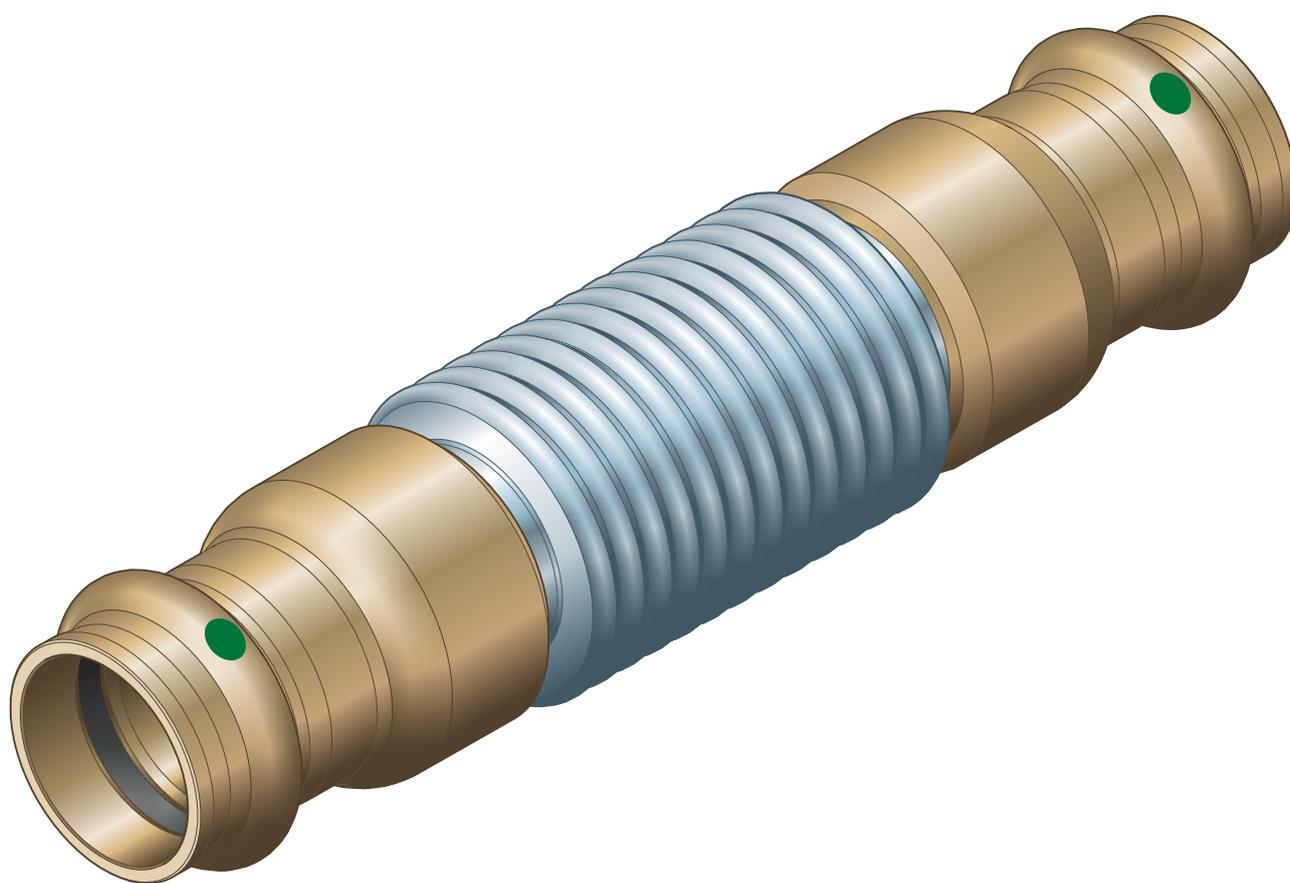


Instructions for Use

Compensator with SC-Contur



For expansion compensation in basement or riser pipe, floor connection pipe in heating and sanitary technology

Model
2251

Year built (from)
09/2013

viega

Table of contents

1	About these instructions for use	3
	1.1 Target groups	3
	1.2 Labelling of notes	3
	1.3 About this translated version	4
2	Product information	5
	2.1 Standards and regulations	5
	2.2 Intended use	7
	2.2.1 Areas of application	7
	2.2.2 Media	8
	2.3 Product description	8
	2.3.1 Overview	8
3	Handling	9
	3.1 Storage	9
	3.2 Assembly information	9
	3.2.1 Mounting conditions	9
	3.3 Assembly	11
	3.3.1 Mounting the compensator	11
	3.4 Maintenance	13
	3.5 Disposal	13

1 About these instructions for use

Trade mark rights exist for this document; for further information, go to viega.com/legal.

1.1 Target groups

The information in this manual is directed at 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: 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 50930-6
Regulation on material selection	DIN EN 12502-1

Regulations from section: Application areas

Scope / Notice	Regulations applicable in Germany
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

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
Creating potable water installations	DIN 1988-200
Creating potable water installations	DIN EN 806-2
Regulation on material selection	DIN 50930-6
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: 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 model for areas of application and media other than those described with Viega.

The press connector system is suitable for creating potable water installations in accordance with applicable directives, taking into consideration the material selection in accordance with applicable directives, 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.

2.2.1 Areas of application

Use is possible in the following areas among others:

- Potable water installations
- Industrial and heating systems
- Solar installations with flat collectors
- Solar installations with vacuum collectors (only with FKM sealing element)
- District heat supply systems (only with FKM sealing element)
- Low-pressure steam systems (only with FKM sealing element)
- Cooling water pipelines (closed circuit)

Potable water installation

For planning, execution, operation and maintenance of potable water installations, observe the applicable regulations, see ↗ *'Regulations from section: Application areas'* on page 5.

Maintenance

Inform your customer or the operator of the potable water installation that the system has to be maintained on a regular basis, see ↗ *'Regulations from section: Application areas'* on page 5.

Sealing element

Only EPDM sealing elements are approved in potable water installations. Do not use any other sealing elements.

2.2.2 Media

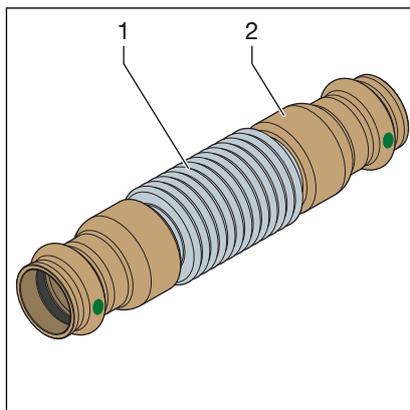
The system is suitable for the following media, amongst others:

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

- Potable water
 - Max. chloride concentration 250 mg/l
- Heating water for pump hot water heating systems
- Compressed air in compliance with the specification of the sealing elements used
 - EPDM at oil concentration < 25 mg/m³
 - FKM at oil concentration ≥ 25 mg/m³
- Anti-freeze, cooling brines up to a concentration of 50 %
- Steam in low-pressure steam systems (only with FKM sealing element)

2.3 Product description

2.3.1 Overview



- 1 Bellows made of stainless steel
- 2 Gunmetal or silicon bronze press connector

The compensator is suitable for absorbing axial movements in pipeline installations. Do not use if radial loads occur.

3 Handling

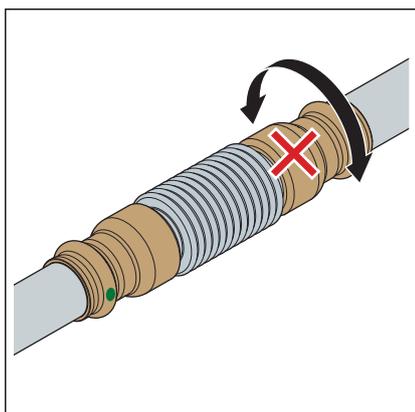
3.1 Storage

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.
- Do not store the components directly on the floor.

3.2 Assembly information

3.2.1 Mounting conditions



Installation and mounting instructions

- Do not install the compensator under torsion (twisted) or place under strain.
- Protect the stainless steel bellows from mechanical damage.
- The compensators are not rated to withstand strain from lateral movement (lateral and/or angular).
- The compensators do not need to be pre-stressed prior to assembly.

Pipe guide and bearing

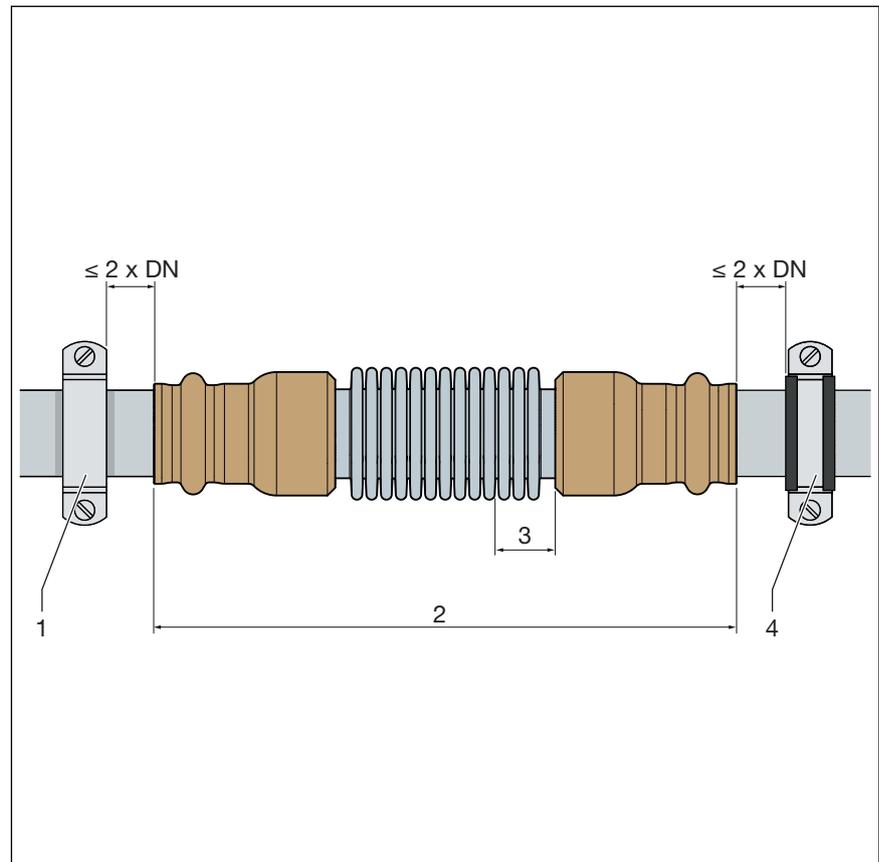


Fig. 1: Compensator installation information

- 1 Guide
- 2 Compensator length
- 3 Expansion compensation
- 4 Fixed point

The guide on both ends of the compensator must not be removed more than 2 x DN (pipe nominal width). The next guide should have about $\frac{2}{3}$ of the prescribed fixing distance.

Gliding and fixed points

Adhere to the maximum distance for gliding points (pipe clamp distance). The pipe sections to be compensated must be aligned (coaxial pipe thrust).

Provide fixed points of sufficient strength at the pipe ends and branches. Install only an axial compensator between two fixed points.

The maximum fixed point load in (Newtons) is calculated using the following formula:

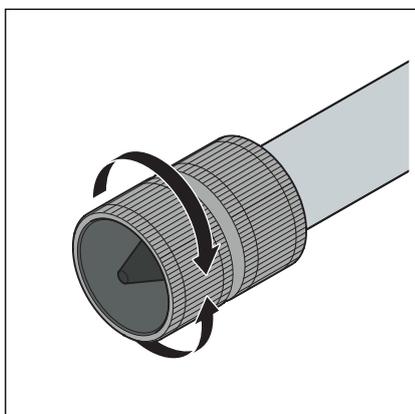
Pressure in bar x effective bellows cross-section x conversion and safety factor ($F_{\max} = p \times A \times 20$)

Compensator		Pres- sure P	Effective bellows cross-sec- tion A	Max. fixed point load F _{max}	Expan- sion compen- sation *
d	D	MPa (bar)	cm ²	N	mm
15	12	1 (10)	3.10	620	-7
18	15	1 (10)	3.97	794	-9
22	20	1 (10)	6.15	1230	-11.5
28	25	1 (10)	9.02	1814	-14
35	32	1 (10)	13.85	2770	-13
42	40	1 (10)	20.42	4048	-15.5
54	50	1 (10)	30.90	6180	-16

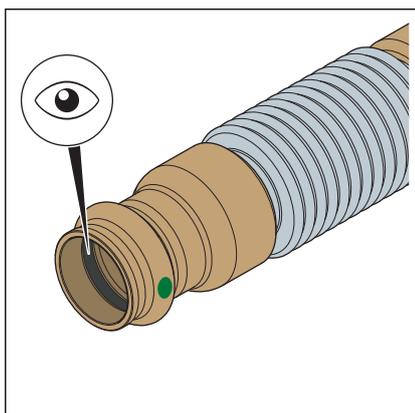
*Dimensioning: 10,000 full movement cycles at nominal pressure, design temperature 85 °C

3.3 Assembly

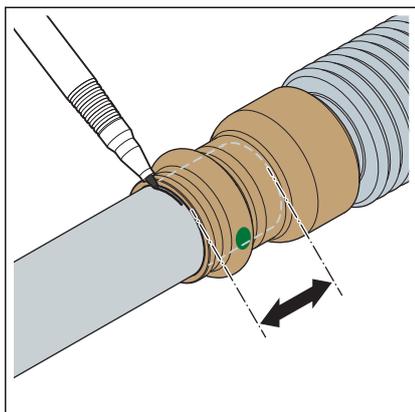
3.3.1 Mounting the compensator



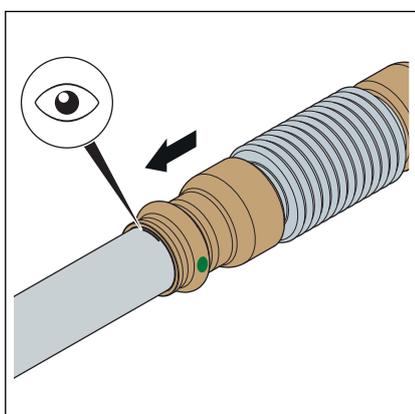
► Deburr the pipe ends.



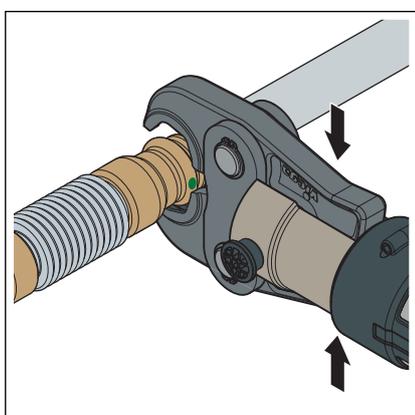
► Ensure that the sealing element is properly positioned.



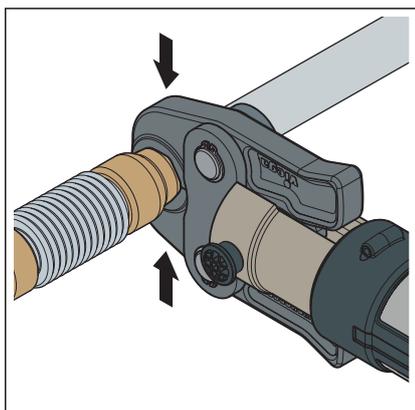
- Mark the minimum insertion depth.



- Push the compensator all the way on.



- Open the press jaw and place it at a right-angle onto the press connector.
- Check the insertion depth using the marking.
- Ensure that the press jaw is placed centrally on the bead of the press connector.



- Carry out the pressing process.
- Open and remove the press jaw.
 - Connection is pressed.
- Repeat these steps on the other side.

3.4 Maintenance

Observe the applicable regulations 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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