

NSAL-N SLOT DIFFUSER



Description:

An aluminium slot diffuser with movable vanes that are set individually.

Intended use

NSAL-N slot diffusers are used in systems with constant or variable air volume. High air induction makes the NSAL diffusers capable of operating both in the heating and cooling modes.

Design

The NSAL-N diffusers can be made in lengths within the range of 500–2000 mm and they can contain 1–5 air supply (extraction) slots. NSAL-N diffusers are fitted with movable, profiled vanes, which makes it possible to change the extent to which the air supply slot is covered or to direct the air stream. The housing and vanes of the diffuser are made of aluminium. It is possible to mount the diffusers separately or inline. The diffusers mounted separately have a 15 mm wide frame on each side. NSAL-N diffusers designed for inline mounting do not have a frame at the side where the diffusers are coupled together, which makes it possible to maintain their attractive appearance. In order to select an RAL colour other than the standard colour, please contact us in advance.

Dedicated plenum boxes may be fitted with a control element on the inlet connection pipe. Plenum boxes may be optionally insulated from the inside with a 10 mm thick mat.

Vane adjustment

The structure of the diffuser makes it possible to direct the supply airflow both vertically and horizontally, by changing the angles of individual vanes manually.

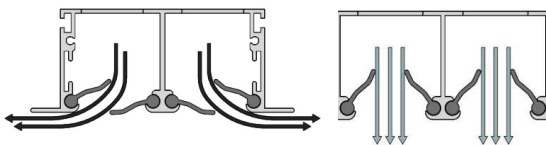


Table 1. Standard quantities and diameters of connection pipes $\varnothing d$ [mm]

Number of slots	Diffuser length L			
	500–999	1000–1199	1200–1799	1800–2000
1	1 x 123	2 x 123	2 x 123	2 x 123
2	1 x 123	2 x 123	2 x 158	2 x 198
3	1 x 158	2 x 158	2 x 198	2 x 198
4	1 x 198	2 x 198	2 x 198	2 x 198
5	1 x 198	2 x 198	2 x 198	2 x 198

Dimensions

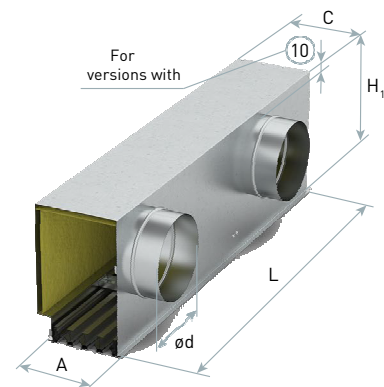


Figure 2. Dimensions of NSAL-N diffusers with a plenum box.

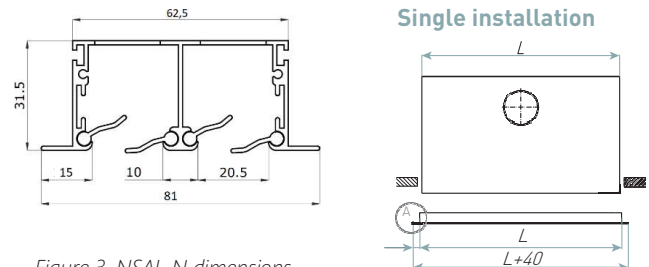
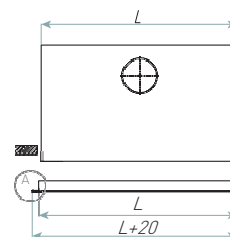


Figure 3. NSAL-N dimensions.

SK outermost element



WN middle element

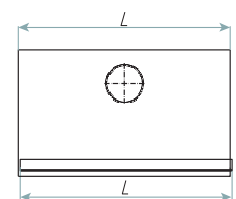


Figure 4. Dimensions of the plenum boxes for inline mounting.

Table 2. Standard dimensions of NSAL-N diffusers and plenum boxes.

Number of slots	Front panel			Non-insulated box		Insulated box	
	A [mm]	E [mm]	H [mm]	C [mm]	H ₁ [mm]	C [mm]	H ₁ [mm]
1	50	32	32	75	282	95	302
2	81	63	32	106	282	126	302
3	112	93	32	136	282	156	302
4	142	124	32	167	282	187	302
5	173	154	32	197	282	217	302

AA

AL

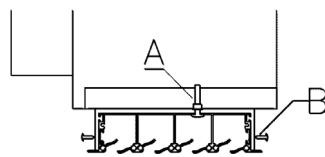
RAL



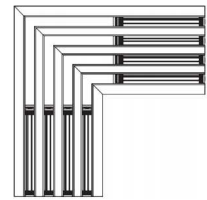
Installation

NSAL-N diffusers should be mounted to a plenum box by means of:

- a mounting bracket (A)
- screws (B).



Corner connections are possible due to additional elements. Inner edge minimum length 200 mm. In the case of a custom length, you should always consult with your sales representative.



NSAL-N – Slot diffuser

When ordering, please provide information in accordance with the following pattern:

NSAL-N-<W>-<L>-<X>-<M>-<P>-<PB> / <ADD>

Where:

W	Number of the diffuser slots: 1, 2, 3, 4, 5
L	Diffuser length in mm: 600, 800, 1000, 1200, 1500, 2000
X	Type of diffuser installation*
	None – Single installation
	SK – Inline mounting, outermost element
	WN – Inline mounting, inner element
M	Mounting method*
	None – To a plenum box
	Wk – By means of screws at the side of a plenum box
P	Frame finish*
	AA Anodised aluminium
	AL<RAL> Painted aluminium (colour according to the RAL colour chart)
PB	Vane finish*
	AA Anodised aluminium
	AL<RAL> Painted aluminium (colour according to the RAL colour chart)
ADD	Specify additional accessories here, as below



- Blocks for REVIT software,
 - Selection range and
 - Certificates
- available at www.smay.pl.

Accessories:

Plenum box as per the configuration below:

SR <I> - <N> - <D><R>

Where:

I	Insulation*
	None – No insulation
	t – Insulated
N	Number of connection pipes*
D	Connection pipe diameter in mm*
R	Damper in a connection pipe*
	None – No damper
	P – Damper adjusted from outside the box
	Pc – Damper adjusted from inside the box with a cord
	Pd – Damper adjusted from inside the box with a lever (for the number of slots W > 3 only)

* Optional values – if not specified, default values will be used

Order example:

- 1) NSAL-N-5-800-SK-Wk-AL9005-AL9010/SRt-1-158P
- 2) NSAL-N-2-1000-AA/SR



Technical data of the diffusers, including pressure drop, noise level and stream ranges, is available at smay.eu, in the "Flow Characteristic for Grilles and Diffusers" document.