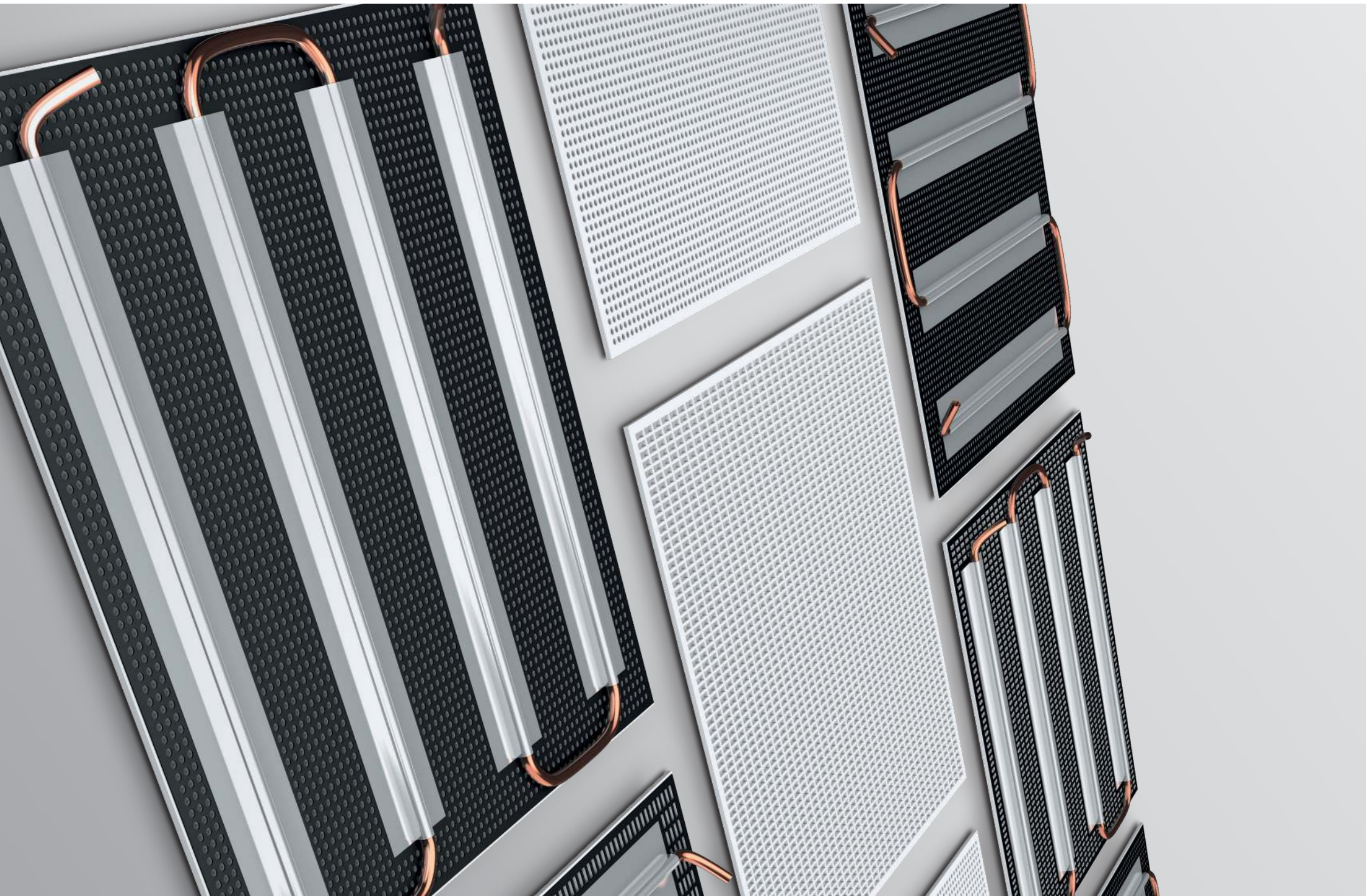
CLIMALINE
Gypsum Tile Ceilings
Thermo Panel 4T

Precoated surface
(similar to RAL 9003)



Gypsum tiles with a coated surface are delivered fitted with cooling registers to the building site. They are laid in a visible grid substructure.

Product Advantages

Easy assembly
Modern look
With coated surface
Sound-absorbing
Diffusion-closed

Areas of Application

Office and sales areas
Training and seminar rooms
Hospital rooms
Canteens
Foyer areas

Technical Data

Gypsum tile thickness	6.5 mm
Colouring	similar to RAL 9003
Operational weight	approx. 12.5 kg/m²
Water content	approx. 1.0 l/m²
Pipe meander	copper 12 x 0.35 mm
Heat flux profiles	aluminium
Centre distance	150 mm

Technical Properties

Building material class

Planking A2-s1, d0 according to EN 13501-1

Sound absorption

According to DIN EN ISO 354

Durability

Stress class A according to DIN EN 13964
Diffusion resistant according to DIN 4726

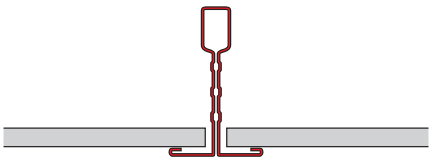
Performance

Heating output according to DIN EN 14037
Cooling output according to DIN EN 14240

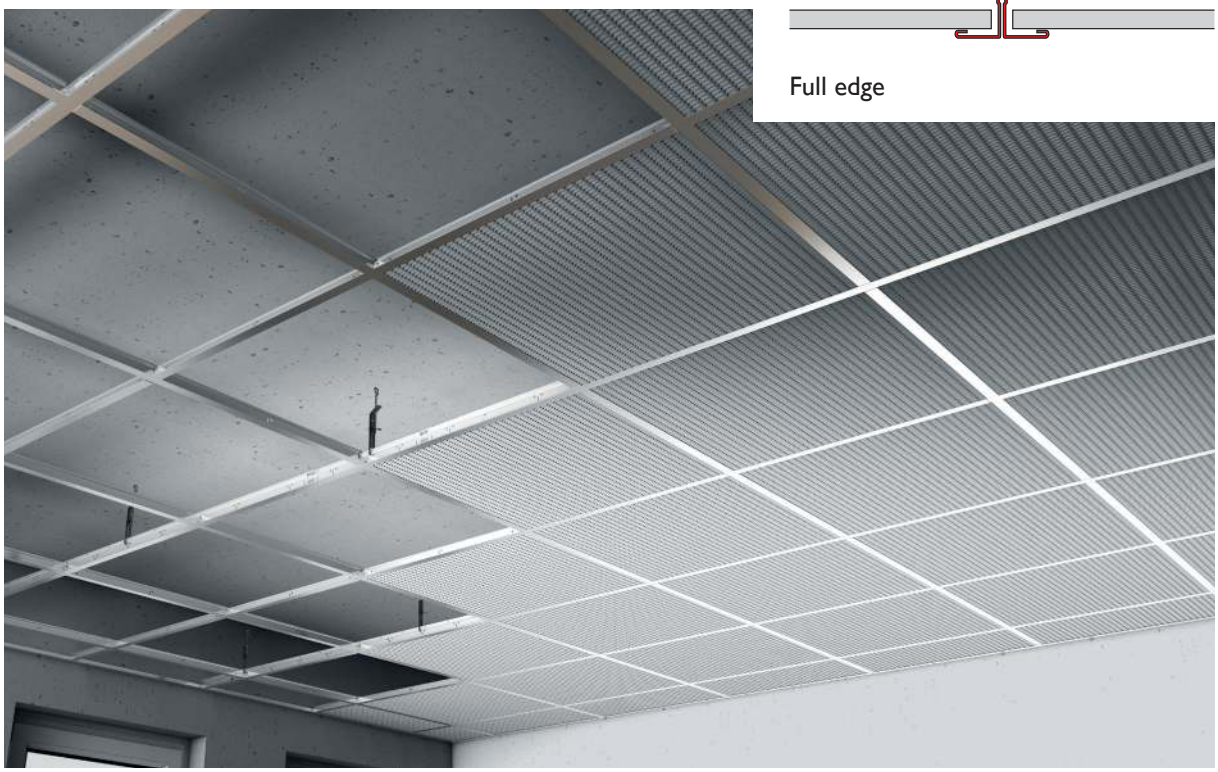
CE
EN 13964

According to DIN 18168

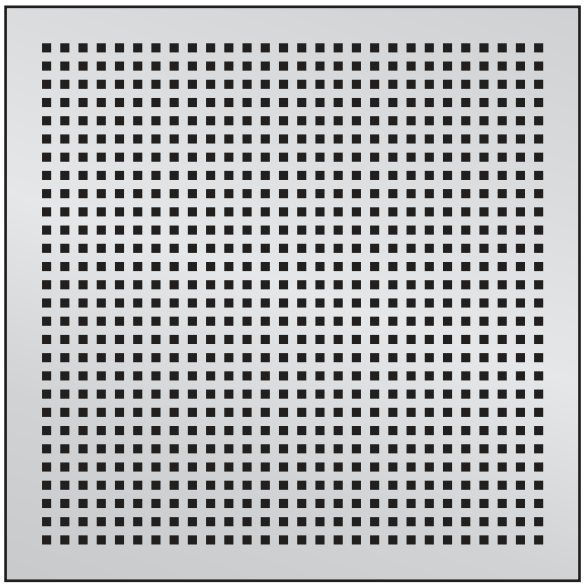
Visible T-Grid – Full Edge



Full edge

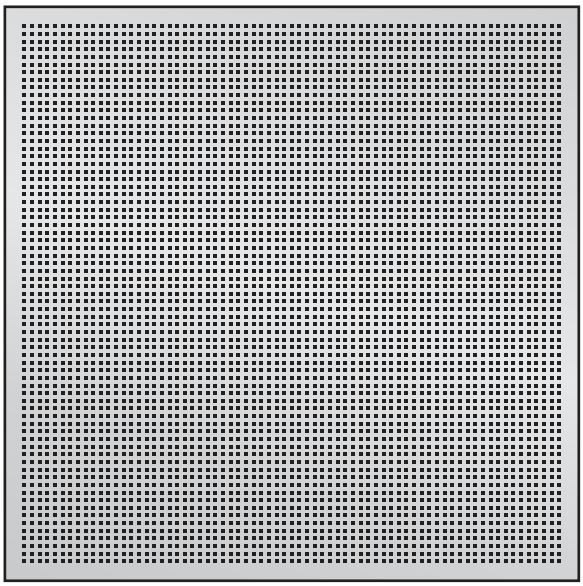


Hole Patterns



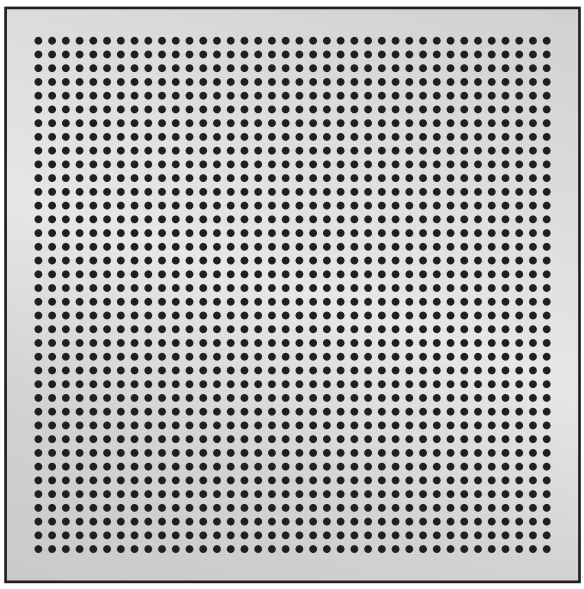
CLIMALINE Thermo Panel 4T Q 9/20

Module format: 625 x 625 mm x 6.5 mm
Perforation: 9 x 9 mm / Free cross section: 16.3 %
Centre distance of perforation: 20 mm



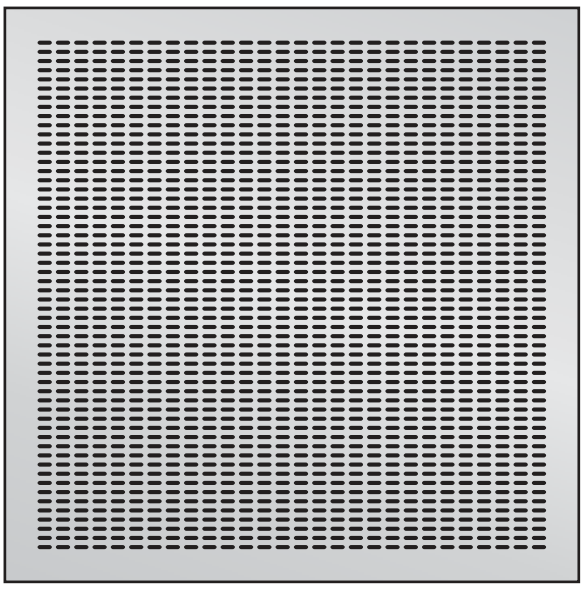
CLIMALINE Thermo Panel 4T Q 3.5/8.3

Module format: 625 x 625 mm x 6.5 mm
Perforation: 3.5 x 3.5 mm / Free cross section: 17.2 %
Centre distance of perforation: 8.3 mm



CLIMALINE Thermo Panel 4T R 6/15

Module format: 625 x 625 mm x 6.5 mm
Perforation: Ø 6 mm / Free cross section: 10.6 %
Centre distance of perforation: 15 mm

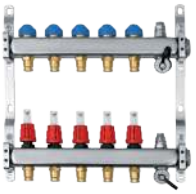


CLIMALINE Thermo Panel 4T T 14-4/20

Module format: 625 x 625 mm x 6.5 mm
Perforation: 14 x 4 mm / Free cross section: 21.1 %
Centre distance of perforation: 20 / 10 mm

Hydraulic Components

Unless otherwise explicitly requested, we forego internal piping in the rooms in the hydraulic design. We thus remain true to our idea of equipping each control area with a distributor.

Designation		Art. no.	Material	Dimension	Illustration
Connection hose between the tiles	Length: 1.0 m	293500	Stainless steel/poly-ethylene	Fitting 12 mm	
Hoses connecting the tiles to the distributor	Length: 1.0 m Length: 1.5 m Length: 2.0 m Length: 3.0 m Length: 4.0 m Length: 5.0 m Length: 7.0 m Length: 10.0 m	293500 293505 293511 317324 317329 317325 317326 317327	Stainless steel/poly-ethylene	Fitting 12 mm	
CLIMALINE VR adapter for distributor, 2 pieces per circuit		317807	Plastic	16 mm	
CLIMALINE brass adapter for internal piping to flex hose, 2 pieces per circuit		317806	Brass	16 x 12 mm	
CLIMALINE circuit distributor	for 2 circuits for 3 circuits for 4 circuits for 5 circuits for 6 circuits for 7 circuits for 8 circuits for 9 circuits for 10 circuits for 11 circuits for 12 circuits	317793 317794 317795 317796 317797 317798 317799 317800 317801 317802 317803	Stainless steel	for VR adapter 16 mm	

Accessories

Item	Designation	Art. no.	Illustration
Z 1	Assembly aid for Thermo Panel 4T module 625 x 625 mm	319157	
Z 2	Assembly aid for Thermo Panel 4T module 600 x 600 mm	319158	

Performance Data

Cooling output acc. to DIN EN 14240 per m² m²

CLIMALINE gypsum tile ceiling Thermo Panel 4T	
Pipe row spacing	150 mm
Δt	10 Kelvin
Cooling output	68.3 Watt
Active area ratio	0.96

Heating output acc. to DIN EN 14037 per m²

CLIMALINE gypsum tile ceiling Thermo Panel 4T	
Pipe row spacing	150 mm
Δt	15 Kelvin
Heating output	81.5 Watt
Active area ratio	0.98

Design

The following tables show the heating or cooling output per tile for the specified system temperatures. To ensure the hydraulic compensation, there should be the maximum number of tiles in a row and they should be installed in areas of the same size.

Cooling **System: Gypsum tile Thermo Panel 4T 625 x 625 mm, pipe rows / spacing: 4 / 150 mm**

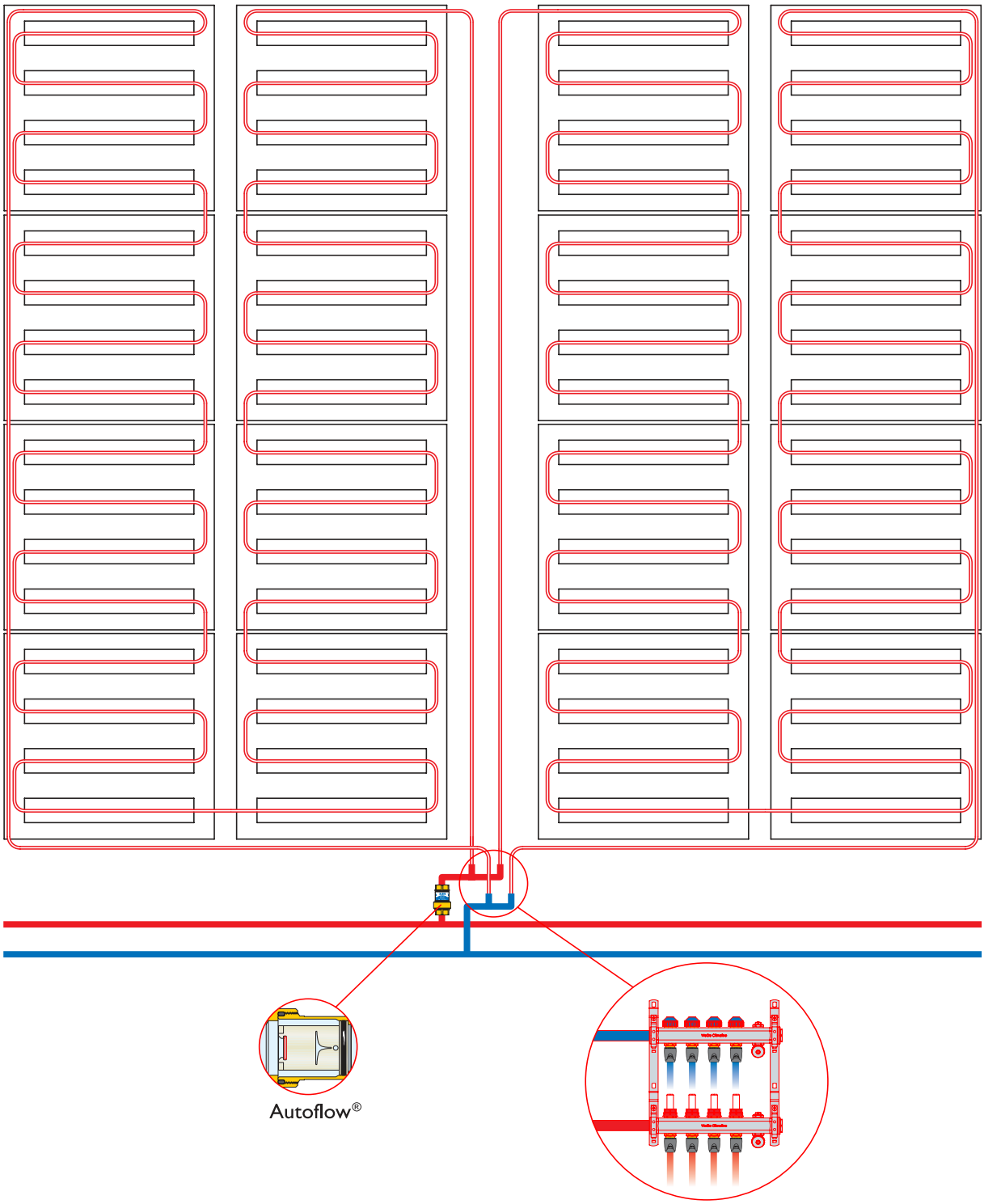
System temperature						
Supply temperature	15 °C	15 °C	15 °C	16 °C	16 °C	16 °C
Return temperature	17 °C	18 °C	19 °C	18 °C	19 °C	20 °C
Room temperature	26 °C	26 °C	26 °C	26 °C	26 °C	26 °C
Cooling output per tile	22.90 W	21.60 W	20.60 W	20.60 W	19.50 W	18.30 W
Mass flow per tile	9.90 kg/h	6.30 kg/h	4.40 kg/h	8.80 kg/h	5.50 kg/h	3.90 kg/h
Max. no. of tiles per circuit	12 pieces	17 pieces	22 pieces	14 pieces	19 pieces	23 pieces
Pressure loss per circuit	196.30 mbar	221.10 mbar	241.60 mbar	244.70 mbar	244.60 mbar	221.40 mbar

Heating **System: Gypsum tile Thermo Panel 4T 625 x 625 mm, pipe rows / spacing: 4 / 150 mm**

System temperature						
Supply temperature	35 °C	35 °C	35 °C	32 °C	32 °C	32 °C
Return temperature	32 °C	30 °C	28 °C	29 °C	27 °C	25 °C
Room temperature	20 °C	20 °C	20 °C	20 °C	20 °C	20 °C
Heating output per tile	25.70 W	23.80 W	21.90 W	20.00 W	18.10 W	16.20 W
Mass flow per tile	7.40 kg/h	4.10 kg/h	2.70 kg/h	5.70 kg/h	3.10 kg/h	1.90 kg/h
Max. no. of tiles per circuit	16 pieces	23 pieces	30 pieces	19 pieces	28 pieces	37 pieces
Pressure loss per circuit	244.80 mbar	230.00 mbar	225.10 mbar	248.90 mbar	241.20 mbar	233.60 mbar

Hydraulic Connection

The hydraulic connection of CLIMALINE gypsum tile ceilings Thermo Panel 4T is explicitly planned for every area of application.



CLIMALINE Ceiling Systems Checklist

1. System selection

☐ Gypsum ceiling system ☐ Metal ceiling system ☐ Free floating ceiling ☐ Thermo Panel 4T

2. System

☐ Suspended assembly
- ☐ Heating → System temperature: supply: _____ return: _____
- ☐ Cooling → System temperature: supply: _____ return: _____

☐ Direct assembly
- ☐ Heating → System temperature: supply: _____ return: _____
- ☐ Cooling → System temperature: supply: _____ return: _____

3. Building

☐ Floor plan ☐ PDF format ☐ DWG format

☐ Heating load calculation
- ☐ available
- ☐ required*
- ☐ fixed value: _____ watts/m²

☐ Cooling load calculation
- ☐ available
- ☐ required*
- ☐ fixed value: _____ watts/m²

4. Measurement and control technology

☐ Climate control
- ☐ wired → ☐ Comfort ☐ Object
- ☐ wireless → ☐ Comfort ☐ Object

☐ Accessories
- ☐ Zone valve
- ☐ Automatic mass flow limiter

** A list of components with U-values and a floor plan in DWG format are required to calculate heating and cooling loads.*