

Instructions for Use

Easytop circulation regulation valve, static regulation valve with SC-Contur



for hydraulic line calibration in drinking water installations

Model
2282

Year built (from)
11/2011

viega

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1 About these instructions for use

Trade mark rights exist for this document; for further information, go to viega.com/legal.

1.1 Target groups

The information in this manual is directed at heating and sanitary professionals and trained personnel.

Individuals without the abovementioned training or qualification are not permitted to mount, install and, if required, maintain this product. This restriction does not extend to possible operating instructions.

The installation of Viega products must take place in accordance with the general rules of engineering and the Viega instructions for use.

1.2 Labelling of notes

Warning and advisory texts are set aside from the remainder of the text and are labelled with the relevant pictographs.



DANGER!

This symbol warns of possible life-threatening injury.



WARNING!

This symbol warns of possible serious injury.



CAUTION!

This symbol warns of possible injury.



NOTICE!

This symbol warns of possible damage to property.



This symbol gives additional information and hints.

1.3 About this translated version

This instruction for use contains important information about the choice of product or system, assembly and commissioning as well as intended use and, if required, maintenance measures. The information about the products, their properties and application technology are based on the current standards in Europe (e. g. EN) and/or in Germany (e. g. DIN/DVGW).

Some passages in the text may refer to technical codes in Europe/Germany. These should serve as recommendations in the absence of corresponding national regulations. The relevant national laws, standards, regulations, directives and other technical provisions take priority over the German/European directives specified in this manual: The information herein is not binding for other countries and regions; as said above, they should be understood as a recommendation.

2 Product information

2.1 Standards and regulations

The following standards and regulations apply to Germany / Europe and are provided as a support feature.

Regulations from section: Fields of application

Scope / Notice	Regulations applicable in Germany
Planning, execution, operation and maintenance of potable water installations	DIN EN 806, part 1
Planning, execution, operation and maintenance of potable water installations	DIN EN 806, part 2
Planning, execution, operation and maintenance of potable water installations	DIN EN 806, part 3
Planning, execution, operation and maintenance of potable water installations	DIN EN 806, part 4
Planning, execution, operation and maintenance of potable water installations	DIN EN 806, part 5
Planning, execution, operation and maintenance of potable water installations	DIN EN 1717
Planning, execution, operation and maintenance of potable water installations	DIN 1988
Planning, execution, operation and maintenance of potable water installations	VDI/DVGW 6023
Planning, execution, operation and maintenance of potable water installations	Trinkwasserverordnung (TrinkwV)
Planning, execution, operation and maintenance of potable water installations	DVGW-Arbeitsblatt W 553

Regulations from section: Media

Scope / Notice	Regulations applicable in Germany
Suitability for drinking water	Trinkwasserverordnung (TrinkwV)

Regulations from section: Product description

Scope / Notice	Regulations applicable in Germany
Suitability for drinking water installations	Trinkwasserverordnung (TrinkwV)
Suitability for drinking water installations	DIN 50930-6
Requirements in plastic components in drinking water installations	DVGW-Arbeitsblatt W270

Regulations from section: Compatible components

Scope / Notice	Regulations applicable in Germany
Permitted pipe types	DVGW-Arbeitsblatt W 534
Permitted copper pipes	DVGW-Arbeitsblatt GW 392
Permitted copper pipes	DIN EN 1057
Permitted stainless steel pipes	DVGW-Arbeitsblatt GW 541
Permitted stainless steel pipes	DIN EN 10312
Permitted stainless steel pipes	DIN EN 10088

Regulations from section: Corrosion

Scope / Notice	Regulations applicable in Germany
External corrosion protection	DIN EN 806-2
External corrosion protection	DIN 1988-200
External corrosion protection	DKI-Informationsdruck i. 160

Regulations from section: Installation position and settings

Scope / Notice	Regulations applicable in Germany
Dimensioning of circulation systems	DVGW-Arbeitsblatt W 553

Regulations from section: Leakage test

Scope / Notice	Regulations applicable in Germany
Leakage test for potable water installations	DIN EN 806, part 4
Leakage test for potable water installations	ZVSHK-Merkblatt „Dichtheitsprüfungen von Trinkwasserinstallationen mit Druckluft, Inertgas oder Wasser“

Regulations from section: Maintenance

Scope / Notice	Regulations applicable in Germany
Operation and maintenance of potable water installations	DIN EN 806-5

2.2 Intended use



Coordinate the use of the model for areas of use and media other than those described with the Viega Service Center.

The functionality of the valve is only ensured by professional design and assembly of the complete system.

2.2.1 Areas of use

Use is possible in the following areas among others:

- Hot water circulation pipelines
- Internally and parallel laid circulation pipes

The general rules of engineering and the applicable regulations must be observed for planning, execution, operation and maintenance potable water installations, see ↪ *'Regulations from section: Fields of application'* on page 5.

2.2.2 Media

The model is also suitable for the following media, amongst others:

- Drinking water without limitations acc. to the applicable directives, see ↪ *'Regulations from section: Media'* on page 6
- maximum chloride concentration 250 mg/l pursuant to applicable regulations, see ↪ *'Regulations from section: Media'* on page 6

2.3 Product description

According to the applicable regulations, Easytop system fittings can be used for all types of potable water and are DVGW certified, see [☞ 'Regulations from section: Product description' on page 6](#). Their plastic components comply with the KTW recommendation and the requirements pursuant to the applicable regulations.

2.3.1 Overview

The model is equipped as follows:

- valve casing made of gunmetal/silicon bronze
- valve top made of gunmetal/silicon bronze
- dual-sided press connection with SC-Contur
- drain plugs for drainage valve G ¼
- setting scale
- handwheel with exchangeable coloured plastic cap as media labelling
- key surface on the casing

The static circulation regulation valve can be used to equalise and shut-off pipe sections. The set flowthrough volume can be fixed mechanically. The set value is not altered by opening and closing the valve.

The model is available in the following dimensions:

d	15	18	22	28
DN	15	15	20	25

2.3.2 Press connection with SC-Contur



Fig. 1: Press connection using a press connector as an example

The press connection has a circumferential bead in which the sealing element lies. The connector is deformed upstream and downstream of the bead and permanently connected to the pipe during pressing. The sealing element is not deformed during pressing.

SC-Contur



Fig. 2: SC-Contur

Viega press connections are equipped with the SC-Contur. The SC-Contur is a safety technology that is certified by the DVGW and ensures that the connection is guaranteed to be leaky in an unpressed state. In this way, unpressed connections are noticed immediately during a leakage test.

Viega guarantees that unpressed connections are visible during a leakage test:

- with wet leakage test in the pressure range from 0.1 hPa–0.65 MPa (1.0 mbar–6.5 bar)
- with dry leakage test in the pressure range from 22 hPa–0.3 MPa (22 mbar–3.0 bar)

2.3.3 Sealing elements

Area of use of the EPDM sealing element



NOTICE!

Only EPDM sealing elements are approved in potable water installations. The use of other sealing elements is not permitted.

The model is factory-fitted with EPDM sealing elements.

Area of use	Potable water
Operating temperature [T _{max}]	90 °C
Operating pressure [P _{max}]	1.0 MPa (10 bar)
Comments	see notes ↗ Chapter 2.2.2 'Media' on page 7

2.3.4 Markings on components

The press connections are marked with a coloured dot. This identifies the SC-Contur, where the test medium would escape in the case of an inadvertently unpressed connection.

The model is marked as follows:

- flow direction indicator
- dimension
- DVGW writing
- setting scale
- green dot for potable water

2.3.5 Compatible components

The model is equipped with press connections and compatible with the Profipress, Sanpress and Sanpress Inox system.

Pipes

The press connections are tested and approved according to the applicable regulations with the following pipe types:

- Copper pipes
 - see ↗ *'Regulations from section: Compatible components' on page 6*
- Stainless steel pipes (material 1.4401 / 1.4521)
 - see ↗ *'Regulations from section: Compatible components' on page 6*

2.3.6 Operating mode

The static Easytop circulation regulation valve is used in circulation pipes and allows hydraulic line calibration. The calibration takes place via a reproducible presetting.

2.3.7 Technical data

Observe the following operating conditions for the installation of the model:

Operating temperature [T_{max}]	90 °C
Operating pressure [P_{max}]	1.0 MPa (10 bar)
Setting range	0 - 6.9

Target values

The required set values can be obtained from the diagrams below. The intermediate values can be set steplessly.

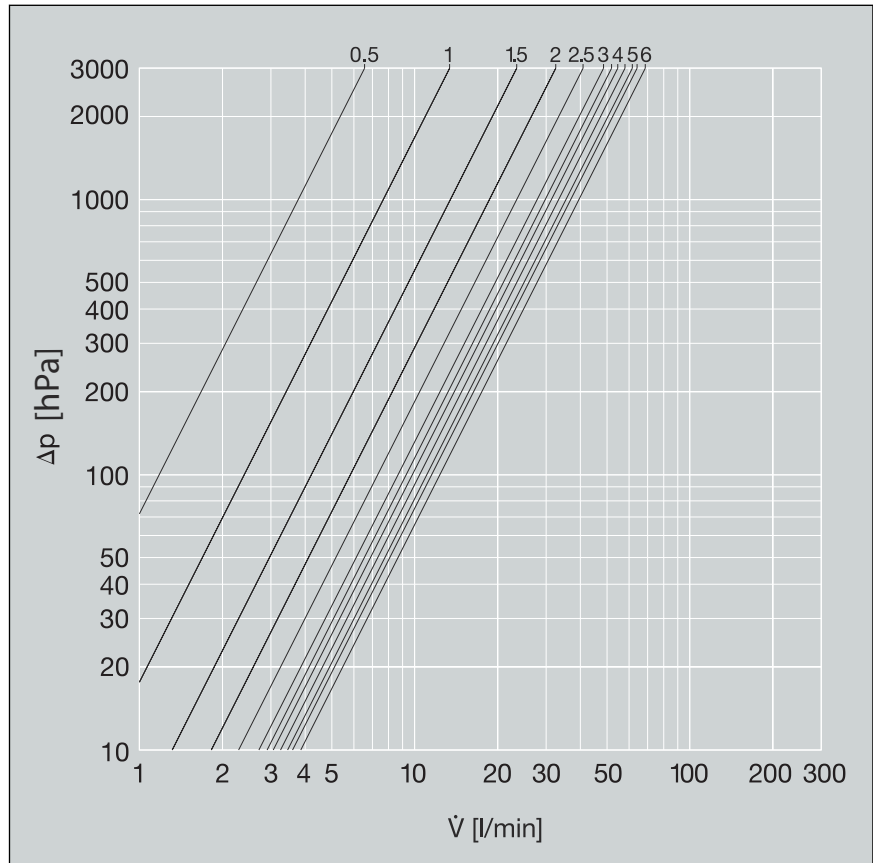


Fig. 3: Diagram set values DN15

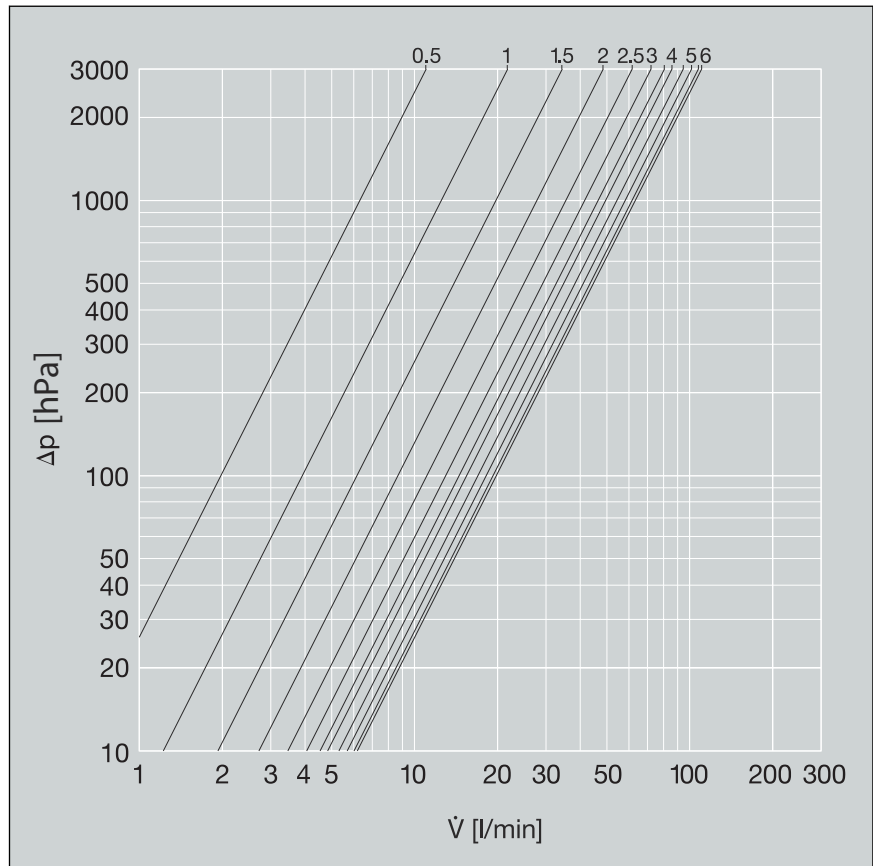


Fig. 4: Diagram set values DN20

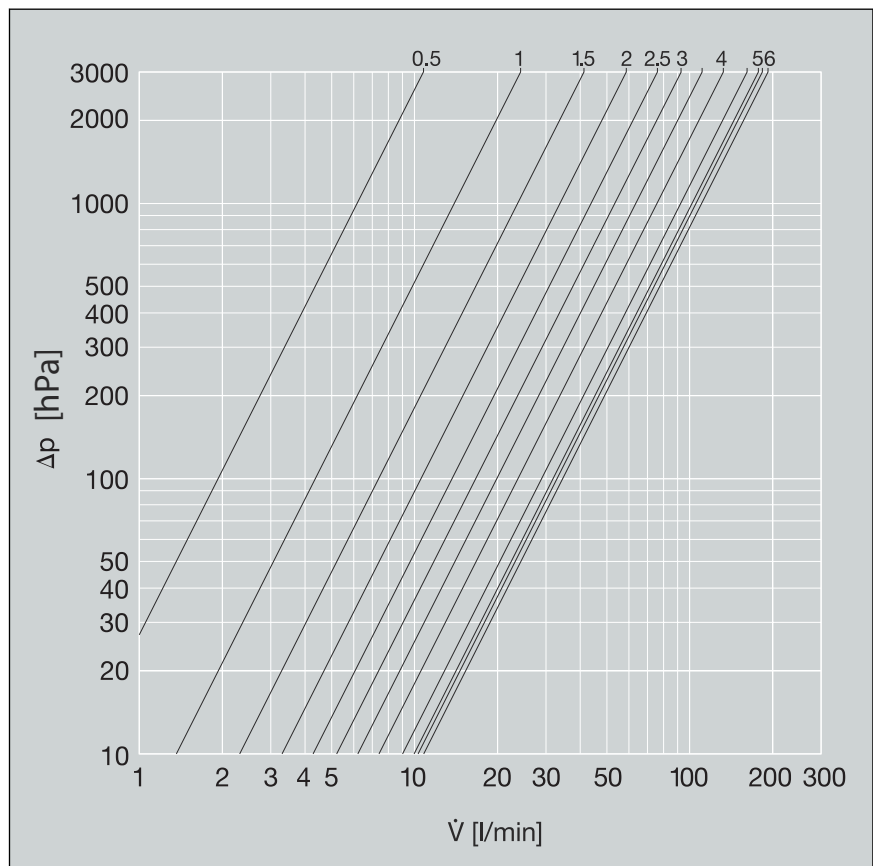


Fig. 5: Diagram set values DN25

2.4 Information for use

2.4.1 Corrosion

Overground pipelines and fittings in rooms do not normally require external corrosion protection.

There are exceptions in the following cases:

- Contact with aggressive building materials such as nitrite or materials containing ammonium
- in aggressive surroundings

If external corrosion protection is required, observe the pertinent guidelines, see ↗ 'Regulations from section: Corrosion' on page 6.



Easytop fittings made of gunmetal/silicon bronze are suitable for all types of potable water.

The chloride concentration in the medium must not exceed a maximum value of 250 mg/l.

This chloride is not a disinfectant, but in fact pertains to the content in sea and table salt (sodium chloride).

2.5 Optional accessories

The following optional accessories are available:

- Drainage valve
- Thermometer
- Insulating shell

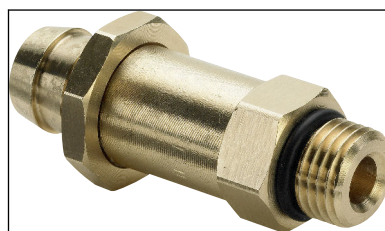


Fig. 6: Model 2234.6 Easytop drainage valve



Fig. 7: Model 1026.6 Easytop thermometer



Fig. 8: Model 2210.35, insulating shell

EPS insulating shells are available for the static circulation regulation valve. The two-piece insulating shells are self-supporting and are mounted without tools and holding grips. They close seamlessly on the front surface of the pipeline insulation.

3 Handling

3.1 Assembly information

3.1.1 Permitted exchange of sealing elements



Important instruction

With their material-specific qualities, sealing elements in press connectors are adapted for use with the corresponding media and/or the areas of use of the piping systems and are generally only certified for them.

The exchange of a sealing element is generally permitted. The sealing element must be exchanged for a designated spare part for the intended application ↪ *Chapter 2.3.3 'Sealing elements' on page 9*. The use of other sealing elements is not permitted.

3.1.2 Mounting instructions

Checking system components



Do not remove the model from the packaging until immediately before use.

System components may, in some cases, become damaged through transportation and storage.

- Check all parts.
- Replace damaged components.
- Do not repair damaged components.
- Contaminated components may not be installed.

During assembly

Observe the following when mounting:

- use suitable tools
- flow direction indicator
- When tightening the connection screw fitting, counter by holding the key surface of the valve.
- A piece of straight pipe of at least 3xd should be installed upstream from the fitting.



Choose the place of installation so that the fitting is easily accessible, simple to operate and the insulating shell can be well mounted.

Laying and fixing pipes

For information, refer to the instructions for use of the Profipress, Sanpress and Sanpress Inox systems.

Length expansion

For information, refer to the instructions for use of the Profipress, Sanpress and Sanpress Inox systems.

3.1.3 Required tools

Press connection

The following tools are required for production of a press connection:

- pipe cutter or a fine-toothed hacksaw
- deburrer and coloured pen for marking
- press machine with constant pressing force
- Press jaw or press ring with corresponding hinged adapter jaw, suitable for the pipe diameter and suitable profile



Fig. 9: Press jaws

Recommended Viega press machines:

- Pressgun 5
- Pressgun Picco
- Pressgun 4E / 4B
- Picco
- Type PT3-AH
- Type PT3-H / EH
- Type 2 (PT2)

Target values

An Allen key (size 2) is required to pre-set the target values.

3.2 Assembly

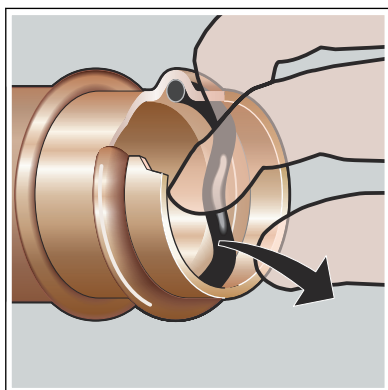
3.2.1 Replacing the sealing element

Removing the sealing element



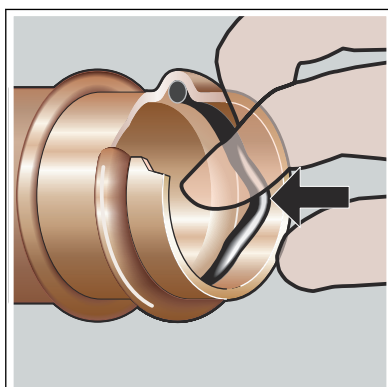
Do not use pointed or sharp-edged objects to remove the sealing element. These could damage the sealing element or bead.

- Remove the sealing element from the bead.



Inserting the sealing element

- Insert a new, undamaged sealing element into the bead.
- Ensure that the complete sealing element is in the bead.



3.2.2 Shortening the pipes



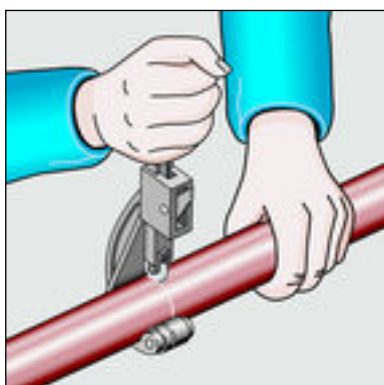
NOTICE! Leaky press connections due to damaged material!

Press connections can become leaky due to damaged pipes or sealing elements.

Observe the following instructions to avoid damage to pipes and sealing elements:

- Do not use cutting discs (angle grinders) or flame cutters when cutting to length.
- Do not use grease or oils (e. g. cutting oil).

For information about tools, also see [Chapter 3.1.3 'Required tools'](#) on page 16.



- ▶ Cut the pipe properly using a pipe cutter or fine-toothed hacksaw. Avoid grooves on the pipe surface.

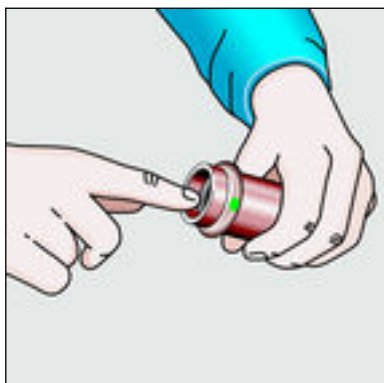
3.2.3 Pressing the connection



NOTICE! Leaky press connections due to pipes being too short

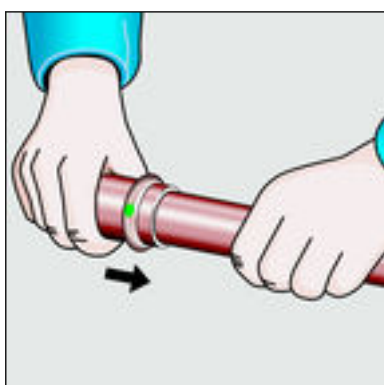
If two press connectors are to be mounted onto a pipe without an interval, the pipe must not be too short. If the pipe is not inserted up to the prescribed insertion depth in the press connector during pressing, the connection may become leaky.

With pipes with a diameter of d 15–28 mm, the length of the pipe must be at least as long as the total insertion depth of both press connectors.

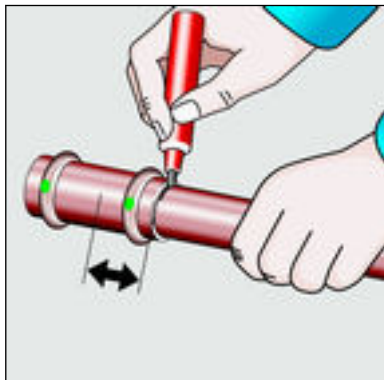


Requirements:

- The pipe end is not bent or damaged.
- The pipe is deburred.
- The correct sealing element is in the press connector.
EPDM = polished black
- The sealing element is undamaged.
- The complete sealing element is in the bead.

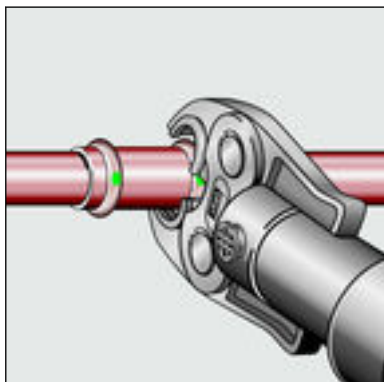


- Push the press connector onto the pipe as far as it will go.

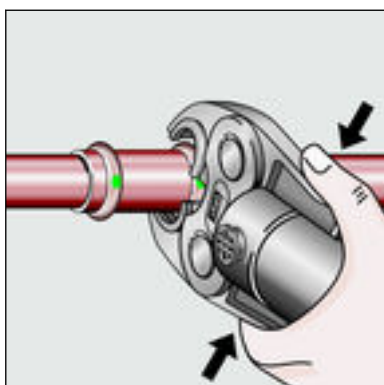


- Mark the insertion depth.
- Place the press jaw onto the press machine and push the retaining bolt in until it clicks into place.

INFO! Observe the press tool instruction manual.



- Open the press jaw and place at a right-angle onto the connector.
- Check the insertion depth using the marking.
- Ensure that the press jaw is placed centrally on the bead of the press connector.



- Carry out the pressing process.
- Open and remove the press jaw.
- Connection is pressed.

3.2.4 Installation position and settings

Installation position

Installation is possible in the riser pipe.

If there are multiple riser pipes on the storey during the installation of the thermostatic circulation regulation valve, then every riser pipe must have a circulation regulation valve mounted, see Fig. 10.



NOTICE!

According to the applicable directives, circulation regulation valves must be installed between the outlet of the hot water tank and the circulation inlet, see 'Regulations from section: Installation position and settings' on page 6.

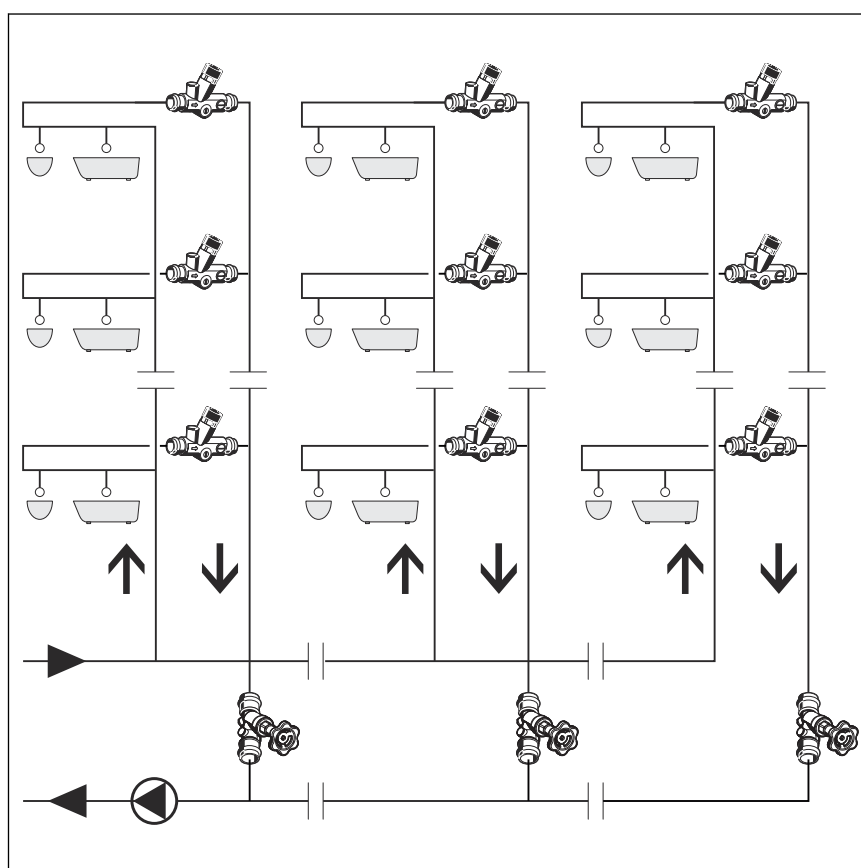


Fig. 10: Static CRV in the riser pipe

Settings

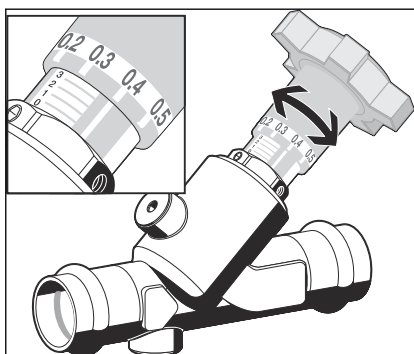
- Set the calculated flow values (see ↗ *'Target values'* on page 11) before commissioning.

3.2.5 Set valve

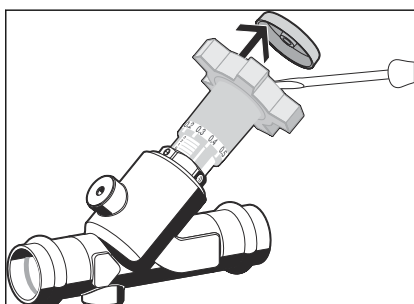
Setting is shown using model 2282 as an example.

Before commissioning:

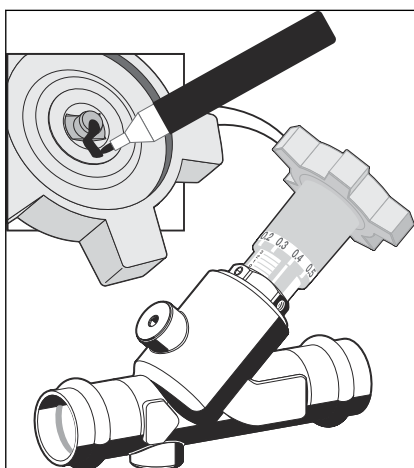
- Set the valve to the calculated flow value.



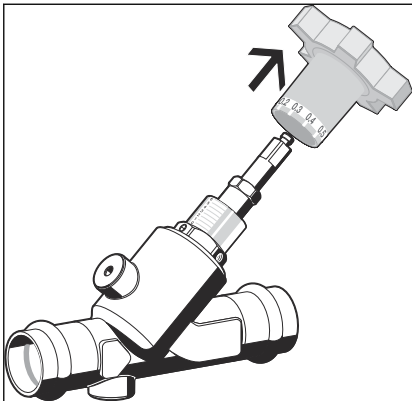
The set flow quantity can be fixed mechanically. We recommend the following steps to prevent the set value being adjusted by the opening and closing of the valve:



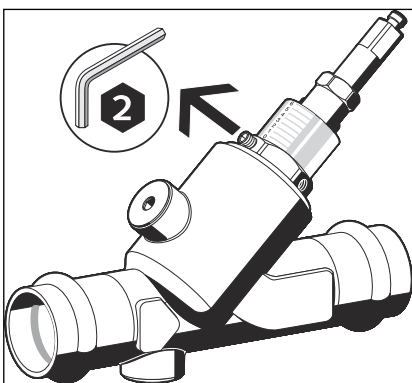
- Remove the cover.



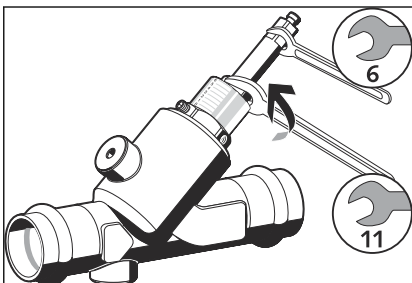
- Mark the position of the handwheel on the spindles.



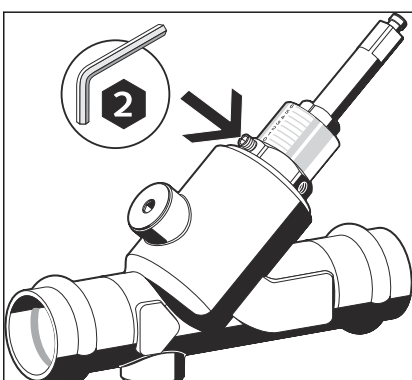
► Remove the handwheel.



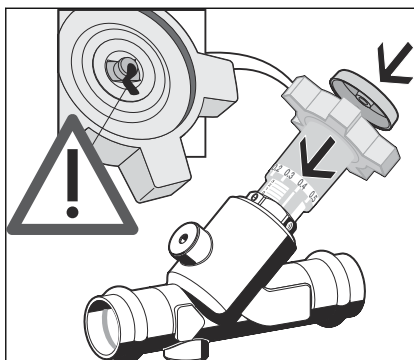
► Loosen the screw with the Allen key (SS 2).



► Screw the adjusting screw (SS 11) into the valve as far as it will go; at the same time, hold the spindle (SS 6) tight.



► Tighten the screw again with the Allen key (SS 2).



- Position the handwheel as marked and mount the lid.
- The circulation regulation valve is now ready for use.

3.2.6 Leakage test

The installer must perform a leakage test before commissioning.

Carry out this test on a system that is finished but not yet covered.

Comply with the general rules of engineering and the applicable directives, see ↗ 'Regulations from section: Leakage test' on page 7.

Document the result.

3.3 Maintenance



NOTICE!

Inform your customer or the operator of the drinking water installation that the system has to be maintained on a regular basis.

Observe the applicable regulations for the operation and maintenance of drinking water installations, see ↗ 'Regulations from section: Maintenance' on page 7.

3.4 Disposal

Separate the product and packaging materials (e. g. paper, metal, plastic or non-ferrous metals) and dispose of in accordance with valid national legal requirements.



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