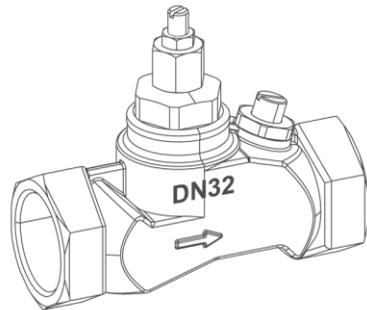
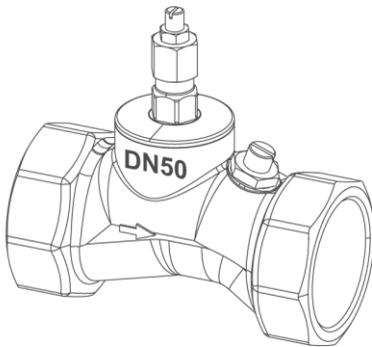


We understand water.



Accessories | Mechanical blending valve

Operation manual

grünbeck

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We reserve the right to technical modifications.
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Original operation manual
Edition: November 2020
Order number: 100198930000_en_055

1 Other applicable documents

The following documents shall also be deemed as applicable documents for the mechanical blending valves:

- The operation manual of the water softener used.

2 Target group

This manual is intended for Grünbeck's technical service/authorised service company or qualified specialists trained by Grünbeck.

3 Validity of the manual

This manual applies to the products below:

- Mechanical blending valve 1¼" (DN 32)
- Mechanical blending valve 2" (DN 50)

4 Intended use

The mechanical blending valves can be used as accessories for water softeners in order to generate partially softened water.

- Max. nominal pressure PN 10
- For household, industry and trade
- Max. water temperature for intended use: 90 °C.

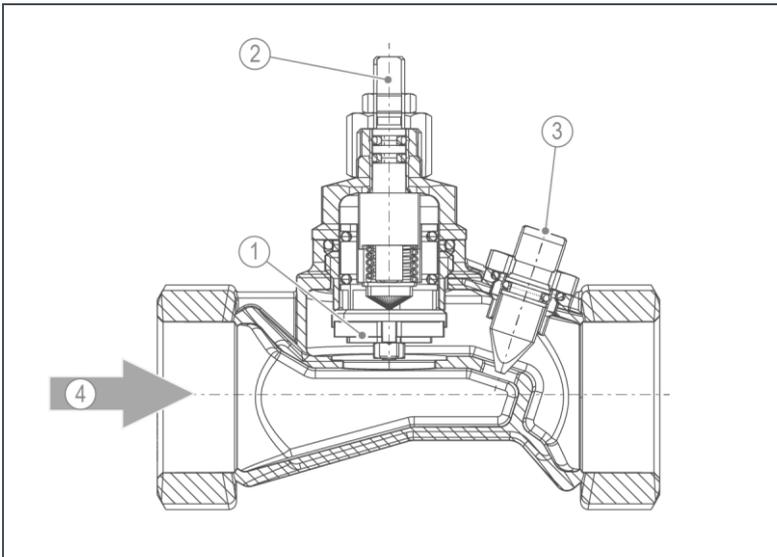
5 Product description

Blending valves are fully automatic mixing valves for water softeners in the industrial water sector. They were specifically developed for large-scale systems.

The blending valve keeps the residual hardness of the blended water constant, regardless of the withdrawal volume and pressure fluctuations. The residual hardness of the blended water is set only once during installation.

The blending valve works irrespective of its position.

5.1 Function



Item	Description	Item	Description
1	Valve cone	2	Spindle of main valve
3	Spindle of bypass valve	4	Flow direction

The raw water is mixed with the soft water originating from the water softener to achieve a certain blending hardness.

The required raw water volume is set at the main valve of the blending valve which then automatically adds the proper dosage irrespective of the water consumption.

In case of low water withdrawal, a certain amount of raw water, depending on the setting, is added to the soft water via the bypass valve alone.

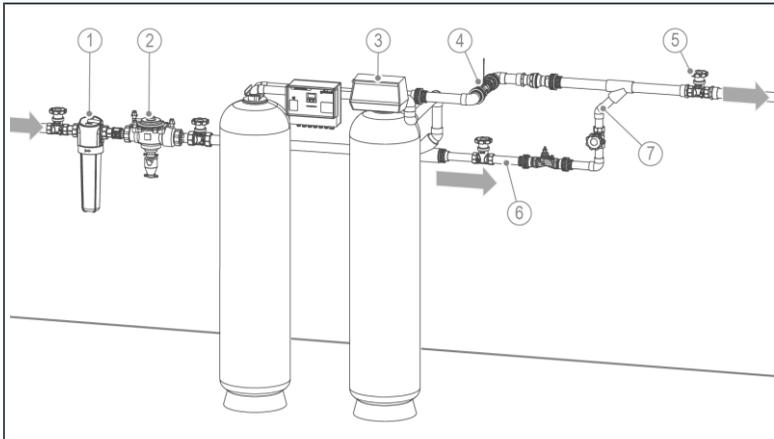
Due to the pressure loss of the water softener in case of larger water withdrawals, a differential pressure is created which opens the valve cone of the main valve, so that – depending on the

selected setting – a more or less large amount of raw water can flow into the soft water.

6 Installation

The blending valve is installed in the bypass line of the water softener and the raw water flows through the valve in the direction of the arrow.

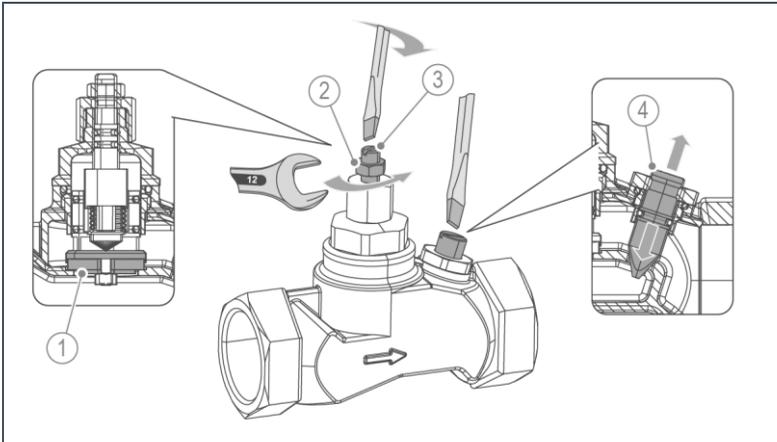
If a 0 °dH line is required in addition to the blended water line, a shut-off valve with sampling valve must be installed for accurate sampling.



Item	Designation	Item	Designation
1	Filter	2	System separator
3	Water softener	4	Water meter
5	Shut-off valve with sampling valve	6	Bypass line
7	Blended water line		

6.1 Setting

- Proceed as follows to set the desired blending hardness under operating conditions:



Item	Designation	Item	Designation
1	Valve cone (main valve)	2	Locknut
3	Spindle (main valve)	4	Spindle (bypass valve)

1. Close the main valve (valve cone).
 - a Loosen the locknut.
 - b Screw in the spindle (main valve) as far as the stop.

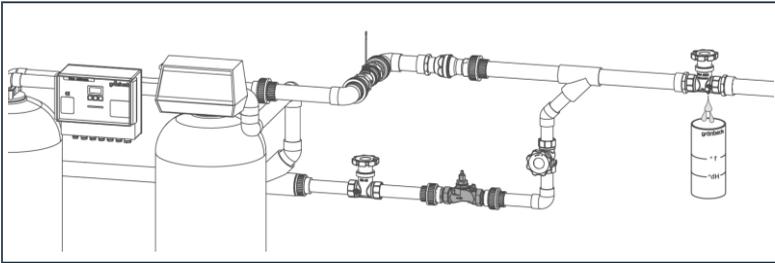


A mechanical stop must be noticeable when screwing in the spindle.

2. Adjust the spindle (bypass valve) in a way that the desired water hardness is achieved at 10 – 20 % of the max. water consumption.
3. Open the valve cone at maximum water consumption by turning the spindle to the left until the desired water hardness is achieved.

4. Tighten the locknut.
 - » The blending hardness is set.

7 Start-up/Commissioning



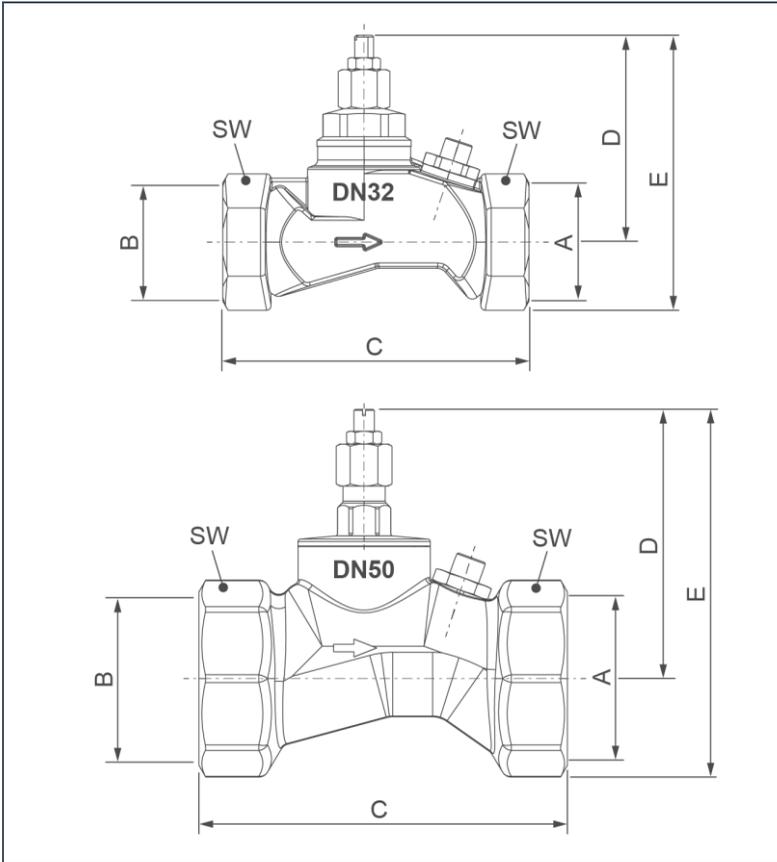
- ▶ Use the water test kit to determine the blending hardness at the sampling valve.



If there is a significant change in the raw water, e.g. the water works supply a different type of water, the water softener and the blending valve must be re-adjusted.

- ▶ Check the installation for leaks.

8 Technical specifications



Dimensions and weight		DN 32	DN 50
A	Nominal connection diameter	1 1/4" fem. thread	2" fem. thread
B	Nominal connection diameter	1 1/4" fem. thread	2" fem. thread
C	Installation dimension without screw connection	mm 130	mm 145
D	Height above centre of connection	mm 88	mm 93
E	Total height	mm 111	mm 132
SW	Wrench size	mm 50	mm 72
	Weight, approx.	kg 1.2	kg 1.8
	Order no.	126 015	126 020

9 Disposal

Do not dispose of the packaging, the product and/or the accessories with household waste.

- Comply with the applicable national regulations for disposal.
- Make sure that the packaging, the product and the accessories are disposed of properly.

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