



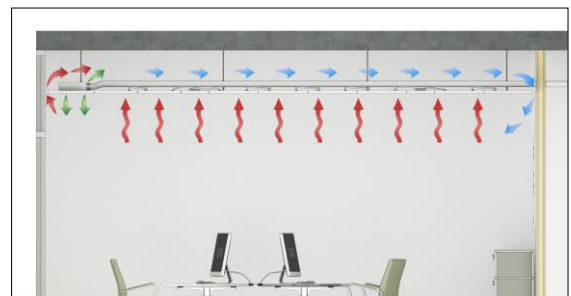
Plafotherm® B/E AirHybrid

Hybrid Ventilation Element in Metal Ceiling

Product description

Plafotherm® B/E AirHybrid are closed Post Cap and Hook-On ceilings with open joints and multifunctional properties. The ventilation elements are not visible from below – a homogeneous ceiling surface is guaranteed. Best comfort is achieved thanks to an even distribution of supply air – through panel perforations and induction outlets in the ceiling void. The ventilation element can be removed and cleaned according to VDI 6022. Besides supplying fresh air, Plafotherm® B/E AirHybrid can be used for the activation of the concrete core.

- multifunctional ceiling with guided supply air
- thermoactive for the activation of the concrete core
- perfectly matched to Plafotherm® B Heated/Chilled Post Cap Ceilings and Plafotherm® E Heated/Chilled Hook-On Ceilings
- homogeneous ceiling surface due to concealed hybrid ventilation hood
- inserts supply air through panel perforation or induction outlets in the ceiling void
- comfort tested to DIN, ISO and SIA thanks to an even distribution of supply air
- hygienic and easy to clean




Project solutions

This product data sheet refers to the standard version of the product mentioned above.

We would be happy to work with you to find the right solution for your project. Adapted to your building project, you will receive a perfectly matched system. Project-specific constructions and adaptations can be found in the offer documents.



Technical data | Hybrid ventilation element

	AirHybrid S90-100-160 
Length (L)	700 mm
Width (B)	375 mm
Height (H)	160 mm
Connection	DN 100
Volume flow rate	80 - 90 m³/h
Nominal volume flow rate	90 m³/h
Differential pressure	100 Pa
Sound power level L _{WA}	30 dB(A)
Weight	5.5 kg
Serviceability	removable and cleanable acc. VDI 6022

HVAC

Heating and cooling

Heating and cooling technology	AirHybrid S90-100-160
Plafotherm® Cu	
Waterside nominal cooling capacity (10 K) according to EN 14240 in relation to the active area	146 W/m²
Waterside nominal heating capacity (15 K) according to EN 14037:2003 in relation to the active area	161 W/m²
Thermal comfort	
Thermal comfort acc. ISO 7730	category A to B

Notice: The absolute humidity of the supply air must be selected in such a way that the dew point on the chilled ceiling is not undershot. If the supply air is too humid, condensation can occur on the chilled ceiling, which can lead to moisture problems and damage. By controlling the absolute humidity of the supply air, the dew point can be kept at an acceptable level to prevent condensation and ensure a comfortable indoor climate.

Technical data | Metal ceiling

Length (L)	800 - 3,000 mm (depending on type of canopy ceiling)
Width (B)	500 - 1,250 mm (depending on type of canopy ceiling)
Material ceiling panel	galvanised sheet steel
Surface	powder coating
Weight	approx. 14 -16 kg/m² (with hybrid ventilation element)
Serviceability	removable without tools



Acoustics

Room acoustics

Rated sound absorption coefficient	DIN EN ISO 11654	α_w	0.45 (L) - 0.80
Sound absorption class	DIN EN ISO 11654		D - B
Noise reduction coefficient	ASTM C 423	NRC	0.60 - 0.80

Fire protection

Building material class

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

Exposure class	DIN EN 13964	A
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Sustainability

Product self-declaration	Self-declaration according to ISO 14021
Environmental product declaration	EPD according to EN 15804 / ISO 14025 possible
Circular Economy	Cradle to Cradle Certified® Silber

Certification

CE marking	The ceiling system is a harmonised construction product acc. to regulation (EU) No. 305/2011 (Construction Products Regulation) and EN 13964: Suspended ceilings – Requirements and test methods.
TAIM e.V.	The ceiling system fulfils the requirements of the "Technical Manual Metal Ceilings" (TMMC) of TAIM e. V. (Association of Industrial Metal Ceiling Manufacturers).

Surfaces

Powder coatings	<u>COLOURline – Powder coating</u> <u>MOODline – Powder coating, deep matt</u> <u>ARTline – Decorative powder coating</u> <u>GRAPHICline – Digital print</u>
Perforations	<u>BASICline – Standard perforations</u> <u>REGULARline – Further perforations</u>



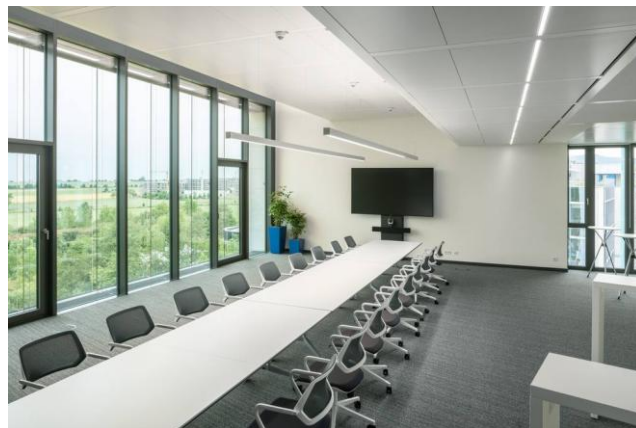
Additional equipment

Hydraulic components	<u>Plafotube® MQC – Connecting/Connection hose with MultiQuickConnect Fittings – Distribution system</u>
Ventilation components	<u>AirBox S – Supply air elements</u> <u>AirBox E – Exhaust air elements</u> <u>AirBeam Basic – Standard Heated/Chilled beam</u> <u>AirBeam Discreet – Discreet Heated/Chilled beam</u> <u>AirBeam Invisible – Invisible chilled beam</u>
Luminaires	Lindner luminaires and luminaires from other manufacturers possible <u>IS 17 – Integrated Luminaire for general areas</u> <u>IS 22 – Integrated Luminaire for monitor work stations</u> <u>QZI – Integrated luminaire with cell louvres</u>

Applications



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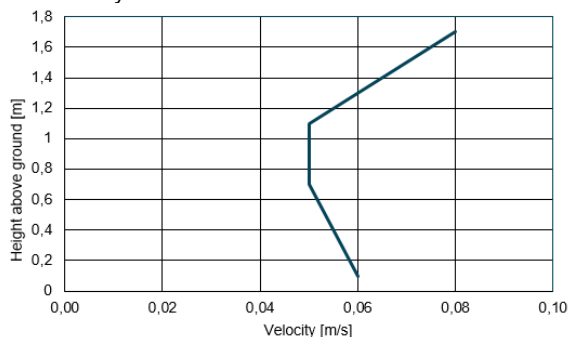
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Diagrams | Flow velocity

Flow velocity

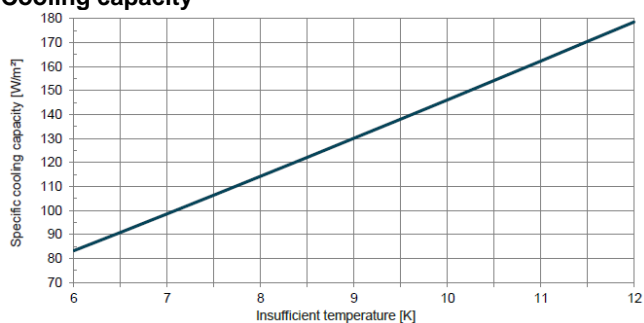
below AirHybrid ventilation element



AirHybrid S90-100-160

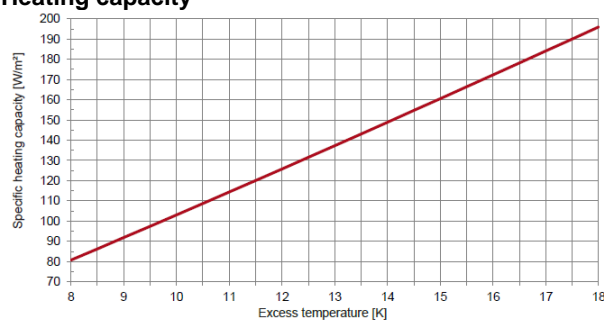
Diagrams | Plafotherm® Cu

Cooling capacity



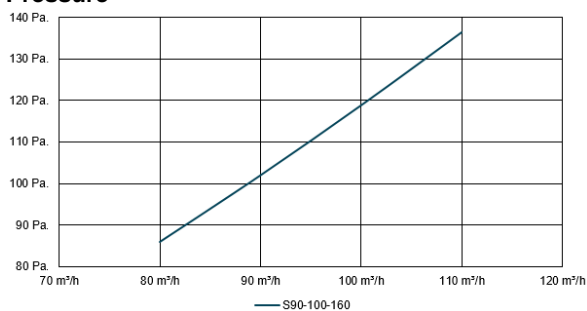
AirHybrid S90-100-160

Heating capacity



AirHybrid S90-100-160

Pressure



Sound power level L_{WA}

