

Air through perfection

Slot diffuser

SL-19



ACP
Slot diffusers

Slot diffuser SL-19



Description

Linear slot diffuser 19 mm has adjustable blades and is used for introduction or evacuation of air.

The diffuser is recommended for installations with a constant or variable air flow and intended for mounting in a false ceiling.

Technical specifications

Characteristics

The diffuser can be made with 1 ÷ 4 slots 19 mm wide.

The diffuser blades are adjustable and allow airflow to be adjusted.

Long-length diffusers have segmented blades at a maximum size of 1500 mm

Perimeter configurations can be made by using corner sections (angle 90°).

Dimensional limits, diffuser length: minimum 0.3m and maximum 3.1m.

In the case of long-length diffusers, the construction is modular, and the delivery is made together with the necessary connecting parts.

The product is delivered with the following elements: “U” type mounting system (bracket), fixing screws and joining/alignment elements (for modular products).

Materials

The diffuser is made of electrostatic field painted extruded aluminum in glossy white RAL 9016 with black anodized aluminum blades (standard finish).

The following finishes are also available on request:

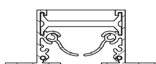
- EL - natural anodized aluminum (anodized) with anodized black blades
- LV - fully painted (including blades) in electrostatic field in any shade from the RAL palette

Technical drawing

SL-I9 - Linear



➤ SL-19-1
(1 slot)



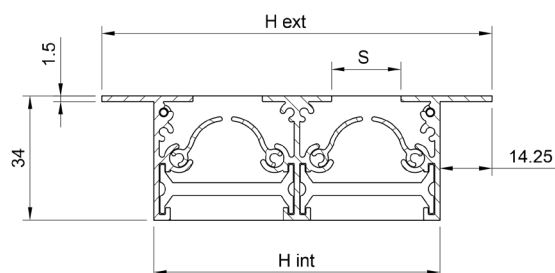
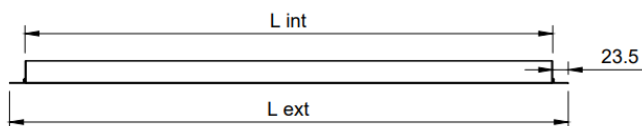
➤ SL-19-2
(2 slots)



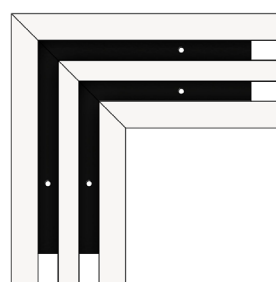
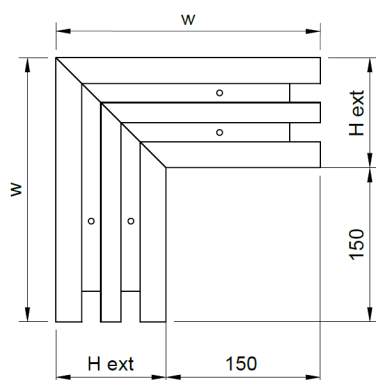
➤ SL-19-3
(3 slots)



➤ SL-19-4
(4 slots)

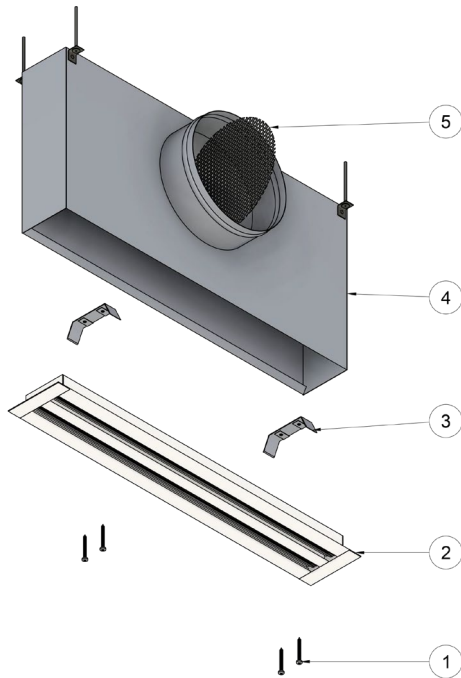


SL-I9 – 90° angle



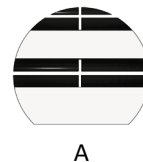
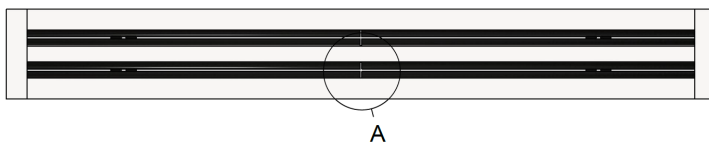
No.of slots	S [mm]	H int [mm]	H ext [mm]	W [mm]
1	19	41	69	219
2		80	108	258
3		119	147	297
4		158	186	336

Product specifications



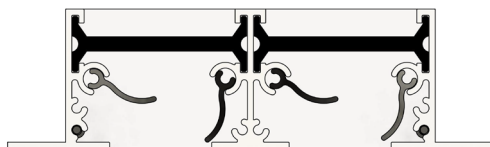
- 1 - Fixing screw
- 2 - SL-19-2 slot diffuser
- 3 - Bracket ("U" type system)
- 4 - Plenum box (optional)
- 5 - Perforated damper (optional)

Long-length diffusers have segmented blades at a maximum size of 1500 mm. This makes it easier to adjust the diffuser blades to achieve the desired adjustment

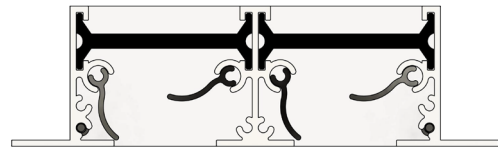


Positioning the blades

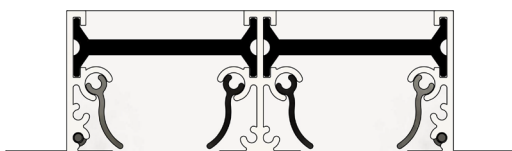
Direction of air jet to the left



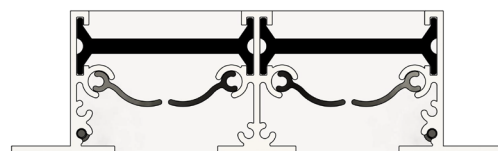
Direction of air jet to the right



Blades open



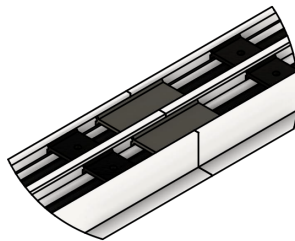
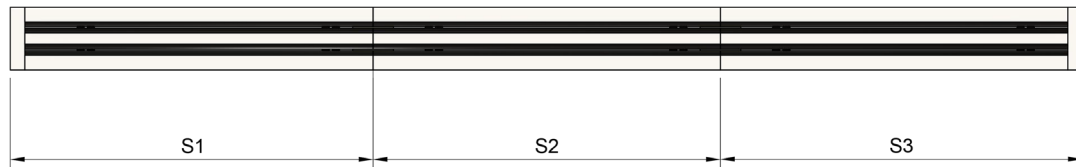
Blades closed



Section assembly

Long-length diffusers are made of modules with a maximum length of 3.1 m..

In this case, the product is delivered with connecting elements between modules.



SL-19-2-S1

SL-19-2-S2

SL-19-2-S3



Accessories

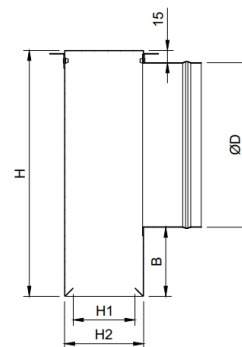
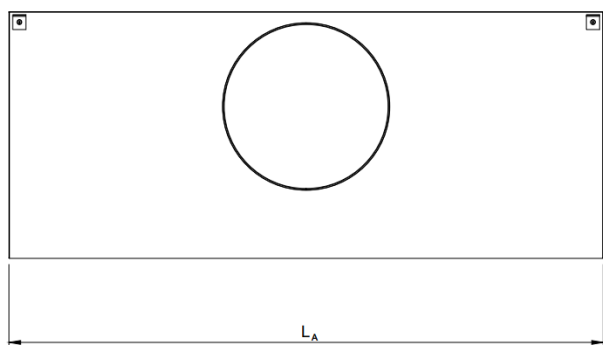
The diffuser can be supplied with a plenum connecting to a circular duct with horizontal connection.

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)



$$L_A = L \text{ int slot} + 5 \text{ mm}$$

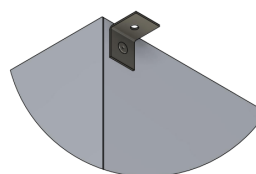
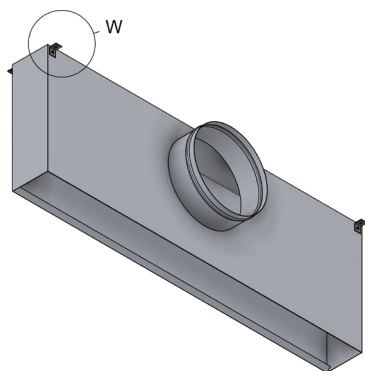
B - 60 mm is recommended or depending on the request

$$H1 = H \text{ int slot} + 2$$

$$H2 = H1 + 16$$

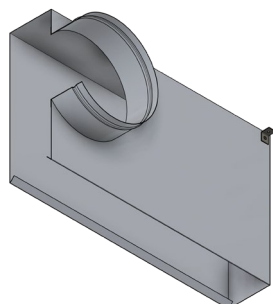
H - depending on ØD and request

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

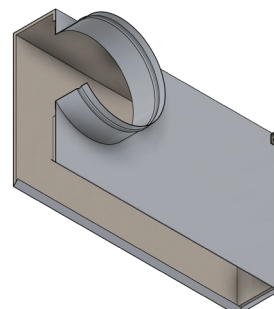


W - Suspension lug

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

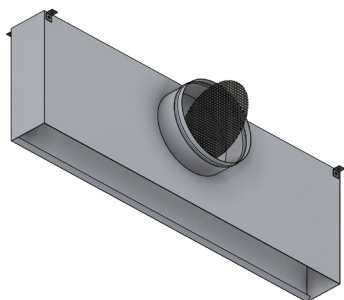


AN - Uninsulated adapter

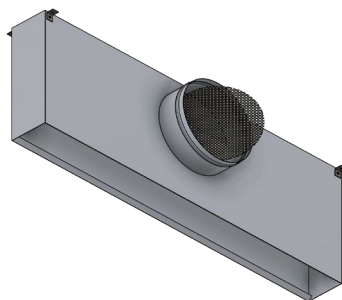


AIZ - Insulated adapter

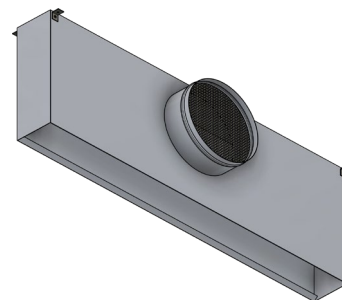
Perforated damper



Position 0°



Position 45°



Position 90°

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

Functional parameters

Air flow (m³/h)	No. of slots Ak(m²)	1 0.018
Length = 1000 mm		
72	X [m]	0.50
	NR [dB(A)]	10.00
	ΔPt [Pa]	8.00
108	X [m]	1.80
	NR [dB(A)]	19.00
	ΔPt [Pa]	16.00
144	X [m]	2.80
	NR [dB(A)]	25.00
	ΔPt [Pa]	22.00
180	X [m]	4.00
	NR [dB(A)]	30.00
	ΔPt [Pa]	39.00
216	X [m]	5.10
	NR [dB(A)]	35.00
	ΔPt [Pa]	48.00
252	X [m]	6.00
	NR [dB(A)]	38.00
	ΔPt [Pa]	60.00
288	X [m]	7.00
	NR [dB(A)]	39.00
	ΔPt [Pa]	70.00
324	X [m]	7.80
	NR [dB(A)]	43.00
	ΔPt [Pa]	90.00
360	X [m]	8.30
	NR [dB(A)]	47.00
	ΔPt [Pa]	100.00

Air flow (m³/h)	No. of slots Ak(m²)	2 0.037
Length = 1000 mm		
108	X [m]	0.80
	NR [dB(A)]	8.00
	ΔPt [Pa]	5.00
144	X [m]	1.50
	NR [dB(A)]	13.00
	ΔPt [Pa]	7.00
180	X [m]	2.50
	NR [dB(A)]	17.00
	ΔPt [Pa]	10.00
216	X [m]	3.40
	NR [dB(A)]	21.00
	ΔPt [Pa]	15.00
252	X [m]	4.40
	NR [dB(A)]	26.00
	ΔPt [Pa]	18.00
288	X [m]	5.00
	NR [dB(A)]	29.00
	ΔPt [Pa]	23.00
324	X [m]	6.00
	NR [dB(A)]	32.00
	ΔPt [Pa]	30.00
360	X [m]	6.50
	NR [dB(A)]	34.00
	ΔPt [Pa]	38.00
540	X [m]	9.80
	NR [dB(A)]	42.00
	ΔPt [Pa]	70.00

Air flow (m³/h)	No. of slots Ak(m²)	3 0.056
Length = 1000 mm		
144	X [m]	1.00
	NR [dB(A)]	6.00
	ΔPt [Pa]	5.00
180	X [m]	1.90
	NR [dB(A)]	12.00
	ΔPt [Pa]	6.00
216	X [m]	2.50
	NR [dB(A)]	15.00
	ΔPt [Pa]	8.00
252	X [m]	3.50
	NR [dB(A)]	18.00
	ΔPt [Pa]	9.00
288	X [m]	4.00
	NR [dB(A)]	20.00
	ΔPt [Pa]	12.00
324	X [m]	4.80
	NR [dB(A)]	25.00
	ΔPt [Pa]	15.00
360	X [m]	5.40
	NR [dB(A)]	27.00
	ΔPt [Pa]	18.00
540	X [m]	8.30
	NR [dB(A)]	35.00
	ΔPt [Pa]	37.00
720	X [m]	10.50
	NR [dB(A)]	41.00
	ΔPt [Pa]	55.00

Air flow (m³/h)	No. of slots Ak(m²)	4 0.075
Length = 1000 mm		
180	X [m]	1.20
	NR [dB(A)]	7.00
	ΔPt [Pa]	3.00
216	X [m]	2.00
	NR [dB(A)]	10.00
	ΔPt [Pa]	4.00
252	X [m]	2.80
	NR [dB(A)]	14.00
	ΔPt [Pa]	7.00
288	X [m]	3.40
	NR [dB(A)]	15.00
	ΔPt [Pa]	8.00
324	X [m]	4.00
	NR [dB(A)]	18.00
	ΔPt [Pa]	9.00
360	X [m]	4.60
	NR [dB(A)]	20.00
	ΔPt [Pa]	10.00
540	X [m]	7.30
	NR [dB(A)]	31.00
	ΔPt [Pa]	19.00
720	X [m]	9.50
	NR [dB(A)]	36.00
	ΔPt [Pa]	32.00
1080	X [m]	13.20
	NR [dB(A)]	45.00
	ΔPt [Pa]	60.00

The legend

Ak [m²] - The free surface

X [m] - The length of the air jet at a speed of 0.25 m/s

NR [dB (A)] - Noise level for 8dB room attenuation

ΔPt [Pa] - Pressure loss

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

Note

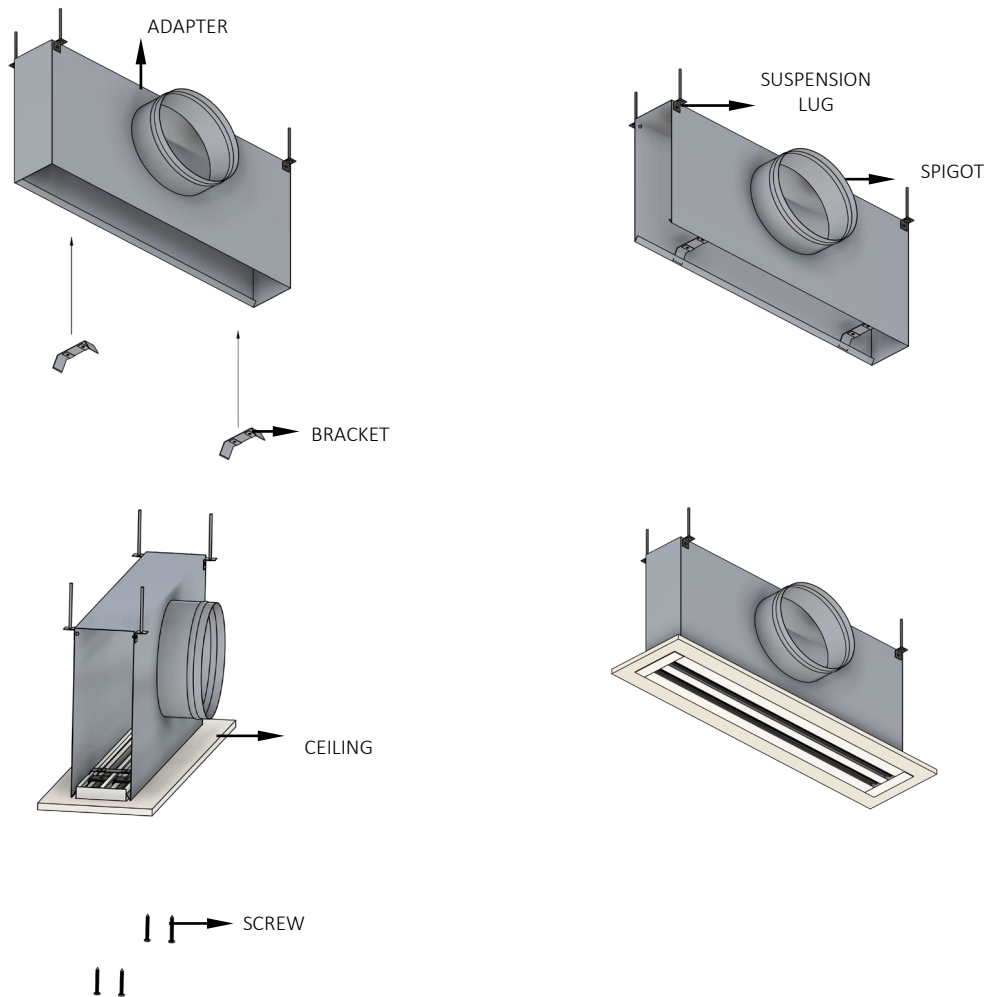
Values are provided for a room height of 2.7m.

The length of the air jet is given for horizontal discharge.

Installation

The diffuser is mounted in a false continuous ceiling or on the wall.
The fixing of the plenum diffuser is done by means of “U” type mounting systems (bracket), positioned inside the plenum and the screws.

False continuous ceiling mounting



Order code

Example on how to place an order

Type	No. of slots	Length	Section	Accessories	Finish
SL-19	1, 2, 3 or 4 slots	300 ... 3100 mm			
S1 - Left end section					
S2 - Middle section					
S3 - Right end section					
AIZ - Insulated adapter					
AN - Uninsulated adapter					
Perforated damper (plenum box)					
OBD - Control damper					
LN - RAL9016 with black blades (standard)					
LV - Fully painted (including blades) in RAL on request					
EL - Anodized aluminum, natural gray frame with black blades.					