Stainless Steel Hot Water Cylinder

Manual V2.0

Index

Safety Instructions

General information

- Read the following safety instructions carefully before installing, maintaining or adjusting the water tank.
- Personal injury or material damage may result if the product is not installed or used in the intended manner.
- Keep this manual and other relevant documents where they are accessible for future reference.
- The manufacturer assumes compliance (by the end-user) with the safety, operating and maintenance instructions supplied and (by the installer) with the fitting manual and relevant standards and regulations in effect at the date of installation.

Safety instructions for users

! WARNING

The overflow from the safety valve must NOT be sealed or plugged. The product must NOT be modified or changed from its original state. Children must NOT play with the product or go near it without supervision.

! The product should be filled with water before the power is switched on.

! Maintenance/settings should only be carried out by persons over 18 years of age, with sufficient understanding.

! CAUTION

The product must not be exposed to frost, over-pressure, or chlorine treatment. Maintenance/settings should not be carried out by persons of diminished physical or mental capacity, unless they have been instructed in the correct use by someone responsible for their safety.

Safety instructions for installers

! WARNING

The safety valve (not higher than 6bar) must be fitted. The overflow from the safety valve must NOT be sealed or plugged.

! The discharge pipe from any safety device shall be at least one pipe size larger than the nominal outlet size of the safety device (< 9m length). The discharge pipe shall have continuous fall to drain, be uninterruptible and frost-free at all times.

! Fixed electrical fittings must be used for installation according to the regulations.

! The mains cable should withstand 90°C. A strain reliever must be fitted.

! The product should be filled with water before the power is switched on.

! The relevant regulations and standards, and this installation manual, must be followed.

! CAUTION

The product should be placed in a room with a drain, and fitted in accordance with local rules and regulations.

Alternatively, fit an automatic stop valve with sensor and overflow from safety valve to drain.

The product should be placed in a dry and permanently frost-free position

! The product should be properly aligned vertically and horizontally, on a floor or wall suitable for the total weight of the product when in operation. See type plate.

! The product should be easily accessible for servicing and maintenance. The product must have a clearance for servicing of 40 cm.

Product Dimensions

Product identification

Identification details for your product can be found on the type plate fixed to the product.

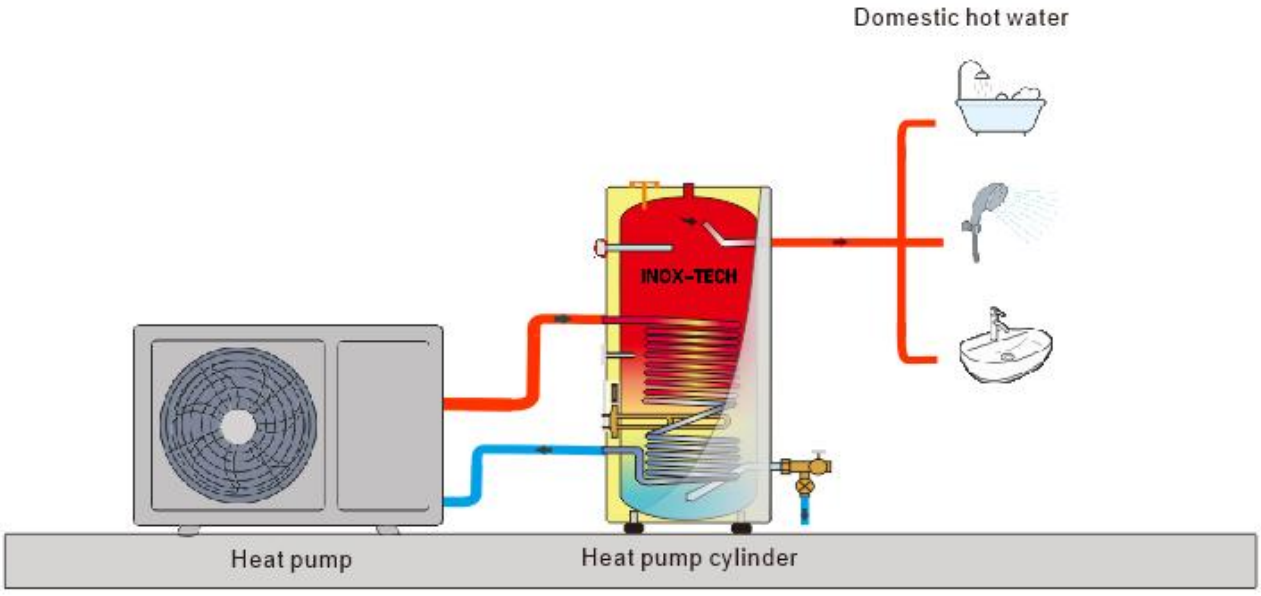
Intended use

Hot water tanks are used for producing domestic hot water.

Hot water tanks can operate with a variety of heat sources such as heat pumps, solid fuel boilers, solar heating systems, etc.

. During the installation and operation, always follow the instructions in this Manual.

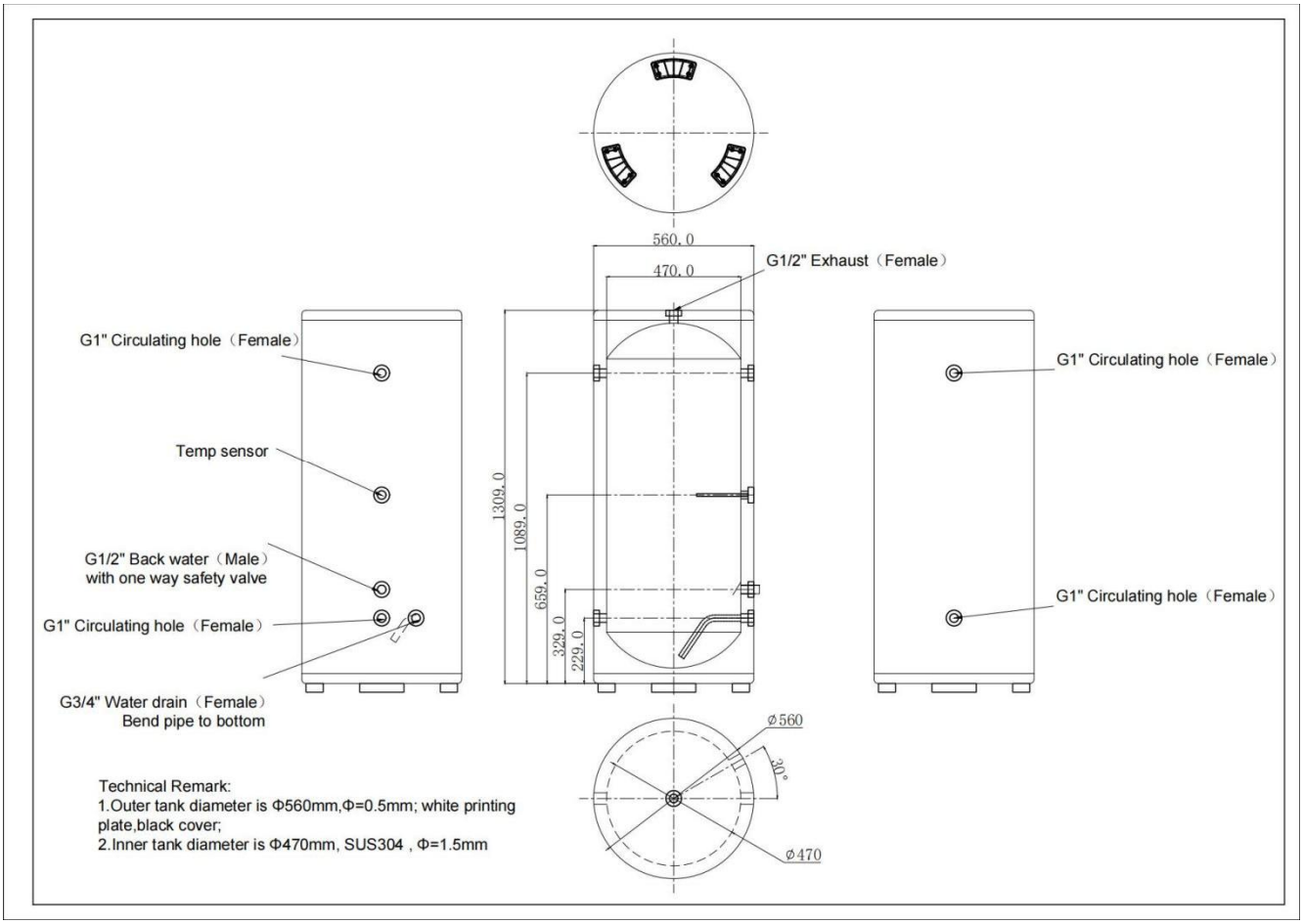
Scheme



Technical data

Model	unit	DHW-200L-T	DHW-300L-T
Energy efficiency class		A	A
Storage volume*	l	200	300
Standing loss*	W	41	47
Max tank operating temp.	°C	90	
Max tank operating pressure	bar	6	

*according to EU regulation No. 812/2013 & 814/2013



Water quality requirement

The product is manufactured to suit most public water supplies. However, there are certain water chemistries (outlined below) that can have a detrimental effect on the product and its life expectancy. If there are uncertainties regarding water quality, the local water supply authority can supply the necessary data. The product should be only connected to a domestic mains water supply in compliance with the European Drinking Water Directive EN 98/83 EC, or latest version. The water should not be aggressive, i.e. the water chemistry must comply with the following:

- Chloride < 250 mg / L
- Electric Conductivity (EC) @ 25°C < 750 uS / cm
- Saturation Index (LSI) @ 80°C > - 1.0 / < 0.8
- pH level > 6.0 / < 9.5

• The immersion heater has not been exposed to hardness levels exceeding 10°dH (180 ppm CaCO3). A water softener is recommended in such cases.

• Any disinfection has been carried without affecting the product in any way. The product shall be isolated from any system chlorination.

• The product has been in regular use from the date of installation. If the product is not intended to be used for 60 days or more, it must be drained.

Installation Instructions

Pipe installation

Incoming water pressure

The product is designed for a max. operating pressure of 6 bar.

Excessive water pressure can be adjusted by installing a pressure reduction valve.

Fitting pipes

Run a pipe of suitable size to the connections shown, and fix with suitable sealant. Unused connections must be plugged securely. Approved pipes of the correct size should be used for installation. The relevant standards and regulations must be followed. Safety valves, non-return valve and an air vent valve suitable for the installed effect in accordance with current local regulations shall be fitted (not supplied).

Recommendation

If the maximum water pressure exceeds 6 bar in a 24-hour period, a reduction valve and expansion vessel should be fitted.

For installation in a rooms which does not conform to the wet room standard, a watertight drip tray with overflow pipe > 18 mm. inside diameter should be fitted under the product, in addition to an automatic stop cock with sensor. This will prevent possible material damage.

In closed systems, use of a safety with blow-off pressure not exceeding the max operating pressure 6bar of the unit is mandatory.

Water can drip from the safety valve, which is normal and you should never prevent it, since blocking of the safety valve can cause a threat to the user's safety.

Installation of necking of any kind (such as reducers, dirt pockets, cut-off valves, etc.) between the safety valve or open expansion tank and the tank is not allowed. Only a T-pipe with a drain valve and a T-pipe with an expansion vessel may be installed in these line sections.

Check the operation of the safety valve periodically as described by the manufacturer of the valve in order to check whether it is not clogged.

Electrical installation

If the tanks come with an electric heater, the power supply cable installation is needed.

Fixed electrical fittings must be used for installation. Any electric fittings must be installed by an authorised electrician. The relevant standards and regulations must be followed.

The electric heater on/off control should be done by external control signal (like terminal connector 5-6 from RS heat pumps). A relay is a must to separate the current circuit between element and external control device.
The temperature sensor of external control device (like heat pump RS series) could be plugged into the temperature sensor pocket on the upper place of the heat element.

! WARNING

Continuous voltage is present at the terminals in the junction boxes. Before any electrical work is done, the power supply must be disconnected and secured against activation while the work is in progress.

Initial Commissioning

Filling with water

First check that all pipes are connected correctly. Then proceed as follows:

A) Open for venting at a point in the system higher than the top of the tank; use e.g. the 3/4”top connection on the product.

B) Open the water supply to the product. When water flows out of the venting point, the tank is full and the vent can be sealed.

Control points

A) Check that all pipe connections to/from the product are tight and not leaking.

B) Check that the product is standing firmly vertically and horizontally.

Emptying of water

! WARNING

The water temperature in the product may exceed 75°C and could cause scalding. So take great care when emptying the product.

A) Shut off/disconnect from the heat source.

B) Close the incoming water supply.

C) Open fully for venting – leave open (prevents vacuum).

D) Open the product’s drain connection.

The product will empty. After emptying, the drain connection should be plugged again before the product is refilled with water.

Handover to end- user

THE INSTALLER MUST:

Brief the end-user on safety and maintenance instructions.

Brief the end-user on settings and emptying the product.

Hand this installation manual over to the end user.

User Guide

Settings Hot water temperature setting

The product's hot water temperature should be adjusted on the external control device like the heat pump.

Maintenance

MAINTENANCE INSTRUCTIONS

Maintenance should be carried out by persons over 18 years of age, with sufficient understanding.

Faults And Fixes

If problems arise when the product is in use, check for these possible faults:

1. Water leaking from pipe connection.
   Possible cause: Pipe connection is loose or sealant is insufficient.
   Possible solution: Tighten pipe connection, replace sealant if necessary.
2. Water leaking from the tank, not the pipe connection.
   Possible cause: Leakage from the steel tank.
   Possible solution: Check if it is possible to see the leak point. Contact installer. If you are unsure what is wrong, contact the installer.

Removing The Product

A) Disconnect the power supply.

B) Shut off incoming cold water supply.C) Empty the product of water

D) Disconnect all pipes.

E) The product can now be removed

Recycling And Disposal

Disposing of the packaging

- Dispose of the packaging correctly.

Disposing of the product and accessories

- Do not dispose of the product or the accessories with household waste.
- Dispose of the product and all accessories correctly.
- Observe all relevant regulations.