



Braukmann VE300S

Heatwater treatment unit

APPLICATION

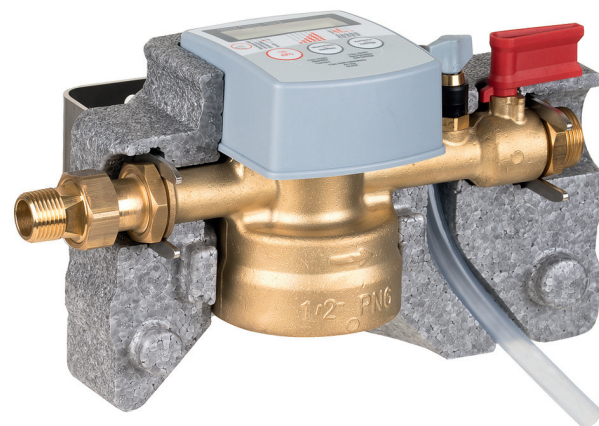
According to the VDI-guideline 2035/1 and 2035/2 the heatwater treatment unit of the VE300S facilitates the softening and the demineralization of heating water. Lime scale, corrosion and thereby caused damages and malfunction in hot water heating system are avoided efficiently and its life time extended significantly.

SPECIAL FEATURES

- Integrated electronic smart monitoring system simplifies the determination of cartridge exchange
- Display of the total refill water consumption and water usage of the installed cartridge
- Acoustic and visual alarm for change of cartridge and battery when depleted (acoustic alarm can be switched on/off on demand)
- Easy installation, programming and exchange of cartridge without tools

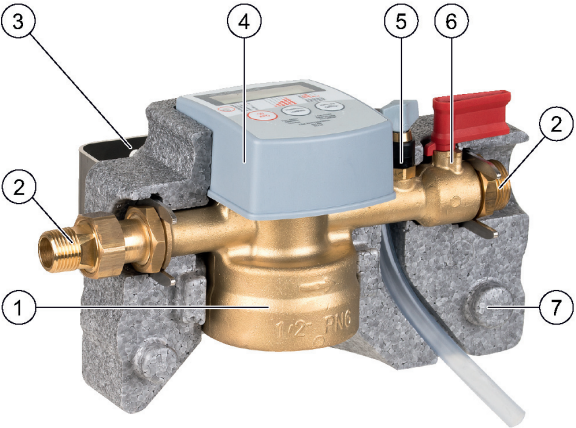
TECHNICAL DATA

Media	
Medium:	Water
Connections/Sizes	
Connection size Inlet:	1/2" internal thread adapter for union nut 3/4"
Connection size Outlet:	3/4" external thread
Pressure values	
Max. inlet pressure:	6 bar
Operating temperatures	
Max. operating temperature medium:	30 °C
Max. device temperature with shut-off valve (closed) due to transfer of temperature of heating system:	50 °C
Max. ambient temperature:	40 °C



Specifications	
Installation position:	Horizontal pipework with cartridge connection facing downwards. Size of the cartridge has to be considered.
For softening:	Suitable for heating systems with the following materials: aluminium, aluminium alloys, steel, copper, copper alloys and plastics.
For complete demineralisation:	Suitable for heating systems with the following materials: steel, copper, copper alloys and plastics.
Battery life:	5 years

CONSTRUCTION

Overview	Components	Materials
	1 Housing	Dezincification-resistant brass
	2 Threaded male connections	Dezincification-resistant brass
	3 Stainless steel mounting bracket with wall connection set	Stainless steel
	4 Integrated electronic smart monitoring system	-
	5 Bleed valve	-
	6 Isolation valve on outlet side	-
	7 Insulation shells	EPP
Not depicted components:		
	Seals	EPDM
	2 AA Alkaline batteries	-
	Hardness test-kit to determine water hardness	-
	Mechanical components of the heater water treatment unit	High-quality plastic
	Cartridge	Polypropylene

METHOD OF OPERATION

The heatwater treatment unit (VE300S) installed directly downstream of the refilling combination (NK300S) serves to soften/demineralise the water and to record the rinse, fill and refilling quantities. For softening, it follows the ion exchanger principle and replaces the alkaline earth metals in the water (e.g. calcium and magnesium) with sodium ions. Complete demineralisation will completely remove the mineral deposits in the water!

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	-15 °C
Max. ambient temperature:	+75 °C
Min. ambient relative humidity:	25 % *
Max. ambient relative humidity:	95 % *

*none condensing

INSTALLATION GUIDELINES

Setup requirements

- Installation in heating system intake
- Install at height of at least 610 mm from the ground to ensure that cartridges can be replaced
- Downstream of the heatwater treatment unit (VE300S), provide settling section of at least 500 mm before integration in the heating circuit
- Install in horizontal pipework with cartridge connection directed downwards
- The installation may not take place in areas or ducts where poisonous gases or vapours may be present or where flooding can occur
- The installation environment should be protected against frost and ventilated well
- The installation location has to be easily accessible
 - Simplified maintenance and cleaning
- According to EN 1717 in direction of flow, first install the refilling combination (NK300S) and directly after it, the heatwater treatment unit (VE300S)
- The national installation regulations must be observed during the assembly
- If installing without a refilling combination (NK300S) upstream of the heatwater treatment unit (VE300S), provide a shut-off fixture

Installation Example

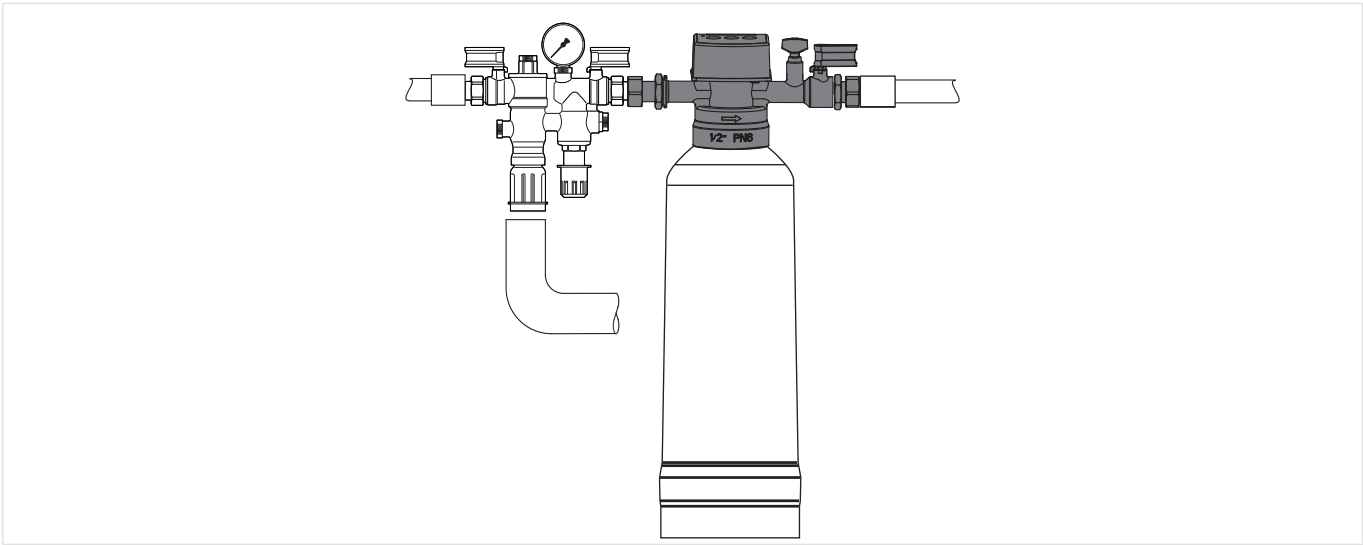


Fig. 1 Standard installation example for the refilling combination

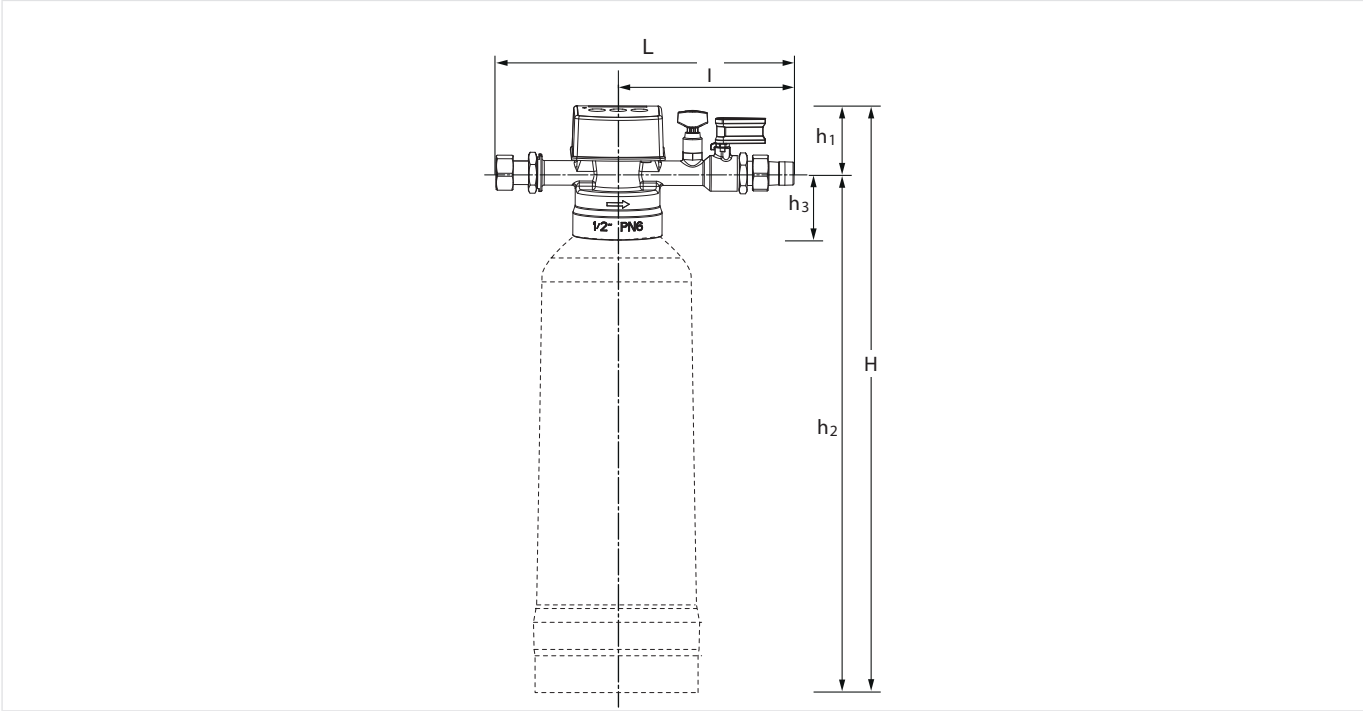
TECHNICAL CHARACTERISTICS

kvs-Values

Connection sizes:	1/2"
k _{VS} -value (m ³ /h):	0.30

DIMENSIONS

Overview



Parameter		Values
Connection size:	R	1/2"
Dimensions:	H	519.3 (with P300-L/-LES)
	h ₁	58.4
	h ₂	460.9 (with P300-L/-LES)
	h ₃	45
	L	267
	l	158.1
Weight:	kg	2.01 (without cartridge)

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options

The valve is available in the following sizes: 1/2".

- standard
- not available

		VE300S-1/2A
Connection type:	Standard version	•

Accessories

	Description	Dimension	Part No.
	P300-LES Complete demineralisation cartridge		
	cartridge with ionic exchange resin	Size: 3.5 l	P300-LES
	P300-L/S Softening cartridge		
	Softening cartridge with ionic exchange resin	Size: 0.75 l	P300-S
		Size: 3.5 l	P300-L
	BS300-1/2A Blind Plug		
	Blind plug for operating the system without a cartridge		BS300-1/2A
	VST06B Connection set		
	Solder connections	1/2"	VST06-1/2B
	AD300 Adapter		
	To fit the softening unit to a 3/4" male connection		AD300-1/2



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