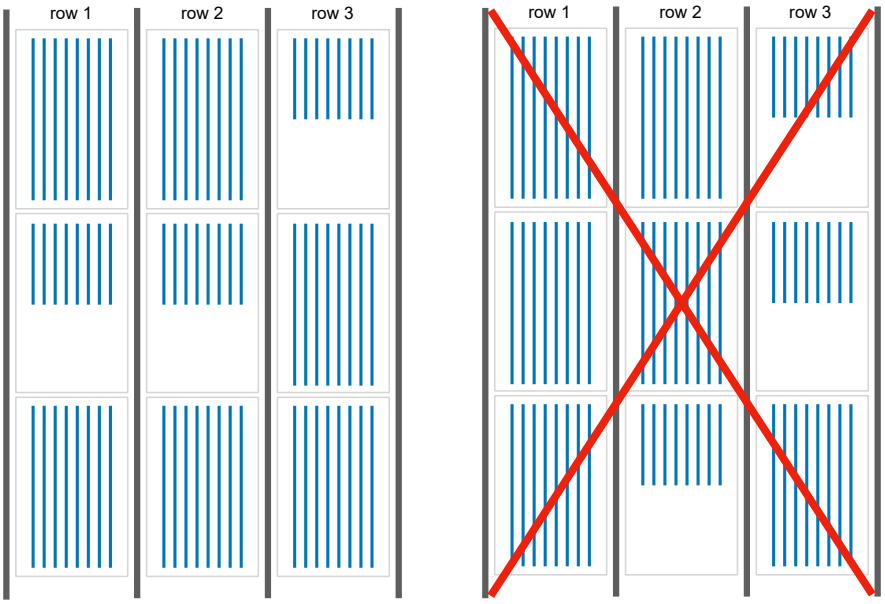
INSTALLATION GUIDELINE

HEATING/COOLING CEILING
OPTIPANEL 18 - PERFORATED
WITH INTEGRATED CAPILLARY TUBE MAT

Clina OPTIPANEL 18 is a prefabricated gypsum board panel with an integrated capillary tube mat. The OPTIPANELs are screwed onto the profiles of a substructure. On the visible side there is a seamless gypsum board ceiling for the removal or supply of sensitive heat loads, to a large extent via radiation, partly also via convection

Several OPTIPANELs can be connected in series within a room.
To achieve a uniform flow through several rows, they should be of the same type, i.e. the total number of OPTIPANELs must be divided into rows with the same number of identical OPTIPANELs within a room (see illustration).
The maximum permissible number of OPTIPANELs in a row is determined by the pressure drop of max. 25 kPa.
A deviation of -1 in the number of OPTIPANELs in a row is tolerable.



Dry construction	Plant engineering

1. installation of the piping or supply lines for the OPTIPANELs 18 in the ceiling void

2. installation of the substructure according to the general rules of drywall construction
- perforated gypsum board panels – crosswise installation of the OPTIPANEL 18, centre-to-centre distance between support profiles 333 mm

3. temporary fixation of the ceiling sub-distributor to a later accessible position in the ceiling void

4. Screw the prefabricated OPTIPANELs 18 at right angles to the profiles of the substructure into the corresponding perforation using Knauf-Caps.

5. connection of the OPTIPANELs 18 to each other in a row with the short flexible hoses **SNY10.0800** according to the previously determined number per row

Dry construction	Plant engineering

6. connection of the respective row to the ceiling sub-distributor with the long flexible hoses **SNY10.5000** (flow + return).

The flexible hoses must be inserted into the push-lock connections all the way to stop and checked for correct fit by pulling!

When inserting the flexible hoses into the push-lock connections of the capillary tube mats, hold the mat distributor pipes of these mats in place.

7. After correct installation of the OPTIPANELs 18 and before closing the ceiling, the system must be subjected to an initial leak test with 3 bar compressed air for at least one hour.

The pressure must be checked continuously at the pressure gauge and the result must be recorded in a corresponding report.

8. The connection of the rooms to the piping of the overall system is done by the plant engineer, who connects the ceiling sub-distributor with the room control group or zone control group. The positioning of the ceiling sub-distributor can be adapted to the requirements by its connection with the flexible long hoses.

9. Depending on the scope of performance, the zones must be filled and flushed with the system medium via the ceiling sub-distributor.

10. After filling and venting, a leak test with 10 bar over 24 hours must be carried out and recorded.

Regarding filling, venting and leak test please take note of the **Clina guideline CR02** "Filling, venting and leak test".

11. After the successful leak tests, which has first been executed with air and then with liquid medium, the ceiling can be completely closed with the inactive panels.