User and Installer manual

VPD 150, 300

Water heater Accumulator tank

CHB GB 1721-1
431365

Table of Contents

1 Important information

Safety information

This manual describes installation and service procedures for implementation by specialists.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Rights to make any design or technical modifications are reserved.

Symbols

NOTE

This symbol indicates danger to person or machine .

Caution

This symbol indicates important information about what you should observe when maintaining your installation.

TIP

This symbol indicates tips on how to facilitate using the product.

General

Serial number

The serial number can be found on top of the product.

Caution

Always give the product's serial number when reporting a fault.

Recovery

Leave the disposal of the packaging to the installer who installed the product or to special waste stations.

Do not dispose of used products with normal household waste. It must be disposed of at a special waste station or dealer who provides this type of service.

Improper disposal of the product by the user results in administrative penalties in accordance with current legislation.

Country specific information

User and Installer manual

This user and installer manual must be left with the customer.

Inspection of the installation

Current regulations require the heating installation to be inspected before it is commissioned. The inspection must be carried out by a suitably qualified person.

✔	Description	Notes	Signature	Date
Hot water (page 9)				
	Shut off valves			
Cold water (page 9)				
	Shut off valves			
	Non-return valve			
	Mixing valve			
	Safety valve			
Electricity (page 11)				
	Sensors			

2 For the User

Maintenance

Safety valve (not supplied)

The safety valve must be inspected regularly, about 4 times a year, to prevent blockages. To inspect the valve, open the safety valve manually and check that water flows through the overflow pipe. If this does not happen, the safety valve is defective and must be replaced.

The safety valve sometimes releases a little water after hot water has been used. This discharge is caused by the expansion of cold water entering the water heater, resulting in a pressure increase, whereby the safety valve opens.

Emptying

1. Shut off the incoming cold water.

2. Open the drain connection, or the drain valve if fitted.

During draining, air must be let into the water heater by loosening a hot water connector (XL4) or opening a hot water tap.

To ensure that the water heater drains completely, a hose, or a pipe, with an outlet below the lowest level of the water heater must be attached to the drain connection or drain valve. When installed in a location that is exposed to the risk of frost, the water heater must be emptied whenever it is not in operation. Freezing will result in the water heater bursting.

Service

For service, contact the installer. Serial number (PF3) (14 digits) and installation date should always be stated.

Only replacement parts supplied by NIBE may be used.

3 For the Installer

General

VPD is a water heater, which is suitable for connection to heat pumps.

The water tank has internal stainless steel corrosion protection.

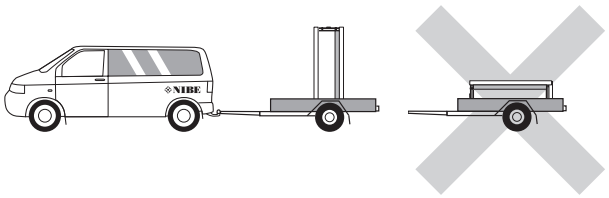
The water heater is designed and manufactured for a maximum cut-off pressure of 10 bar. Maximum permitted temperature is 95 °C.

The insulation is polyurethane, which provides excellent heat insulation. The outer shell on VPD is grey plastic.

VPD is equipped with submerged tube for control of hot water heating.

Transport

VPD should be transported and stored vertically in a dry place. The VPD may, however, be carefully laid on its back when being moved into a building.



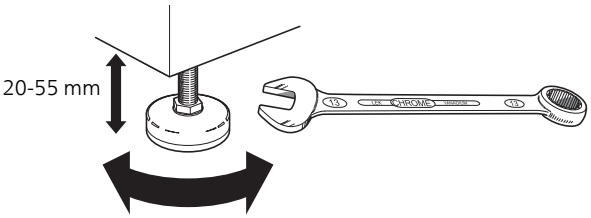
Assembly

The water heater is only designed for upright installation.

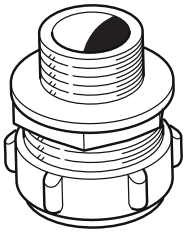
The water heater's installation area should always have a temperature of at least 10 °C (frost-free).

Position VPD on a firm base that can take the weight, preferably on a concrete floor or foundation. Use the product's adjustable feet to obtain a horizontal and stable set-up.

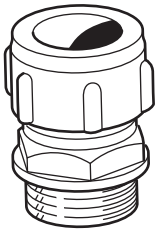
The area where VPD is located must be equipped with floor drainage.



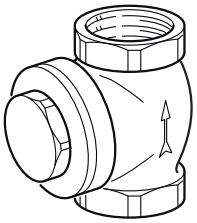
Supplied components



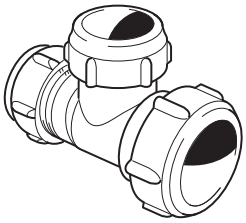
1 x straight G15/22 connection



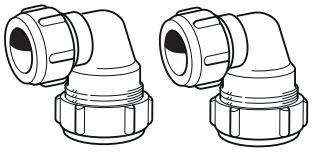
1 x straight G15/15 connection



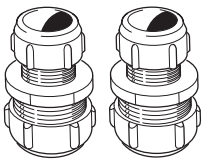
1 x G15 non-return valve



1 x 28/22/22 T-coupling

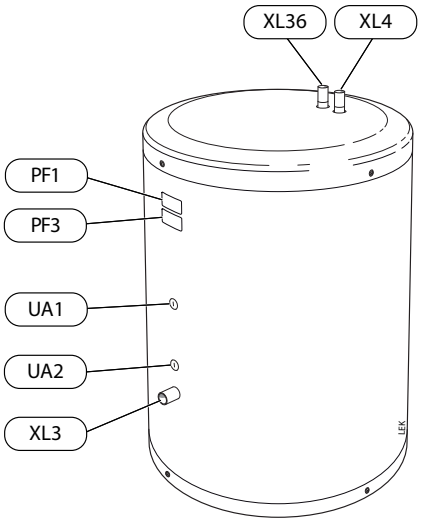


2 x 22/15 connections

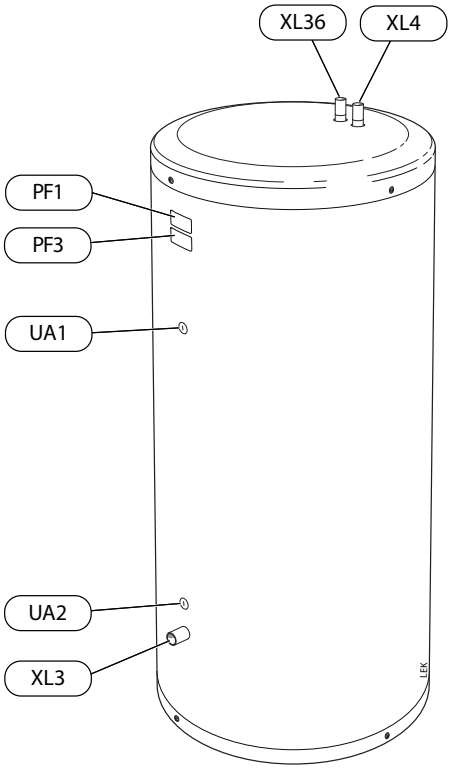


2 x straight 22/15 couplings

Component positions



VPD 150



VPD 300

Pipe connections

XL3 Connection, cold water, blue (28 mm)
XL4 Connection, hot water, red (22 mm)
XL36 Connection, supply line from HP, white (22 mm)

HVAC components

UA1 Submerged tube for hot water sensor (display)
UA2 Submerged tube for hot water sensor (control)

Miscellaneous

PF1 Rating plate
PF3 Serial number plate

Designations in component locations according to standard IEC 81346-1 and 81346-2.

Pipe installation

Pipe installation must be carried out in accordance with current norms and directives.

The water heater must be fitted with the necessary valves, such as a safety valve, shut-off valve and non-return valve.

The water heater must be provided with a mixer valve, which limits the temperature of outgoing hot water to 60 °C. If this valve is not fitted, some other measure must be taken to prevent the risk of scalding.

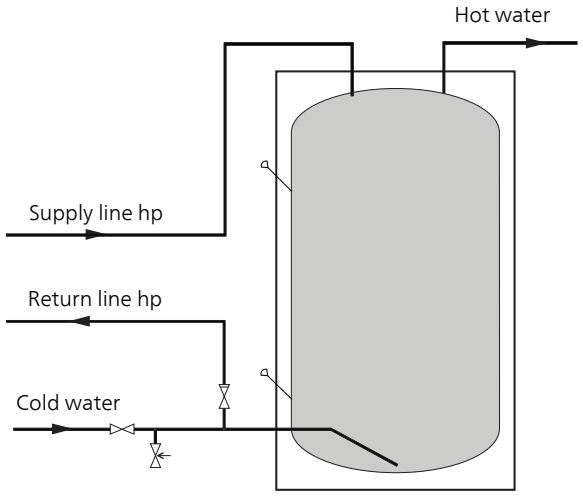
Internal support bushes must be fitted when a plastic or annealed copper pipe is used. An overflow pipe must be routed from the safety valve to a suitable drain. The overflow pipe must be the same size as the safety valve. Route the overflow pipe from the safety valve, sloping along its entire length and ensure that it is frost proof. The mouth of the overflow pipe must be visible and not placed close to electrical components.

Connection		
XL3 Cold water Ø	mm	28
XL4 Hot water Ø	mm	22
XL36 Supply line Ø	mm	22

Heat pump

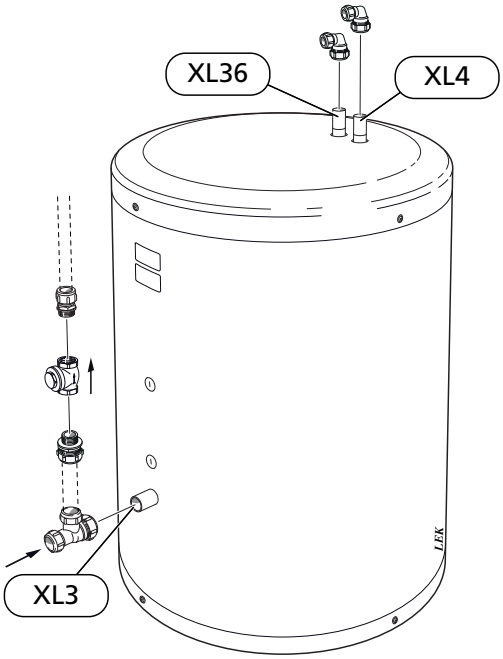
Connecting to heat pump

The heat pump supply and return are connected to VPD.



Schematic diagram

The enclosed kit includes suitable connectors that can be used for the installation.

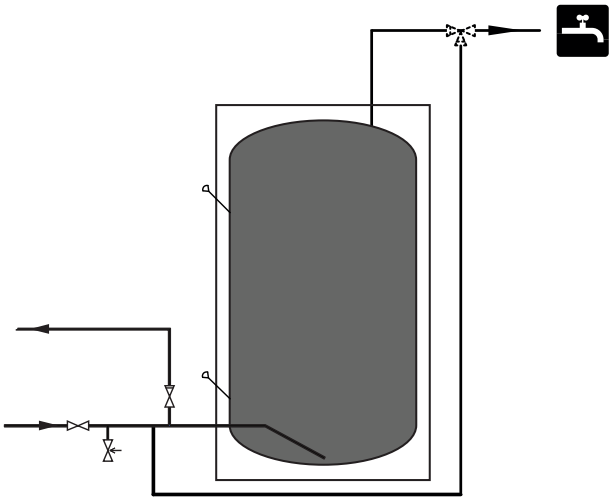


- Install the T-coupling in position (XL3) (blue) as illustrated.
- Connect the return line from the heat pump to the angled connection on the T-coupling. Install the supplied non-return valve on this pipe.
- Install a shut-off valve on the incoming cold water pipe.
- The safety valve must have a maximum 10.0 bar opening pressure and be installed on the incoming cold water line. The entire length of the overflow water pipe from the safety valves must be inclined, to prevent water pockets and must also be frost-free.
- Connect the incoming cold water to the T-coupling.
- Angled couplings, 22/15 mm, installed on connections (XL4) and (XL36) as illustrated.
- Connect the supply line from the heat pump to pos (XL36) (white) on the water heater section.
- Hot water connection to pos (XL4) (red) on the water heater.

Cold and hot water

Connecting cold and hot water

There must be a mixer valve if the temperature can exceed 60 °C.



Schematic diagram

Symbol key

Symbol	Meaning
	Shut-off valve
	Mixing valve
	Safety valve
	Temperature sensor
	Particle filter

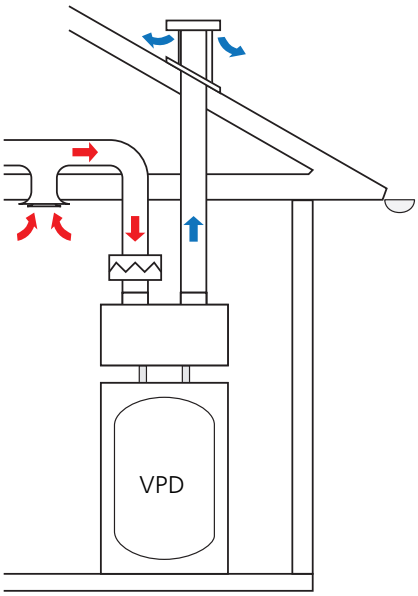
Installation alternative

VPD can be connected in several different ways, one of which is shown here.

Further option information is available at www.nibe.eu and in the respective assembly instructions for the heat sources used.

To exhaust air heat pump

VPD can be docked with heat pump, for example NIBE exhaust air heat pump.



Filling

Fill the water heater as follows:

1. Open a hot water tap in the system.
2. Fill the hot water heater through the cold water connection (XL3).
3. The hot water tap can only be shut off when the water heater is filled, which is when only water comes out of the tap (initially an air-water mixture comes out of the tap).

Electrical installation

NOTE

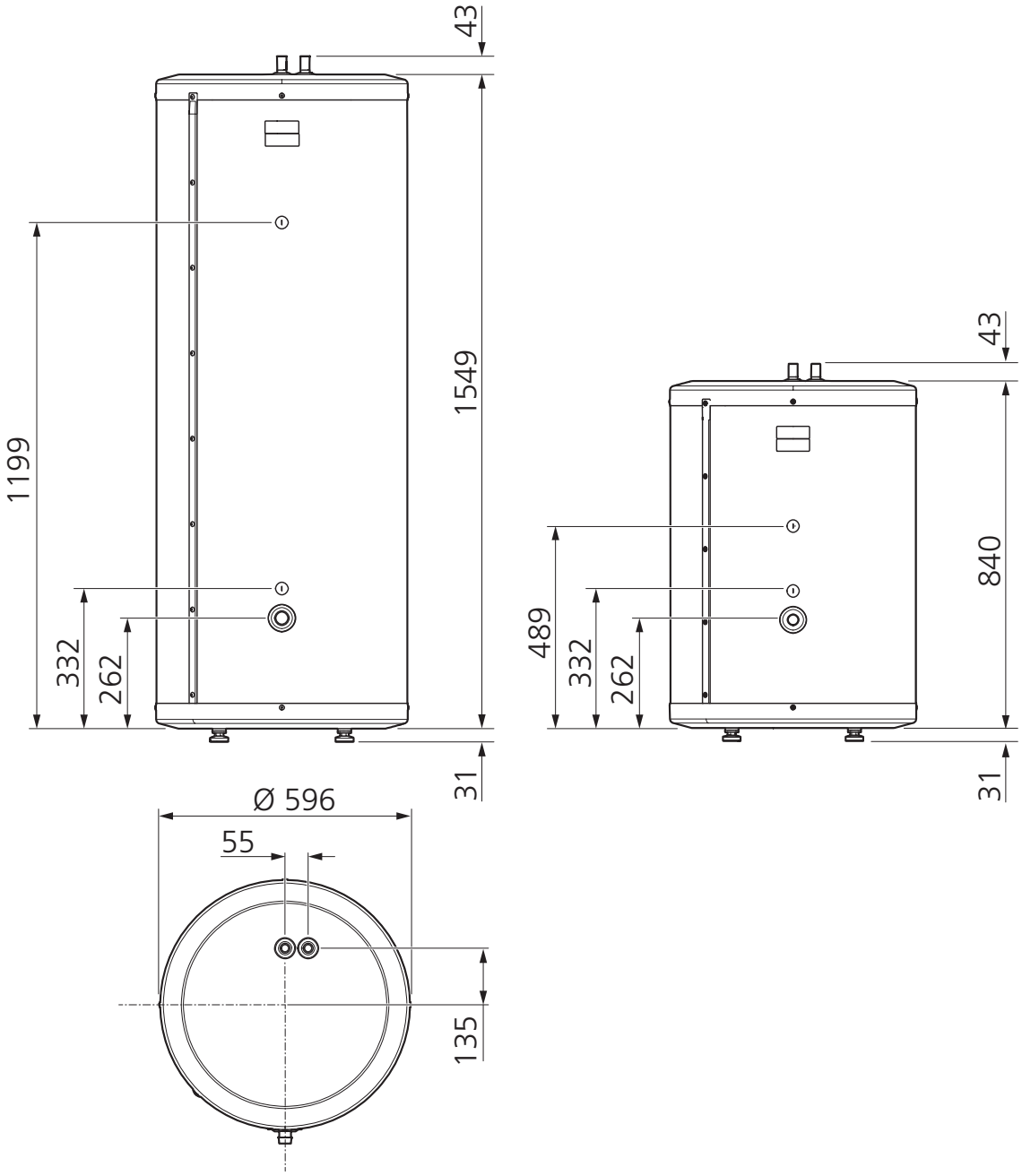
Electrical installation and service must be carried out under the supervision of a qualified electrician, and in accordance with applicable electrical safety regulations.

VPD can be supplemented with up to two hot water sensors, one for display and one for control. The display sensor is positioned in the submerged tube for the display sensor (UA1) and the control sensor is positioned in the submerged tube for the control sensor UA2. In cases where it is only possible to connect one sensor, use the submerged tube for the control sensor (UA2).

Use the sensors provided with the heat pump (or other heat source). When no heat sensors have been provided these must be ordered from the manufacturer of the heat source.

4 Technical data

Dimensions



Technical specifications

Model		VPD10 150R	VPD10 300R
Height	mm	914–934	1623–1643
Diameter	mm	596	596
Net weight	kg	51	75
Max pressure, water heater	bar/MPa	10/1.0	
Max water temperature	°C	95	
Connection, hot water (red)	mm	22	22
Connection, cold water/ HP return (blue)	mm	28	28
Connection, HP front (white)	mm	22	22
Part No.		080119	080118

Energy labelling

Supplier		NIBE	
Model		VPD10 150R	VPD10 300R
Energy efficiency class		**B**	**C**
Heat loss	W	42	73
Volume	l	126	263

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