Easytop Inox ball valve with SC-Contur

Instructions for Use

for drinking water and heating installation

Model
2370

Year built:
from 12/2007

en_INT

viega

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1 About these instructions for use

Trade mark rights exist for this document, further information can be found at www.viega.com/legal-notices.

1.1 Target groups

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

It is not permitted for individuals without the abovementioned training or qualification to mount, install and, if required, service 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 against possible life-threatening injury.

WARNING!
This symbol warns against possible serious injury.

CAUTION!
This symbol warns against possible injury.

NOTICE!
This symbol warns against possible damage to property.

Notes give you additional helpful tips.

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 pertinent national laws, standards, regulations and guidelines, as well as other technical guidelines, have priority over German/European guidelines in this manual: The information is not binding for other countries and territories and should, as mentioned, be considered as support.

2 Product information

2.1 Intended use

The use of the model for areas of use and media other than those described must be approved by the Viega Service Center.

2.1.1 Areas of use

Use is possible in the following areas among others:

- Drinking water installations
- Industrial and heating systems
- Compressed air systems
- Rainwater systems
- Cooling water pipelines (closed circuit)
- Systems for technical gases (on request)

The general rules of engineering must be observed for planning, execution, operation and maintenance of drinking water installations.

E. g. the following regulations apply:

- DIN EN 806 Part 1–5 and DIN EN 1717
- Supplementary national regulations amongst others DIN 1988, VDI/DVGW 6023 and Drinking Water Ordinance (DWO)

2.1.2 Media

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

- Drinking water without limitations
  in acc. with DWO
- max. chloride concentration 250 mg/l
  in acc. with DWO
- Heating water for pump hot water heating systems
  in acc. VDI 2035 Bl. 1 und Bl. 2
- Compressed air in compliance with the specification of the sealing element being used
  - EPDM at oil concentration < 25 mg/m^3

2.2 Product description

Easytop system fittings can be used for all types of drinking water in acc. with DWO and DIN 50930-6 and are DVGW certified. Their plastic components conform with the KTW recommendation and the requirements of the DVGW Worksheet W 270.

2.2.1 Overview

The Easytop system fittings comply with the testing criteria of DIN EN 13828 (fitting group I).
Sound protection $L_{ap} \leq 20$ dB(A)

The model is equipped as follows:

- valve casing made of steel, non-rusting
- dual-sided press connection with SC-Contur
- actuating lever made of plastic
- protective caps for the actuating lever in the red and green for the identification of the corresponding area of use
- position indication open/closed
- key surface on the casing
- maintenance-free selector shaft
- EPDM sealing elements
- ball seal made of Teflon®

The model is available in the following dimensions: d 15 / 18 / 22 / 28 / 35 / 42 / 54.

2.2.2 Press connection with SC-Contur

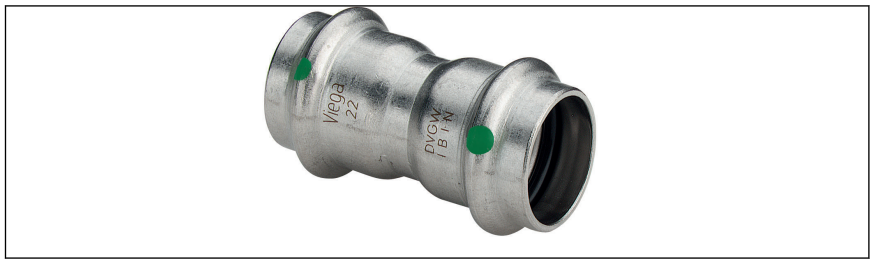


Fig. 1: Press connection using a press connector as an example

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

SC-Contur

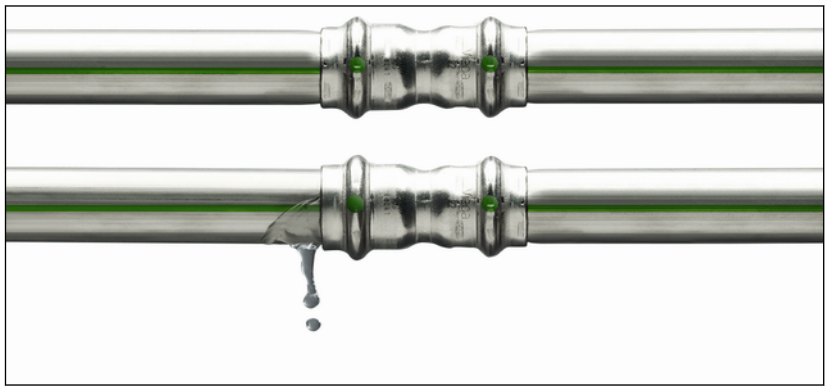


Fig. 2: SC-Contur

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 the wet leakage test in the pressure range from 0.1–0,65 MPa (1.0–6.5 bar)
- with dry leakage test in the pressure range from 22 hPa–0.3 MPa (22 mbar–3.0 bar)

2.2.3 Sealing elements

Area of use of the EPDM sealing element

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

The model is factory-fitted with EPDM sealing elements.

Area of use	Drinking water	Heating	Compressed air	Technical gases
Field of application	all piping sections	Pump hot water heating system	all piping sections	all piping sections
Operating temperature [$T_{max.}$]	110 °C	110 °C	60 °C	–

[1] Consultation with the Viega Service Center required.

Area of use	Drinking water	Heating	Compressed air	Technical gases
Operating pressure [P_{max}]	1.6 MPa (16 bar)	1.6 MPa (16 bar)	1.6 MPa (16 bar)	—
Comments:	see note ↳ *Chapter 2.1.2 „Media“ on page 6*	in acc. with DIN EN 12828 T_{max}: 105 °C 95 °C with radiator connection	dry, oil content < 25 mg / m^3	[1]

[1] Consultation with the Viega Service Center required.

2.2.4 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:

- Noise class I in acc. with DIN EN 13828
- Dimension
- DWGW writing
- green dot for drinking water
- Position indicator on the actuating lever

2.2.5 Compatible components

The model is equipped with press connections and is compatible with the Sanpress and Sanpress Inox systems.

Pipes

The press connections are tested and certified with the following types of pipe in acc. with DVGW Worksheet G 534:

- Stainless steel pipes (material 1.4401 / 1.4521)
  - in acc. with DVGW Worksheet GW 541
  - in acc. with DIN EN 10312
  - in acc. with DIN EN 10088

2.2.6 Technical data

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

Operating temperature [T_{max}]	110 °C
Operating pressure [P_{max}]	1.6 MPa (16 bar)

2.3 Information for use

2.3.1 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, the following regulations should be followed:

- DIN EN 806-2
- DIN 1988-200
- DKI information publication i. 160

Easytop fittings made of stainless steel are suitable for all types of drinking water.

The chloride concentration in the medium must not exceed 250 mg/l.

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

2.4 Optional accessories

The following optional accessories are available:

- actuating lever made of plastic
- Actuating lever made of metal
- Protective caps for the actuating lever made of plastic in red and green for the identification of the corresponding area of use
- Insulating shells

Fig. 3: 2270.21 Easytop actuating lever made of plastic

Fig. 4: 2270.26 Easytop actuating lever made of metal

Fig. 5: 2270.23 protective cap in blue

Insulating shells

EPS insulating shells are available for all sizes of ball valves. The two-piece shells are self-securing and mounted with tools and holding clamps: they connect seamlessly onto the flat surface of the pipe insulation.

Fig. 6: 2210.40 Easytop insulating shell

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 2.2.3 „Sealing elements“ on page 8. 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 the model:

- Use suitable tools.
- Installation is not dependent on the direction of flow.

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

Information can be found in the Sanpress and Sanpress Inox system instructions for use.

Length expansion

Information can be found in the Sanpress and Sanpress Inox system instructions for use.

3.1.3 Required tools

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 adapter jaw, suitable for the pipe diameter and suitable profile

Fig. 7: Press jaws

Recommended Viega press machines:

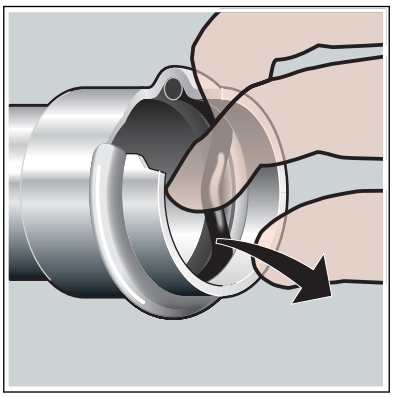
- Pressgun 5
- Pressgun Picco
- Pressgun 4E / 4B
- Picco
- Type PT3-AH
- Type PT3-H / EH
- Type 2 (PT2)

3.2 Assembly

3.2.1 Replacing the sealing element

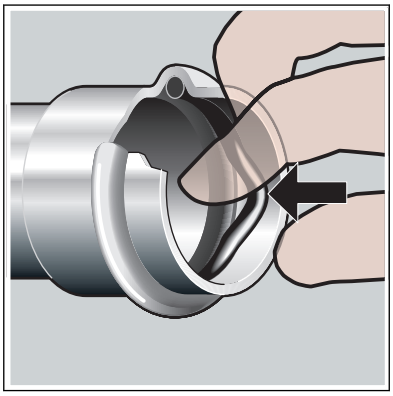
Removing the sealing element

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



- Remove the sealing element from the bead.

Inserting the sealing element



- Insert new, undamaged sealing element into the bead.
- Check if the whole sealing element is in the bead.

3.2.2 Shortening the pipes

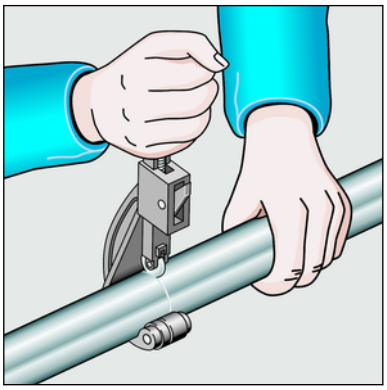
NOTICE!
Leaky press connections due to damaged material

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

See *Chapter 3.1.3 „Required tools“ on page 14* for information about tools.



- Cut the pipe properly using a pipe cutter or fine-toothed hacksaw.

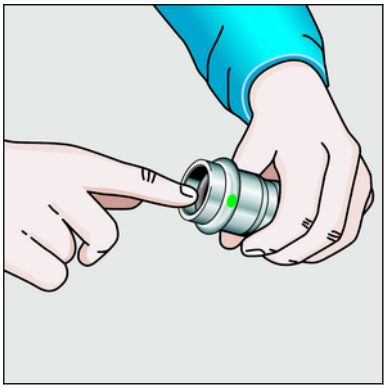
  Avoid grooves on the pipe surface.

3.2.3 Pressing the connection

NOTICE!
Leaky press connections due to pipes being too short

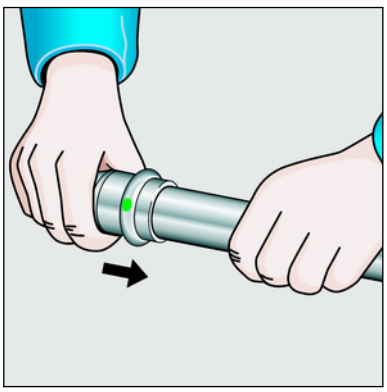
If two press connectors are to be mounted onto a pipe without an interval, the pipe must not be too short. If the pipe is not inserted up to the prescribed insertion depth in the press connector during pressing, the connection may become leaky.

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.

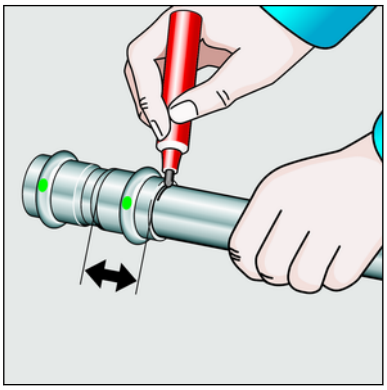


Requirements:

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



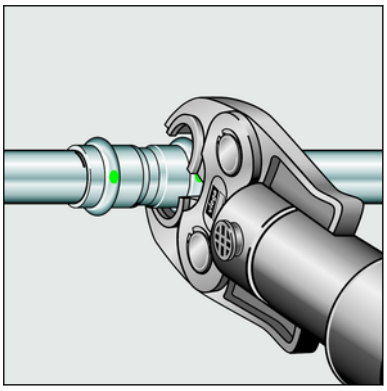
- Push the press connector onto the pipe as far as it will go.



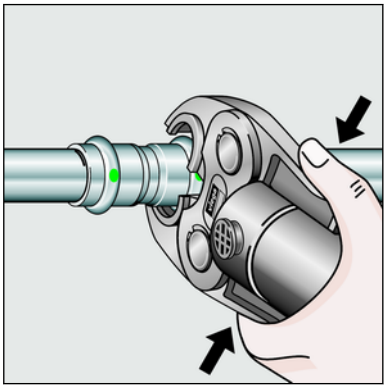
- Mark the insertion depth.

- 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 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.



- Complete pressing.

- Open and remove press jaw.
  - ⇨ Connection is pressed.

3.2.4 Leakage test

The installer must perform a leakage test before commissioning.

This test is carried out on a unit that is finished but not yet covered.

The general rules of engineering must be observed.

E. g. the following regulations apply:

- DIN EN 806–4

Leakage test should even be carried in acc. with the general rules of engineering for non-drinking water installations.

The result must be documented.

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.

DIN EN 806-5 must be observed for the operation and maintenance of drinking water installations.

We recommend actuating the fitting regularly and checking its function.

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.