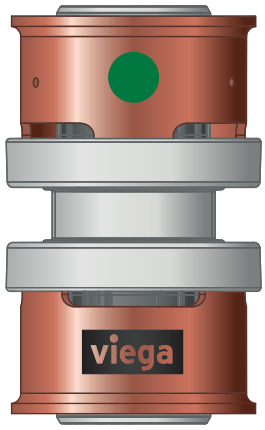
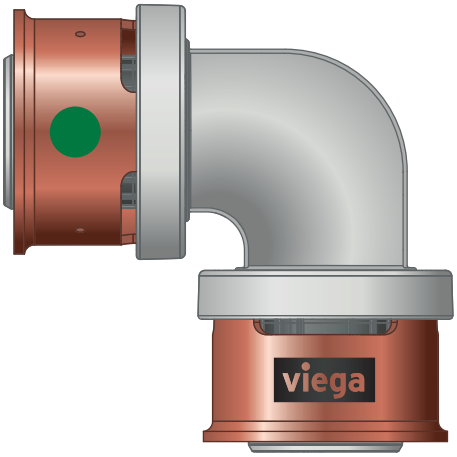
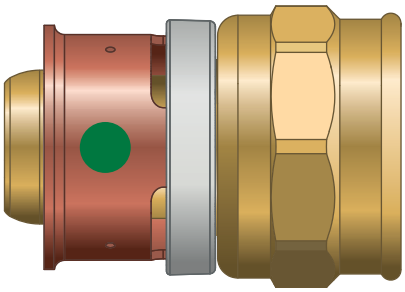
IN

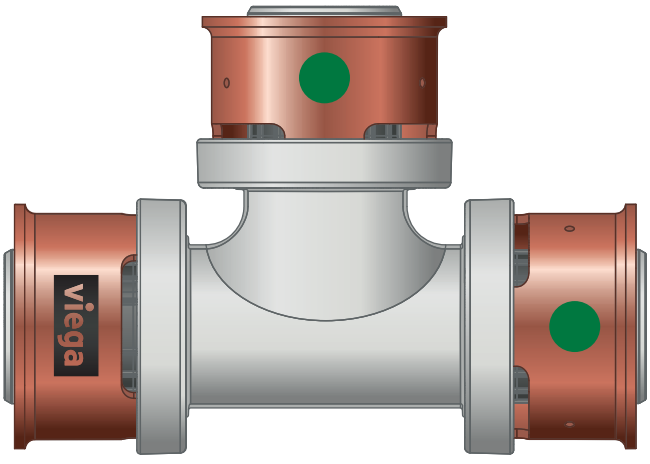
Instructions for Use

Viega Speedpress









Press connector system for potable water installations

System
Viega Speedpress

Table of contents

1 About these instructions for use

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: Application areas

Scope / Notice	Regulations applicable in Germany
Planning, execution, operation and maintenance of potable-water installations	DIN 18534-3
Planning, execution, operation and maintenance of potable-water installations	DIN EN 806, part 1-5
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)

Regulations from section: Chemical resistance

Scope / Notice	Regulations applicable in Germany
Regulations for external corrosion protection	DIN EN 806, Part 2
Regulations for external corrosion protection	DIN 1988
Regulations for external corrosion protection	DIN 1988-200

Regulations from section: Storage

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

Regulations from section: Installing wall plate sealing

Scope / Notice	Regulations applicable in Germany
Creating the composite seal	DIN 18534-3

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 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

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

Viega Service Center: customercare@viega.in

2.2.1 Areas of application

Use is possible in the following areas among others:

- Viega Speedpress multi-layer pipe (dimensionally stable with oxygen barrier layer)
  - potable water installations
  - Heating installations
  - Compressed air systems
- Viega Speedpress solid plastic pipe (PE-RT Type II, flexible without oxygen barrier)
  - potable water installations

Observe the applicable guidelines for planning, installation, operation and maintenance of potable water installations, see *'Regulations from section: Application areas' on page 5*.

Installation surroundings

The system is only intended for installation inside buildings.

Use of the system outside or in special surroundings must be agreed with the Viega Service Center.

2.2.2 Media

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

- Viega Speedpress multi-layer pipe (dimensionally stable with oxygen barrier layer)
  - Potable water
  - Heating water
- Speedpress solid plastic pipe (PE-RT Type II, flexible without oxygen barrier)
  - Potable water

Operating conditions

Operating temperature max.

- T_D 70 °C

Operating pressure max.

- Sanitary installations:
  - Multi-layer pipe: 1.0 MPa (10 bar)
  - Solid plastic pipe: 0.8 MPa (8 bar)

Processing temperatures

- 5–50 °C

2.3 Product description

2.3.1 Overview

The piping system consists of various pipes and press connectors.

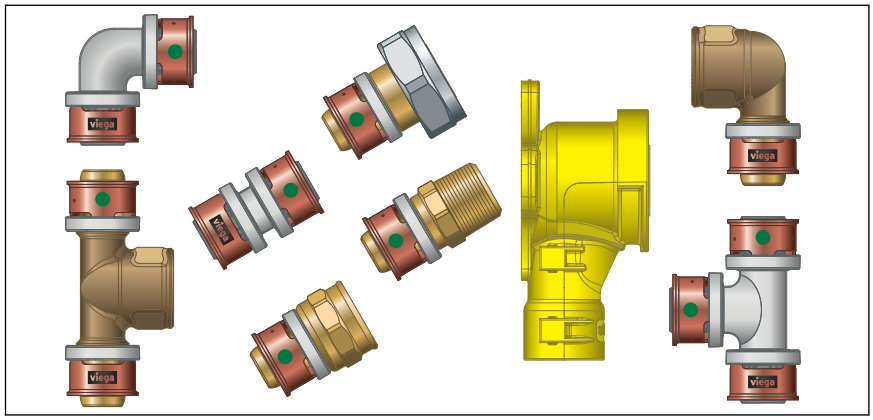


Fig. 1: Viega Speedpress press connectors

The system components are available in the following dimensions: d 16 / 20 / 25.

Viega Speedpress press connectors (elbows, T-pieces and couplings) are made of PPSU. All threaded connectors are made of brass.

Transition to the Pexfit Pro piping system

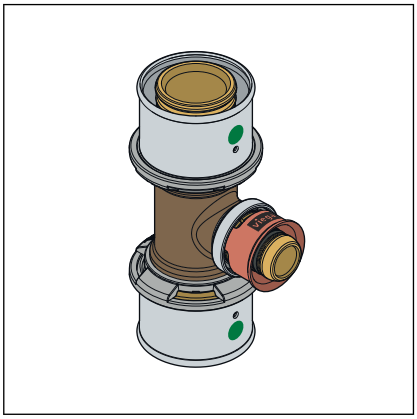


Fig. 2: Pexfit Pro T-piece for transition to Viega Speedpress

The Viega Speedpress piping system is compatible with the Pexfit Pro piping system, and they can be connected directly to each other using the adapters intended for this purpose.

Further information on Pexfit Pro can be found in the *online instructions for use*.

2.3.2 Pipes

Viega Speedpress multi-layer pipes are available in coiled bundles. The following pipes are available from the system described:

Viega Speedpress multi-layer pipe
Dimensionally stable
With oxygen barrier layer
d16, 20, 25

Viega Speedpress solid plastic pipes are available in coiled bundles. The following pipes are available from the system described:

Viega Speedpress solid plastic pipe:
Flexible
Without oxygen barrier layer
d16, 20, 25

Laying and fixing pipes

Only pipe clamps with chloride-free sound insulating inlays should be used to secure the pipes.

Observe the general rules of fixing technology:

- Do not use fixed pipelines as a support for other pipelines and components.
- Do not use pipe hooks.
- Observe distance to press connectors.
- Observe the expansion direction: Plan fixed and gliding points.

Make sure to affix the pipelines in such a way as to de-couple them from the installation body, so that they cannot transfer any structure-borne sound, resulting from thermal expansion or possible pressure surges, onto the installation body or other components.

Observe the following fixing distances:

d x s [mm]	Horizontal Multi-layer pipe [m]	Vertical Multi-layer pipe [m]	Horizontal Solid plastic pipe [m]	Vertical Solid plastic pipe [m]
16 x 2.0	1.00	1.30	0.55	0.75
20 x 2.3	1.00	1.30	0.55	0.80
25 x 2.8	1.50	1.95	0.65	0.90

Length expansion

Pipelines expand with heat. Heat expansion is dependent on the material. Changes in length lead to tension within the installation. These tensions must be compensated for with suitable measures.

The following are effective:

- Fixed and gliding points
- Expansion equalisation joints (expansion bends)

Heat expansion co-efficients of various pipe materials

Material	Heat expansion co-efficient α [mm/mK]	Example: Length extension with pipe length L = 20 m and Δϑ = 50 K [mm]
PE-RT Type II/Al/PE-RT Type II	0.03	30
PE-RT Type II	0.2	200

Calculation example multi-layer pipe

- **Given:** Temperature difference Δϑ = 50 K; pipe length L = 8 m; pipe Ø = 20 mm
- **Required:** Expansion bend length L_{BS}
- **Calculation:**
  - Beginning in the left-hand diagram: From 50 K temperature difference on the x-axis up to the characteristic line for the 8 m pipe length.
  - Connect the intersection horizontally with the right-hand diagram up to the intersection of the characteristic line for pipe diameter 20 mm.
- **Result:** Read the value from the x-axis: L_{BS} = 480 mm.

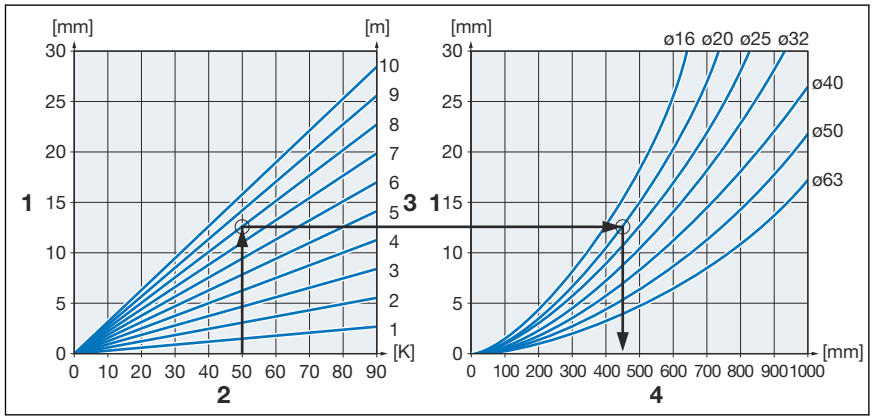
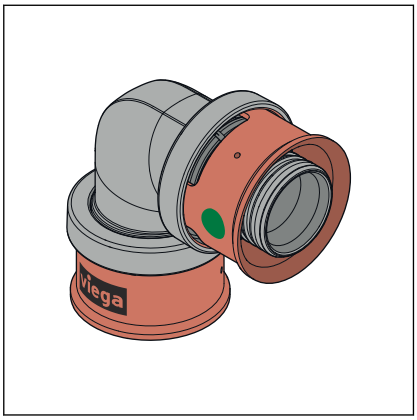


Fig. 3: Multi-layer pipe – expansion bend length

1 - Length expansion Δl [mm]
2 - Temperature difference Δϑ [K]
3 - Pipe length L [m]
4 - Expansion bend length L_{BS} [mm]

2.3.3 Press connectors



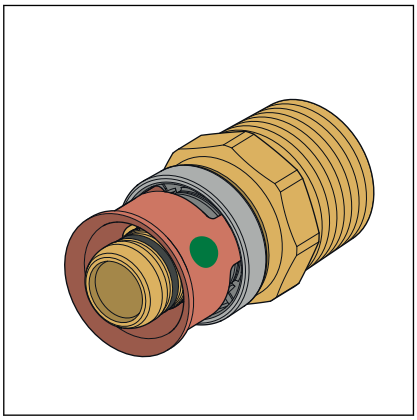


Fig. 4: Press and threaded connectors

The press connectors of the Viega Speedpress system consist of the following materials:

- Brass
- PPSU

Transition press connector

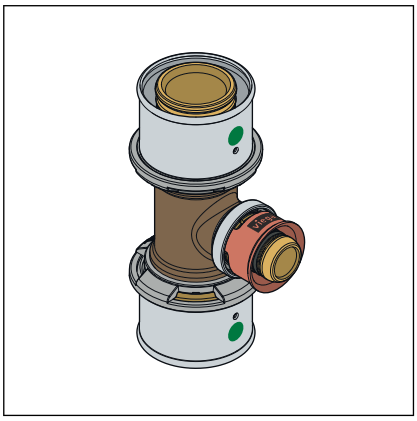
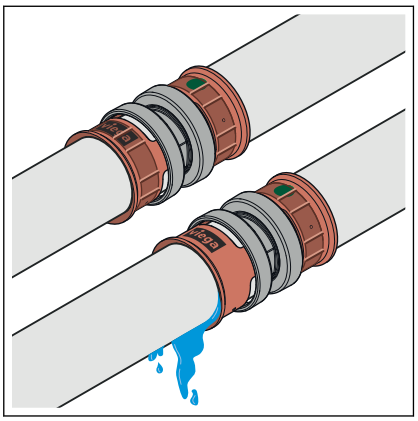


Fig. 5: Pexfit Pro T-piece for transition to Viega Speedpress

The Viega Speedpress piping system is compatible with the Pexfit Pro piping system, and they can be connected directly to each other using the adapters intended for this purpose.

Further information on Pexfit Pro can be found in the *online instructions for use*.

SC-Contur



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

Viega guarantees that accidentally unpressed connections become 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)

Fig. 6: SC-Contur

2.3.4 Markings on components

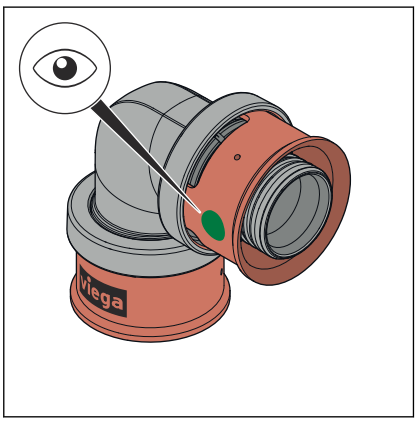
Pipe marking

The pipe markings contain important information regarding the quality and certification of the pipes. Their meaning is as follows:

- Manufacturer
- System name
- Pipe material
- Size / wall thickness
- Certification and operating temperatures

Markings on press connectors

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



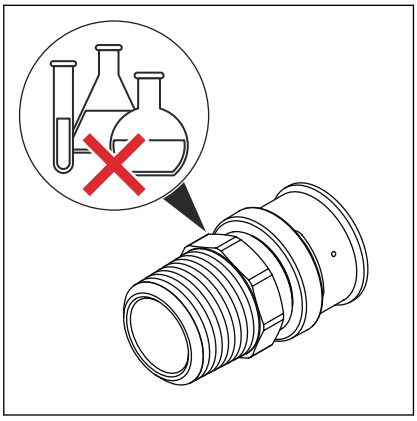
The green dot shows that the press connector is equipped with the SC-Contur and that the system is suitable for potable water.

Viega Speedpress press connectors may be connected with pipes from the Viega Speedpress system.

Fig. 7: Marking

2.4 Information for use

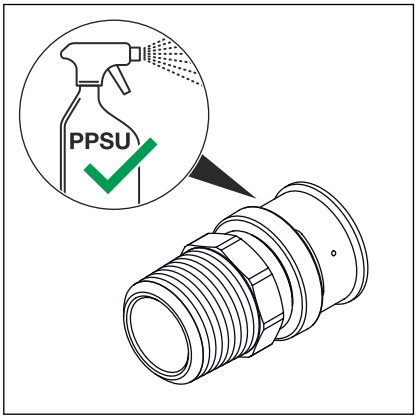
2.4.1 Chemical resistance



NOTICE!
Damage to material due to aggressive chemicals

Aggressive chemicals, especially those containing solvents, may cause material damage and leaks. This may lead to water damage.

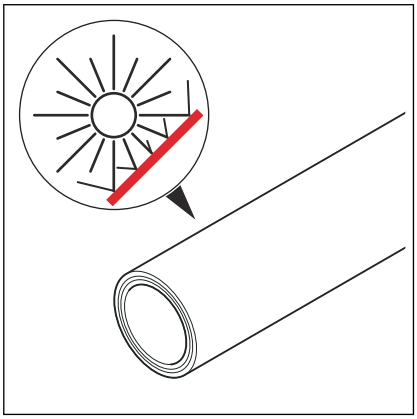
- Prevent contact between the system components and aggressive chemicals.



NOTICE!
Material damage due to impermissible leakage detection agents

Impermissible leakage detection agents may cause material damage and leaks. This may lead to water damage.

- Use only leakage detection agents approved by the manufacturer for use on PPSU material.
- Observe the manufacturer's notes on processing.



NOTICE!
Material damage due to UV radiation

Permanent UV radiation can lead to material damage and leaks. This may lead to water damage.

- Do not expose the system components to permanent UV radiation.

3 Handling

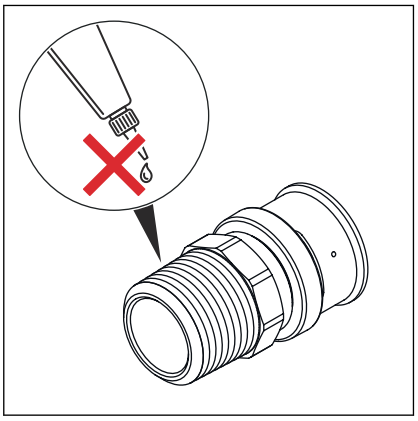
3.1 Storage

For storage, comply with the requirements specified in the applicable regulations, see *'Regulations from section: Storage' on page 6*:

Storage outside in closed, original packaging is possible for a period of up to three months. In this instance, protect the packaging from damage due to rain or high levels of humidity or UV radiation.

3.2 Assembly information

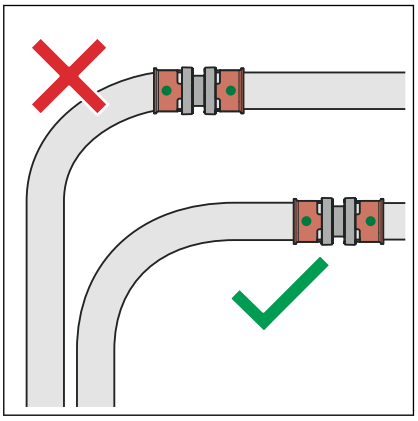
3.2.1 Mounting instructions



NOTICE!
Material damage due to thread locker containing solvents!

Thread lockers containing solvents can lead to material damage and leaks in plastic parts of pipe connections. This may lead to water damage.

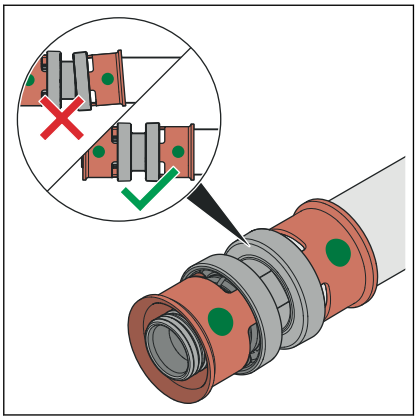
- As a sealant, only use commercially available hemp together with thread sealing paste or certified sealing tape for potable water.
- Please contact the Viega Service Center if you have any questions.
- Viega Service Center: customercare@viega.in



NOTICE!
Product damage due to permanent tension!

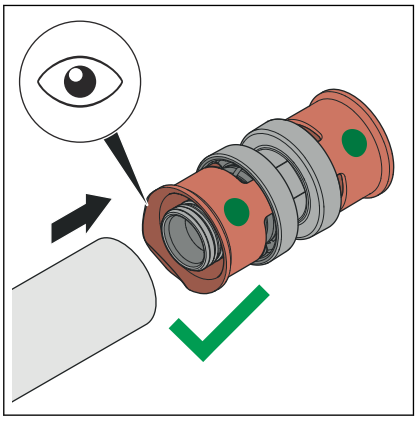
Risk of damage to the system if press connectors are installed under permanent tension.

- Install press connectors free of tension.



NOTICE!
Product damage due to improperly positioned press sleeves!
Improperly positioned press sleeves cause faulty pressing.

- Ensure that the press sleeve sits straight on the press connector.

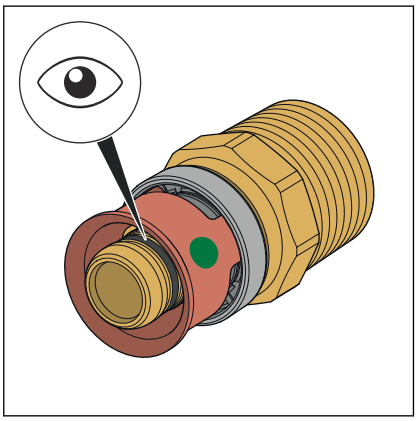


Insert a pipe into a distorted press sleeve to restore the round shape of the press sleeve to make it fit for mounting.

Checking system components

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

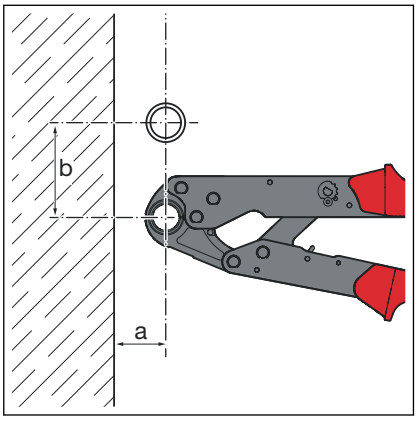
- Check all parts.
- Replace damaged components.
- Do not repair damaged components.
- Contaminated components may not be installed.
- Only use pipes whose surfaces are free of grooves or scratch marks.



NOTICE!
Check that the sealing element of the brass connectors is properly positioned.

3.2.2 Space requirements and intervals

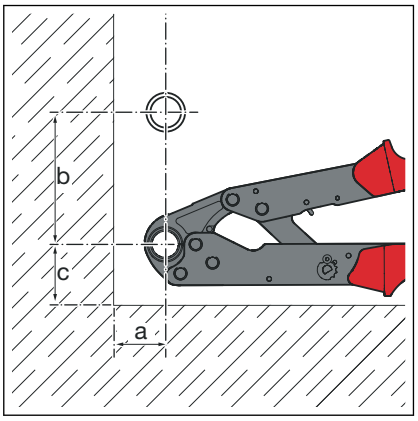
Pressing between pipelines



Space required for the Viega Speedpress hand press tool (model K5882)

d	16	20	25
a [mm]	15	20	30
b [mm]	60	65	70

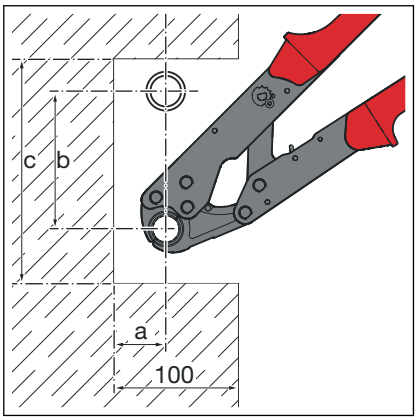
Pressing between pipe and wall



Space required for the Viega Speedpress hand press tool (model K5882)

d	16	20	25
a [mm]	16	20	25
b [mm]	50	55	60
c [mm]	50	55	55

Pressing in wall slots



Space required for the Viega Speedpress hand press tool (model K5882)

d	16	20	25
a [mm]	30	30	30
b [mm]	70	75	80
c [mm]	130	135	140

Z dimensions

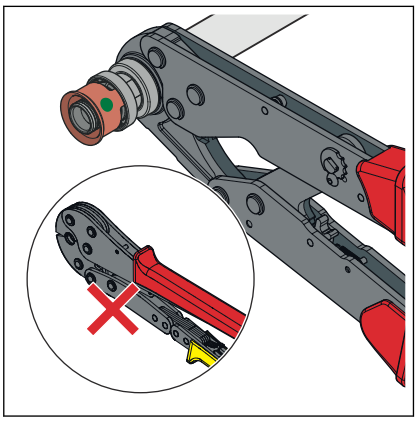
For the Z dimensions, refer to the respective product page in the online catalogue.

3.2.3 Required tools

The use of original Viega tools or equivalent tools is recommended for installation.

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

Hand or electric saws or angle grinders are not permitted.



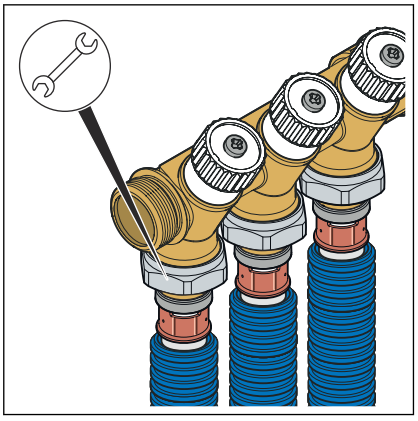
Viega hand press tools with two different handle colours (model 2782.5) are not permitted.

- Hand press tools (model K5882)
- Pipe shear (model 5341 or 2040)
- Bending tool (model 5331)

NOTICE!
Product damage due to repairs by customer

Customers are not permitted to repair defective tools themselves since correct functioning of the tool cannot be ensured in this case.

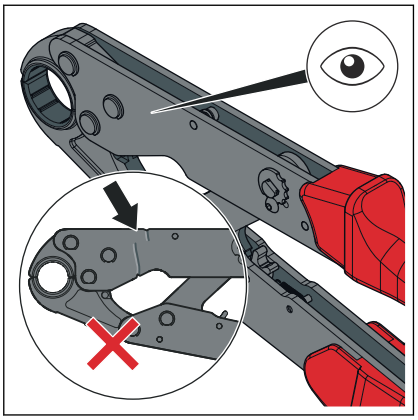
- Dispose of defective tools.



NOTICE!
Product damage due to improperly placed tool

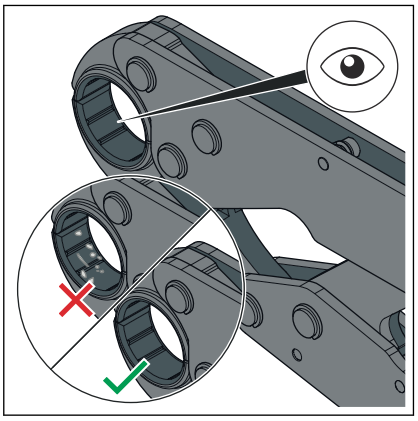
Risk of damage to threaded connectors due to an improperly placed tool.

- Only place the tool on the intended spanner surfaces.



NOTICE!
Product damage due to tears or fractures
Tears or fractures at the side plates of the hand press tool impair proper functioning.

- Regularly check the hand press tool.
- Do not use the hand press tool if it has tears or fractures.



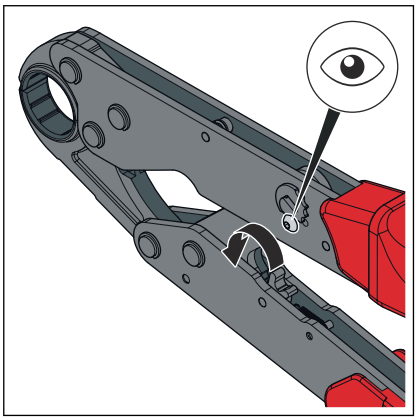
NOTICE!
Product damage due to soiled tools
Soiled tools may impair the function of the press connections.

- Do not use soiled tools.
- Make sure the press contour is clean.
- If necessary, clean the press contour with compressed air.

Treat the tool with machine oil.

Premature unlocking of the hand press tool

NOTICE!
Aborting the pressing process
Premature unlocking of the hand press tool must only occur after incorrect operation (e.g. incorrect positioning on press connector).



- Press the lever to unlock.
  - The pressing is aborted and the positive lock is released.

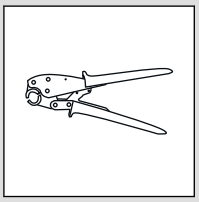
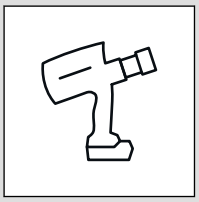
    The hand press tool can be opened again.

Pexfit Pro adapter to Viega Speedpress

For production of a press connection, the following tools are additionally required:

- Press machine with constant pressing force for dimensions 32–63 mm
- Suitable Pexfit Pro press jaws for plastic piping systems (model 2299.7 or 2784.7)

Processing of different pipe dimensions and systems

	Pexfit Pro adapters	
d	Viega Speedpress	Pexfit Pro
		
16	✓	X
20	✓	X
25	✓	X
32	X	✓
40	X	✓
50	X	✓
63	X	✓

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.

3.3 Assembly

3.3.1 Bending pipes

NOTICE!
Product damage due to use of metal internal bending springs

The use of metal internal bending springs can lead to damage to the pipe surface and to the introduction of contaminations into the installation.

- Do not use metal internal bending springs.
- Viega recommends using the Viega internal bending tool made of plastic (model 5331.2).

Viega Speedpress-pipes PE-RT II/Al/PE-RT II in the dimensions 16–25 mm can be bent by hand with a bending radius of 5 x d or with bending tools with the following radii:

d	Bending radius x d
16	2.0
20	2.3
25	3.5

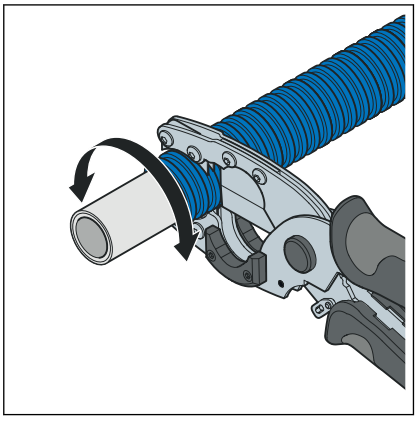
For dimensions d16 and 20, the recommended bending tool is the model 5331.

Viega Speedpress solid plastic pipes in the dimensions 16–25 mm can be bent by hand with a bending radius of 5 x d.

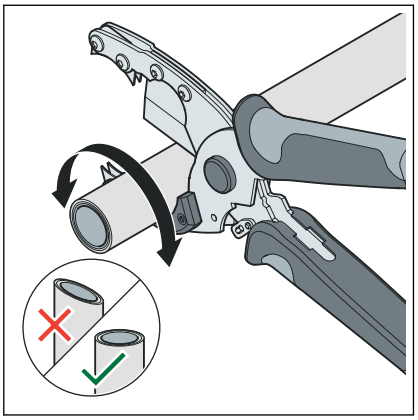
3.3.2 Cutting pipes to length

For information about tools, also see *Chapter 3.2.3 'Required tools' on page 17*.

Dimensions 16–25 mm



- Cut the protective pipe to length using the protective pipe cutter (model 5341).
- Be careful not to damage the pipe.



- Cut the pipe to length using a pipe shear.

  Make sure that the cut surface is clean and straight.

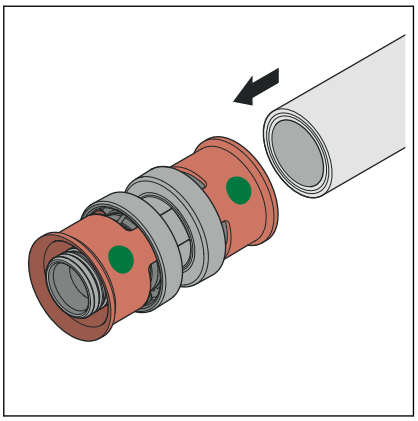
NOTICE!
Product damage due to distorted pipe ends
Distorted pipe ends result in faulty pressing.

- If the pipe end is distorted, cut it off with the pipe shears.

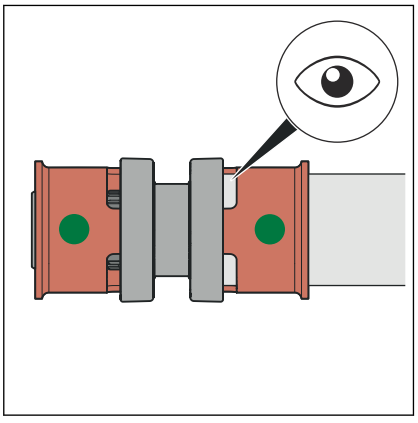
NOTICE!

- If using other tools than pipe shears for cutting the pipe end off, you need to deburr the pipe.

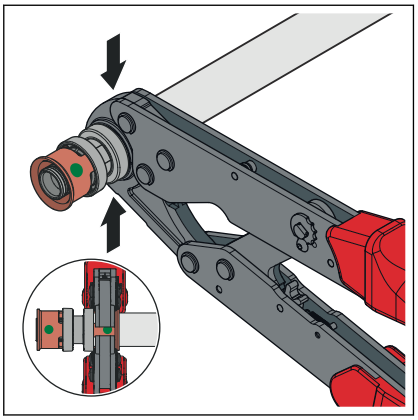
3.3.3 Pressing the connection



- Push the pipe into the press connector until the pipe end is visible in the inspection window.



- Check the insertion depth in the inspection window.



- Open the hand press tool and place it at a right-angle onto the press sleeve of the press connector.

  Observe the intervals in section *Chapter 3.2.2 'Space requirements and intervals' on page 16*.

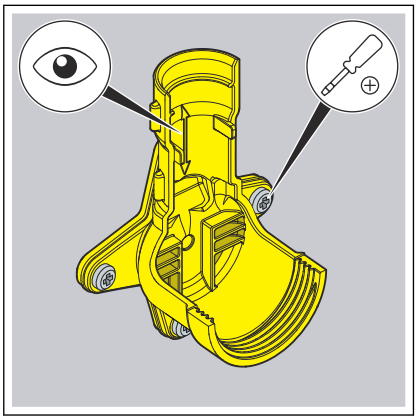
- Carry out the pressing process.

  ▷ Connection is pressed.

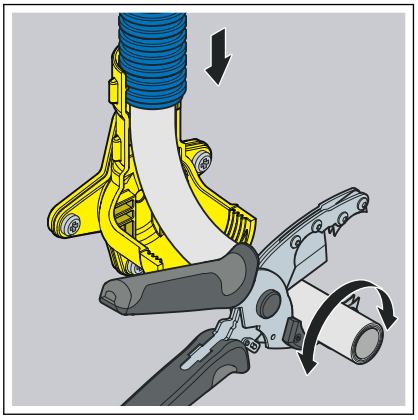
NOTICE!
Product damage due to incorrect pressing
If there is a fold in the press sleeve after pressing, the connection will be faulty and will not function properly.

- Replace the connection.
- Check the press tool and dispose of it if defective.

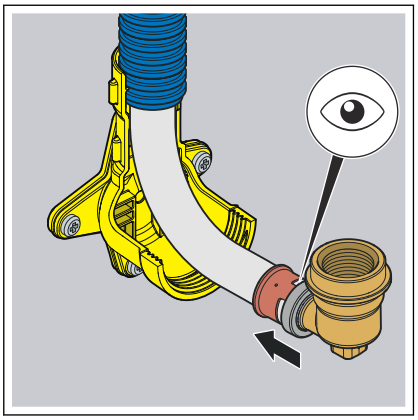
3.3.4 Mounting the connection socket



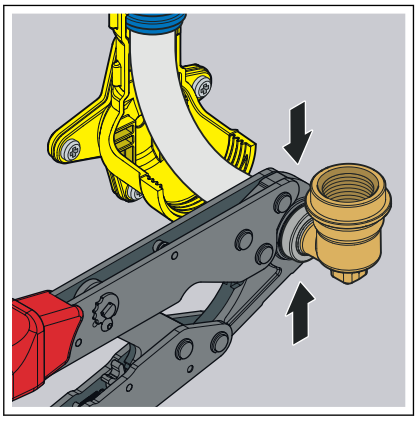
- Fasten the bottom part of the socket in the wall slot or on the wall.



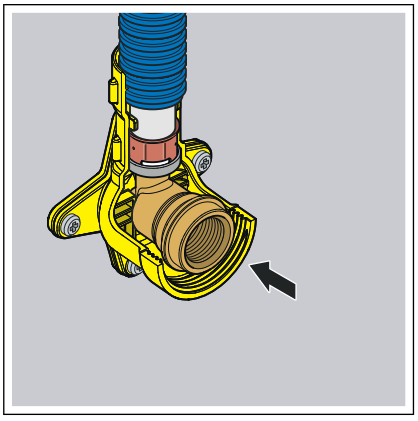
- Guide the piping into the connection socket.
- Cut the piping to length.



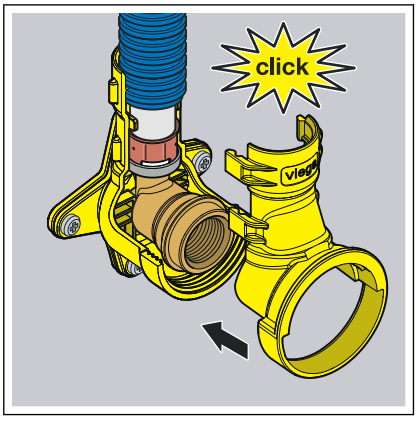
- Push the press connector onto the piping.
- Check the insertion depth in the inspection window.



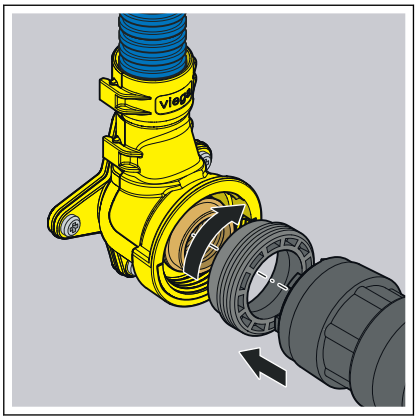
- Press the connection.



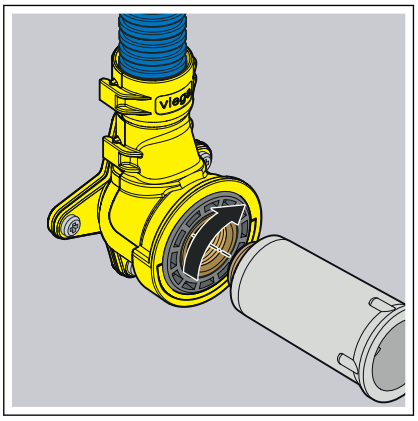
- Place the press connector and the corrugated tube in the socket.



- Clip the top of the socket onto the bottom of the socket.



- Screw the grey retaining ring with the mounting aid (model 5330.64) into the socket.
  - The press connector is fastened.

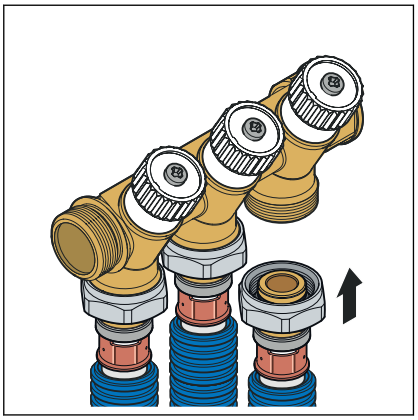


- To prevent contamination of the installation, seal the pipe on site with seal plugs.

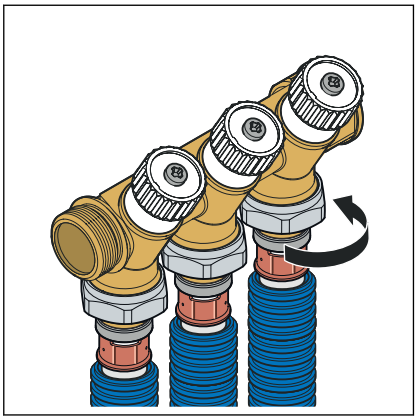
3.3.5 Mounting the manifold

Requirements:

- The pipe end is not bent or damaged.
- The press connection between the pipe and the press connector is made.



- Guide the union nut onto the manifold.



- Fully tighten the union nut on the manifold.
  - The manifold is mounted.

3.3.6 Leakage test

NOTICE!
Also refer to the information for use on leakage detection agents, see *Chapter 2.4.1 'Chemical resistance' on page 13*.

The installer must perform a leakage test before commissioning.

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

Document the result.

3.4 Maintenance

Observe the applicable guidelines for the operation and maintenance of potable water installations, see *'Regulations from section: Maintenance' on page 6*.

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.

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