



S 7 RAW System Installation Instructions

OWAconsult collection

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1. Product data



Material	Mineral tile ASTM Type III, Form 2, Pattern E (Grey Clay) ASTM Type III, Form 2, Pattern D (Structure)
Reaction to fire	A2-s1,d0 (EN 13501-1)
Sound absorption	up to $\alpha_w = 0,90$ / NRC = 0,90
Sound reduction*	up to $D_{n,f,w} = 33$ dB / CAC = 33 dB
Humidity resistance	up to 95 % RH
DIN 18177	TVOC 1 / FH 1 / PM 1

* Dependent on system, soffit and other project specific factors

Item no.	Dimensions (nom.) [mm]	PU	α_w	NRC	Absorption class	$D_{n,w}$	CAC	Humidity resistance	Cleanroom class	Washability	Scrubability	Mold and mildew	Resistance to fire*	Weight approx. [kg/m ²]	Recyclability	Recycled content	Warranty (years)
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RAW grey

Edge	for system																				
3	S 7 RAW		00079726	2400 x 1200 x 20		35*	0.90	0.90	A	30 dB	30 dB	95 % RH	-	✓	✓	✓	-	4.2	100 %	✓	10

* Pieces per pallet



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RAW clay

Edge	for system																				
3	S 7 RAW		00079721	2400 x 1200 x 20		35*	0.90	0.90	A	30 dB	30 dB	95 % RH	-	✓	✓	✓	-	4.2	100 %	✓	10

* Pieces per pallet

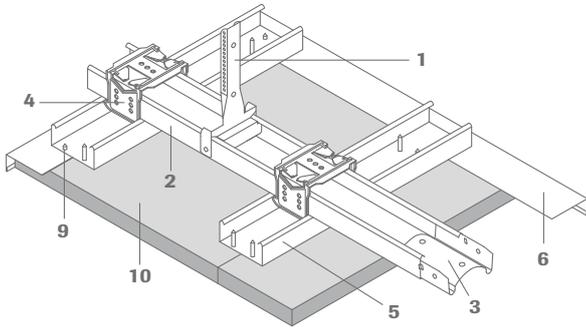


OWAconsult collection
RAW structure

Edge	for system																				
3	S 7 RAW		00079720	2400 x 1200 x 20		35*	0.70	0.70	C	33 dB	33 dB	95 % RH	-	✓	✓	✓	-	5.4	100 %	✓	10

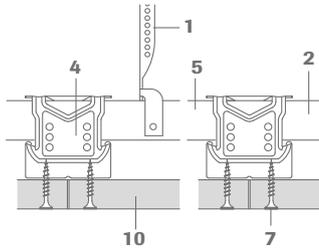
* Pieces per pallet

Wall connection (shadow gap)

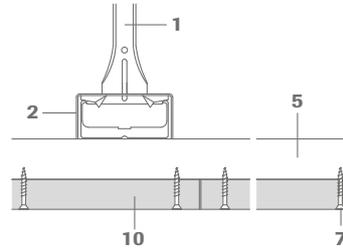


- 1 Nonius hanger no. 2001, distance ≤ 1000 mm
- 2 Supporting grid CD profile 60/27 no. 2003, distance ≤ 1000 mm
- 3 Longitudinal profile connector no. 2005
- 4 Cross connector no. 2004
- 5 Tile grid CD profile 60/27 no. 2003, distance ≤ 400 mm
- 6 Wall profile no. 51/22
- 7 Tile screw no. 2019, distance ≤ 300 and 400 mm
- 8 Direct hangers no. 2002, distance ≤ 1000 mm; fixture: safety pin no. 76 (2-fold)
- 9 Self tapping screw no. 2024
- 10 RAW tile

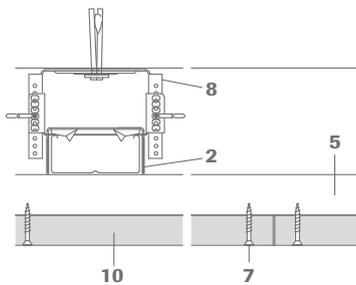
Longitudinal section:



Cross section:



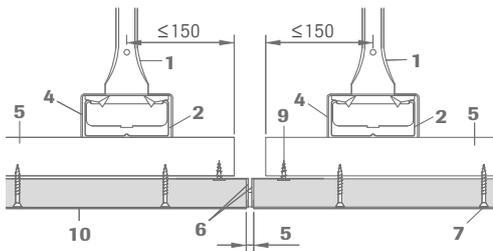
Direct mounting:



For execution without shadow gap (butt-jointed) the wall profile no. 51/22 can be omitted.

Expansion gaps:

Expansion joints in the RAW ceiling are only required in areas where building expansion joints already exist. Grids and RAW ceiling tiles are to be separated. The sliding expansion joint is to be made using two wall brackets no. 51/22 (6).



2. General information on workmanship

S 7 RAW is a special, high-quality ceiling system whose appearance depends significantly on the workmanship of the substructure.

Reaction to fire classification as a construction product

In the classification of fire behaviour according to DIN EN 13501-1, the building product S 7 RAW was awarded the classification A2-s1, d0 – not flammable and given the CE mark as a ceiling kit. If other non-certified system components are used, the specified system-relevant properties of the S 7 RAW building product are not guaranteed.

Labelling according to the Construction Products Regulation (EU-BauPV)

S 7 RAW has been tested and labelled in accordance with the Construction Products Regulation no. 305/2011. As a result, the associated, required issuance of a Declaration of Performance (DoP) is therefore ensured for the substructure and mineral tile. The DoP number can be found on the respective packaging.

3. During the installation of the S 7 RAW ceiling, the following instructions must be observed:

- The installation room must be dry.
- The temperature must not fall below 15 °C during installation.
- The relative humidity must not exceed 70 %.
- Original system-compliant parts must be used.
- All installation plans for required fittings must be available before the commencement of work.
- Existing building expansion gaps must be retained in the S 7 RAW ceiling.
- All fittings that may be required must be installed before the installation of the RAW tiles. It is essential that coordination between the drywall construction, electrical and other trades involved should be proved (see section 1).
- Artificial light (e.g. spotlights, indirect lighting) directed at the ceiling surface from below or from the side is to be avoided.
- All fittings must also be suspended from the ceiling slab.
- In the event that installation work should be hindered by external influences for which the company performing the work is not responsible, as well as in the case of deviations from the installation conditions specified in these installation instruction etc., it is essential that reservations should be expressed vis-à-vis the customer in writing (VOB/B [German Construction Contract Procedures] §6).

4. Substructure and RAW tiles

4.1 Substructure

Only the following OWAconstruct profile construction parts may be used. The specified fixing centre must be observed. Deviations may adversely affect or change the subsequent appearance of the S 7 RAW ceiling.

- nonius hangers no. 2001 – max. fixing centre = 1000 mm + 2 safety pins no. 76
 - CD profile no. 2003 (supporting grid), 60 x 27 x 0.6 mm – max. fixing centre = 1000 mm
 - CD profile no. 2003 (tile grid), 60 x 27 x 0.6 mm – max. fixing centre = 400 mm
 - cross connector no. 2004
 - longitudinal profile connector no. 2005
 - drywall screws no. 2019 max. fixing centre = 400 mm
 - angle profile no. 51/22 as sliding wall connection (attachment to substructure)
 - self tapping screw no. 2024 for angle profile no. 51/22 – max. fixing centre = 400 mm
 - in the joint area of the RAW tiles, the angle profile must be additionally secured with 2 self tapping screws
 - inclined hanger lower element no. 2012 – max. fixing centre = 1000 mm + 2 safety pins no. 76
 - inclined hanger upper element no. 2013
-

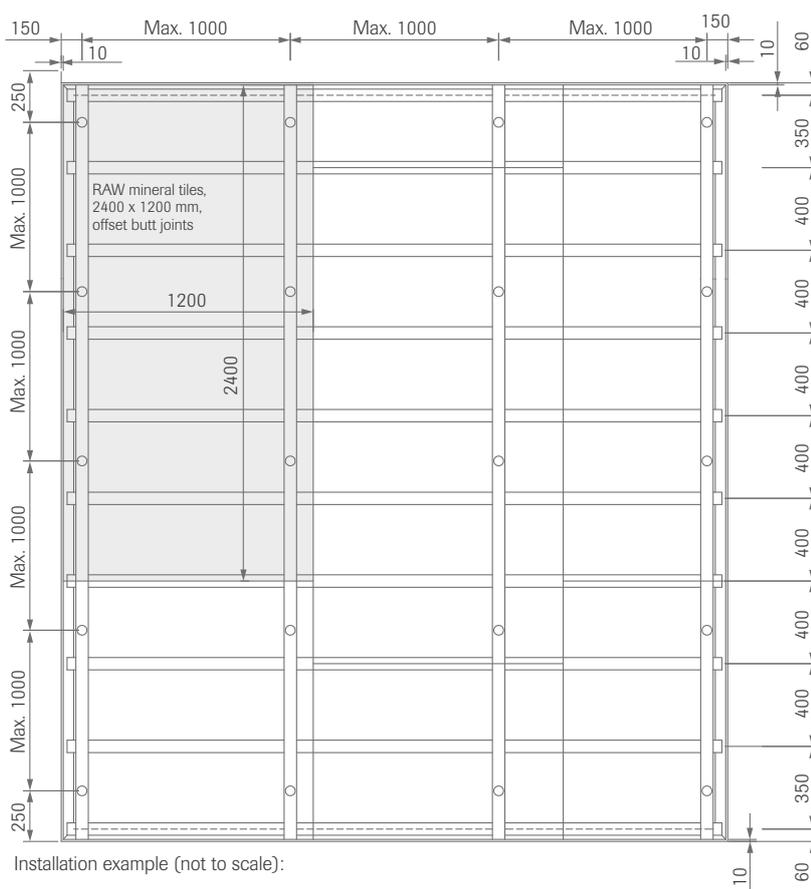
4.2 RAW tiles

RAW is a highly individual ceiling board. Irregular appearance, material and colour differences in the tile surface are intentional. This is part of the natural aesthetic appearance of the design and does not constitute grounds for complaint. Prior to installation of the tiles, care should be taken to make sure that tiles from as many different packages as possible are installed to ensure sufficient mixing of the tile surfaces. Furthermore, all precautions must be taken on site to be able to safely install the large-format (2400 x 1200 mm) RAW ceiling boards. Where applicable, the appearance of the ceiling should be discussed with the customer and/or planner. RAW ceiling tiles are mounted on the CD profile structure using black drywall screws. The heads of the screws remain visible and contribute to the desired appearance of the ceiling.

4.3 Type of installation

RAW tiles are OWAcooustic premium tiles in a 2400 x 1200 mm format. The sharp-edged tiles are fixed to the CD profiles of the tile grid with offset/parallel transverse joints using tile screws no. 2019.

Installation is quick, accurate and problemfree. All openings for light fixtures, access flaps, curtain rails, sprinklers, spot lights and others can be incorporated in the ceiling design.

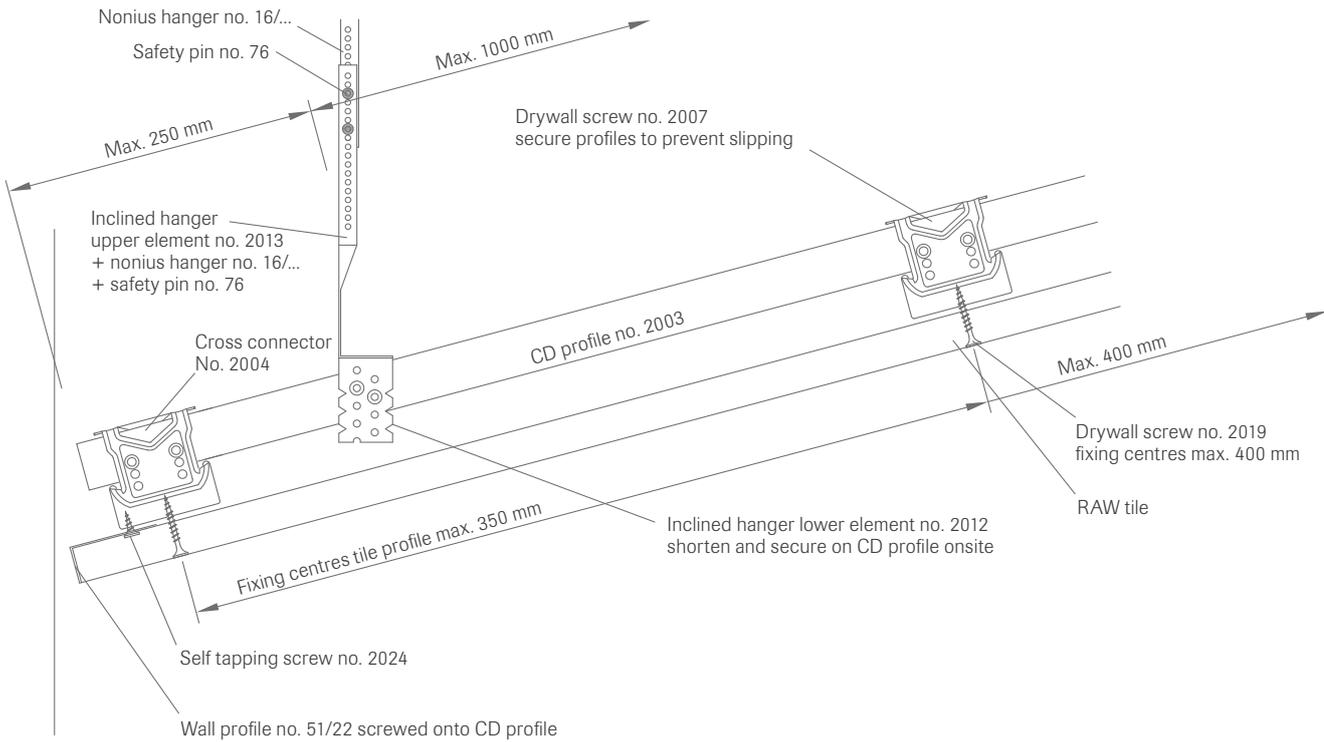


4.4 System-compliant integrated parts and accessories

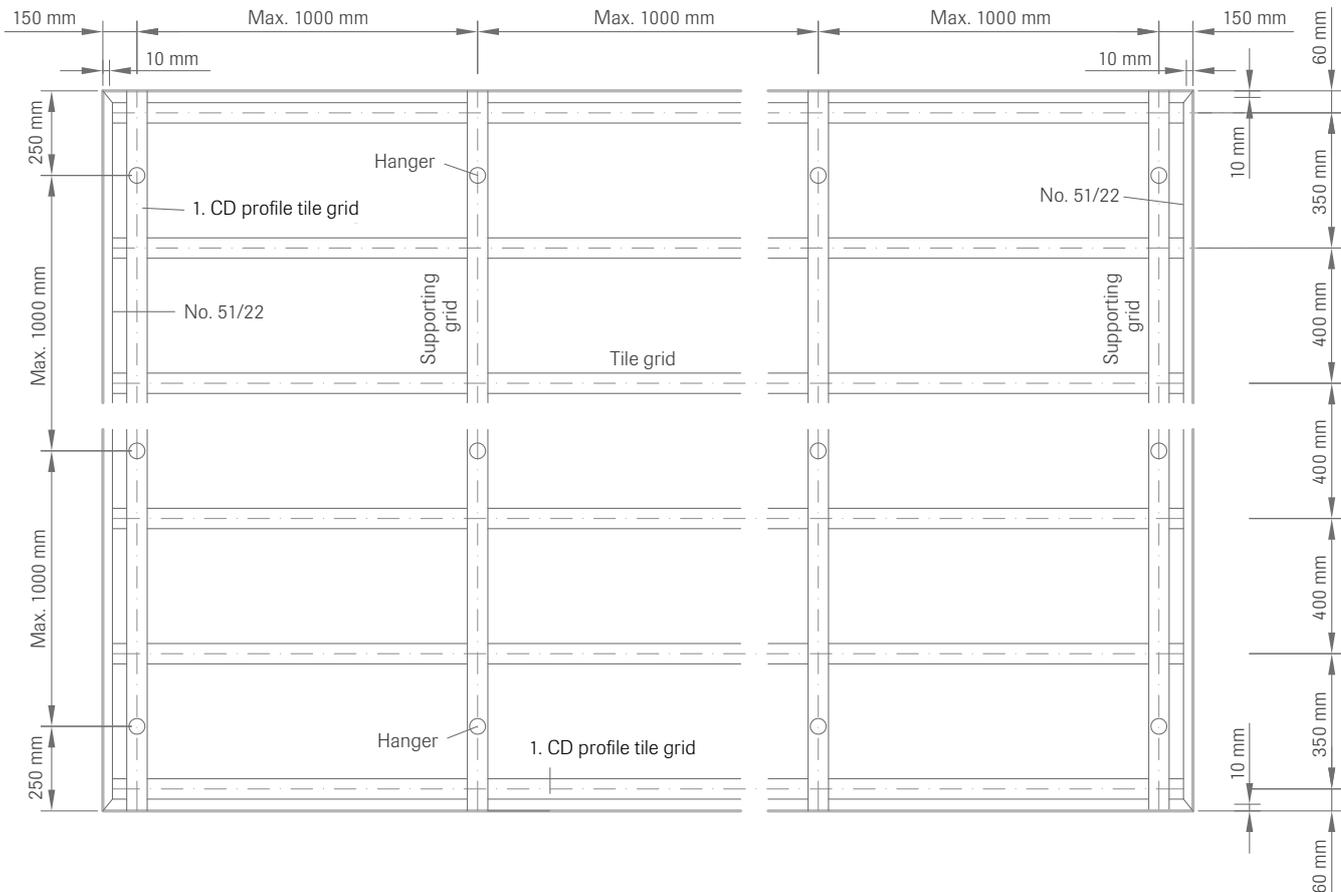
Mounting frame no. 8069/6, consisting of 2 parts, for the installation of downlights. The frame is placed on the CD profiles of the tile grid and can be shifted or positioned during installation (see section 5.5).

4.5 Inclined installation

Longitudinal section for inclined installation:

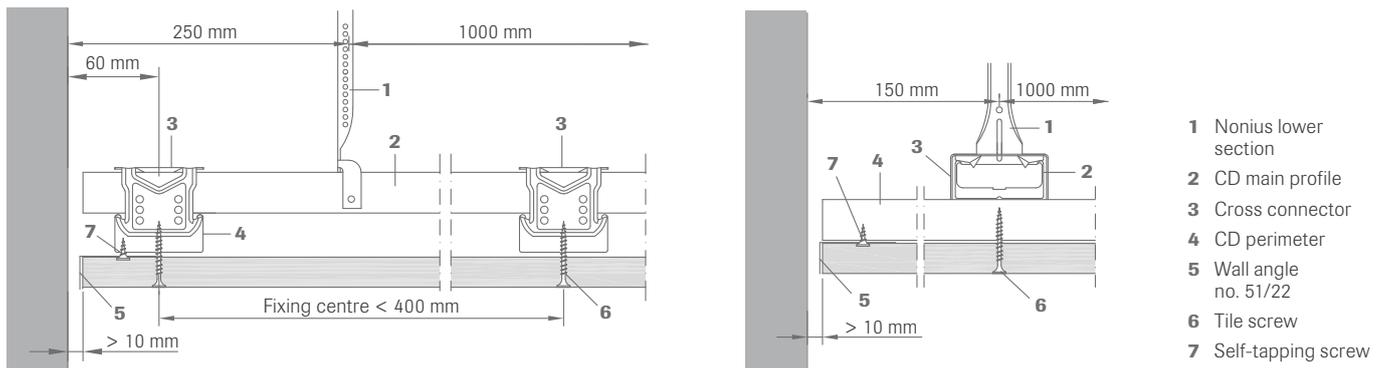


Wall connection:



5.3 Installation of the shadow gap wall angle (no. 51/22)

The angle profile no. 51/22 is mounted to the CD profiles of the panel grid and forms a sliding wall connection. The angle profile is fastened to the CD profiles with self-tapping screws no. 2024. Distance between angle profile and wall ≥ 10 mm.



5.4 Handling/Transport

Board boxes should only be transported horizontally by 2 people. Do not place on a corner or edge when setting down. Store in a dry place on a level surface, do not place on damp ground. The boards always lie in the packaging with the visible side facing upwards. There is a cardboard interleaf between each board for protection. The cardboard packaging should be carefully cut open and removed without damaging the board. It is advisable to also cut open the cardboard packaging at the front sides so that the cardboard packaging opens completely. It is always advisable for 2 people to remove each board from the packaging, one at each end, to prevent damage to the board edges, corners or the visible face.

5.5 Installation of the RAW boards

Installed with drywall screws no. 2019 with a fixing centre of 300–400 mm. The tiles are installed with offset joint gaps at right angles to or along the CD profiles of the tile grid. The tiles are always screwed to the CD profiles from the tile centre outwards.

Attention: The longitudinal tile edges should always be installed in the direction of incident daylight (main direction of light)! During installation, care must be taken to ensure that edges and surfaces are not damaged. Due to their low weight, the boards are compressible. Otherwise, indentations, sanding marks and other damage will remain permanently visible. Subsequent treatment of the surface is not possible.

5.6 Comfort inspection hatch no. 8031/9 and no. 8031/10

In the installation of the seamless RAW ceiling, inspection hatches often have to be installed.

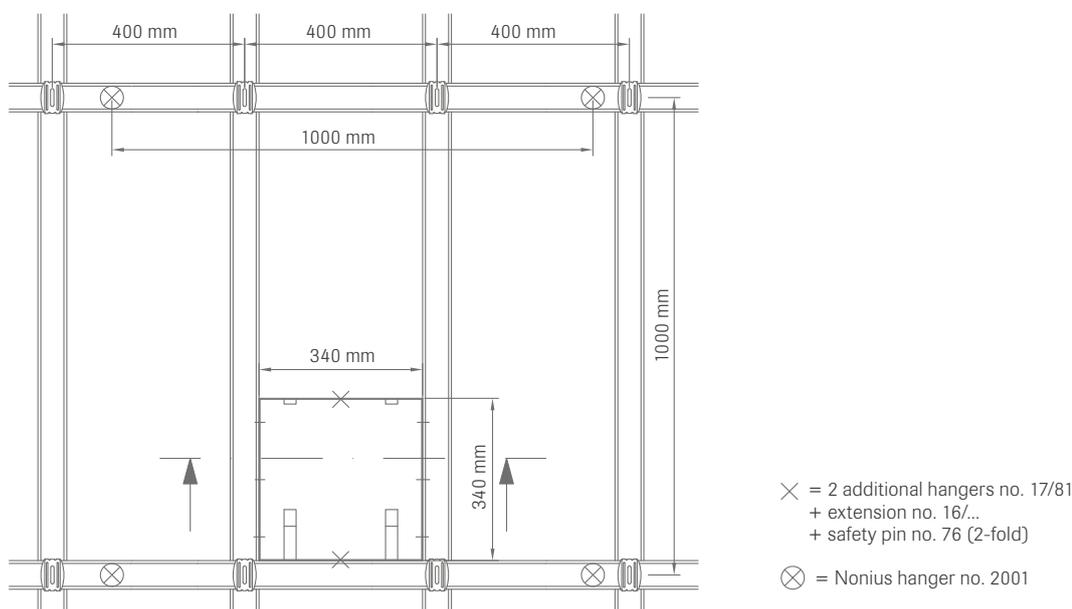
- comfort inspection hatch no. 8031/9, dimensions 340 x 340 mm
(tile insert for the inspection hatch must be cut out of a RAW board on site and glued in with adhesive no. 99/24)
- comfort inspection hatch no. 8031/10, dimensions 540 x 540 mm
(tile insert for the inspection hatch must be cut out of a RAW board on site and glued in with adhesive no. 99/24)
- nonius hanger no 17/81 + extension no. 16/... for comfort inspection hatch,
2 pieces each or 4 pieces per inspection hatch

For the required hanger see section 4.4

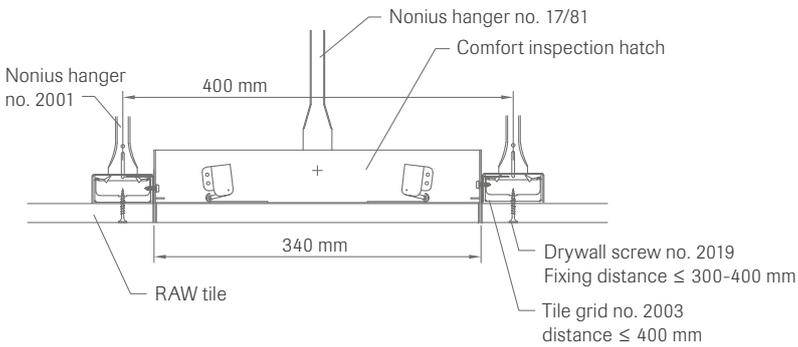
The following points must be observed:

- The exact location of the inspection hatches must correspond to the substructure of the false ceiling.
- The nonius hangers must be assigned to the appropriate region of the false ceiling, depending on the number and weight of the proposed inspection hatches (see top view of ceiling).
- The size of the opening in the ceiling must correspond to the outer dimensions of the inspection hatch to be installed.
- The inspection hatches must be fitted before the tiles are installed.
- When using inspection hatch no. 8031/10, the CD profile in the region of the inspection hatch must be separated accordingly. In addition, two CD profiles, length 1000 mm, must be fitted and suspended from the ceiling slab (see top view of ceiling 540 x 540 mm).

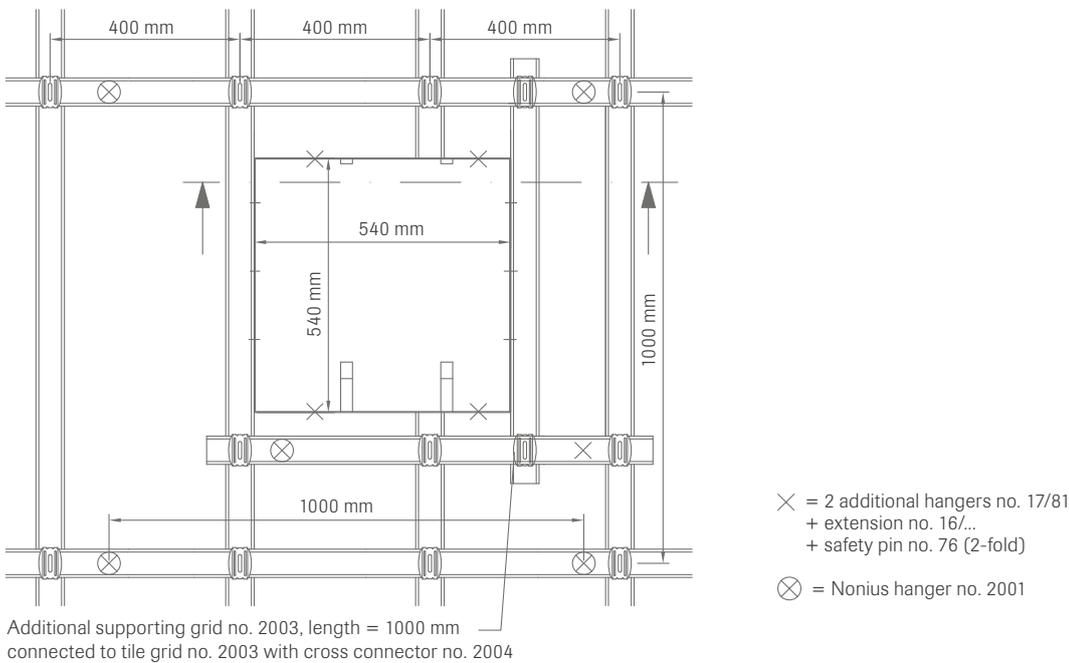
Ceiling top view of inspection hatch no. 8031/9 (340 x 340 mm):



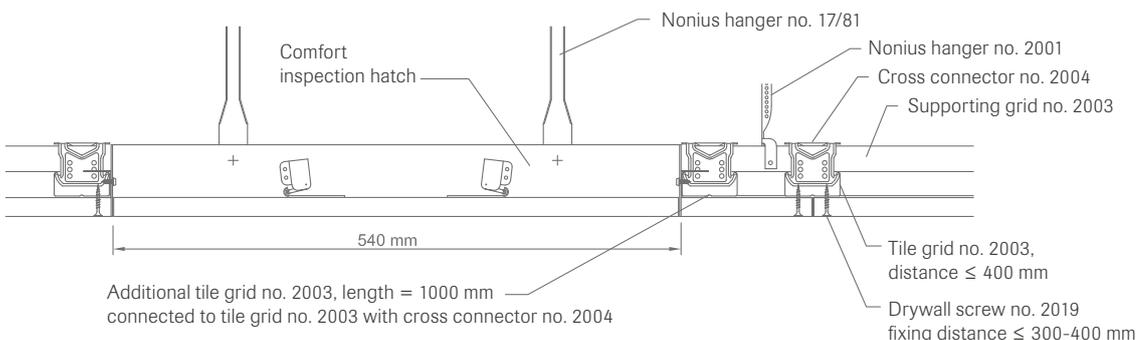
Cross-section through inspection hatch no. 8031/9:



Ceiling top view of inspection hatch no. 8031/10 (540 x 540 mm):



Cross-section through inspection hatch no. 8031/10:



The inspection hatch is inserted correctly into the opening, aligned and bolted to the CD profiles with six screws. Fine adjustment is possible in the area of the hinge mountings and the locking mechanism by unscrewing the Phillips screws and moving the unit vertically in the region of the slots. The corresponding RAW tile must be fitted onto the inspection hatch onsite. It must be bonded using adhesive no. 9924.

The hatch is opened by pushing the opening part on one side and lowering it again immediately. The inspection hatch is closed by pressing it gently. The closing mechanism can then be heard to engage. It is highly recommended that the hatch should only be opened and closed with clean mounting gloves.

5.7 Mounting frame no. 8069/6



The mounting frame no. 8069/6 (2-pieces) must be used when installing downlights. Each downlight requires one mounting frame kit. The frames are to be placed on the CD profiles with the lateral edges upturned. The distance between the frames themselves must be chosen in accordance with the diameter of the downlights.

It is important here to ensure that the clamping device of the downlight subsequently rests on the frame and the mounting frames do not extend beyond the edge of the hole. The cutout for the downlight can be made with the circle cutter no. 99/16. The size must be adjusted to the diameter of the downlight. Install it before fitting the tile!

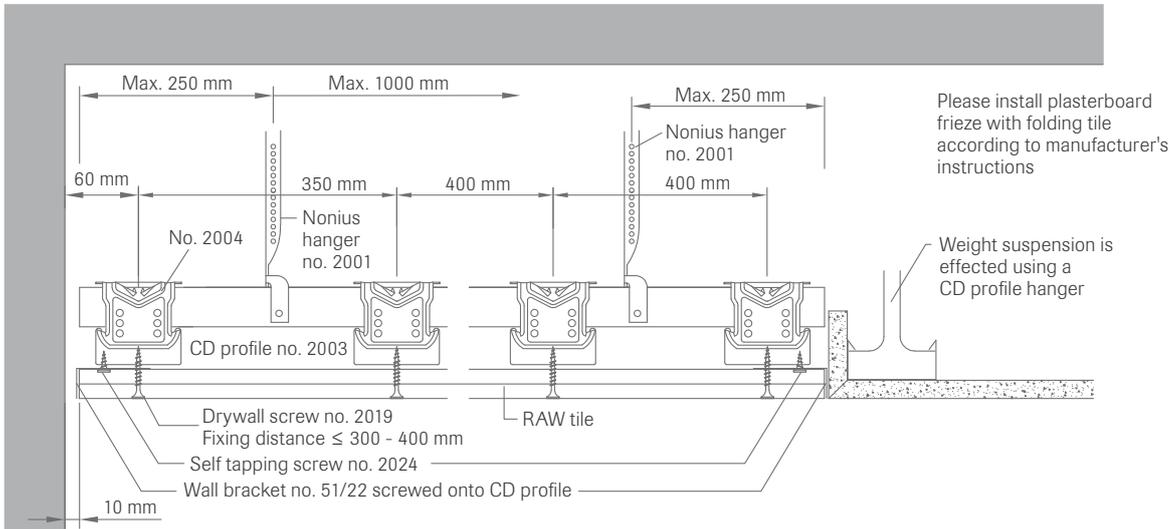
Downlights with a weight of 250 g or more each must also be suspended from the ceiling slab.

Electrical wiring must be installed before the ceiling is closed. The cables should be sufficiently long. The correct functioning of the luminaire should be tested before installation, as subsequent alterations are no longer possible.

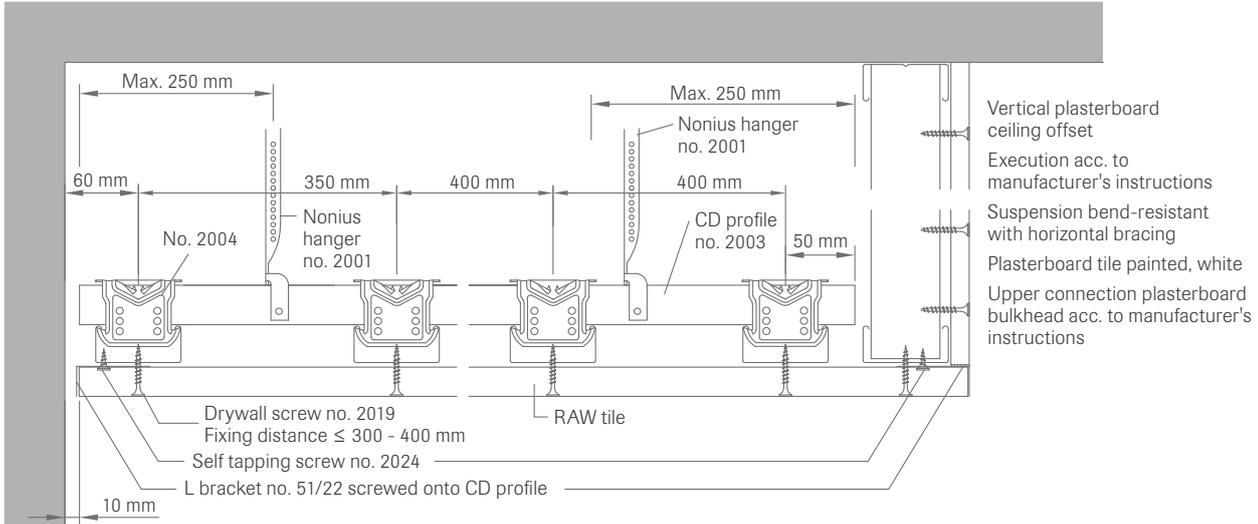
5.8 Connection to plasterboard friezes, bulkheads, folding tiles

Sliding connection:

Connection of S 7 RAW to plasterboard friezes



Connection of S 7 RAW to plasterboard bulkhead



6. Required materials

Material requirements per m² (recommended values):

tile dimensions in mm, grid weight approx. 2.5 kg/m², approx. 5 kg/m² for RAW tiles

No.	Description	2400 x 1200 mm
2001	Nonius hanger lower part	1 pce
16/...	Nonius hanger upper part	1 pce
76	Safety pin	2 pcs
2012	U-shaped hanger for transversal installation/as direct hanger suitable for no. 2003	1 pce
2013	Bevelled hanger upper part	1 pce
2003	CD profile	3.5 m
2004	Cross connector	2.5 pcs
2005	Profile connector	0.9 pcs
2019	Tile screw	15 pcs 26 pcs for fire protection version
2024	Self tapping screw	8 pcs/m, not for fire protection version
51/22	Angle profile dependent on project	Dependent on project, not for fire protection version
51/22-0	Curved angle profile in m	Dependent on project, not for fire protection version
51/22-0	Angle profile column semi-circles up to Ø = 1500 mm, as a piece	Dependent on project, not for fire protection version
8069/6	Mounting frame	Dependent on project
8031/9	Access flap 340 x 340 mm + no. 17/81	Dependent on project
8031/10	Access flap 540 x 540 mm + no. 17/81	Dependent on project
99725*	OWA repair set for RAW structure	1 pce
99/24	Tile adhesive for inspection hatch	Dependent on project

* Available in EU only

Product warranties

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