

Air & Climate Solutions

# Installation Manual

Floor Outlets

BA-V / DB-E / DB-D / Q-B

**Durrer-technik**

*Kranz*

# Safety

These instructions provide you with important information on the safe handling and installation of Krantz floor outlets.


- Floor twist outlet *DB-E*
- Floor displacement outlet *Q-B-DN 200*
- Rotary floor twist outlet *DB-D* and
- Adjustable floor outlet *BA-V-DN 150*


## 1. Safety


Read the instructions carefully. Make sure that you have understood all the contents of these instructions before you start installation. Following the described work steps and safety guidelines is essential to ensure the functionality and safety of the products mentioned. Act with caution. Also observe the locally applicable accident prevention regulations and the general safety standards to avoid accidents, personal injury, and damage to property.


### 1.1 Symbols and safety instructions

Safety instructions in this manual are identified by symbols and signal words that indicate the respective hazard potential.

	<b>WARNING</b>
This symbol and signal word combination indicates a potentially hazardous situation that can lead to death or serious injury if not avoided.	

	<b>CAUTION</b>
This symbol and signal word combination indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.	

	<b>NOTE</b>
This combination of symbol and signal word indicates a potentially hazardous situation that can lead to material damage if not avoided.	

	<b>ENVIRONMENTAL PROTECTION</b>
This symbol and signal word combination indicates possible environmental damage.	


### 1.2 Qualification of the staff

Only persons who can reliably carry out the work are authorized to work with Krantz floor outlets. Persons with impaired reactions, e.g. due to medication, alcohol or drugs, are not permitted to carry out any tasks. Trained specialist personnel are required to carry out the following activities:

- Transportation
- Installation
- Commissioning
- Maintenance and cleaning
- Repair

### 1.3 Intended use


Krantz floor outlets may only be used indoors as an air duct component of the HVAC system. The use of the product must comply with the specifications of the technical design. Any other use or use beyond this is considered improper.

	<b>NOTE</b>
Material damage due to misuse	
Improper use of the product can lead to damage to the product! Do not use the product in the following rooms or areas:	
<ul style="list-style-type: none"> <li>▪ Outdoor areas</li> <li>▪ Damp rooms</li> <li>▪ Rooms with aggressive or dusty air</li> </ul>	


### 1.4 Personal protective equipment

Wear protective equipment when working with the product to minimize health hazards. Additionally, observe and use the prescribed protective equipment for the construction site on which the floor outlets are installed. The required personal protective equipment includes:

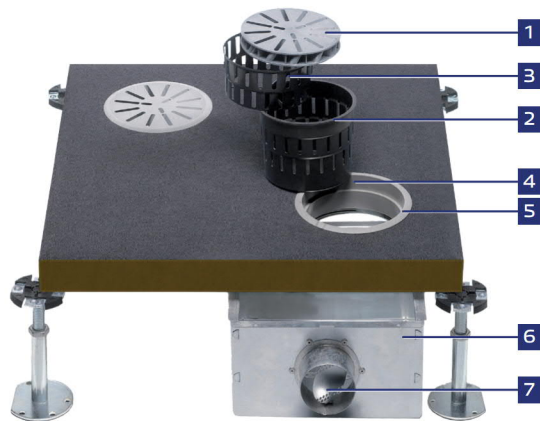
**Protective gloves**

 Protective gloves are used to shield the hands from friction, abrasions, punctures or deeper injuries, as well as from contact with hot surfaces.

**Safety shoes**

 Safety shoes protect the feet from crushing, falling objects, and slipping on slick surfaces.

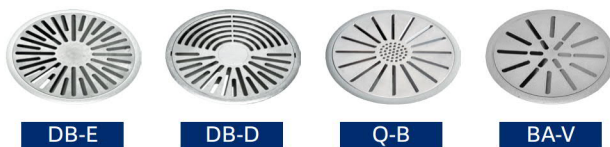
## 2. Structural Design



Example of the structural design of the adjustable floor outlet BA-VN-DN 150 with throttleable distributor basket VSD, clamp insert in the floor plate, and connection box.

Krantz floor outlets consist of at least two components: the *air discharge element 1* and the *distributor basket 2*. The distributor basket can be supplemented by a *throttle device 3* to regulate airflow. Depending on the installation type, the air discharge element is either inserted into a stepped bore or into a through bore using a *clamping insert 4* with *protective ring 5*. If the floor outlet is installed in a raised floor, it can be connected to the supply air system via an optional *connection box 6*. The connection box is integrated into the system at the *connection spigot 7* with flexible tubing. For detailed information on the functionality and dimensions of specific products, please refer to the Technical Selection on our website ([www.krantz.de](http://www.krantz.de)).

### 2.1 Versions of air discharge elements



- Floor twist outlet *DB-E*
  - *DB-E DN 150*
  - *DB-E DN 200*
- Rotary floor twist outlet *DB-D*
  - *DB-D DN 125*
  - *DB-D DN 200*
- Floor displacement outlet *Q-B DN 200*
- Adjustable floor outlet *BA-V DN 150*

### 2.2 Versions of clamp inserts



- Clamp ring *SR*
- Spread claw *SK*
- Clamp nut *SM*
- Rotary claw *SD*

### 2.3 Versions of distributor baskets





- Standard design *VS*
  - with optional throttle device *VSD*
- Short type without throttle device *VK*
- Low version *VN*
  - with optional throttle device *VND*
- Perforated sheet metal version with throttle device *VPD*
- Perforated sheet metal version with fixed throttle *VL*
- Adjustable insert with throttle device *VD*


## Delivery and Transportation, Installation


### 3. Delivery and Transportation

Check the delivery immediately upon receipt to ensure that it is complete and undamaged. Compare the contents with the delivery bill and ensure that all parts are present and undamaged. Report any discrepancies or damage to our customer service immediately.

	<b>CAUTION</b>
Risk of injury due to improper handling	
The weight of transport packaging and products can cause injuries if not lifted or carried correctly.	
<ul style="list-style-type: none"> <li>▪ Avoid improper lifting or carrying techniques to prevent injuries.</li> <li>▪ If necessary, use aids or support to minimize the risk of accidents.</li> </ul>	


	<b>CAUTION</b>
Risk of injury from sharp edges, pointed corners, and thin-walled sheet metal parts	
Both the packaging and the products themselves may have sharp edges that could cause cuts or injuries.	
<ul style="list-style-type: none"> <li>▪ Handle the delivery with care when unpacking.</li> <li>▪ Wear protective gloves and safety shoes.</li> </ul>	

	<b>CAUTION</b>
Safety risk due to damaged or incomplete products	
Damaged or incomplete products can lead to dangerous situations.	
<ul style="list-style-type: none"> <li>▪ Strictly follow the instructions and guidelines in the installation manual.</li> <li>▪ Never install damaged or incomplete products.</li> </ul>	

	<b>ENVIRONMENTAL PROTECTION</b>
Disposal of the packaging material	
<ul style="list-style-type: none"> <li>▪ Separate the packaging waste (e.g. cardboard, plastic film) and dispose of the different materials according to local recycling regulations.</li> <li>▪ Take packaging materials that cannot be disposed of with household waste to the appropriate collection points or recycling centers.</li> </ul>	

### 4. Installation

Depending on the installation situation, Krantz floor outlets can be flexibly adapted to the structural conditions. The floor outlets can be placed in a stepped bore or securely anchored in the floor using a clamp insert. Krantz clamp inserts are available in four variants: clamp ring with rubber gasket, spread claw, clamp nut, or rotary claw.

	<b>WARNING</b>
Danger from tripping hazard	
Improper installation of the product poses a risk of dangerous tripping hazards! Ensure that all system components are properly installed and do not protrude from floor level.	

### 4.1 Installation in stepped bore

To insert a floor outlet into a stepped bore, follow these steps:

1. Insert the distributor basket into the stepped bore.



2. (Optional) If a throttle device is required, insert it into the distributor basket.



3. Place the air discharge element into the stepped bore.



4. The floor outlet is now fully mounted.



## Installation

### 4.2 Installation with clamp ring and rubber gasket

To install a floor outlet with a clamp ring and rubber gasket, follow these steps:

1. Place the clamp ring with rubber gasket on the floor opening.



2. Press the clamp ring evenly into the floor opening until it is fully seated on the floor.



3. Insert the distributor basket into the clamp ring.



4. (Optional) If a throttle device is required, insert it into the distributor basket.



5. Place the air discharge element into the mounted clamp ring.



6. The floor outlet with clamp ring and rubber gasket is now fully assembled.



## Installation

### 4.3 Installation with clamp insert and spread claw

To install a floor outlet with a clamp insert and spread claw, proceed as follows:

1. Place the clamp insert with spread claw on the floor opening.



2. Press the clamp insert evenly into the floor opening until it rests completely on the floor.



3. Tighten all four screws of the clamp ring with a screwdriver.



Take particular care to ensure that the spread claws do not catch on the top edge of the floor opening.



4. Place the distributor basket into the clamp ring.



5. (Optional) If a throttle device is required, insert it into the distributor basket.



6. Insert the air discharge element into the installed clamp insert.



7. The floor outlet with clamp insert and spread claw is now fully mounted.



## Installation

### 4.4 Installation with clamp nut

To install a floor outlet with a clamp nut in a grid floor, follow these steps:

1. Remove the grid plate from the grid floor.
2. Place the clamp insert into the provided hole on the top side of the removed grid plate.



3. Position the clamp nut opposite, on the underside of the grid plate in the provided hole.



4. Securely screw the clamp nut on the underside and the clamp insert on the top side of the grid plate together, ensuring both parts are firmly connected.



5. Reinsert the grid plate into the grid floor.

6. Place the distributor basket into the clamp insert.



7. (Optional) If a throttle device is required, insert it into the distributor basket.



8. Insert the air discharge element into the installed clamp insert.



9. The floor outlet with clamp insert and clamp nut is now fully mounted.



## Installation

### 4.5 Installation with clamp insert and rotary claw

To install a *DB-D DN 125* floor outlet with a rotary claw, proceed as follows:

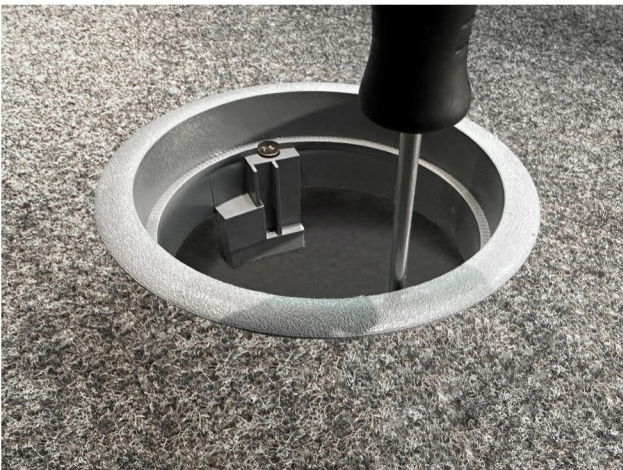
1. Place the clamp insert with rotary claw on the floor opening.



2. Press the clamp insert evenly into the floor opening until it rests completely on the floor.



3. Tighten the screws with a screwdriver.



4. Place the distributor insert with throttle device into the rotary claw.



5. Place the distributor insert with throttle device into the rotary claw.



6. Place the air discharge element into the installed clamp insert.



7. The floor outlet with clamp insert and rotary claw is now fully mounted.




# Commissioning

## 5. Commissioning

This chapter provides instructions on how to set the *VSD*, *VND*, *VD* and *VPD* throttle devices. It also explains how to flexibly adjust the airflow of the *DB-D* rotary floor twist outlet to meet your individual comfort needs.

### 5.1 Adjusting the throttle device

Krantz floor outlets without a throttle device are ready for operation immediately after installation as described in chapter 4. Floor outlets with an adjustable throttle device can be adjusted as described below:

	<b>WARNING</b>
Danger from tripping hazards	
Improper installation of the product poses the risk of dangerous tripping hazards! Make sure that the air discharge element does not protrude from the floor level after the desired adjustment of the throttle device.	

#### 5.1.1 For *VSD*, *VND* and *VD*

The *VSD*, *VND* and *VD* throttle devices allow to reduce the volume flow as needed up to complete shut-off. Note that while the designs of the distributor baskets may vary, the principle of volume flow regulation remains the same. Follow the instructions below to correctly commission the *VSD*, *VND* and *VD* throttle devices and adjust the volume flow as required:

1. Remove the air discharge element.



2. Rotate the throttle device within the distributor basket to set the desired volume flow.



3. Reinsert the air discharge element, ensuring it is properly installed.



## 5.1.2 For VPD

With the VPD throttle device, the volume flow can be reduced as required until it is completely shut off. Follow the instructions below to correctly commission the VPD floor outlet with distributor basket and adjust the volume flow as required:

1. Remove the air discharge element.



2. By screwing the plate up or down, the desired volume flow of the throttle can be set.



3. Reinsert the air discharge element, ensuring it is properly installed.



## 5.2 Adjusting the airflow of the rotary floor twist outlet DB-D

The rotary floor twist outlet DB-D is designed in such a way that its airflow characteristics are different on each side of the air discharge element. On one side, inclined, radially arranged air slots create a highly inductive airflow with an inclined air jet that runs at an angle of about 30° to the vertical. This flow is ideal for creating an immediately noticeable air movement. However, on the opposite side, circularly arranged air slots provide displacement ventilation for gentle, even air distribution.

This allows you to flexibly adjust the air outlet to your comfort needs—from a targeted, refreshing airflow to barely noticeable, draft-free ventilation. Adjust the air discharge element by hand to the desired direction.


	<b>WARNING</b>
Danger from tripping hazards	
Incorrect installation of the product poses a risk of tripping! Make sure that the air discharge element does not protrude from the floor level after the desired adjustment of the airflow.	


# Maintenance and Cleaning, Recycling


## 6. Maintenance und Cleaning

In heavily frequented locations, excessive use of floor outlets can lead to misalignment of individual components. This can have a detrimental effect on the functionality and operational safety of the product. Therefore, regularly check the position and load-bearing capacity of all installed outlet components.

Distributor baskets should also be inspected weekly for dirt and cleaning residues and cleaned if necessary. Damaged components must be replaced immediately to avoid accident risks.


	<b>WARNING</b>
<b>Health hazards due to inadequate cleaning</b>	
Inadequate cleaning of floor air outlets can promote the spread of potentially harmful germs such as fungi, viruses, and bacteria. Ensure that the floor outlets are cleaned regularly and with appropriate means.	

	<b>WARNING</b>
<b>Safety risk due to improper maintenance</b>	
An improperly maintained floor outlet can become a dangerous tripping hazard.	
<ul style="list-style-type: none"> <li>▪ Regularly check the condition of the floor outlets, especially in high-traffic areas.</li> <li>▪ Make sure that no loose components protrude from the floor level.</li> <li>▪ Make sure that all components are properly and securely reinstalled after maintenance.</li> </ul>	

	<b>NOTE</b>
<b>Material damage due to improper cleaning</b>	
Floor outlets can be damaged by unsuitable cleaning agents.	
<ul style="list-style-type: none"> <li>▪ Check whether the cleaning agents are suitable for the materials of the floor outlets.</li> <li>▪ Avoid using hard brushes or tools that could damage the surface.</li> <li>▪ If you have any questions about cleaning, please contact our customer service.</li> </ul>	

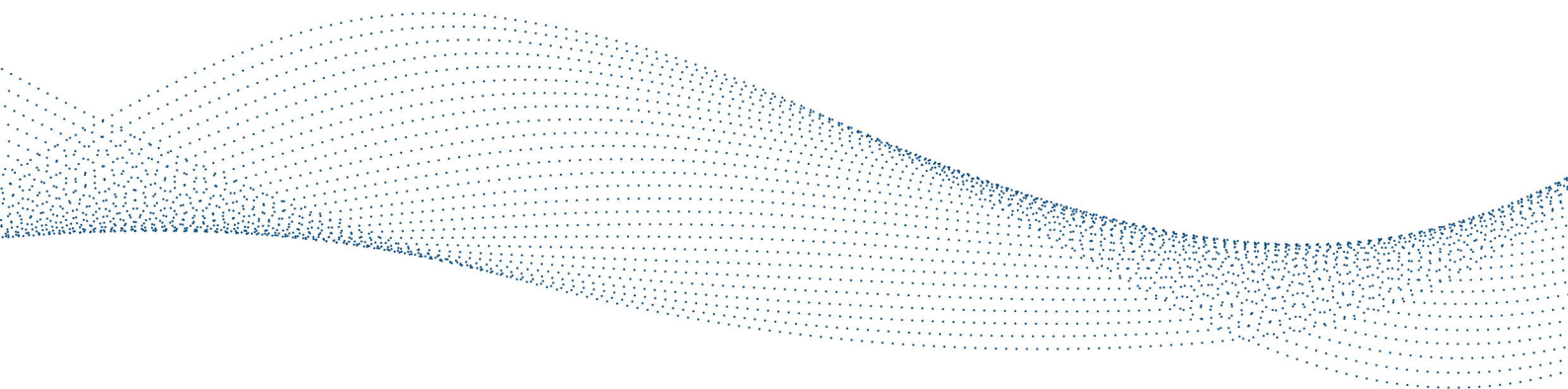
## 7. Recycling

Our products are made from valuable materials that should be recycled when they need to be replaced at the end of their service life. Krantz floor outlets are almost entirely made of recyclable materials, making their disposal particularly environmentally friendly. Proper disposal of used components not only conserves natural resources but also supports the circular economy.

	<b>ENVIRONMENTAL PROTECTION</b>
<b>Proper disposal of products</b>	
<ul style="list-style-type: none"> <li>▪ Separate the different materials, where possible, to facilitate the recycling process. Metal and plastic parts should be disposed of separately.</li> <li>▪ Take the separated materials to a local recycling center or appropriate collection point. These facilities specialize in properly processing recyclable materials.</li> <li>▪ Ensure compliance with applicable environmental regulations and disposal guidelines. This ensures environmentally friendly and legally compliant disposal.</li> </ul>	

If you have any questions about recycling our products, feel free to contact us.





 **Durrer Technik AG**  
 Winkelbüel 3, 6043 Adligenswil  
 +41 41 375 00 11  
 [info@durrer-technik.ch](mailto:info@durrer-technik.ch)  
 [www.durrer-technik.ch](http://www.durrer-technik.ch)

**Durrer Technik AG**  
Chemin de Préveyres 11, 1131 Tolochenaz VD  
+41 22 354 80 80  
[romandie@durrer-technik.ch](mailto:romandie@durrer-technik.ch)  
[www.durrer-technik.ch/fr](http://www.durrer-technik.ch/fr)

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