371	50	67	58	78	66	89				
TM93A	1,51	1,51	0,0261	0,0350	47	63	55	73	63	84	4500	53	117	
	2,09	2,09	0,0216	0,0289	39	52	45	31	52	69				
	2,40	2,40	0,0189	0,0253	34	46	40	53	45	61				
TM485A1	1,51	1,51	0,0328	0,0439	59	79	69	92	78	105	4500	36	79	SAE 3, 4, YANMAR 1 LH, BW
	2,09	2,09	0,0328	0,0439	59	79	69	92	78	105				
	2,40	2,40	0,0289	0,0387	52	70	61	81	69	93				
TM170	1,50	1,50	0,0576	0,0772	104	139	121	162	138	185	4000	75	165	SAE 3, 4, YANMAR LH, BW
	2,04	2,04	0,0576	0,0772	104	139	121	162	138	185				
	2,50	2,50	0,0461	0,0618	83	111	97	130	111	148				
	2,94	2,94	0,0398	0,0533	72	96	84	112	96	128				
TM170A	1,53	1,53	0,0416	0,0557	75	100	87	117	100	134	4000	75	165	
	2,08	2,08	0,0416	0,0557	75	100	87	117	100	134				
	2,60	2,60	0,0333	0,0446	60	80	70	94	80	107				
TM880A	1,53	1,53	0,0583	0,0781	105	141	122	164	140	187	4000	54	119	SAE 3, 4, YANMAR LH, BW
	2,08	2,08	0,0583	0,0781	105	141	122	164	140	187				
	2,60	2,60	0,0333	0,0446	60	82	70	95	80	109				
TM265	1,17	1,17	0,0869	0,1164	156	210	182	245	209	279	3000	165	364	SAE 1, 2, 3
	1,50	1,50	0,0869	0,1164	156	210	182	245	209	279				
	2,09	2,09	0,0869	0,1164	156	210	182	245	209	279				
	2,82	2,82	0,0869	0,1164	156	210	182	245	209	279				
TM265A	1,44	1,44	0,0588	0,0788	106	142	123	165	141	189	3000	165	364	
	2,00	2,00	0,0544	0,0729	98	131	114	153	131	175				
	2,30	2,30	0,0494	0,0662	89	119	104	139	119	159				
TM200	3,60	3,60	0,0639	0,0856	115	154	134	180	153	206	3000	235	518	SAE 1, 2, 3
ZF-15 MIV	2,13	2,22	0,0152	0,0204	27	37	32	43	36	49	5000	21	47	SAE 4, 5, B/W, Yanmar JH
	2,72	2,22	0,0111	0,0149	20	27	23	31	27	36				
	3,00	2,22	-	-	-	-	-	-	-	-				
ZF 68 IV	1,29	1,29	0,0471	0,0632	85	114	99	133	113	152	6000	62	137	SAE 3, 4, 5
	1,56	1,57	0,0442	0,0593	80	107	93	125	106	142				
	1,75	1,75	0,0442	0,0593	80	107	93	125	106	142				
	1,99	2,03	0,0442	0,0593	80	107	93	125	106	142				
	2,48	2,53	0,0433	0,0581	78	105	91	122	104	139				

Model	Reduction ratios		Power rating/rpm		Power rating Max. -kW (Hp)						Max.	Weight*		Adaptors/comments
	Forward	Reverse	kW	Hp	1800		2100		2300			kg	lb	
DMT-25AL	1,64	1,64	0,0300	0,0410	55	73	63	85	70	94	3500	75	165	SAE 3, 4, 5
	2,07	2,07	0,0300	0,0410	55	73	63	85	70	94				
	2,52	2,52	0,0300	0,0410	55	73	63	85	70	94				
	2,96	2,96	0,0300	0,0410	55	73	63	85	70	94				
	3,32	3,32	0,0300	0,0410	55	73	63	85	70	94				
DMT-90A	1,61	1,61	0,0890	0,1200	161	216	188	252	205	276	3000	159	350	SAE 1, 2, 3, 4
	2,06	2,06	0,0890	0,1200	161	216	188	252	205	276				
	2,45	2,45	0,0890	0,1200	161	216	188	252	205	276				
	2,82	2,82	0,0890	0,1200	161	216	188	252	205	276				
	3,12	3,12	0,0890	0,1200	161	216	188	252	205	276				
	3,46	3,46	0,0890	0,1200	161	216	188	252	205	276				
DMT-100IV	1,21	1,21	0,1050	0,1410	190	255	222	297	243	326	4000	150	330	SAE 2, 3, 4
	1,54	1,54	0,1050	0,1410	190	255	222	297	243	326				
	1,84	1,84	0,1050	0,1410	190	255	222	297	243	326				
	2,12	2,12	0,1050	0,1410	190	255	222	297	243	326				
	2,52	2,52	0,1050	0,1410	190	255	222	297	243	326				
DMT-100HL	4,07	4,07	0,0910	0,1220	164	219	191	256	209	281	3000	263	580	SAE 1, 2, 3 ,4
	4,50	4,50	0,0920	0,1220	164	219	191	256	209	281				
	4,95	4,95	0,0930	0,1220	164	219	191	256	209	281				
	5,29	5,29	0,0880	0,1180	158	213	185	248	202	272				
	5,95	5,95	0,0760	0,1030	138	185	161	216	176	236				

RATING DEFINITION FOR SOLÉ MARINE PROPULSION ENGINES.

S1 – Heavy Duty Commercial

This power rating is for commercial vessels with displacement hulls in heavy operation. Load and speed could be constant, and full power can be used without interruption.
These applications typically operate more than 2000 hours per year and have load factor* over 65%.
Typical application: Fishing boats, tugboats, crane boats where it is possible to use the maximum power.

S2 – Medium Duty Commercial

This power rating is for commercial vessels with semi planning or displacement hulls in cyclical operation.
These applications typically operate less than 2000 hours per year and have load factor* up to 50%.
Full power could be utilized max 4 hours per 12 hours of operation period.
Between full load operation periods, the engine speed should be reduced at least 10 % from the obtained full load engine speed.
Typical application: Pilot boats, fishing boats, work boats, research boats and passenger boats.

S3 – Light Duty Commercial

This power rating is for commercial boats with high demands of speed and acceleration, planning or semiplaning hulls in cyclical operation.

These applications typically operate less than 800 hours per year and have load factor* below 40%.
Full power could be utilized maximum 2 hours per 12 hours operation period.

Between full load operation periods, engine speed should be reduced at least 10 % from the obtained full load engine speed.

Typical applications: Light passenger boats and charters.
* Load factor is the actual fuel burned over a period divided by the full-power fuel consumption for the same period.

All our engines can work at full power (“intermittent power” on Solé Specification Sheet) as indicate in each rating (S1, S2 & S3), as specified by ISO 3046-1
Of course, the engine can also be used in an application with a higher rating. For example, a product with rating S1, can also be used for rating S2 or S3.

Solé Rating	Typical load factor	Typical hours per year	Typical full power operation
S1	>65%	> 2000	Uninterrupted
S2	≤50%	< 2000	4 of each 12 hr
S3	<40%	< 800	2 of each 24 hr

ISO 3046-1:2002

ISO 3046-1 specifies the requirements for the declaration of power, fuel consumption, lubricating oil consumption and the test method in addition to the basic requirements defined in ISO 15550.
It defines codes for engine brake power in accordance with ISO 15550, in order, where necessary, to simplify the application of the statements of power and to facilitate communication. This applies, e.g., to statements of power used on engine data plates.
ISO 3046-1 applies to reciprocating internal combustion (RIC) engines for land, rail-traction and marine use and may be applied to engines used to propel road construction and earth-moving machines, industrial trucks as well as for other applications where no suitable International Standard for these engines exists.

	S1					S2					S3				
Engine model	HP	kW	rpm	l/h	g/kW·h	HP	kW	rpm	l/h	g/kW·h	HP	kW	rpm	l/h	g/kW·h
MINI-17	0	0	0	0	0	14,204	10,6	3600	3,93349398	308	15,812	11,8	3600	4,378795181	308
MINI-29	0	0	0	0	0	24,12	18	3600	6,33253012	292	26,8	20	3600	7,036144578	292
MINI-33	0	0	0	0	0	27,872	20,8	3000	7,01686747	280	30,954	23,1	3000	7,792771084	280
MINI-44	0	0	0	0	0	37,252	27,8	3000	9,24433735	276	41,406	30,9	3000	10,27518072	276
MINI-55	0	0	0	0	0	44,354	33,1	3000	10,8472289	272	49,312	36,8	3000	12,05975904	272
MINI-62	0	0	0	0	0	52,394	39,1	3000	12,4837349	265	58,156	43,4	3000	13,85662651	265
SK-60	0	0	0	0	0	53,064	39,6	2700	12,9773494	272	58,96	44	2700	14,41927711	272
MINI-74	56,682	42,3	2500	11,87457831	233	62,98	47	2500	13,1939759	233	0	0	0	0	0
SM-82	72,762	54,3	2500	16,68253012	255	80,802	60,3	2500	18,5259036	255	0	0	0	0	0
SM-94	83,214	62,1	2500	18,70481928	250	92,46	69	2500	20,7831325	250	0	0	0	0	0
SM-103	91,388	68,2	2500	21,38686265	260,28	101,572	75,8	2500	23,7701494	260,28	0	0	0	0	0
SDZ-165	142,308	106,2	2300	27,06436627	211,52	158,12	118	2300	30,0715181	211,52	0	0	0	0	0
SDZ-205	173,53	129,5	2300	35,57349398	228	192,826	143,9	2300	39,5291566	228	0	0	0	0	0
SDZ-280	241,2	180	2300	50,74698795	234	268	200	2300	56,3855422	234	0	0	0	0	0

NAME: COMPANY:

ADDRESS:

TEL.: FAX: E-MAIL:

PRINCIPAL FEATURES OF THE BOAT

BRAND AND MODEL:

SHIPYARD:

HULL TYPE

☐ DISPLACEMENT ☐ SEMI-DISPLACEMENT ☐ SAIL BOAT ☐ PLANING HULL ☐ CATAMARAN ☐ BARGE

HULL MATERIAL

☐ STEEL ☐ FIBERGLASS

☐ ALUMINIUM ☐ WOOD

SERVICE

☐ PASSENGER-PLEASURE

☐ HEAVY DUTY - COMMERCIAL

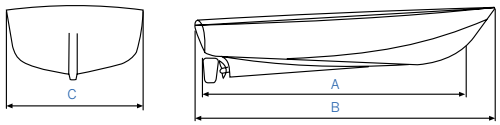
☐ TOWING

USE

☐ OFFSHORE

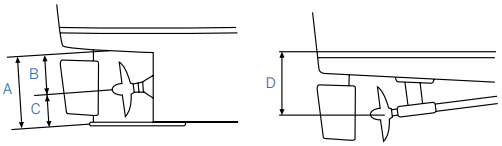
☐ LAKE

DIMENSIONS



	m	feet
A: LENGTH WATERLINE	☐	☐
B: LENGTH OVERALL	☐	☐
C. BEAM	☐	
FULL LOAD DISPLACEMENT	☐ TM	☐ KG

STERN GEOMETRY



(Ø MAX.)

A _____ mm

B _____ mm

C _____ mm

D _____ mm

SHAFT ANGLE: _____ °

ENGINE DATA - GEARBOX

N° MOTORS	BRAND	MODEL	POWER	RATING	GEARBOX RED
					:1

PROPELLER DATA

CURRENT N° BLADES _____ SPIN LH ☐ ☐ RH DIAMETER _____ PITCH _____ Ø _____ mm

DESIRED N° BLADES _____ SPIN LH ☐ ☐ RH A _____ mm

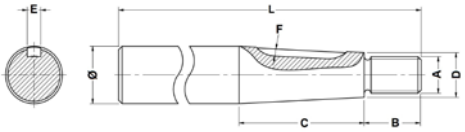
B _____ mm

C _____ mm

D _____ mm

E _____ mm

F _____ mm

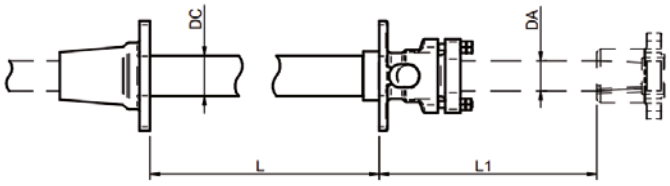


Signature & stamp

NAME: CLIENT NR.:

PHONE NR.: E-MAIL: DATE:

SPECIFICATIONS OF THE STERN TUBE



Intallation dimensions.

L	Space between bulkheads	
L1	Distance between the prow bulkhead and the shaft coupling	
DA	Shaft diameter	
DC máx.	Maximum diameter available for the stern tube lodging	

Dimensions in mm.

Stern tube material.

AISI 304	
AISI 316	

Mark one option.

STERN TUBE TYPE*

Rigid stern tube assy	
Floating stern tube assy	

Mark one option.

If you have chosen the floating stern tube assy, select the type below.

Type A1 (Stuffing box)	
Type A2 (Stuffing box)	
Type B1 (Rubber stuffing box)	
Type B2 (Rubber stuffing box)	
Type C1 (Refrigerated rubber stuffing box)	
Type C2 (Refrigerated rubber stuffing box)	

Mark one option.

***Consult catalogue.**

DELIVERY TIME

Standard (/ 2 weeks)	
Urgent (4 days)	

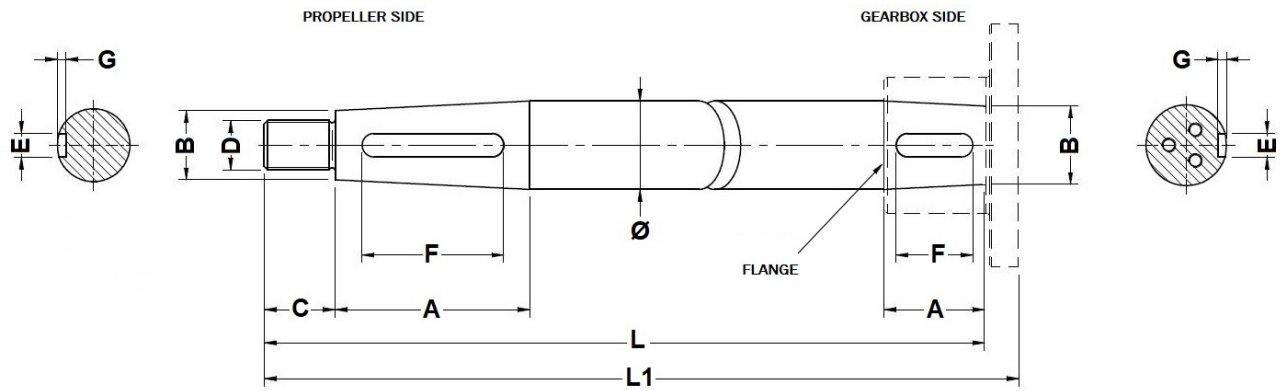
Mark one option.

NAME: CLIEN NR.:

PHONE NR.: E-MAIL: DATE:

1) SHAFT SPECIFICATIONS

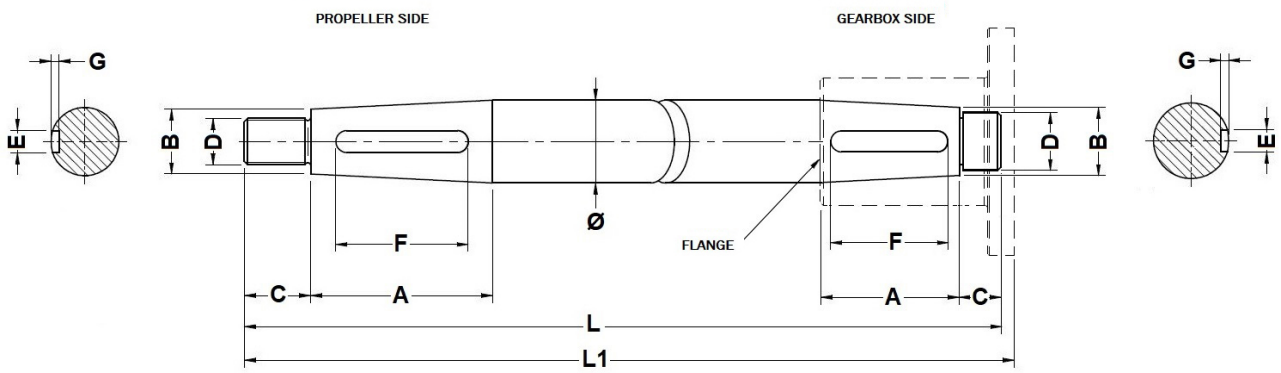
a. A TYPE (> Ø50mm)



Mark Ø of the shaft									Shaft Lenght – **L (mm)**	GBox Lenght – **L1 (mm)**
50	60	65	70	75	80	85	90	100		

Preferably indicate length L1 between threaded end of propeller side and gearbox plate.

b. B TYPE (< Ø45mm)



Mark Ø of the shaft					Shaft Lenght – **L (mm)**	GBox Lenght – **L1 (mm)**
25	30	35	40	45		

Preferably indicate length L1 between threaded end of propeller side and gearbox plate.

			Quantity
Shaft Rotation		RH	
		R I	

Shaft type:	
Machined one end	
Machined both ends	

Seen from aft to bow.

2) OPTIONAL LENGHTS

Solé Diesel manufactures standard 1:10 cones. OPTIONALLY indicate dimensions in the table below.

	A	B	C	D	E	F	G
Propeller Side							
Gearbox Side							

Material (Opcional)	

3) GEARBOX SPECIFICATIONS

Brand	
Model	

Solé Diesel advises mounting an elastic connection to solve possible problems of bad alignment shaft.

4) CERTIFICATION & ANALYSIS

	SI
Shaft Certificate by Capitanía	
Shaft Certificate by Classification Society [1]	
Shaft Traction Analysis	
Shaft Resilience Analysis	
Shaft Bending Analysis	
Shaft Hardness Analysis	
Shaft Chemical Composition Analysis	

[1]**Specify which Classification society.**

5) DELIVERY TIME

Standard (2 weeks)	
Urgent (4 days)	

Mark one option.

NAME: CLIENT NR.:

PHONE NR.: E-MAIL: DATE:

1 HYBRID MODULE

I.C. Engine	Brand and model:	(Enclose torque-rpm curve)
Rated power-speed	☐ (kW) ☐ (hp) - rpm	
Ancillaries power ☐ (kW) ☐ (hp)	Hydraulic pumps	
	Others	
Flywheel SAE	SAE J620	☐ 10” ☐ 111/2” ☐ 14” ☐ 18”
Flywheel housing SAE	SAE J617	☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ 0

2 ELECTRIC MACHINE

Electric Machine	☐ DriveMaster ☐ SailMaster	☐ Hybrid Module
Rated power-speed	☐ (kW) ☐ (hp) - rpm	
Battery voltage	(Vdc)	
Recharge battery ability		☐ YES ☐ NO
Booster ability *	(for parallel Hybrid only)	☐ YES ☐ NO

*** Internal combustion engine and electric machine working together.**

3 MARINE TRANSMISSION

Marine Transmission	Brand and model:	
Solenoid valves voltage		☐ 12 Vdc ☐ 24 Vdc
Flywheel SAE		☐ 10” ☐ 111/2” ☐ 14” ☐ 18”
Flywheel bell housing SAE		☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ 0
Reduction ratio		_____ :1
Output configuration		

4 BOAT

Boat	Brand and model:	
Weight (full) “displacement”	☐ (kg) ☐ (lb)	
Length (LWL)	☐ (m) ☐ (ft)	
# of propellers		☐ 1 ☐ 2
Propeller diameter-speed	☐ (mm) ☐ (inch) – rpm	
Hotel loads (average)	_____kW ☐ 24 Vdc ☐ 230 Vac / _____V_____	
Required performances:		
Diesel mode	Max speed ☐ (km/h) ☐ (kn)	
Electric mode	Max speed ☐ (km/h) ☐ (kn)	
Electric mode	Range ☐ (km) ☐ (nm)	_____at speed _____

5 DUTY CYCLE

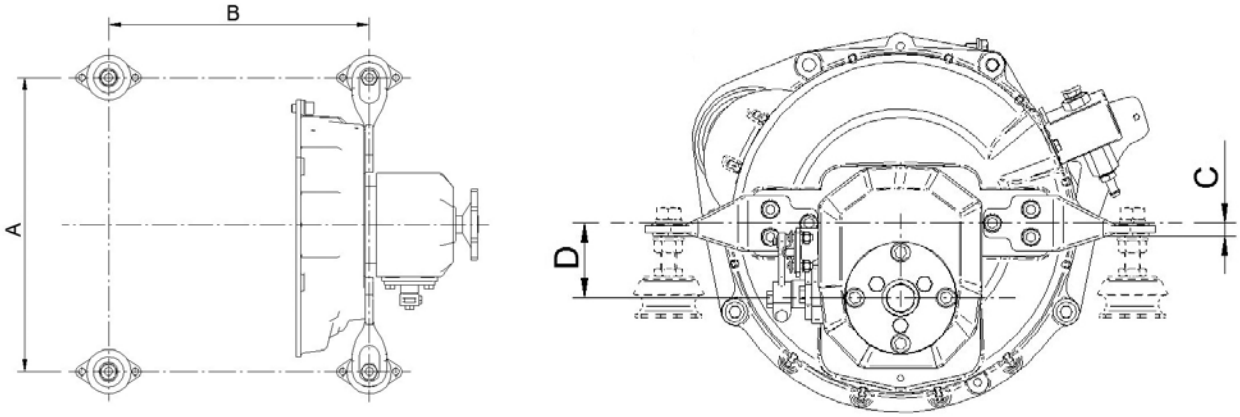
Internal combustion engine		_____%
Electric motor		_____%
Booster mode		_____%

NAME: CLIENT NR.:

PHONE NR.: E-MAIL: DATE:

1) DATA OF YOUR ENGINE

Engine brand	
Engine model	
Brand and model of gearbox	
Power	
Number of cylinders	
Layout of the cylinders	
Width between supports (A):	mm
Length between supports (B):	mm
Height between the motor shaft and supports (C):	mm
Distance between motor shaft and transmission shaft (D):	mm



2) ENGINE THAT WANTS TO ACQUIRE

Engine model	
Do you want the standard inverter?	
- If it is not, what model do you want?	

3) OBSERVATIONS

C-243b, KM 2· 08760 Martorell, Barcelona

info@solediesel.com

+34 93 775 14 00

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