# **Instructions for Use**







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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:

- Heating and sanitary professionals and trained personnel
- Tilers
- Consumers

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: Sealing

Scope / Notice	Regulations applicable in Germany
Stress class of the underground, as well as suitable bonded sealing	ZDB-Merkblatt 8/2012
Stress class of the underground, as well as suitable bonded sealing	Leitfaden zur Abdichtung im Verbund (AIV)
Approved bonded sealings with proof of practicability in keeping with building law for stress classes A and AO	ETAG 022 T1
Approved bonded sealings with proof of practicability in keeping with building law for stress classes A, B and C	DIBt-Bauregelliste A, Teil 2 des DIBt und Prüfgrundsätze für Abdichtungen im Verbund (PG AIV-F)
Permitted bonded sealings	EN 14891
Sealing of inside rooms	DIN18534

### Regulations from section: Media

Scope / Notice	Regulations applicable in Germany
Typical domestic wastewater	DIN 1986-3



## 2.2 Certification

Data acc. to DIN EN 1253, Table 7

Manufacturer	Viega Holding GmbH & Co.KG
Manufacturer identification mark	viega
Certificate of conformity	Viega Atomys
Address	Viega Technology GmbH & Co.KG Viega Platz 1 57439 Attendorn Germany
Relevant standard	DIN EN 1253-1
Load class	K3
DN	50
Product class with respect to temperature behaviour	A
Drainage capacity at accumulation height 10mm	0.95 - 1.15 l/s
Drainage capacity at accumulation height 20mm	1.0 -1.2 l/s

## 2.3 Intended use

## 2.3.1 Areas of use

The drain is dimensioned for small to medium volumes of water, which occur in e.g. residential building.

Technical information, see  $\mbox{\ensuremath{,}{$^{\circ}$}}\ Chapter\ 2.4.2\ 'Technical\ data'}\ on\ page\ 7.$ 

### 2.3.2 Media

- The short-term temperature of the wastewater may reach up to 95 °C. The temperature must be considerably lower in constant operation.
- The pH value must be higher than 4 but lower than 10.

It is not permitted to introduce wastewater which would damage the product material.



## 2.3.3 Drainage capacity

The drainage capacity is dependent on the chosen installation height.

The drainage capacity is 0.95 l/s up to 1.0 l/s with horizontal DN 50 drain socket.

# 2.4 Product description

### 2.4.1 Overview

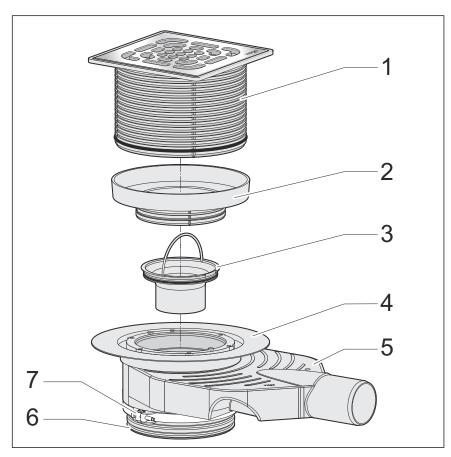


Fig. 1: Scope of delivery model 4914.11

- 1 top with grate, can be cut to length
- 2 plug-in adapter for top 150 mm
- 3 immersion pipe
- 4 flange for the application of the conventional sealing
- 5 base unit
- 6 floor piece
- 7 clamping ring

### 2.4.2 Technical data

Nominal width [DN] (drain support)	50
Drainage capacity	♦ Chapter 2.3.3 'Drainage capacity' on page 7



Dimensions and installation height	Substitution of the Chapter 3.1.2 'Installation dimensions' on page 15
Water head seal	35 up to 50 mm
Load class	K = 300 kg

# 2.5 Information for use

### 2.5.1 Installation variations

Installing in a bare concrete floor

The mounting of the drain in a bare concrete floor is as follows:

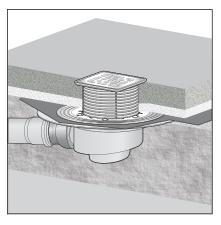


Fig. 2: General installation example – Floor recess

## ■ The drain is placed in a floor recess and then cast-in.

## Mounting on a floor

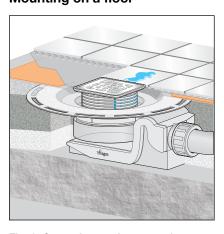


Fig. 3: General mounting example – Mounting on the floor

During the mounting on the floor, the drain is integrated into the floor construction. At the same time, it can e.g. be integrated into the levelling screed or heat insulation. If necessary, a vertical drainpipe can be led through a drill hole in the floor at the same time.





### NOTICE!

The creation of a floor recess must be agreed with the following people:

- a structural engineer
- the on-site fire protection inspector or the specialist engineer for fire protection

If necessary, proof of compliance with building code or an expert's report must exist.

## 2.5.2 Sealing

The drain can be sealed both conventionally as well as with bonded sealing.

Depending on the type of sealing, you will require the relevant equipment set % Chapter 2.6 'Required accessories' on page 13.



#### Conventional sealing

The flange of the drain is intended for conventional sealing. To be able to seal the drain conventionally, you require a suitable sealing collar and a clamping ring with which the cuff is secured  $\mathsepsilon$  Chapter 2.6 'Required accessories' on page 13.



Fig. 4: Construction diagram of a conventional sealing



#### NOTICE!

### Not suitable for floor-level showers

Conventional sealing is not recommended with floor-level showers, because dampness can enter the screed and damp proof layer.

The bonded sealing should be used in the case of floor-level showers.

## **Principle**

Traditionally, sealing is made using bitumen or EPDM sealing collars. The sealing collars are laid directly onto the raw concrete or heat insulation. This process has proved itself to be particularly effective for sealing balconies, patios, floor installation panels and cellar floors. In addition, sealing collars are often used as an additional second sealing layer below the bonded seal.

The following components are required for the installation of a drain with conventional sealing:

- Drain
- Clamping ring with sealing collar for EPDM and bitumen sealing lanes

### Information for processing

The sealing collar is coated with EPDM on the one side and with bitumen on the other side

Place the sealing collar on the drain and fasten it with the flange. It depends on the sealing collar used which material layer of the sealing collar is placed facing up. You can find more information in the mounting instructions of the sealing flange.



### **Bonded sealing**

To protect against moisture penetration, apply sealing foils, which are to be processed in liquid state, directly below the tiles on screed and walls. The determination of the stress class and the underground as well as the selection of the suitable bonded sealing must be carried out in compliance with the valid standards and regulations, see: \$ 'Regulations from section: Sealing' on page 5.

Bonded sealing can be carried out with the help of a suitable stacking element. You have the possibility to double seal, using conventional and bonded sealing or only using bonded sealing.



Fig. 5: Diagram of a bonded seal with stacking element



#### Important note

Careful planning is required for professional sealing. In addition, depending on the individual dampness wear class and the type of foundation, a suitable thin bed bonded sealing with a building regulations certificate of suitability must be chosen.

Furthermore, the following factors should be taken into account:

- The drain or shower channel must be equipped with a special flange, which has an adhesive surface and a width of at least 50 mm.
- For bridging the material change from drain to screed, either a suitable sealing collar or sealing tape designed for overlapping with the thin bed bonded sealing over a width of at least 50 mm must be used
- The screed must be laid at a minimum incline of 1-2%.
- The installation must be carried out properly in acc. with the mounting instructions and the manufacturer's information.

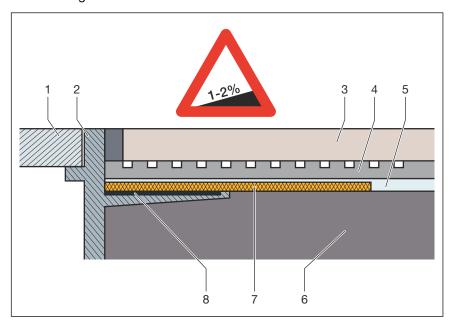


Fig. 6: Construction diagram of the bonded seal - min. screed incline 1–2 %

- 1 Grate
- 2 Top piece with adhesive flange
- 3 Tile
- 4 Tile cement
- 5 Bonded sealing
- 6 Screed
- 7 Sealing collar
- 8 Adhesive

#### Permitted bonded seals

In connection with suitable drains, only approved bonded sealings with proof of practicability in keeping with building law may be used. See *Begulations from section: Sealing' on page 5*.

Information regarding the procedure can be found in the instructions for use of the corresponding product.



## 2.5.3 Fire protection

Advantix shower channels and drains can both be fitted to be fire proof. The R120 pipe lead-in can be used for this purpose in the floor construction. In this way, a fire resistance time of up to 120 minutes can be achieved.

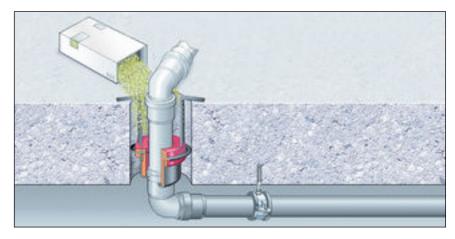
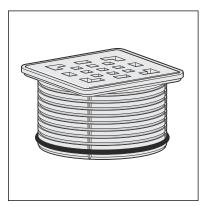


Fig. 7: Example: fire protection pipe lead-in

Mounting instruction of the R120 pipe lead-in see model 4923.5, art.-no. 491 673.

# 2.6 Required accessories

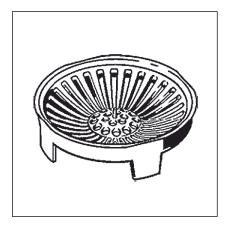
### Top



Advantix tops are available in a number of sizes and variations. You can also only buy an Advantix top frame and then purchase a suitable designer grate separately (see catalogue).

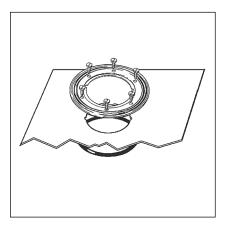


#### Sieve insert



The drain can be fitted with a sieve insert (model 4923.1) to collect dirt.

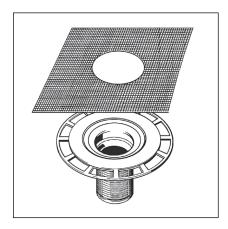
### Accessories for the conventional sealing



If a conventional sealing is to be made, a suitable sealing collar and a clamping ring will be required.

You will find a corresponding set in the catalogue (model 4998.3).

### Accessories for the bonded sealing



If a bonded sealing is to be applied, a suitable stacking element with sealing collar is required.

You will find a corresponding set in the catalogue (model 4994).



# 3 Handling

# 3.1 Assembly information

## 3.1.1 Important note

### Before assembly:

- Check if the drainage capacity of the drain is sufficient for the arising water volume *♦ Chapter 2.3.3 'Drainage capacity' on page 7*.
- Check if the installation height of the drain corresponds with the planned floor construction.
- Ensure that the required connection line is installed with the necessary incline to the planned installation location.
- If necessary, supply the required accessories *⇔* Chapter 2.6 'Required accessories' on page 13.

### During assembly:

- Observe installation dimensions.
- Decide whether or not a backflow seal is required in the insertion part of the top.

### After assembly:

■ The drain flange must be fully lined with mortar.

### 3.1.2 Installation dimensions

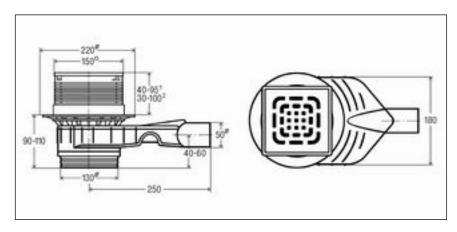


Fig. 8: Dimensional drawing model 4914.11

## 3.1.3 Tools and materials

### **Required material**



- if necessary, sealing collar, clamping ring, fitting screws
- Top with grate, if not included in scope of delivery
- if necessary, stacking element for bonded sealing model 4944
- Material for securing the drain

# 3.2 Assembly

## 3.2.1 Construction and water seal level



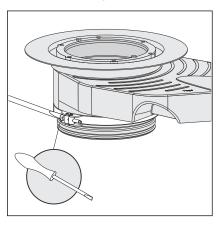
Determine screed height.



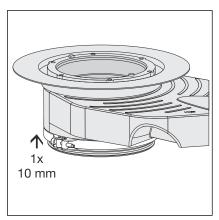
At a desired installation height of  $\geq$  110 mm upper edge sealing flange the floor piece remains in the delivery condition.

The water seal level is 50 mm and the immersion pipe length 48 mm.



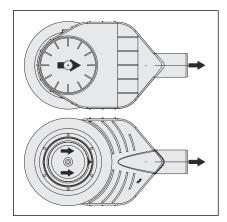


Loosen clamping ring with screwdriver.

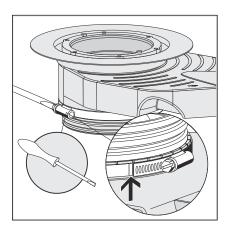


Remove clamping ring and push floor piece in by one ring (1 x 10 mm).



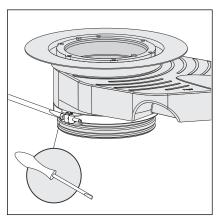


Align the floor in such a way that the arrows point towards the drain pipe.



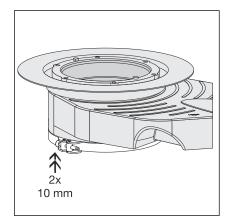
- Secure floor with clamping ring.
  - Tighten the screw of the clamping ring with max. 2.5 Nm  $\pm 0.2$  Nm. Alternatively, tighten the end of the clamping ring up to or between the markings.
  - □ The water seal level is 40 mm and the immersion pipe length 38 mm.



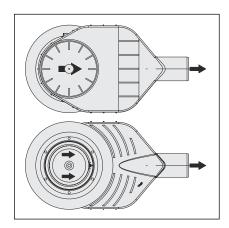


Loosen clamping ring with screwdriver.

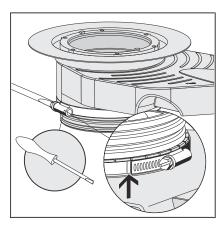




Remove clamping ring and push floor piece in by two rings (2 x 10 mm).



Align the floor in such a way that the arrows point towards the drain pipe.



Secure floor with clamping ring.

Tighten the screw of the clamping ring with max. 2.5 Nm  $\pm 0.2$  Nm. Alternatively, tighten the end of the clamping ring up to or between the markings.

□ The water seal level is 35 mm and the immersion pipe length 33 mm.

### 3.2.2 Mount base unit

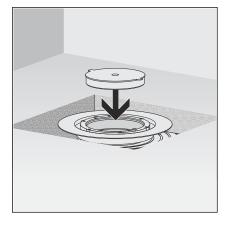
A few points must be observed to integrate the drain into the floor construction properly. For this reason, proceed as follows to prepare the drain for subsequent work:



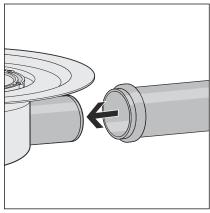
### Installing in a bare concrete floor

### Requirements

- A pipe to the planned drainage position is already in place for the connection to the waste water system.
- The drain pipe has an internal sealing lip.
- Position the drain in the floor and align horizontally.
- Insert yellow protective plug.

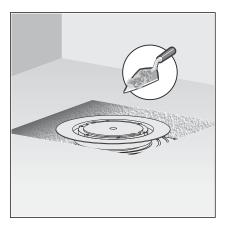


Push the drain support into the drain pipe completely.



Secure the drain in such a way that it cannot shift when the subsequent works are applied.

Most importantly, it must be ensured that the drain does not float when the concrete or screed is poured in.





#### NOTICE!

## Product damage due to improper installation

If hollow spaces occur during the lining of the drain, leaks may occur when pressure is applied.

Inform the subsequent workers that the drain must be fully lined and that there must be no hollow spaces.



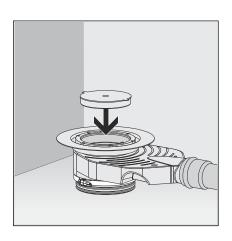
#### Installation on a bare concrete floor



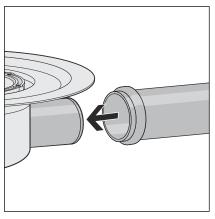
No building seal with sealing collar is possible with this installation method.

### Requirements

- A pipe to the planned drainage position is already in place for the connection to the waste water system.
- The drain pipe has an internal sealing lip.
- Position the drain on the floor and align horizontally.
- Insert yellow protective plug.

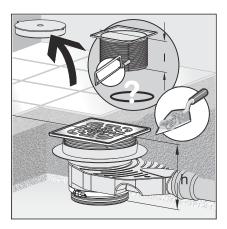


Push the drain support into the drain pipe completely.



- Calculate FFL and cut top flush to length.
- Install plug-in adapter with backflow seal.
- Insert top.
- Secure the drain in such a way that it cannot shift when the subsequent works are applied.

Most importantly, it must be ensured that the drain does not float when the concrete or screed is poured in.







### NOTICE!

## Product damage due to improper installation

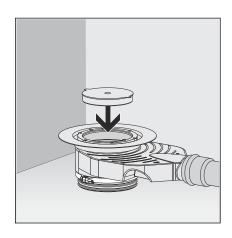
If hollow spaces occur during the lining of the drain, leaks may occur when pressure is applied.

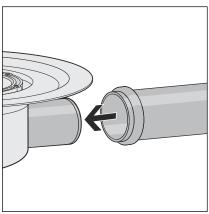
Inform the subsequent workers that the drain must be fully lined and that there must be no hollow spaces.

### Installation in a bare concrete floor with levelling screed or heat insulation

### Requirements

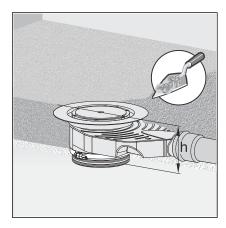
- A pipe to the planned drainage position is already in place for the connection to the waste water system.
- The drain pipe has an internal sealing lip.
- Position the drain on the floor and align horizontally.
- Insert yellow protective plug.





Push the drain support into the drain pipe completely.





Secure the drain in such a way that it cannot shift when the subsequent works are applied.

Most importantly, it must be ensured that the drain does not float when the concrete or screed is poured in.



### NOTICE!

## Product damage due to improper installation

If hollow spaces occur during the lining of the drain, leaks may occur when pressure is applied.

Inform the subsequent workers that the drain must be fully lined and that there must be no hollow spaces.

## 3.2.3 Sealing the drain



### NOTICE!

## Product damage due to improper installation

If hollow spaces occur during the lining of the drain, leaks may occur when pressure is applied.

Check the proper completion of the subsequent work.



Screed and floor tiles must be laid at an incline of 1-2% in the direction of the drain.

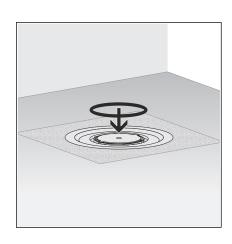


### **Conventional sealing**

### Requirements:

- A suitable sealing collar and a clamping ring are available.
- The flange is free of heavy soil.
- The complete surface of the flange is lined with material and undamaged.
- If required, clean the flange of coarse soil (e.g. from screed).
- Insert sealing ring.

The sealing ring must lie in the groove between the flange and the screw holes.



INFO! The Viega sealing collar has two differently coated sides. One side is coated with bitumen and the other side with EPDM. If the additional sealing takes place with bitumen sealing lanes, the sealing collar must be used with the bitumen side facing upwards. If EPDM sealing lanes are used, the EPDM side must face upwards.

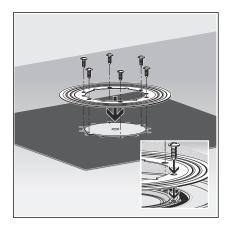
Position the sealing collar on the drain.

The screw holes must be visible through the recesses.



Position the sealing flange on the sealing collar in such a way that the screw holes are visible.



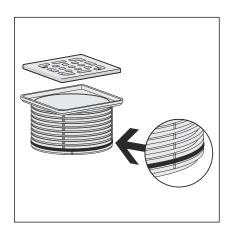


Screw the sealing flange together tightly with the drain.

The fixing screws of the clamping ring may only be screwed into the screw holes of the drain.

□ The drain is sealed and the remaining sealing collars can be laid.

### 3.2.4 Mounting the top



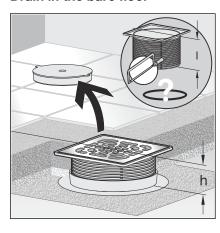
A top with the grate must still be mounted to finish off the mounting of the drain. Proceed as follows:

If necessary, insert backflow seal in the lowest notch of the top.

INFO! The backflow seal be must employed when no dampness is supposed to flow into the drain from outside of the top but water may seep in from below. Normally, no backflow seal is mounted so that water that occurs around the frame (e.g. due to a leaky silicone joint) can flow away. A backflow seal is mounted in the following cases:

- In the case of the risk of a build-up of water that can soak through the screed.
- During the mounting of a stacking element for the bonded sealing (see instructions for use of the stacking element).

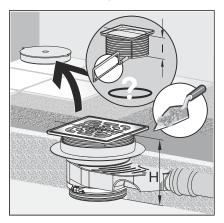
### Drain in the bare floor



- Calculate FFL and cut top flush to length.
- Install plug-in adapter.
- Insert top.



### Drain in levelling screed or heat insulation



- Calculate FFL and cut top flush to length.
- Install plug-in adapter with backflow seal.
- Insert top.

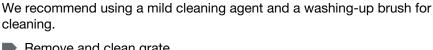
## **3.3** Care

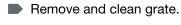
## 3.3.1 Care tips

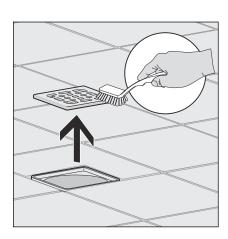
Normal soap or a mild cleaning agent can be used for regular maintenance and prevention of lime scale on the grate and frame. Use no scouring agent or abrasive objects.

Strong stains, even around the drain unit and the siphon, can be removed using typical household cleaner. Rinse the detergent very thoroughly with clear water after the prescribed dwell time. There should be no residue on the components.

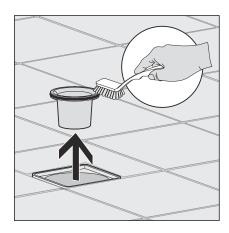
## 3.3.2 Cleaning the drain



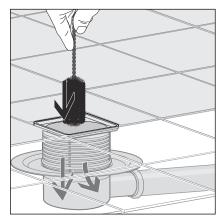








Remove and clean immersion pipe.



- Clean drain.
- Replace immersion pipe.
- Re-insert grate.

# 3.4 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.



