

# Series VB20

Boiler manifold for pump groups FlowBox DN 20

**EN** Installation and operating manual  
(translated from the original operating manual)



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# 1 General Information

## 1.1 Important information about the installation and operating manual

**i NOTICE**

The plant operator is responsible for ensuring compliance with the local laws and regulations (e.g. accident prevention regulations, etc.).

Incorrect operation or operating the product (Boiler manifold VB20) outside the specifications invalidates all warranty claims. This Installation and Operating Manual

- is the component of the product (VB20);
- contains instructions and information on safe and correct installation and commissioning of the product (VB20);
- must be available to all users throughout the entire service life of the product (VB20);
- is intended for trained personnel who are familiar with the applicable standards and provisions and, in particular, with the relevant safety concepts and the operation and maintenance of the product (VB20);
- is protected by copyright and may not be changed without the manufacturer's permission.

### 1.2 Product conformity

For the product (Boiler manifold VB20), conformity according to Machinery Directive 2006/42/EC is declared.

### 1.3 Product features

- EPP insulating shell.
- All connections to the system the external thread G 1 flat sealing.
- Stable mounting bracket (optional).

## 2 Safety

### 2.1 Safety notices

#### **WARNING**

**WARNING** indicates a danger arising through incorrect behaviour (e.g. misuse, disregarding notices, etc.) that may cause serious physical injury or death.

#### **CAUTION**

**CAUTION** indicates a potentially dangerous situation that may cause minor or slight injuries if the appropriate safety precautions are not in place.

#### **NOTICE**

**NOTICE** indicates a situation that may cause material damage if the corresponding precautions are not taken.

### 2.2 Important safety instructions

- Before using, carefully read through this operating manual.
- Only trained specialist personnel are permitted to perform maintenance, cleaning and repair work.
- The product (VB20) must not be used if it is damaged or is no longer operating correctly. In this case, contact your specialist dealer immediately.
- Adhere to the maintenance instructions and intervals.
- Protect the product (VB20) from the influences of weather.
- Never use the product (VB20) outdoor.
- The product (VB20) is only permitted to be used for the purpose for which it was intended.

### 2.3 Intended use

Boiler manifolds VB20 for WATTS pump groups FlowBox DN20. The product (Boiler manifold VB20) is not intended to be operated by people (including children) with physical, sensory or mental disabilities, nor by people with insufficient experience or previous knowledge.

### 2.4 Foreseeable misuse

The following is considered to be foreseeable misuse:

- Operating the product (VB20) contrary to the specifications.
- Improper use of the product (VB20).
- Modifications to the product (VB20) that were not agreed with the manufacturer.
- Using replacement or wear parts not approved by the manufacturer.
- Operating the product (VB20) outdoors (parts and components are not UV resistant).

### 2.5 Responsibilities of the operator

The operator must ensure that:

- The product (VB20) is only used for its intended purpose.
- The product (VB20) is installed, operated and maintained according to the specifications in the Installation and Operating Manual.
- The product (VB20) is only operated according to local regulations and occupational health and safety regulations.
- All precautionary measures have been carried out to avoid dangers originating from the product (VB20).
- All precautionary measures for first aid treatment and firefighting have been carried out.
- Only authorized and trained users have access to the product (VB20) and operate it.
- Users have access to this Installation and Operating Manual at all times.

### 2.6 Groups of persons

Only qualified persons may operate the product (Boiler manifold VB20) or perform service and maintenance work.

#### **User**

A user is deemed to be qualified if they have read these operating instructions and understood the potential risks associated with incorrect behavior.

#### **Fitter/commissioner**

Due to their specialist training and knowledge, and taking into consideration the applicable standards, provisions, regulations and laws, a fitter/commissioner is capable of performing work on the product (VB20) and recognizing and avoiding potential risks.

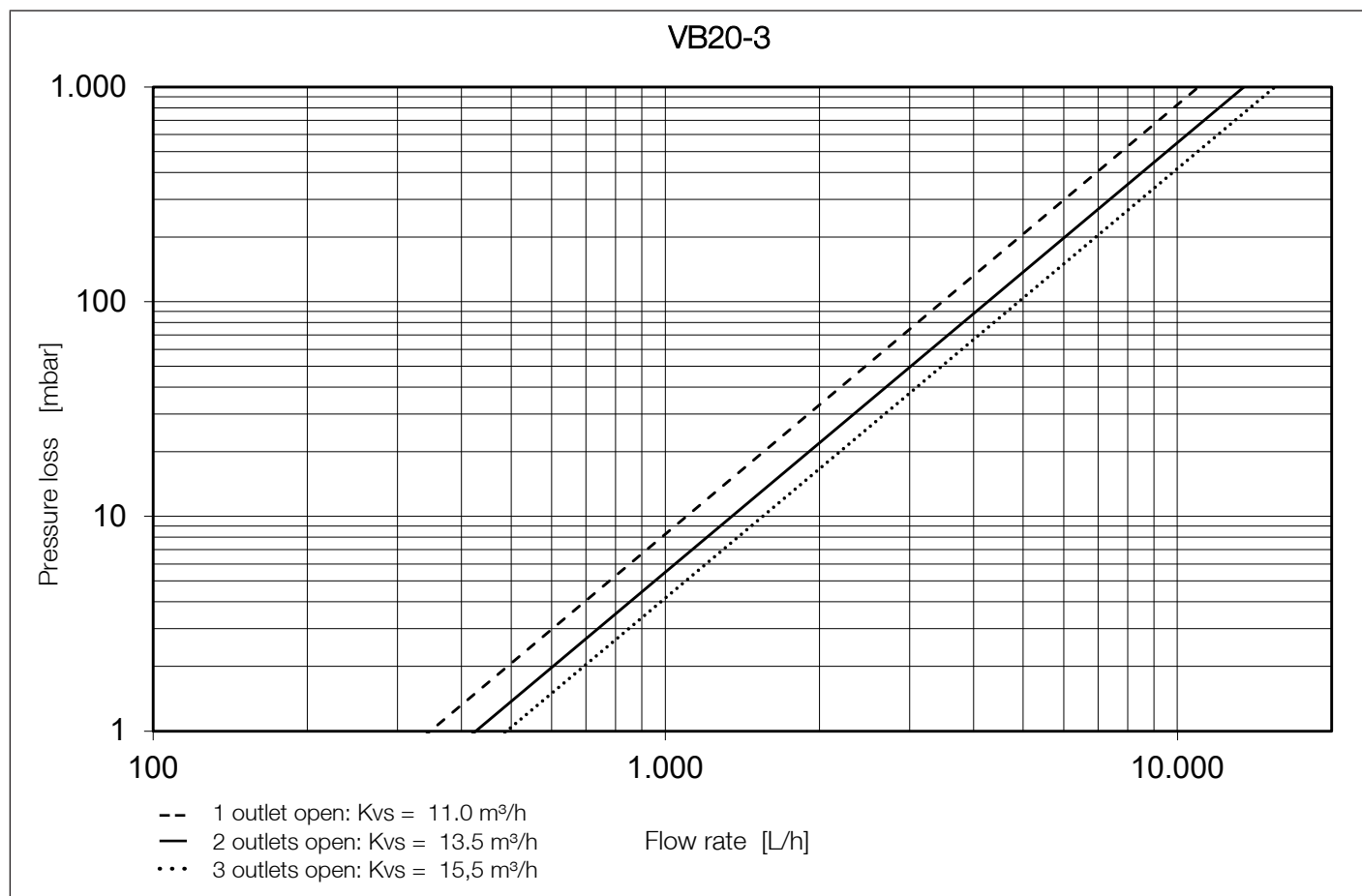
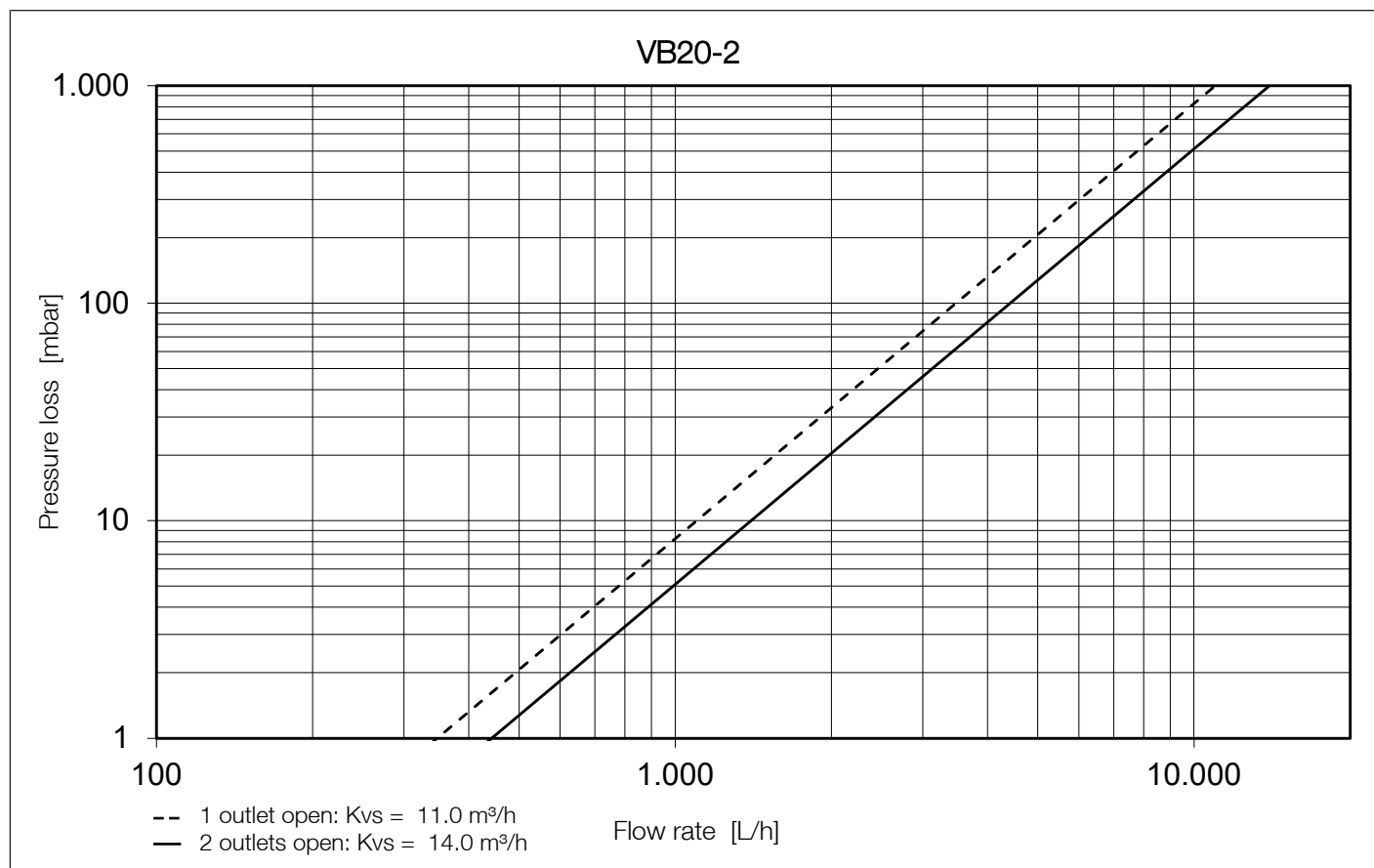
#### **System planner**

The system planner is responsible for evaluating these parameters and developing workarounds.

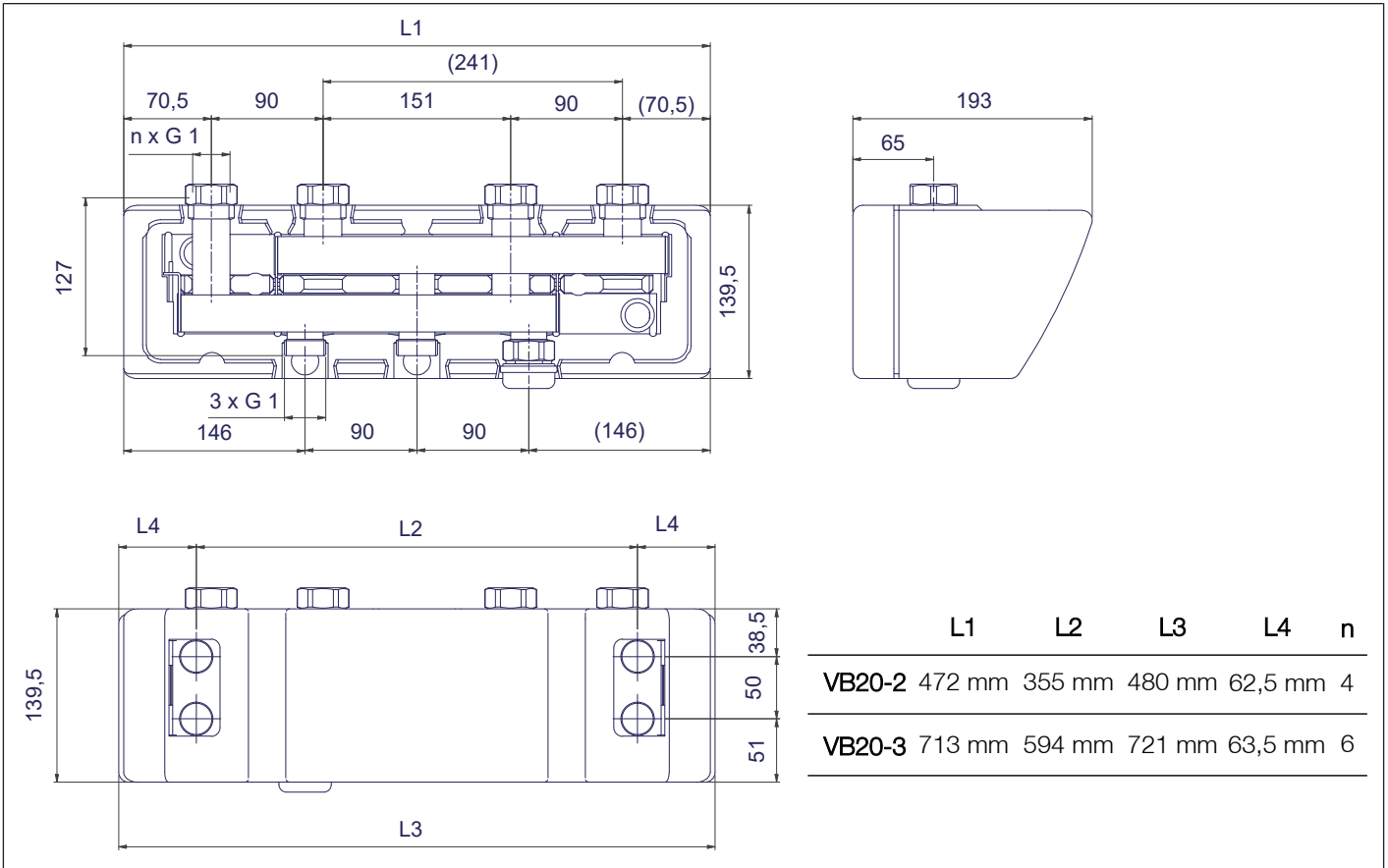
### 3 Technical data

Hydraulic performance data	VB20-2	VB20-3
Max. operating pressure		6 bar
Operating temperature		2 °C to 110 °C
Media	Water / water-glycol mixtures according to VDI 2035/ÖNORM H 5195	
Dimensions		
Width x height x depth without EPP shell	406 x 131 x 70 mm	647 x 131 x 70 mm
Width x height x depth with EPP shell	480 x 154 x 193 mm	721 x 154 x 193 mm
Total weight		
excluding packaging	3.8 kg	6.3 kg
including packaging	4.3 kg	6.8 kg
Connections to pipe network		
Heating circuit	G 1 union nut, flat sealing	
Boiler circuit	G 1 male connection. flat sealing	
Nominal diameter	DN 20	
Materials		
Manifold	tubular steel	
Union nut	brass CW617N	
End cap	brass CW617N	
Flat seal	AFM 34/2	
Insulation	EPP	
Flow coefficient (Cv) values		
1 outlet open	11 m³/h	11 m³/h
2 outlets open	14 m³/h	13.5 m³/h
3 outlets open	-	15.5 m³/h

## 4 Pressure loss curves



## 5 Dimensions



## 6 Installation

### NOTICE

Installation and commissioning may be carried out only by trained personnel who have been authorized by the manufacturer.

### CAUTION

#### Material damage!

Incorrect repair and replacement of separate parts.

- When repairing the unit or replacing parts, be sure to observe the specified installation positions and flow directions of the parts being replaced!

### CAUTION

#### Material damage!

Opening shut-off valves quickly produces pressure surges.

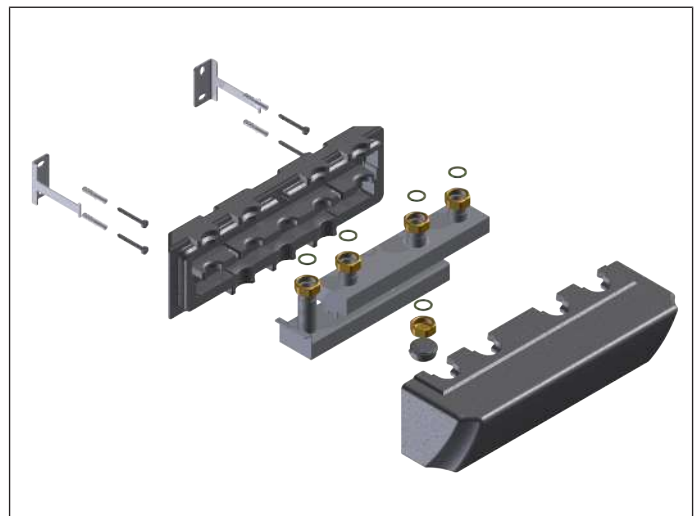
- Always open shut-off valves slowly and in a controlled manner.

### 6.1 Installation without wall bracket

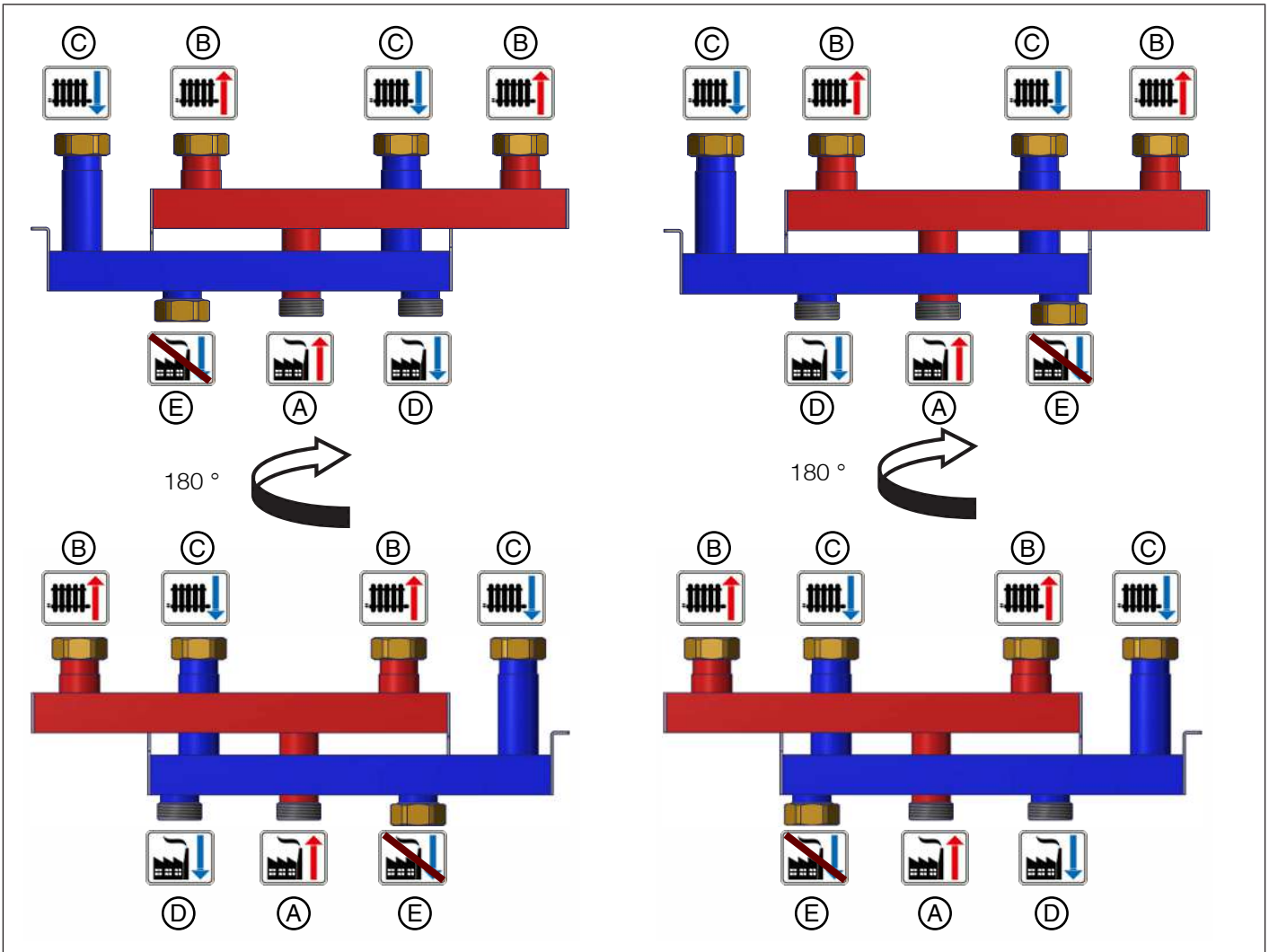
- Remove the front shell of the insulation of the boiler manifold.
- Close the heat-circuit connections flat-sealing, using the G 1 union nut, flat sealing (torque 55 Nm).
- Close the boiler-side connections G 1 union nut, flat sealing (torque 55 Nm).

### 6.2 Installation with wall brackets (optional)

- Bolt the wall bracket to the wall.
- Push the rear shell of the insulation onto the wall bracket.
- Insert the boiler manifold.
- Push the front shell of the insulation onto the boiler manifold.



## 6.3 Installation variants



A Vorlauf Primär  
B Vorlauf Heizkreis

C Rücklauf Heizkreis  
D Rücklauf Primär  
E Rücklauf Primär, geschlossen

## 7 Maintenance

### WARNING

#### Hot water!

Severe scalding possible.

- Allow the product (VB20) to cool before carrying out any maintenance, cleaning or work repair.
- Do not put hands into hot water when draining the product (VB20).

### WARNING

#### Hot surfaces!

Risk of serious burns.

- Do not touch the pipes or components during operation.
- Ensure that the product (VB20) has cooled down before carrying out maintenance, cleaning and repair work.
- Wear heat-resistant safety gloves if it is necessary to carry out work on hot components.

### NOTICE

Maintenance of the product (VB20) must be carried out only by trained personnel who have been authorized by the manufacturer.

#### 7.1 Annual maintenance intervals

##### General visual inspections

1. Check the product (VB20) for leaks and retighten sealing connections or replace seals, as required.

##### Actions following maintenance work

1. Check that all screw fittings that were unscrewed have been retightened and retighten if necessary.
2. Remove all tools, materials and other equipment used from the working area.
3. Fill and vent the system.

#### 7.2 Replacement of wear parts

Please note that the product (VB20) contains parts that, for technical reasons, are subject to wear depending on the intensity of use, even if the specified care and maintenance have been observed.

This especially applies to mechanical parts and parts that could come into contact with water and steam, for example, hoses, seals, valves, etc.

By their nature, defects as the result of wear do not represent a fault and therefore are not covered by the warranty or the guarantee. Nevertheless, these defects and malfunctions must only be remedied by trained specialist personnel.

Contact your specialist dealer for this.

## 8 Disposal

### WARNING

#### Potential for contamination of the environment and groundwater from improper disposal!

- The legal regulations and guidelines in the country of operation must be observed when disposing of components and operating materials.
1. Disassemble the product (VB20) properly or commission a specialist company to do so.
  2. Sort the assemblies and component parts into recyclable materials, hazardous substances and operating materials.
  3. Dispose of the assemblies and components in accordance with local laws and regulations or take them to be recycled.

#### 8.1 Notification of administrative bodies and the manufacturer

Inform the manufacturer of decommissioning and disposal of the product (VB20) for statistical purposes.

#### 8.2 Return to the manufacturer

Get in contact with the manufacturer if you would like to return the product (Boiler manifold VB20) or parts of it.

## 9 Warranty

WATTS products are tested extensively. WATTS therefore guarantees only the replacement or, at the sole discretion of WATTS, the free-of-charge repair of components of the supplied products where these, in the opinion of WATTS, exhibit verifiable manufacturing faults. Warranty claims due to defects or defects of title may be asserted within one (1) year of delivery/transfer of risk. Excluded from the warranty are damages attributable to normal use of the product or friction and damages resulting from modifications or non-authorized repairs on the products, for which WATTS rejects all claims for compensation (direct or indirect). (For more detailed information, please refer to our website.) In all cases, supply is subject to the General Terms and Conditions, which can be found at [www.watts.eu/en/gtc](http://www.watts.eu/en/gtc).

The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding. Watts Industries reserves the right to carry out any technical and design improvements to its products without prior notice.

Warranty: all sales and contracts for sale are expressly conditioned on the buyer's assent to Watts terms and conditions found on its website [www.watts.eu/en/gtc](http://www.watts.eu/en/gtc). Watts hereby objects to any term, different from or additional to Watts terms, contained in any buyer communication in any form, unless agreed to in a writing signed by an officer of Watts.



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