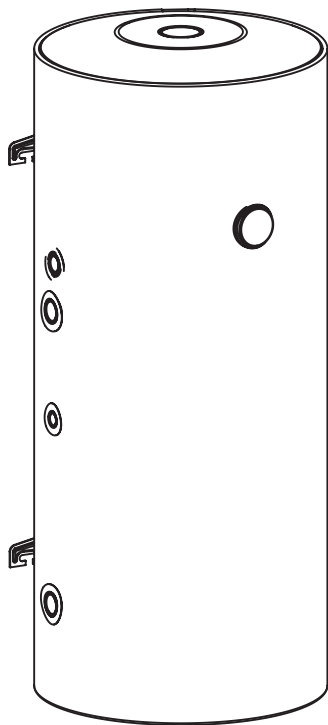


Domestic Hot Water Cylinder



SN

Safety instructions

1. Read and strictly follow this installation and operating instructions to ensure a long life and reliable cylinder operation.
2. The cylinder's installation and the initial start-up, as well as all electrical and hydraulic work must be performed by a qualified professional installer.
3. **The device needs to be equipped with an additional safety valve (opening pressure 0,6MPa) in order to protect it from the excess pressure.**
4. The cylinder can only be used on condition that it has been properly installed and that it is in technically sound condition.
5. Prior to first commissioning and after each storage's emptying it is necessary to vent the cylinder in accordance with the point 'Start-up'.
6. The tank is equipped with a 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, however, it is due to be replaced with a new one every 18 months.**
7. Do not use the cylinder if you suspect that the safety valve may be faulty.
8. Appropriate precaution must be taken when using hot water. Temperature of water over 40°C may cause hot feeling and can be dangerous for children.
9. Note that when in use cylinder's fitting (tap and pipes) warms up.
10. Cylinder must be equipped with safety valve (included in the installation set).
11. If system's pressure is higher than 0,6MP, pressure reducing valve must be fitted between cold water inlet and safety valve.
12. 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".

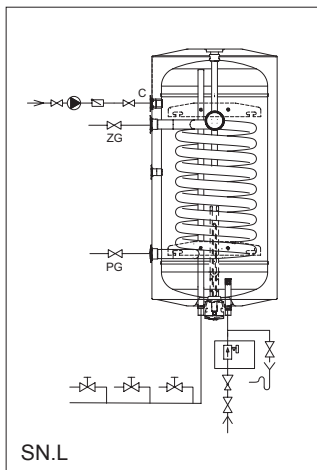
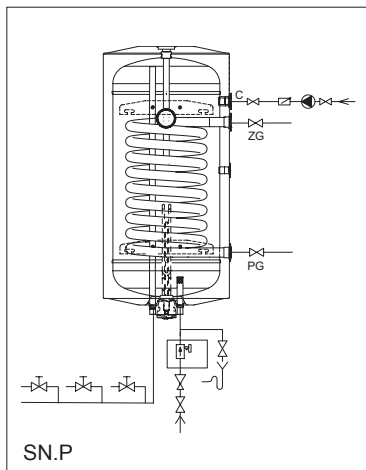
A maximum length of immersion heater: 360mm.

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's efficiency (see 'Technical data' table). It concerns the forced circulation installation (with a central heating water pump).

Model SN.P is equipped with a heating coil placed in the right part of the cylinder, whereas model SN.L in the left part of the cylinder.

Heating coil enables co-operation with e.g. central heating boiler or solar collectors.



Connection to the water system

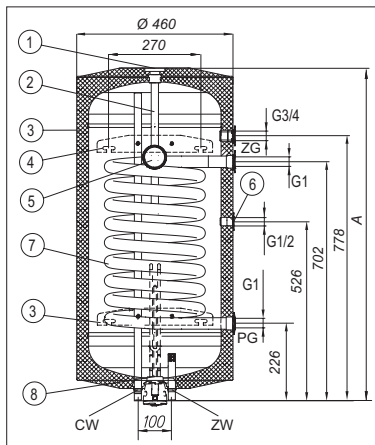
Connection to the water system must be performed according to binding norms of hydraulic installation. The cylinder is a pressure appliance designed for connection to the water supply system where the water pressure doesn't exceed 0,6 MPa. If the water pressure exceeds 0,6 MPa, the pressure reducing valve before cylinder must be fitted. Please follow the water connection instructions below:

- install the T-connection with 6 bar safety valve (e.g. ZB-4) 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 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 a cut-off valve on the cold water inlet.

Hot water outlet should be led to the connection in the upper part of the cylinder.

Every cylinder is equipped with connection 3/4" intended for its installation to the DHW circulation.

Cylinder's construction



- [1] - anode's blank
 - [2] - magnesium anode
 - [3] - thermal insulation
 - [4] - hanger
 - [5] - thermometer
 - [6] - sensor pipe
 - [7] - heating coil
 - [8] - immersion heater connection (cork 1½")
- ZW - cold water
CW - hot water
C - circulation
ZG - heating medium supply
PG1 - heating medium return
A - dimension specified in the diagram
„Technical data”

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 heating medium and solar collectors valves. Check for water and heating medium leaks. Check out the safety valve performance in accordance with valve manufacturer's instruction.

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.
- The wear condition of the anode must be inspected annually.
- The anode must be replaced once every 18 months.
 - anode rod replacement [2]: take off anode's blank [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).

Cylinder emptying

In order to empty the cylinder:

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

Technical data

Domestic Hot Water Cylinder			SN-80	SN-100	SN-120
Storage capacity		l	80	100	120
Rated pressure	storage	MPa	0,6		
	coil		1		
Surface area of coil		m ²	0,8		
Capacity of coil		dm ³	5,3		
Power of coil		kW	24*		
			7,5**		
Heating time 20-60°C		h	*0,11	*0,14	*0,17
			**0,34	**0,42	**0,50
Dimensions	A	mm	978,4	1124,4	1294,4
Magnesium anode		mm	420	660	
Weight (without water)		kg	47	52	57

*80/10/45°C } - heating water temp./ supply water temp./ domestic water temperature; flow rate
 **55/10/45°C } - of heating water through the coil - 2,5m³/h.

