



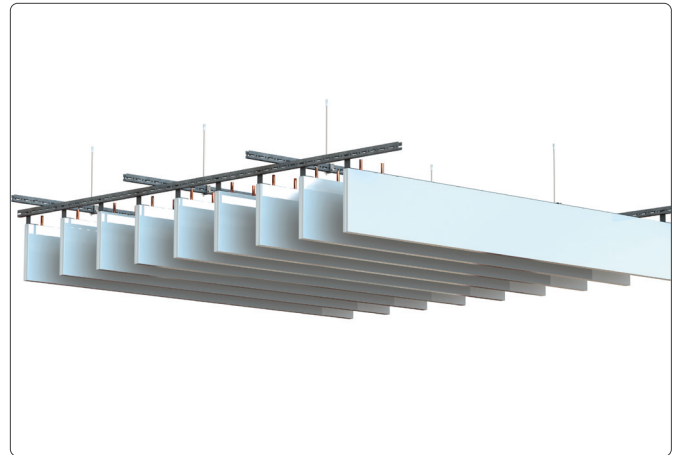
METAL LINE – CHILLED METAL BAFFLES

Obviously linear

OBVIOUSLY LINEAR

Metal Line cooling metal baffles are an efficient ceiling system for cooling and heating with a very good sound absorption. The arrangement of the vertical slats creates a comparatively high area of coverage with metal baffles that are thermally and acoustically efficient. The system is thus particularly suitable for rooms with high thermal and acoustic requirements. Thanks to its simple and quick installation, this climate ceiling system is also suitable for retroactive installation.

- Meets high thermal and acoustic requirements
- Quick and easy installation
- Suitable for retroactive installation



CEILING APPEARANCE

open

OPERATING PRINCIPLE

Convection

AIR SUPPLY

visible

CAPACITY

Cooling: 22 w/lm (8K), EN 14240
Heating: 39 w/lm (15K), EN 14037

ACOUSTICS

α_w : up to 0,65
Sound absorption class C, EN ISO 11654



ROOM COMFORT

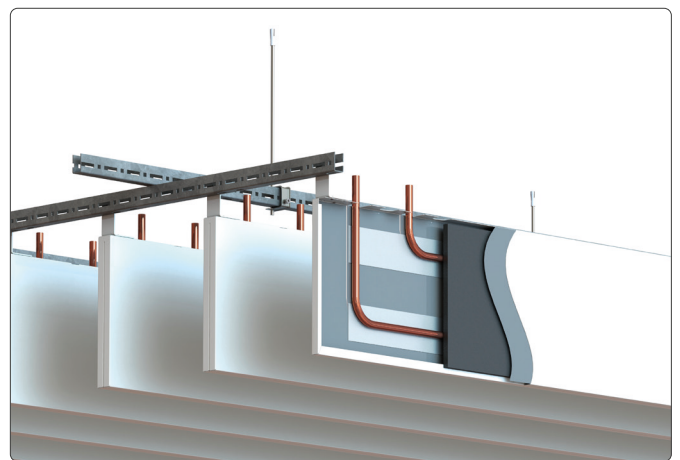
Thermal comfort according to EN ISO 7730, SIA 382/1

ACTIVATION

- Heat conducting rail (HCR) aluminium
- Distance of the HCR: 100 – 150 mm
- Copper tube: without soldering point, \varnothing outside 12 mm
- Highest heat transfer by laser welding

FUNCTIONS

 Cooling	 Acoustics	 Supply and extract air
 Heating	 Integral components	 Compensation for cold air drop



REFERENCES



SBB Travel center, Luzern



Raiffeisenbank, St. Niklaus (and title picture)

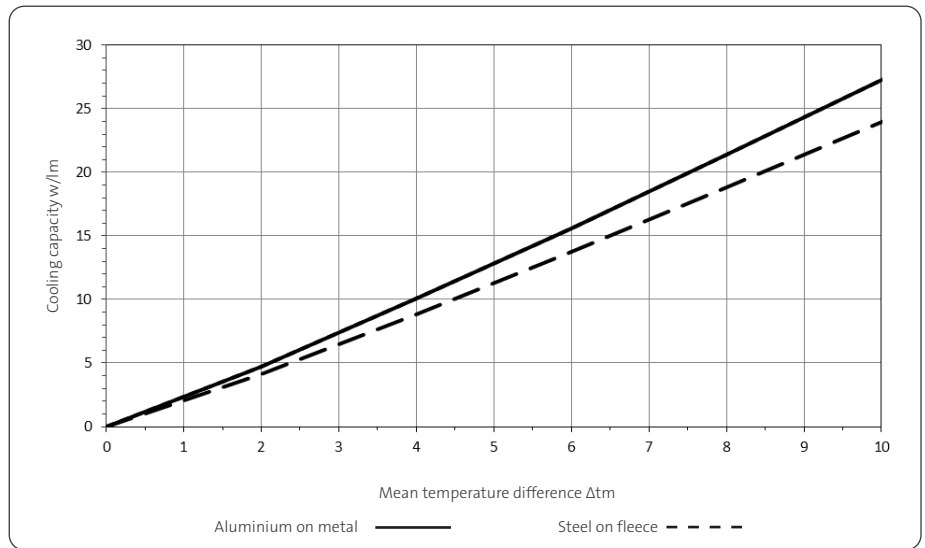
PERFORMANCE DATA

Initial data

Material ceiling panel	Aluminium	Steel
Baffle height	200 mm	200 mm
Baffle distance	400 mm	400 mm
Activation alignment	uniformly aligned	uniformly aligned
Cover of the activation	35 %	35 %
Distance of the heat conducting rail	100 mm	100 mm
Activation methods	on metal ———	on fleece - - - -

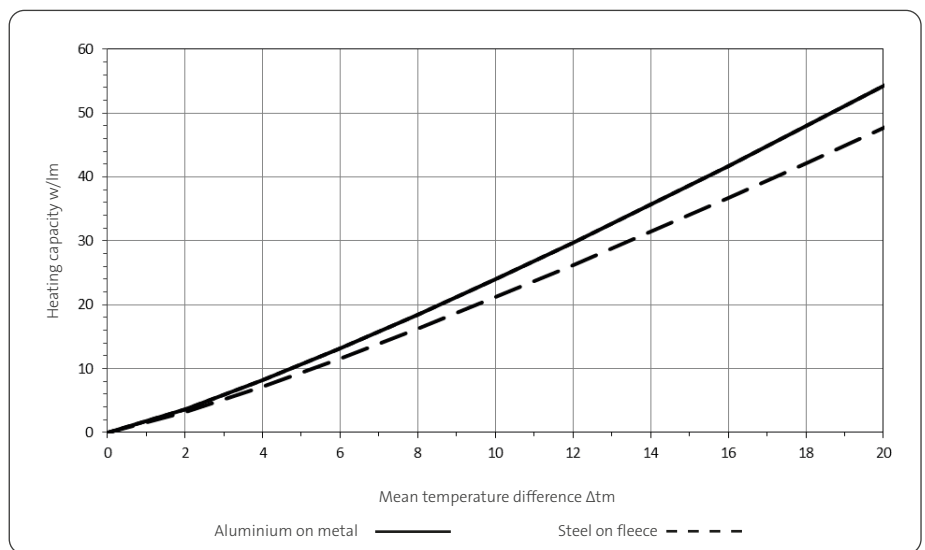
Cooling

- up to 22 w/lm (8K)



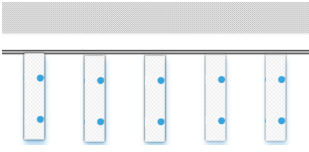
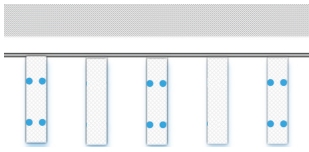
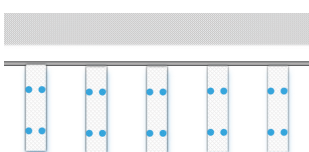
Heating

- up to 39 w/lm (15K)



OUTPUT ADJUSTMENT

Output adjustment through variation of the alignment

Activation alignment	Cooling mode (%)	Heating mode (%)
Uniformly aligned 	Standard Factor: 1 (Diagram output)	Standard Factor: 1 (Diagram output)
Activated on both sides, every second baffle inactive 	Factor: 1,96 (Diagram output x 1,96)	Factor: 1,96 (Diagram output x 1,96)
Oppositely aligned (active surface to active surface) 	Factor: 1,44 (Diagram output x 1,44)	Factor: 1,44 (Diagram output x 1,44)

Calculation factors for other measurements

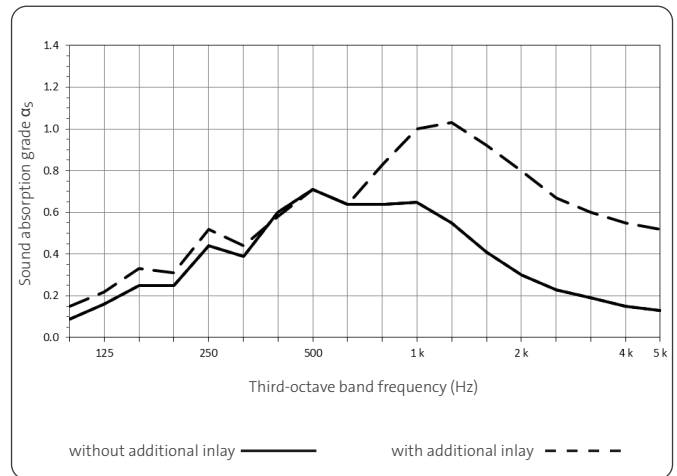
Baffle type	Aluminium baffle	Steel baffle
Baffle height 250 mm, 2 HCR, HCR spacing 125 mm	1,07	1,01
Baffle height 250 mm, 2 HCR, HCR spacing 100 mm	0,98	0,96
Baffle height 300 mm, 3 HCR, HCR spacing 100 mm	1,20	1,25

Output adjustment, property-specific parameters

Parameter	Cooling mode (%)	Heating mode (%)
Warm / Cold facade (32 °C)	4	3
Warm / Cold facade (36 °C)	8	5
Asymmetric loads	3	3
Mechanical airflow in the room	5	5

ACOUSTICS

Perforation	Rg 15 – 11 %	Rg 15 – 11 %
Occupancy rate	35 %	35 %
Sound absorption inlay	fleece	fleece
Additional inlay (mineral wool)	without —	with - - -
Sound absorption α_p	250: 0,35 500: 0,65 1k: 0,60 2k: 0,30 4k: 0,15	250: 0,40 500: 0,65 1k: 0,95 2k: 0,80 4k: 0,55
Sound absorption α_w	α_w : 0,30 (LM)	α_w : 0,65 (M)
Sound absorption class	D (EN ISO 11654)	C (EN ISO 11654)



TECHNICAL SPECIFICATIONS

Dimensions

Baffle length	Baffle height	Baffle width
min. 510 mm	min. 200 mm	min. 30 mm
max. 3200 mm	max. 500 mm	max. 80 mm

Materials and weight

Material	Baffle height 300 mm	Baffle height 500 mm
Aluminium 1,00 mm	2,5 kg/lm	3,1 kg/lm
Steel 0,70 mm	5,6 kg/lm	7,3 kg/lm

Versions

Perforations	Surface	Colour shade
Standard Rg. 1,5 – 11 %, Rg. 1,5 – 22 %	Powder coating	Standard RAL 9010 and 9016
Various perforation options possible	Digital printing on request	Other RAL / NCS colours on request

FIRE PROTECTION

- Building material class A2-s1, d0, EN 13501-1

CERTIFICATION

- ISO 9001

SYSTEM / OPERATION

Construction

- Ceiling system
 - Baffles: aluminum or steel, perforated, single or two-part
 - Substructure: edged steel profile with suspension
 - Installation height: construction min. 260 mm + mounting height 50 mm
- Installation system
 - Hook-in profile with fixed points
 - Baffles movable

Water

Recommended:

- Temperature: cooling 16 – 18 °C, heating 28 – 37 °C
- Pressure drop: 20 – 25 kPa
- Water flow: 80 – 150 l/h
- Max. operating pressure: up to 10 bar
- Water quality: SWKI BT 102-01 / BTGA 3.003 / VDI 2035

Surrounding

- Ambient temperatures: +5 – 50 °C
- Humidity: up to 90 % relative humidity

SWITZERLAND



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