

SOBEK WATERFLUSH Technical Information



Description



Note:

Bevor starting to work with the WATERFLUSH open the vent valve ③ in the lid.

The WATERFLUSH was developed to airless fill the cooling water system of a vehicle with coolant without air as well as refill, drain out or clean the system.

It consists of the following components

- 30 liter tank with vent valve ③
- Mixer (ball valve) ④
- Diaphragm pump – optionally with 12 VDC or 115 VAC or 230 VAC (see table)

Depending on the vehicle-specific requirements for couplings (female / male) ①② and connections, the following system variants can be ordered:

WATERFLUSH with CPC System

Article no.	Voltage Pump
Z-B 1000 3023	12 V / DC
Z-B 1000 3022	115 V / AC
Z-B 1000 3021	230 V / AC

WATERFLUSH with Stäubli System

Article no.	Voltage Pump
Z-B 1000 3019	12 V / DC
Z-B 1000 3018	115 V / AC
Z-B 1000 3017	230 V / AC

Variants Diaphragm pumps

- The pumps have an output of 800 l / h
- All pumps automatically switch off at 3.0 bar as they are equipped with a pressure switch

	12 V / DC	115 V / AC	230 V / AC
Voltage	12 V / DC 8.0 A	115 V / AC 1.5A	230 V / AC 0.5 A Controlled by pressure switch
Pump	Self-priming 4-chamber diaphragm pump		
Pressures			Closed system: 3,5 bar = 2.5 A (max. pressure)



Identification of connectors:

- S** – at the pump: **S**uction side
- P** – at the pump: **P**ressure side
- S** – at the tank: **S**uction point - pump
- R** – at the tank: **R**eturn



Mixer (Ball valve)

This valve has a mixing function.

With different ball valve positions, the fluid flow to the engine can be controlled.

In addition, it is possible to pressurize the cooling system of the vehicle when filling with pre-pressure.



Pump fuse

- The pump fuse is in the switch box
- Lever out the holder with a screwdriver
- Please have spare fuses ready

Fuse in the switch box

- 230 Volt AC pump. 1.0 - 1.5 Amp
- 115 V AC and 12 V DC pump. No fuse



Connectors in transport position



Connectors in working position

Instructions

a) Apply pre-pressure to the cooling system

- If the vehicle is filled free of air, turn on the ball valve and disconnect the return line from the engine.
- Now the pump pushes back through the tap
- Close the ball valve slowly until the pump starts to stutter or the overflow on the cooling water tank opens.
- Then disconnect the feed line immediately; the pressure remains in the vehicle.
- **Do not forget:** Reconnect the couplings at the vehicle

b) Filling up coolant

- Connect the mixer (ball valve) to the vehicle.
- Fill the water system until a bubble-free return is achieved.
- Continue this process for a minute or more and pay attention to the bubbles in the viewing tube or filter (not included).
- If there is a bubble-free return, stop the process.
- The water level in the tank must not change any more.
- The coolant reservoir must now be completely filled.

IMPORTANT:

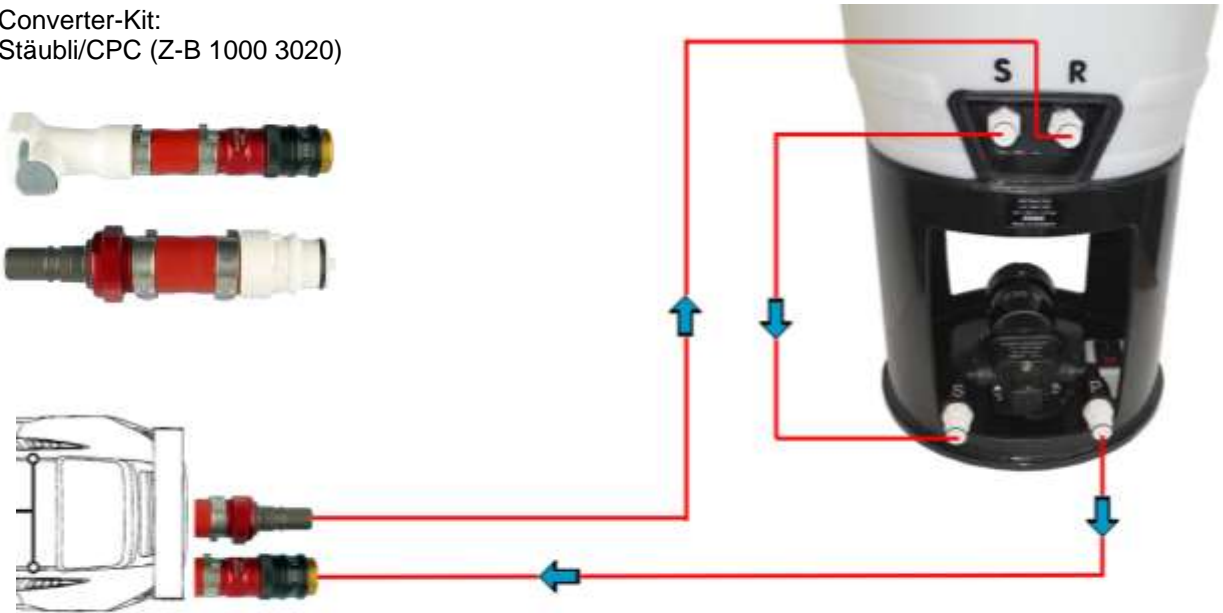
- Now remove both couplings at full pressure and with the ball valve closed.
- After disconnecting the couplings, open the ball valve immediately to ensure free flow.
- The pumps switch off automatically as they are equipped with a pressure switch.

ATTENTION: Reconnect the couplings at the vehicle

- After warming up the engine, check the level on the expansion tank.
- If necessary, add cooling water with the WATERPICK.

System configuration for filling

Converter-Kit:
Stäubli/CPC (Z-B 1000 3020)



c) Sucking off coolant

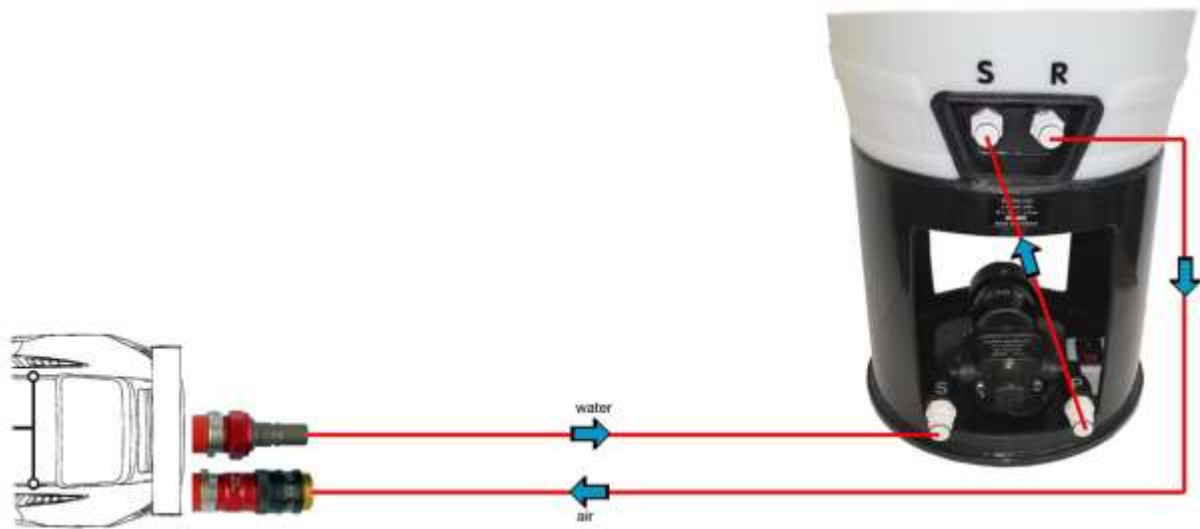
Connect the hoses of the WATERFLUSH as described:

- Open the breather valve on the tank.
- Open the lid on the coolant reservoir.
- Switch on pump for suction.
- Please suck until the level at the tank of the WATERFLUSH does not change any more
- Close the lid of the expansion tank again.
- Pull out the original-mounted couplings at the vehicle.
- Now blow out the remaining water; for this, connect the air blow tool (not included) to the corresponding coupling mounted in the vehicle.
- Blow air into the cooling system carefully and intermittently until the rest of the coolant flows back. (Pump is running and ventilation on WATERFLUSH is open)

Important:

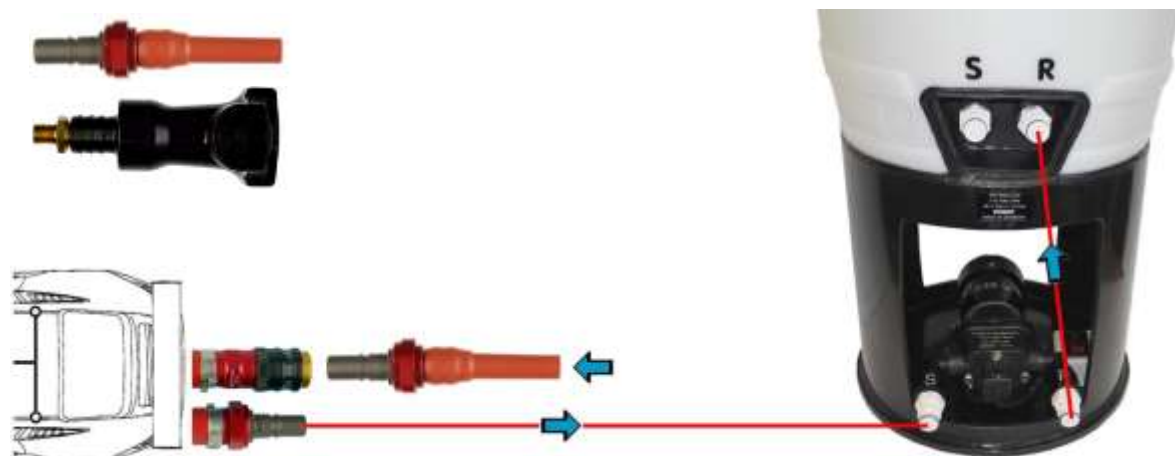
- Blow in air until the level in the expansion tank rises.
- Then stop blowing until the container is completely empty.
- Then blow air into the cooling system until the level in the WATERFLUSH tank does not change any more.
- Now the engine can be removed.

System configuration for sucking off



System configuration for blowing out the residual water

Air-Blow-Tools: Stäubli/CPC



Maintenance



Filter

It is recommended to rinse the entire water system from time to time with a filter to keep it clean.

The filter also helps to see a bubble-free flow while the system is being filled.

- When aspirating, insert into the suction side of the pump.
- Please pay attention to the direction of flow! (Arrow on the filter housing)

Article no. Z-B 3000 3005

Accessories and spare parts



CPC couplings spare parts kit

- 3 QDV couplings (female) for hose 12 mm
- 2 QDV couplings (male) for hose 12 mm
- 4 QDV couplings (male) with external thread 1/2" BSP
- 1 couplings (male) with external thread 3/8" BSP

Article no. Z-B 1000 3009



Replacement pumps

Article no.	
H-P 2000 0019	12 V / DC
H-P 2000 0038	115 V / AC
H-P 2000 0036	230 V / AC



Coupling Converter-Kit

CPC/Stäubli

Enables the WATERFLUSH to operate with both systems.

However, it is recommended to replace the CPC plastic system with Stäubli Aluminum. The systems are easily interchangeable.

Article no. Z-B 1000 3020

Air Blow Tool

Blow-off tool for cooling water with compressed air
Supports the suction pump of the WATERFLUSH for complete draining of the cooling water circuit.



Stäubli

Article no. Z-B 1000 3026

CPC

Article no. Z-B 1000 3008