Air through perfection

Architectural swirl diffuser

HELIO

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Architectural diffusers

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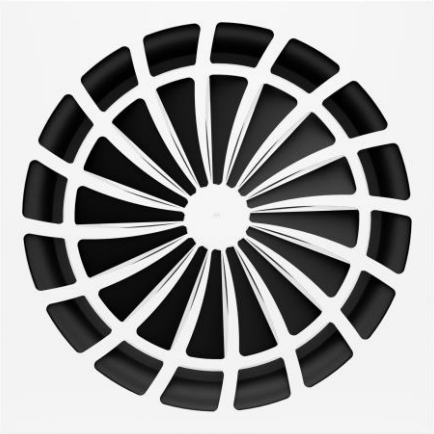


Description

HELIO is an architectural, square, swirl air diffuser used for introducing or evacuating the air.

The diffuser is recommended for installations with constant or variable air flow and is intended for spaces with a height <4m.

The design of the product determines a high level of induction rate.

Technical specifications

Characteristics

The front plate has the external dimensions 595x595 mm and the circular connection Ø470 mm.

The diffuser blades are fixed and arranged radially at the front plate.

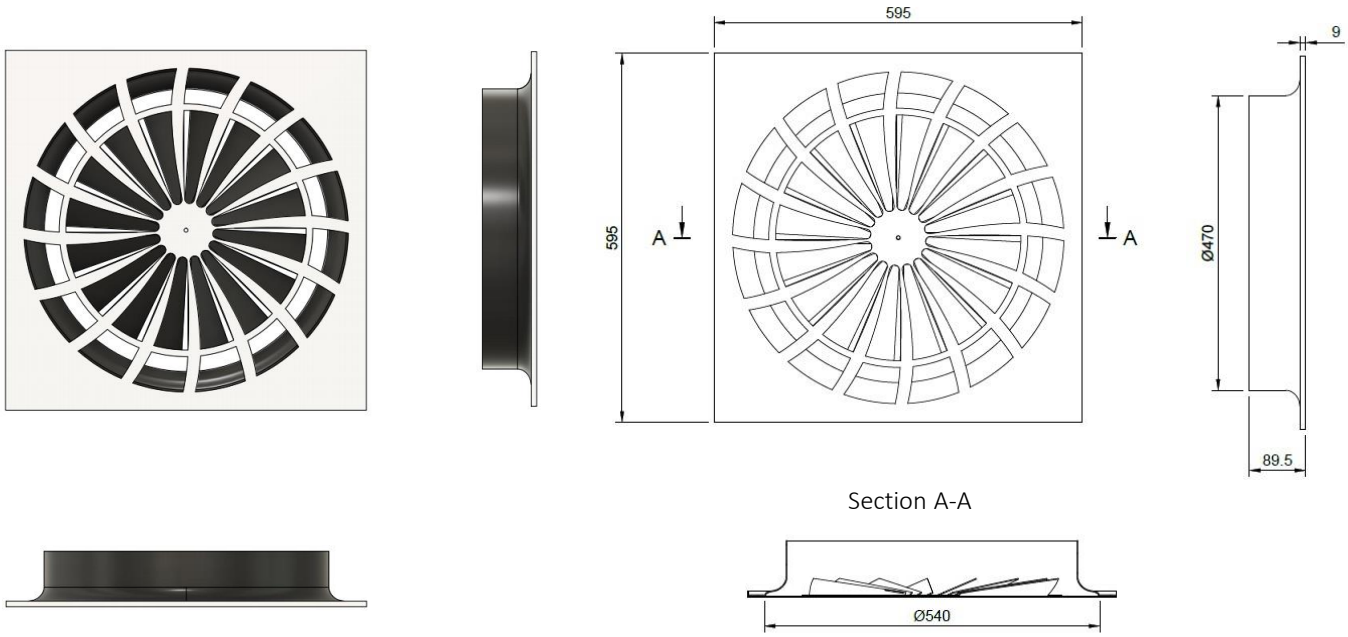
For a uniform appearance of the enclosures, the HELIO diffuser can also be used for air evacuation.

The product is delivered with the following elements: mounting bracket, fixing screw, screw cover cap and sealing gasket.

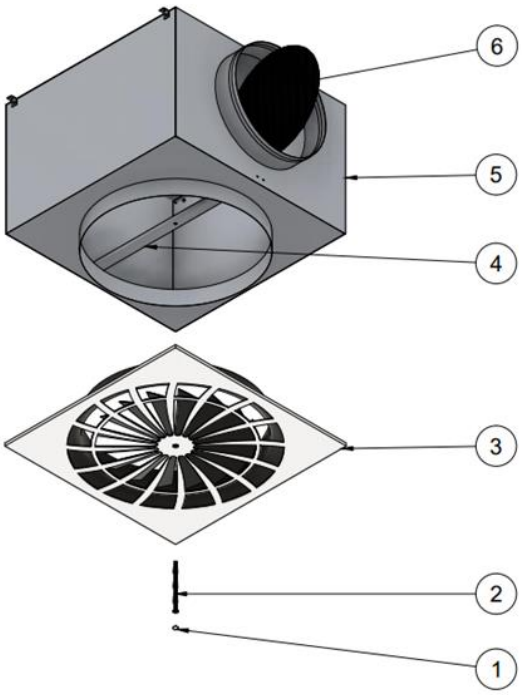
Materials

The diffuser is made of galvanized steel sheet and is electrostatic field painted. The front plate is painted in RAL 9016 glossy white, the blades and the circular connection in black RAL 9005.

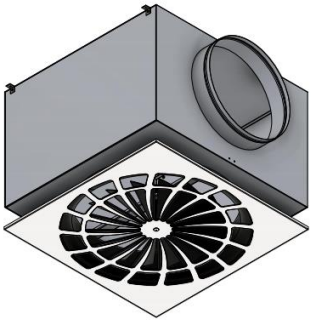
Technical drawing



Product specifications



1- Masking cap
2 - Fixing screw
3 – HELIO diffuser
4 - Bracket (mounting crossbar)
5 – Plenum box (opțional)
6 - Perforated damper (optional)



Horizontal connection

Vertical connection

Accessories

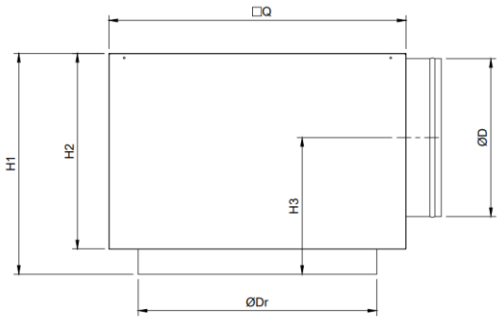
The diffuser can be supplied with a plenum connecting to the circular duct, with horizontal or vertical connection.

The plenum is provided with suspension elements (lugs) and bead roll on the spigot, for easy fixing of the flexible duct.

Optionally, a perforated damper can be mounted on the plenum connection to balance the air flow.

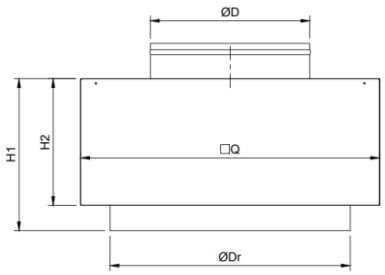
Adapter (plenum box)

Horizontal connection
(side/ lateral exit)



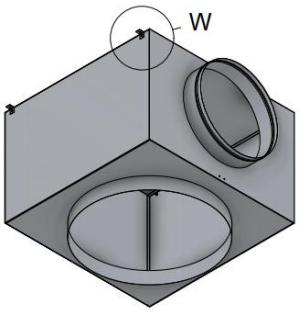
ØD	ØDr	□Q	H1	H2	H3
mm	mm	mm	mm	mm	mm
315	475	590	440	390	267.5

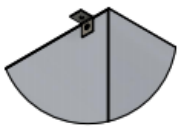
Vertical connection
(opposite/ exit)



ØD	ØDr	□Q	H1	H2
mm	mm	mm	mm	mm
315	475	590	300	250

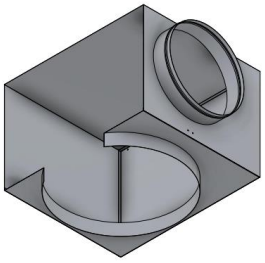
The adapter is made of galvanized steel sheet Z140 and is equipped with 4 lugs for suspension.



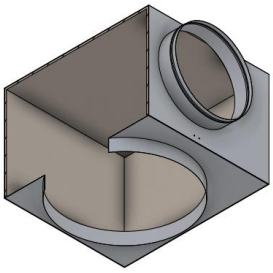


W - Suspension lug

On request, the plenum can be insulated with 6 mm thick elastomeric rubber.

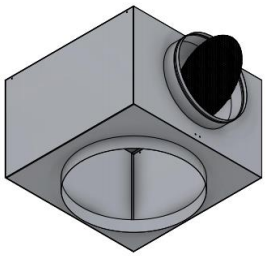


AN - Uninsulated adapter

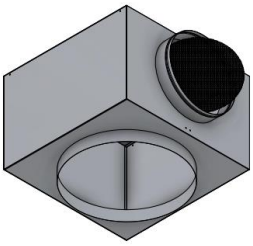


AIZ - Insulated adapter

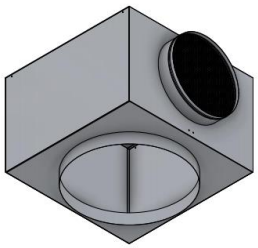
Perforated damper



Position 0°



Position 45°



Position 90°

The perforated damper is mounted on the adapter spigot and has the role of balancing the air flow.

Functional parameters

Air introduction - horizontal connection

Dimension [mm]	Ak = 0,0635 m²		Blades positioning					
			0°		45°		90°	
	D [mm]	Air flow [m³/h]	ΔPt [Pa]	NR [dB(A)]	ΔPt [Pa]	NR [dB(A)]	ΔPt [Pa]	NR [dB(A)]
595 x 595	470	720	14	23	18	24	38	34
		1044	29	34	38	36	80	44
		1368	50	43	65	45	138	53
		1674	75	50	97	53	206	61

Air introduction - vertical connection

Dimension [mm]	Ak = 0,0635 m²		Blades positioning					
			0°		45°		90°	
	D [mm]	Air flow [m³/h]	ΔPt [Pa]	NR [dB(A)]	ΔPt [Pa]	NR [dB(A)]	ΔPt [Pa]	NR [dB(A)]
595 x 595	470	720	9	27	14	30	34	35
		1008	17	36	27	40	66	45
		1278	28	43	43	47	106	53
		1566	41	50	65	54	159	61

The legend
Ak [m²] - The free surface
NR [dB (A)] - Noise level without room attenuation
ΔPt [Pa] - Pressure loss
D [mm] – Diffuser connection diameter

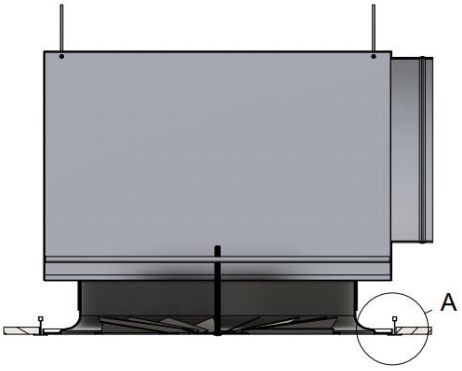
Note
0 ° blade position - damper open
45 ° blade position - damper inclined
90 ° blade position - damper closed
Values are provided for a plenum diffuser, connection diameter 315mm

Installation

The diffuser can be mounted in 600 x 600 mm T-bar false ceiling, continuous ceiling or suspended.

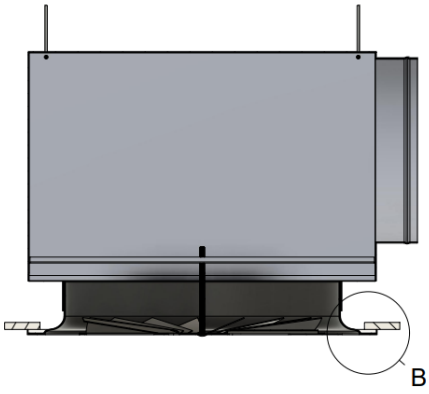
The fixing of the plenum diffuser is done by using a central screw screwed into the mounting bracket, positioned inside of the plenum box.

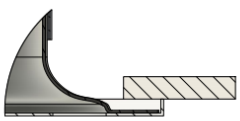
Installation in T-bar suspended ceiling



A

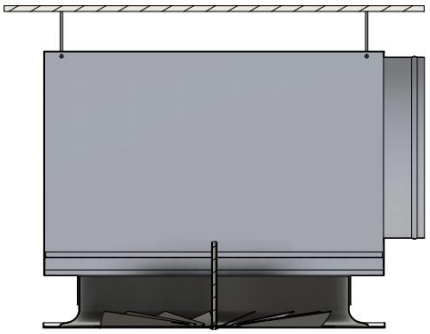
Installation in continuous ceiling





B

Suspended in the ceiling



Order code

Example on how to place an order

Type	Dimensions	Accessories	Finish
HELIO			
	595 x 595 / D470 mm		
		AIZ - Insulated adapter **AN** - Uninsulated adapter Perforated damper (plenum box)	
			Front plate **RAL 9016** Blades and connection **RAL 9005**