

DIFFUSER INSTALLATION GUIDE

KVADRO-100 / KVADRO-125

Diffuser preparation page 7
Installation Method No. 1 page 8
(connected via a flexible corrugated pipe)
Installation Method No. 2 page 9
(connection via a standard plenum box when the ceiling panels have not yet been attached)
Integrated diffuser finishing page 11
Diffuser maintenance page 12

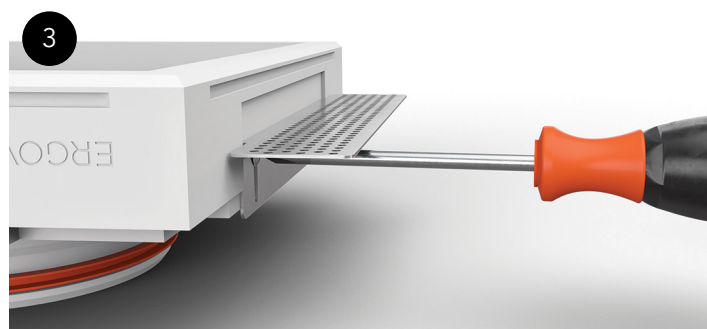
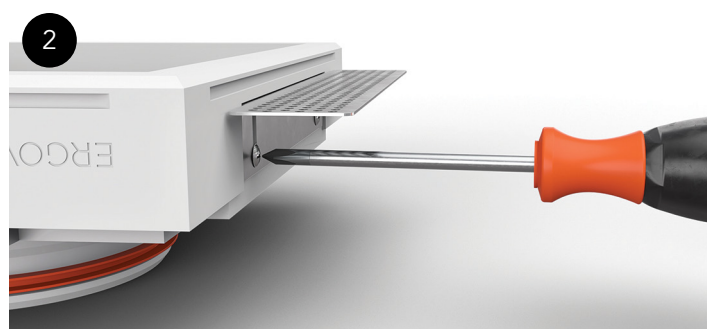
DIFFUSER PREPARATION

Remove the diffusers and side brackets from the boxes. Inspect each diffuser for any cracks in the housing. Leave the covers securely in the boxes (Image 1), as they will only be needed when starting the painting.



Use screws to attach the side fasteners. They can be applied to 1 or 2 layers of plasterboard.

1 layer: the element is placed against the edge (Image 2);
2 layers: the fastening is aligned with the protruding brim in the housing (Image 3).



SELECTION OF THE INSTALLATION METHOD

- Three installation methods are possible. You will recognise which method is suitable for you by looking at the images depicting different situations. Choose the installation method that best suits your situation and follow the appropriate instructions.

INSTALLATION METHOD No. 1 (page 8)

METAL DUCT SYSTEM

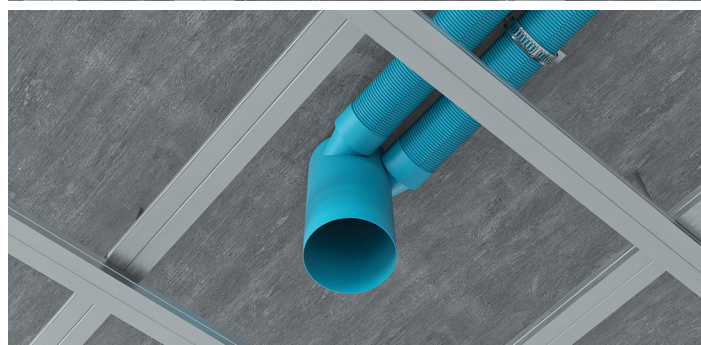
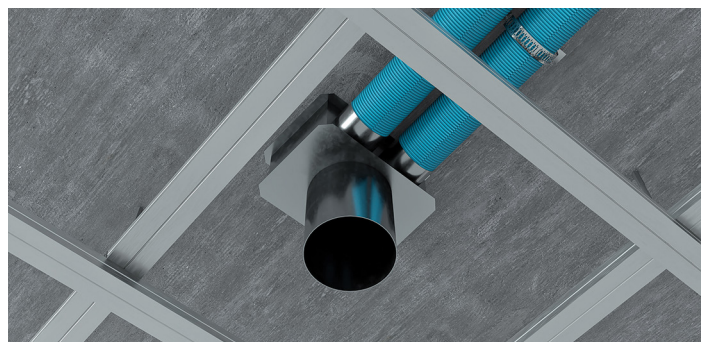
Connection: via a flexible corrugated pipe.



INSTALLATION METHOD No. 2 (page 9)

75 mm PLASTIC DUCT SYSTEM

Connection: via a plenum box (metal/plastic).
Ceiling plasterboards are not yet attached.



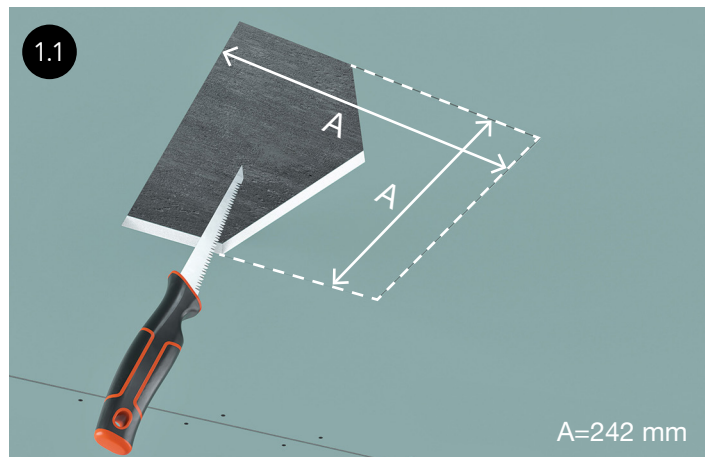
INSTALLATION METHOD NO. 1

Connection via a flexible corrugated pipe

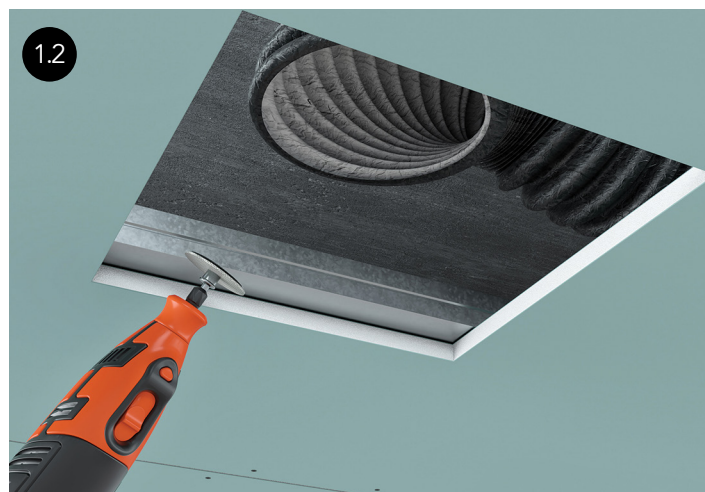
EN

- When connecting the diffusers via a flexible corrugated pipe, the gypsum ceiling panels must be already attached.

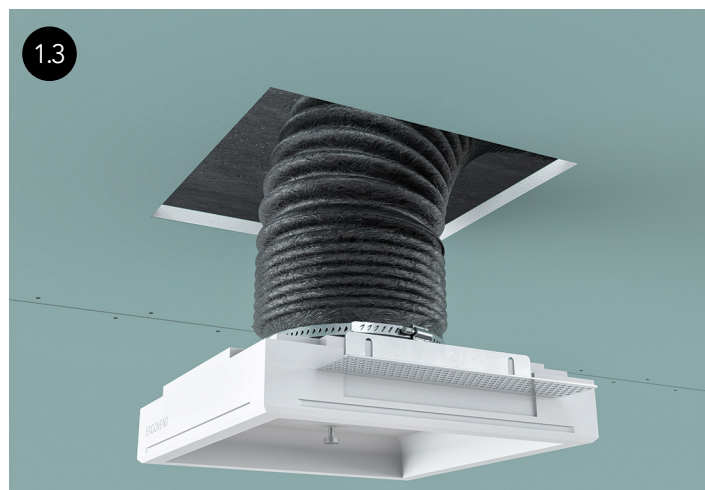
Cut a hole for the diffuser in the intended place (Image 1.1).



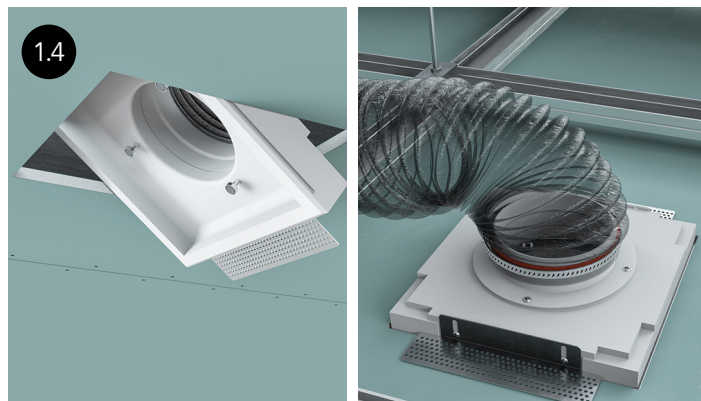
When planning the diffuser installation points, make sure that there are no ceiling frame profiles in the diffuser installation area. Any profiles present in the area of the cut-out hole and creating an obstruction must be removed (Image 1.2). Be sure to consult with the ceiling installers to ensure that you will not damage the ceiling structure.



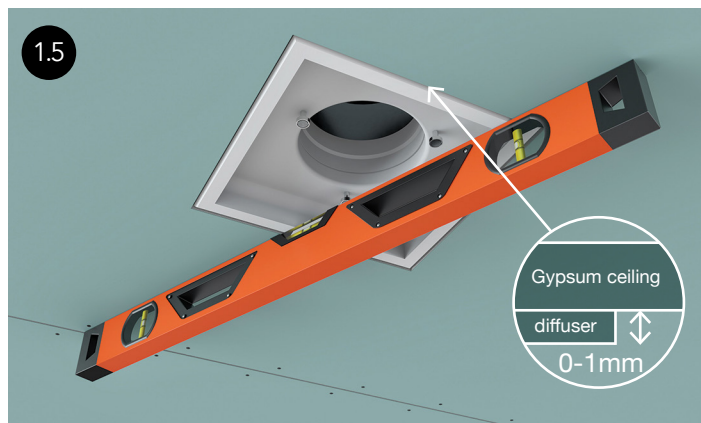
Attach the flexible corrugated pipe to the diffuser connector. A clamp or plastic strap will suffice (Image 1.3).



Tilt the diffuser at an angle and insert it through the hole (Image 1.4). Then place it in the intended position (the side fastenings must rest on the plasterboard).



Check that the diffuser installation is level. The diffuser must be flush with the ceiling surface or can protrude by up to 1 mm (Image 1.5).



- If the diffuser is awry, the side brackets have been attached at different levels. Remove the diffuser and readjust the fasteners.

The diffuser is fastened with self-tapping screws. Insert the screws directly through the plasterboard into the side fasteners (Image 1.6).



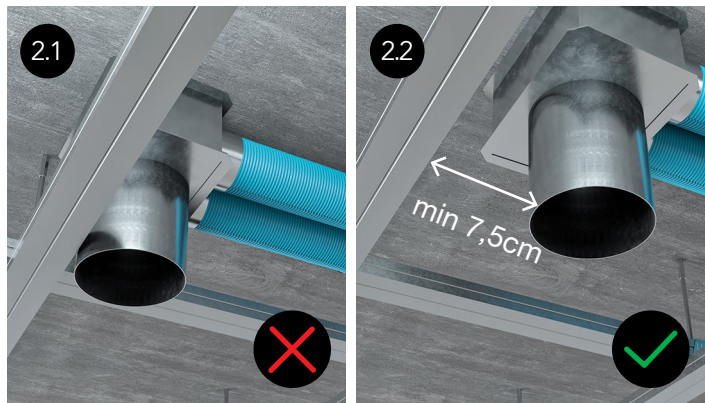
The diffuser is ready for finishing. Go to the finishing instructions (page 11).

INSTALLATION METHOD NO. 2

Connection via a plenum box (75 mm plastic duct system)

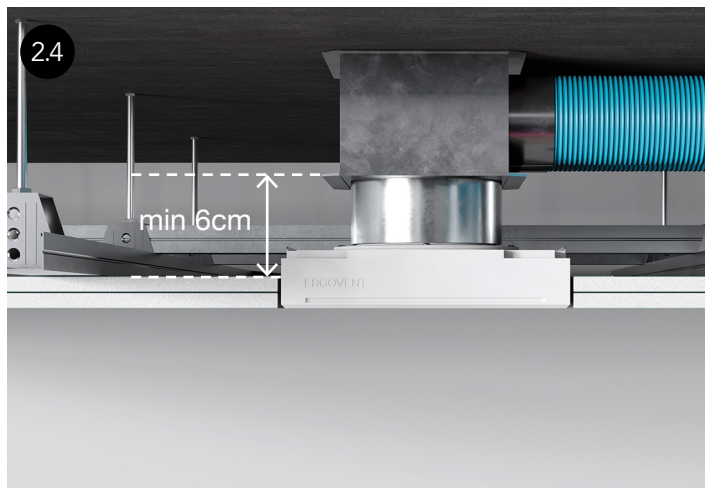
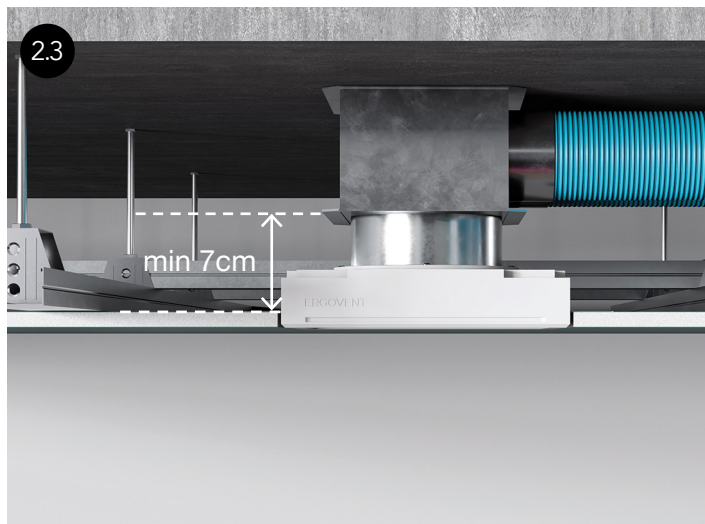
Make sure that the gypsum ceiling structure does not interfere with the installation of the diffusers (Image 2.1).

Metal ceiling profiles should be at least 7,5 cm away from the connection pipe (Image 2.2).

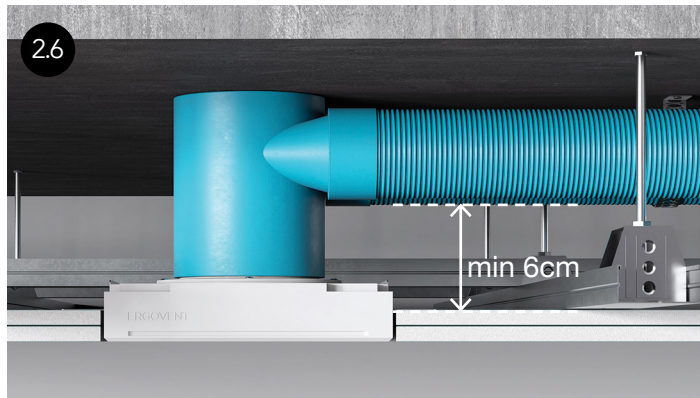
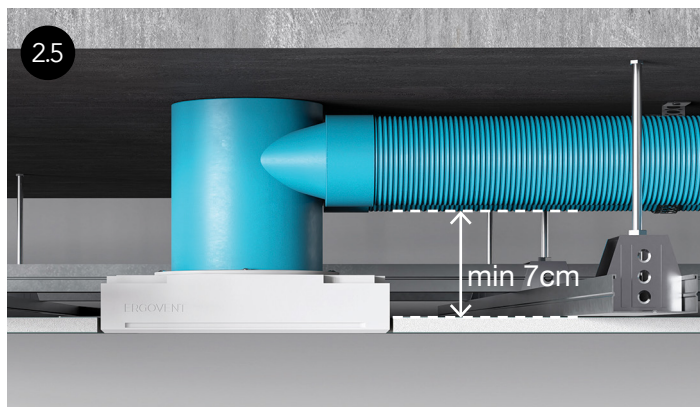


Make sure there is enough space for a successful diffuser installation:

• If the plenum box is metal, a successful installation will require at least 7 cm of space from the box housing to the bottom of the ceiling profile (Image 2.3). If two layers of plasterboard will be used, the distance required is 6 cm (Image 2.4).

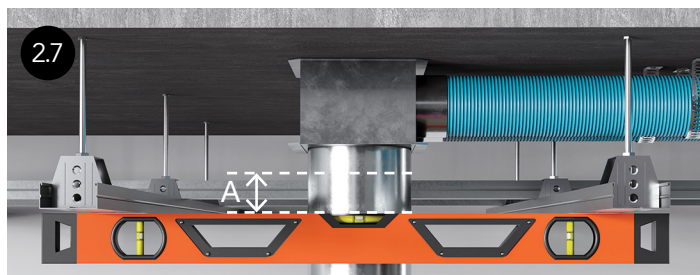


• If the plenum box is plastic, a successful installation will require at least 7 cm of space from the duct to the bottom of the ceiling profile (Image 2.5). If two layers of plasterboard will be used, the distance required is 6 cm (Figure 2.6).

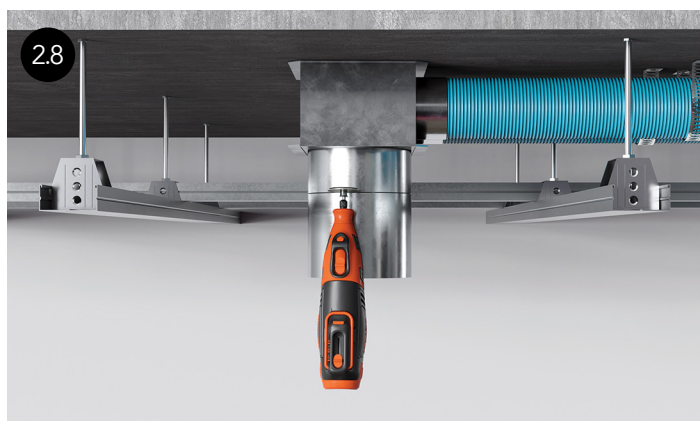


SHORTENING THE CONNECTION PIPES

The connecting pipes must be shortened by measuring Distance A from the level of the lower profile surface (Images 2.7 and 2.8).



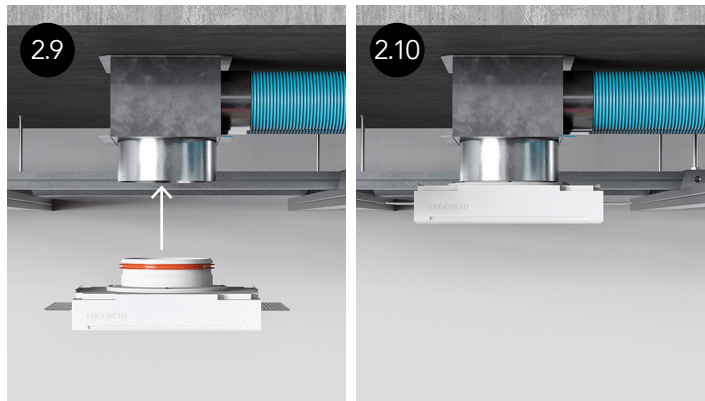
For 1 layer of plasterboard, A = 4,5 cm
For 2 layers of plasterboard, A = 3,5 cm



INSERTING THE DIFFUSER

- Insert the diffuser just before preparing to attach the ceiling plasterboards.

The diffuser coupling is then inserted into the connection pipe (Image 2.9). Continue moving the coupling inwards until it touches the pipe (Figure 2.10).



After inserting the diffuser, make sure that it is being held securely and will not fall out while you prepare the ceiling panel. If necessary, use mounting tape for a temporary fastening to prevent the diffuser from falling out (Image 2.11).



ATTACHMENT OF THE PLASTERBOARD

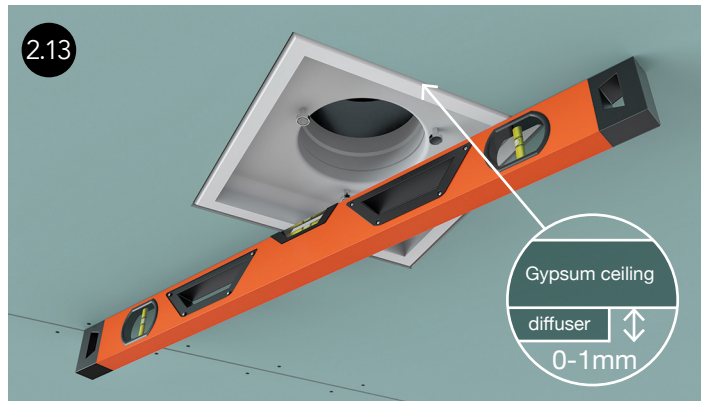
For 1 layer of plasterboard:

Cut out a hole in the required place and attach the board using screws (Image 2.12).



Check that the diffuser is level with respect to the visible ceiling surface (Image 2.13). The visible edge of the diffuser must be flush with the ceiling or can protrude by up to 1 mm.

If the diffuser is awry, the side brackets have been attached at different levels. In this case, remove the diffuser and readjust the fasteners.



For 2 layers of plasterboard:

After attaching the first layer of plaster, the diffuser housing should protrude by about 13 mm (Image 2.14). After attaching the second layer, the housing must be flush with the plasterboard or protruding by up to 1 mm.



DIFFUSER ATTACHMENT

The diffuser is fastened with self-tapping screws (Image 2.15). Insert the screws directly through the plasterboard into the side fasteners.



The diffuser is ready for finishing.
Go to the finishing instructions (page 11).

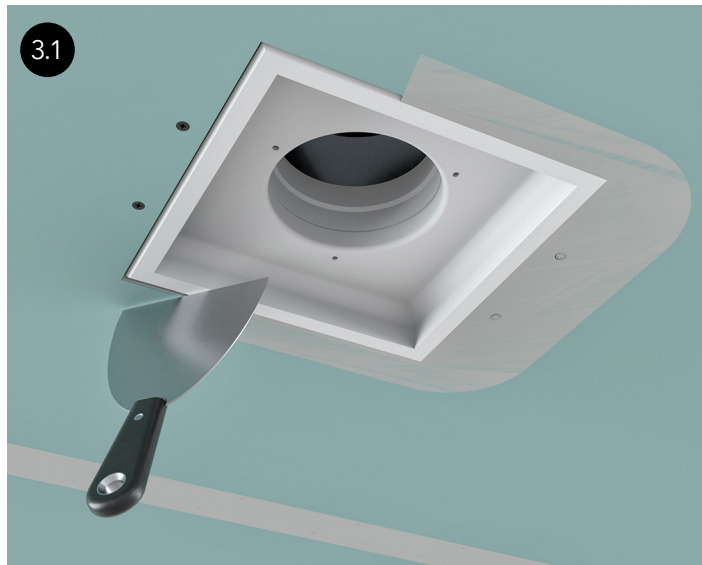
FINISHING INSTRUCTIONS

Rendering / reinforcement / painting

- We recommend using the Knauf finishing technology for your finishing work.
- Remove dust from surfaces and gaps. Use *Ceresit CT-17* or *Knauf Tiefgrund* primers.

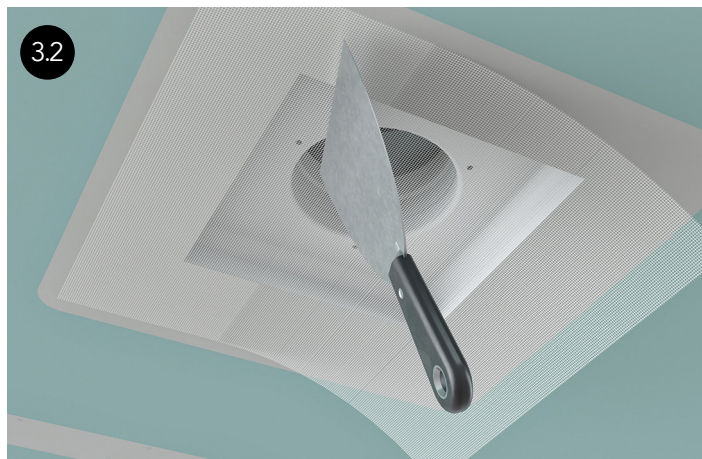
RENDERING AND REINFORCEMENT

Fill the gap between the diffuser and the plasterboard with putty. We recommend using *Knauf Fugenfuler* or *Uniflott* putty (Image 3.1).

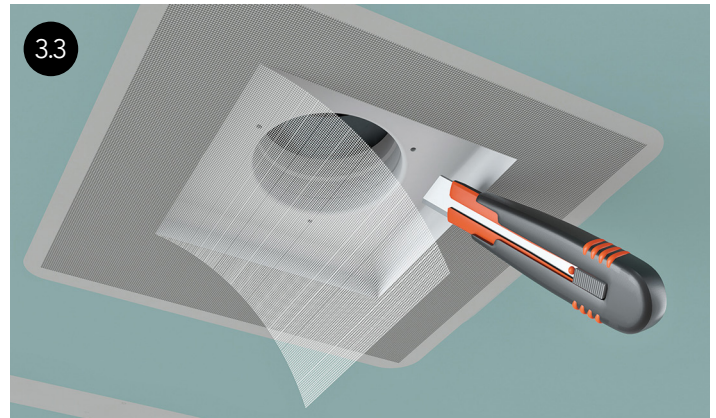


- To avoid cracks in the seam, we recommend reinforcing the entire seam area with fibreglass cloth.

Cut out 35 x 35 cm sheets from a thin fibreglass cloth. Press the fibreglass cloth into the putty, directly over the diffuser area. When pressing the cloth into the putty, smooth it out to ensure an even covering with the layer of putty (Image 3.2).



When the putty has dried, cut out the fibreglass cloth in the central part of the diffuser. Use a sharp knife to cut it flush with the inner edge of the diffuser, while making sure not to damage the gypsum housing (Image 3.3).



Apply another coat of putty (Image 3.4). Once the putty has hardened, rub it with a fine sandpaper.



PAINTING

- Prior to painting, impregnate the rendered surfaces with a deep primer; use a moisture-resistant primer for damp rooms.
- In damp rooms, use moisture-resistant ceiling paints that are specially designated for these types of rooms.

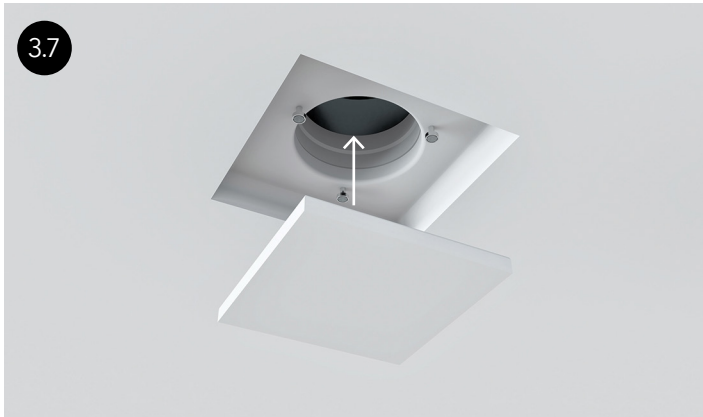
The entire inner surface of the diffuser must be painted with the ceiling paint (Image 3.5).



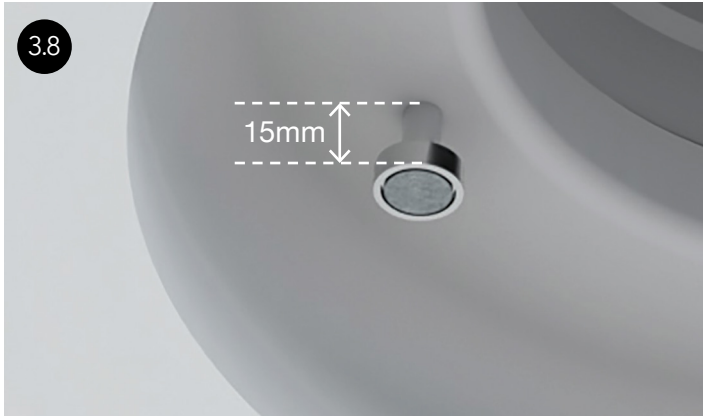
The centre cover does not need to be plastered prior to painting, as priming it will suffice. Paint only the visible surfaces of the centre cover (Image 3.6).



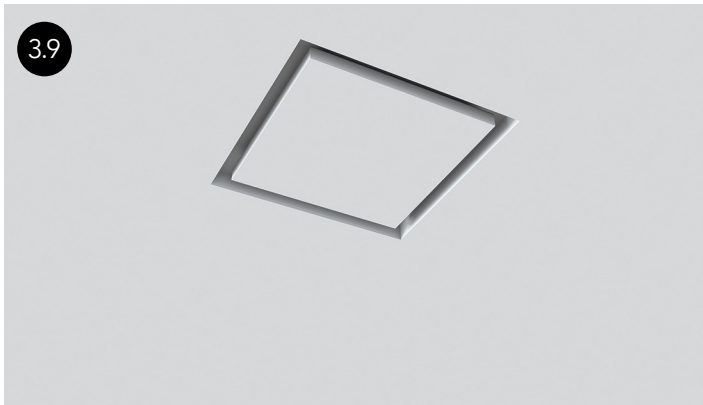
When the paint is completely dry, the cover can be put in place. The cover is attached to three magnetic holders (Image 3.7).



Adjust the magnetic holders so that each holder protrudes by 15 mm from the diffuser housing (Image 3.8).



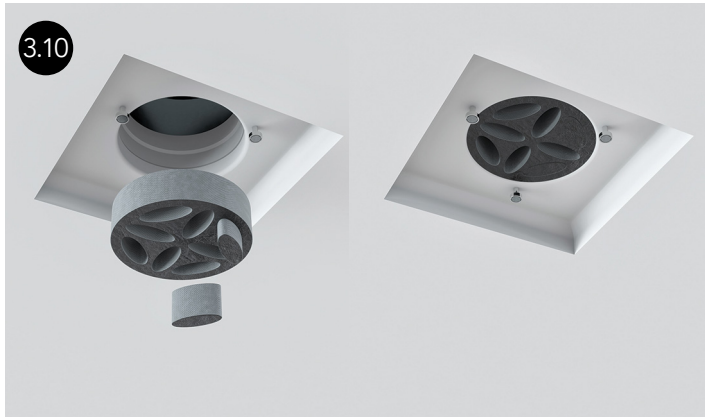
The diffuser installation is now complete (Image 3.9).



AIR FLOW REGULATION

- The diffuser cover must always be flush with the ceiling.
- If it is necessary to regulate the air flow, we recommend the additional purchase and use of an INNO valve. These come in standard diameters of 100 mm, 125 mm or 160 mm.

Valve installation. Remove the diffuser cover. Insert the flexible valve into the diffuser connection branch. The air flow is regulated by changing the number of valve segments (Image 3.10).



DIFFUSER MAINTENANCE

- To maintain a clean device, change the actuator filters inside the air diffuser regularly. This will reduce the penetration of impurities from outside and keep the diffuser clean for longer.

We recommend cleaning the diffuser at least once a year. Use a soft duster to clean the inside of the diffuser, to prevent dirt from accumulating and sticking to the device if it is left unclean for prolonged periods of time. Accumulated dust can also be removed with a vacuum cleaner. Avoid damaging the painted surface.

