



**vetus**

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**ENGINES**

# **M-LINE**

## **MARINE DIESEL ENGINES**



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

- VETUS M-Line engines are quiet running and highly fuel-efficient
- The M-Line engines are very reliable and offer high power and torque output
- Including water cooled top cover for noise and engine room temperature reduction
- The fuel system is automatically self-bleeding which is convenient after a fuel filter replacement
- Standard supplied with an electric fuel pump, actuated by the ignition switch
- High output marine alternator
- Service parts are easily accessible for maintenance
- Meets the RCD2013/53/EU emission regulations
- 5 years warranty in accordance with the VETUS Guarantee and Service conditions

# M-LINE

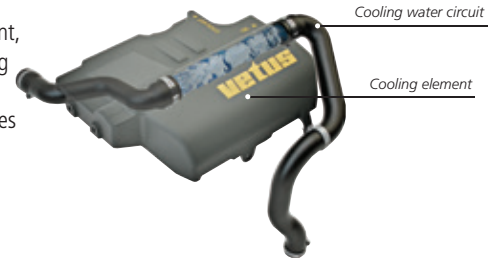
## MARINE DIESEL ENGINES



### INNOVATION

#### Engine room temperature reduction

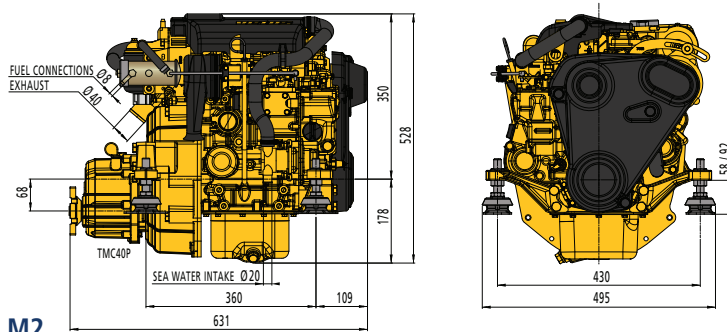
VETUS has developed an elegant yet efficient solution to reduce heat build-up in the engine compartment, by fitting a water-cooled aluminium top cover. Located directly above the cylinder head, this huge cooling element absorbs radiant heat coming from the engine. This innovative concept results in a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



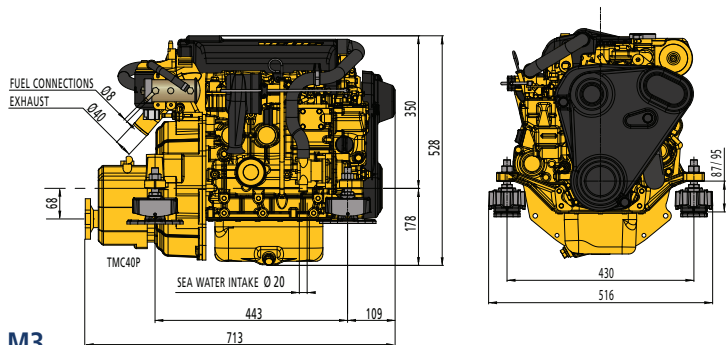
#### Engine sound reduction

People often go boating to enjoy the peace and quiet of the water. VETUS likes to add to this experience by creating a propulsion system that performs as quietly as possible. The sturdy, aluminium top cover also significantly reduces the noise level. When combined with the newly designed air filter housing, tests show a sound reduction of approximately 5 dB(A) and 'near silent' operation at a cruising speeds of around 2200 rpm. Those present at the test sites have all enthusiastically described the engine sound as being incredibly more pleasant to the ear.

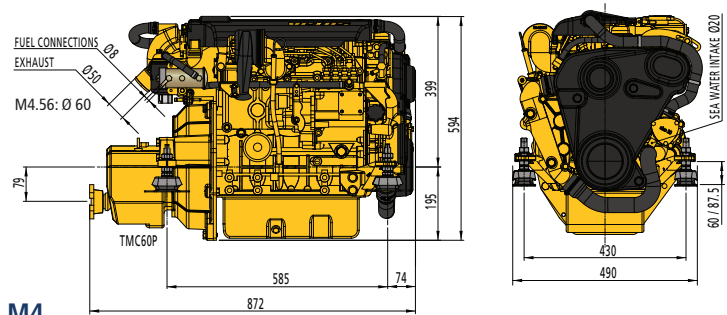
### Dimensions



M2



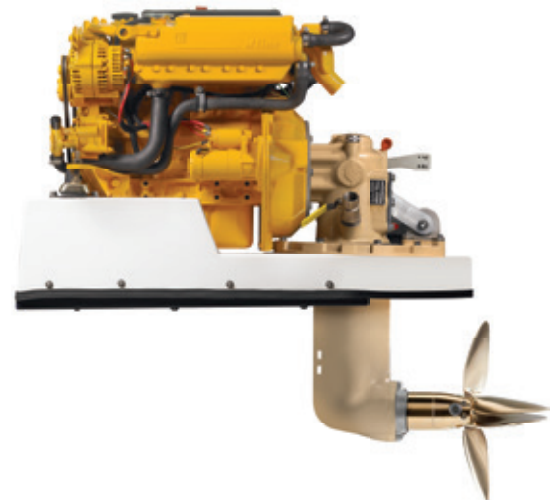
M3



M4

### Options

- Bobtail, gearbox and saildrive version
- Keelcooling
- Mechanical trolling valve
- Calorifier kit
- Volvo Penta saildrive kit for saildrives type 110S, 120S or 120SB
- Front mounted oil and fuel filter including a bracket
- 2nd alternator for M4 engines
- Different instrument panels and cables
- Powerpack or hydraulic propulsion
- SOLAS certificates for M3 and M4 engines





## TECHNICAL SPECIFICATIONS

Supplied as standard with:

- 1 Instrument panel type MPA10 (M2) / MPA22KBS2 (M3 / M4)
- 4 Flexible engine mounts



Engine model	M2.13	M2.18	M3.29	M4.35	M4.45	M4.56
Max. output at flywheel (ISO 8665)	8.8 kW (12 hp)	11.8 kW (16 hp)	20 kW (27 hp)	24.3 kW (33 hp)	30.9 kW (42 hp)	38.3 kW (52 hp)
Max. output at propeller shaft (ISO 8665)	8.7 kW (11.8 hp)	11.6 kW (15.8 hp)	19.3 kW (26.2 hp)	23.6 kW (32.1 hp)	30 kW (40.8 hp)	37.1 kW (51 hp)
Maximum rpm	3000	3600	3600	3000	3000	3000
Max. torque	32.7 Nm / 1600 rpm	35.1 Nm / 2000 rpm	60.2 Nm / 2500 rpm	83.8 Nm / 1700 rpm	106.4 Nm / 1750 rpm	127 Nm / 2000 rpm
Bore x stroke	76 mm x 70 mm	76 mm x 70 mm	76 mm x 70 mm	78 mm x 92 mm	78 mm x 92 mm	78 mm x 92 mm
Displacement	635 cm <sup>3</sup>	635 cm <sup>3</sup>	952 cm <sup>3</sup>	1758 cm <sup>3</sup>	1758 cm <sup>3</sup>	1758 cm <sup>3</sup>
Number of cylinders	2 in line	2 in line	3 in line	4 in line	4 in line	4 in line
Combustion system	indirect injection	indirect injection	indirect injection	indirect injection	indirect injection	indirect injection
Compression ratio	23:1	23:1	22:1	22:1	22:1	22:1
Firing order	1-2	1-2	1-3-2	1-3-4-2	1-3-4-2	1-3-4-2
Intake	naturally aspirated	naturally aspirated	naturally aspirated	naturally aspirated	naturally aspirated	turbo charged
Electrical system	12 Volt - 85 Amps.	12 Volt - 85 Amps.	12 Volt - 85 Amps.	12 Volt - 110 Amps.	12 Volt - 110 Amps.	12 Volt - 110 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)	indirect cooling (keel cooling optional)	indirect cooling (keel cooling optional)	indirect cooling (keel cooling optional)	indirect cooling (keel cooling optional)	indirect cooling (keel cooling optional)
Gearbox, standard	TMC40 (2 / 2.60:1)	TMC40 (2 / 2.60:1)	TMC40 (2 / 2.60:1)	TMC60 (2 / 2.5 / 2.94:1)	TMC60 (2 / 2.5 / 2.94:1)	TM345(A) (2 / 2.47:1)
Gearbox options	ZF12M 2.14 / 2.63:1 ZF15MIV 2.13 / 2.99:1 TMC60A 2 / 2.5:1	ZF12M 2.14 / 2.63:1 ZF15MIV 2.13 / 2.99:1 TMC60A 2 / 2.5:1	ZF12M 2.14 / 2.63:1 ZF15MIV 2.13 / 2.99:1 TMC60A 2 / 2.5:1	ZF12M 2.14 / 2.63:1 TMC60A 2 / 2.5:1	ZF12M 2.14 / 2.63:1 TMC60A 2 / 2.5:1 TMC60A 2 / 2.5:1	ZF12M 2.14:1 ZF15MIV 2.13 / 2.99:1 TMC60 2 / 2.5:1
Saildrive	SP60 2.15 / 2.38:1 SD10 2.23 / 2.49:1	SP60 2.15 / 2.38:1 SD10 2.23 / 2.49:1	SP60 2.15 / 2.38:1 SD10 2.23 / 2.49:1	SP60 2.15 / 2.38:1 SD10 2.23 / 2.49:1	SP60 2.15 / 2.38:1 SD10 2.23 / 2.49:1	SP60 2.15 / 2.38:1 SD10 2.23 / 2.49:1
Dry weight (incl. std. gearbox)	107 kg	107 kg	134 kg	199 kg	199 kg	206 kg
Fuel consumption at 2500 rpm	268 g / kW.h (196 g / hp.h)	268 g / kW.h (196 g / hp.h)	270 g / kW.h (199 g / hp.h)	252 g / kW.h (185 g / hp.h)	252 g / kW.h (185 g / hp.h)	244 g / kW.h (179 g / hp.h)
Max. backwards installation angle	15°	15°	15°	15°	15°	15°
Max. lateral inclination angle;						
Continuously	25°	25°	25°	25°	25°	25°
5 minutes max.	30°	30°	30°	30°	30°	30°
Suction height of fuel lift pump	1.5 m	1.5 m	1.5 m	1.5 m	1.5 m	1.5 m
Calorifier connection kit	optional	optional	optional	optional	optional	optional
Instrument panel (standard)	MPA10	MPA10	MPA22KBS2	MPA22KBS2	MPA22KBS2	MPA22KBS2
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current	oil pressure, temperature (coolant and exhaust), charging current	oil pressure, temperature (coolant and exhaust), charging current	oil pressure, temperature (coolant and exhaust), charging current	oil pressure, temperature (coolant and exhaust), charging current	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating/glow plugs	pre-heating/glow plugs	pre-heating/glow plugs	pre-heating/glow plugs	pre-heating/glow plugs	pre-heating/glow plugs
Electric circuit protection	fuse 20 Amps.	fuse 20 Amps.	fuse 20 Amps.	fuse 20 Amps.	fuse 20 Amps.	fuse 20 Amps.
Certifications	EU-RCD II, BSO II	EU-RCD II, BSO II	EU-RCD II, BSO II, SOLAS	EU-RCD II, BSO II, SOLAS	EU-RCD II, BSO II, SOLAS	EU-RCD II, SOLAS

# M-LINE

## MARINE DIESEL ENGINES



### Equipment selection table for M-Line series



**COMFL**



**FTR470**



**SISCO**



**NLP40**



**NLP40HD**

Engine model	M2.13		M2.18		M3.29		M4.35		M4.45		M4.56		
Gearbox reduction	2:1	2.6:1	2:1	2.6:1	2:1	2.6:1	2:1	2.5:1	2:1	2.5:1	2:1	2,47:1	
<b>VETUS water lubricated propeller shaft system</b>													
* Shaft diam., Remanit 4462					25		30		35		30 35		
<b>VETUS manganese bronze propeller for displacement boats</b>													
* 3-blade, P3B, diameter in inches	13"	15"	13"	15"	14"	16"		18"		20"		18" 20"	
* 4-blade, P4E, diameter in inches												on request	
<b>Flexofold NiAlBz folding propellers for sailing boats can exclusively be purchased through the Flexofold network (look at: www.flexofold.com)</b>													
2-blade, FoF folding propeller	13"	15"	13"	15"	15"				n.a.				
3-blade, FoF folding propeller					n.a.		15"	16"	17"	17"	18"	18"	20"
4-blade, FoF folding propeller												on request	
<b>VETUS flexible couplings</b>													
* Bullflex type	01		02				04		08		04 08		
* Uniflex type					13				16		13 16		
* Combiflex type					12				n.a.		12 n.a.		
<b>VETUS water strainer</b>													
* hose connection diam.(mm)					20						25		
* water strainer, type FTR470 or FTR330:					330 or 470/19						330 or 470/25 / CWS1		
* water strainer kit, type					WKIT33019						WKIT33025		
<b>VETUS water separator / fuel filter</b>													
* hose connection suction/return in mm												8-8	
* water separator / fuel filter, type:												(75)330VTEB or WS180	
<b>VETUS water-injected exhaust systems</b>													
* exhaust hose, diam. (mm)					40				50		60		
* waterlock, type					NLP(3)40/LP40 NLP40HD				NLP(3)50/L50R/S NLP50HD		NLP(3)60/LP60 NLP60HD		
* combi waterlock/muffler, type					NLPH40				NLPH50		n.a.		
* muffler, type					MP40				MP50		MP60		
* gooseneck, type					LT40				LT50		LT60		
* combi muffler/gooseneck, type					NLPG40				NLPG50		n.a.		
* transom exhaust connection, type TRC					40R / PV or SV				50R / PV or SV		60R / PV or SV		
* anti-siphon, type AIRVENT or ASD												V or H	
<b>VETUS engine remote controls</b>													
* to be selected												SICO, SISCO, AFSTZIJ, RCTOPB, RCTOPS, AFSTTOP	
<b>VETUS maintenance free batteries</b>													
* voltage												12	
* starter battery, min. Ah					55						108		
* service battery, Ah.												to be selected	
<b>VETUS louvered air suction vents</b>													
* per engine, type ASV, SSV or SSVL	1 x 25	2 x 20		2 x 25		2 x 40 or 4 x 20		2 x 50 or 4 x 30		2 x 60 or 4 x 30/ 3 x 40			

### Complementary services

A VETUS engine brings with it 50 years of experience in producing reliable and compact marine engines, ensuring safe and continuous boating pleasure for all customers. We believe that our customers deserve the best when choosing VETUS, therefore all our engines come with a 5-year warranty in accordance with the VETUS Guarantee and Service conditions. Furthermore, all our customers can rely on the VETUS dealer network, which provides service, spare parts, and a specialised point of contact worldwide. For more information check the VETUS warranty conditions on [www.vetus.com](http://www.vetus.com).

