

# Instructions for Use

## Geopress K



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

**System**  
Geopress K

**Year built (from)**  
12/2015

**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](http://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 and potable water house service connections, see  'Regulations from section: Target group' on page 5.

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.

In addition, the applicable regulations must be observed for potable water 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. National regulations can be found on the relevant website of your country at [viega.com.au/standards](http://viega.com.au/standards).

#### Regulations from section: Target group

Scope / Notice	Regulations applicable in Germany
Qualification of specialist companies	DVGW-Arbeitsblatt GW 301
Qualification and requirements in the potable water supplier	DVGW-Arbeitsblatt W 1000

#### Regulations from section: Fields of application

Scope / Notice	Regulations applicable in Germany
Planning, execution, operation and maintenance of potable water house service connections	DIN EN 805
Planning, execution, operation and maintenance of potable water house service connections	DVGW-Arbeitsblatt W 400-1
Planning, execution, operation and maintenance of potable water house service connections	DVGW-Arbeitsblatt W 400-2
Planning, execution, operation and maintenance of potable water house service connections	DVGW-Arbeitsblatt W 400-3

#### Regulations from section: Media

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

**Regulations from section: Pipes**

Scope / Notice	Regulations applicable in Germany
Permitted types of pipes (PE) – potable water supply	DIN EN 12201
Permitted use with piping materials in potable water installations (PE-HD)	DIN 8074/75
Permitted use with piping materials in gas installations (PE-HD)	
Permitted types of pipes (PE) – potable water supply / gas supply	DVGW-Arbeitsblatt GW 335-A2
Permitted types of pipes (PE-X) – potable water supply / gas supply	DIN 16893
Types of pipes (PE-X) – potable water supply	DVGW-Arbeitsblatt GW 335-A3
Types of pipe (PE-X) – gas supply	

**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: 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
Threshold values for ovalities	DIN 12201-2, Table 1

## Regulations from section: Leakage test

Scope / Notice	Regulations applicable in Germany
Leakage test before commissioning the connection line	DVGW-Arbeitsblatt W 400-2
Leakage test before commissioning the connection line	DIN EN 805

## 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

The system is intended for use in the water supply.

#### Potable water installation

For planning, execution and operation of potable water house service connections, observe the applicable regulations, see ↗ 'Regulations from section: Fields of application' on page 5.

### 2.2.2 Media

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

- Potable water
- Class A Recycled Water

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

Potable water / Class A Recycled Water

- Operating temperature  $T_{\max} = 20^{\circ} \text{C}$
- Operating pressure  $p_{\max} = 1600 \text{ kPa (16 bar)}$

## 2.3 Product description

### 2.3.1 Overview

The piping system consists of press connectors for underground PE-HD and PE-X pipes with the corresponding press tools.

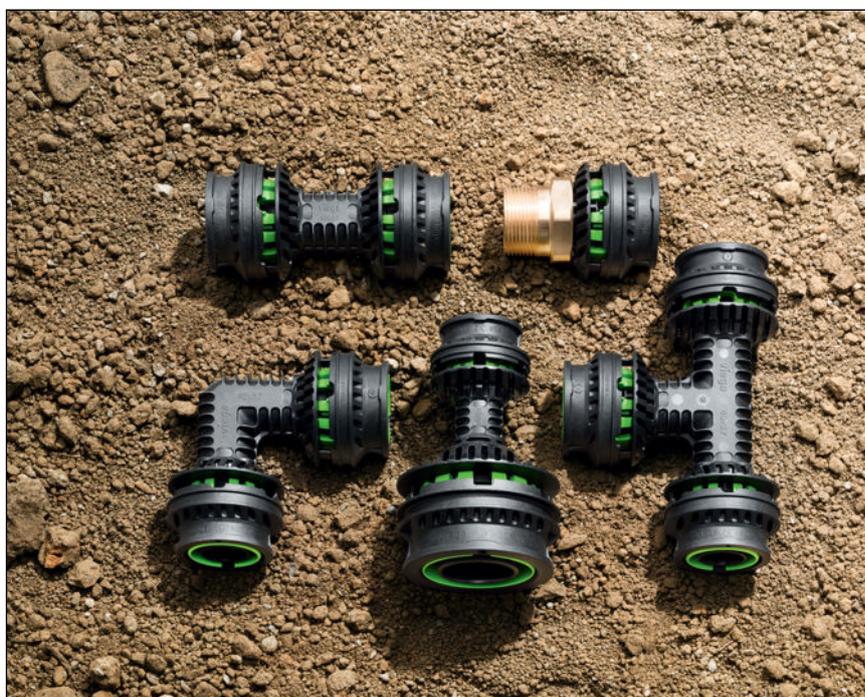


Fig. 1: Geopress K – Overview

The system components are available in the following dimensions:  
d 25 / 32 / 40 / 50 / 63.

### 2.3.2 Pipes

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

#### Permitted types of pipes – potable water supply

Type of pipe <sup>1)</sup>	Pipe series SDR	MDP
PE 80	11.0	1250 kPa (12.5 bar)
PE 100	11.0	1600 kPa (16 bar)
PE-X	11.0	1250 kPa (12.5 bar)

<sup>1)</sup> see ↗ 'Regulations from section: Pipes' on page 6

### 2.3.3 Press connectors

Press connectors are available in a number of shapes. An overview of the press connectors suitable for the system can be found in the catalogue.



**Fig. 2: Press connectors**

The press connectors have a support sleeve with a sealing contour on it. A sealing element is no longer required due to the sealing contour. During pressing, the pipe is pressed onto the sealing contour of the fitting, creating a seal with the inside of the pipe and a permanent connection. Geopress K press connectors are equipped with a green, fibre-glass reinforced 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 leak in an unpressed state. In this way, inadvertently unpressed connections are noticed immediately when filling the system.

Viega ensures that connections inadvertently unpressed during installation become visible when the system is filled:

### 2.3.4 Markings on components

#### Markings on press connectors



**Fig. 4: Marking**

The coloured dot shows that the press connector is equipped with the SC-Contur. A green dot indicates that the press connector is suitable only for potable water.

The position of newly laid pipes and connection lines, including detailed information about pipeline parts, must be documented and regularly updated. The traceability code on the press connector allows every press connector to be traced back and simplifies the documentation in as-completed drawings.

## **2.4 Information for use**

### **2.4.1 Corrosion**

Where potentially aggressive environments exist, appropriate precautions should be taken to protect the metallic components. Only sealing components etc. that have appropriate approval or certification should be used.

## 3 Handling

### 3.1 Transport



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

Observe the following when transporting pipes:

- Keep the loading surface free from nails and other loose objects.
- Secure pipes, avoid moving.
- Limit bending load, avoid deformation.
- Transport coiled bundles on pallets.
- Tie drums and pallets securely to the loading surface.
- Take the size of the cable drum into account when planning transportation.
- Additionally, comply with the instructions provided by the pipe manufacturer.

### 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:*

- Store pipes on even, clean surfaces.
- Store bundled pipes in supporting frames.
- Stack loose piping max. 1 m high.
- Place protective caps on pipes with large diameters and thin walls to guard against deformation.
- 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, become damaged through transportation and storage.

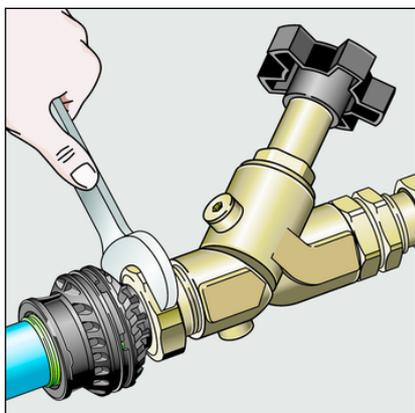
- Check all parts.
- Replace damaged components.
- Do not repair damaged components.

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 (maximum depth 10 % of nominal wall thickness)
- damaged pipe ends

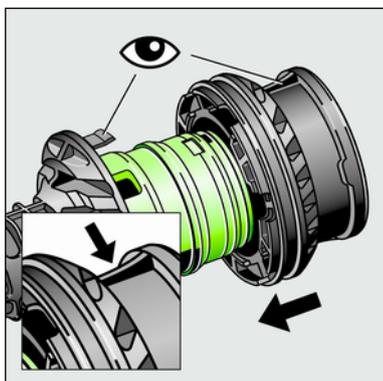
Only process the sections of the pipes, which do not exhibit these features.

#### Adapter with metal threaded bolt



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

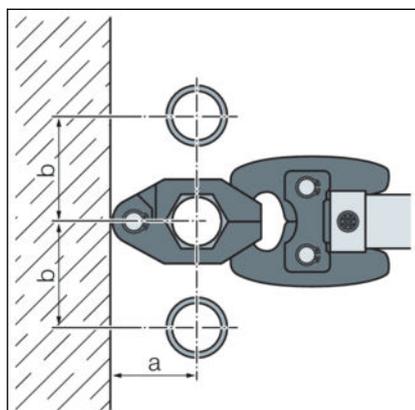
#### Position of the sliding coupling



In the case of heavy contamination, the sliding coupling can be removed to allow the clamping ring to be cleaned. The position of the sliding coupling and the connector must be observed when mounting.

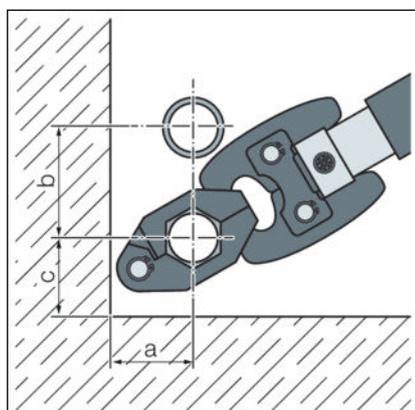
### 3.3.2 Space requirements and intervals

#### Pressing between pipelines



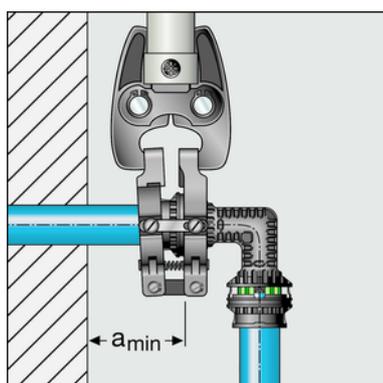
The minimum distance between pipelines is 50 mm for all dimensions.

#### Pressing between pipe and wall



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

#### Wall distance



#### Minimum distance with d 25–63

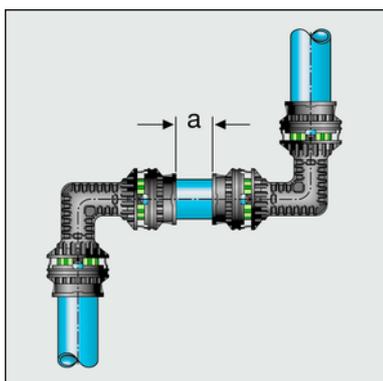
d	$a_{\min}$ [mm]
25	95
32	90
40	96
50	100
63	105

## Interval between the pressings



### NOTICE! Leaky press connections due to pipes being too short!

If two press connectors are to be mounted onto a pipe without a gap, 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 d 25–63

d	a <sub>min</sub> [mm]
25	20
32	20
40	20
50	20
63	20

## Pipe trenches

Minimum distances to underground pipelines and objects:

- 0.2 m to parallel supply lines
- 0.1 m to crossing pipelines  
Alternatively, use insulating materials, to prevent pipelines that cross each other from touching.
- 0.4 m to parallel cables over 1 kV
- 0.4 m to foundations or similar constructions
- In the case of a distance < 1 m, the potable water pipeline must not be lower than the wastewater pipe.

## 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 0796.2 or 2296.2
  - Z2 with 25–63 mm diameter
- press ring model 9796.1



**Fig. 5: Pressgun 5**

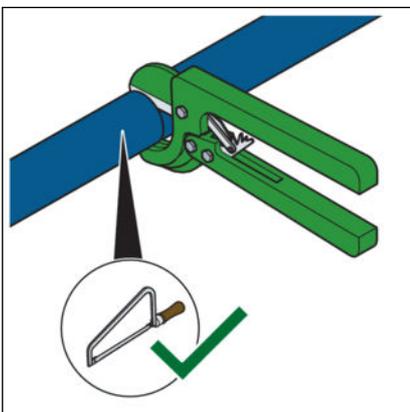
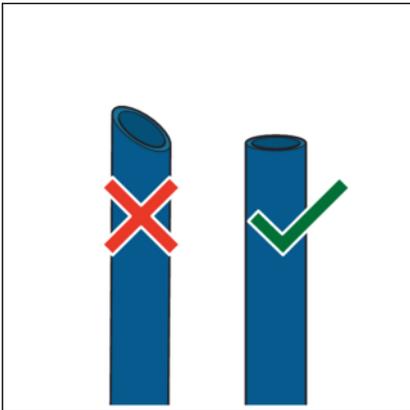
Recommended Viega press machines:

- Pressgun 5
- Pressgun 4B

## 3.4 Assembly

### 3.4.1 Shortening the pipes

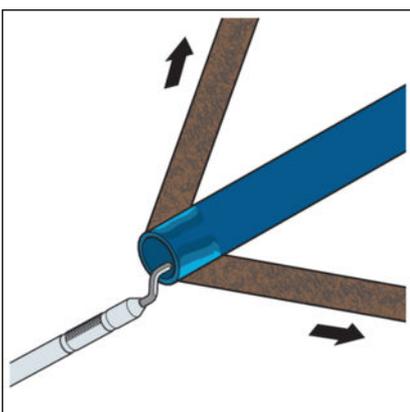
For information about tools, also see [Chapter 3.3.3 'Required tools'](#) on page 15.



► Cut the pipe to length using a pipe shear, pipe cutter or saw.

### 3.4.2 Deburring the pipes

The pipe ends must be thoroughly deburred internally and externally if shortened using a saw.

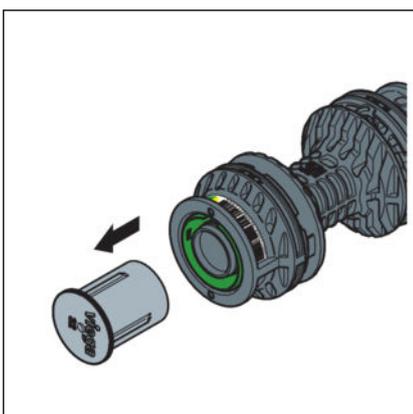
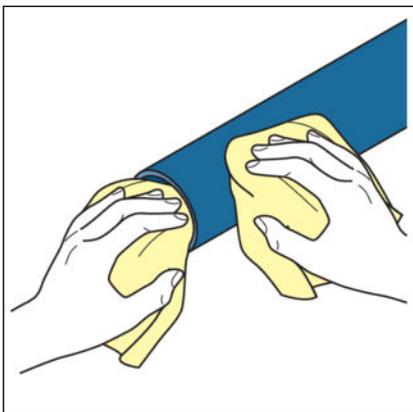


► Deburr the inside and outside of the pipe.

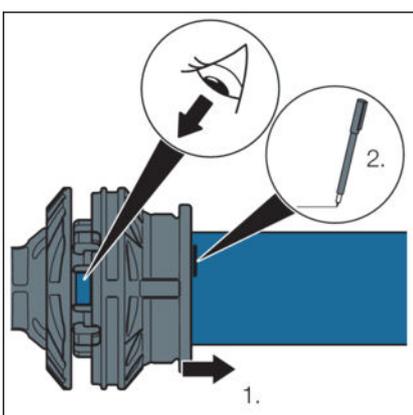
### 3.4.3 Pressing the connection

Requirements:

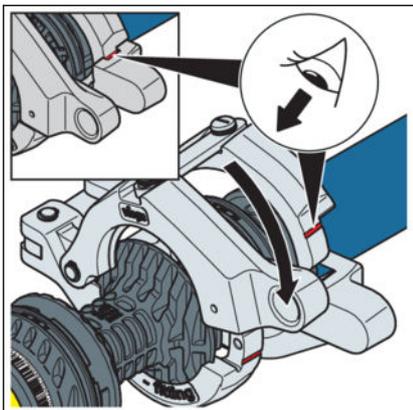
- The pipe end is not bent or damaged.
- The pipe is deburred.
- Clean the pipe surface inside and out with a damp cloth.



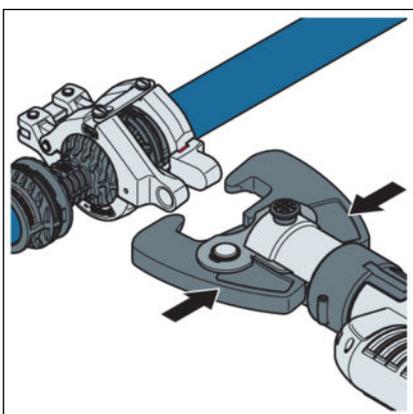
- Remove the protective cap.



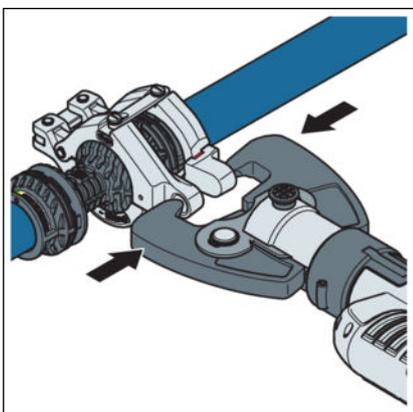
- Push the press connector onto the pipe.
- Check the insertion depth in the inspection window and mark it.



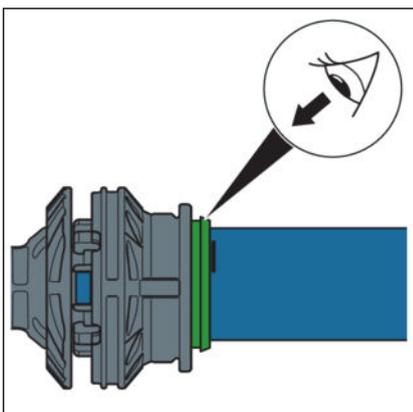
- Open the press ring and place it onto the press connector.  
Observe the press connector side and pipe side of the press ring.  
The press ring is properly closed when the red marking can no longer be seen.



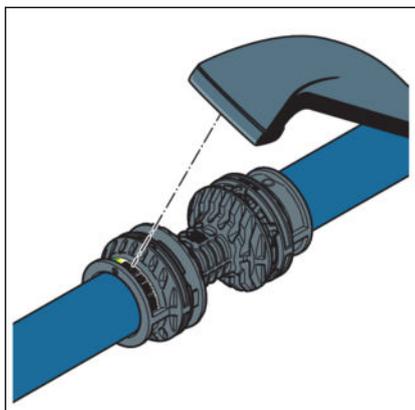
- Open the hinged adapter jaw and place it in the recess of the press ring.



- Carry out the pressing.



- The green clamping ring is easily recognised after successful pressing.  
□ The connection is marked as having been pressed.



► Scan in the traceability code.

### 3.4.4 Leakage test

Perform a leakage test according to the applicable regulations before commissioning the connection line, see [🔗 'Regulations from section: Leakage test' on page 7.](#)

Carry out the test on a house service connection that is finished but not yet covered. The result of the leakage test must be documented as proof of the safety of the pipeline.

## 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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