



HIGH PERFORMANCE FIN WAVE®

Impressively powerfull

 **integra**®
CLIMATE CEILING SYSTEMS

IMPRESSIVELY POWERFUL

The high performance fin WAVE® unites aesthetics and efficiency. Thanks to its geometry and total surface area, this model has a very high thermal capacity. As a result, it takes up less ceiling space. The WAVE® can be installed either hanging from or integrated into the ceiling.

- Specially suitable for buildings with high heating and/or cooling requirements (e.g. in extensively glazed buildings)
- Offers the maximum possible thermal comfort
- High-performance and energy efficient



CEILING SYSTEM
open

OPERATING PRINCIPLE
Convection

AIR SUPPLY
visible

CAPACITY
Cooling: 225 w/m² (8 K), EN 14240
Heating: 339 w/m² (15 K), EN 14037

ACOUSTICS
Can be combined with a sound absorber

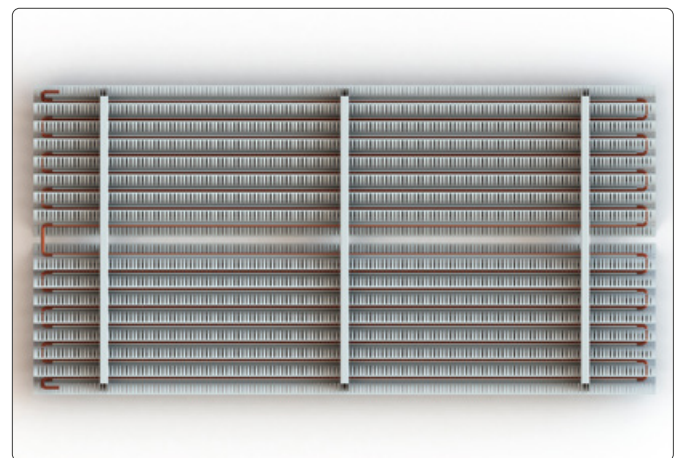
ROOM COMFORT
Thermal comfort according to EN ISO 7730, SIA 382/1

ACTIVATION

- Copper tube meander pressed into the aluminium profile
- Copper tube outer Ø: 15 mm
- Max. occupancy rate: 75 %

FUNCTIONS

 Cooling	 Acoustics	 Supply and exhaust air
 Heating	 Integral components	 Compensation cold air drop



High performance fin WAVE®, view from above: unpainted copper tube meander

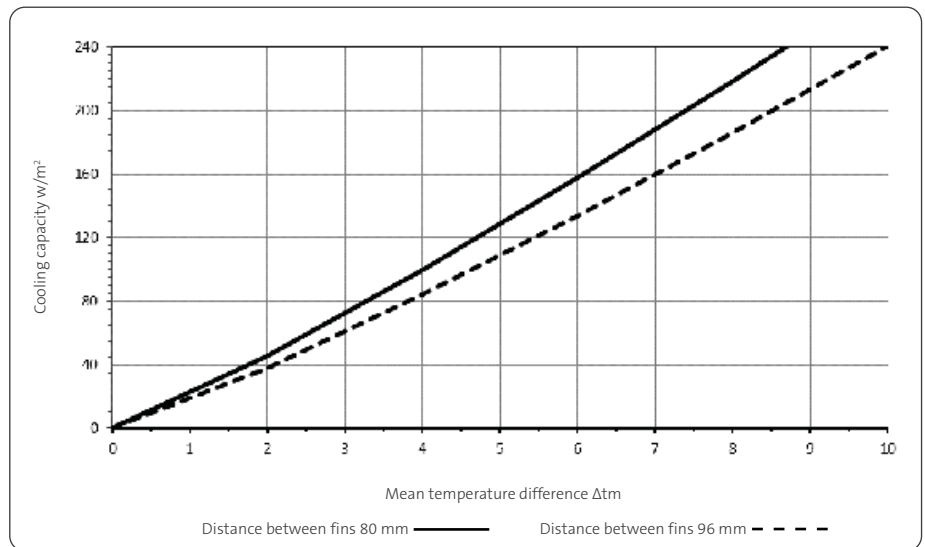
CAPACITY

Initial data

Material / fin slits	Aluminium / fully slitted	Aluminium / fully slitted
Fin alignment	opposing and same direction	opposing and same direction
Distance between fins	80 mm ———	96 mm - - - -
Installation height	280 mm	280 mm

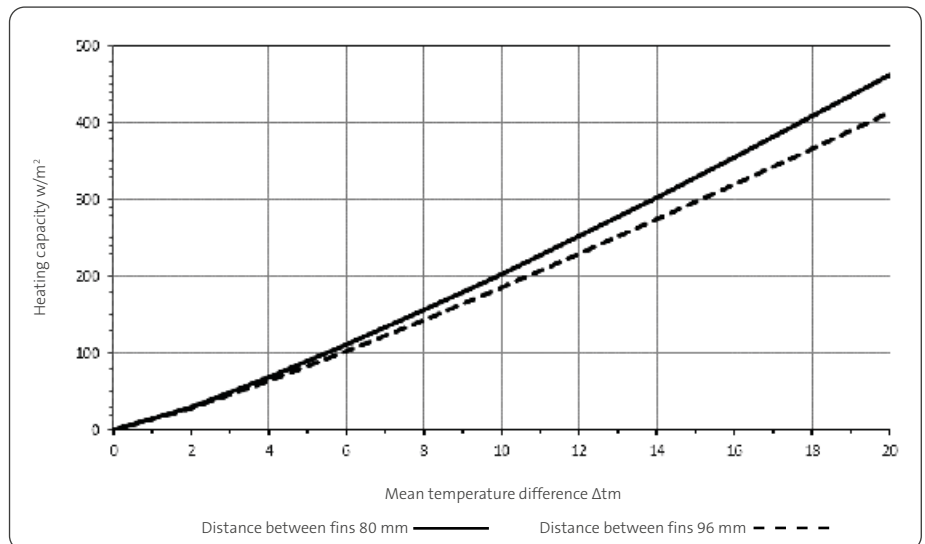
Cooling

- up to 225 w/m² (8 K)



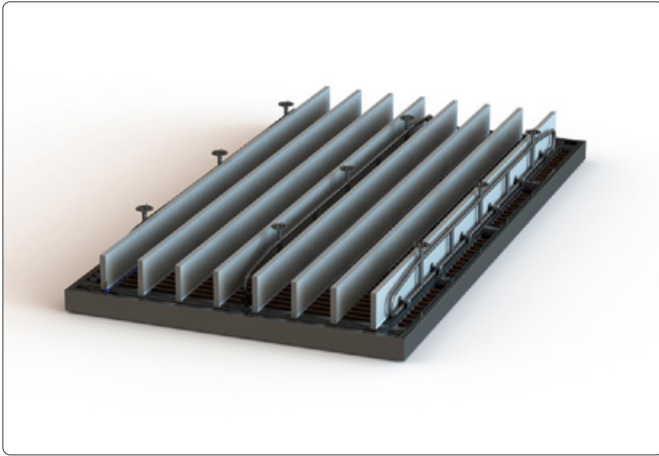
Heating

- up to 339 w/m² (15 K)



ACOUSTICS

- Can be combined with a sound absorber.
 - Example WAVE® with a frame construction combined with sound baffles and integrated lights



WAVE® in a frame, view from above: combined with sound baffles



WAVE® in a frame, view from below: with integrated lights

FIRE PROTECTION

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

CERTIFICATION

- ISO 9001

SYSTEM / OPERATION

Construction

- Ceiling system
 - Ceiling sail with wavelike aluminium fins
- Installation system
 - Free-hanging on threaded rods or ropes;
installation height min. 280 mm



- Integrated into a recess in the ceiling panel or into an alcove in suspended ceilings;
installation height min. 250 mm



Water

Recommended:

- Temperature: cooling 16 – 18 °C, heating 28 – 37 °C
- Temperature difference $\Delta t_{\text{in-out}}$: 2 – 3 K
- Pressure drop: 20 – 25 kPa
- Water flow: 105 – 300 l/h
- Max. operating pressure: up to 9 bar
- Water quality: SWKI BT 102-01 / BTGA 3.003 / VDI 2035

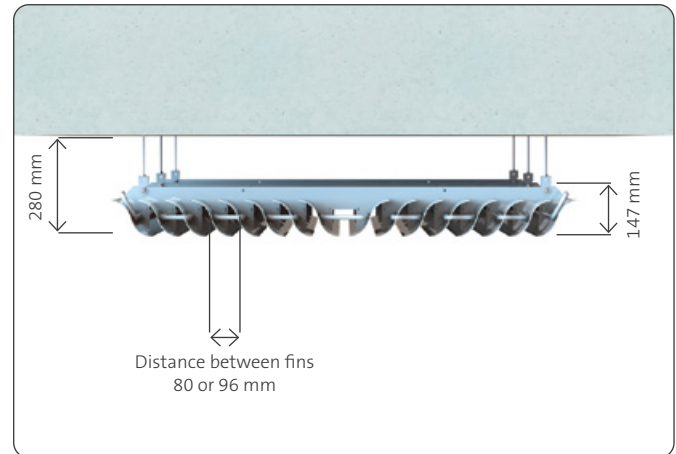
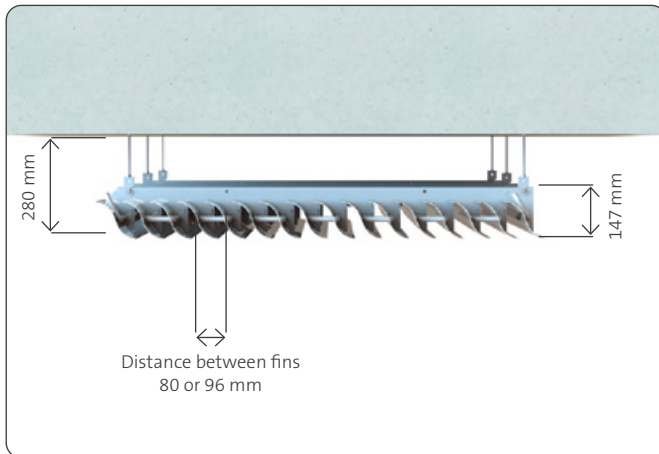
Surrounding

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

TECHNICAL SPECIFICATIONS

Types

- Fins SAME DIRECTION
 - Distance between fins: 80 mm
 - Distance between fins: 96 mm
- Fins OPPOSITE DIRECTION
 - Distance between fins: 80 mm
 - Distance between fins: 96 mm



Dimensions and weight

▪ Dimensions

Fins	Water content	Typ Fins SAME DIRECTION		Typ Fins OPPOSITE	
		Module width (mm)		Module width (mm)	
Quantity	l/m_{WAVE}	Distance between fins 80 mm	Distance between fins 96 mm	Distance between fins 80 mm	Distance between fins 96 mm
4	0,74	360	408	431	458
5	0,92	440	504	-	-
6	1,11	520	600	591	650
7	1,29	600	696	-	-
8	1,48	680	792	751	842
9	1,66	760	888	-	-
10	1,85	840	984	911	1034
11	2,03	920	1080	-	-
12	2,22	1000	1176	1071	1226
13	2,40	1080	1272	-	-
14	2,59	1160	1368	1231	1418
15	2,77	1240	1464	-	-
16	2,96	1320	1560	1391	1610

– Module length: 600 – 3000 mm

- Weight
 - Distance between fins 80 mm: 14,4 – 19,0 kg/m²
 - Distance between fins 96 mm: 12,7 – 16,1 kg/m²

Versions

- Surface: Powder coating
- Colour shade: Standard RAL 9010 and 9016, other RAL / NCS colours on request