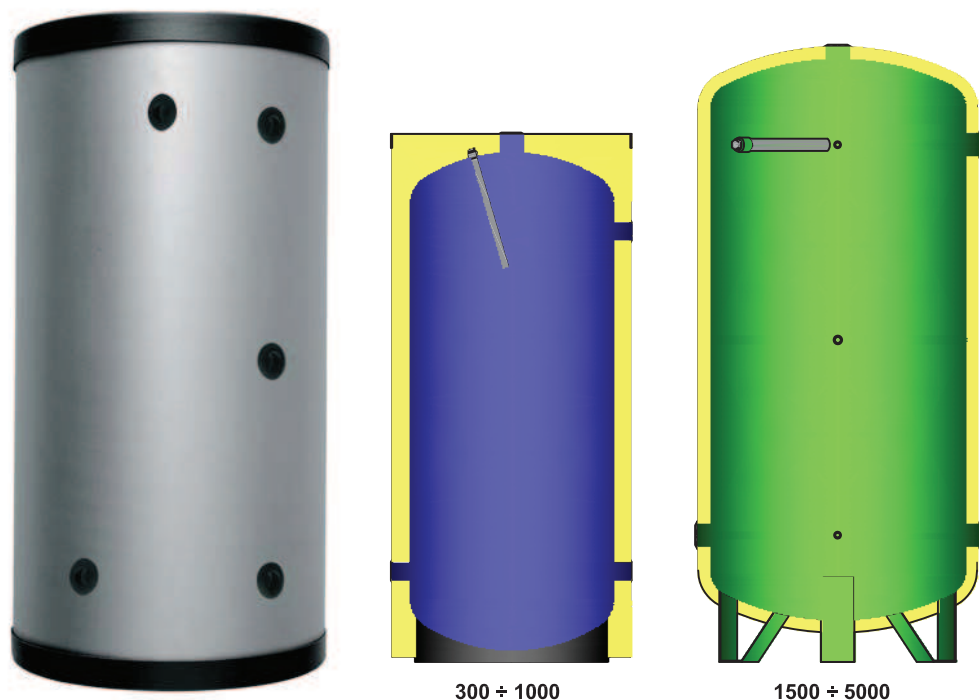


SAC Series

Domestic Hot water storage tanks

ELBI **SAC Hot water storage tanks** are used for storing DHW in Domestic applications (e.g. houses, dwellings, residential estates). Systems using these tanks provide heat exchangers (e.g. instantaneous) that are upstream (i.e. before) to the tank to heat the cold water from the city mains. The DHW is stored in the SAC cylinders and available on demand. These cylinders are insulated to avoid thermal loss.



The SAC series of storage cylinders come in capacity ranging from 300 to 5000 litres. The simple installation procedure make it possible to adapt these cylinders to virtually all plant rooms.

SAC series Accumulators are available with 2 choices of coating:

- Internal enamel coating from 800 lts. to 1000 lts.
- **TOP-PRO®** internal coating from 1500 lts. to 5000 lts.

These internal coatings are suitable for use in contact with DHW and serves to protect the cylinder from corrosion. These cylinders are supplied with **Magnesium Anode. Impressed current** anodes are supplied on demand.

Warranty:

- 5 years for the version with Internal vitreous enamel coating
- 3 years for the version with **TOP-PRO®** internal coating from 1500 lts. to 5000 lts.

ELBI' s SAC cylinders come with rigid polyurethane insulation CFC and HCFC free, grey RAL 9006. The outer case is available in soft open cells white polyurethane

Technical Features

Cylinder

- Models: **SAC300 / SAC500 / SAC800 / SAC1000 / SAC1500 / SAC2000 / SAC3000 / SAC5000**;
- Maximum Working Pressure:
 - **10 bar:** SAC300 - SAC1000;
 - **6 bar:** SAC1500 - SAC5000
- Maximum Working Temperature: 95°C;
- Fluid: Domestic Hot Water (DHW).

Insulation

- Material:
 - SAC300÷SAC500
Material: Expanded Rigid Polyurethane with 95% closed cells
Thickness 40 mm.
Minimum density 40 kg/Cu. Mt.
Thermal conductivity 23.5 mW/mK.
DIN 4102 Combustion Category: **B3**
External finish: Polystyrene grey colour RAL 9006
 - SAC1500÷SAC5000
Expanded open cells polyurethane.
Thickness: 50 mm.;
Thermal Conductivity 39,0 mW/m°K;
External finish: white sky

ELBI SAC cylinders are manufactured to PED 97/23/EC

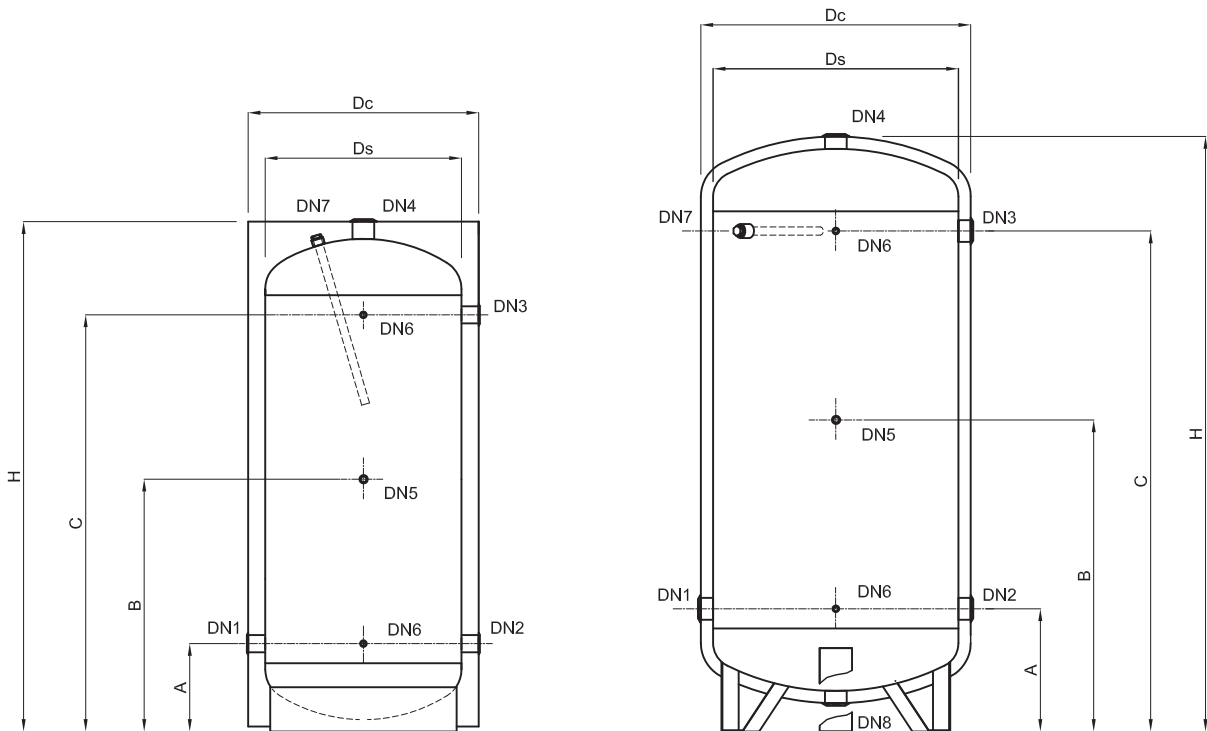
Dimensional Data

| MOD. | Litre | Ds mm | Dc mm | H mm | A mm | B mm | C mm | DN1 DN2 | DN3 DN4 | DN5 | DN6 | DN7 | DN8 | Anode |
|------------|-------------|----------|----------|---------|---------|---------|---------|------------|------------|------|------|--------|--------|------------|
| SAC | 300 | 550 | 630 | 1400 | 275 | 705 | 1135 | 1.1/4" | 1.1/4" | 3/4" | 1/2" | 1.1/4" | | 1.1/4"x320 |
| | 500 | 650 | 730 | 1695 | 300 | 855 | 1410 | 1.1/2" | 1.1/2" | 3/4" | 1/2" | 1.1/4" | | 1.1/4"x410 |
| | 800 | 800 | 880 | 1785 | 350 | 905 | 1460 | 1.1/2" | 1.1/2" | 3/4" | 1/2" | 1.1/4" | 1.1/2" | 1.1/4"x520 |
| | 1000 | 800 | 880 | 2035 | 350 | 1180 | 1700 | 2" | 2" | 3/4" | 1/2" | 1.1/4" | 1.1/2" | 1.1/4"x520 |
| | 1500 | 1000 | 1100 | 2445 | 500 | 1270 | 2040 | 2.1/2" | 2.1/2" | 3/4" | 1/2" | 1.1/4" | 2" | 1.1/4"x670 |
| | 2000 | 1100 | 1200 | 2415 | 480 | 1240 | 2000 | 2.1/2" | 2.1/2" | 3/4" | 1/2" | 1.1/4" | 2" | 1.1/4"x670 |
| | 3000 | 1250 | 1350 | 2770 | 505 | 1415 | 2325 | 3" | 3" | 3/4" | 1/2" | 1.1/4" | 2.1/2" | 1.1/4"x700 |
| | 5000 | 1600 | 1700 | 2920 | 590 | 1500 | 2410 | 3" | 3" | 3/4" | 1/2" | 1.1/2" | 1.1/2" | 1.1/2"x640 |

DN1: Mains water supply; **DN2:** to external heat exchanger; **DN3:** From external heat exchanger; **DN4:** Hot water draw off; **DN5:** Circulation; **DN6:** Controls; **DN7:** Magnesium anode; **DN8:** Drain.

SAC 300 – 500 – 800 – 1000

SAC 1500 – 2000 – 3000 – 5000



Technical information

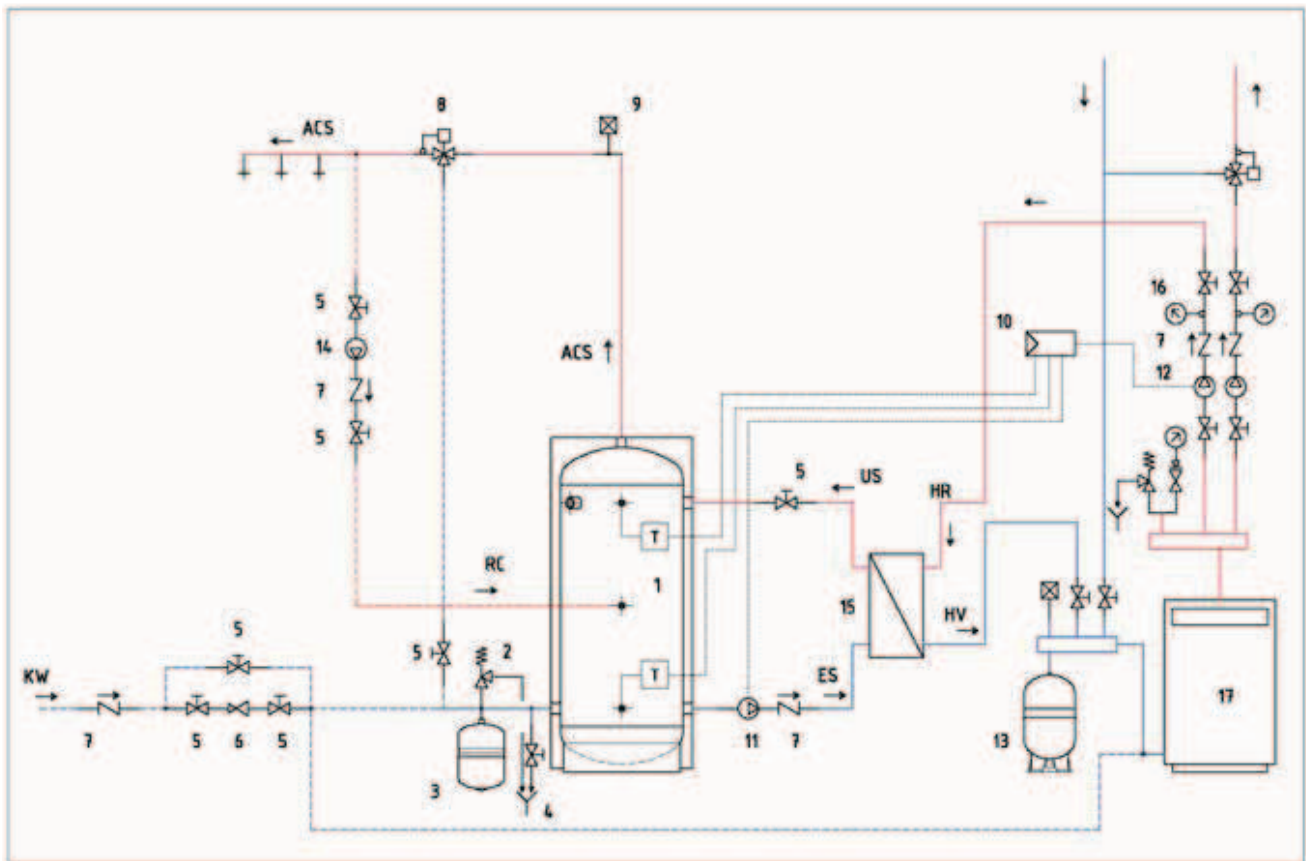
Safety devices:

- DHW circuit:
 - Safety valve set at pressure below the cylinder maximum working pressure;
 - ELBI **D-DV series** expansion vessel. The sizing chart below is applicable under the following working conditions: Maximum hot water temp. 85°C / Mains Water 15°C / Vessel precharge pressure: 3 bar / Safety Valve: 6 bar

| Model | ELBI D/ DV series expansion vessel |
|----------|------------------------------------|
| SAC-300 | D - 24 |
| SAC-500 | D - 35 |
| SAC-800 | DV - 80 |
| SAC-1000 | DV - 80 |
| SAC-1500 | DV - 150 |
| SAC-2000 | DV - 150 |
| SAC-3000 | DV - 300 |
| SAC5000 | N°2 DV - 200 |

In order to avoid overpressure to occur in the tank the following control and safety devices shall be installed:

Installation Example



- 1 SAC tank
- 2 Safety Valve
- 3 ELBI DV series expansion vessel
- 4 Drain
- 5 Isolating Valve
- 6 Pressure reducing valve
- 7 Check Valve
- 8 Mixing Valve
- 9 Purge
- 10 Control Panel
- 11 DHW Pump
- 12 Circulator Pump
- 13 DS series Expansion Vessel

- 14 Circulation Pump
- 15 External Heat exchanger
- 16 Thermometer
- 17 Boiler

- DHW Hot water draw off
- KW Mains water supply
- RC Circulation
- ES Hot Water Draw-off
- US Hot Water return
- HV Flow from Boiler
- HR Return to Boiler