

A61/A71

High performance module



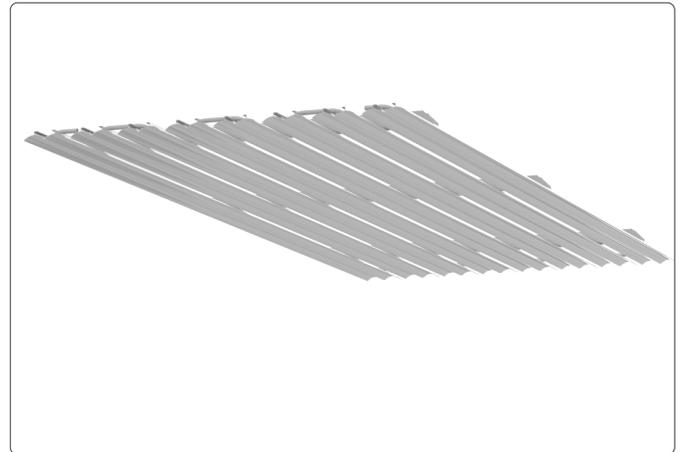
BARCOL-AIR 
by Swegon

zent-frenger 
by Swegon

Consistently straight

The high performance fin A61/A71 is a powerful climate ceiling system for cooling and heating. The special geometry of the fins with rounded aluminum profiles ensure freedom from draughts and compliance with standards regarding room air velocity, even at the highest cooling capacity. The fin elements can be arranged as an island or a field on the ceiling.

- Ideally suitable for buildings with high cooling and/or heating requirements
- Provides a high level of thermal comfort
- Powerful and energy efficient



Ceiling system
open

Operating principle
Convection

Air supply
visible

Capacity (water)
Cooling: up to 140 w/m² (8 K), EN 14240:2004
Heating: up to 137 w/m² (15 K), EN 14037:2016

Acoustics
Can be combined with sound absorber

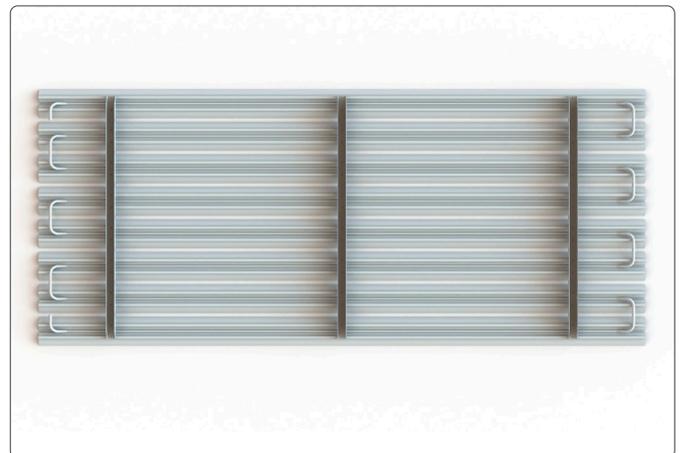
Room comfort
Thermal comfort according to EN ISO 7730, SIA 382/1

Activation

Water system

- Copper tube meander pressed into the aluminum profile
- Copper tube: Ø outer 12 mm

Functions

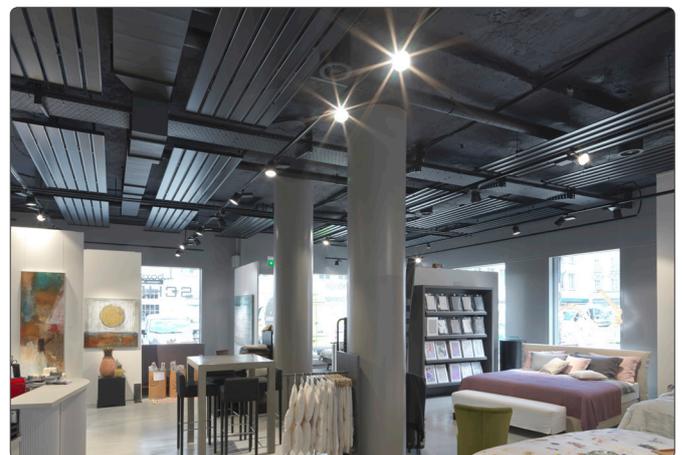


Radiant ceiling fin element, view from above

References



Library, Mendrisio, CH
(Cover: Office building, Zurich, CH)



Bettgeschichten, Zurich, CH

Capacity

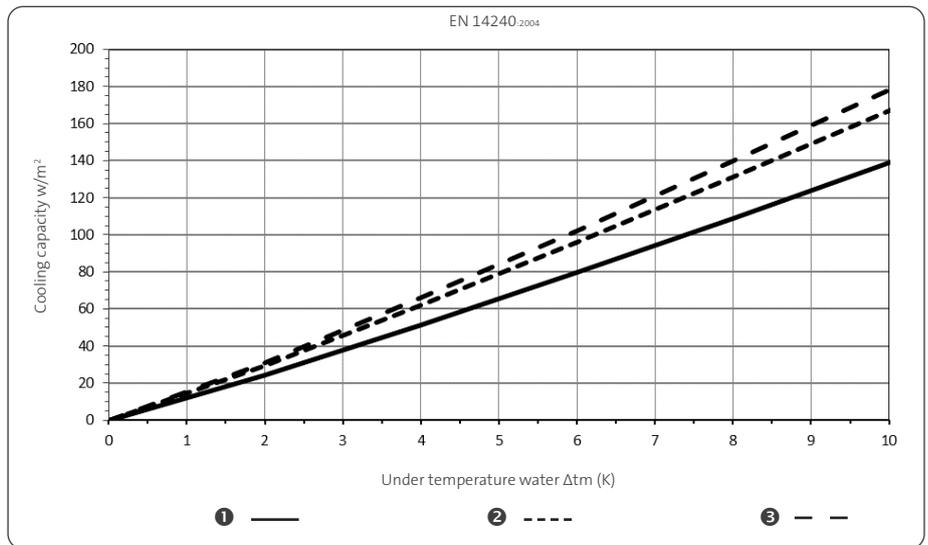
Initial data

Version	Ceiling field	Ceiling field	Sail
Construction	① Integrated in a suspended ceiling with free cross section 50 %	② Free-hanging ceiling field without a suspended ceiling	③ Free-hanging sail without a suspended ceiling
Occupancy rate	70 %	70 %	30 %
Suspended height	300 mm	300 mm	500 mm



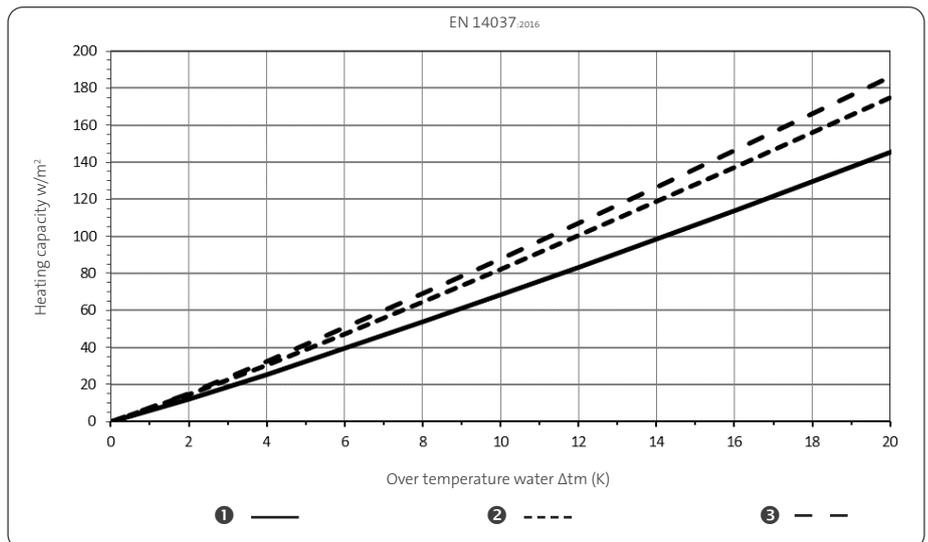
Cooling

- up to 140 w/m² (8K)



Heating

- up to 137 w/m² (15K)



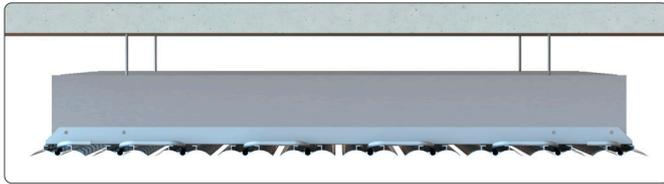
Notice

- SN EN 14240: The cooling capacity is related to the active area according to SN EN 14240:2004. The active area is calculated according to SN EN 14240 from the number of heat-conducting rails x length of heat-conducting rail x distance between heat-conducting rails.
- SN EN 14037: The heating capacity is related to the active area according to SN EN 14037:2016. The active area is calculated according to SN EN 14037 from the length of the ceiling panel x the width of the ceiling panel.

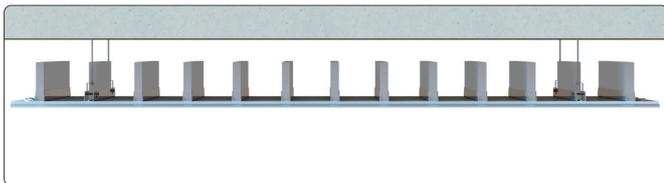


Acoustics

- Arrangement examples
 - with vertical sound absorption elements

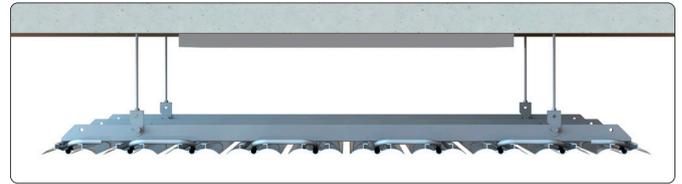


Front view; Baffles placed across the fins



Side view; Distance between the baffles min. 10 cm

- with horizontal sound absorption element



Front view

System / Operation

Construction

- Ceiling system: open
 - Ceiling element with fins
- Installation system
 - With threaded rods or ropes

Water

Recommended:

- Temperature
 - Cooling 16 – 18 °C
 - Heating 28 – 37 °C
- Temperature distance Δt (in-out): 2 – 3 K
- 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

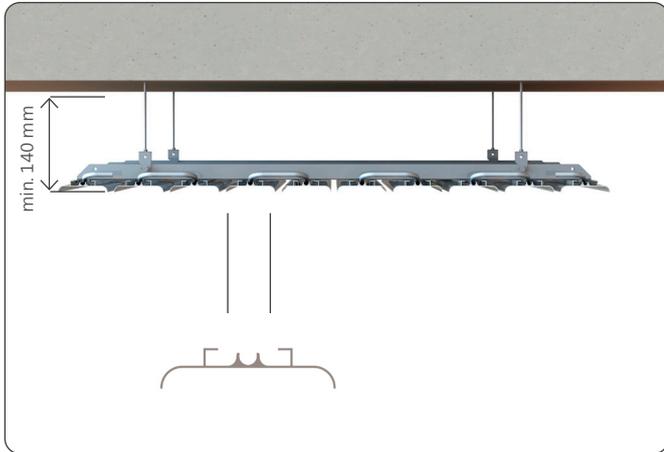
Fire Protection

- Building material class A2-s1, d0, EN 13501-1 (depending on the acoustic solution)

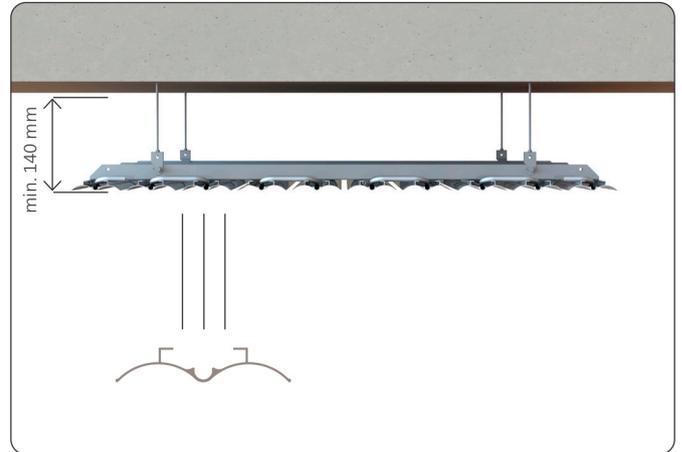
Technical Specifications

Types

- A61: Fin type C



- A71: Fin type M



Dimensions

- Installation height: min. 140 mm
- Standard dimensions:
 - Length: 1000 – 3000 mm
 - Width: 390 – 1335 mm
 - Height: 66 mm
- Special dimensions on request

Materials and weight

- Material
 - Fins: aluminum
 - Extruded press profiles: aluminum
 - Meander tube: copper
 - Supporting structure: steel
- Weight
 - 9 kg/m² (incl. water)

Versions

- Surface: powder coating
- Colours
 - Standard RAL 9010
 - other RAL or NCS colours on request

Certification

- ISO 9001

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