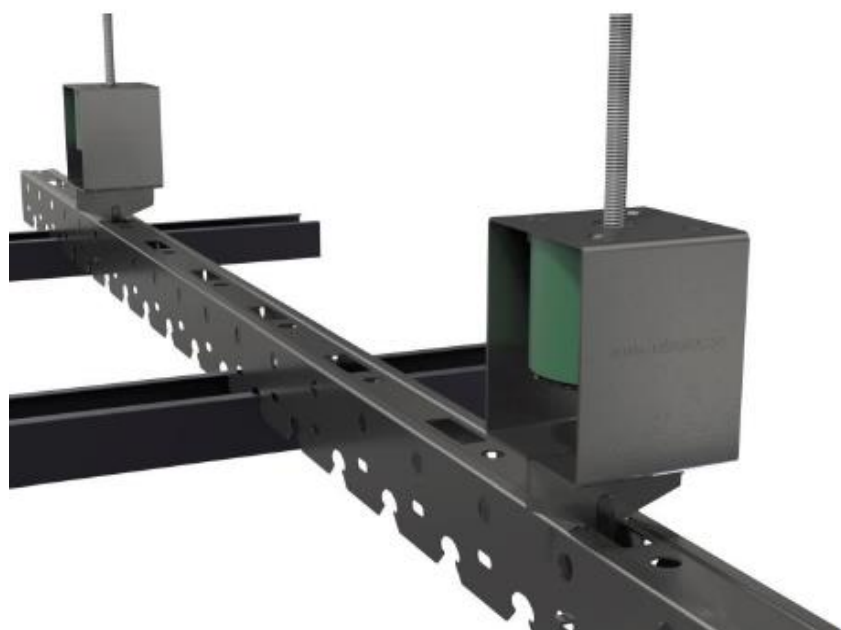


Installation manual VT-CBC

Elastic suspension of ceiling

Content

- A. Perimeter isolation
- B. Installation of ceiling hangers (VT-CBC)
- C. Click-on system (Crossbar Ceiling)
- D. Installation of secondary profiles
- E. Installation of mineral wool and gypsum boards
- F. Penetrations through the ceiling
- G. Point loads

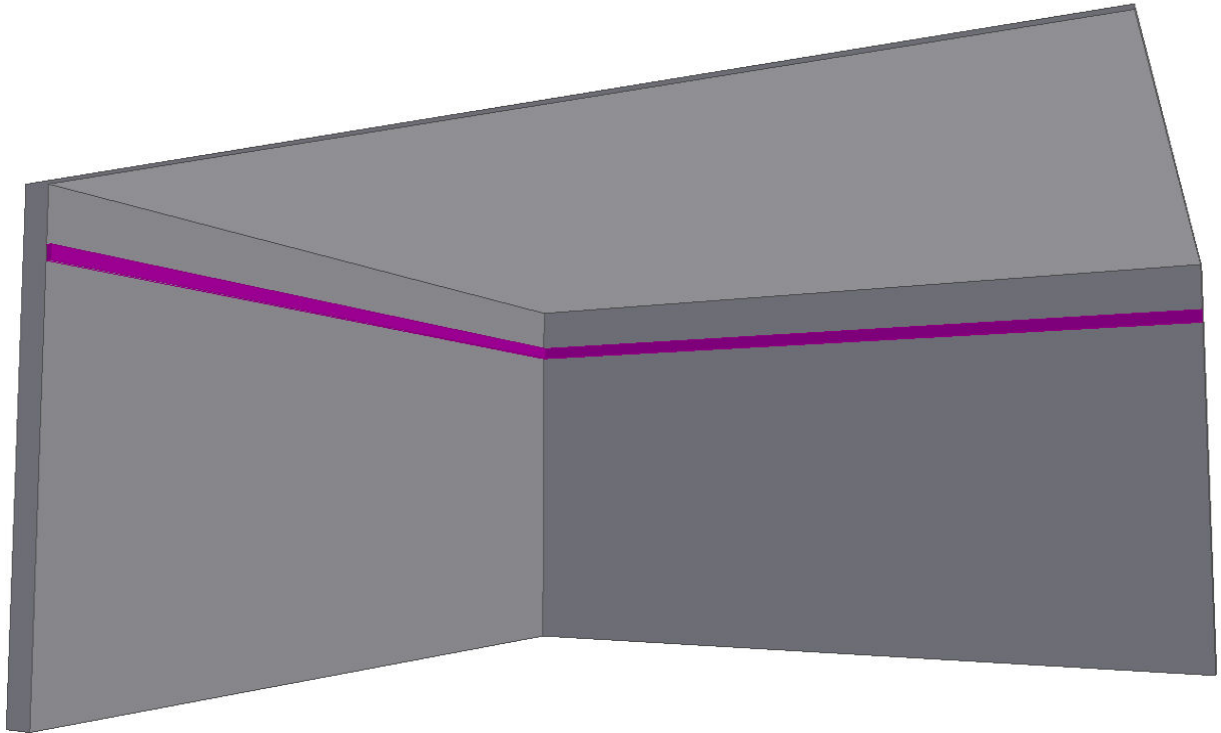


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A. Perimeter isolation

Put up the self-adhesive perimeter strips (purple colour in below picture) on surrounding walls. The lower edge of the strip should be 5-10 mm above final ceiling height. This ensures that there is no direct mechanical contact with the structural wall.

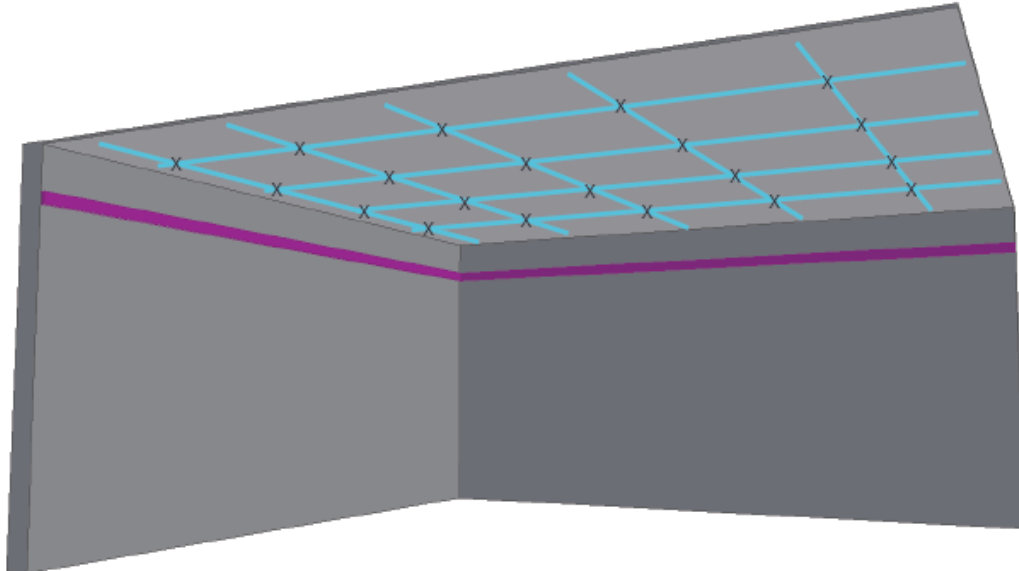
The wall should be clean and smooth to enable the strips to fix properly.



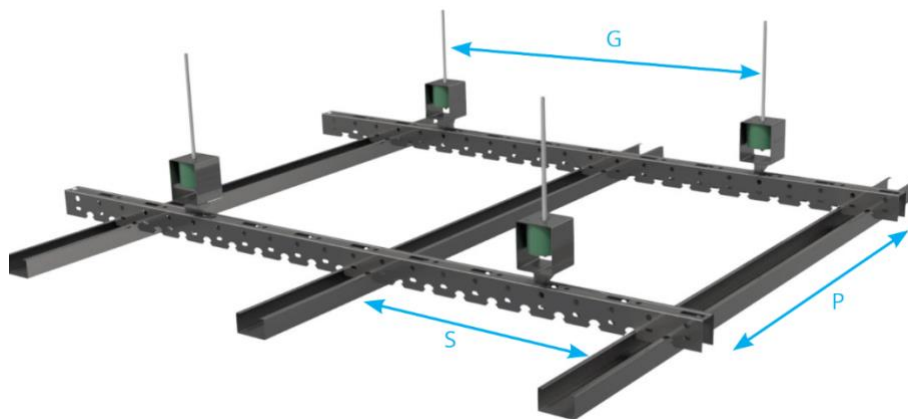
B. Ceiling hanger VT-CBC

For best acoustical performance we recommend that there is an air gap of approximately 250 mm between structural and suspended ceilings. For suspension of the inner ceiling use threaded rod M6 (quality 8.8). For fastening into concrete use flush anchors M6x20, for fastening into wood use Rampa Nut with inner thread M6. The hangers VT-CBC are screwed onto the threaded bars and the height is controlled with laser. The hangers should be oriented so that the downward "hook" has the same direction as the primary profiles.

The ceiling can be chalk lined for easier positioning of the threaded rods and hangers.



Above picture shows chalking of the structural ceiling and the placing of the threaded rods/hangers. The cc-distances are depending on the ceiling weight.

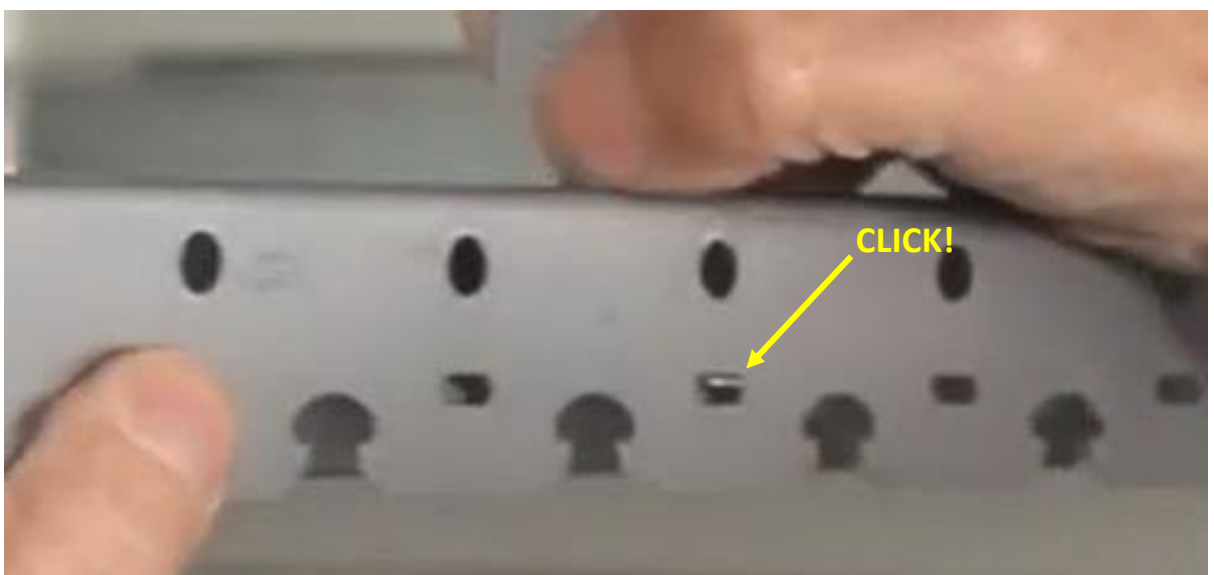


SUPPORTS DISTANCE			
Ceiling weight kg/m ²	P (mm)	G (mm)	kg/support
10 - 15	1200	900	11 - 14
15 - 30	1000	800	11 - 22
30 - 50	750	600	13 - 22
50 - 75	600	600	18 - 27

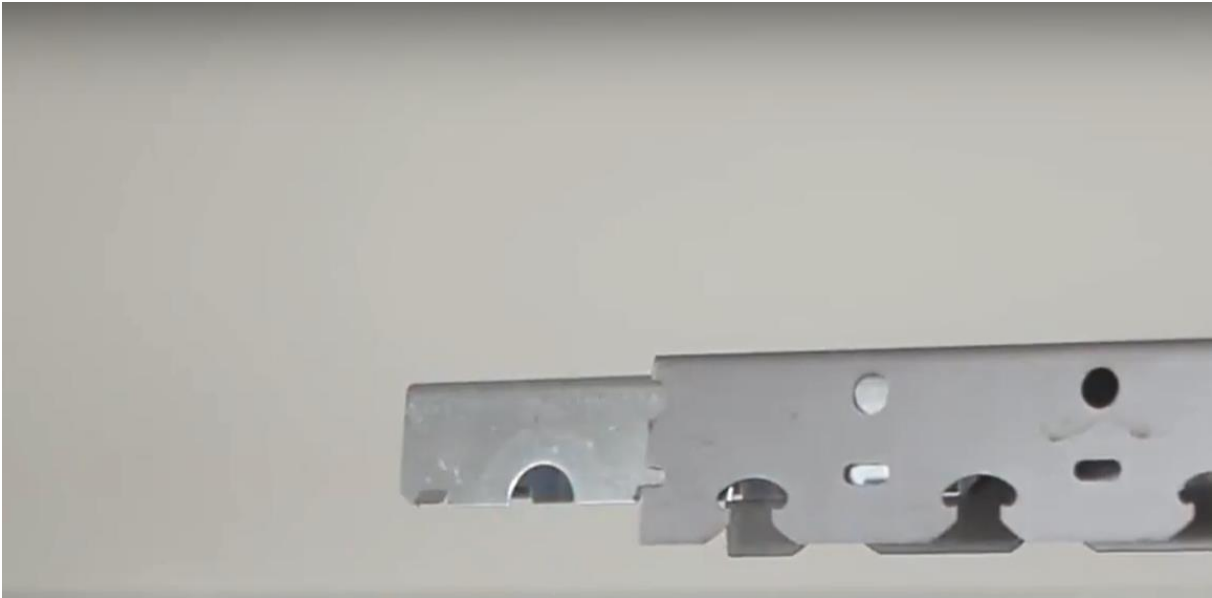
Spacing S should not exceed 400 mm at longitudinal installation and 500 mm at transversal installation

C. Click-on system (Crossbar Ceiling)

The primary profile is attached to the hangers as below picture. The hanger is turned 90° until it "clicks" into place. Make sure that the hanger has clicked into the hole on both sides of the profile.

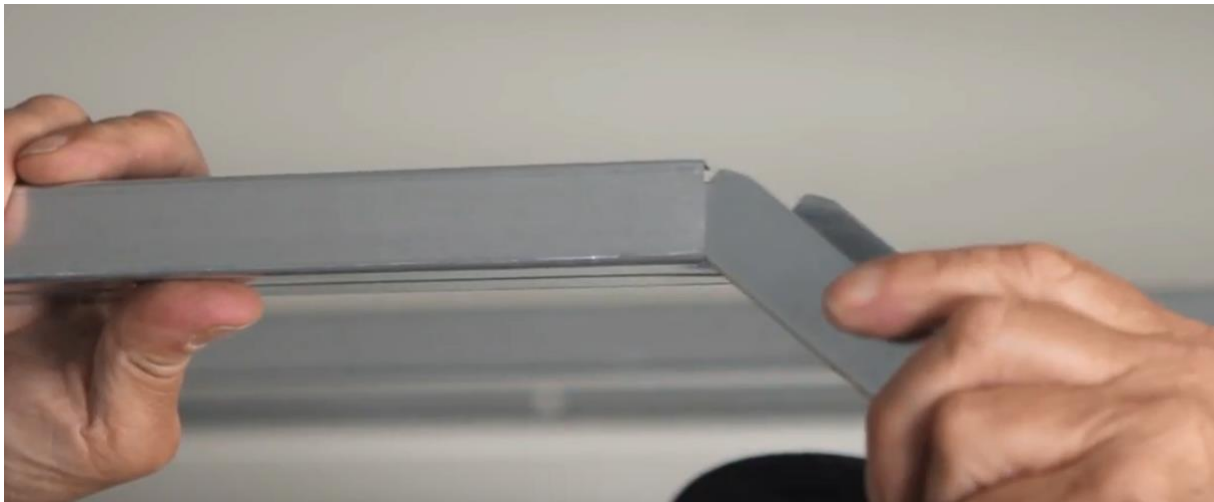


When jointing two profiles use the special joint piece, as in below pictures.



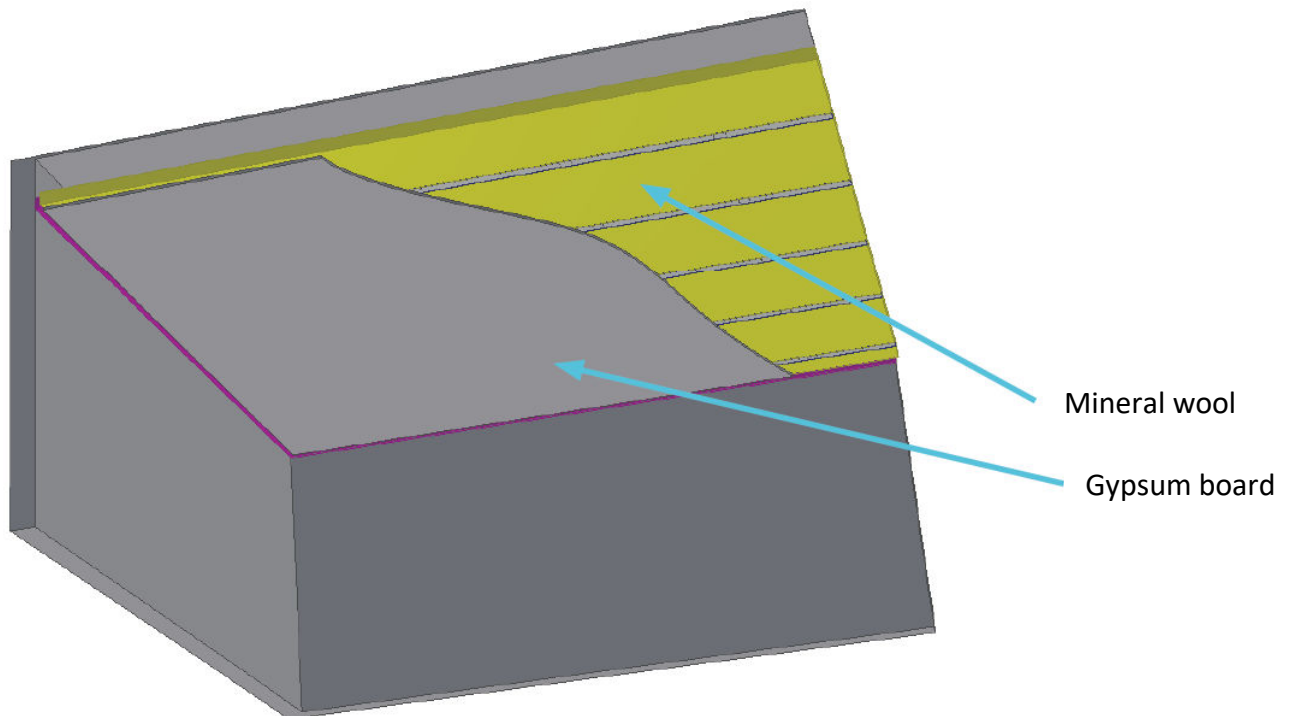
D. Installation of secondary profiles

The secondary C-profiles are clicked onto the primary profiles (easiest done by slightly bending of the C-profile). The C-profiles are 3 m long and can be cut into a certain length if needed. If lengthening is needed a special joint piece is used to connect two profiles (see picture below).



E. Installation of mineral wool and gypsum boards

In between the profiles is installed low density mineral wool. The mineral wool should not be squeezed or compressed when installed. This installation is being done simultaneously as screwing up the gypsum boards. After the first layer of board at least further one layer should be installed. The layers should be installed with staggered joints, all layers should be screwed into the C-profile. If three or more layers are to be installed it can be recommended to use plywood as first layer. When the installation is finished, a thorough control should be done to check that there are no direct contacts with surrounding walls.



F. Penetrations through the ceiling

Please note that all penetrations through the suspended ceiling (ventilation, electricity, sprinkler etc.) must be done elastically and sealed, otherwise there is a risk of acoustic bridging and decreased performance. Pipes, cables etc. should go through holes (without touching the hole's edge that are sealed with elastic sealant).

G. Point loads.

The suspended inner ceiling should not be loaded with extra weight from suspended equipment, ventilation units, sprinklers etc. – these should as far as possible be hanged in the structural ceiling (possibly with separate vibration isolators/hangers). If extra equipment must be hanged in the

suspended ceiling this must be taken into consideration when dimensioning of the ceiling, so that the extra weight can be compensated for with extra ceiling hangers.