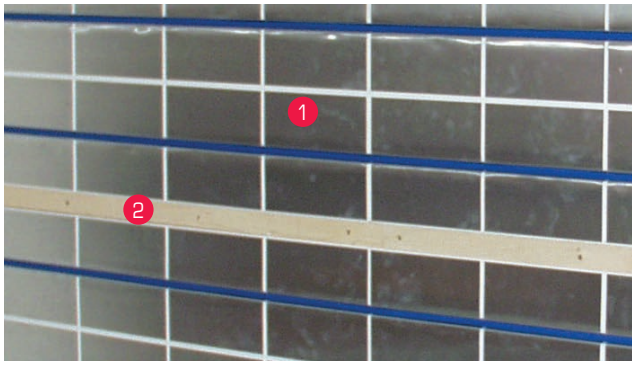
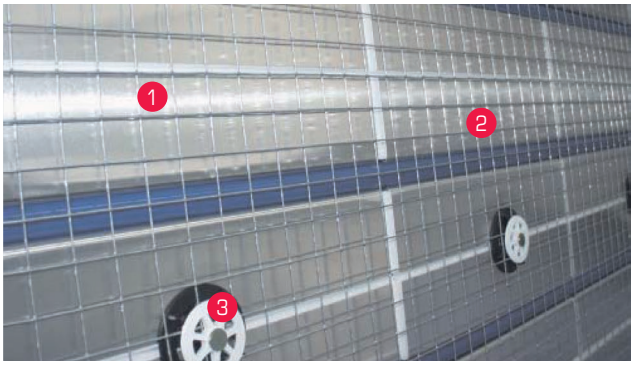
Wall installation

Wall heating in drywall construction with counter battens



1	QuickTherm system panel + MVR heating pipe	30 mm
2	Counter batten 30 x 50 mm	
+	Drywall board	12.5 mm
	Total installation height approx.	42.5 mm

Wall heating with heating plaster



1	QuickTherm system panel + MVR heating pipe	30 mm
2	Reinforcement grid for wall heating	
3	Wall heating dowels (3-part)	
+	Heating plaster	15 mm
	Total installation height approx.	45 mm

Technical data	Wall heating in drywall construction with counter battens	Wall heating with heating plaster
Heating circuit length	ø 80 m (~ 12 m²)	
Weight	5 kg / m² (without drywall panel / heating plaster)	

Important Information	Wall heating in drywall construction with counter battens	Wall heating with heating plaster
Adhere system panels	Adhere system panels to the raw wall using tile adhesive, dispersion adhesive such as MAPEI ultra bond EcoFix or non-floating PU adhesive	
Waterproofing	If the wall heating is installed on an outside wall, check the dew point and add a vapor barrier if necessary.	
Installation	Screw Fermacell drywall panel every 25 cm with Fermacell screws 30 x 3,9 mm to the counter batten; Install and adhere panels butt-jointed Screw Rigips drywall panel (RB/RBI) every 25 cm with Rigips screws TN 30 x 3,8 mm, Climafit with Climafit screws TBGOLD 9,5 23 mm to the counter batten; Install panels with joint width of 5 - 7 mm and fill with Rigips Vario filler	Use reinfocement grind with 1,05 mm thickness and mesh of 19 x 19 mm; Install in rows with 10 cm over-lapping and mount with 3-part wall heating dowels 75 mm (min. 8 pcs/m² and 3 per overlapping area) When using gypsum-lime plaster or clay plaster, heating can be started immediately according to heat-up protocol; When using lime-cement plaster, heating can be started after 2 weeks according to heat-up protocol. If the surface is only painted, an additional fabric reinforcement in the lime-cement plaster is necessary.
	Note detailed information in the guidelines of the manufacturer	
Important information	Max. flow temperature with drywall panels: 50°C Wall - and ceiling connections need to be elastic run to absorb the thermal expansion (e.g. with edge insulation strips)	Light plaster and thermal insulation plaster are not suitable Max. flow temperature with gypsum-lime plaster: 60°C, with clay plaster: 50°C, with lime-cement plaster: 65 – 70°C Wall - and ceiling connections need to be elastic run to absorb the thermal expansion (e.g. with edge insulation strips)

Performance table

Wall installation	Room temperature	Heating water temperature							
		30°C		35°C		40°C		45°C	
		W / m²	OFT	W / m²	OFT	W / m²	OFT	W / m²	OFT
Thermal conductivity λ = 0.28 W / mK	20 °C	40.7	25.1	61.8	27.7	82.7	30.3	103.6	32.9
Gypsum fiberboard 12,5 mm*	24 °C	23.4	26.9	44.9	29.6	66.0	32.2	86.9	34.9
Thermal conductivity λ = 0.58 W / mK	20 °C	46.1	25.8	70.0	28.8	93.7	31.7	117.4	34.7
Gypsum-lime plaste 15 mm	24 °C	26.5	27.3	50.9	30.4	74.8	33.3	98.5	36.3
Thermal conductivity λ = 0.75 W / mK	20 °C	48.2	26.0	73.1	29.1	97,9	32.2	122.6	35.3
Lime-cement plaster 15 mm	24 °C	27.7	27.5	53.2	30.6	78.1	33.8	102.9	36.9

* To determine the required heating performance (w / m²), the portion of counter batten is substracted from the heated surface.

W / m² – System heating output
ST – Surface temperature

