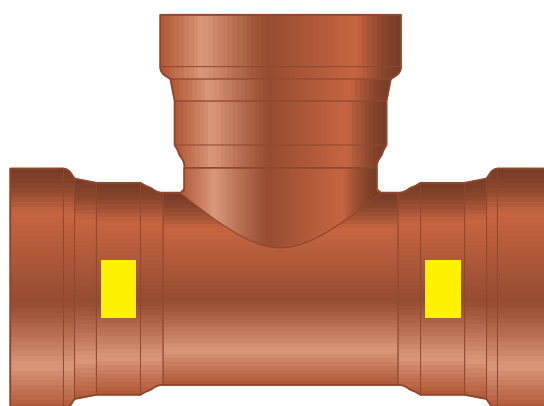
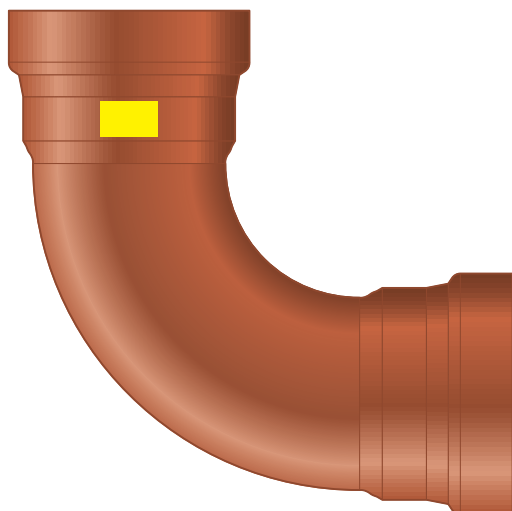
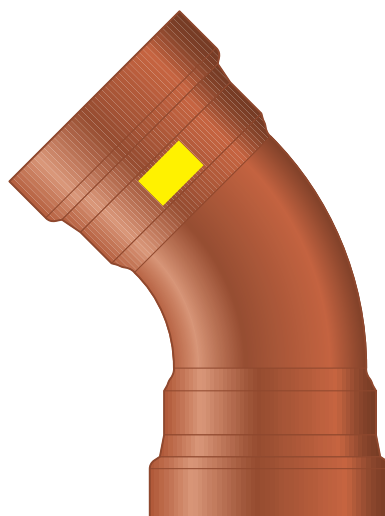
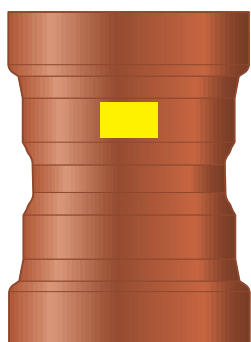


Instructions for Use

Propress G XL



Press connector system made of copper for copper pipes

System

Propress G XL

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 instruction manual is directed at the following groups of people:

- Contract installers
- Professional specialist companies for the construction, maintenance and alteration of a natural or liquid gas system

Liquid gas systems may only be constructed, maintained or altered by companies that have the necessary qualification and experience.

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.
National regulations can be found on the relevant web site of your country at viega.com.au/standards

Regulations from section: Fields of application

Scope / Notice	Regulations applicable in Germany
Planning, execution, modification and operation of gas installations	DVGW-TRGI 2018
Gas installations for industrial, commercial and process plants	DVGW-Arbeitsblatt G 5614
Gas installations for industrial, commercial and process plants	DVGW-Arbeitsblatt G 462
Gas installations for industrial, commercial and process plants	DVGW-Arbeitsblatt G 459-1
Gas installations for industrial, commercial and process plants	DVGW-Fachinformation Nr. 10
Planning, execution, modification and operation of liquid gas installations	DVFG-TRF 2012

Regulations from section: Media

Scope / Notice	Regulations applicable in Germany
Suitability for gasses	DVGW-Arbeitsblatt G 260
Liquid gas in the gaseous state	

Regulations from section: Pipes

Scope / Notice	Regulations applicable in Germany
Rules of the fixing technology for gas installations	DVGW-TRGI 2018, Point 5.3.7
Rules of the fixing technology for gas installations	DVFG-TRF 2012, Point 7.3.6
Approval of press connectors for use with copper pipes	DVGW G 5614
Approval of press connectors for use with copper pipes	DIN EN 1057
Approval of press connectors for use with copper pipes	DVGW-Arbeitsblatt GW 392

Regulations from section: Corrosion

Scope / Notice	Regulations applicable in Germany
(Subsequent) corrosion protection for underground installation	DIN 30672
Corrosion protection for external pipes	DVGW-TRGI 2018, Point 5.2.7.1
Corrosion protection for internal pipelines	DVGW-TRGI 2018, Point 5.2.7.2
Corrosion protection measures for external pipelines	DVFG-TRF 2012, Point 7.2.7.1
Corrosion protection for internal pipelines	DVFG-TRF 2012, Point 7.2.7.2
Overground pipelines in recesses in the bare floor or levelling layer	DVGW-TRGI 2008, Point 5.3.7.8.4

Regulations from section: Storage

Scope / Notice	Regulations applicable in Germany
Requirements for material storage	DIN EN 806-4, Chapter 4.2

Regulations from section: Notes on mounting

Scope / Notice	Regulations applicable in Germany
The general rules of mounting for gas installations	DVGW-TRGI 2018, Point 5.3.7
The general rules of mounting for gas installations	DVFG-TRF 2012, Point 7.3.6

Regulations from section: Leakage test

Scope / Notice	Regulations applicable in Germany
Test on a system that is finished but not yet covered	DIN EN 806-4
Leakage test for gas installations	DVGW-TRGI 2018, Point 5.6
Testing and initial commissioning of a liquid gas system	DVFG-TRF 2012, Point 8

Regulations from section: Maintenance

Scope / Notice	Regulations applicable in Germany
Ensuring and maintaining a safe operating condition of gas installations	DVGW-TRGI 2018, Appendix 5c

2.2 Intended use





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



The expression "SC-Contur" appearing in the instructions for use means "Smart Connect Feature".


2.2.1 Areas of use

Use is possible in the following areas among others:

- Gas installations, see  'Regulations from section: Fields of application' on page 5
- Liquid gas installations, also see  'Regulations from section: Fields of application' on page 5.

- Solar installations with vacuum collectors (only with FKM sealing element or press connector, or at least one meter away from the vacuum collector)
- Compressed air systems

Gas installation

For planning, execution, modification and operation of gas installations, observe the applicable regulations, see  *'Regulations from section: Fields of application' on page 5.*

Use is possible in the gas installations described below:


- Gas installations
 - Low pressure range ≤ 100 hPa (100 mbar, 10 kPa)
 - Medium pressure range from 100 hPa (100 mbar, 10 kPa) up to 0.1 MPa (1 bar, 100 kPa)
 - industrial, commercial and process technical systems with the corresponding directives and technical regulations
- Liquid gas installations
 - With liquid gas tank in medium pressure range downstream of the pressure regulating valve, 1st level on the liquid gas tank > 100 hPa (100 mbar, 10 kPa) up to a permitted operating pressure of 0.5 MPa (5 bar, 500 kPa)
 - With liquid gas tank in the low pressure range ≤ 100 hPa (100 mbar, 10 kPa) behind the pressure regulating valve, 2nd level
 - with liquid gas pressurised container (liquid gas bottles) < 16 kg behind the small bottle pressure regulating valve
 - with liquid gas tank (liquid gas bottle) ≥ 16 kg behind the large bottle pressure regulating device



The Sanpress Inox G system must be used for liquid gas installations in areas with requirements of higher thermal resistance (HTR), with a pick-up pressure of the SSV > 0.1 MPa (1 bar, 100 kPa).

2.2.2 Media

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

For the applicable directives, see  *'Regulations from section: Media' on page 5.*

- Gases
- Liquid gases, only in the gaseous state for domestic and commercial applications
- Compressed air

2.3 Product description

2.3.1 Overview

The piping system consists of press connectors for copper pipes and the corresponding press tools.

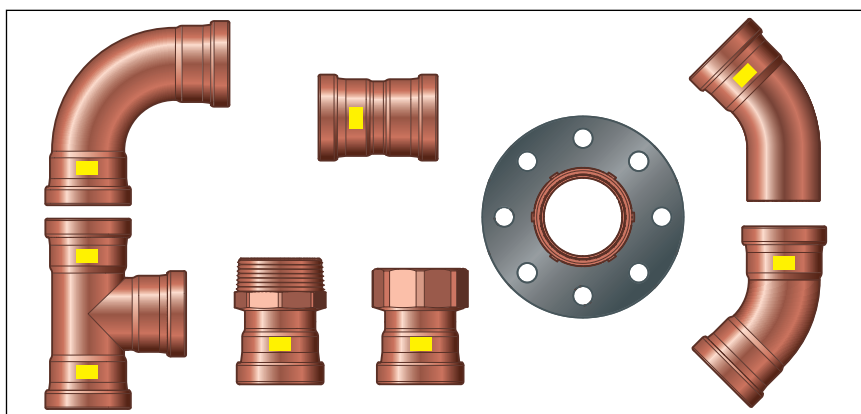


Fig. 1: Propress G XL product selection

The system components are available in the following dimensions:
DN 65 / 80 / 100.

2.3.2 Pipes

Propress G XL press connectors are tested and certified with the following copper pipes, see [🔗 'Regulations from section: Pipes'](#) on page 6:

Thinner walls than stated are not permitted.

Copper pipes type A

d x s [mm]	Volume per metre of pipe [l/m]	Pipe weight [kg/m]	DN
63.5 x 1.63	2.850	2.823	65
76.2 x 2.03	4.087	4.339	80
101.6 x 2.03	7.472	5.677	100

Copper pipes type B

d x s [mm]	Volume per metre of pipe [l/m]	Pipe weight [kg/m]	DN
63.5 x 1.22	2.928	2.134	65
76.2 x 1.63	4.179	3.414	80
101.6 x 1.63	7.595	4.577	100

Laying and fixing pipes

Observe the general rules of fixing technology:

- For gas installations, see ↗ *Chapter 2.1 'Standards and regulations' on page 5.*
- Only fix on components with sufficient stability.
- Gas supply lines must not be secured to other pipelines nor should they be used as support for other pipelines.
- The system can be secured using commercially available plastic dowels together with non-flammable pipe clamps (e.g. metallic pipe clamps).

With gas supply lines, observe the following fixing intervals for pipelines laid horizontally:

Distance between the pipe clamps¹⁾

DN	Fixing interval between the pipe clamps [m]
65	4.00
80	4.25
100	5.00

¹⁾ These distances are manufacturer's specifications. For the applicable directives, see ↗ *'Regulations from section: Pipes' on page 6.*

2.3.3 Press connectors

The press connectors in the Propress G XL system consist of the following materials:

- Copper
-

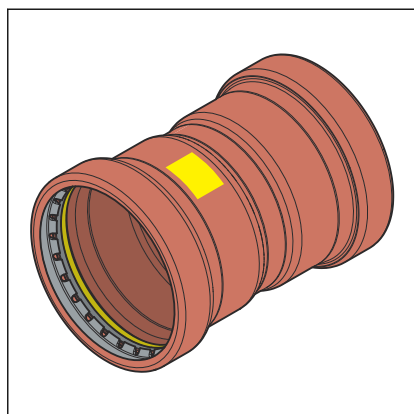


Fig. 2: Press connectors

On Propress G XL press connectors, there is a cutting ring, a separator ring, and a sealing element in the bead of the press connector. The cutting ring cuts into the pipe during pressing and ensures a force-fit connection.

During installation, and later during the pressing, the separator ring protects the sealing element from damage from the cutting ring.

Smart Connect Feature (SC-Contur)

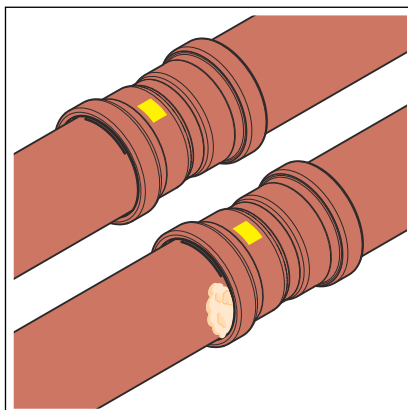


Fig. 3: Smart Connect Feature (SC-Contur)

Viega press connectors are equipped with the Smart Connect Feature (SC-Contur). The Smart Connect Feature (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:

- in the case of the dry leakage test, in the pressure range from 2.2–300 kPa (22 mbar–3.0 bar)

2.3.4 Sealing elements

The press connectors are factory-set with yellow HNBR sealing elements.



Substitution of sealing elements

The exchange of sealing elements is not permitted.

The sealing element is pre-lubricated and must not be removed from the press connector. In the event that lubrication is required, use only clean water.

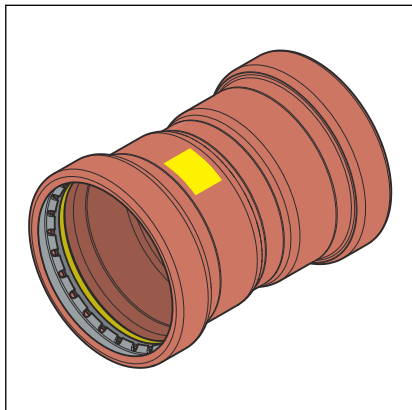
Use	Gas installation	Liquid gas installation	Heating oil and diesel pipelines
Operating temperature	-20 °C up to +70 °C	-20 °C up to +70 °C	≤ 40 °C
Operating pressure	≤ 0.5 MPa (5 bar, 500 kPa) (MOP 5) ≤ 0.1 MPa (1 bar, 100 kPa) (HTB / GT1) ²⁾	≤ 0.5 MPa (5 bar, 500 kPa) (MOP 5) ¹⁾ ≤ 0.1 MPa (1 bar, 100 kPa) (HTB / GT1) ²⁾	≤ 0.5 MPa (5 bar, 500 kPa) (MOP 5)

¹⁾ The maximum pressure equates to the pick-up pressure of the SSV in the pressure regulating valve.

²⁾ GT1: Operating pressure at HTR requirement 650 °C / 30 min max. 0.1 MPa (1 bar, 100 kPa)

2.3.5 Markings on components

Markings on press connectors



The press connectors are marked as follows:

- Yellow dot for gas
- Gas for gas supply lines
- MOP5 for maximum operating pressure 0.5 MPa (5 bar, 500 kPa)
- GT1 for operating pressure with HTR requirement 0.1 MPa (1 bar, 100 kPa)
- DVGW

Fig. 4: Marking on the press connector

2.4 Information for use

2.4.1 Corrosion

Depending on the area of use, corrosion protection measures may have to be taken into account. One differentiates between external pipelines (underground and overground external pipelines), as well as internal pipelines.

Information about the area of use, also see ↗ *Chapter 2.2.1 'Areas of use' on page 7.*

The pertinent guidelines must be observed for corrosion protection, see ↗ *'Regulations from section: Corrosion' on page 6.*

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

There are exceptions in the following cases:

- There is contact with aggressive building materials such as materials containing nitrite or ammonium.
- in aggressive surroundings
- In recesses within bare floors or in the compensating layer, they must be treated in the same way as buried external pipelines, see ↗ *'Regulations from section: Corrosion' on page 6.*

3 Handling

3.1 Transport

Observe the following when transporting pipes:

- Do not pull the pipes over the sill. The surface could be damaged.
- Secure pipes during transportation. Pipes may become bent due to shifting.
- Do not damage the protective caps on the pipe ends and do not remove them until immediately before mounting. Damaged pipe ends must not be pressed.



In addition, observe the instructions provided by the pipe manufacturer.

3.2 Storage

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

- Store components in a clean and dry place.
- Do not store the components directly on the floor.
- Provide at least three points of support for the storage of pipes.
- Where possible, store different sizes separately.
Store small sizes on top of larger sizes if separate storage is not possible.



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, become damaged through transportation and storage.

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

The system is intended for underground device connection pipelines for gas devices for use outside. Press connectors are not permitted in underground liquid gas pipelines.

For gas installations, observe the applicable regulations, see ↗ *'Regulations from section: Notes on mounting'* on page 7.



NOTICE!

Active and possibly passive protection measures are required to protect a gas installation from tampering by unauthorised persons, see ↗ *'Regulations from section: Notes on mounting'* on page 7.

Active protective measures must always be taken.

Passive protective measures must be selected and employed depending on the installation.

The general rules of mounting for gas supply lines

The following conditions amongst others are valid when laying gas supply lines:

- Lay gas supply lines with clearance from the installation body, concealed without hollow spaces, or in ventilated ducts or shafts.
- Do not install gas supply lines with operating pressures > 100 hPa (100 mbar, 10 kPa) concealed in the wall.
- Arrange gas supply lines in such a way that condense water or water dripping from other pipes and components does not affect them.
- Do not lay gas supply lines in screed.
- Shut-off systems and detachable connections must be easily accessible.

Requirements on concealed installations:

- Lay stress-free.
- Apply corrosion protection.
- Do not use any detachable connections (screw fittings).
- Do not use copper pipes together with materials containing nitrite or ammonium.

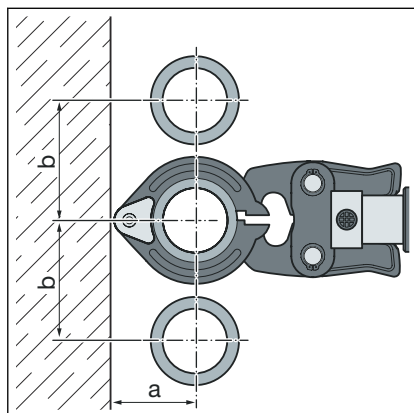


Continuous, connection-free gas supply lines may be laid in hollow spaces (pre-wall constructions) to be connected to a gas device or a gas socket.

Ventilation is not required.

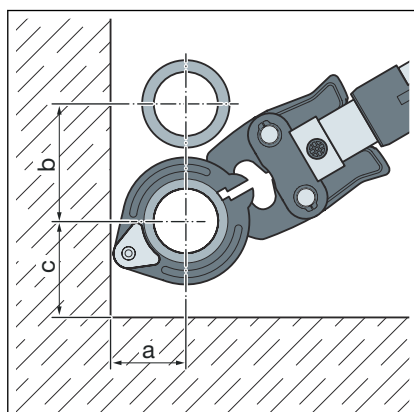
3.3.2 Space requirements and intervals

Pressing between pipelines



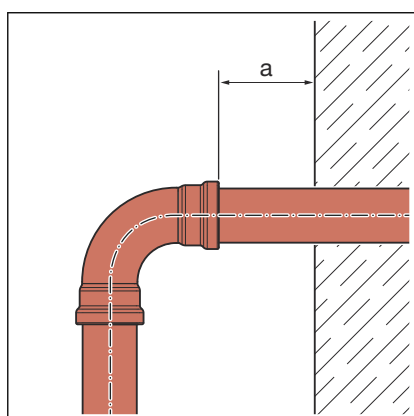
DN	65	80	100
a [mm]	110	110	135
b [mm]	185	185	215

Pressing between pipe and wall



DN	65	80	100
a [mm]	110	120	135
b [mm]	185	200	215
c [mm]	130	140	155

Distance to walls



DN	65-100
Minimum interval a_{min} [mm]	20

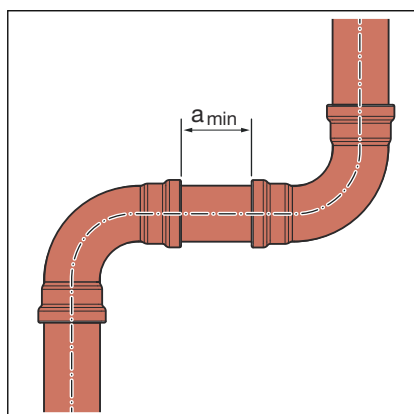
Interval between the pressings



NOTICE!

Leaking press connections due to pipes being too short

If two press connectors are to be mounted next to one another 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 leak.



DN	65–100
Minimum distance a [mm]	15

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 or a fine-toothed hacksaw
- deburrer and coloured pen for marking
- press machine with constant pressing force of 32 kN

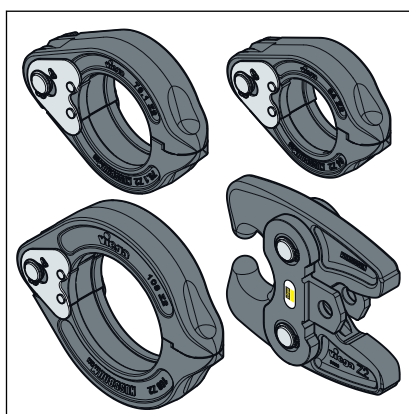


Fig. 5: Press rings and hinged adapter jaw



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.

3.4 Assembly

3.4.1 Shortening the pipes



NOTICE!

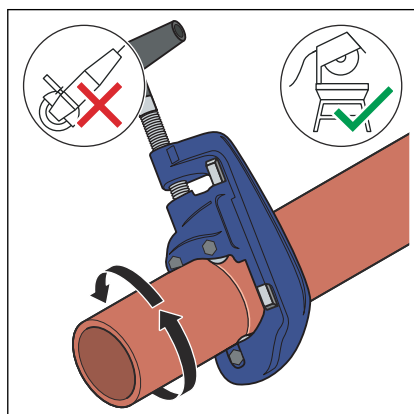
Leaking press connections due to damaged material!

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 3.3.3 'Required tools'](#) on page 16.



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

3.4.2 Deburring the pipes

The pipe ends must be thoroughly deburred internally and externally after shortening.

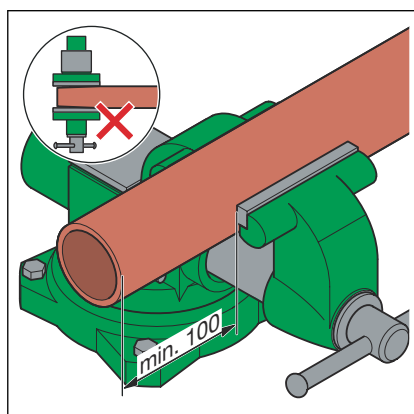
Deburring prevents the sealing element being damaged or the that the press connector cants when mounted. Viega recommends using a deburrer (model 2292.4XL).



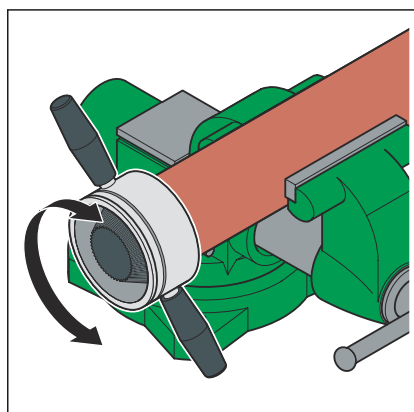
NOTICE!

Damage due to the wrong tool!

Do not use sanding disks or similar tools when deburring.
The pipes could be damaged by these.

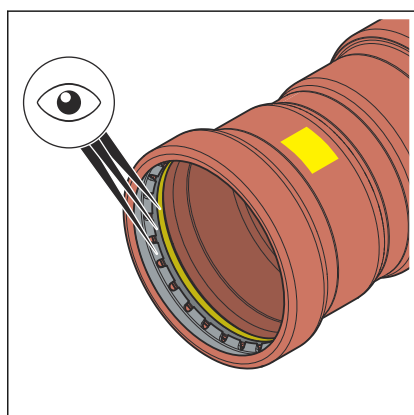


- Secure the pipe in the vice.
- When clamping, leave an interval of at least 100 mm (a) to the pipe end.
The pipe ends must not be bent or damaged.



- Deburr the inside and outside of the pipe.

3.4.3 Pressing the connection



Requirements:

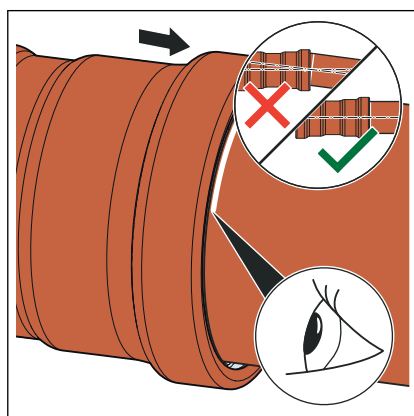
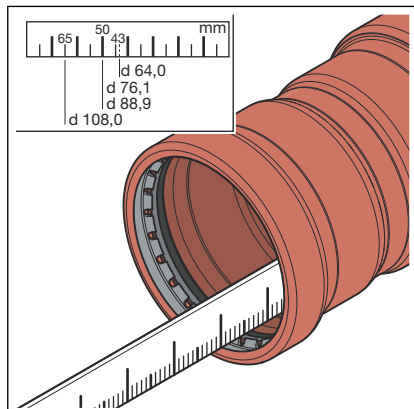
- The pipe end is not bent or damaged.
- The pipe is deburred.
- The correct sealing element is in the press connector.
HNBR = yellow

- Sealing element, separator ring and cutting ring are undamaged.
- The complete sealing element, separator ring and cutting ring are in the bead.

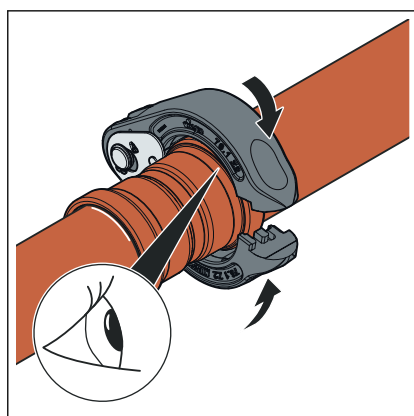
- Measure insertion depth in the connector.

DN	Insertion depth [mm]
65	43
80	50
100	60

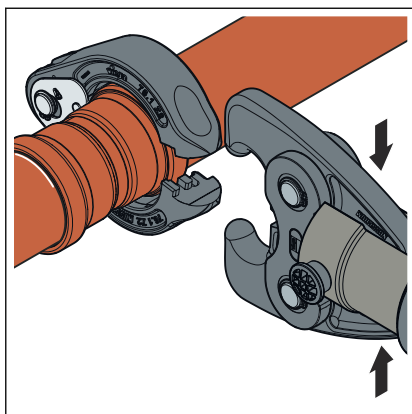
- Mark the insertion depth on the pipe



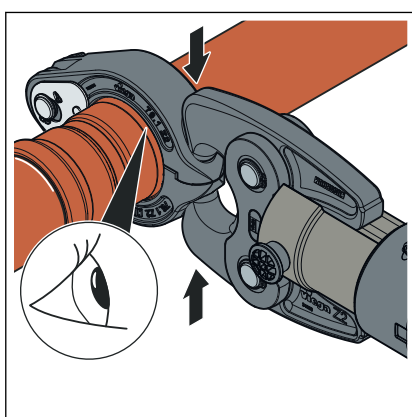
- Push the press connector up to the marked insertion depth on the pipe. Do not twist the press connector.



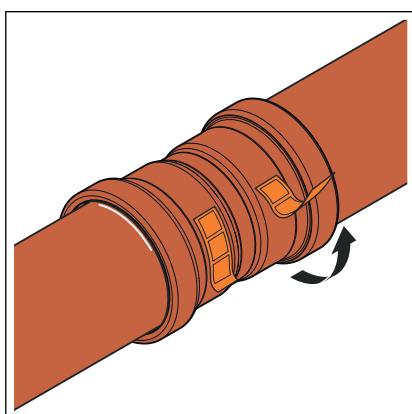
- Place the press ring onto the press connector. The press ring must completely cover the outside ring of the press connector.



- Open the hinged adapter jaw.



- Position the hinged adapter jaw into the seat of the press ring.
- Carry out the pressing process.
- Open the hinged adapter jaw and remove the press ring.




- Remove the checking strip.
- The connection is marked as having been pressed.

3.4.4 Leakage test

The installer must perform a leakage test before commissioning.

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

Observe the applicable regulations, see  'Regulations from section: Leakage test' on page 7.

Document the result.

3.5 Maintenance

The gas installation must be given a visual inspection, e. g. by the owner, once a year.

Serviceability and leak tightness must be checked every twelve years by an installation contractor.

To be covered by the warranty and to ensure the safe operation of the gas installations, operate and maintain them as intended, see ➤ *'Regulations from section: Maintenance' on page 7.*

3.6 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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