

INSTALLATION GUIDELINE

HEATING AND COOLING CEILING | JOINTLESS DRYWALL CEILING WITH CAPILLARY TUBE MAT APPLIED ON SITE



The capillary tube mats and insulation are placed on a suspended drywall ceiling. On the visible side you have a closed, jointless ceiling for the removal or supply of sensitive heat loads, largely by radiation, partly also by convection.

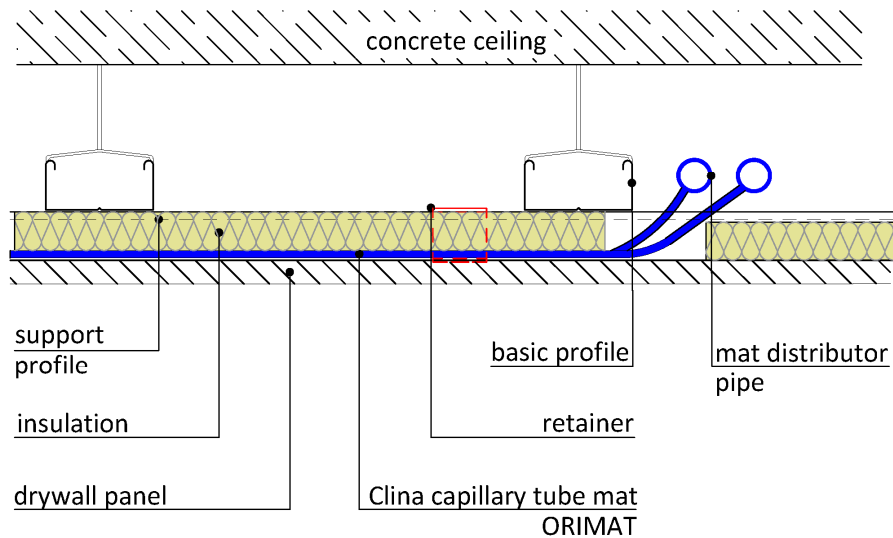


Fig. 1: section view ceiling structure with **retainer**- longitudinal

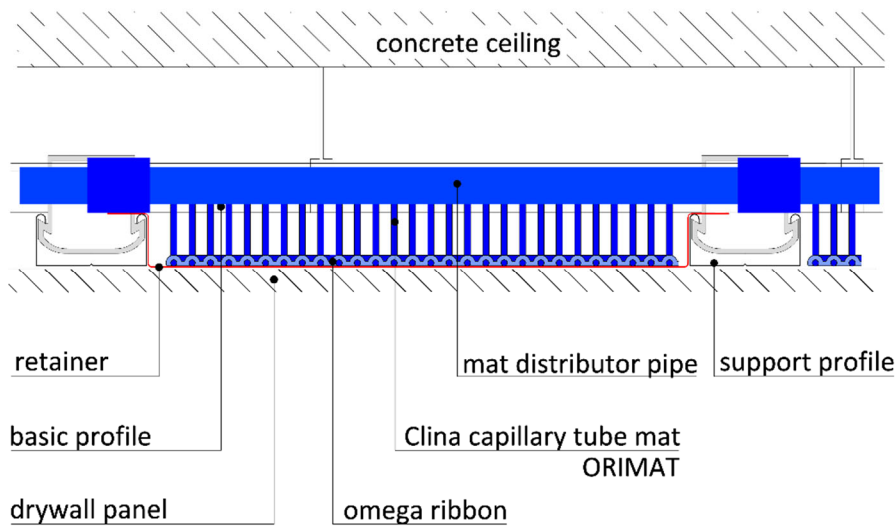


Fig. 2a: section view ceiling structure with **retainer** - transversal

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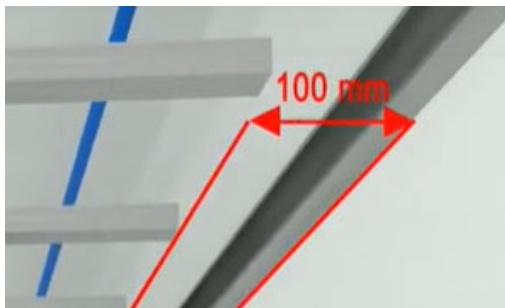


Dry construction

Plant engineering

1. Installation of the substructure, centre-to-centre distance of the basic profiles and the support profiles according to DIN 18168.

In the edge area (front side), a distance of **100 mm** must be left between the support profile and the wall connection profile for inserting the capillary tube mats.



2. Installation of the piping or supply lines for the Clina capillary tube mats in the ceiling void.
3. Connect the mat distributor pipes of the Clina capillary tube mats in accordance with the dimensions of the substructure by means of heating element socket welding
4. Place the mat distributor pipes of the rolled-up capillary tube mats in the ceiling void. To do this, the mat distributor pipes are first **loosely** fixed to the basic profiles with cable ties. There must be sufficient clearance (axial and lateral) for heating element socket welding. The mats must be arranged so that the omega ribbons, with the open side (= underside of the capillary tube mat) point towards the drywall panels to be installed later (see Fig. 1, Fig. 2a and 2b)! Connection to the supply and return lines by means of heating element socket welding. The cable ties are tightened for final fixing of the mat distributor pipes to the basic profiles of the substructure.
5. Hook in the retainers or retaining clips (see fixing material in the Clina product catalogue) between the support profiles. Roll out the Clina capillary tube mats between the support profiles so that they are placed on the retainers or retaining clips. Openings for lamps and ventilation grilles are possible up to a diameter of approx. 100 mm by pulling the capillary tubes apart.

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6. Placing the insulation step by step on the capillary tube mats between the supporting profiles of the substructure. Insulation boards welded into foil are preferably used. The insulation material should push the capillary tube mats slightly downwards so that they are well pressed against the ceiling when the ceiling is closed with drywall panels.
7. Testing the tightness by means of compressed air (preliminary test). Filling, venting and leak test of the system in accordance with **Clina guideline CR02**. The performance of the preliminary test and the main test must be recorded. The system remains under test pressure during further works.
8. After the successful leak test first with air and then with liquid medium, the ceiling can be closed by screwing on the drywall panels according to DIN 18181, then fill the joints and paint.

See also our installation video at <https://www.clina.de/en/jointless-drywall-ceiling> or ▶

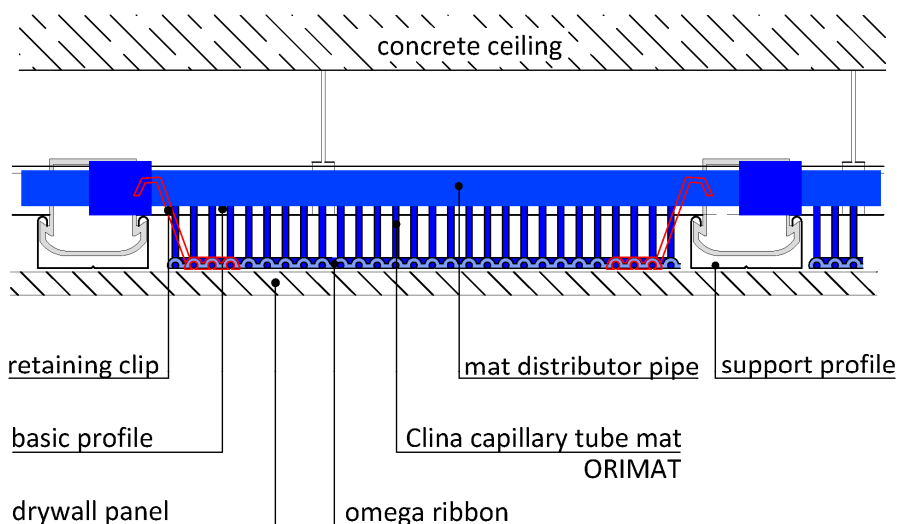


Fig. 2b: section view ceiling structure with retaining clip - transversal