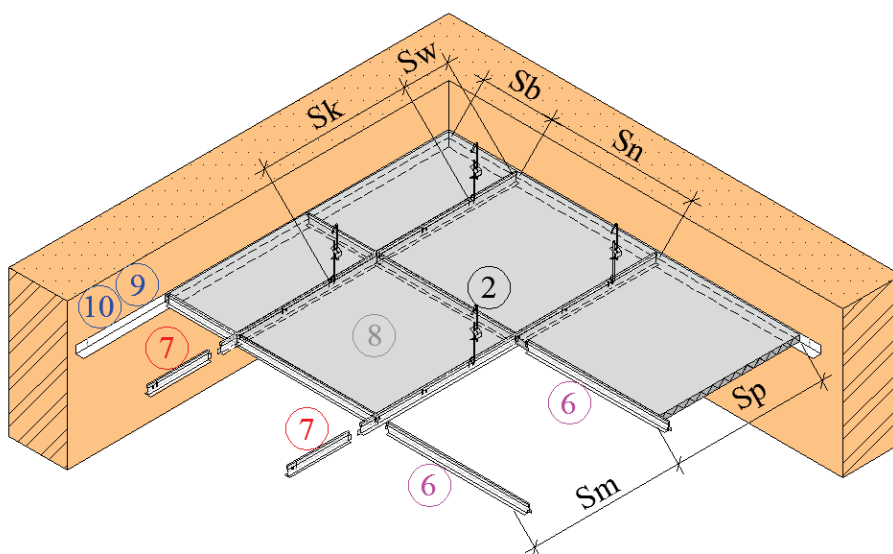


4.3. SUSPENDED CEILINGS WITH VISIBLE T-SECTIONS

T-profile suspended ceiling frames are offered by a number of manufacturers. The ceiling frame consists of 4 key elements:

- 7 – Load-bearing profile lath;
- 6 – Profile cross-lath;
- 9; 10 – Perimeter profile;
- 2 – Suspension (hook).

Fig. 4.3.1



For suspended ceilings the panels are made of special size – width 595 ± 1 mm, length $1195, 595 \pm 1$ mm. Other technical parameters of panels are stated in pp.4-5, CEWOOD panel edge profiles, see p.7.

The manufacturer declares the carrying capacity of the frame profile according to the standard EN 13964. The T 24 profile step is defined depending on the structural load provided the permissible flexure of $1/500 l$. The step of the load-bearing profile laths of CEWOOD panel ceilings – 1200 or 600 mm, distance between mounting laths (axes) – 600 mm. Suspension distances are provided in Table 4.3.1.

The procedure and methods of assembling the ceiling frame are determined by the manufacturer of structures. This informative material shows some examples of mounting solutions to create safe CEWOOD panel fastening structures.

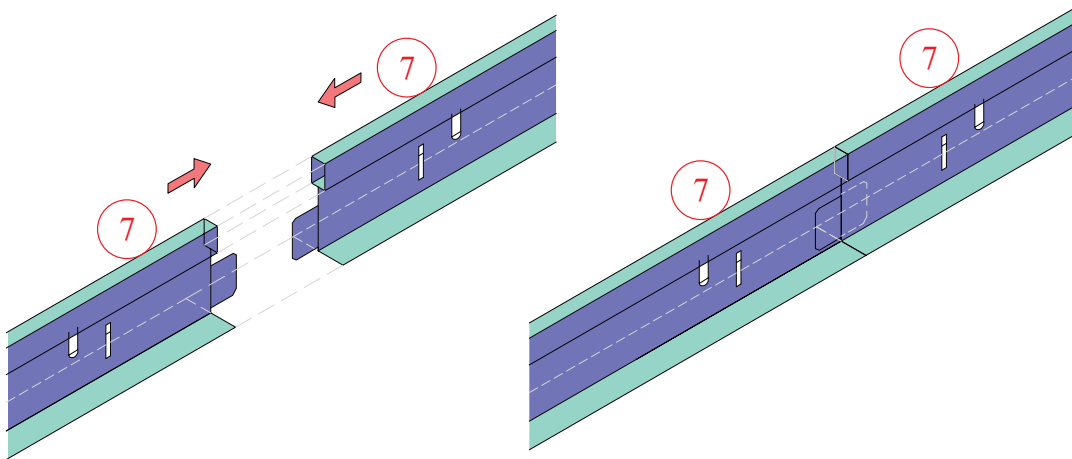
Tab. 4.3.1 Distances of suspension (carrying capacity 0.15 kN) mounting.

Load kN/m ²	0.12	0,15	0.20	0.25
Step between load-bearing profile laths S_n , mm	1200	600	600	600
Step between suspensions S_k , mm	≤ 1000	≤ 1100	≤ 1000	≤ 1000
Step between suspension and wall S_w , mm	≤ 250	≤ 250	≤ 200	≤ 200
Step between cross profile laths S_m , mm	600	600	600	600
The size of S_b and S_p start and end panels and the step for profile laths are changed depending on the room size. Max. distance of a profile lath from wall 600 mm.				

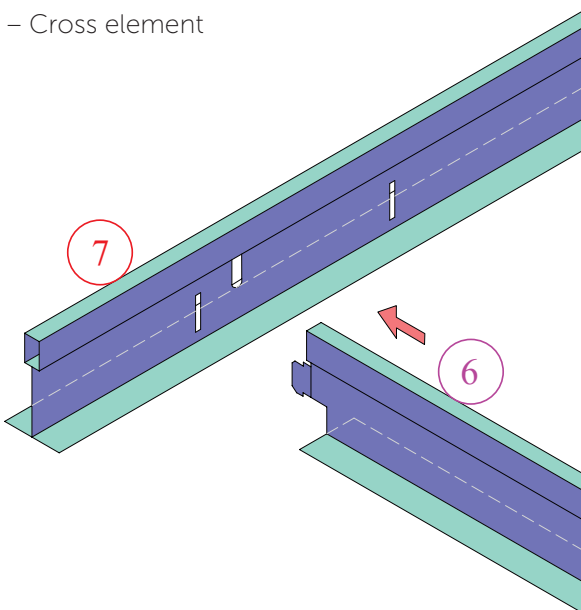
Note. With higher loads, the step between the suspensions must be accordingly reduced.

Fig. 4.3.2 Frame elements

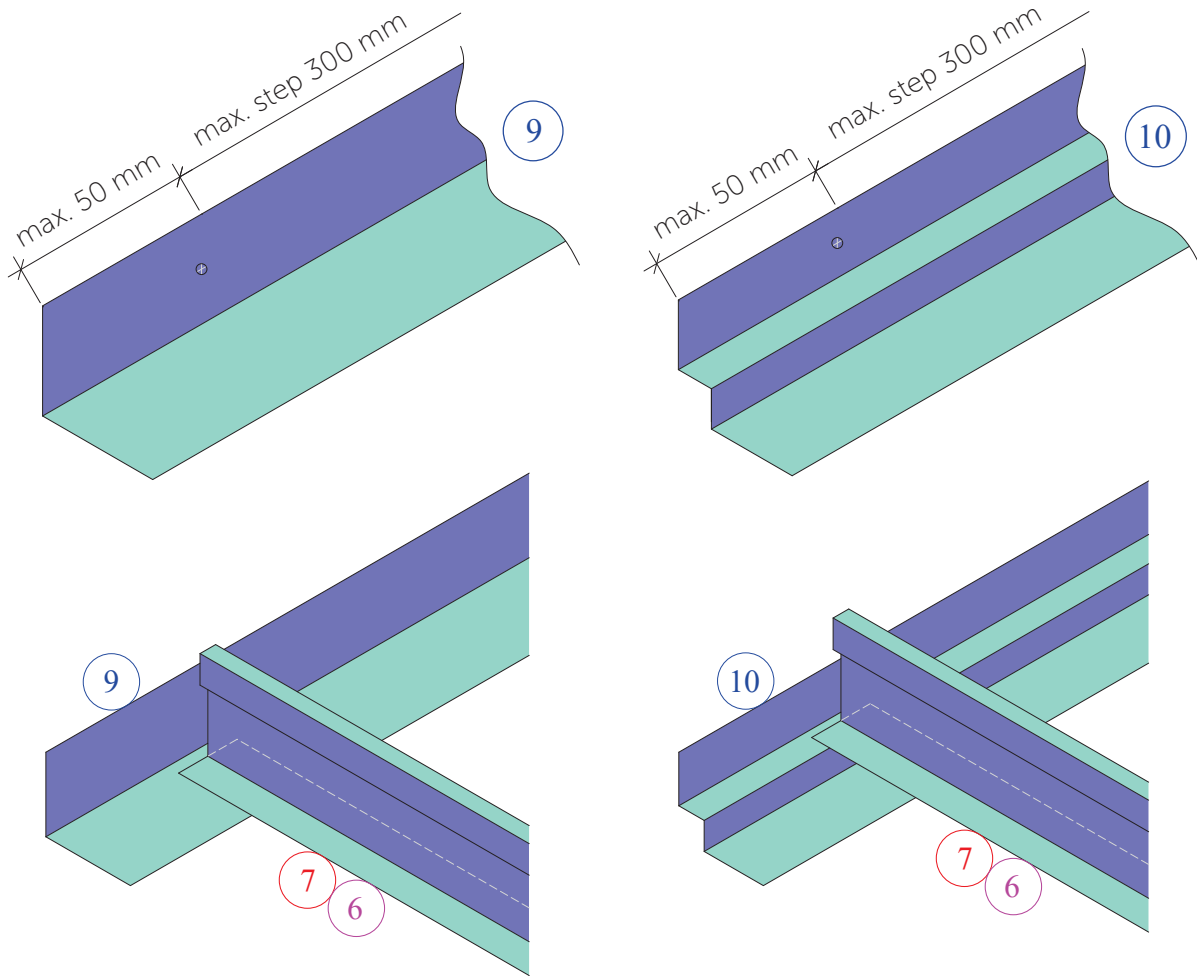
7 – Load-bearing profile lath and connection of its elements



6 – Cross element



9, 0 – Perimeter profiles, mounting



2, 14, 15 – Fastening hooks

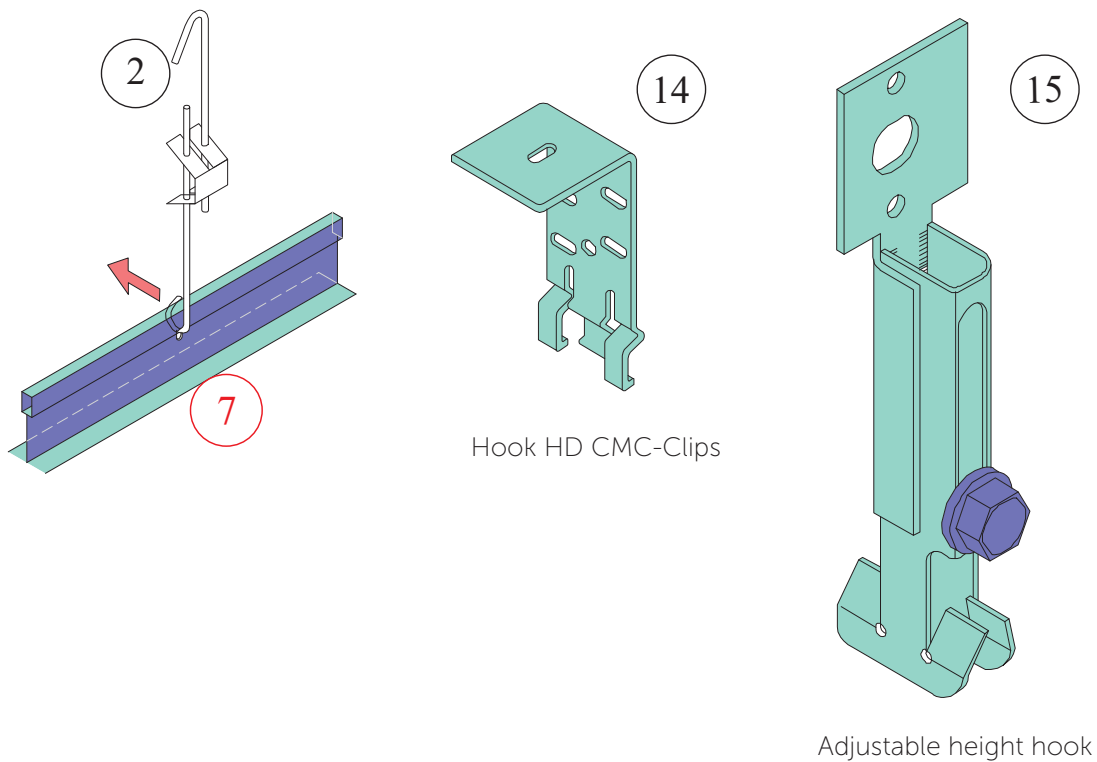
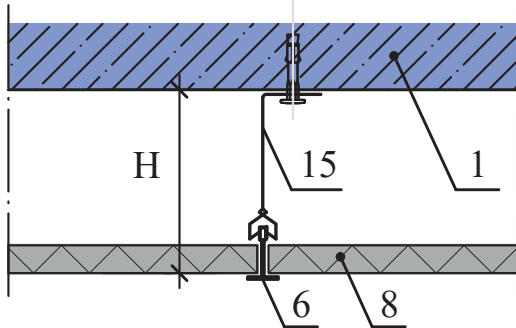
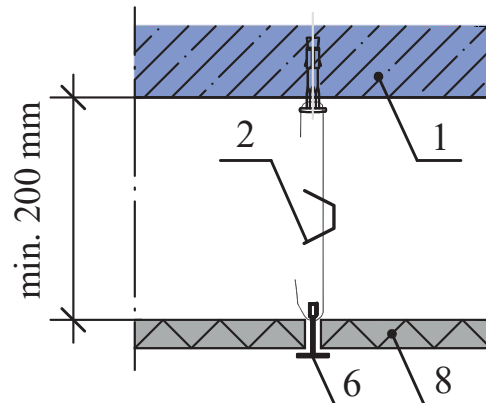


Fig. 4.3.3 Suspension height H

Mounting height - adjustable height hooks



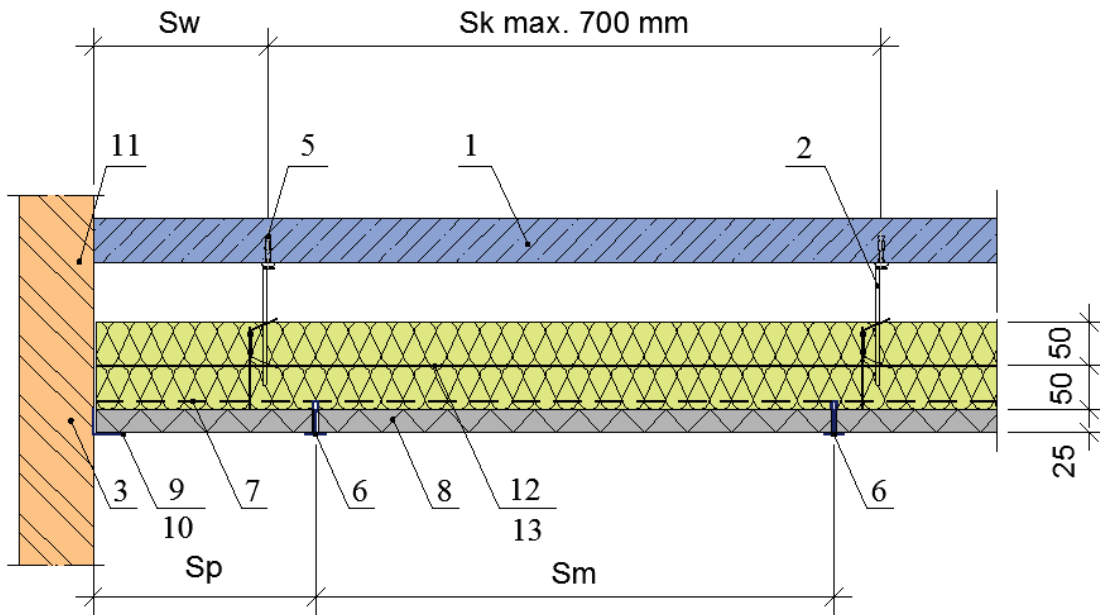
Mounting height – quick suspension


Tab. 4.3.2 Parameters of suspension types

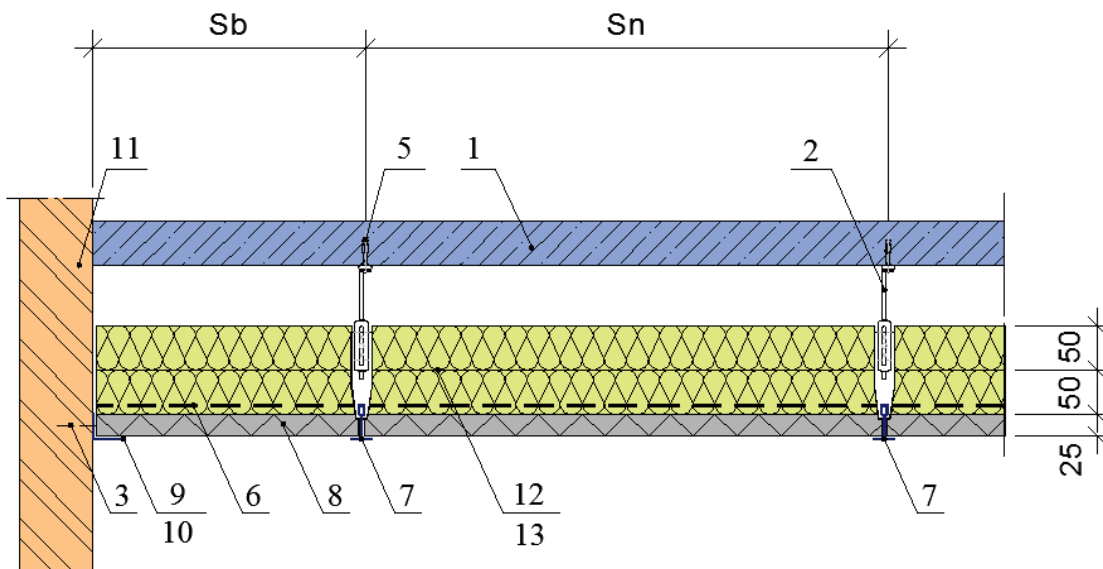
Type of suspension	CEWOOD panel thickness mm	Suspension height H (see Tab. Fig. 2.)	Suspension carrying kN
Quick (wire) suspension	15	180	0.15
	25	200	
	35	220	
Nonius type suspension (<i>Knauf</i>)	15, 25, 35	200	0.15
Non-variable height hooks (<i>Knauf</i>)	15, 25, 35	50, 80, 100	0.45
Variable height hooks	15, 25, 35	82 ÷ 113	0.15

Fig. 4.3.6 Ceiling with an extra mineral wool layer for sound absorption

Section A1-A1, lath profile placement for panels 595x595 mm.



Section B1-B1, lath profile placement for panels 595x595 mm.



Explanation of numbering:

1. Load-bearing slab structure.
2. Quick, wire or Nonius suspension.
3. Perimeter angle fastening, galvanised screw 6x50 with a metal screw plug.
4. Spacer - compensator.
5. Conical anchor M6.
6. Cross lath profile T-24/38.
7. Load-bearing lath, profile T-24/38.
8. CEWOOD decorative and acoustic panels.
9. Perimeter angle profile $\geq 24 \times 24 \times 0.5$ mm.
10. Gradual perimeter angle profile $\div 19/9/11/22$ mm.
11. Existing wall structure.
- 12; 13. Mineral wool 90 kg/m^3 , thickness 50 mm.
(The surface layer is arranged perpendicular to the previous layer; panel seams must overlap)
14. Hook HD, type 21.1.
15. Adjustable height hook, *HD Richter system*.