

Hot water storage tank NIBE VPB/VPBS

The NIBE VPB/VPBS 200/300 is an efficient hot water tank which is designed for connection to a heat pump, gas or oil boiler. The NIBE VPBS 300 can also be docked to solar panels.

The NIBE VPB and the ground source heat pumps NIBE F1145/NIBE F1155 have a customised design, providing a stylish system solution with the option of concealed piping between the products.

The NIBE VPB/VPBS has insulation made of polyurethane, which provides very good heat insulation.

- Efficient hot water tank designed for connection to a heat pump or other energy source.
- Stylish design for customisation with NIBE heat pump.
- Minimal heat loss with polyurethane insulation.



Good to know about VPB/VPBS

Principle

VPB/VPBS is a series water heater, which is suitable for connection to an external heat source.

VPBS 300 can also be docked to thermal solar panels.

VPB 200 and the ground source heat pump F1145/F1155 are constructed together. This enables high quality installation with concealed piping between the products.

Design

VPB/VPBS has internal copper, stainless steel or enamel corrosion protection. The water heater is equipped with a charge coil that heats the domestic water, resulting in excellent properties for hot water charging.

VPB/VPBS is designed and manufactured for a maximum cut-off pressure of 10 bar.

The insulation is polyurethane, which provides excellent thermal insulation.

VPB/VPBS is equipped with submerged tubes for sensors for external control and display of hot water heating.

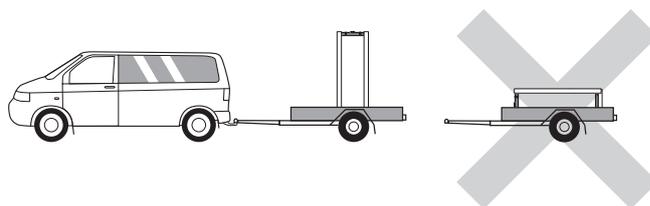
VPBS 300 is equipped with a copper finned tube for connection of up to approx. 6 m² of thermal solar panels.

Equipment

VPB 200 and VPB 300 can be supplemented with up to two hot water sensors, one for display and one for control. VPBS 300 can be supplemented with a third sensor for solar control. Use the sensors provided with the heat pump (or other heat source). When no sensors have been provided, these must be ordered from the manufacturer of the heat source.

Transport and storage

VPB/VPBS should be transported and stored vertically in a dry place. However, the VPB/VPBS may be carefully laid on its back when being moved into a building.

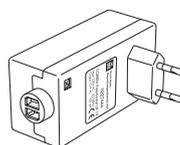


Installation and positioning

- VPB/VPBS must only be installed vertically.
- Position VPB/VPBS on a firm base that can take the weight, preferably on a concrete floor or foundation. Use the adjustable feet to obtain a horizontal and stable set-up.
- The area where the VPB/VPBS is located must be frost-proof and equipped with a floor drain.

Supplied components

VPB/VPBS ENAMEL



Potentiostat

Installation

PIPE INSTALLATION

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

VPB/VPBS must be fitted with the necessary valves, such as safety valves, shut-off valves, non-return valves and vacuum valves (vacuum valves only apply to copper).

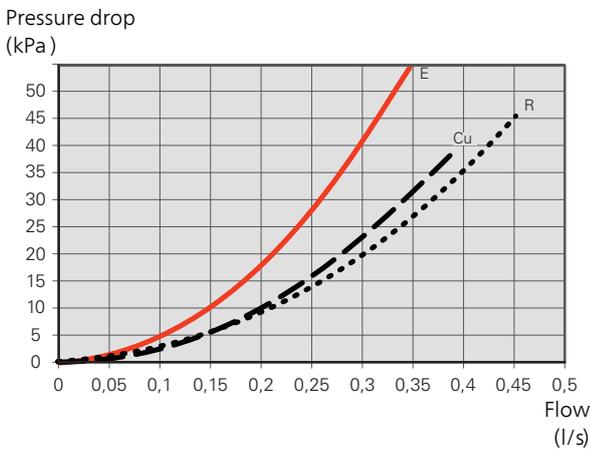
VPB/VPBS must be supplied with a mixing valve, which limits the temperature of outgoing hot water to 60 °C. If this valve is not fitted, some other measure must be taken to prevent the risk of scalding.

Ensure that incoming water is clean. When using a private well, it may be necessary to supplement with an extra water filter.

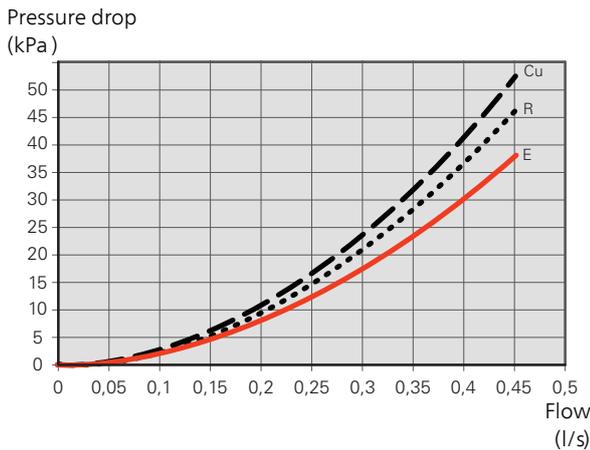
If uncertain, contact a plumber alternatively see applicable standards.

Pressure drop diagram, charge coil

VPB 200

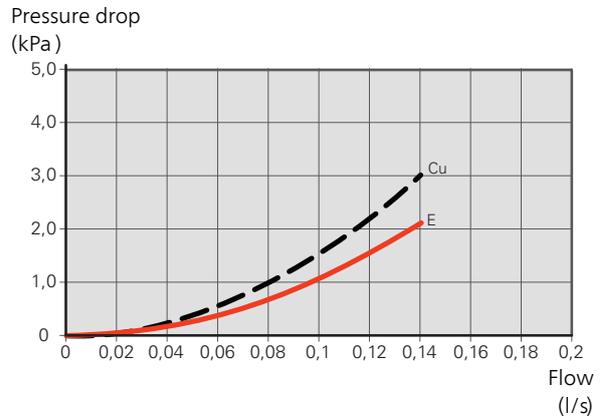


VPB 300 / VPBS 300



Pressure drop diagram, solar coil

VPBS 300



ELECTRICAL INSTALLATION

Electrical installation and service must be carried out under the supervision of a qualified electrician. Electrical installation and wiring must be carried out in accordance with the stipulations in force.

Sensors

VPB 200 and VPB 300 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 and the control sensor is positioned in the submerged tube for the control sensor. Where it is only possible to connect one sensor, use the submerged tube for the control sensor.

VPBS 300 can also be supplemented with a solar sensor. This is placed in the submerged tube for the solar sensor.

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.

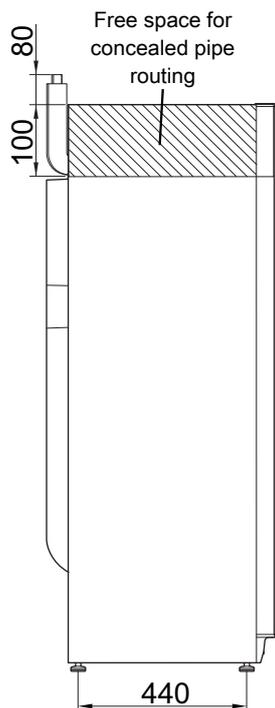
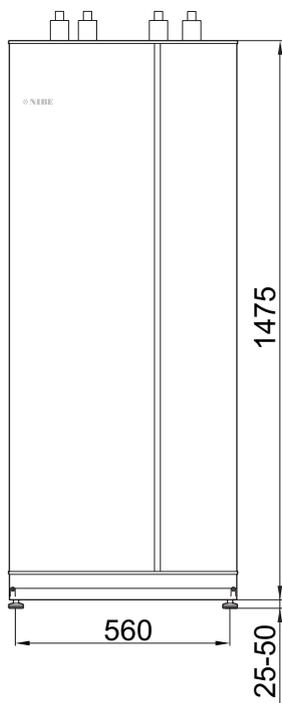
Direct-current anode

VPB/VPBS Enamel is equipped with a direct-current anode and a potentiostat enclosed from the factory. The anode cable is installed in the anode from the factory and only needs to be connected to the potentiostat.

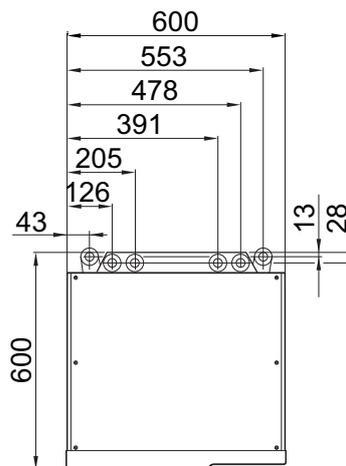
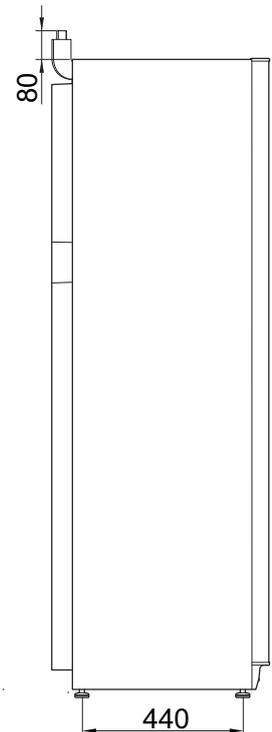
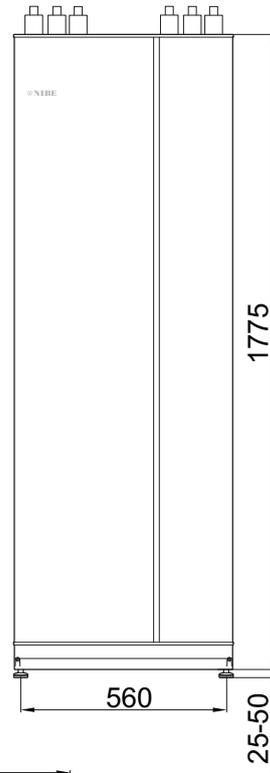
Technical data

Dimensions

VPB 200

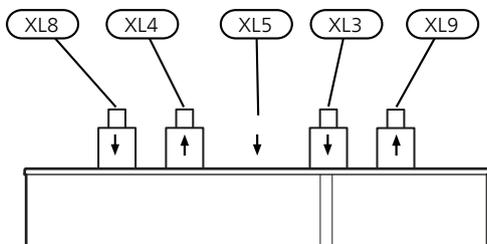


VPB 300/VPBS 300

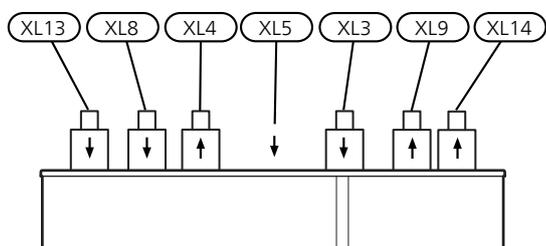


Pipe connections

VPB 200/VPB 300



VPBS 300



Connection		
XL3 Cold water Ø	mm	22
XL4 Hot water Ø	mm	22
XL5 Hot water circulation Ø (does not apply to VPB/VPBS -Cu)	mm	15
XL8 Docking connection, supply line Ø	mm	22
XL9 Docking connection, return line Ø	mm	22
XL13 Solar supply line Ø	mm	22
XL14 Solar return line Ø	mm	22

Technical specifications

<i>VPB 200</i>		<i>Copper</i>	<i>Enamel</i>	<i>Stainless</i>
Efficiency class ¹		C	C	C
Volume	litre	178	178	176
Volume, charge coil	litre	2.0	4.8	7.8
Heat transfer (60/50°C at 50°C hot water temperature)	kW	13.0	10.1	10.1
Heat content at 50°C	kWh	8.0	8.3	8.2
Equivalent amount of hot water (40°C)	litre	230	238	235
Heating time (10°C to 45°C) 8 kW charge power	hours	0.9	0.9	0.9
Heating time (10°C to 80°C) 8 kW charge power	hours	1.8	1.8	1.8
Max operating temperature	°C	85		
Max pressure, primary side	bar/MPa	3/0.3		
Max pressure, water heater	bar/MPa	10/1.0		
Compatible NIBE heat pumps ²	F1126-8,12, F1145-6,8,10,12, F2040-8,12,16, F1155-6,12,16, F2120-8,12,16			
Height	mm	1500		
Required ceiling height ³	mm	1670		
Width	mm	600		
Depth	mm	600		
Net weight	kg	101	111	80
Part No.		081 068	081 069	081 070

¹Scale for the product's efficiency class A+ to F.

²For ground source heat pumps, the recommendation applies to max. 10°C brine temperature and 53°C in the tank.

³With the feet removed, the required ceiling height is approx. 1650 mm.

<i>VPB 300</i>		<i>Copper</i>	<i>Enamel</i>	<i>Stainless</i>
Efficiency class ¹		C	C	C
Volume	litre	278	274	282
Volume, charge coil	litre	2	8.4	8.8
Heat transfer (60/50°C at 50°C hot water temperature)	kW	14	11.9	11.5
Heat content at 50°C	kWh	12.6	12.7	13.4
Equivalent amount of hot water (40°C)	litre	362	364	376
Heating time (10°C to 45°C) 8 kW charge power	hours	1.4	1.4	1.4
Heating time (10°C to 80°C) 8 kW charge power	hours	2.8	2.8	2.8
Max operating temperature	°C	85		
Max pressure, primary side	bar/MPa	3/0.3		
Max pressure, water heater	bar/MPa	10/1.0		
Compatible NIBE heat pumps ²	F1126-8,12, F1145-6,8,10,12, F2040-8,12,16, F1155-6,12,16, F2120-8,12,16			
Height	mm	1800		
Required ceiling height ³	mm	1950		
Width	mm	600		
Depth	mm	600		
Net weight	kg	130	143	101
Part No.		081 071	081 073	081 072

¹Scale for the product's efficiency class A+ to F.

²For ground source heat pumps, the recommendation applies to max. 10°C brine temperature and 53°C in the tank.

³With the feet removed, the required ceiling height is approx. 1930 mm.

<i>VPBS 300</i>		<i>Copper</i>	<i>Enamel</i>
Efficiency class ¹	C	C	C
Volume	litre	277	270
Volume, charge coil	litre	2	8.4
Volume, solar coil	litre	0.8	4.0
Heat transfer (60/50°C at 50°C hot water temperature)	kW	14	11.9
Heat content at 50°C	kWh	12.4	12.4
Equivalent amount of hot water (40°C)	litre	354	356
Heating time (10°C to 45°C) 8 kW charge power	hours	1.4	1.4
Heating time (10°C to 80°C) 8 kW charge power	hours	2.7	2.7
Max operating temperature	°C	85	
Max pressure, primary side	bar/MPa	3/0.3	
Max pressure, water heater	bar/MPa	10/1.0	
Compatible NIBE heat pumps ²	F1126-8,12, F1145-6,8,10,12, F2040-8,12,16, F1155-6,12,16, F2120-8,12,16		
Height	mm	1800	
Required ceiling height ³	mm	1950	
Width	mm	600	
Depth	mm	600	
Net weight	kg	137	150
Part No.		081 078	081 079

¹Scale for the product's efficiency class A+ to F.

²For ground source heat pumps, the recommendation applies to max. 10°C brine temperature and 53°C in the tank.

³With the feet removed, the required ceiling height is approx. 1930 mm.

Tested according to standard EN 12897.

NIBE Energy Systems
Box 14, SE-285 21 Markaryd
www.nibe.eu

PBD EN 1905-1 M12418

This product sheet is a publication from NIBE Energy Systems. All product illustrations, facts and data are based on current information at the time of the publication's approval. NIBE Energy Systems makes reservations for any factual or printing errors in this product sheet.

©2019 NIBE ENERGY SYSTEMS