

4.2. FASTENING ON CD METAL SECTIONS

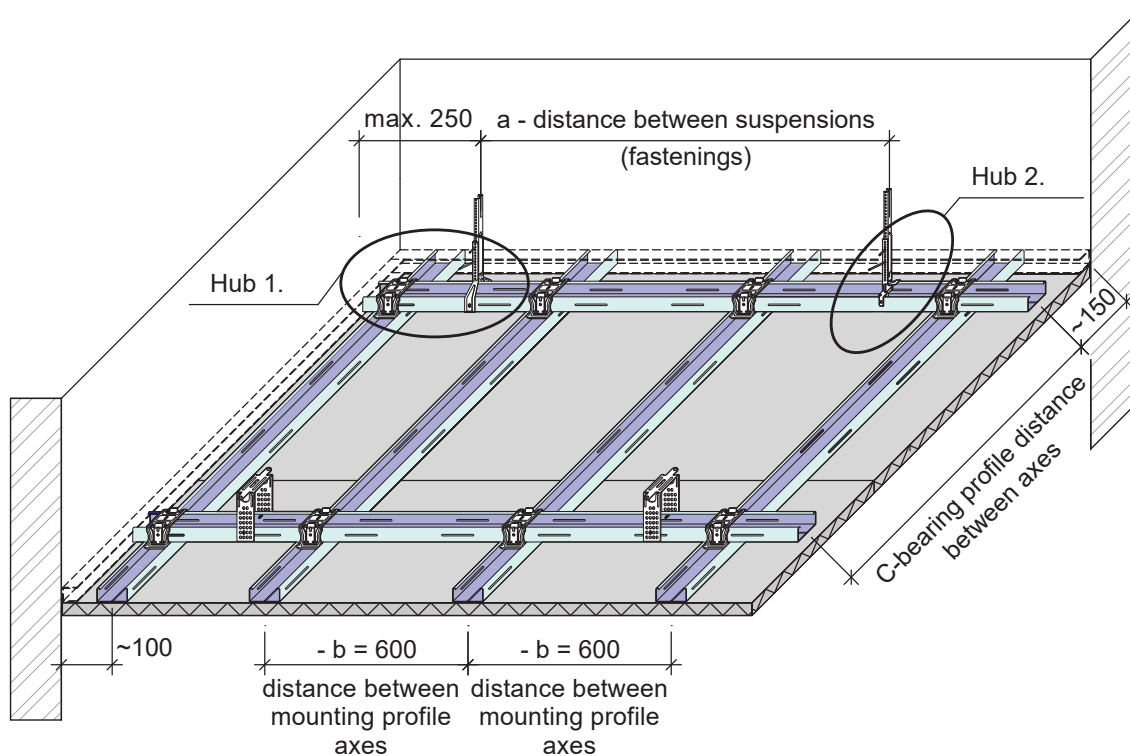
The frame is made of perpendicularly arranged *Knauf* CD type profiles 60/27/0.6.

CD profile placement, fastening onto load-bearing structures and connection as per *Knauf* guidelines D11 and D112.

CD-type load-bearing and mounting profiles are connected using a *Knauf* cross-connection panel.

CD profile frame is fixed onto load-bearing structures with a U-type suspension, wire or so-called quick suspension, as well as a Nonius type clamp. Placement of suspension elements and carrying capacities are stated in Tab. 4.2.1

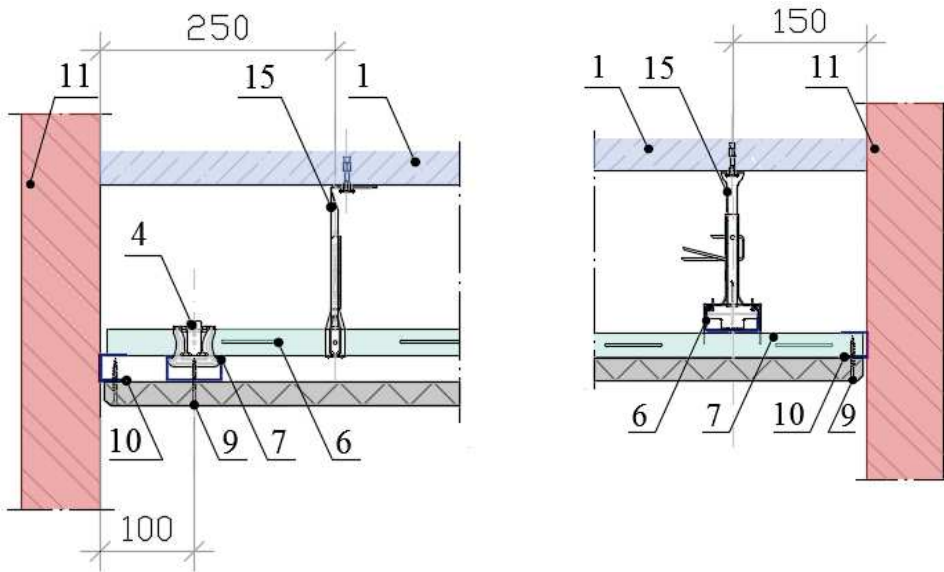
Fig. 4.2.1



Profile mounting step 600 mm.

Tab. 4.2.1 Mounting distances of frame profiles

Load-bearing profile CD	Mounting profile CD 60/27/0.6 mm	a - suspension distances/fastenings			Only ceiling under ceiling
		Load class kN/m ²			
distance between axes - C - mm	distance between axes - b - mm	up to 0.15	līdz 0,30	up to 0.30	up to 0.65
600	600	1150	900	750	700
900	600	1000	800		
1000	600	950	750		
1200	600	900			
Must use suspensions with load-carrying capacity of 0.40 kN					

Fig. 4.2.2 Suspended with Nonius suspension 0.40 kN


Joint between end edges, connection to the wall.

Joint between longitudinal edges.

Unit 1; 2 (see Fig. 4.2.1)

Suspension carrying capacity:

- quick suspension with anchor fixation - 0.15 kN
- Nonius suspension - 0.40 kN
- Nonius clip - 0.40 kN
- combined suspension:
 - with wire - 0.15 kN
 - with top part of Nonius suspension - 0.40 kN

Schemes of CEWOOD acoustic panel screw fastenings

Tab. 4.2.2 Sizes of quick construction screws depending on panel thickness.

Dimensions mm		Panel thickness mm
Length	Diameter Ø	
35	4,5	15
50	4,5	25
50	4,5	35
60	4,5	35

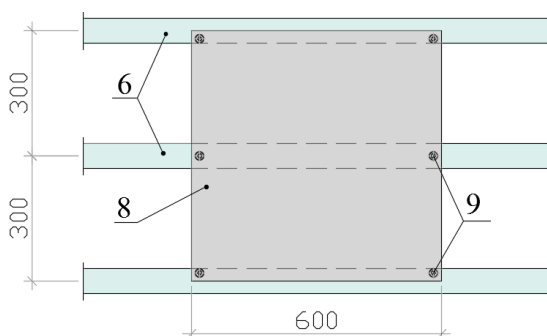
*the table was elaborated for a ceiling structure, using Knauf steel CD profiles 27/60/0.6 mm

Tab. 4.2.3 Quick construction screw consumption

Panel format (dimensions)	Screw consumption, pcs./m ²	
	600/600 mm	600/1200 mm
Standard screw connection scheme. Panel thickness 25 and 35 mm.	12	9
Standard screw connection scheme. Panel thickness 15 mm.	23	14

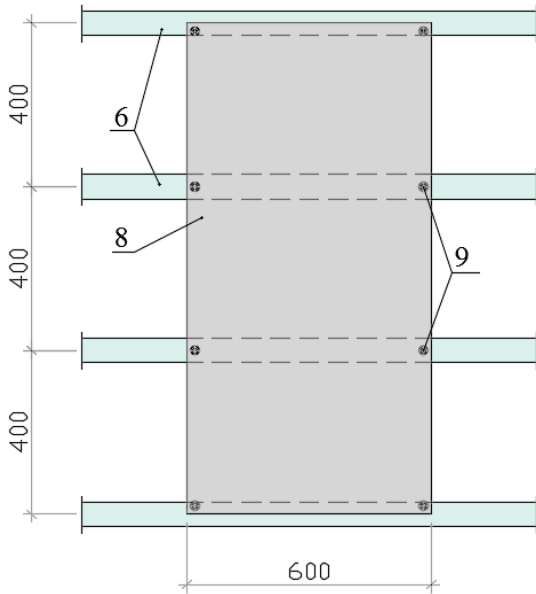
To mount CEWOOD acoustic panels in premises with elevated humidity (e.g., swimming pools) and outdoors, galvanised or painted quick construction screws with a conical head of $\varnothing \geq 9$ mm must be used.

Fig. 4.2.3 Fastening of 15 mm thick CEWOOD acoustic panels with screws onto CD mounting profile 60/27/0.6 mm.



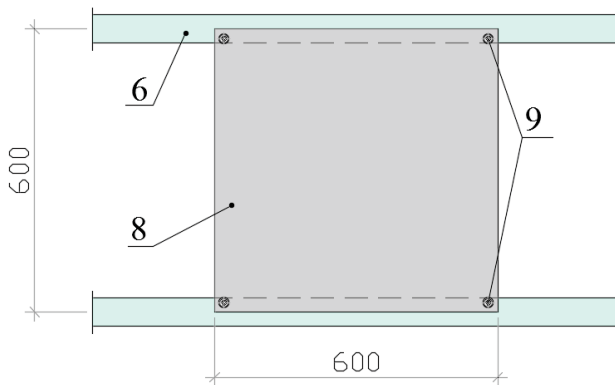
Panel 600x600 fastening with 6 screws.

Fig. 4.2.4 Fastening of 15 mm thick CEWOOD acoustic panels with screws onto CD mounting profile 60/27/0.6 mm.



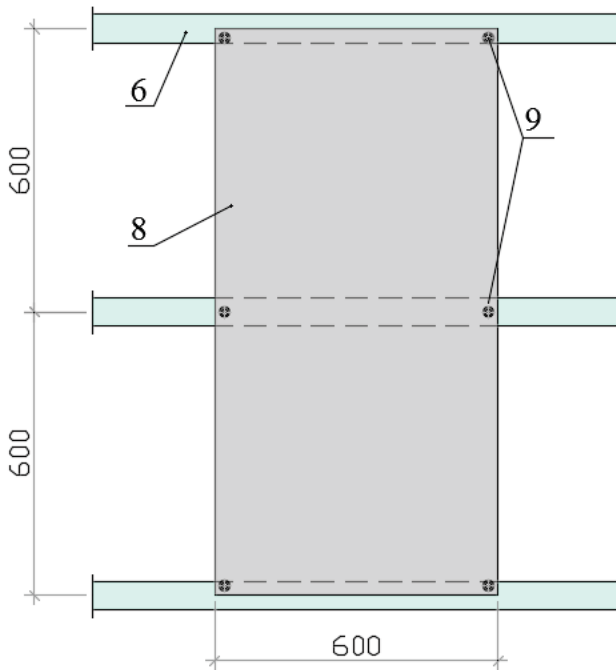
Panel 600x1200 fastening with 8 screws.

Fig. 4.2.5 Fastening of 25 mm and 35 mm thick CEWOOD acoustic panels with screws onto CD mounting profile 60/27/0.6 mm.



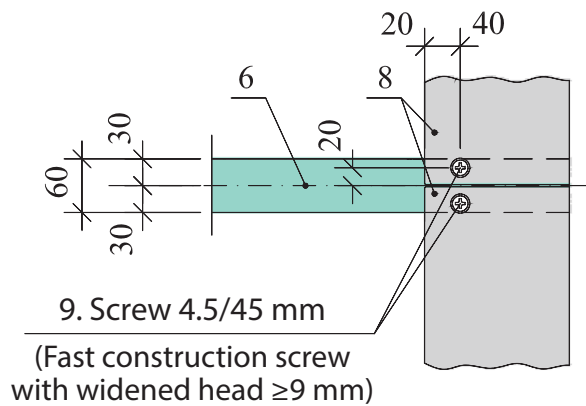
Panel 600x600 fastening with 4 screws.

Fig. 4.2.6 Fastening of 25 mm and 35 mm thick CEWOOD acoustic panels with screws onto CD mounting profile 60/27/0.6 mm.



Panel 600x1200 fastening with 6 screws.

Fig. 4.2.7 Placement of screws at the connection point between panel edges.

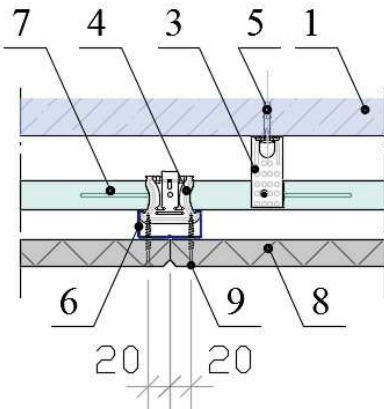
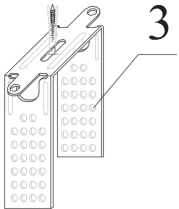


The connection seam is always formed under the CD mounting profile.

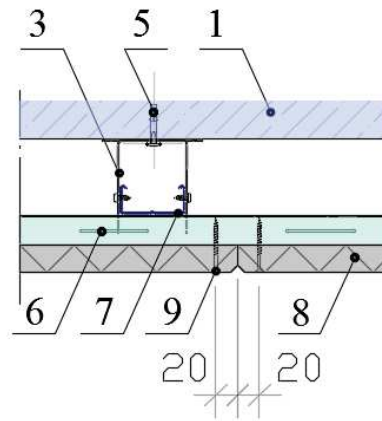
Fastening of CD mounting profiles onto a load-bearing slab structure

A CD mounting profile 60/27/0.6 mm is attached onto a CD load-bearing profile 60/27/0.6 mm using a 60x27 cross-connector of CD profile. A CD profile frame is fixed onto a load-bearing slab structure using a quick suspension, U type clamp or Nonius type fastening.

Fig. 4.2.8 Fastening / U-type clamp with load resistance of 0.40 kN



Joint between longitudinal edges

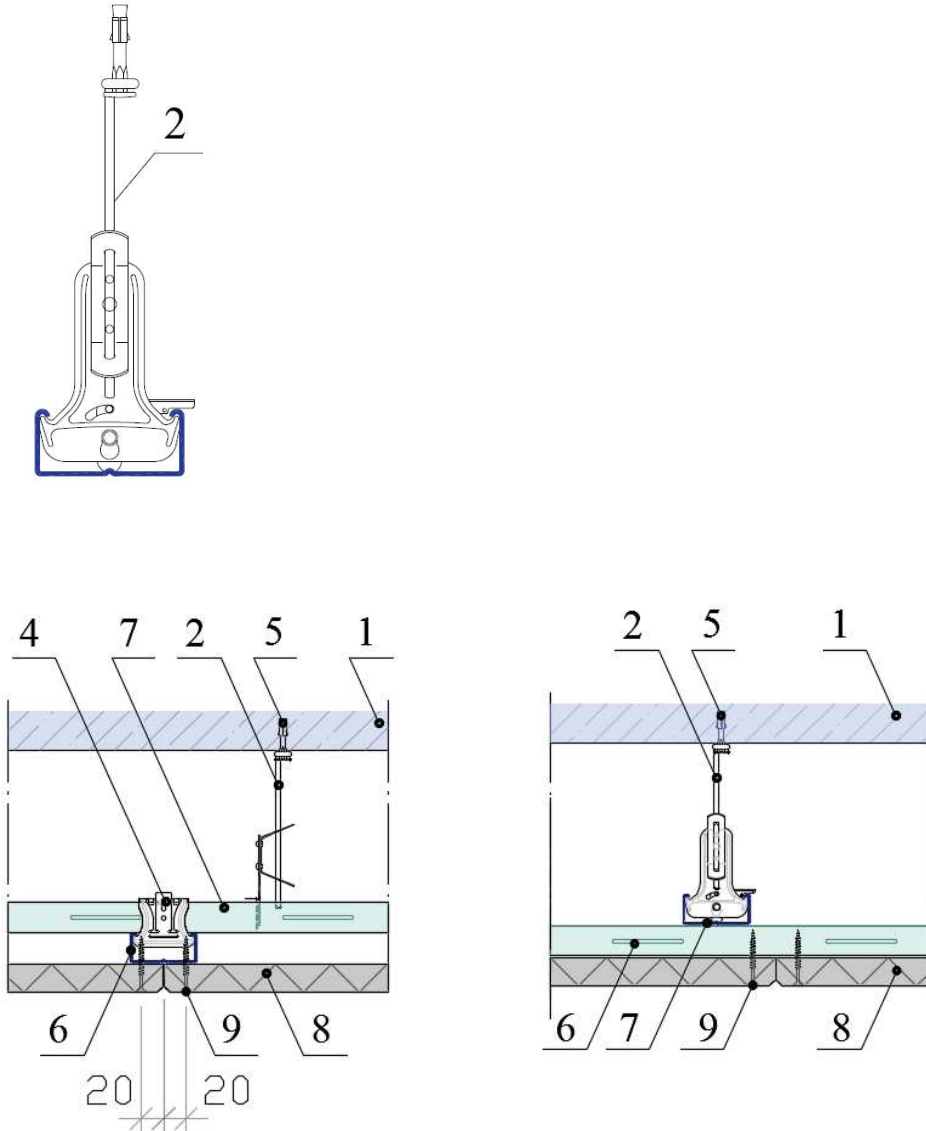


Joint between end edges

Fig. 4.2.9 Fastening with a quick suspension, carrying capacity 0.15 kN.

Maximum step of quick suspension 600 mm.

Maximum distance from the wall for quick suspension 190 mm.



**CEWOOD acoustic panel ceiling with a mineral wool layer.
Fastening with a Nonius suspension.**

Suspension placement step as per 4.2.1.

Fig. 4.2.10 Joint with the wall without a shadow gap.

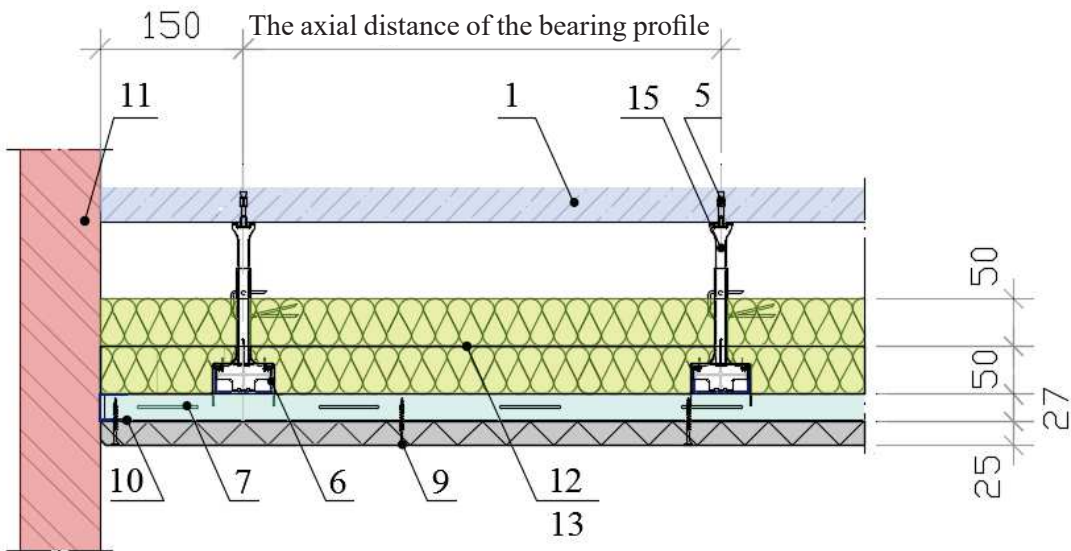


Fig. 4.2.11 Ceiling and wall joint with a plasterboard frame with or without a shadow gap.

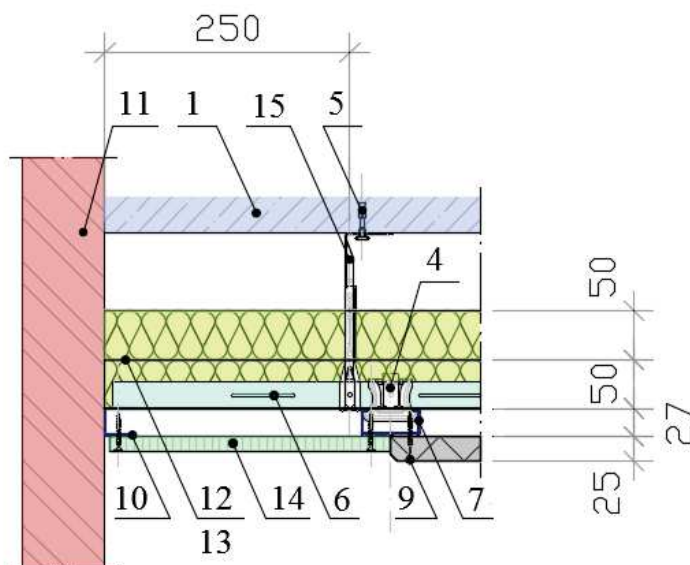
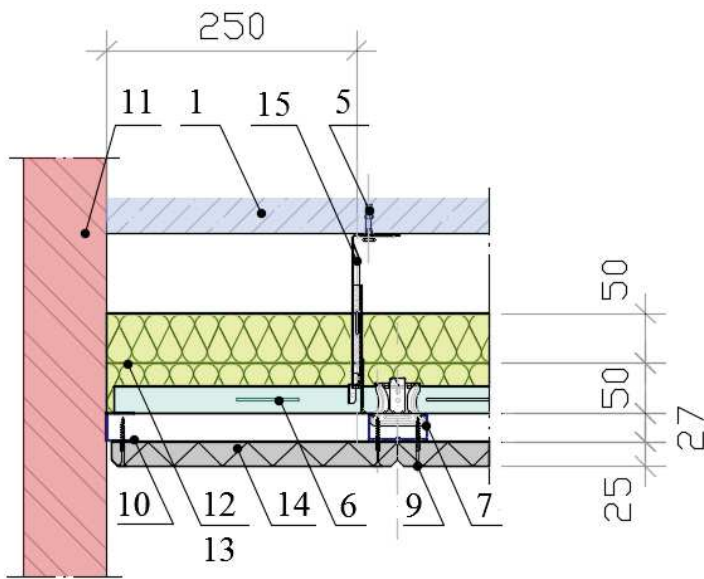


Figure 4.2.12 Ceiling and wall joint with a shadow gap.


Explanation of numbering

1. Load-bearing slab structure.
2. Quick suspension with anchor fixation - 0.15 kN
3. U-type clamp 0.40 kN.
4. Cross-connector for CD profile 60x27x0.6 mm (before mounting fold down by 90°). Alternative: 2x anchor angles for CD profile 60x27x0.6 mm (fold down before mounting).
5. Conical anchor M6.
6. Mounting CD profile 60x27x0.6 mm.
7. Load-bearing CD profile 60x27x0.6 mm.
8. CEWOOD decorative and acoustic panels.
9. Galvanised or painted quick construction screws with a wider head $\geq \text{Ø}9$ mm.
10. Wall-mounted profile UD 28x27. Used as a mounting aid (see Knauf recommendations).
11. Existing wall structure.
- 12, 13. Mineral wool 90 kg/m³, thickness 50 mm.
(The surface layer is arranged perpendicular to the previous layer; panel seams must overlap).
14. Plasterboard frame Knauf GFK-A2, thickness 15 mm.
15. Nonius suspension 0.40 kN.