



**flamco**

## **Flextherm**

Stainless Steel Storage vessels  
& water heaters

that's excellence.



**ENG** Installation and operating manual

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## 1. Technical data

Tanks and indirectly heated stainless steel tank AISI 316L with up to two fixed welded tube heat exchangers in stainless steel AISI 316L too. Complete with thermal insulation with variable thickness from 50 to 100 mm in accordance with the size. All the units are equipped by an inspection flange on the top. For the 750 and 1000 l it's included also an inspection and cleaning opening flange. Tanks and indirectly heaters can be combined with all modern heating systems. For units with capacity over 300 l it's included a specific connection port for the electrical heaters. Installation-friendly construction, equipped with connection for thermometer and temperature sensor/thermostat. (type-dependent).

<b>Permissible system pressure</b>	Heating coil 40 bar	Tank 10 bar
<b>system temperature</b>	Heating coil 110 °C	Tank 95 °C
	Duo HLS & Duo Solar 130 °C	Polyuretan foam
<b>Thermal insulation</b>	Up to 500 l	Polystyrene shel
	From 750 l	DN 180 with net diameter
<b>Side inspection hatch</b>	Up to 750 l	120 mm
<b>Cleaning flange on top</b>	80 x 95 mm	

See type plate and datasheet for further technical data.

## 2. Safety requirement

Read these instructions carefully before commencing installation. For any additional questions, please consult our customer service department (see contact details).

**WARNING:** Do not expose the insulation to open fire!

### 3. Installation

Installation, commissioning and maintenance must be carried out by specialists according to the applicable regulations (including EN 1717, DIN 1988, EN 12828 and VDI 2035, the relevant regulations for local distributors, national legislation and other regulations).

The chloride content of the drinking water must be less than 250 ppm. Suitable measures must be taken to protect the tank from damage caused by underpressure. Damage that is caused by underpressure (vacuum) is not covered by the warranty. Protective gloves must be worn when cleaning inside the unit. The flange seal must be replaced after cleaning. Furthermore, facilities for the secure collection and drainage of water from the boiler must be provided to avoid water damage.

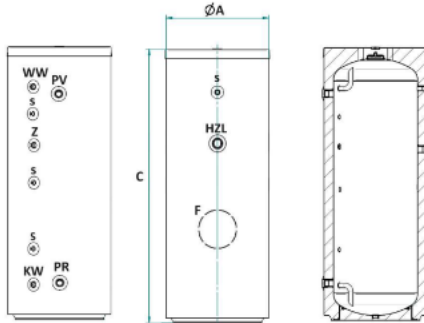
**WARNING:** Hot water may escape from the safety valves or when draining the boiler. Danger - risk of scalding.

**WARNING:** Failure to comply with this instruction may result in damage to the mains water boiler or the stainless steel heat exchanger.

## 4. Description of connection

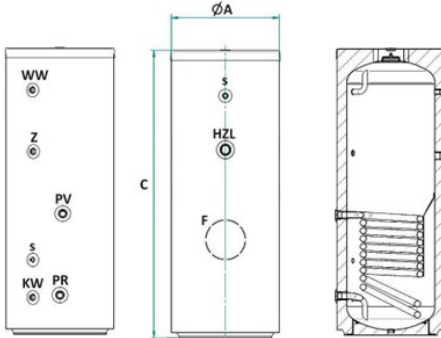
See the sticker applied to the specific tank.

### Flextherm LS-E



KW - Cold water Inlet  
 WW - Hot water Outlet  
 Z - Recirculation  
 PV - Boiler supply  
 PR - Boiler return  
 s - Probe for sensor  
 HZL - Heating element connection (if present)  
 F - Inspection flange (if present)

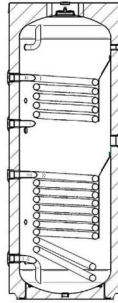
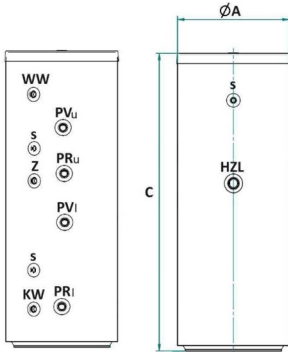
### Flextherm Duo HLS-E



KW - Cold water Inlet  
 WW - Hot water Outlet  
 Z - Recirculation  
 PV - Boiler supply  
 PR - Boiler return  
 s - Probe for sensor  
 HZL - Heating element connection (if present)  
 F - Inspection flange (if present)

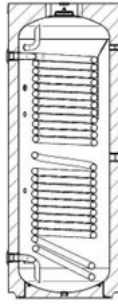
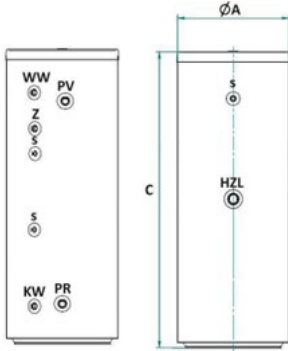


**Flextherm Duo HLS-E Solar**



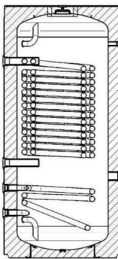
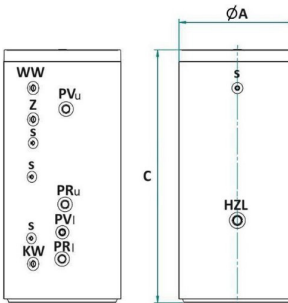
- KW - Cold water Inlet
- WW - Hot water Outlet
- Z - Recirculation
- PVI - Boiler supply
- PRi - Boiler return
- PVu - Solar collector supply
- PRu - Solar collector return
- s - Probe for sensor
- HZL - Heating element connection

**Flextherm WPS-E**



- KW - Cold water Inlet
- WW - Hot water Outlet
- Z - Recirculation
- PV - Heat pump supply
- PR - Heat Pump return
- s - Probe for sensor
- HZL - Heating element connection

**Flextherm WPS-E Solar**



- KW - Cold water Inlet
- WW - Hot water Outlet
- Z - Recirculation
- PVI - Solar supply
- PRi - Solar return
- PVu - Heat Pump coll. supply
- PRu - Heat Pump coll. return
- s - Probe for sensor
- HZL - Heating element connection

## 5. Commissioning

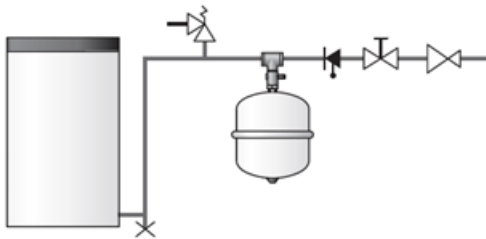
The entire system must be thoroughly flushed before commissioning. The system may only be set up in frost-free rooms and a surface that is sufficiently able to bear the load of the completely filled tank.

Any unused connections must be professionally sealed.

A drainage device is to be provided at the cold water inlet. We recommend installing an Airfix membrane expansion vessel to the cold water supply line. Water hammer in the system must be avoided.

However, if water hammer is imminent in conjunction with the potable water tank appropriate precautions are to be taken.

The Prescor B safety valve must be installed in an easily accessible place as it is subject to regular inspection. The valve must also be equipped with a drain connection (see schematic for the cold water connection).



**For safety reasons, it may be necessary for water to escape from the blow-off pipe while the system is heating up. Do not shut off or obstruct the blow-off pipe.**

The seal tightness of the system as a whole must be checked under normal operating conditions and during maintenance and, if necessary, the flange couplings must be tightened. Check the safety valve at regular intervals.

The boiler must be included in the potential equalisation.

### **Temperature control/gauge:**

The temperature sensor in the heating control unit and, if applicable, the solar-power controller and/or thermostat sensor must be fitted in the appropriate plunge pipe. The height of the plunge pipe determines the switching point for reheating.

## 6. Inspection & maintenance

No liability shall be accepted for damage that is caused by failure to follow the installation and operating instructions. The boiler must be installed to allow easy access for maintenance, operation, repairs or replacement. Site preparation and suitability for installation of the vessel are not the responsibility of the manufacturer or the responsible distributor. Furthermore, facilities for the secure drainage of the boiler in the event of any water leakage must be provided to avoid water damage.

If the local water is highly calciferous, a commercial de-calcifier can be fitted before the potable water part of the system. Natural calcification is not the boiler manufacturer's responsibility. If in doubt please consult the manufacturer. Dirt traps are recommended for both mains water and hot water systems. They must be serviced regularly depending on the system conditions. Sources of electro-chemical corrosion, such as mixing systems, must be avoided.

### Removal

Once cooled, depressurize the system and remove the product from the system. Local legislation must be adhered to when disposing of the various components.



# flamco

## Contact us !

We supply products for the installation industry in more than 70 countries. This is done from Flamco sales offices and via distributors who know the local market, and can give you the right advice at all times.

### **Aalberts hydronic flow control**

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