

# Power hydraulics

## Hydraulic power steering

For larger boats, VETUS hydraulic power steering is a most comfortable and extremely safe steering system. The effort required at the helm is only about 10% of a non-powered steering system. In other words: the boat can be steered literally with one finger. Because of this, the steering wheel diameter can be considerably smaller than normal; a wheel diameter of just Ø 360 mm will usually suffice.

### Steering pumps

The VETUS steering pump has a closed mid position, ensuring that there will be no oil flow as long as the wheel remains untouched.

To connect one or more VETUS steering pumps to a VETUS hydraulic system, a control unit model HT1019 must be used.

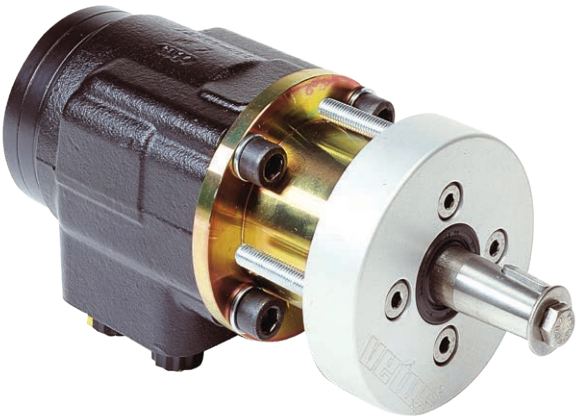
The external flange of the steering pump is made of seawater resistant aluminium, hand polished and anodised. The steering wheel shaft is made of stainless steel, type I-4462, Ø 19 mm, taper 1:12.

HT1018

HT1020

HT1025

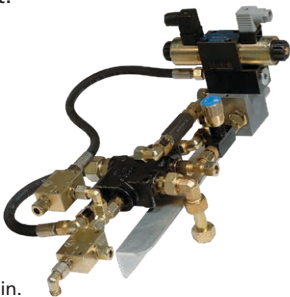
HT1038



HT1019

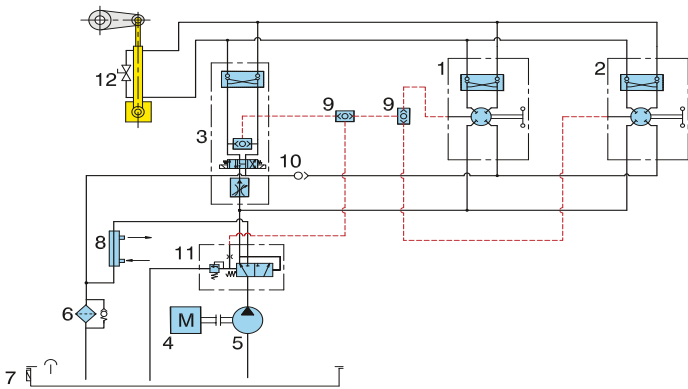
Solenoid control unit (24 VDC) for use with a hydraulically powered steering system or an automatic pilot.

HT1019



\* Standard: Max. 75 l/min.

### Schematic based on Fixed Pump



1. Steering pump with non-return valve
2. Steering pump with non-return valve (second steering position)
3. Control unit
4. Propulsion engine
5. Hydraulic pump
6. Filter
7. Hydraulic tank
8. Oil cooler
9. Shuttle valve
10. Non-return valve
11. Priority valve
12. Cylinder with by-pass

Pump type Assuming 4 - 6 steering wheel revolutions from port to starboard	Cylinder volume (in cm <sup>3</sup> )	VETUS cylinder model	Oil flow to steering pump (L/min.)	Pipe diameter (mm)	Bypass kit
HT1020 (75 cm <sup>3</sup> /rev.)	300 to 450 cm <sup>3</sup>	up to MTC17510	30	Ø 10 mm	HT3013
HT1018 (95 cm <sup>3</sup> /rev.)	380 to 570 cm <sup>3</sup>	up to MT0230B	30	Ø 18 mm	HT5598
HT1025 (145 cm <sup>3</sup> /rev.)	580 to 870 cm <sup>3</sup>	up to MT0345B	30	Ø 18 mm	HT5599
HT1038 (185 cm <sup>3</sup> /rev.)	740 to 1110 cm <sup>3</sup>	up to MT0455B	30	Ø 18 mm	HT5611