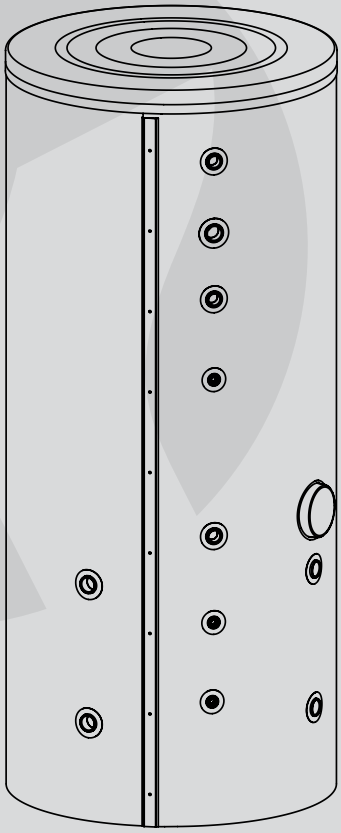
KOSPEL

Domestic Hot Water Cylinder With Ch Buffer Tank



SWVPC - 200/100

Assembly and operating manual

Safety instructions

1. Read and strictly follow this installation and operating instructions to ensure a long life and reliable cylinder operation.
2. The manufacturer of this cylinder will not be liable for any damages due to the failure to follow the installation and operation instructions.
3. The cylinder must not be installed in rooms where the temperature may drop below 0°C.
4. The cylinder installation and the initial start-up, as well as all electrical and hydraulic work must be performed by a qualified professional installer.
5. The cylinder is designed for vertical installation only (screw on feet).
6. The device must be installed in such a place and in such a way in order not to flood the room in case of the emergency water leak.
7. Connections to water supply system, central heating system, and solar collectors must be made in accordance with the diagram in this installation instruction. Failure to follow the installation instruction invalidate the warranty and may cause cylinder's damage.
8. A connection to water supply system must be made in accordance with legally binding norms.
9. The cylinder is a pressure appliance designed for connection to the water supply system where the water pressure doesn't exceed 0,6 MPa. If the water pressure exceeds 0,6 MPa, the pressure reducing valve before cylinder must be fitted.
10. A small leak from the safety valve through the outlet pipe may occur- it's a normal operating state of the appliance. The outlet pipe has to remain open. Do not clog it, as a clogged outlet may lead to the breakdown of the cylinder.
11. Do not use the cylinder if you suspect that the safety valve may be faulty.
12. The tank is equipped with magnesium anode- an additional protection against corrosion. The anode is an operating part, therefore, it is exposed to wear. **The condition of the magnesium anode should be controlled every 12 months. The anode must be replaced once every 18 months.**
13. Rated temperature of water in the cylinder should not exceed 80°C.

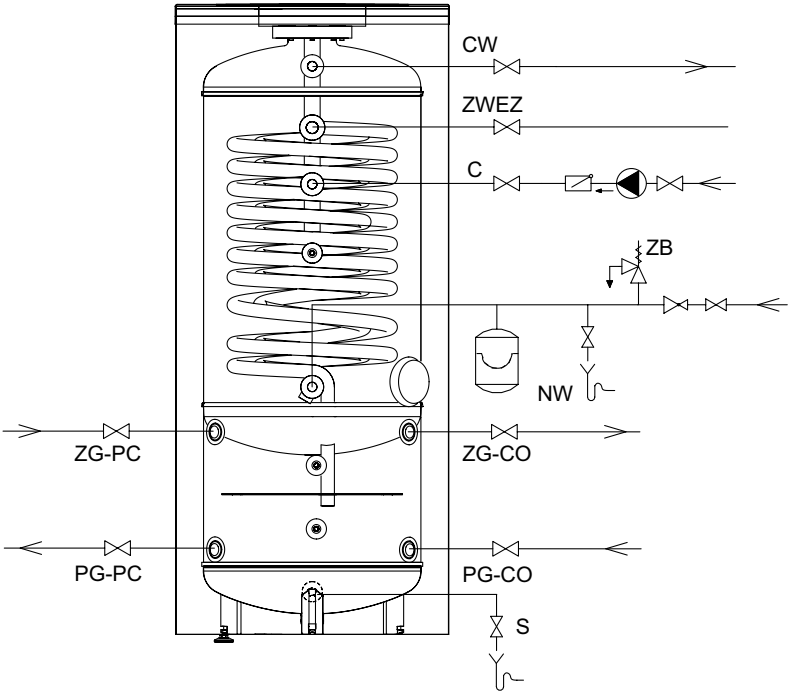
The cylinder is suitable for fitting an immersion heater with thermostat e.g. GRW 1.4, GRW 2.0. The immersion heater must be fitted in lieu of cork 1½".
A maximum length of immersion heater is 450mm.

Description of device

Cylinder SWVPC is a device with double tank intended to heating medium system with heat pump.
The upper tank is enamelled with double heating coil, intened to prepare domestic hot water.
In the lower part, there is a buffer with unenamelled tank, anti-corrosion inhibitor protected for transport.
Buffer is intened only for work in the heating system. Can't work with domestic hot water.

Connection to the central heating system

Cylinder must be fitted to the central heating system by pipe unions 1″. A cut-off valves must be installed before the pipe unions. A flow rate of heating water must be high enough to maximise cylinder efficiency (see ,Technical data table). It concerns the forced circulation installation (with a central heating water pump).
Model SWVPC is equipped in double heating coil.



Connection to the water system

Please follow water connection instructions below:

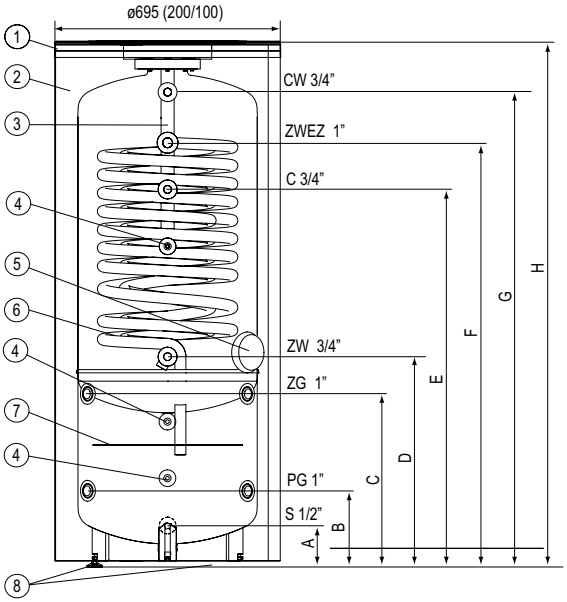
- install the T-connection with 6 bar* safety valve and the drain valve to the fitting of cold water inlet [ZW]. It's forbidden to install a cut-off valve (or any flow reducer) between the tank and the safety valve and on its outlet. The safety valve must be installed in such a place as to quickly let you notice the outgoing water,
- install the cylinder equipped with the safety valve to the water system,
- install the cut-off valve on cold water supply pipe.

Hot water outlet should be led to the connections in the upper part of the cylinder. Every cylinder is equipped with connection intended for its installation to the DHW circulation. The buffer tank can be assembled in the heating system:

- open system according to the current standards
- closed system according to the current standards

**Please note: use the safety valve matched to the heat's source. Installing a safety valve with inadequate capacity can result for excessive pressure increase in the cylinder and as a result a leakage. In this case, warranty does not cover damage caused.*

Cylinders' construction SWVPC-200/100



Dimensions SWVPC	
	250
A	127
B	231
C	530
D	644
E	1156
F	1299
G	1455
H	1610

[1] - lower lid
[2] - thermal insulation
[3] - magnesium anode
[4] - sensor pipe
[5] - immersion heater connection (cork 1½")
[6] - double heating coil
[7] - barrier
[8] - feet

ZW - cold water
CW - hot water
ZWEZ - heating coil supply
C - circulation
ZG - heating medium supply
PG - heating medium return
S - buffer drain connection
A-G - dimensions described in the diagram

Start up

Before the start-up make sure that the installation procedures have been carried out in accordance with the regulations included in this manual.
Cylinder must be filled with water:

- turn on the valve on cold water supply pipe,
- turn on the hot water outlet valve (water outflow without the air bubbles indicates that the tank is full),
- turn off the outlet valves.

Turn on the valves connecting cylinder with the central heating system and fill the surface area of buffer. To vent the buffer, you should use air vent on supply. Air vent is also recommended at the highest point of the coil supply connection. Check for water and heating medium leaks. Check out the safety valve performance in accordance with valve manufacturer's instruction.

Cylinder emptying

In order to empty the cylinder:

- turn off the valves which connect cylinder with central heating system,
- turn off the valves which connect cylinder with PC circuit,
- turn off the valve to connect the cold water inlet with cylinder,
- turn off the valve on the cold water inlet,
- turn on the drain valve.

Operation

Follow the guidelines below for safety and trouble-free cylinder operation:

- Check out the safety valve performance once every 14 days. Do not use the cylinder if the water does not come out (it indicates that the valve is broken).
- Clean inside of the cylinder periodically. The frequency of cleaning depends on the degree of water hardness. The cleaning should be done by a qualified person. Always tighten the lid's screws to the correct torque of 18-22Nm.
- The wear condition of the anode must be inspected annually.
- The anode must be replaced once every 18 months.

- anode rod replacement [3]: take off upper lid [1], take out an insulation ring, turn off the cut-off valve on cold water supply pipe, turn on the hot water valve (mixer tap), turn the drain valve on, drain as much water as you need to easily unscrew the anode rod (avoiding room flooding). Remove the cork and unscrew the anode rod.

- Heat up the water above 70°C periodically for hygiene reasons.
- Failures or malfunctions notify to the seller.
- Insulate the outlet pipe and heating coil connection pipes to minimise the heat loss (recommended).

Above activities are beyond of the scope of warranty service (should be done by the user).

Technical data

Domestic Hot Water Cylinder			SWVPC
Storage capacity	CWU	l	200
	CO		100
Rated pressure	CWU	MPa	0,6
	CO		0,3
Rated temperature		°C	80
Surface area of heating		m^2	2,6
Capacity of coil		dm^3	~14
Power of coil		kW	70* / 22**
Efficiency of coil		l/h	1800* / 550**
Weight (without water)		kg	142
Magnesium anode M8 ø40		mm	400

*80/10/45°C
**55/10/45°C } - heating water temp./ supply water temp./ domestic water temperature; flowrate of heating water through the coil - 2,5m^3/h.

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