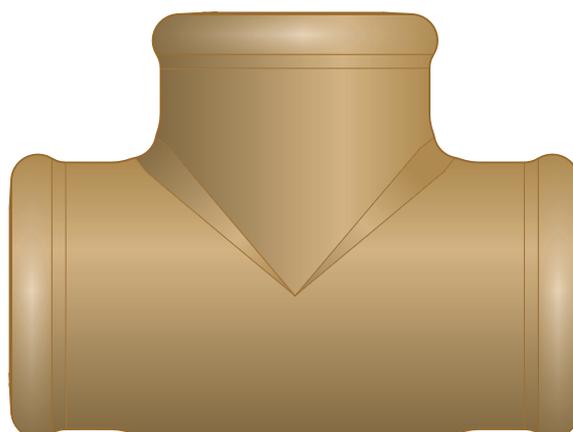
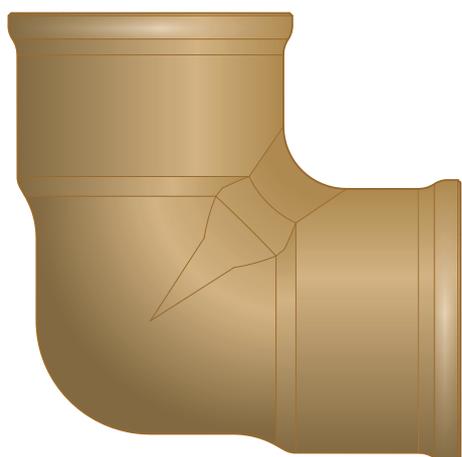
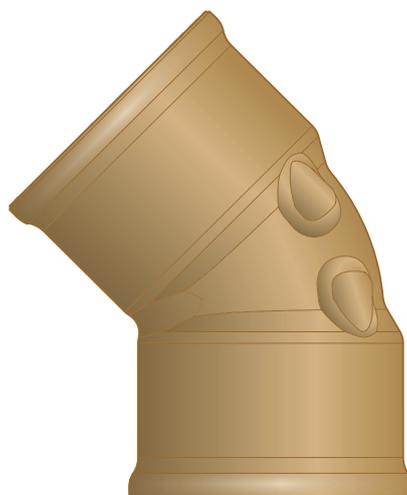


## Instructions for Use

# Threaded connectors made of gunmetal or silicon bronze



Threaded connectors made of gunmetal or silicon bronze with bare or chrome-plated surface

**System**

Threaded connectors made of gunmetal or silicon bronze

**Year built (from)**

01/1998

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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 instruction manual is directed at the following groups of people:

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

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: Intended use

Scope / Notice	Regulations applicable in Germany
Creating potable water installations	DIN 1988-200
Creating potable water installations	EN 806-2
Regulation on material selection	DIN EN 12502-1
Regulation on material selection	Metall-Bewertungsgrundlage (UBA)
Planning, execution, modification and operation of gas installations	DVGW-TRGI 2018
Planning, execution, modification and operation of liquid gas installations	DVFG-TRF 2021

#### Regulations from section: Application areas

Scope / Notice	Regulations applicable in Germany
Planning, setup, operation and maintenance of fire extinguishing systems	DIN 14462
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: Media**

Scope / Notice	Regulations applicable in Germany
Suitability for potable water	DIN 1988-200
Suitability for potable water	EN 806-2
Suitability for heating water for pump hot water heating systems	VDI-Richtlinie 2035, Sheet 1 and Sheet 2
Suitability for gases Liquid gas in the gaseous state	DVGW-Arbeitsblatt G 260

**Regulations from section: Corrosion**

Scope / Notice	Regulations applicable in Germany
Regulations for external corrosion protection	DIN EN 806-2
Regulations for external corrosion protection	DIN 1988-200
(Subsequent) corrosion protection for underground installation	DIN 30672
Corrosion protection	DVGW-TRGI 2018
Corrosion protection measure	DVFG-TRF 2021
Regulation on material selection	DIN EN 12502-1

**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

### Regulations from section: Establishing threaded connection

Scope / Notice	Regulations applicable in Germany
Non-hardening sealants for threaded connections	DIN EN 751-2
Non-hardening sealants for threaded connections	DVGW VP402
Specifications for the use of PTFE tapes and threads	DIN EN 751-3

### Regulations from section: Leakage test

Scope / Notice	Regulations applicable in Germany
Leakage test for gas installations	DVGW-TRGI 2018, Point 5.6
Testing and initial commissioning of a liquid gas system	DVFG-TRF 2021, 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



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

Threaded connectors made of gunmetal or silicon bronze are suitable for the construction of drinking water installations in accordance with applicable guidelines, taking into account the selection of materials in accordance with applicable guidelines and in accordance with the assessment basis for metallic materials in contact with drinking water of the Federal Environment Agency (UBA), see [🔗 'Regulations from section: Intended use' on page 5](#). For use in other areas of application and in case of doubt over the correct material selection, contact Viega. Protect the components from high chloride concentrations. Detailed information about applications, restrictions and national standards and directives can be found in the product information, either printed or on the Viega website.

## 2.2.1 Areas of application

The gunmetal or silicon bronze threaded connectors comply with applicable directives and are approved for potable water and gas installations in accordance with applicable directives (observe notes on the model), see ↗ *'Regulations from section: Application areas'* on page 5.

The gunmetal or silicon bronze threaded connectors are tested according to applicable guidelines, ↗ *'Regulations from section: Application areas'* on page 5.

Use is possible in the following areas among others:

- Gas installations, see ↗ *'Regulations from section: Application areas'* on page 5
- Heating oil pipelines
- Diesel pipes
- Potable water installations
- Compressed air systems
- Warm water heating systems
- Local and district heating plants

## 2.2.2 Media

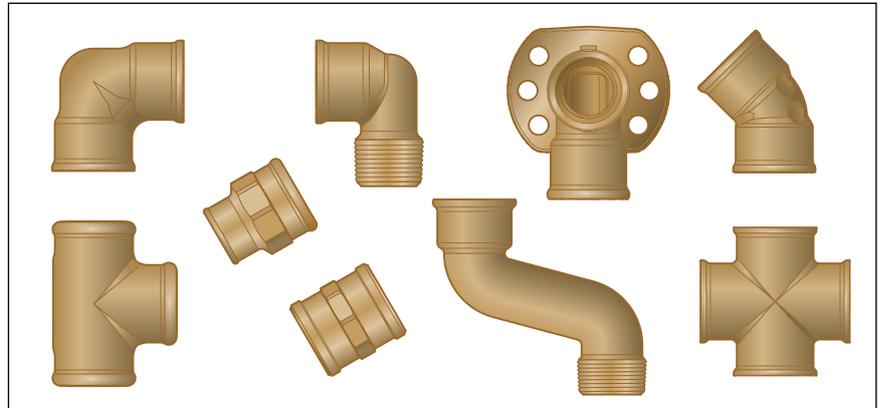
The system is suitable for the following media, amongst others:

For the applicable directives, see ↗ *'Regulations from section: Media'* on page 6.

- Potable water
- Heating water (hot water heating systems, local and district heating pipes)
- Gases
- Liquid gases, only in the gaseous state for domestic and commercial applications
- Heating oil
- Diesel fuel
- Compressed air

## 2.3 Product description

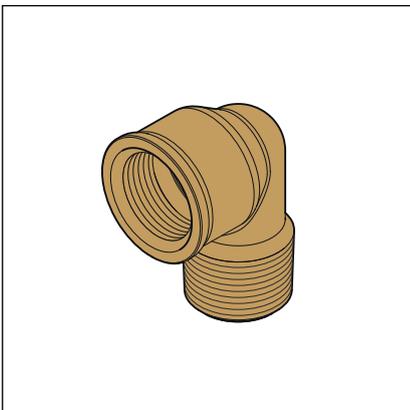
### 2.3.1 Overview



**Fig. 1: Threaded connectors made of gunmetal or silicon bronze**

The components are available in the following dimensions:  
 $d \frac{1}{8}, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}, 1, 1\frac{1}{4}, 1\frac{1}{2}, 2, 2\frac{1}{2}, 3.$

### 2.3.2 Threaded connector



**Fig. 2: Threaded connector**

The threaded connectors made of gunmetal or silicon bronze have a female Rp internal thread or an R male thread. R male threads are knurled at the factory.

## 2.3.3 Markings on components

### Markings on threaded connectors

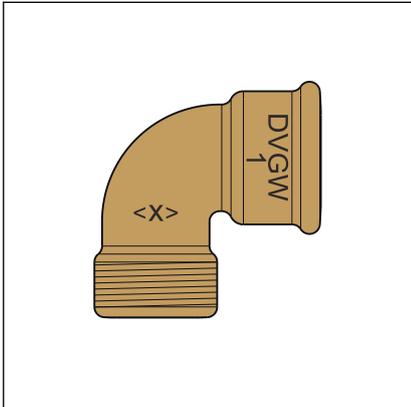


Fig. 3: Marking

The threaded connectors are marked as follows:

- DVGW lettering, if the component has the relevant approval
- Manufacturer
- Size
- Batch

## 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 application' on page 8.*

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



Models not suitable for drinking water and gas installation are marked accordingly in the product catalogue.

## 3 Handling

### 3.1 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.

### 3.2 Assembly information

#### 3.2.1 Mounting instructions

##### Checking components

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

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

##### 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) 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).



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.

### 3.2.2 Required tools

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

- Fine-toothed metal saw blade
- Wire brush
- pipe pliers or open-end spanner
- Sanitary cross wrench

## 3.3 Assembly

### 3.3.1 Establishing the threaded connection

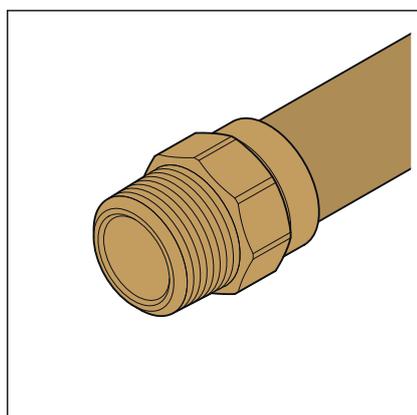
#### Sealing threaded connections

Only use the following materials for sealing threaded connections:

- Sealing hemp and sealing paste
- PTFE thread sealing tape
- Thread sealing thread

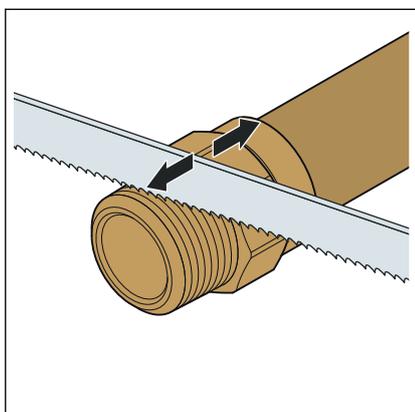


Viega R-external thread, knurled on site – no need to roughen before applying hemp.



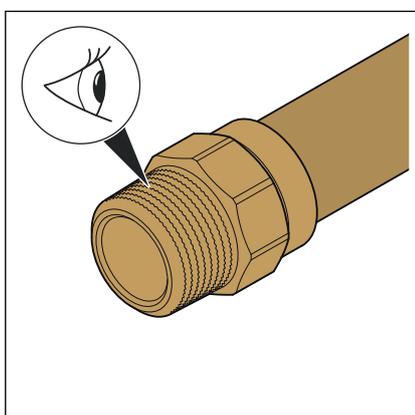
- Check that the thread is undamaged and in perfect condition.

To prevent the sealant from being pushed out when screwing in, Viega recommends roughening the surface of smooth threads.

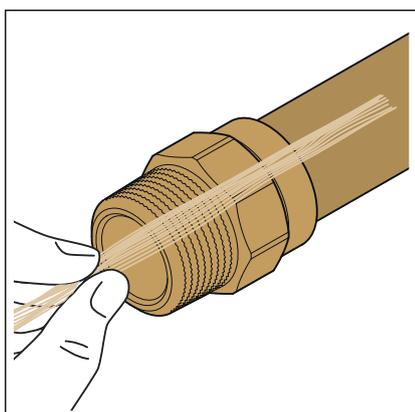


- Roughen the surface of the thread e.g. with a saw blade.

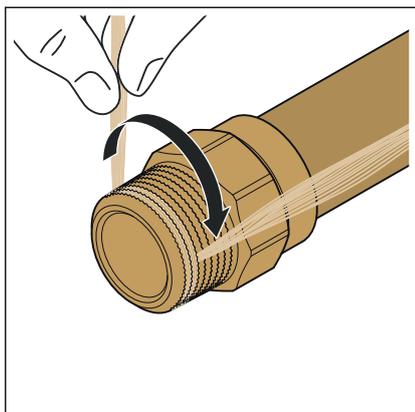
**NOTICE!** Be careful not to damage the thread flanks of the thread when roughening.



- The thread is roughened.

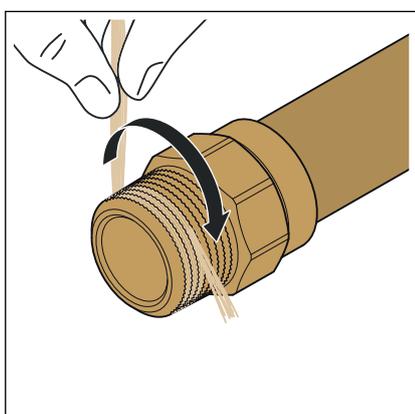


- Place some hemp fibres across the thread.

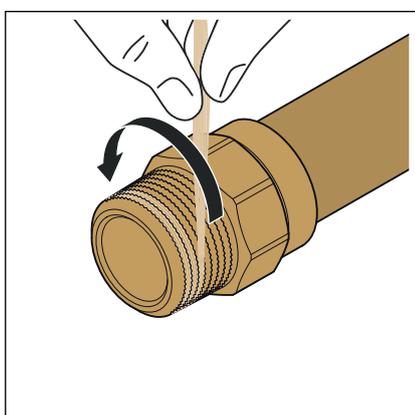


- Insert the hemp into the thread, starting from the surface to the outside, and always guide it over the hemp lying across.
- For right-hand threads, wind in a clockwise direction.
- Insert the hemp into the threaded grooves.

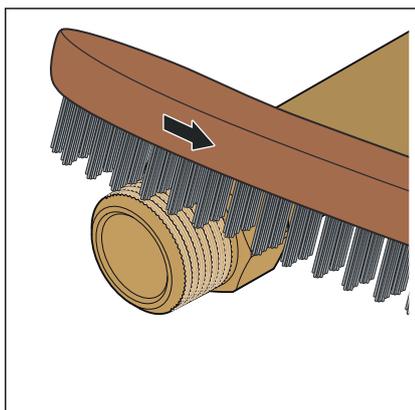
**NOTICE!** Make sure that there is no hemp on the thread crests. Only in the thread grooves and on the thread flanks does the hemp support the sealing function of the connection.



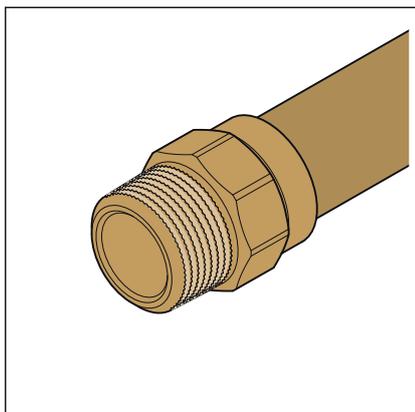
- Tie in the crosswise hemp threads on the last two to three turns.



- For left-hand threads, wind anticlockwise.



- After spooling the last hemp thread, work the hemp in evenly and firmly with a wire brush.

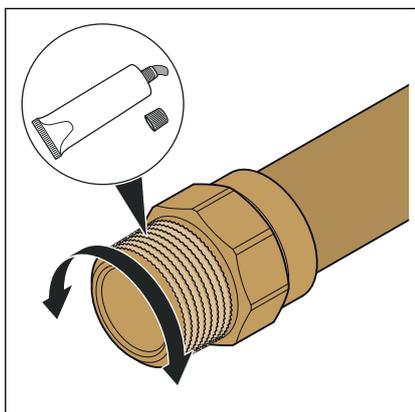


□ The thread is sealed.

### Applying thread sealing paste

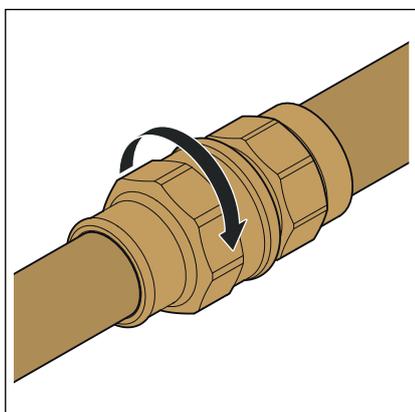
Sealing paste protects the hemp from drying out and chemical and biological decomposition, facilitates screwing in and fills any cavities remaining in the threads.

For threaded connections, only use non-curing sealants with DVGW or DIN DVGW markings in accordance with applicable guidelines, see [☞ 'Regulations from section: Establishing threaded connection' on page 7.](#)



- Coat the hemp evenly with thread sealing paste.
- Ensure that the entire hemp/flax is covered with an even layer.

### Screwing the threaded connection



- Screw the threaded connection.
- Make sure that no hemp is twisted out or pushed in front of the internal thread.

### 3.3.2 Leakage test

The installer must perform a leakage test before commissioning.



#### NOTICE!

Carry out the load and leakage test with suitable, tested and approved equipment, see ↗ *'Regulations from section: Leakage test'* on page 7.

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

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

If leaks occur during the strength and tightness test due to damaged threads, replace the components concerned.

Document the result.

## 3.4 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.

## 3.5 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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