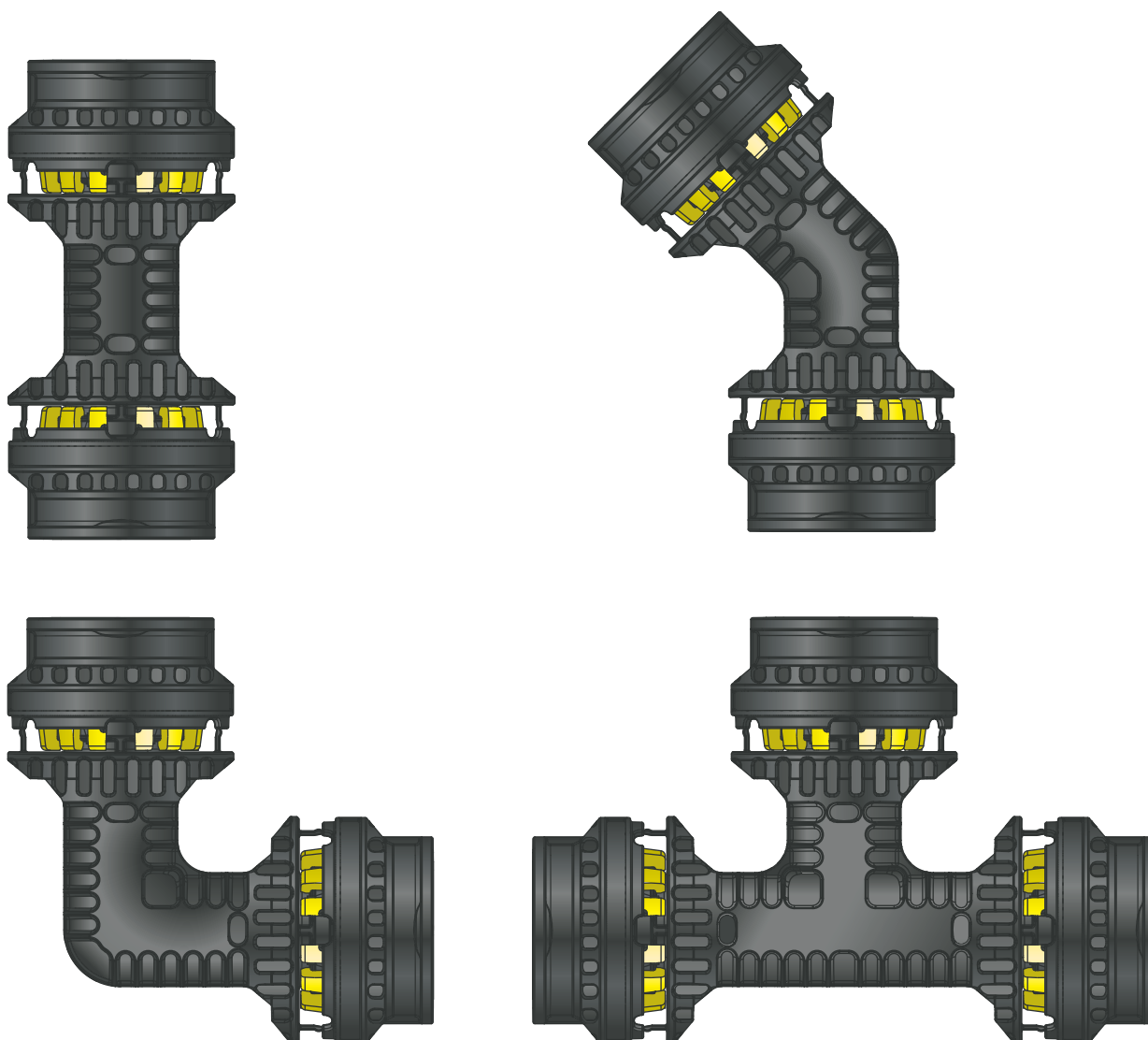


Instructions for Use

Geopress K Gas



Press connector system made of plastic for underground PE-HD and PE-X pipes

System
Geopress K Gas

Year built (from)
01/2023

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 utility and pipeline construction companies and their technical professionals.

Only specialist companies which can prove they are qualified in accordance with the applicable directives may be engaged for the construction of gas house service connections, see ↗ *'Regulations from section: Target group'* on page 5.

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: Target group

| Scope / Notice | Regulations applicable in Germany |
|---------------------------------------|-----------------------------------|
| Qualification of specialist companies | DVGW-Arbeitsblatt GW 301 |

Regulations from section: Application areas

| Scope / Notice | Regulations applicable in Germany |
|--|-----------------------------------|
| Planning, execution, modification and operation of gas house service connections | DVGW-Arbeitsblatt G 459-1 |
| Planning, execution, modification and operation of liquid gas installations | DVFG-TRF 2021 |
| Planning, execution, modification and operation of gas house service connections | DVGW-Arbeitsblatt G 472 |
| Planning, execution, modification and operation of gas house service connections | DVGW-Arbeitsblatt G 469 |

Regulations from section: Media

| Scope / Notice | Regulations applicable in Germany |
|---|-----------------------------------|
| Gas, hydrogen and liquid gas in the gaseous state | DVGW-Arbeitsblatt G 260 |

Regulations from section: Pipes

| Scope / Notice | Regulations applicable in Germany |
|--|-----------------------------------|
| Permitted types of pipes (PE) – gas supply | DVGW-Arbeitsblatt GW 335-A2 |
| Types of pipe (PE) – gas supply | DIN EN 1555 |
| Permitted types of pipes (PE-X) – gas supply | DIN 16892/16893 |
| Types of pipes (PE-X) – gas supply | DVGW-Arbeitsblatt GW 335-A3 |

Regulations from section: Press connectors

| Scope / Notice | Regulations applicable in Germany |
|-------------------------------|-----------------------------------|
| Thread of Geopress K adapters | DIN EN 10226-1 |

Regulations from section: Corrosion

| Scope / Notice | Regulations applicable in Germany |
|--|-----------------------------------|
| (Subsequent) corrosion protection for underground installation | DIN 30672 |

Regulations from section: Transport

| Scope / Notice | Regulations applicable in Germany |
|----------------|--|
| Transport | Einbauhinweise A 1465 - Pressure pipelines |

Regulations from section: Storage

| Scope / Notice | Regulations applicable in Germany |
|-----------------------------------|--|
| Requirements for material storage | Einbauhinweise KRV A 1465 - Pressure pipelines |

Regulations from section: Notes on mounting

| Scope / Notice | Regulations applicable in Germany |
|--------------------------------|-----------------------------------|
| Threshold values for ovalities | DIN EN 1555-2, Table 1 |

Regulations from section: Leakage test

| Scope / Notice | Regulations applicable in Germany |
|---|-----------------------------------|
| Leakage test before commissioning the connection line | DVGW-Arbeitsblatt G 459-1 |
| Leakage test before commissioning the connection line | DVGW-Arbeitsblatt G 469 |

2.2 Intended use



Agree the use of the system for areas of application and media other than those described with Viega.

The system can be applied at outdoor temperatures from -10 °C to 60 °C. The component temperatures of the press connectors and the press machine must not be less than -5 °C.

2.2.1 Areas of application

The model is intended for use in the supply of gas.

For planning, execution, modification and operation of gas house service connections, observe the applicable regulations, see ↪ *'Regulations from section: Application areas'* on page 5.

2.2.2 Media

The system is suitable for the following media, see ↪ *'Regulations from section: Media'* on page 5:

- Gases including liquid gas in the gaseous phase
- Hydrogen

The max. operating pressure and the max. operating temperature depend on the type of pipe used and the specific application.

- Operating pressure $p_{\max} = 1.0 \text{ MPa}$ (10 bar)

2.3 Product description

2.3.1 Overview

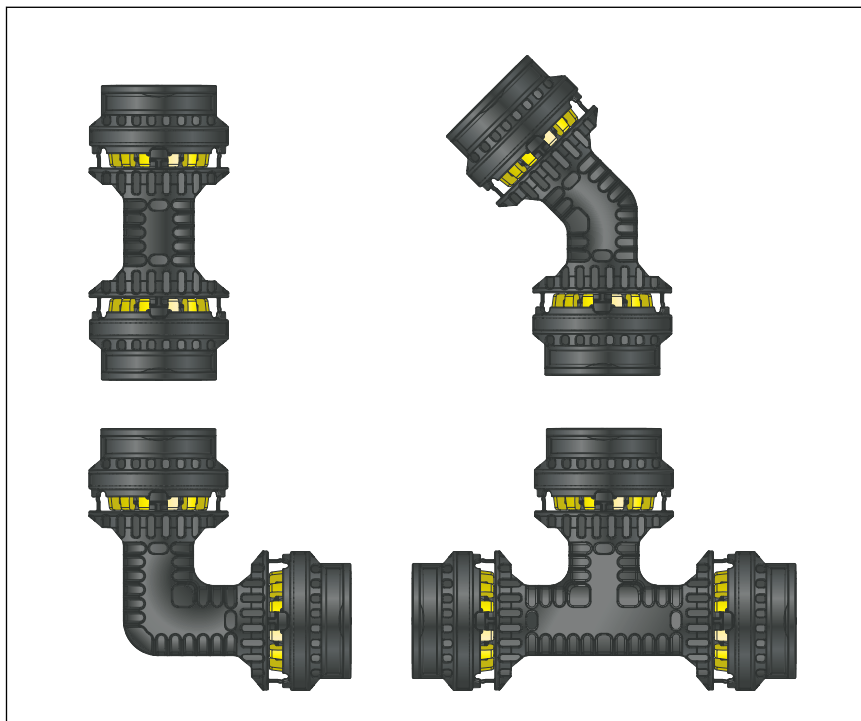


Fig. 1: Overview

The system components are available in the following dimensions:
d 32 / 40 / 50 / 63.

2.3.2 Pipes

Only the following plastic pipes may be used for installations with Geopress K gas components:

Permitted types of pipes – gas supply

| Type of pipe ¹⁾ | Pipe series SDR | MOP |
|----------------------------|-----------------|------------------|
| PE 80 | 11.0 | 0.4 MPa (4 bar) |
| PE 100 | 11.0 | 1.0 MPa (10 bar) |
| PE-X | 11.0 | 0.8 MPa (8 bar) |

¹⁾ see ↗ 'Regulations from section: Pipes' on page 6

2.3.3 Press connectors

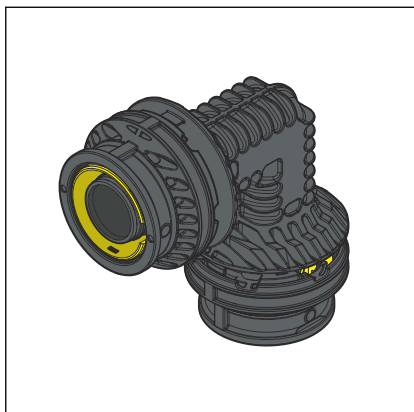


Fig. 2: Press connectors

The press connectors have a support sleeve with a 5-tooth sealing contour on it. Part of this sealing contour is a circumferential bead in which an HNBR sealing element is inserted. During pressing, the pipe is pressed onto the sealing contour and sealed from the inside so that the press connector is permanently attached to the pipe. Geopress K press connectors are equipped with a yellow clamping ring made of POM for a longitudinal force resistant connection. The press connectors have a window for checking the insertion depth.

The threads of Geopress K adapters are made of metal and are produced in acc. with the pertinent guidelines, see [☞ 'Regulations from section: Press connectors' on page 6](#). Plug-in pieces and connecting pieces for the tapping valve also have metal components.

SC-Contur

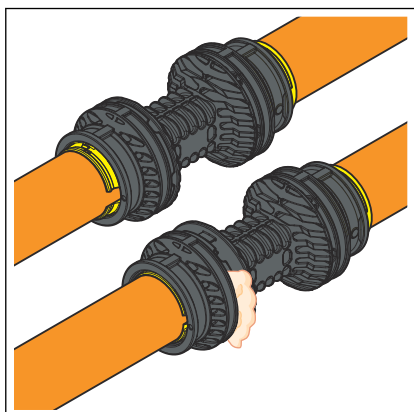


Fig. 3: SC-Contur

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

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

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

2.3.4 Sealing elements

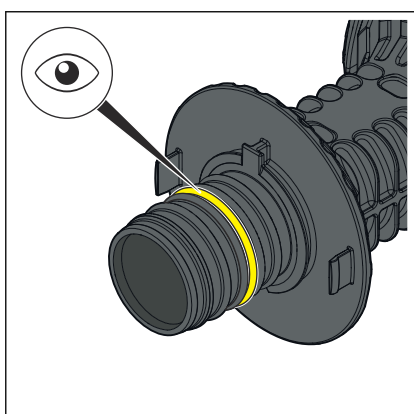
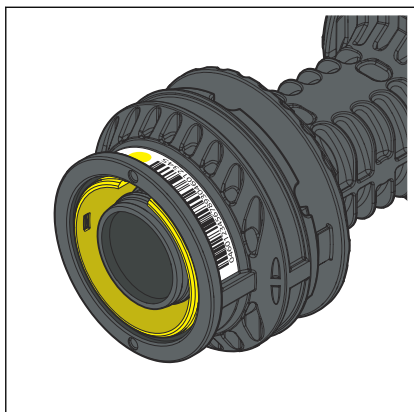


Fig. 4: HNBR sealing element

The press connectors are factory-fitted with HNBR sealing elements.

2.3.5 Markings on components



The coloured dot shows that the press connector is equipped with the SC-Contur.

If there is a yellow dot, the press connector is suitable for gas.

The traceability code on the press connector allows every press connector to be traced back and simplifies the documentation in as-completed drawings.

Fig. 5: Marking

2.4 Information for use

2.4.1 Corrosion

Due to a lower probability of corrosion in the case of laying in the ground and in contact with ground and surface waters with pH-values between 6 and 8, corrosion protection is not required in the case of press connectors with metal components. Soils containing ammoniac require corrosion protection in acc. with the pertinent guidelines, see ↗ *'Regulations from section: Corrosion' on page 6.*

Only components and supplies (e. g. sealant) that have been awarded a DVGW test symbol may be used.

3 Handling

3.1 Transport



Do not remove the press connector from the packaging until immediately before use.

Leave the protective caps in the press connector until you are ready to use it.

For transport, comply with the requirements specified in the applicable regulations, see [☞ 'Regulations from section: Transport' on page 6](#)

3.2 Storage



Do not remove the press connector from the packaging until immediately before use.

For storage, comply with the requirements specified in the applicable regulations, see [☞ 'Regulations from section: Storage' on page 6:](#)

- Avoid strong sunlight and heating.
- In addition, observe the instructions provided by the pipe manufacturer.

3.3 Assembly information

3.3.1 Mounting instructions

Checking system components

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

- Check all parts.
- Replace damaged components.
- Do not repair damaged components.

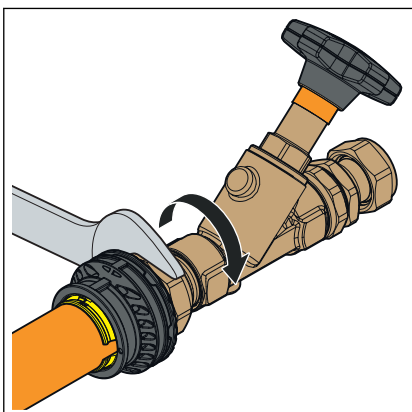
Inspect pipes visually for the following damage before installation:

- Ovalities: threshold values must not be exceeded, see [☞ 'Regulations from section: Notes on mounting' on page 6.](#)
- Dents
- Cracks

- Grooves on the exterior
- Scoring inside the pipe (not permissible)
- damaged pipe ends

Only process the sections of the pipes, which do not exhibit these features.

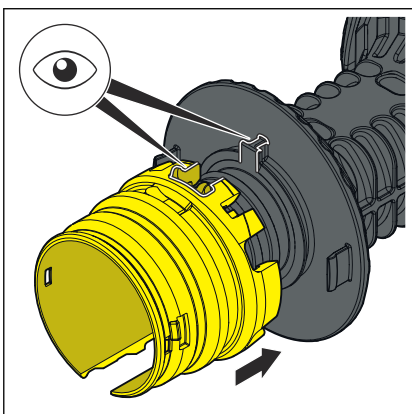
Adapter with metal threaded bolt



When tightening the threaded connection, only place the tool on the intended key surfaces.

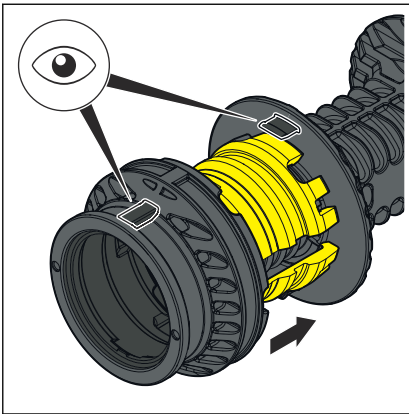
Fitting the clamping ring and sliding coupling

If the press connector is dirty, the slip coupling and clamping ring can be removed to allow them to be cleaned. The position of the clamping ring and the sliding coupling on the connector must be observed when mounting.



- Engage the clamping ring as shown.

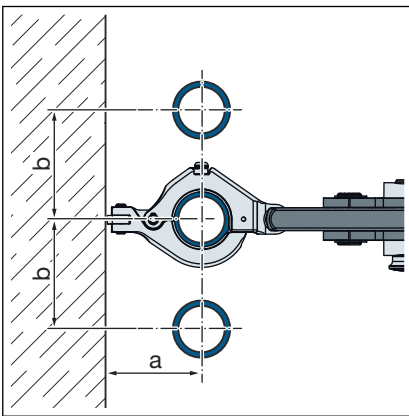
NOTICE! Make sure that the sealing element is not damaged when fitting the clamping ring.



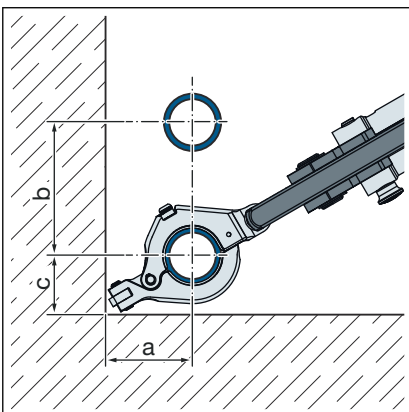
► Fit the sliding coupling.

3.3.2 Space requirements and intervals

Pressing between pipelines



Pressing between pipe and wall



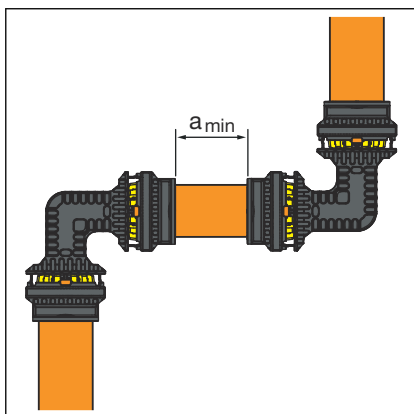
The minimum distance between pipe and wall is 50 mm for all dimensions.

Interval between the pressings



NOTICE! Leaking 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.



Minimum distance with press rings d32–63

| d | a _{min} [mm] |
|----|-----------------------|
| 32 | 20 |
| 40 | 20 |
| 50 | 20 |
| 63 | 20 |

Z dimensions

For the Z dimensions, refer to the respective product page in the online catalogue.

3.3.3 Required tools

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

- Pipe cutter, pipe shear or saw
- Deburrer and coloured pen for marking
- Battery-powered press machine
- Hinged adapter jaw model 2296.2
 - Z2 with 32–63 mm diameter



Viega recommends the use of Viega system tools when installing the press fittings.

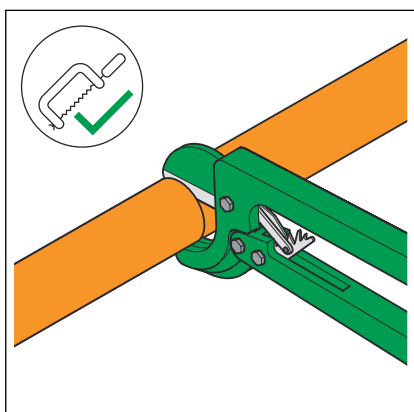
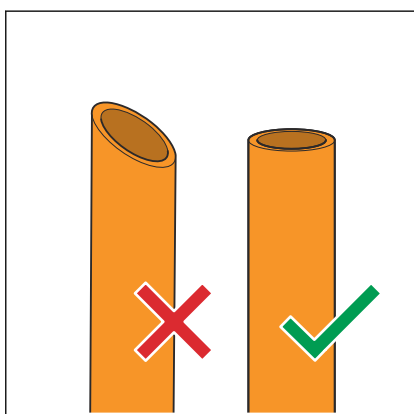
The Viega system press tools have been developed and tailored specifically for the installation of Viega press connector systems.

For information on how to combine Viega press machines with systems and accessories, please visit *Viega Tool Assistant*.

3.4 Assembly

3.4.1 Shortening the pipes

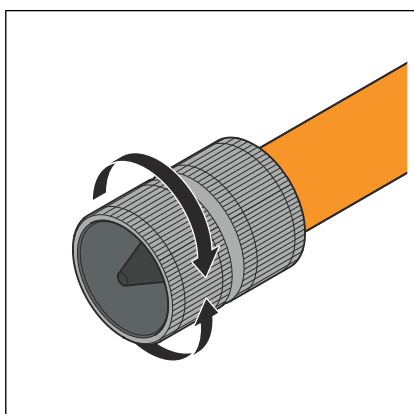
For information about tools, also see [Chapter 3.3.3 'Required tools'](#) on page 14.



- ▶ Cut the pipe to length at a right angle as accurately as possible using the pipe shear, a pipe cutter or a saw to ensure a complete and even pipe insertion depth.

3.4.2 Deburring the pipes

If a burr appears when the pipes are cut, then the pipe ends must be carefully deburred on the inside and outside.



- ▶ Deburr the inside and outside of the pipe.
- ▶ When using protective jacket pipe, remove the protective jacket according to the manufacturer's instructions.

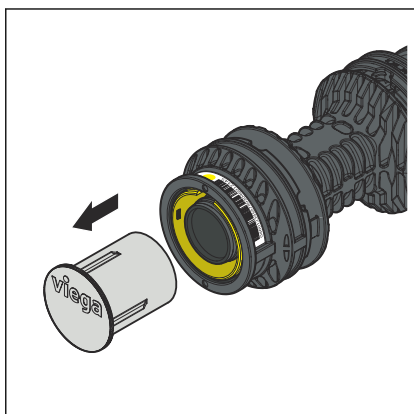
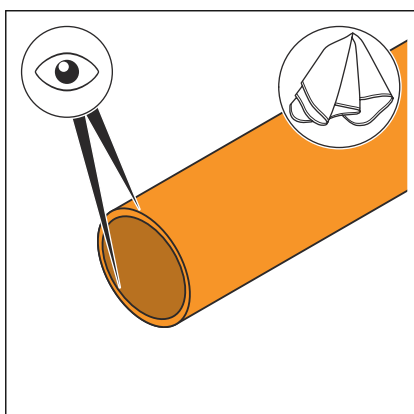
3.4.3 Pressing the connection



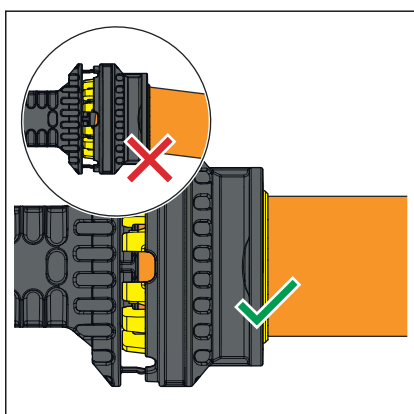
In the case of PE pipe anomalies, the pipe does not have to be peeled, as the press connectors are equipped with an internal seal.

Requirements:

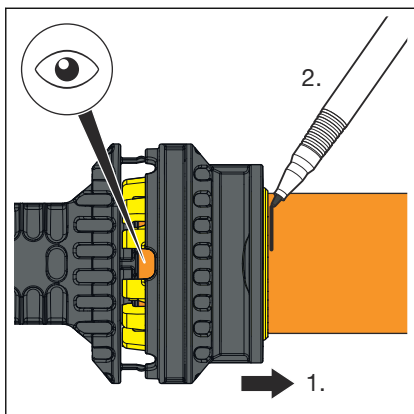
- The pipe end is not bent or damaged.
- The protective coating of the protective coating pipe is removed.
- The pipe is deburred.
- Check the pipe surface inside and out for dirt and clean as required. Remove any shavings.



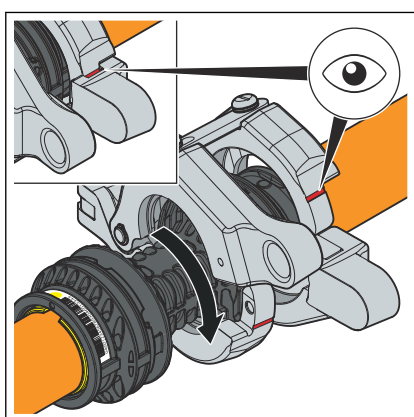
- Remove the protective cap immediately before fitting the pipe and protect the connection against dirt ingress.



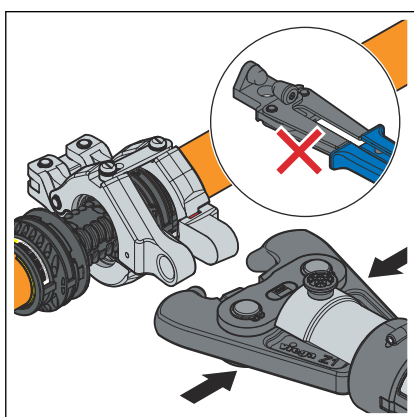
- To avoid damaging the sealing element, push the press connector straight onto the pipe without twisting.



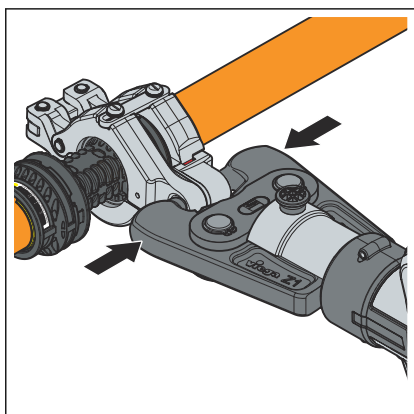
- Check the insertion depth in the inspection window and mark it.



- Open the press ring and check for dirt and function.
 - Position the press ring around the connector.
- Observe the press connector side and pipe side of the press ring.
The press ring is properly closed when the red marking can no longer be seen.



- Open the hinged adapter jaw and latch it into the holding fixture of the press ring.

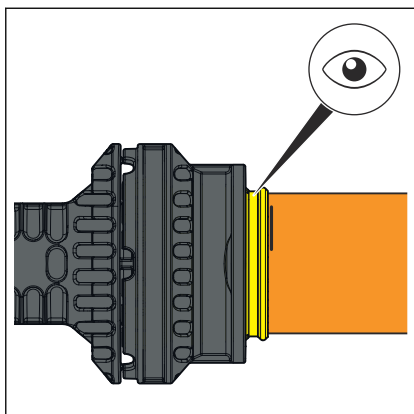


- Carry out the pressing.

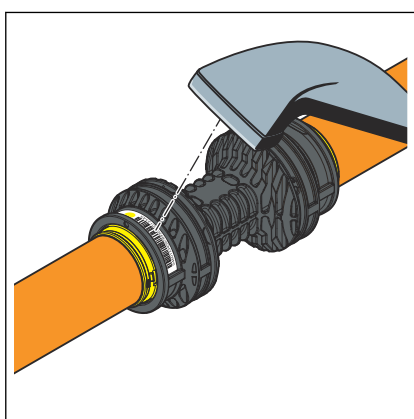
NOTICE!

The press ring must close completely during pressing.

- Make sure there is adequate space at the pressing point.
- Keep the press jaw contour and the area around the pressing point clean.



- The clamping ring is easily recognised after successful pressing.
- ◻ The connection is marked as having been pressed.
- Check the insertion depth.



- Scan in the traceability code.

3.4.4 Leakage test



The leakage test can be carried out directly after the last pressing.

3.5 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.



Viega GmbH & Co. KG
service-technik@viega.de
viega.com

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