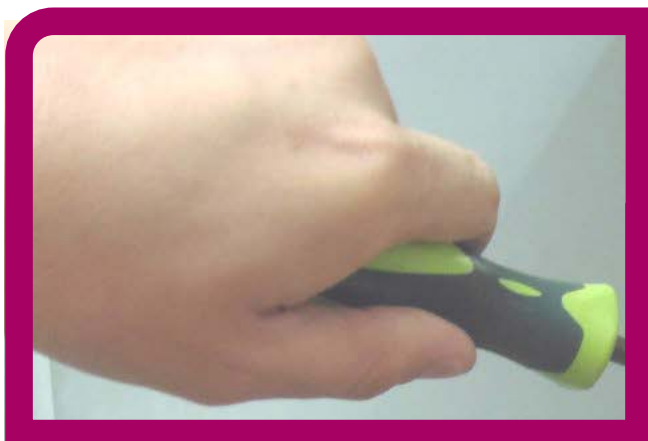


KOOLAIR



Linear grille with
concealed frame



31-LT



Installation
instructions

www.koolair.com

31-1-LT

Linear grille with concealed frame

Installation instructions



CONTENTS

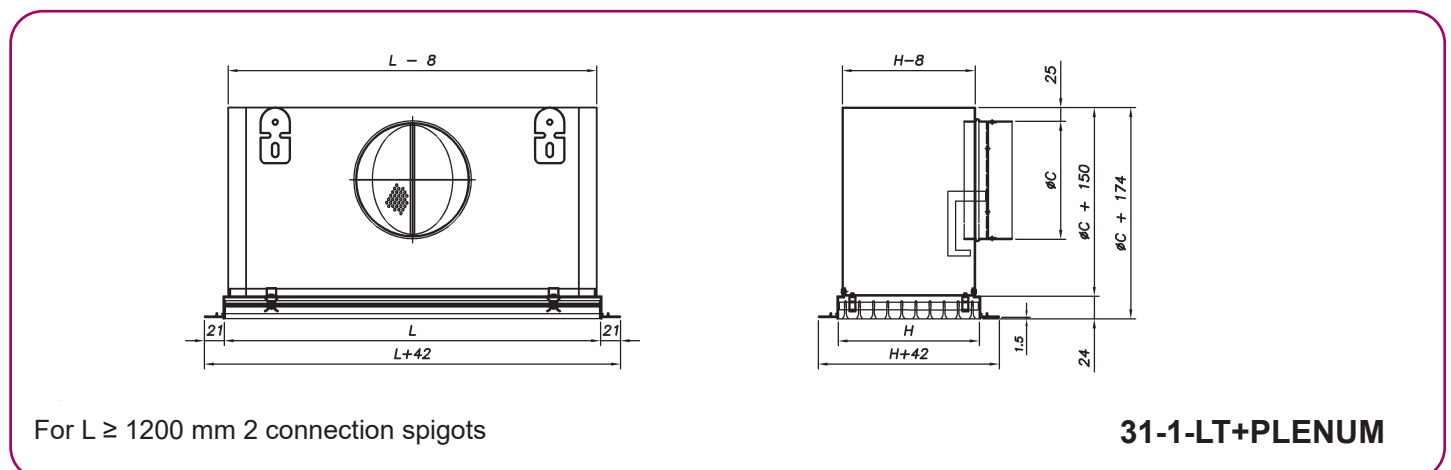
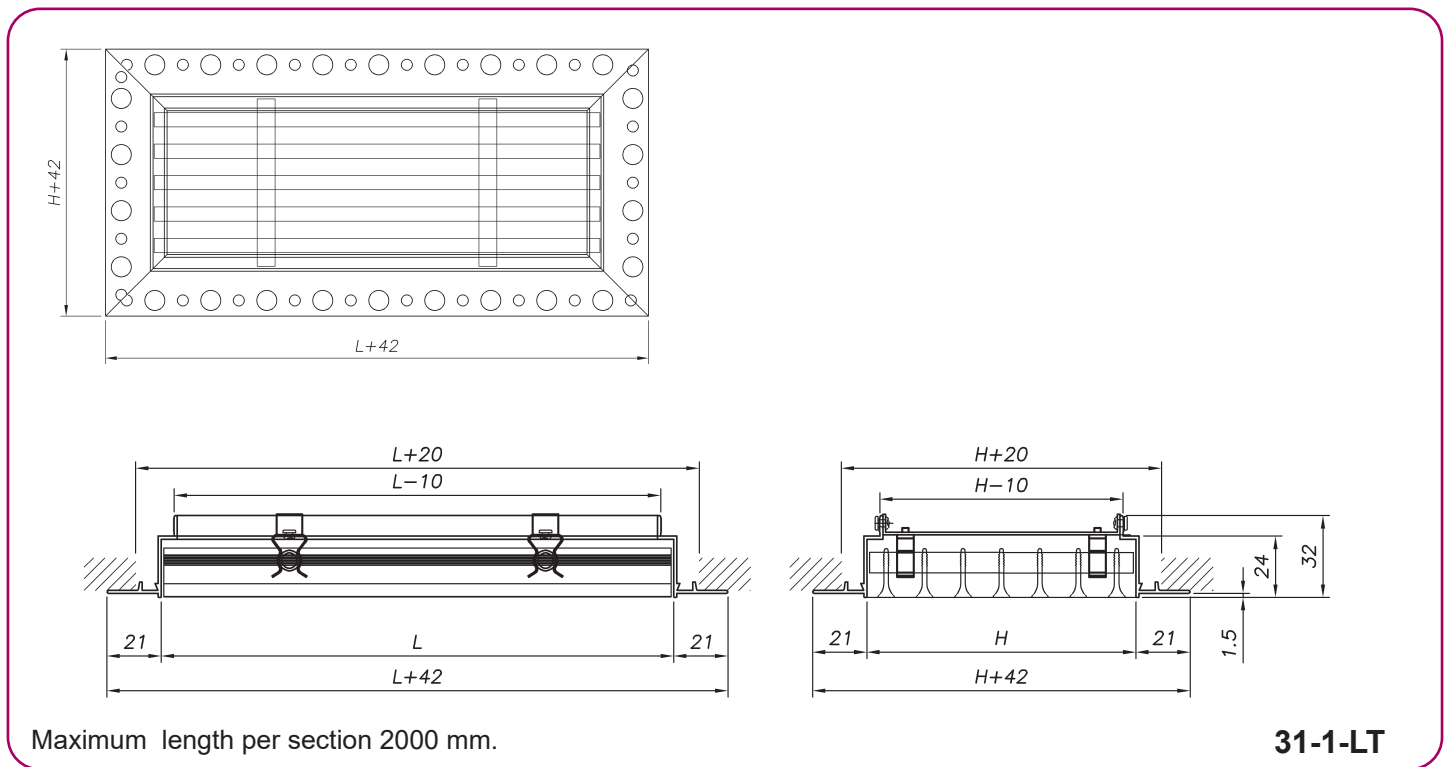
1. Overview	2
2. Installing in wall or suspended ceiling	3
3. Installing grille + plenum box	5
4. Forming rows	8
5. Installing and removing finned core	16

1. Overview

Description

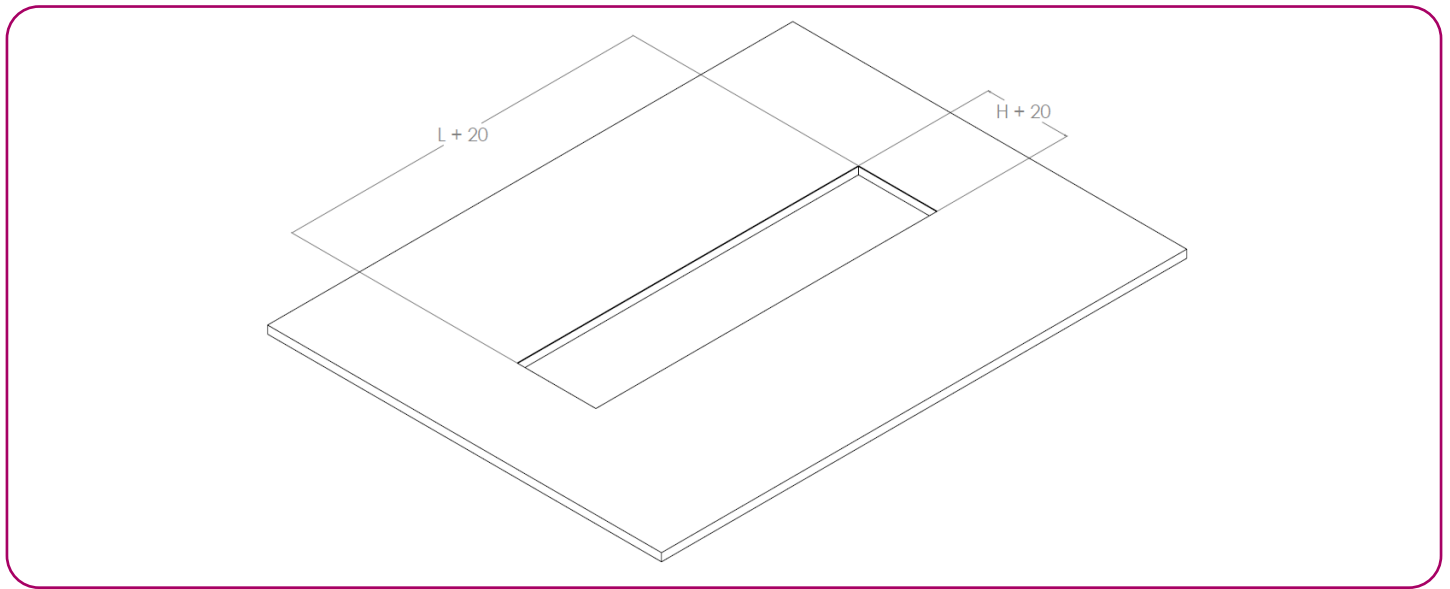
KOOLAIR linear grille for supply or return air with concealed perimeter frame, model 31-1-LT, dimensions LxH (mm), with fixed horizontal blades (0° deflection), for installation in suspended ceiling or wall. Fin block that can be detached manually by means of pressure clips to access the interior of the unit or duct for cleaning, inspection or to access the filter mat, etc. Maximum length per section 2000 mm.

Dimensions

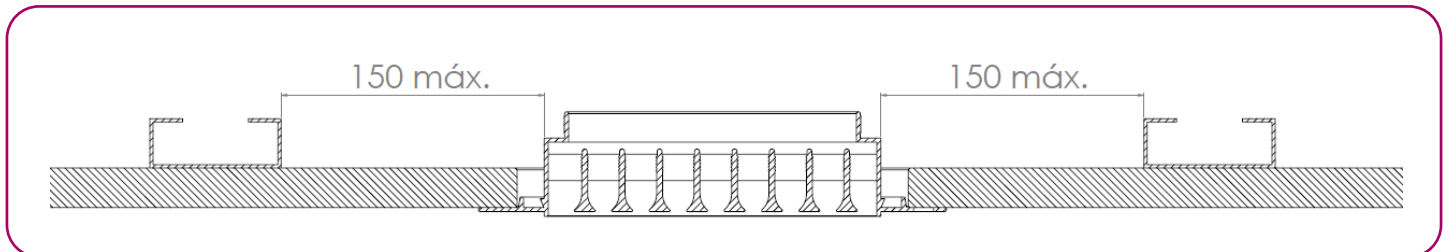


2. Installing in wall or suspended ceiling

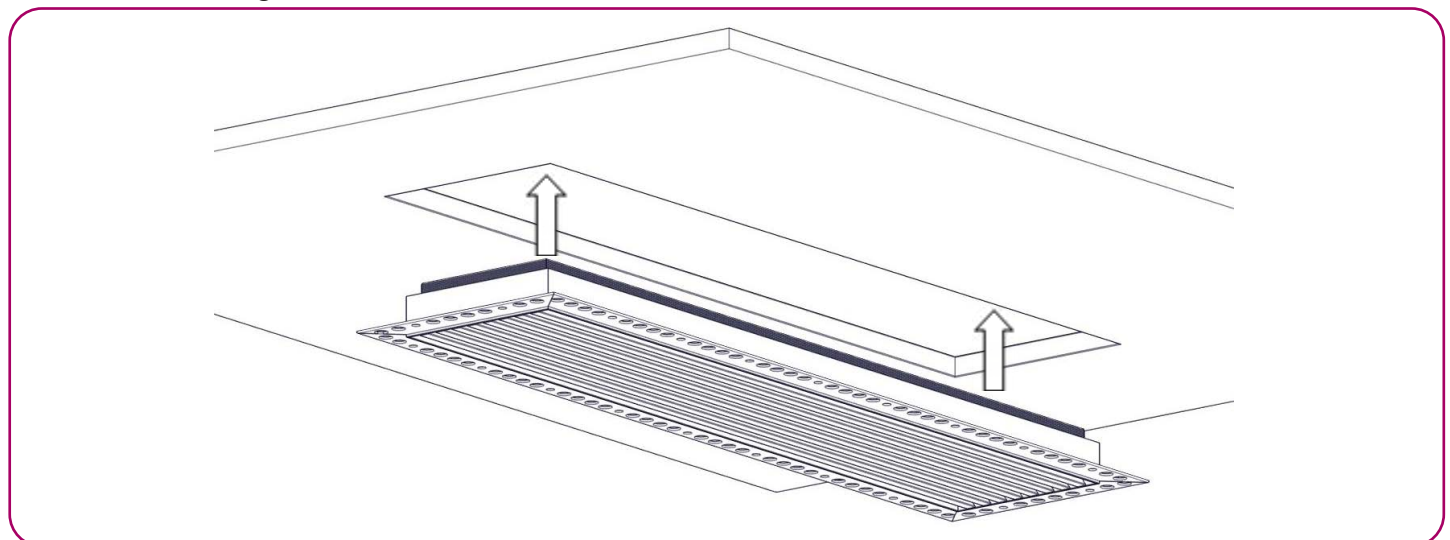
2.1- Cut an opening in the plasterboard (L+20) x (H+20)



2.2- The distance between the grille and the ceiling support frame should not exceed 150 mm.

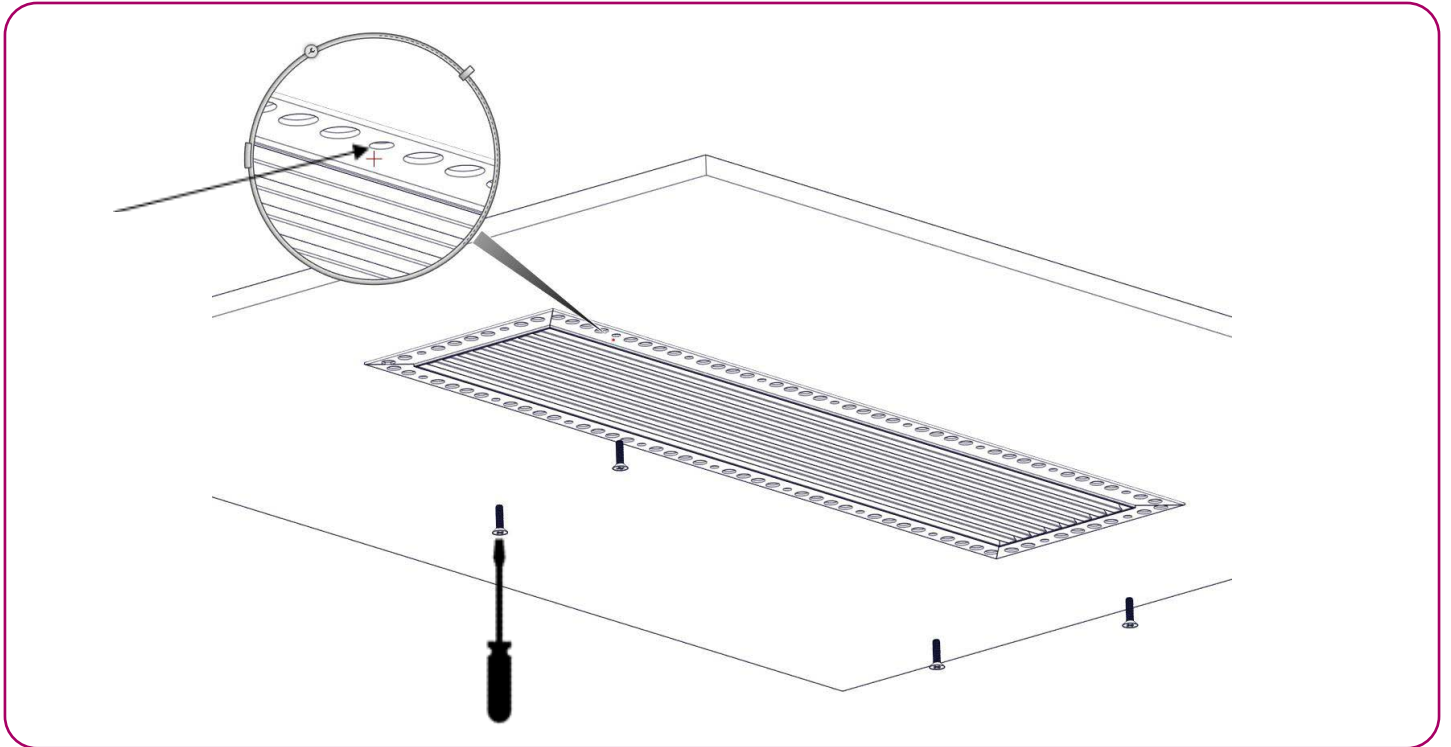


2.3- Position the grille in the opening in the plasterboard and raise it until the perimeter lid of the grille touches the ceiling.

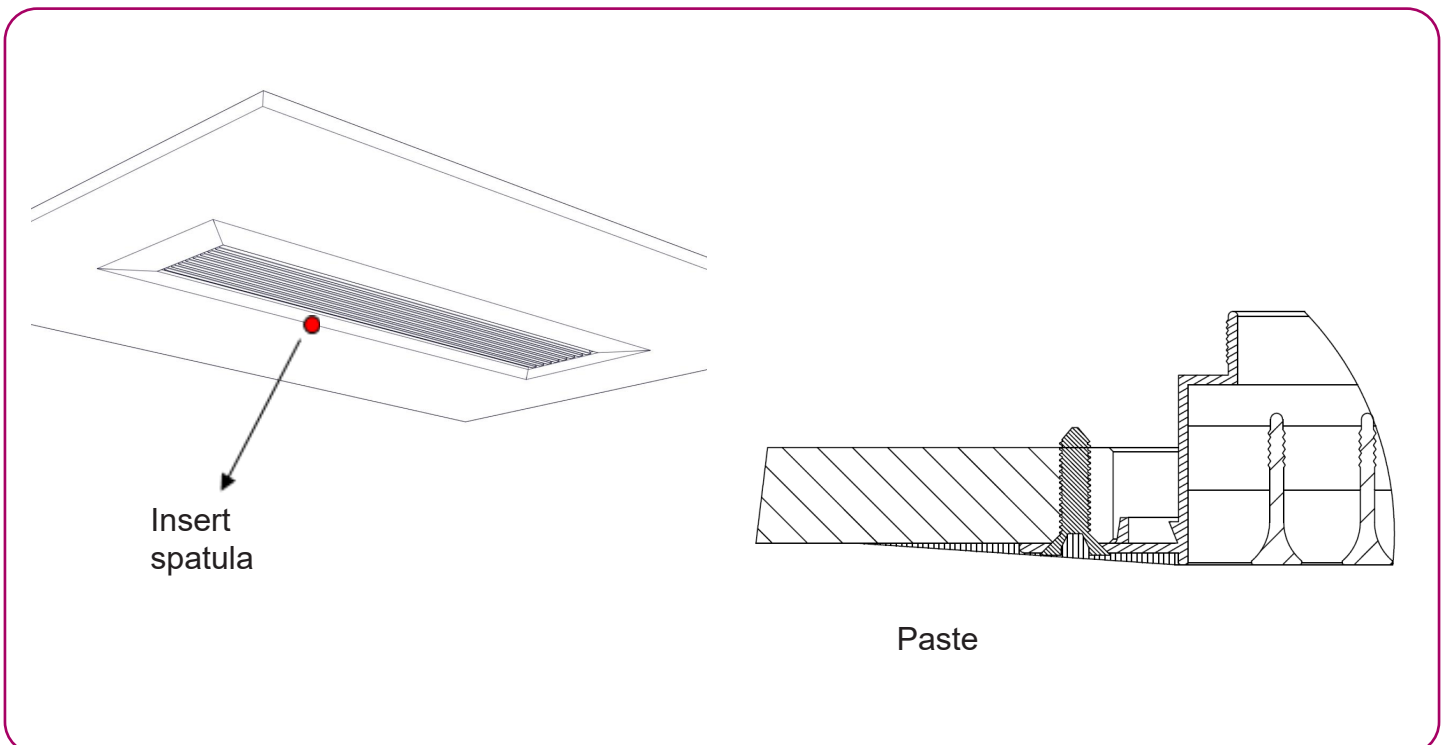


2. Installing in wall or suspended ceiling

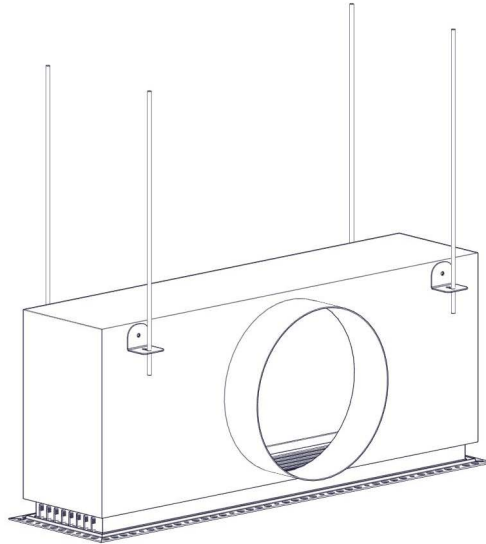
2.4- Fix the grille using at least 4 plasterboard screws in the smaller $\text{Ø}4\text{mm}$ holes drilled in the grille perimeter lid for this purpose. The distance between each screw pair should not exceed 250 mm.



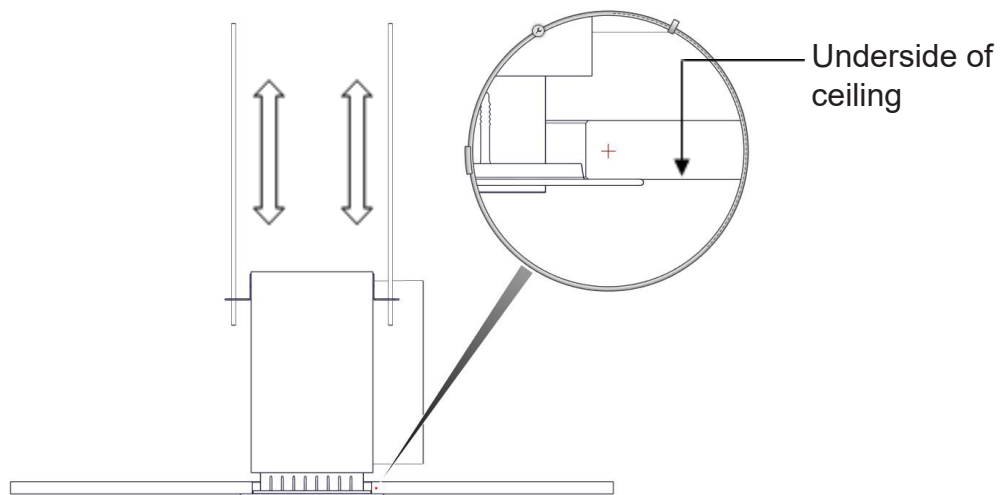
2.5- Once the grille is fixed with the screws, plaster over the holes in the perimeter lid of the grille and finish with a fine paste.



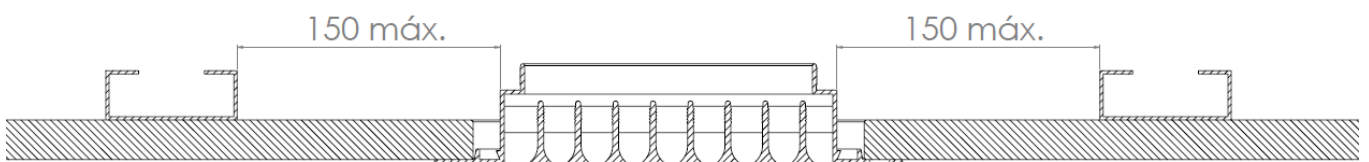
3. Installing grille + plenum box



3.1- Fix the plenum box using threaded rods. Use the threaded rods to adjust the height of the unit so that the lower edge of the grille is level with the underside of the ceiling.

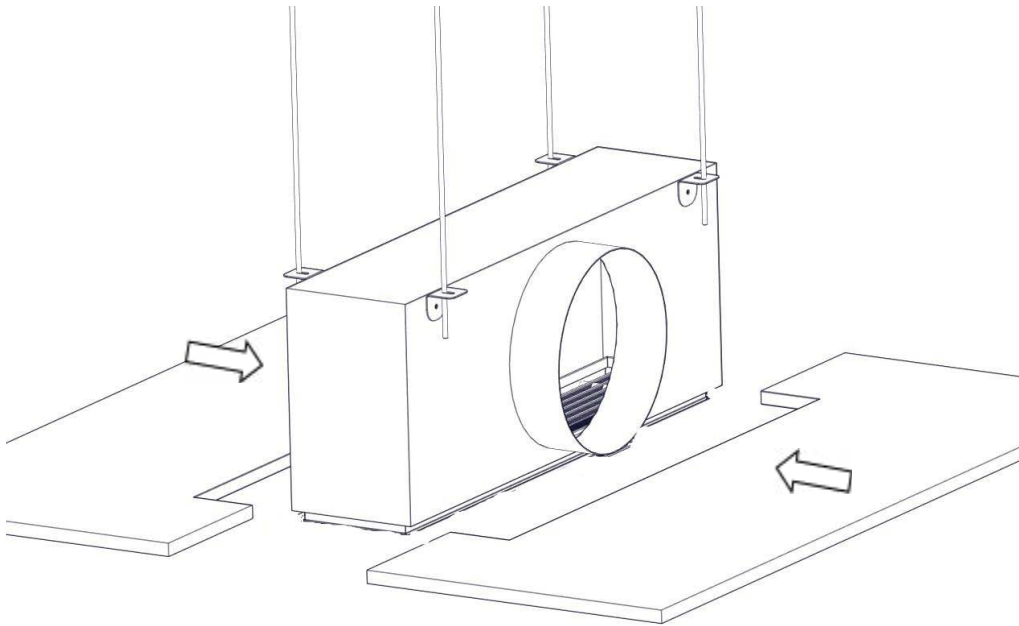


3.2- The distance between the grille and the ceiling support frame should not exceed 150 mm.

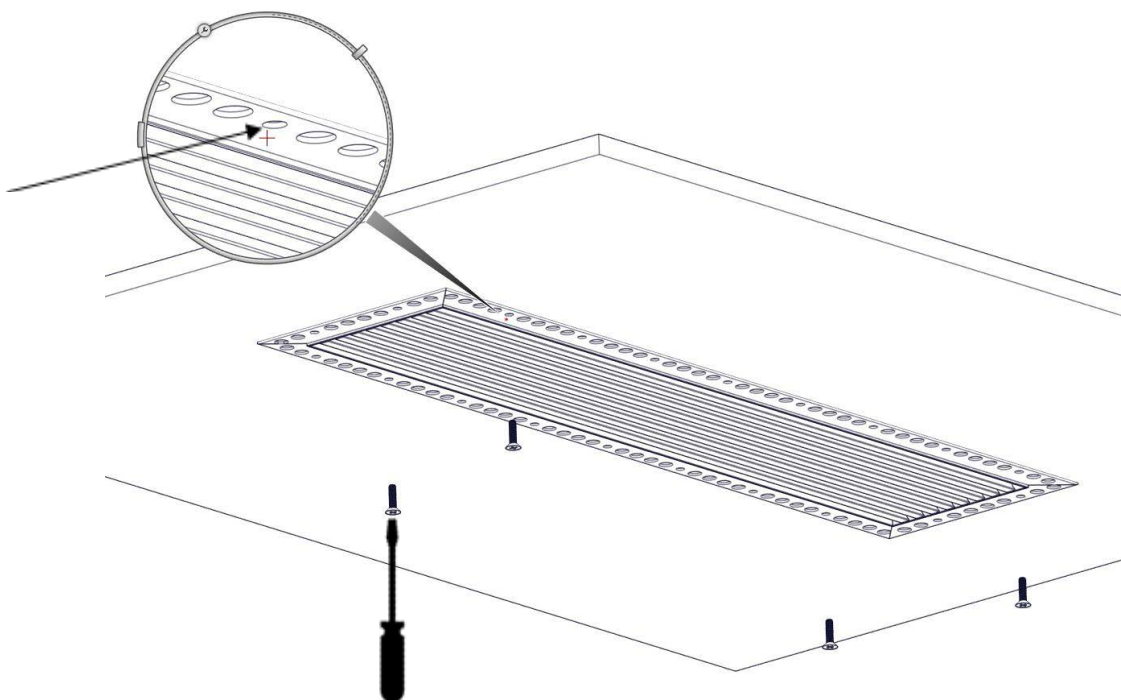


3. Installing grille + plenum box

3.3- Cut the plasterboard sheets and install them up to the drilled lid of the grille as shown below.

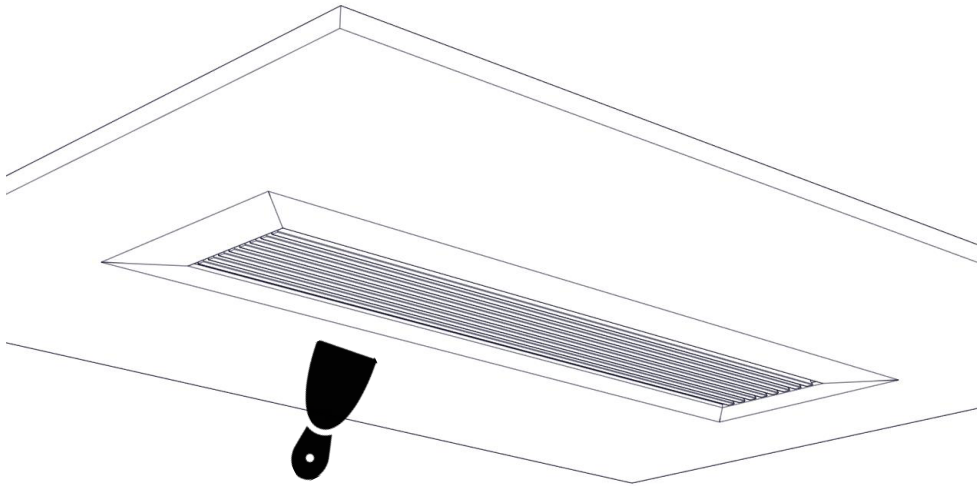


3.4- Fix the grille using at least 4 plasterboard screws in the smaller $\text{\O}4\text{mm}$ holes drilled on the grille lid for this purpose. The distance between each screw pair should not exceed 250mm.



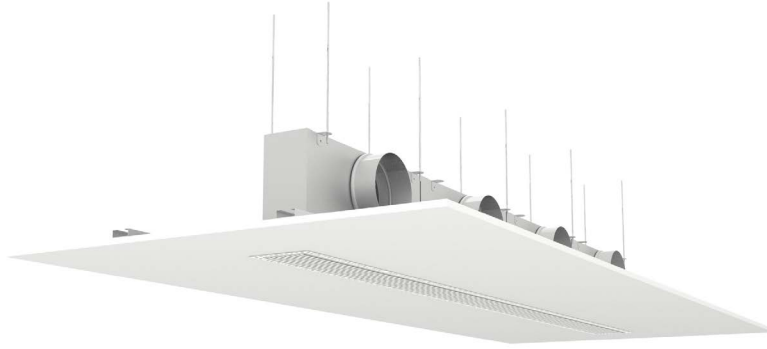
3. Installing grille + plenum box

3.5- Once the grille is fixed with the screws, plaster over the holes drilled on the lid of the grille and finish with a fine paste.

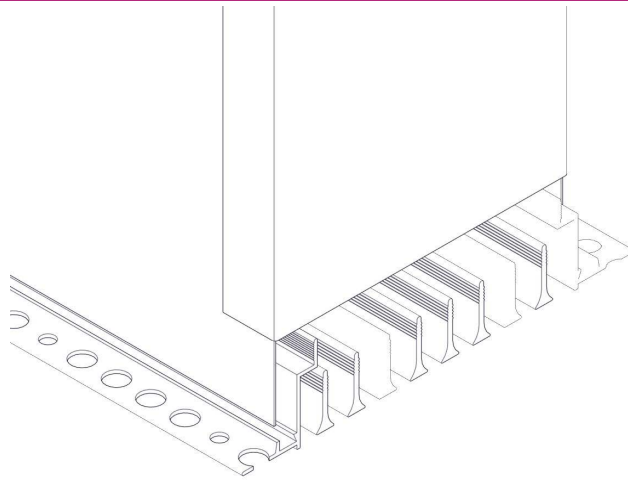


4. Forming rows

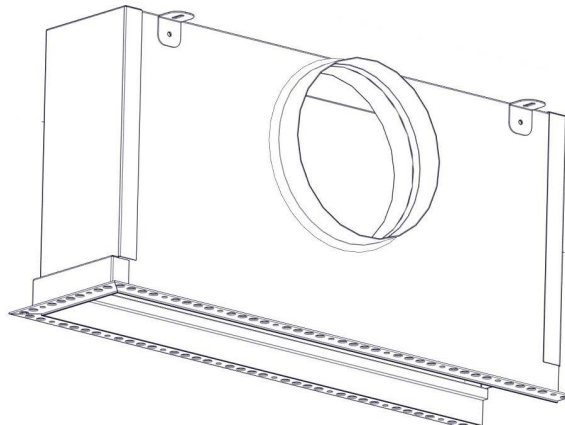
4.1A. Plenum box + grille assembly



4.1A.1- Intermediate in-line plenum boxes have a shorter coverplate so that the grilles can be installed side by side, allowing rows to be formed.



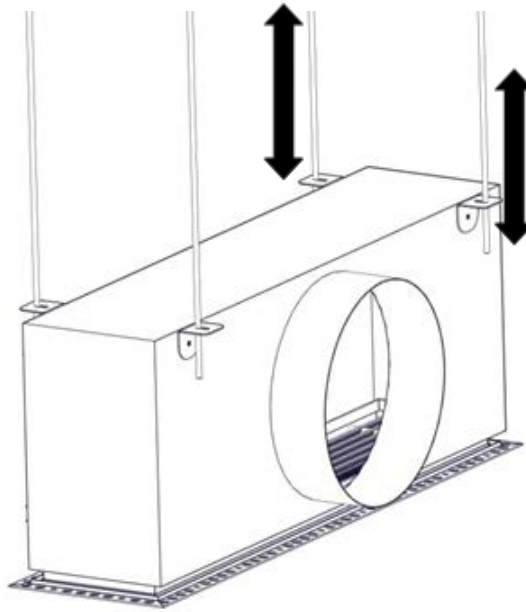
4.1A.2- Install the plenum box + grille assembly according to the instructions in part 3 above. Make sure the plenum boxes at the start/end of the row are installed first, followed by the intermediate plenum boxes.



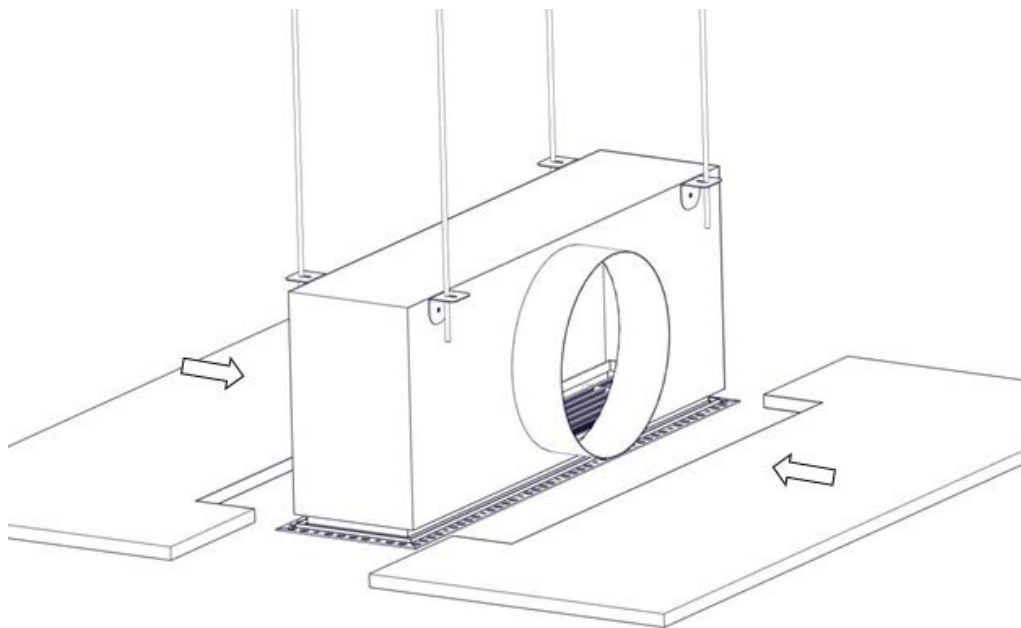
4. Forming rows

4.1A. Plenum + grille assembly

4.1A.3- Follow the instructions in part 3 above to install the plenum boxes in the positions required for each installation.



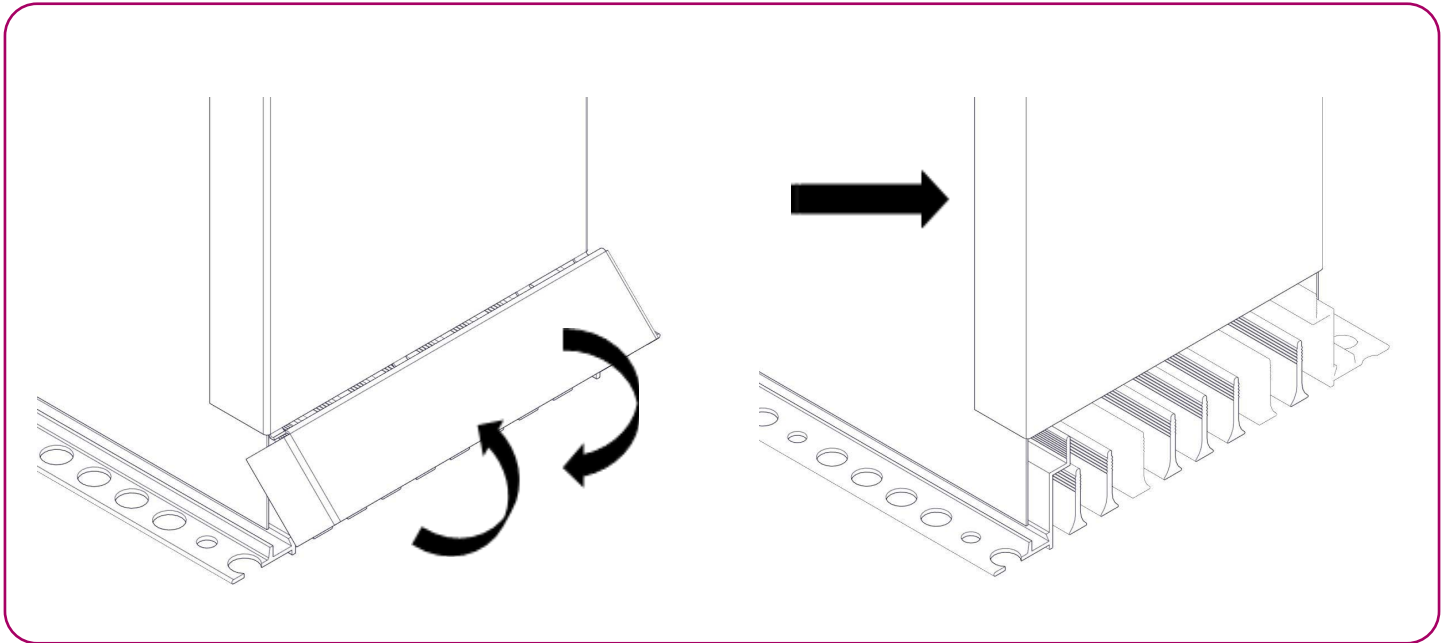
4.1A.4- Cut and fit the plasterboard according to part 3.3 above.



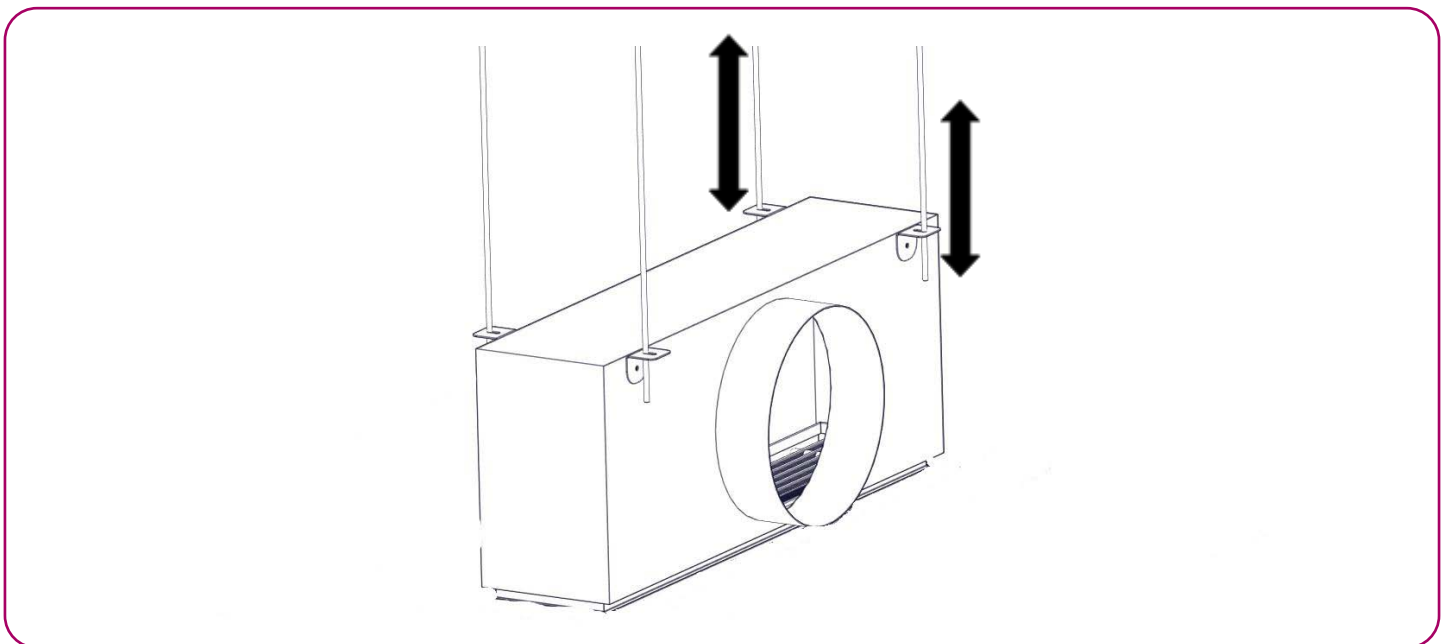
4. Forming rows

4.1B. Installing plenum box independently of grille

4.1B.1- The plenum boxes at the end of the rows will not require any alterations. However, the cover plate of the intermediate plenum boxes will need to be cut. Cut along the guide lines that have been pre-slitted to allow the grilles to be installed in rows.



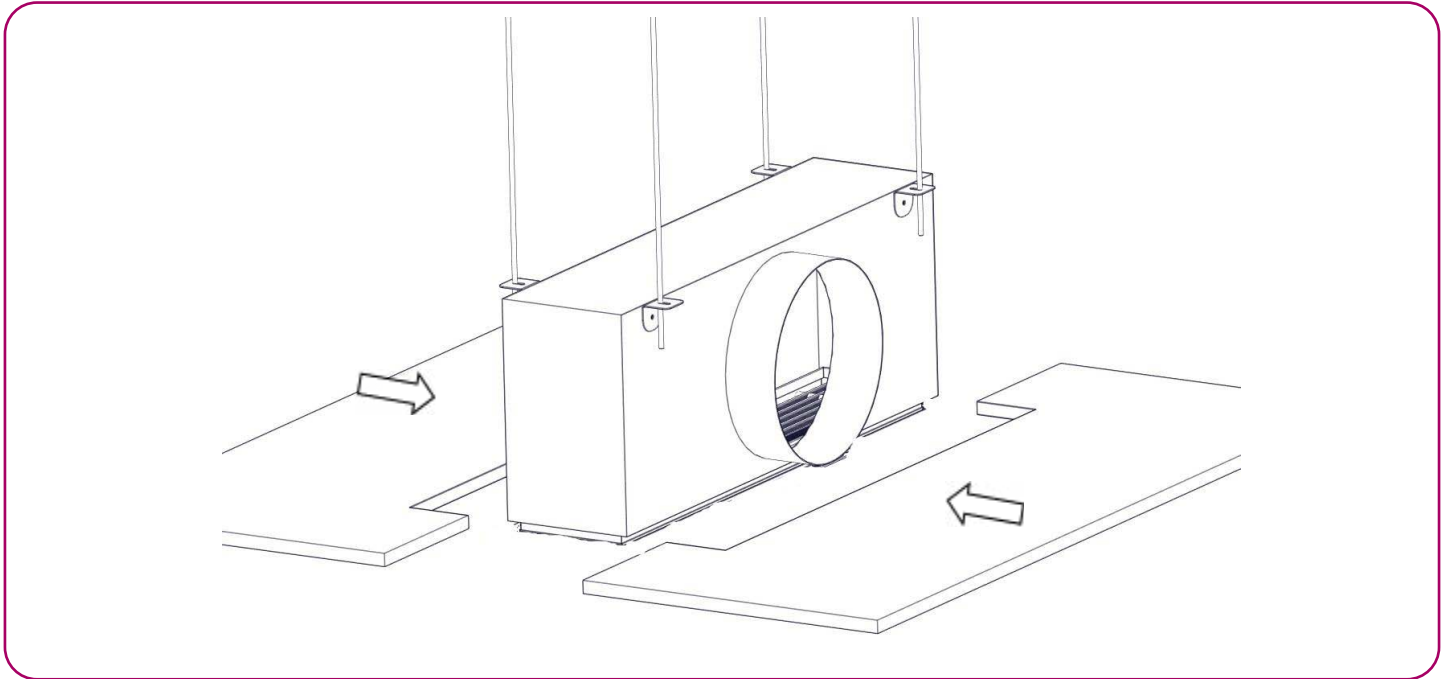
4.1B.2- Follow the instructions in part 3 above to install the plenum boxes in the positions required for each installation.



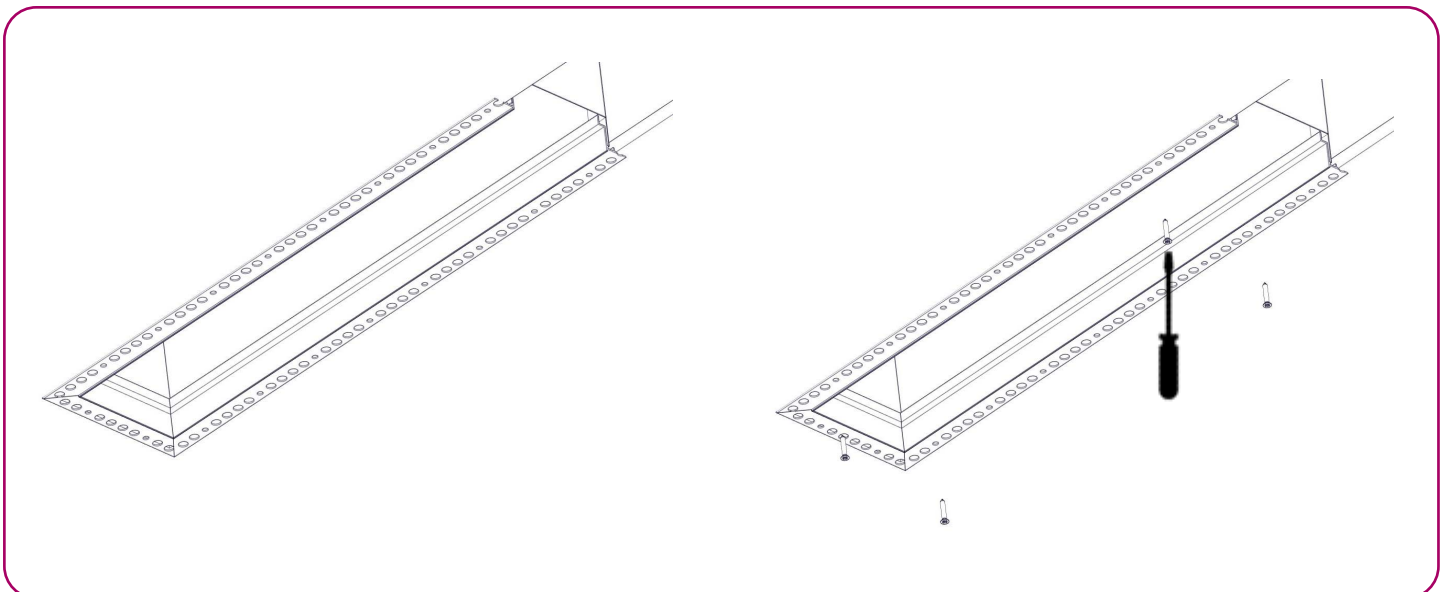
4. Forming rows

4.1B. Installing plenum box independently of grille

4.1B.3- Cut and install the plasterboard according to part 3.3 above.



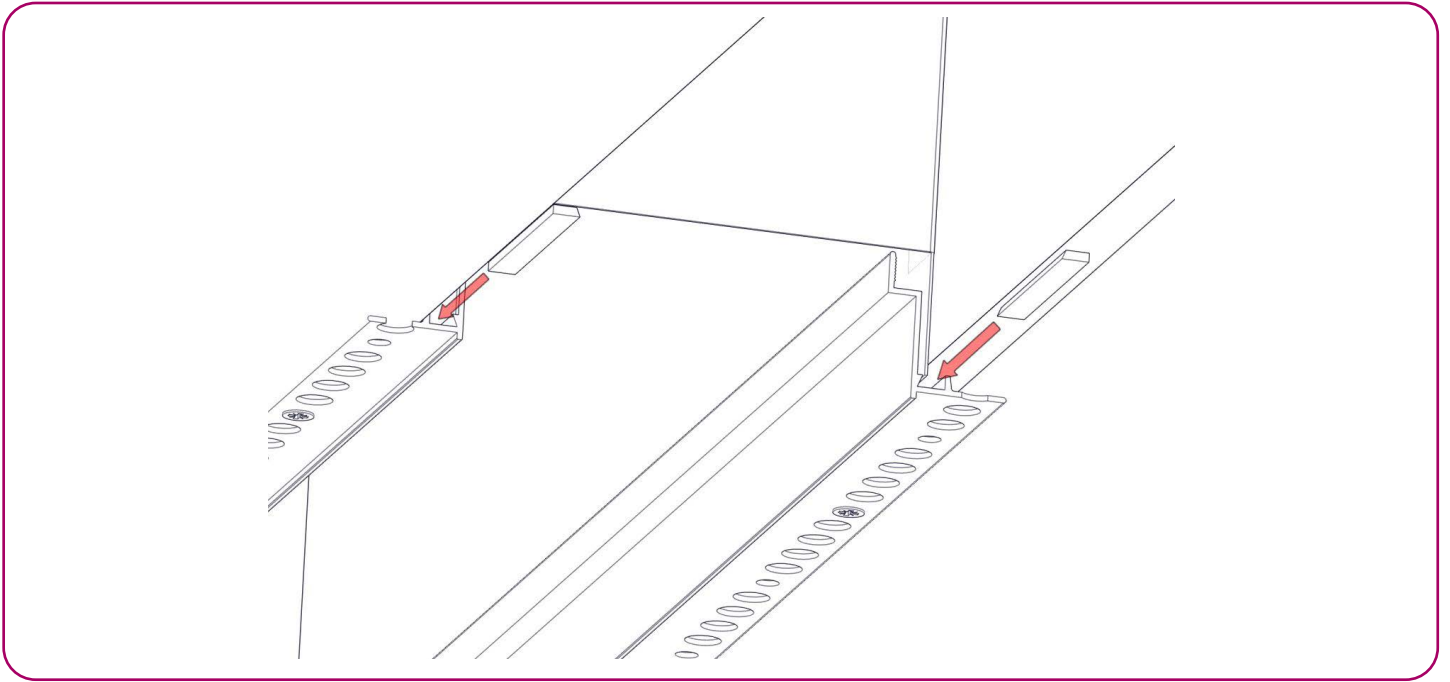
4.1B.4- Once the boards are installed, insert and fix the grille using at least 4 plasterboard screws in the smaller Ø4mm holes drilled on the grille lid for the purpose. The distance between each screw pair should not exceed 250 mm.



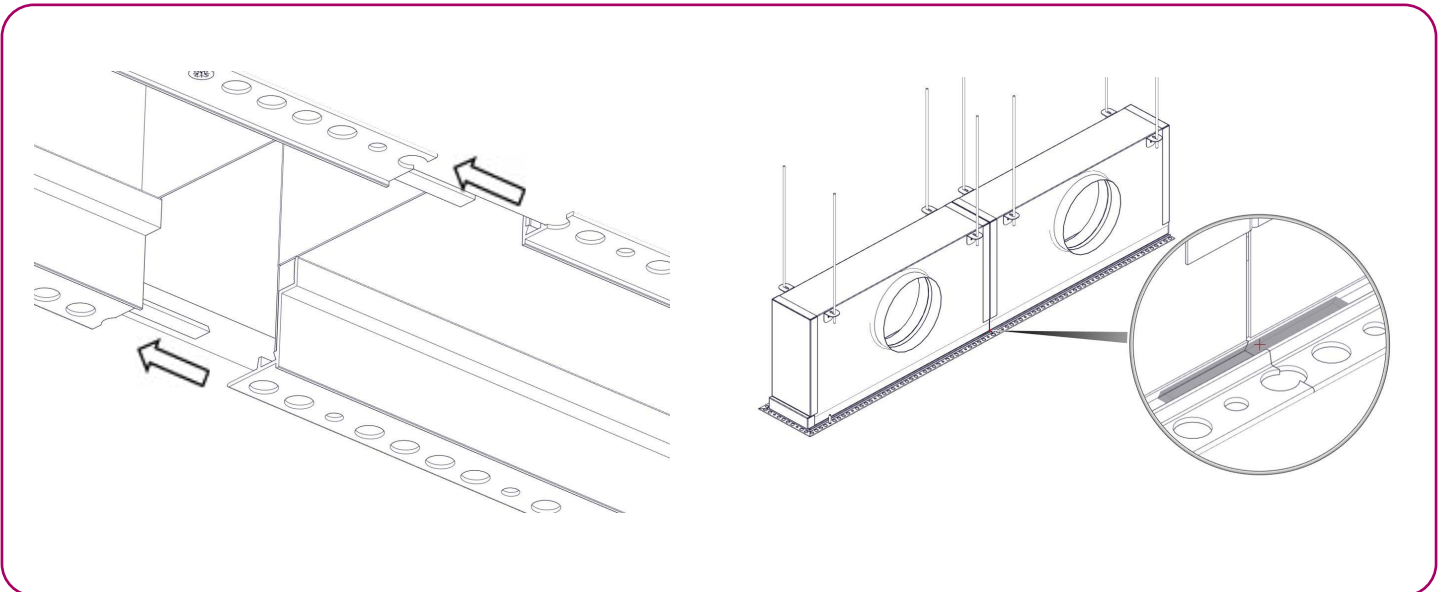
Where the plenum boxes are fitted independently of the grille, it is not necessary to fix them together. The plenum box should be fixed to the ceiling slab and the grille to the plasterboard. This allows supply and return air rows to be designed according to requirements of the project.

4. Forming rows

4.2- To align the lid of the installed plenum box with the adjacent plenum box, insert the boards in the corresponding rails.

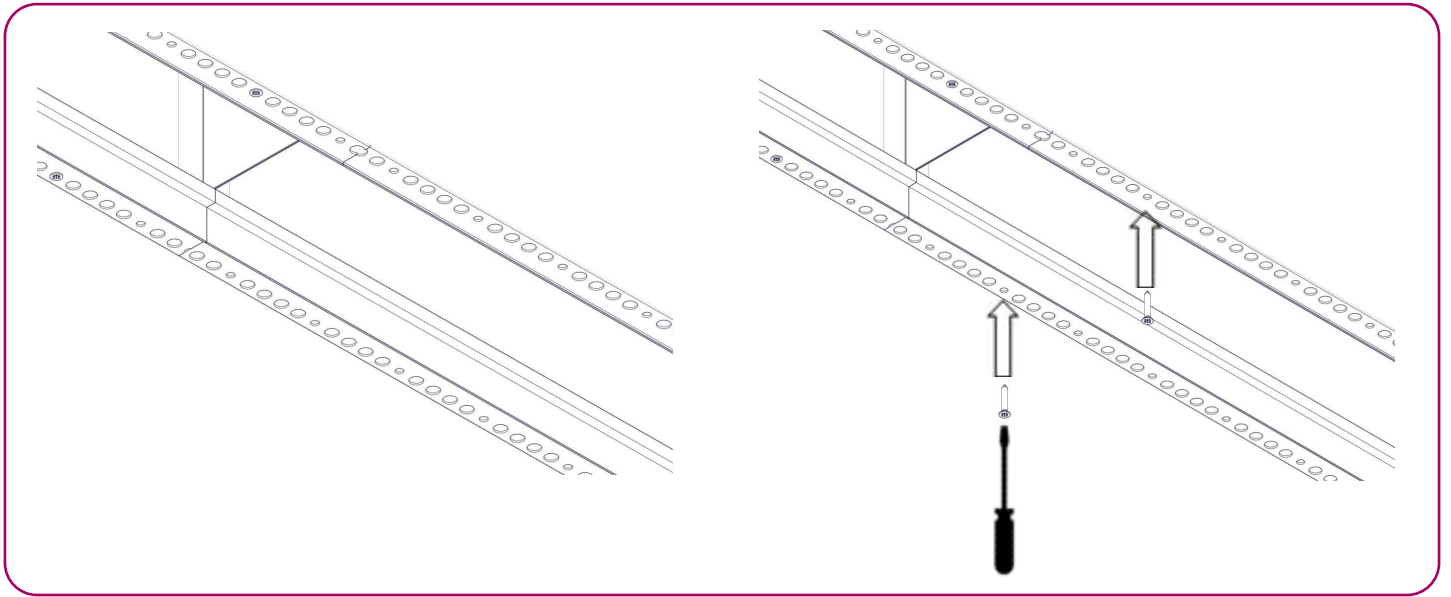


4.3- Set the grille at the height of the plasterboard and adjust it horizontally so that the alignment bands to build the rows fit into the rail of the corresponding frame.

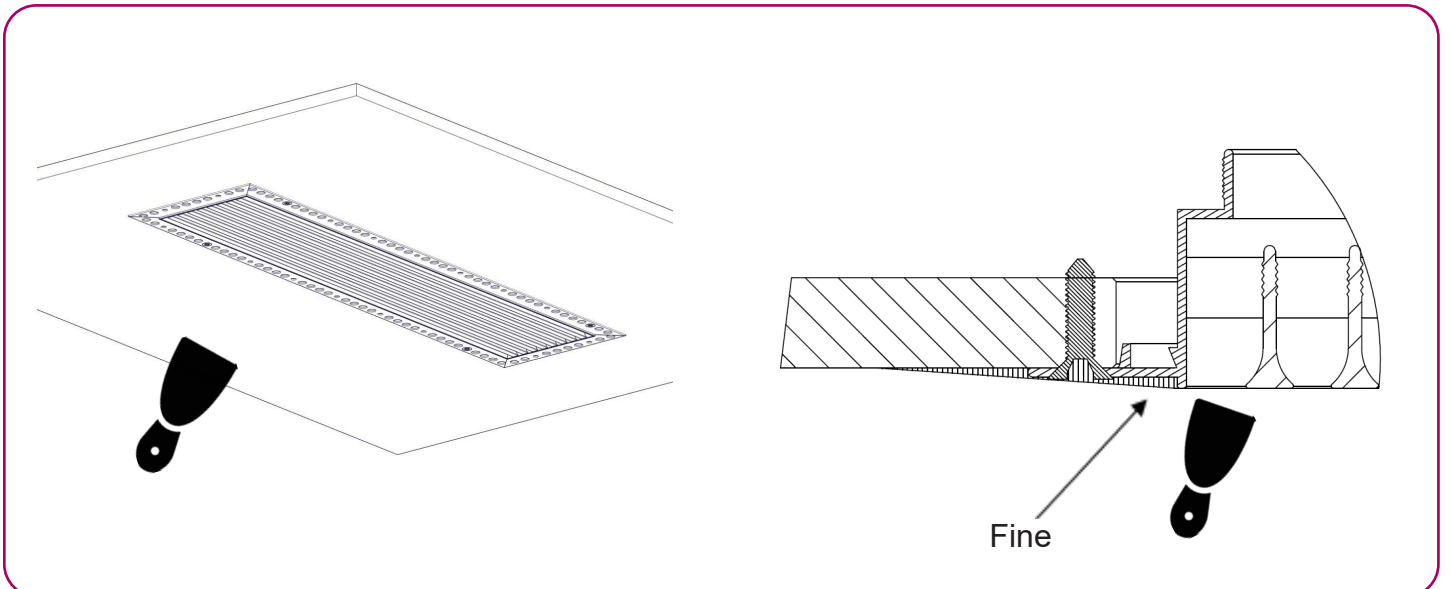


4. Forming rows

4.4- Fix the newly installed section using at least 4 plasterboard screws in the smaller $\text{Ø}4\text{mm}$ holes drilled on the grille lid for this purpose. The distance between each screw pair should not exceed 250 mm.

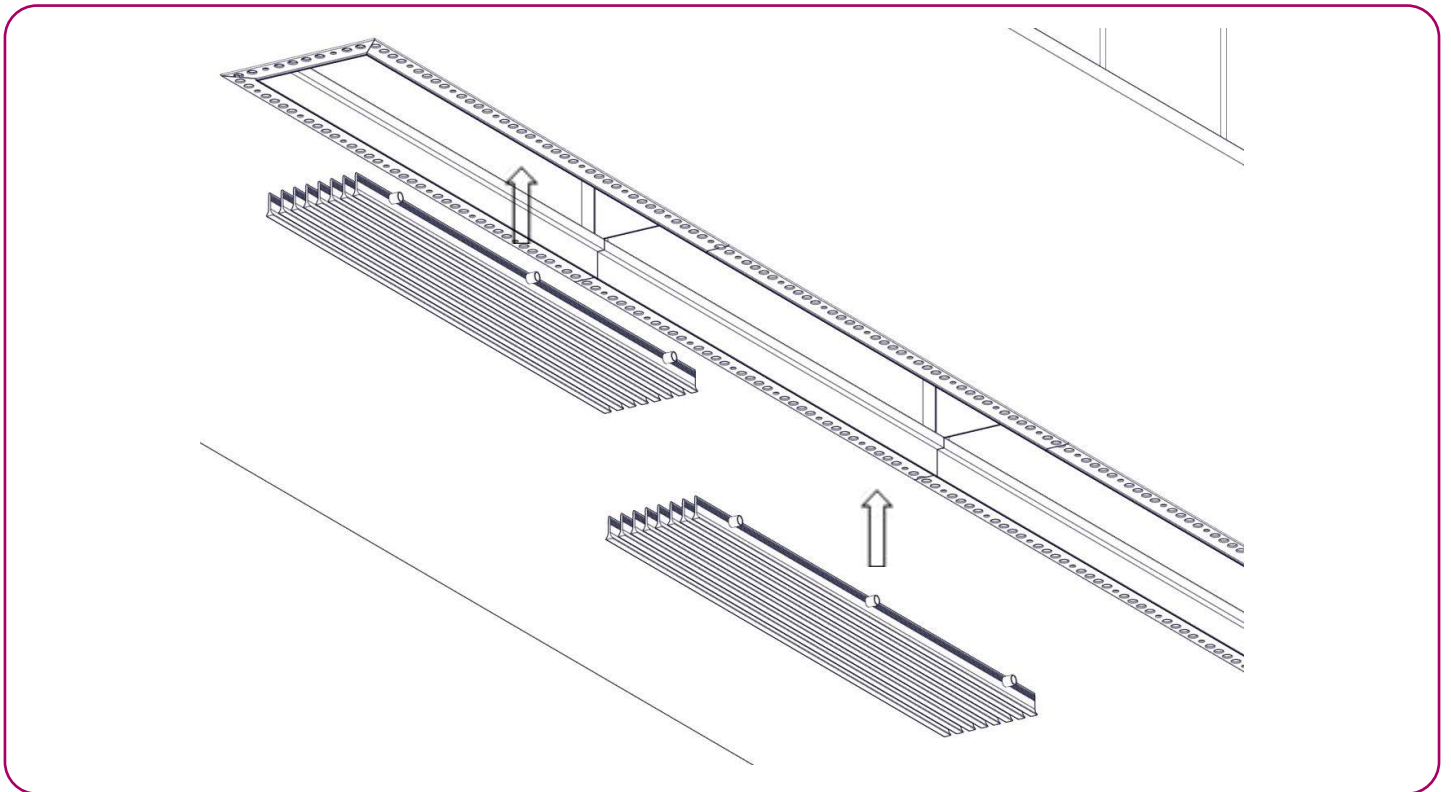


4.5- Once the grille has been fixed with the screws, plaster over the all the holes drilled along the entire row and finish with a fine paste.



4. Forming rows

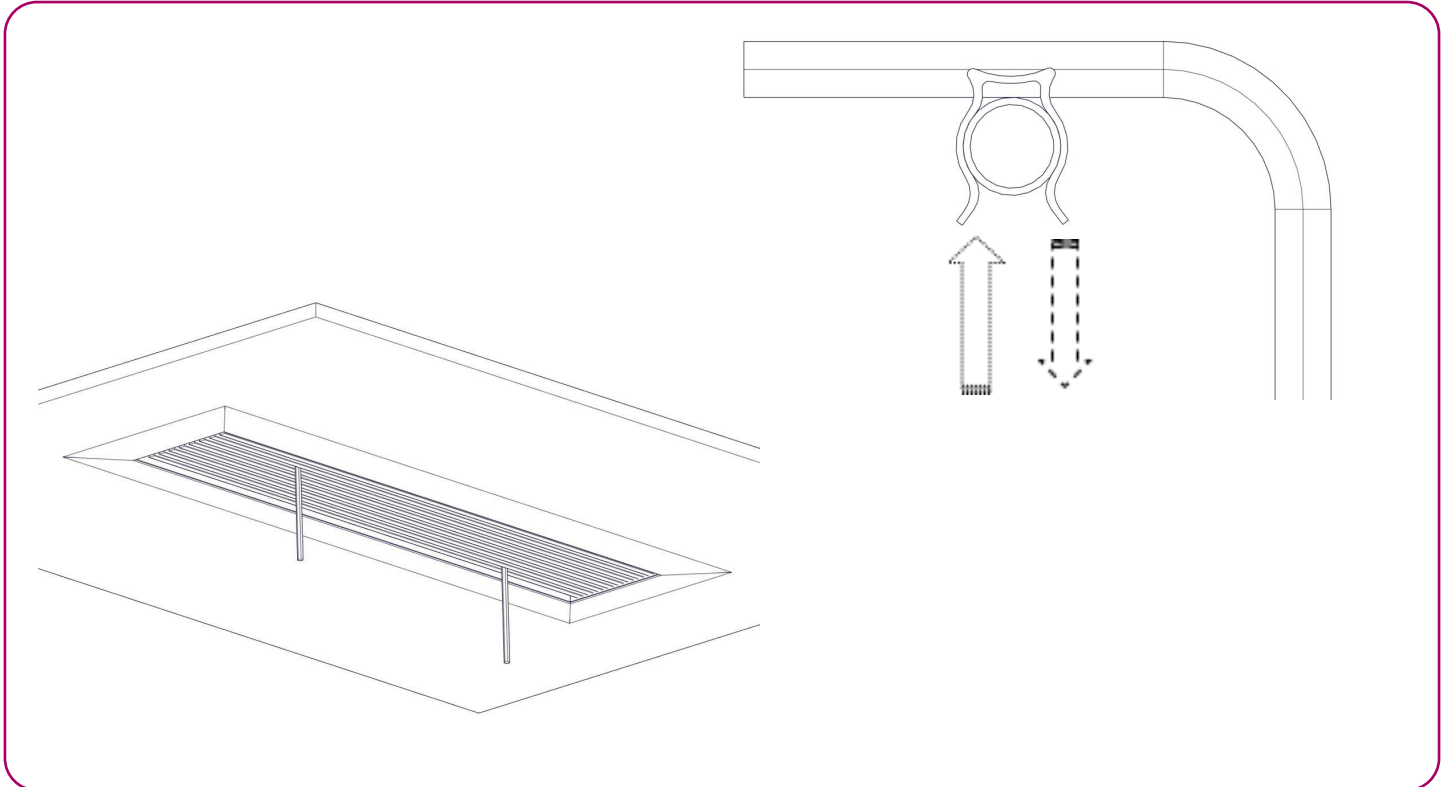
4.6- Once the entire row has been installed, install the cores of each section. Offer up the core to the frame and once the tubes of the fin block are aligned with the pressure clips, push up until the tubes clips in.



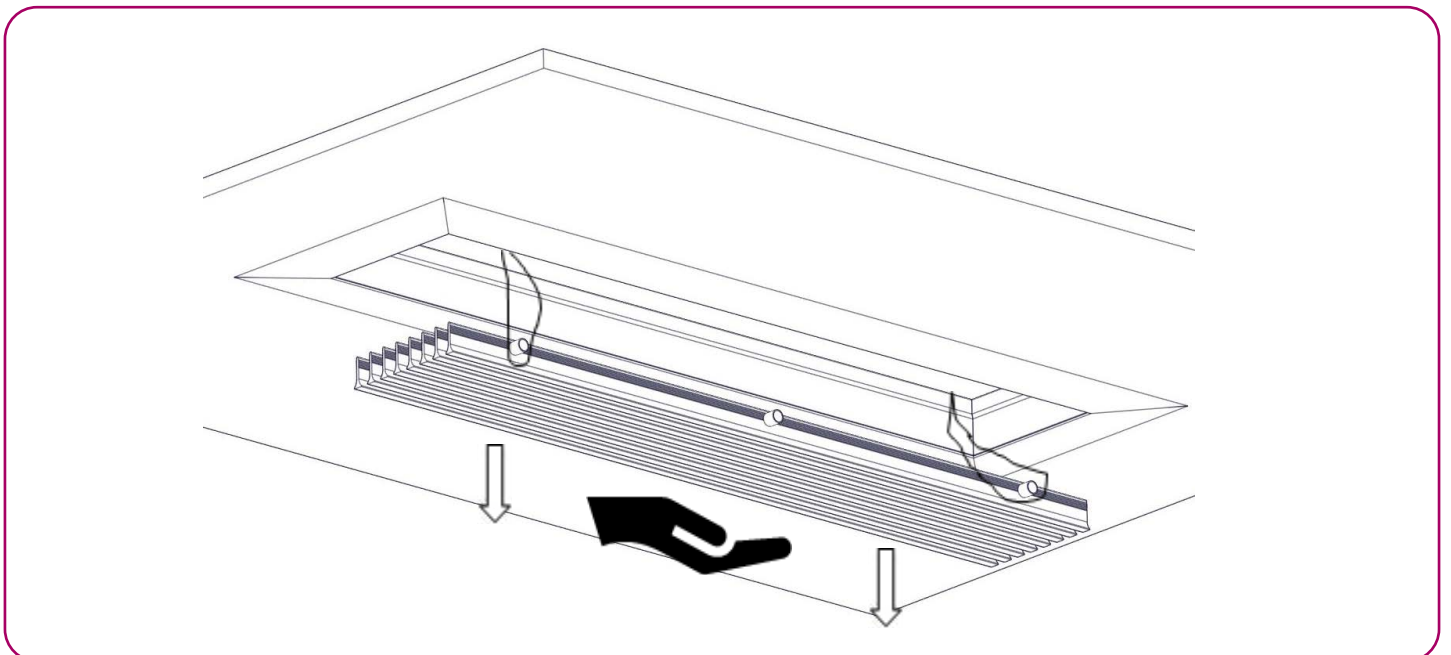
5. Installing and removing the finned core

5.1. Removing the finned core

5.1.1- Insert the “L” shaped tool in the gap between the fins and pull the tubes of the finned core down while holding gently as shown in the picture below.



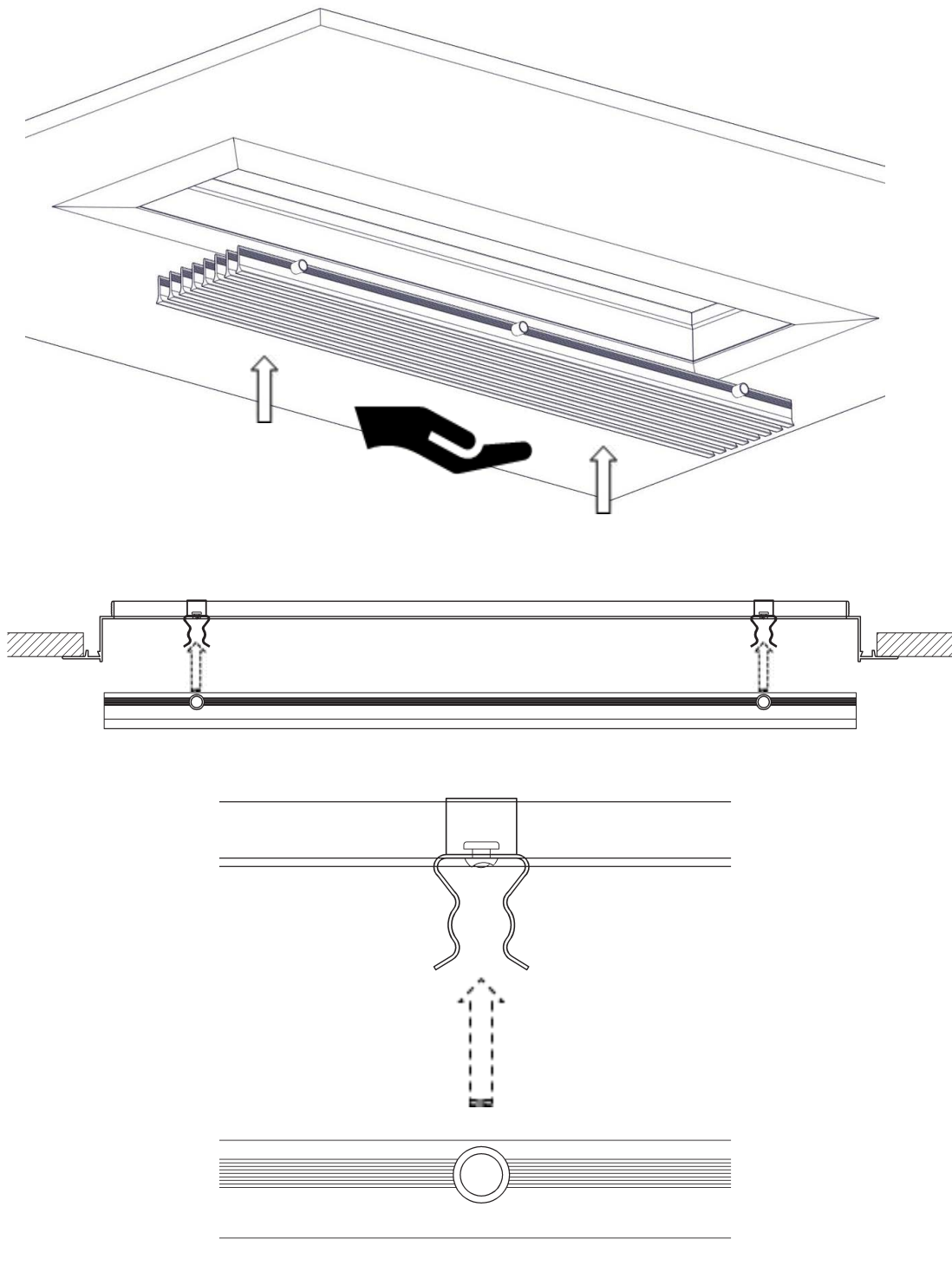
5.1.2- Once the finned core has been completely released from the grille frame, hold it, remove the anti-fall safety chord and remove the core.



5. Installing and removing the finned core

5.2. Installing the finned core

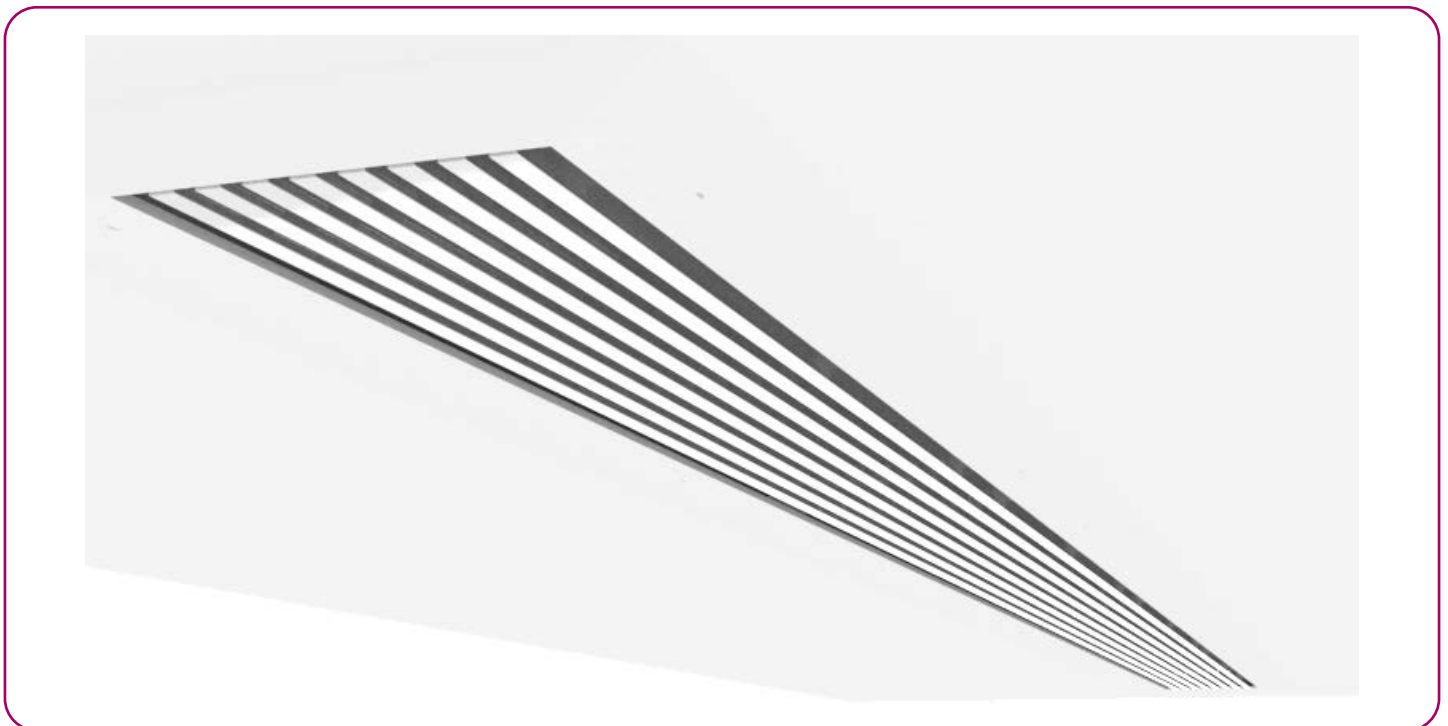
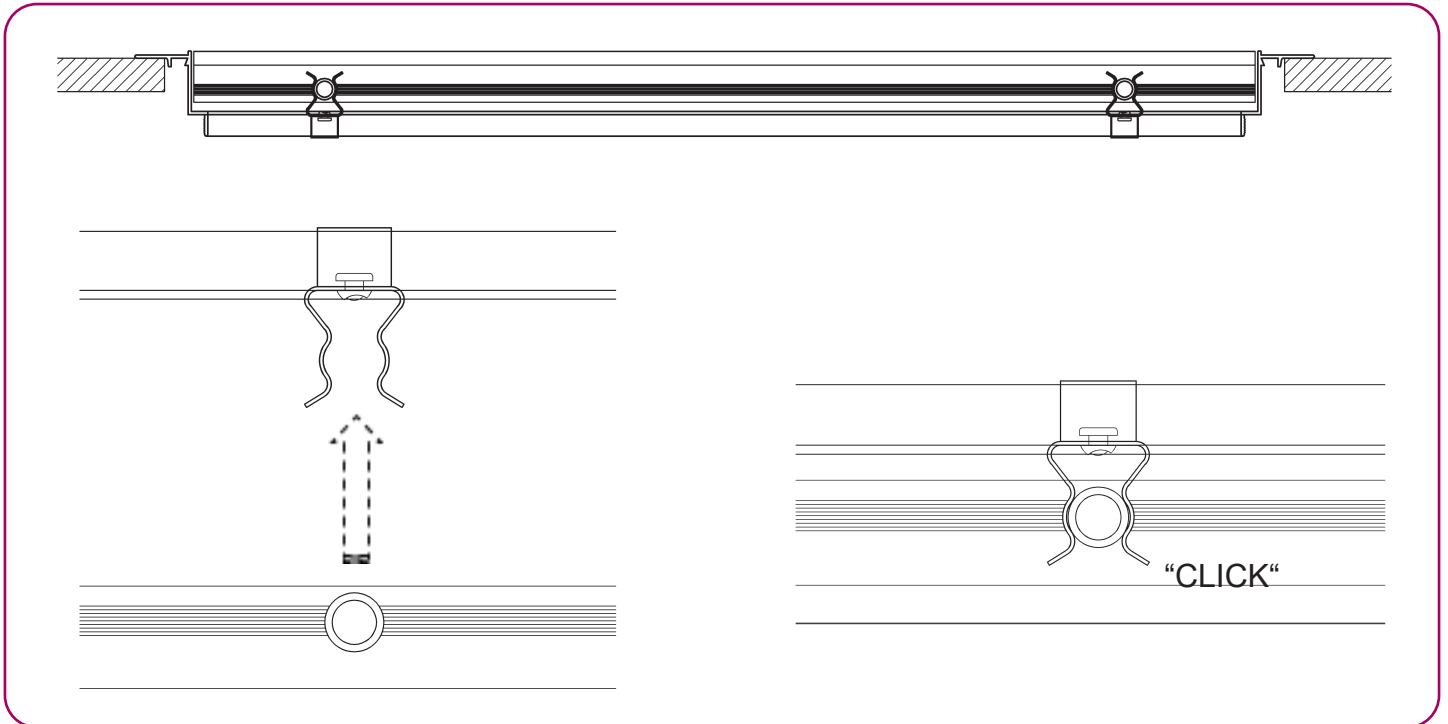
5.2.1- Offer up the core to the frame, attach the safety chord, and align the tubes with the clips.



5. Installing and removing the finned core

5.2. Installing the finned core

5.2.2- Once the tubes are aligned with the clips, push up by hand until the tubes clip in and are held in place.



THIS CATALOG IS INTELLECTUAL PROPERTY.

The partial or total reproduction of its contents is forbidden without the express and authoritative consent of KOOLAIR, S.L.

KOOLAIR

KOOLAIR, S.L. (Spain)

Calle Urano, 26

Polig. Ind. nº 2 – La Fuensanta

28936 Móstoles (MADRID)

Tel: +34 91 645 00 33

Fax: +34 91 645 69 62

e-mail comercial: comercial@koolair.com

e-mail Koolair: info@koolair.com

www.koolair.com

Koolair, S.L. reserves the right to change publisher datas and drawings at any time without prior notice written.