Pressure System Type HF08/19

1 Introduction

The pressure tank with the rubber membrane in the pressurized water system ensures that a small quantity of water is immediately available under pressure for the drinking water system.

As a result, the pump motor is not switched on each time water is tapped and a regular flow of drinking water is available in your boat.

The rubber used for the membrane will not give off any dangerous materials in the drinking water.

Following the recommendations below will result in a longer life and better performance of your pressurized water system.

- Ensure that the water supply tank is always full; although the pump can still run when dry, this will prevent unnecessary dry running without the pressure tank being filled.
- Check that the battery voltage is correct.
- Battery voltage loss can be reduced by using cables of sufficient cross sectional area.
- Ensure that the pressurized water system is properly prepared for winter before the temperature falls below zero. Otherwise, irreparable damage may be caused to the system.
- Carry out the maintenance described regularly.

2 Installation

Setting up the pressurized water system

- The space where the pressurized water system is installed must be dry and well ventilated.
- When selecting a place for the installation, make sure that there is enough room for carrying out maintenance work. The water filter (principal dimensions, 1), and the measuring/ filler valve (Schräder valve) (principal dimensions, 4) of the air cushion must be easily accessible.
- To prevent noise and vibration, the pressurized water system should not be fitted directly to a bulkhead or tank wall.
- The pressurized water system can be mounted in a variety of positions.

Installing the system

- Fit the filter to the inlet side of the pressurized water system (drawing 1).
- Connect up the pressurized water system as shown in the drawing (drawing 2). For the piping, use a good quality hose which is suitable for drinking water and which can accommodate a pressure of at least 8 Bar (116 psi).

  Model HF08: internal diameter of 12.7 mm (1/2")

  Model HF19: internal diameter of 19 mm (3/4")
- Secure the hose with stainless steel hose clamps.

  If the system is installed using stainless steel or copper piping, the pressurized water system must still be connected using short sections of hose.

Electrical Installation

- Check that the voltage stated on the identification plate is the same as the battery voltage.

The minimum cross-section for the connecting cables is 2.5 mm^2 (AWG 14).

Voltage loss between battery and pressurized water system must not be more than 10% of the supply voltage.

In a 12 Volt pressurized water system with a total cable length (positive and negative cable together) of more than 24 m (type HF08), 16 m (type HF19), use cable with a cross-section of 4 mm^2.

A main switch and fuse* must be incorporated in the positive cable.

*Fuse:	Type HF08	10 A for 12 Volt system 4 A for 24 Volt system
	Type HF19	15 A for 12 Volt system 7 A for 24 Volt system

- Connect '+' and '-' as shown in the drawing.

3 Starting the pressurized water system

When starting the pressurized water system, ensure that there is sufficient water in the tank and check that the drain plug is fitted.

- Open all taps; both hot and cold water.
- Switch the pump main switch on
- Close the taps as soon as the water is free of air.
- Check connections for leaks.

For efficient operation the pre-pressure of the air cushion in the tank must be about 0.2 Bar (3 psi) less than the pump switch pressure. Check this pressure and adjust if necessary; see 'Maintenance'.

4 Winter Preparation

The whole drinking water system, including the pressurized water system, should always be drained. Never fill the drinking water system with anti-freeze, it is very poisonous!

Draining the pressurized water system

- Remove the snap connector from the pump (drawing 3).
- Allow the pipes and pressure tank to drain empty. Then let the pump run for a time without any water input.

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5 Maintenance

Cleaning the Water Filter

- Unscrew and remove the cover (drawing 4).
- Clean the filter element thus exposed.
- Refit the cover.

Checking and pressurizing Pre-pressure and Air Cushion

Remove the protective cap, turn to the left and check pressure with a tyre air pressure meter.

Reduce pressure: Push the Schräder valve pin in; air will now escape.

Increase pressure: Connect a car tyre pump to the valve and bring the air cushion to the required pressure.

Replacing the Membrane

Under normal circumstances the membrane should never need replacement. However if it does leak, replace as follows: Ensure that the whole system is de-pressurized.

- Remove the hose between pump and T-piece.
- Remove the 6 bolts holding the flange to the top of the tank and remove flange complete with T-piece.
- Remove the old membrane, refit a new one and reassemble in reverse order to the above.

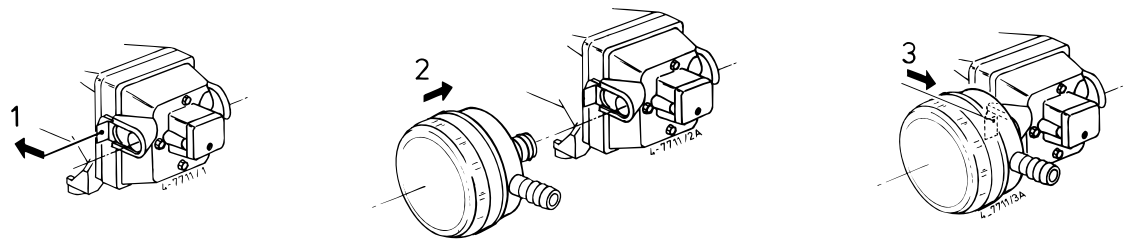
6 Technical data

Type	:	**HF1208**	**HF2408**	**HF1219**	**HF2419**
Electric motor					
Type	:	Permanent magnet DC motor			
Voltage	:	12 V DC	24 V DC	12 V DC	24 V DC
Current at 0.7 Bar (10 psi)	:	3.9 Amp	2.0 Amp	6.0 Amp	2.5 Amp
Pump					
Type	:	Self-priming 4 valve diaphragm pump			
Capacity at 2 Bar (30 psi)	:	12.5 litres/min (2.7 Imp.Gallon)		17.0 litres/min (3.7 Imp.Gallon)	
Max. pressure	:	2.5 Bar (36 psi)		2.8 Bar (40 psi)	
Maximum riser height	:	3 m (10 ft)			
Filter					
Type	:	In-line			
Mesh size	:	40 Mesh			
Pressure switch					
Settings,					
Switch-on pressure	:	1,4 bar (10 psi)		1,8 bar (26 psi)	
Switch-off pressure	:	2,5 bar (36 psi)		2,8 bar (40 psi)	
Pressure tank					
Capacity	:	8 liter (1.75 Imp.Gallon)		19 liter (4.2 Imp.Gallon)	
Pre-pressure, air cushion	:	1,2 bar (17 psi)		1,6 bar (23 psi)	
Connections					
For hose	:	12.7 mm (1/2")		19 mm (3/4")	
Water temperature	:	0 to 50 degrees C. (32 to 122 degrees F.)			
Weight	:	6,2 kg (13.7 lb)		7,5 kg (16.6 lb)	

Pressure System Type HF08/19

HF08 (8L)

1



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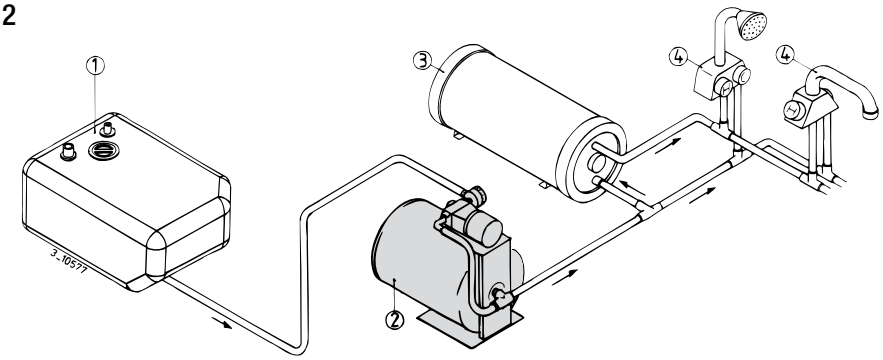
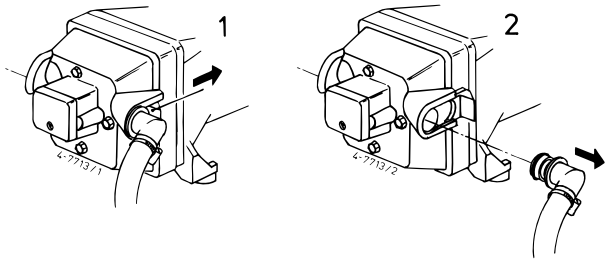


1 Water tank
2 Pressurized water system
3 Boiler
4 (Mixer) Tap
5 Water filter

3



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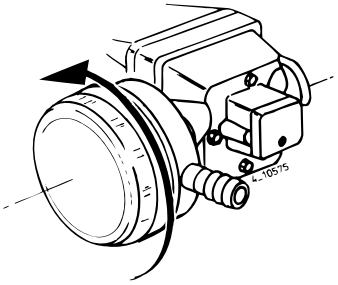
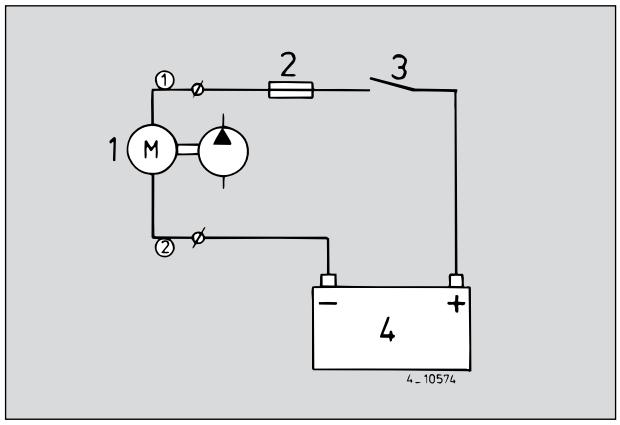


Wiring Diagram



① Red
② Black
1 Pump
2 Fuse
3 Main switch
4 Battery

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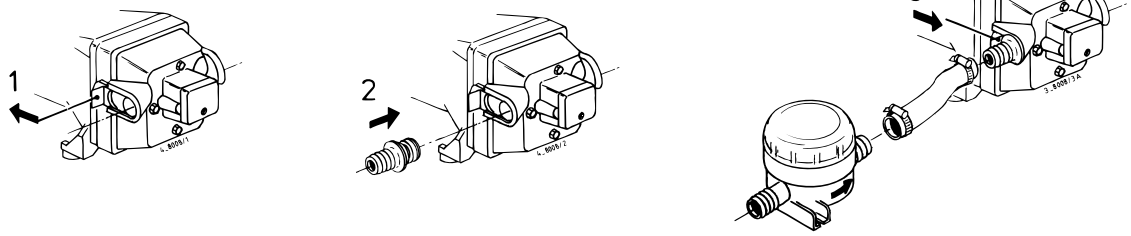
Pressure System Type HF08/19

HF19 (19L)

1



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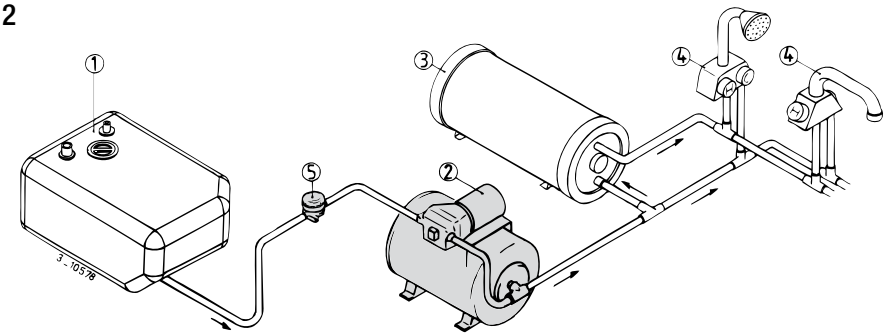

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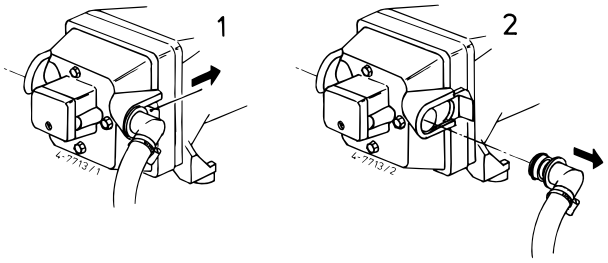

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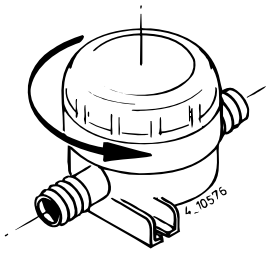
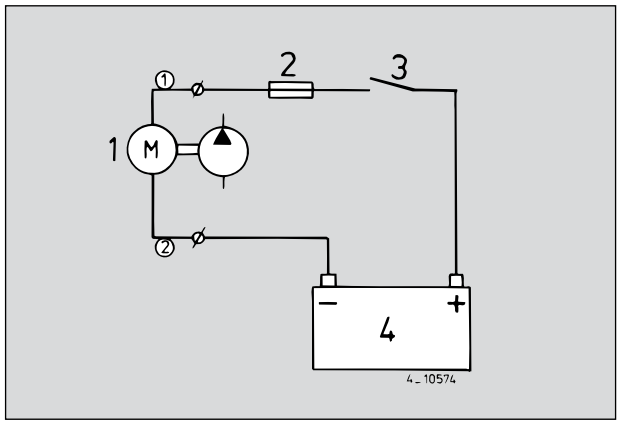


Wiring Diagram



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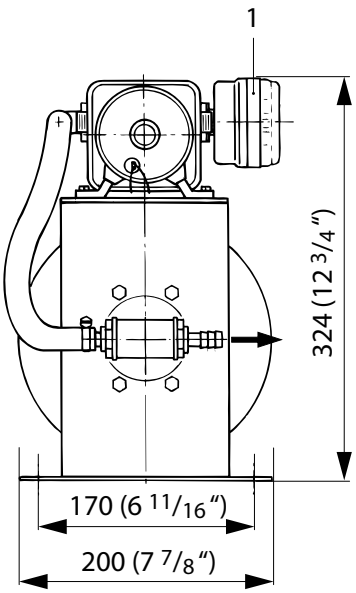
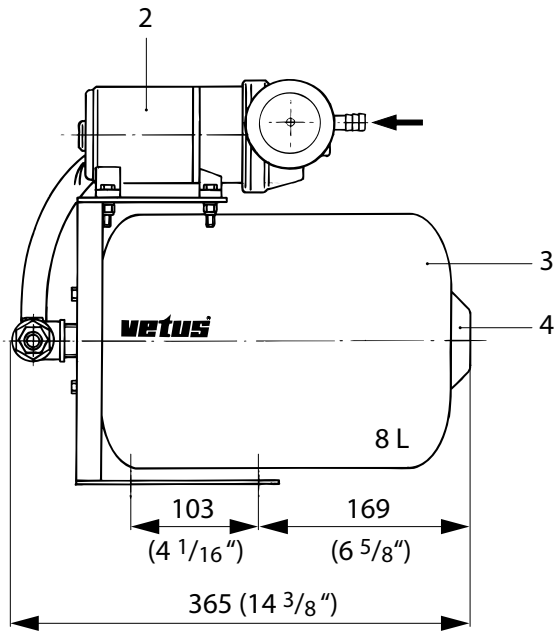
Pressure System Type HF08/19

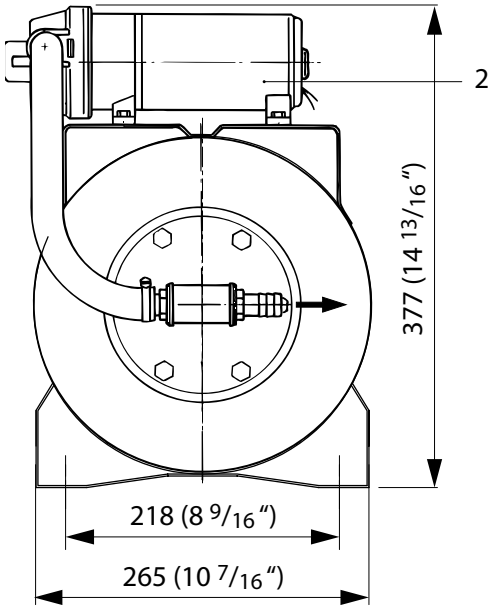
Pincipal dimensions

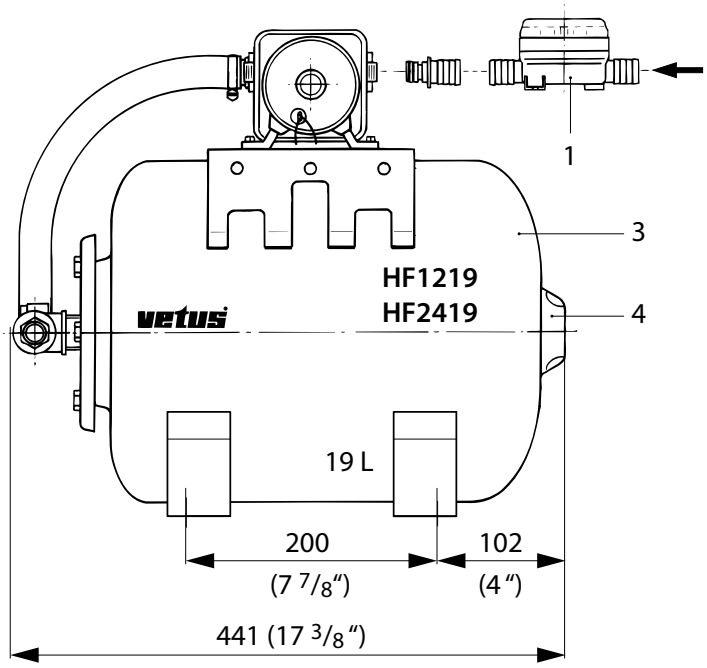
8L





19L





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