

Air through perfection

Linear diffuser with nozzles

DOTS



ACP
Architectural diffusers

Linear diffuser with nozzles DOTS



Description

DOTS is an architectural diffuser with individually adjustable nozzles, used for air supply.

Suitable for heating or cooling in spaces with long distances between the diffuser and the occupied area, concert halls, museums, etc.

DOTS can be mounted on a wall, ceiling or rectangular duct.

The diffuser is recommended in various ventilation applications for the introduction of air.

Technical specifications

Characteristics

The constructive form and spherical design of the nozzles offer the possibility of an unlimited number of settings for the direction of the air jet.

The direction of the air jet can be easily adjusted manually to suit certain conditions and spaces.

Allows high airflow with low noise levels.

The length of the product depends on the number of nozzles: minimum 213 and maximum 3209 mm.

The product is delivered with the following elements: "U" type mounting system (bracket), fixing screws and sealing gasket.

The number of mounting systems depends on the length of the product.

Materials

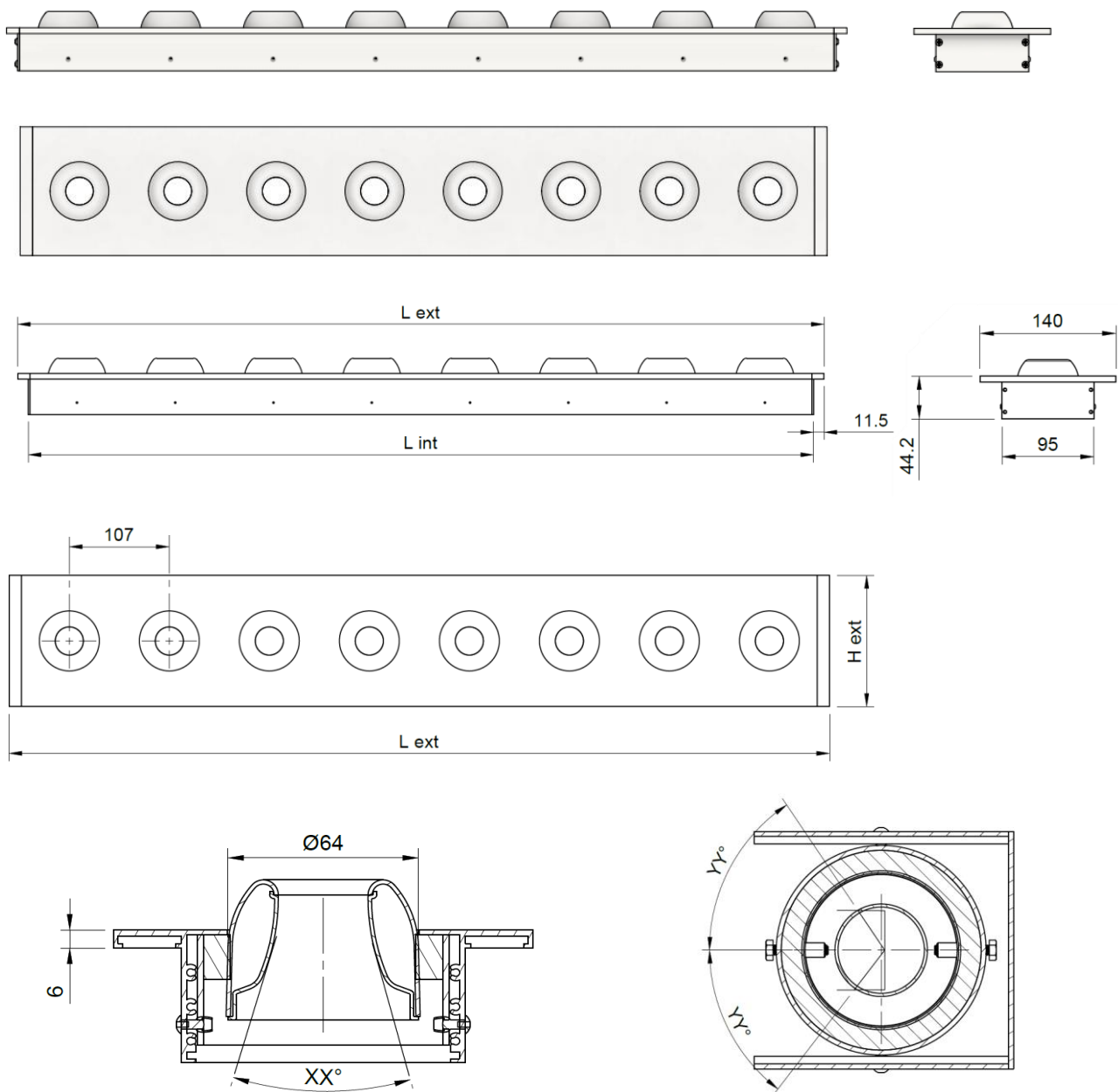
The diffuser is made of extruded aluminum electrostatic field painted in glossy white RAL 9016.

Other RAL colours are available on request.

The nozzles are made of aluminum and are painted in the shade of the diffuser.

The inside of the nozzle is made of RAL9005 black ABS plastic.

Technical drawing

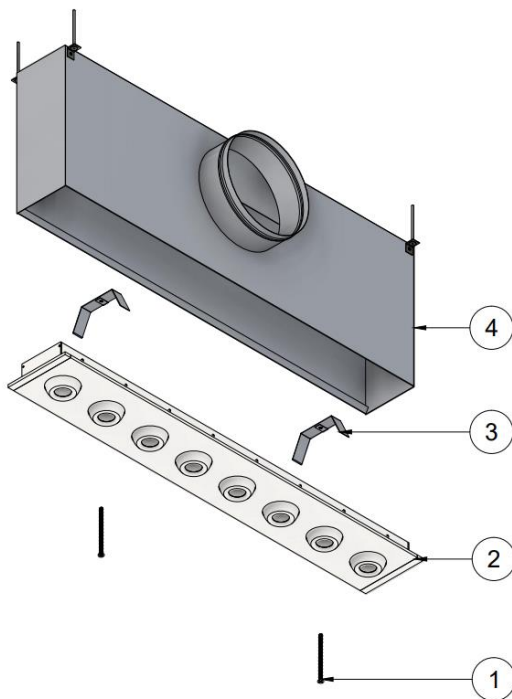


Dimensions

No. nozzles	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L int [mm]	213	320	427	534	641	748	855	962	1069	1176	1283	1390	1497	1604	1711

No. nozzles	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L int [mm]	1818	1925	2032	2139	2246	2353	2460	2567	2674	2781	2888	2995	3102	3209

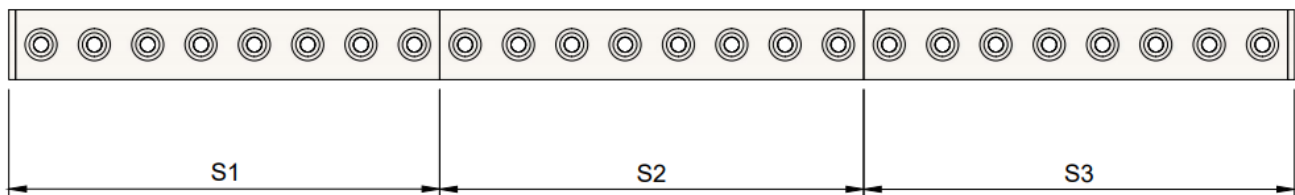
Product specifications



- 1 - Fixing screw
- 2 - DOTS diffuser
- 3 - Bracket ("U" type system)
- 4 - Plenum box (optional)

Section assembly

Long-length diffusers are made of modules with a maximum length of 3.2 m. In this situation the product is delivered with connecting elements between modules.





Sections assembly detail

Accessories

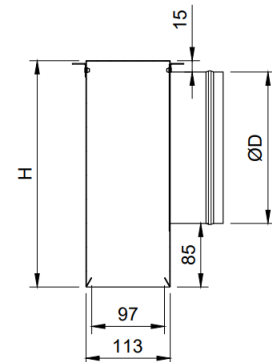
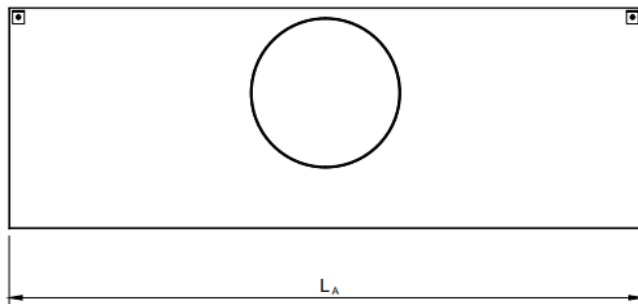
The diffuser can be supplied with a plenum connecting to a circular duct with horizontal connection.

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

The plenum is delivered insulated or uninsulated.

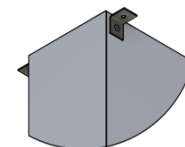
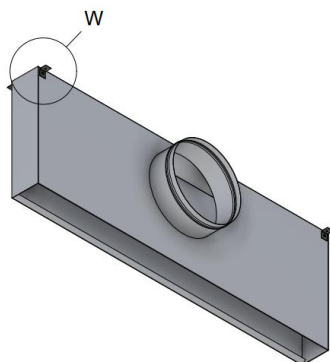
Optionally, a perforated damper can be mounted on the plenum connection to balance the air flow.

Adapter (plenum box)



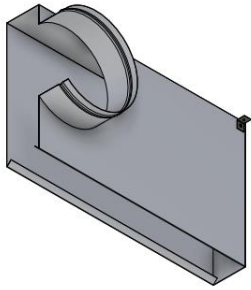
LA – L int DOTS + 8 mm
H – depending on ØD

The adapter is made of Z140 galvanized sheet metal and is equipped with suspension elements (lugs).

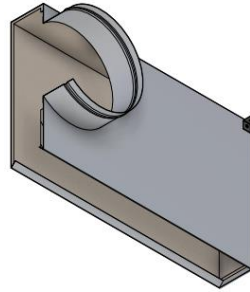


W - Suspension lug

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

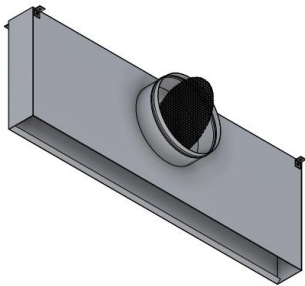


AN - Uninsulated adapter

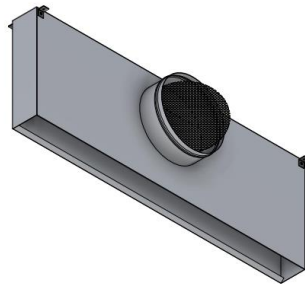


AIZ - Insulated adapter

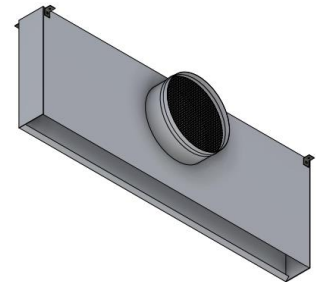
Perforated damper



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 flow [m ³ /h]	Number of nozzles	3	5	6	8	10
	L X H [mm]	320 X 95	534 X 95	641 X 95	855 X 95	1069 X 95
	Ak [m ²]	0.0021	0.0035	0.0042	0.0057	0.0071
50	X _{0.5} X _{1.0} [m]	5.0 1.5	3.5 1.5			
	Veff [m/s]	6.5	3.9			
	NR [dB(A)]	14.0	10.0			
	ΔPt [Pa]	24.0	20.0			
100	X _{0.5} X _{1.0} [m]	8.0 4.5	7.0 4.0	6.0 3.5	5.5 3.0	5.0 2.5
	Veff [m/s]	13.1	7.9	6.5	4.9	3.9
	NR [dB(A)]	27.0	16.0	15.0	14.0	13.0
	ΔPt [Pa]	75.0	31.0	24.0	23.0	20.0
200	X _{0.5} X _{1.0} [m]	16.0 8.0	12.0 6.0	10.0 5.0	9.0 5.5	8.0 5.0
	Veff [m/s]	26.2	15.7	13.1	9.8	7.9
	NR [dB(A)]	45.0	34.0	29.0	24.0	20.0
	ΔPt [Pa]	220.0	109.0	78.0	52.0	33.0
350	X _{0.5} X _{1.0} [m]		25.0 12.0	20.0 10.0	16.0 9.0	13.0 8.0
	Veff [m/s]		27.5	22.9	17.2	13.8
	NR [dB(A)]		49.0	47.0	36.0	28.0
	ΔPt [Pa]		315.0	251.0	101.0	70.0
500	X _{0.5} X _{1.0} [m]				24.0 13.0	22.0 12.0
	Veff [m/s]				24.6	19.6
	NR [dB(A)]				48.0	35.0
	ΔPt [Pa]				240.0	152.0
700	X _{0.5} X _{1.0} [m]					26.0 17.0
	Veff [m/s]					27.5
	NR [dB(A)]					47.0
	ΔPt [Pa]					310.0

The legend

Ak [m²] - The free surface

X_{0.5} [m] - The length of the air jet at a speed of 0.5 m/s

X_{1.0} [m] - The length of the air jet at a speed of 1 m/s

Veff [m/s] - Air speed in the diffuser

NR [dB (A)] - Noise level without room attenuation

ΔPt [Pa] - Pressure loss

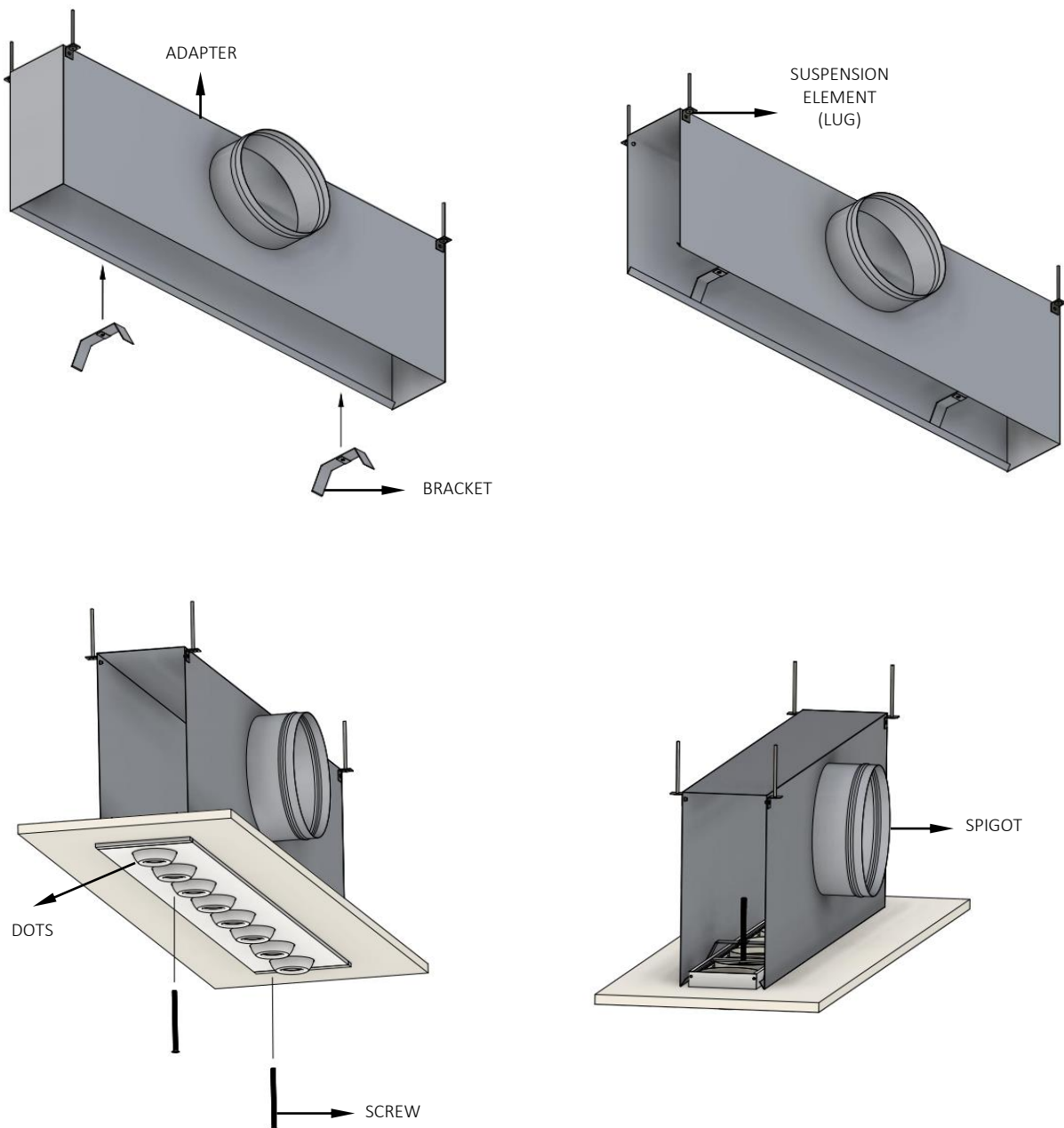
Installation

The diffuser can be mounted on the wall, ceiling or rectangular duct.

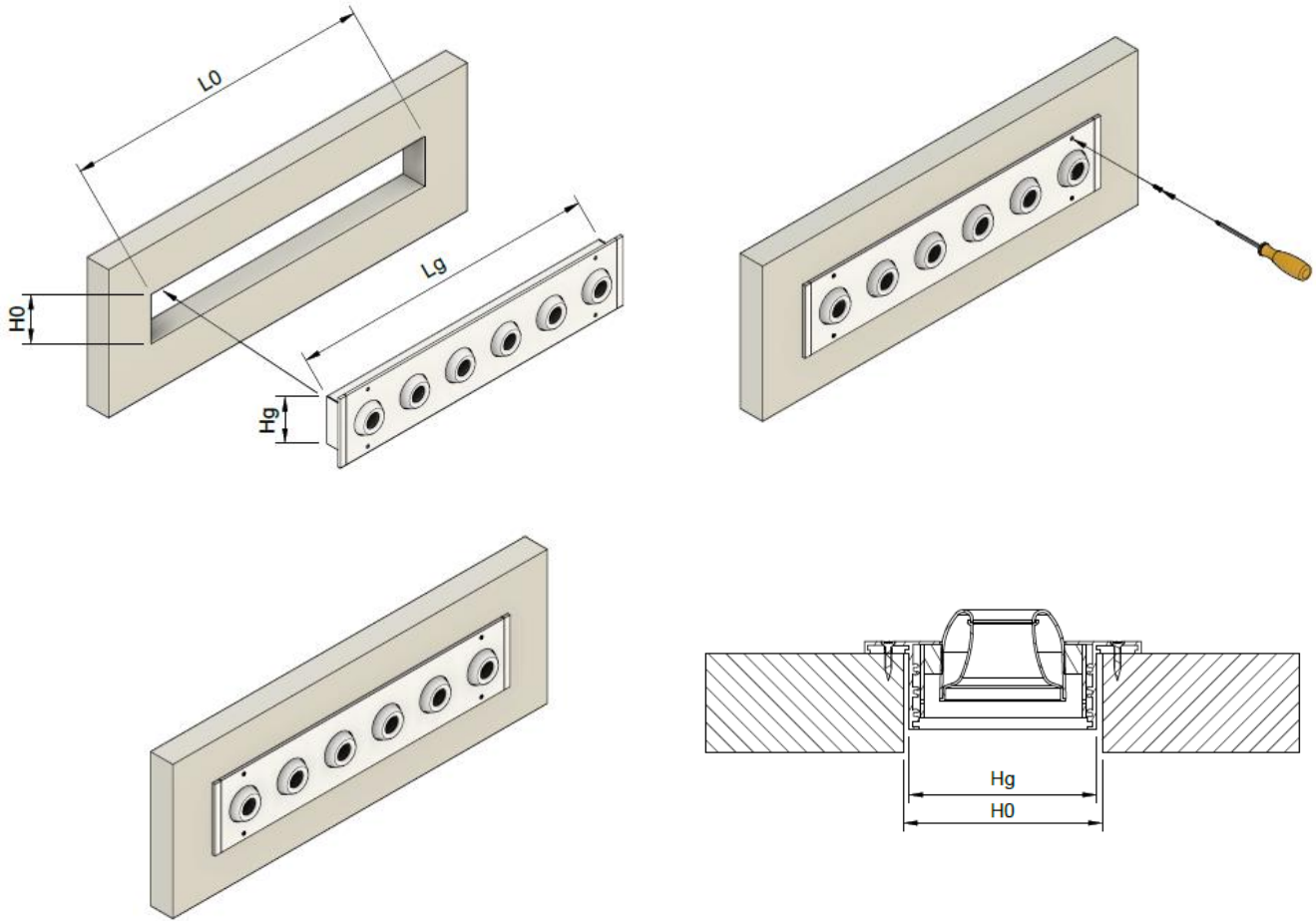
For ceiling mounting, the fixing of the plenum diffuser is done by means of “U” type fixing systems (brackets), positioned inside the plenum and the screws.

For mounting on a wall or rectangular duct, grille fixing screws can be used. Screw holes are only made on request.

False continuous ceiling mounting



Wall /duct mounting



Order code

Example on how to place an order

Type	Length	Section	Accessories	Finish
DOTS	213 ... 3209 mm			
S1 - Left end section				
S2 - Middle section				
S3 - Right end section				
AIZ - Insulated adapter				
AN - Uninsulated adapter				
Perforated damper (plenum box)				
RAL 9016				
RAL.. - Other RAL colors on request				