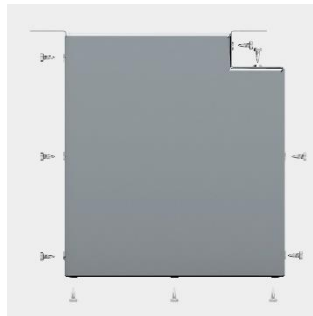
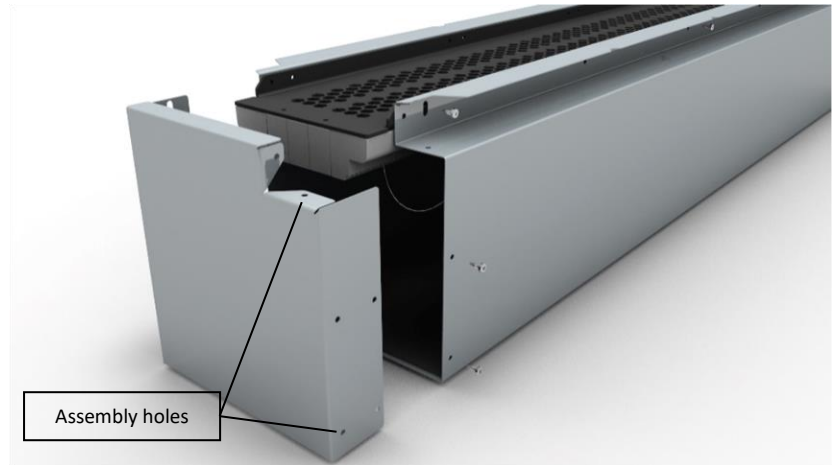


## 1. ASSEMBLY INSTRUCTION



### 1.1 REMOVE THE DIFFUSER PLATE

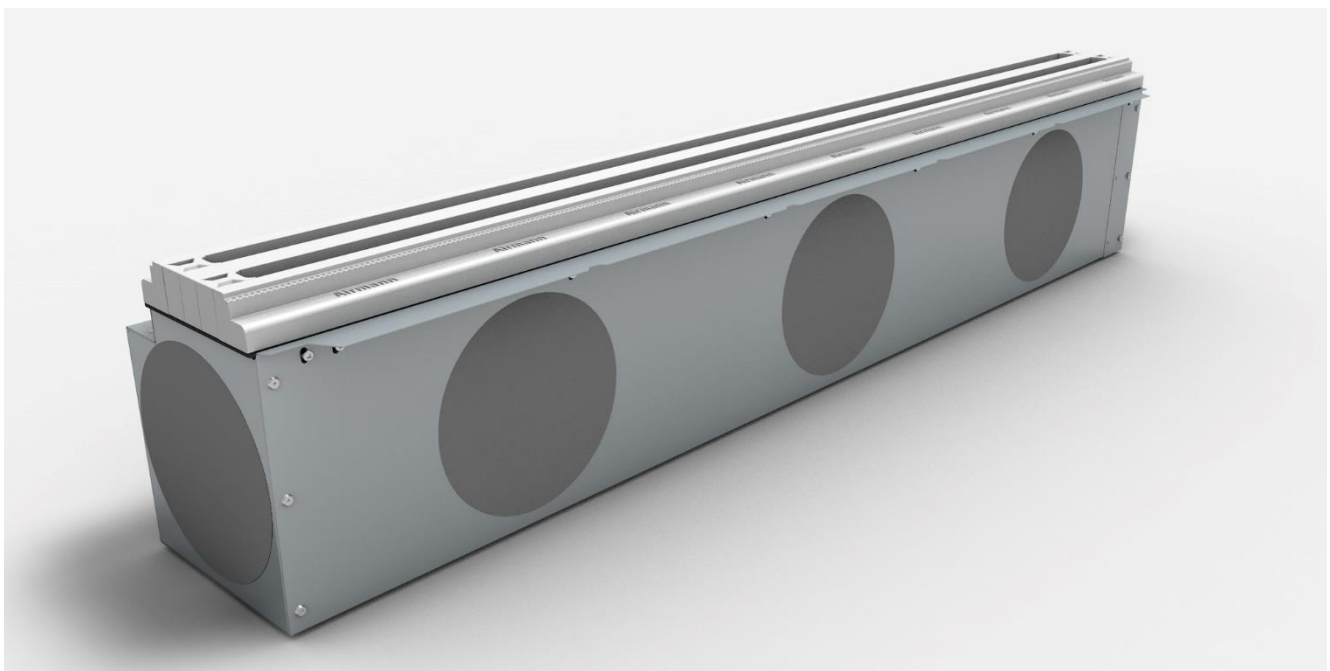
- a) Unscrew the screws that secure the shifted backend cap and diffuser.
- b) Carefully remove the diffuser plate.



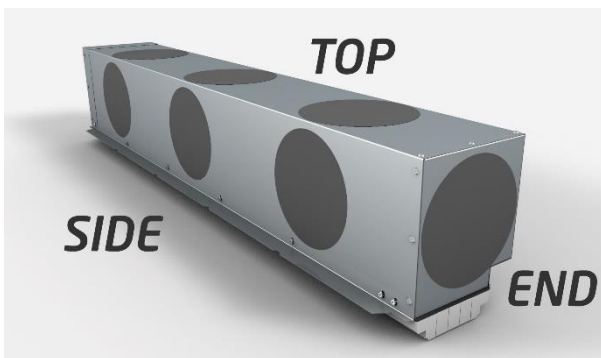
### 1.2 ASSEMBLY OF THE DIFFUSER

- a) Align the backend cap assembly holes with the corresponding holes in the box. Secure the backend cap to the box by tightening the screws.
- b) Ensure that the backend cap is fully covering the box and the holes are properly aligned.
- c) Carefully place the diffuser into the box. Secure the diffuser in place using the screws at the corresponding holes.

### 1.3 THE DIFFUSER IS NOW READY FOR THE INSTALLATION.



## 2. ATTACHING FLANGE

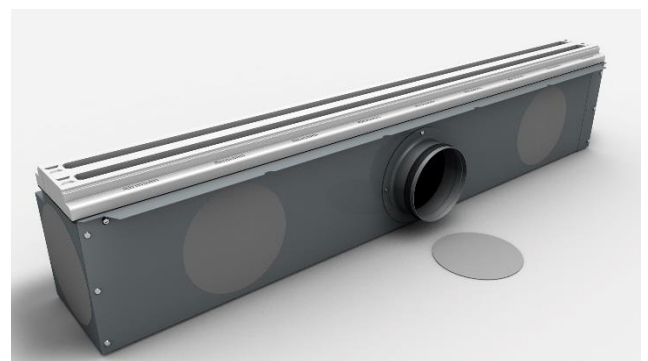
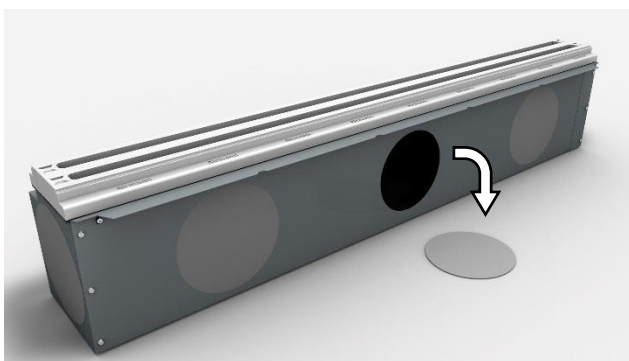


### 2.1 CHOOSING CONNECTIONS

During the manufacturing process, the diffuser box is equipped with pre-cut holes located on the back, side, and top of the plenum box. Please select the appropriate pre-cut holes that are suitable for your specific project requirements. This will help to ensure proper and effective installation of the diffuser.

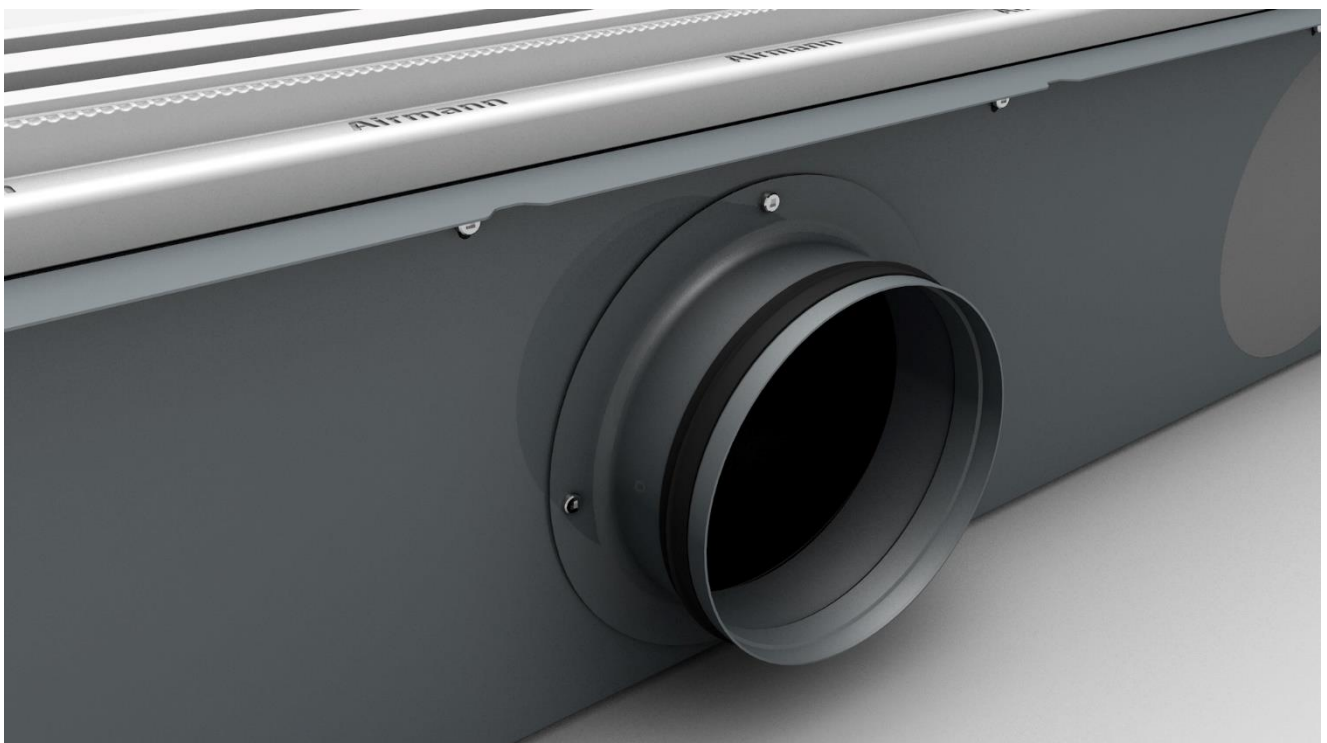
### 2.2 OPENING HOLES

To gain access to the desired pre-cut hole plate on the plenum box, simply push or pull the designated plate in accordance with the markings provided.



### 2.3 FLANGE ATTACHMENT

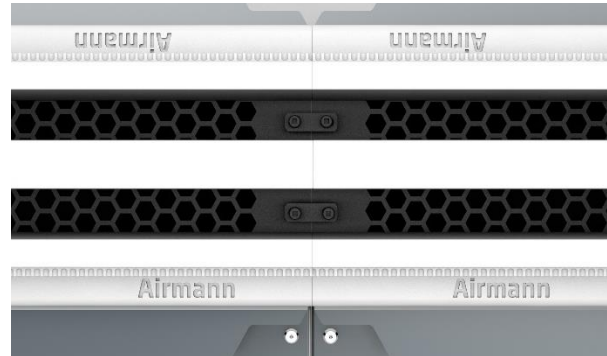
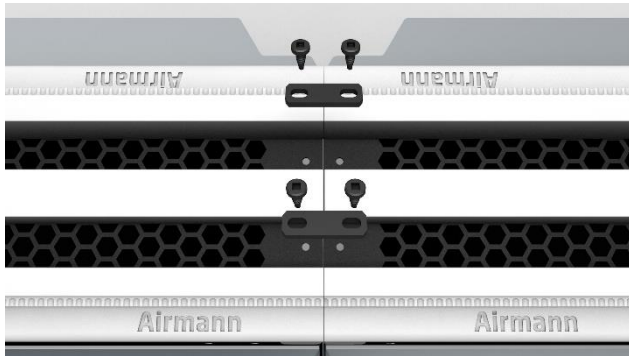
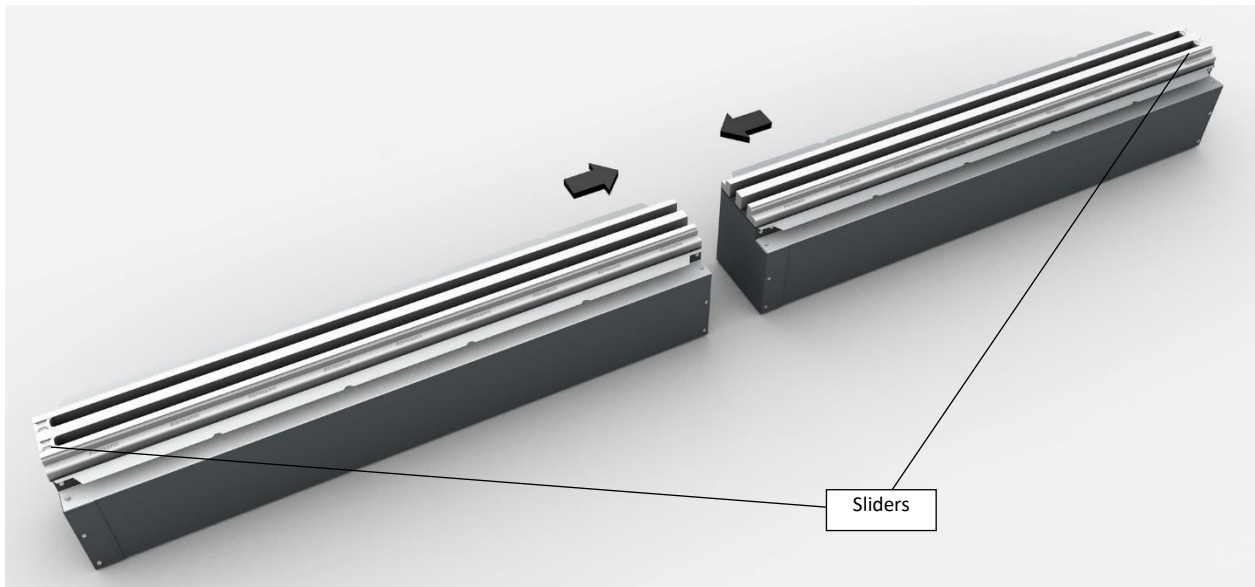
Select the appropriately sized diameter flange and securely fasten it onto the opened hole. To enhance sealing effectiveness, apply a layer of sealant around the edges of the hole if needed.



### 3. JOINING DIFFUSERS

#### 3.1 PREPARATION

Airmann diffusers are designed to be joined together to achieve the desired length, without any limitations. The standard lengths of the separate diffusers are available in 600mm, 1000mm and 1200mm options. When joining multiple diffusers for a seamless slot, please ensure that there are no sliders present in the middle portion of the joinable diffusers, as these are only required at the ends. Before the process of screwing the plates, temporarily remove the special dust-protective sponge strips.



#### 3.2 CONNECTION

a) To join the diffusers, we highly recommend using special titan plates designed for this purpose, prior to installation onto the ceiling. Connect the diffusers together and secure them in place by fastening the titan plates into the slots of the diffuser using the pre-manufactured holes on the plate.

b) Upon completion of securing the titan plates, it is essential to reinstall the special dust-protective sponge strip into the slot to prevent any potential dust accumulation during the installation process.



In this example, two slot diffusers have been joined together seamlessly, although the plenum boxes work separately. This allows for versatile usage, where one side slots with a box can be allocated for ventilation while the other is utilized for cooling or conditioning purposes. **Note:** for cooling purposes, isolated boxes are highly recommended to prevent any potential issues with condensation.

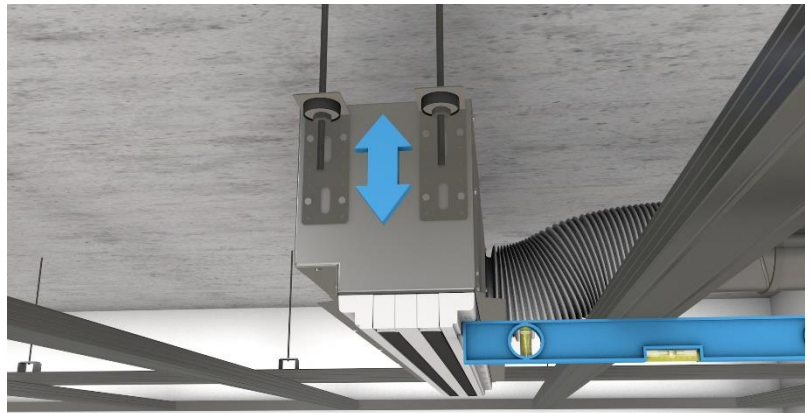
## 4. DIFFUSER INSTALLATION

### 4.1 POSITIONING DIFFUSER

a) Before beginning the installation process, ensure that there is sufficient space in the ceiling frame for the diffuser and that the metal profiles will not obstruct any further installation work.

b) Use UWL lugs with anti-vibration gaskets to secure the diffuser to the ceiling with long threads. This will allow for easy installation at the required height and adjustment of the tilt in relation to the ceiling.

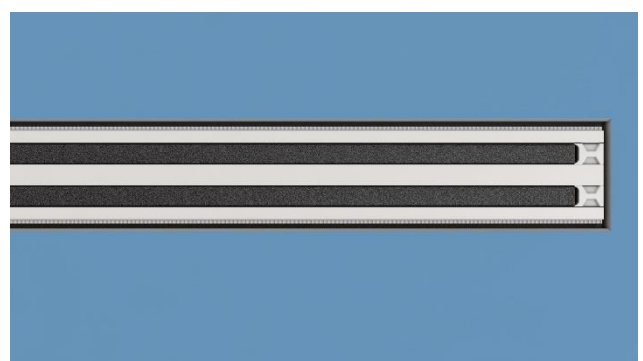
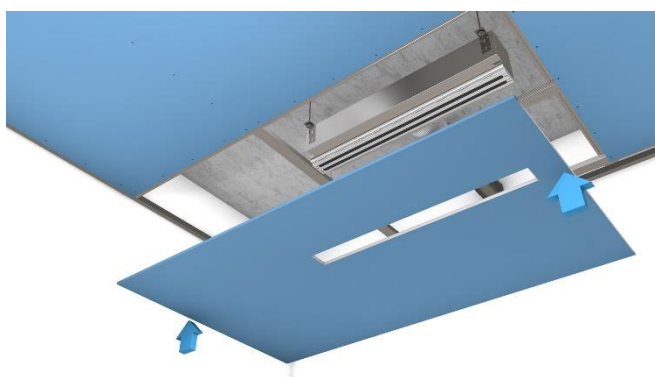
c) The gypsum part of the diffuser should be installed at the correct height. For a single layer of plasterboard panels, the plane with imprints of the logos should be on the same level as the lowest part of the metal profiles. For a double layer of plasterboard panels, the plane of the gypsum part should be 12.5 mm lower than the lowest part of the metal profiles.



### 4.2 INSTALLING PLASTERBOARD

a) Cut an opening in the plasterboard that is 5-6 mm larger than the required dimensions for the diffuser. Adhere to KNAUF recommendations for processing the opening edge, ensuring there are no splinters or debris. Apply small strips of elastic adhesive, such as Kiihto Pro MASA glue-sealant, to the gypsum part of the diffuser where logo imprints are present. Attach the plasterboard to the metal profiles of the ceiling frame using standard drywall installation procedures. Important: Do not use screws to attach the plasterboard to the diffuser, as this can cause damage to the diffuser itself.

b) Once the diffuser is correctly installed, the gypsum part should protrude approximately 3 mm. This protrusion allows for the application of putty, reinforcing tape, and other finishing materials. If any protrusion remains after all layers have been applied, it can be easily removed using standard putty scrapers to create a flush surface with the ceiling.



## 5. FINISHING

### 5.1 PREPARATION

Before beginning the installation, ensure that the diffuser openings are covered with a specialized sponge strip to prevent dust from entering the system during the finishing process. Prior to starting work, remove any substances that may reduce adhesion, such as dust, grease, and dirt, from the diffuser body, gaps, and the plasterboard surface within a 50 cm radius around the diffuser. To enhance the adhesion of putty and paint, apply a deep primer to the plaster surface of the plasterboard, the notch, and the diffuser body. Allow the primer to dry completely.

### 5.2 REINFORCEMENT

a) Apply the filler using a spatula, sweeping it in various directions and firmly pressing it into the gap between the diffuser and the plasterboard. Ensure the reinforcing filler completely covers the sliders and special locking grooves on the edge for putty reinforcement. Scrape the putty pressed into the gap to create an even, 10 cm wide, and at least 1 mm thick putty strip on the ceiling surface. Allow the primary (reinforcing) putty to harden.

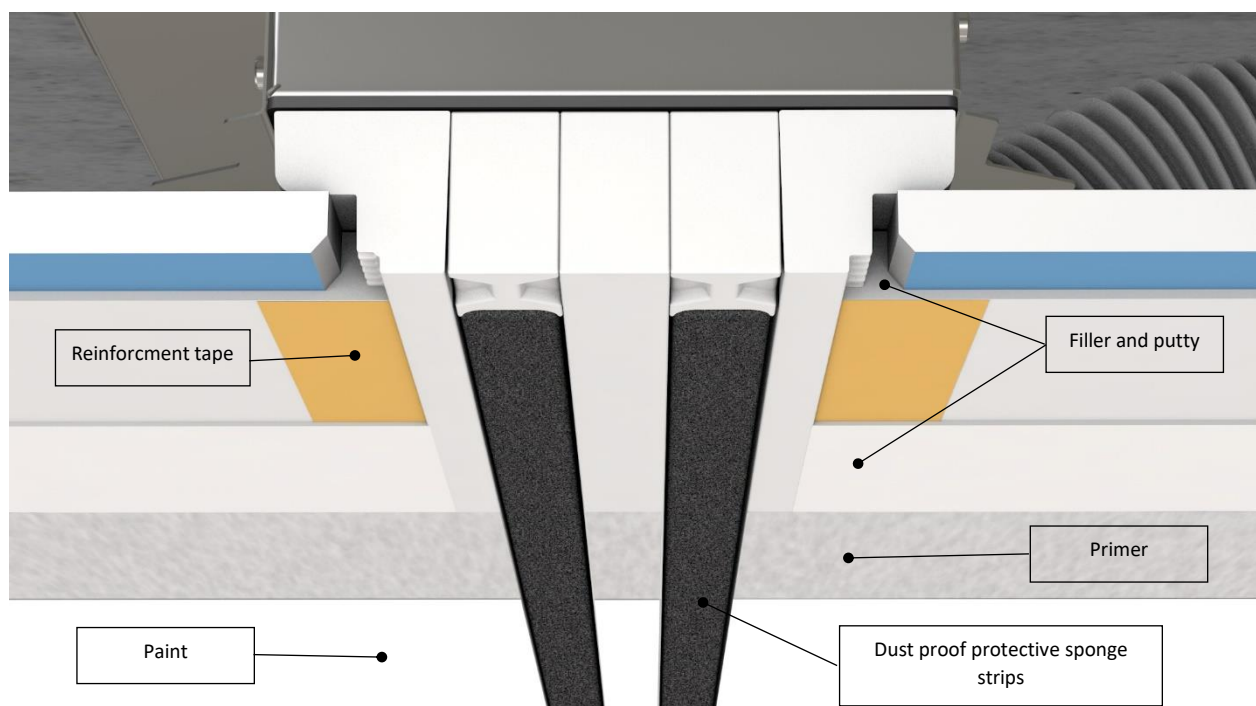
b) Optional: For additional reinforcement, adhere reinforcing tape around the diffuser's perimeter (paper tape is recommended). The tape should fully cover the diffuser grooves and extend at least 4 cm onto the plasterboard edge.

### 5.3 GRINDING AND SANDING

For a finished surface, apply one or more layers of putty, depending on the desired quality preparation level (Q1 – Q4). Once the putty has fully dried, use a hand or mechanical tool with fine-grit abrasive materials to sand the surface.

### 5.4 PAINTING

After sanding the ceiling surface to achieve a plane ready for painting, remove any residual dust and apply a deep primer. Paint the entire visible area of the ceiling, including the diffuser's gypsum lower (visible) surface and, if necessary, the inner part planes. When painting the inner planes, ensure the metal grille of the diffuser is protected. For rooms with increased humidity, use moisture-resistant primer and paints.



6. FINAL VIEW OPTIONS

