NSH

SLOT DIFFUSER NSH

Characteristics:
Aluminium slot diffuser with individually adjustable, movable profiled vanes, allowing precise control of the air discharge direction.

AL

version: 04/03/26

Intended use

The NSH slot diffuser is designed for rooms where a high level of comfort is required. It is suitable for use in ventilation and air conditioning systems with constant air volume (CAV) and variable air volume (VAV), in both heating and cooling operation. The diffuser can also be used as an exhaust air element (version without vane is available upon prior agreement). Thanks to its specially designed geometry, the diffuser makes effective use of the Coanda effect. At the same time, the design has been optimized so that pressure loss remains similar for different profiled vanes positions.

Design

The NSH diffuser is available in lengths from 300 to 1500 mm and can be fitted with 1 to 4 movable profiled vanes. The front panel is made of aluminium and powder-coated in RAL 9010 (white) or RAL 9005 (black). The vanes are made of aluminium and powder-coated in RAL 9005. Upon customer request, the diffuser can be supplied in other RAL colours, subject to individual agreement with the sales representative. For diffusers with a length exceeding 500 mm, special plastic stiffeners are installed in the diffuser (shown in Figure 2). The dedicated plenum box is made of galvanized steel sheet. The plenum boxes can be optionally insulated on the inside with a 10 mm thick insulation mat. Both insulated and non-insulated plenum boxe versions have the same external dimensions. An optional volume control damper can be installed in the plenum box connection pipe.

Table 1. Dimensions of the NSH diffuser and plenum boxes.

W	A [mm]	C [mm]	H1 [mm]
1	59	51	270
2	99	91	270
3	139	131	270
4	179	171	270

Table 2. Standard quantities and ød of connection pipes.

W	L [mm]		
	≤750	750<L≤1250	>1250
1	1x123	2x123	2x158
2	1x158	2x158	2x198
3	1x198	2x198	2x198
4	1x198	2x198	2x198

W - number of slots [pcs.]
L - diffuser length [mm]

Dimensions

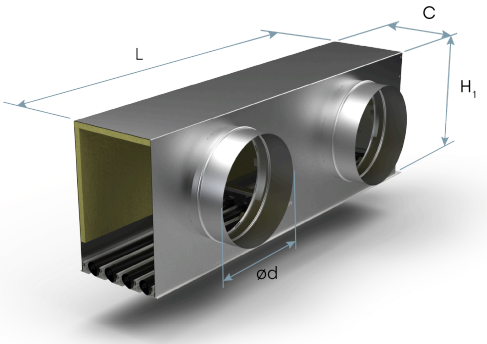

Figure 1. Dimensions of plenum box.

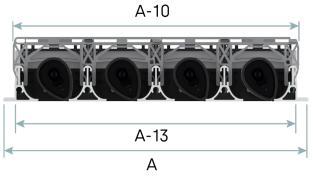

Figure 2. Dimensions of NSH.

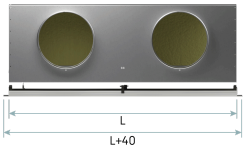

Figure 3. Dimensions of the plenum box and diffuser for single mounting.

Figure 4. Dimensions of the plenum box and diffuser for inline mounting - ending element SK.

Figure 5. Dimensions of the plenum box and diffuser for inline mounting – middle element WN.

In the case of an individual order, the number and diameter of connection pipes may be adapted to the customer's requirements. In the case of a custom length, please consult with your sales representative.

Installation

The NSH diffuser can be installed as a single unit or combined into a continuous linear installation. For linear installations, the diffusers are supplied without a frame on the joining sides, allowing a clean and seamless appearance without visible gaps.

The diffuser is connected to the duct system via a plenum box with one or two connection pipes. It is mounted to the plenum box using a magnetic fixing system, which allows quick and easy installation.

Before installation, the position of the magnetic connector (a) should be checked using the spacing gauge supplied with the plenum box. The connector should be positioned 35.5 mm from the edge of the plenum box. If adjustment is needed, the connector position can be corrected by turning the adjustment screws (b) until the correct height is achieved. For additional safety, it is recommended to attach the safety cable (c) between the diffuser and the plenum box. The diffuser can then be mounted. If required, the sides of the plenum box can be sealed at the joint with the diffuser, for example using sealing tape.

Figure 6. Diffuser with plenum box.

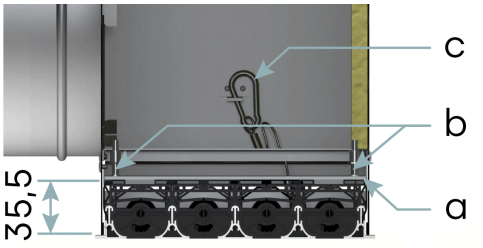

Figure 7. Mounting the diffuser to the plenum box.

Airflow direction adjustment

The NSH diffuser is equipped with movable vanes that can be adjusted individually, making it easy to adapt the air supply pattern to the room layout. By changing the vane positions, horizontal, angled, or vertical air discharge can be achieved. The vane positioning mechanism allows simple and repeatable adjustment, ensuring that each vane can be set accurately during commissioning and later readjusted if needed. To change the vane position, gently push the vane upwards towards the plenum box and then reposition it using the profiled tab into one of the five available stable positions.

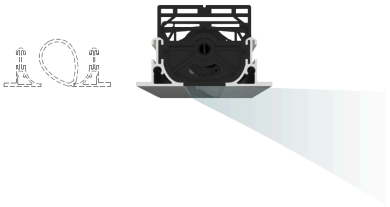

Figure 8. Horizontal air discharge - standard setting

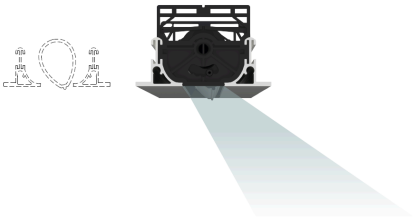

Figure 9. Angled airflow.

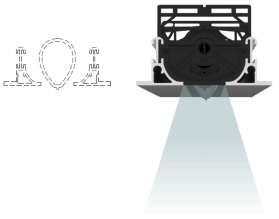

Figure 10. Vertical airflow.

NSH - Slot diffuser NSH

When ordering, please provide the information as follows:

NSH-<W>-<L>-<X>-<M>-AL<RAL> / <ADD>

Where:

W	number of diffuser slots: 1, 2, 3, 4
L	diffuser length in mm: 300 – 1500
X	type of diffuser housing*
	none - single installation
	SK - linear installation, end element
	WN - linear installation, internal element
M	installation method*
	none - to the plenum box using magnets
RAL	colour number according to the RAL palette (9010 or 9005)
ADD	specify additional accessories as follows

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

Example marking:

NSH-4-1000-AL9010 / SRt-270-2-198P

Expansion box according to the configuration below:

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

Where:

I	insulation*
	none - no insulation
	t - insulated
H	height in mm*
N	Number of connectors*
D	connection diameter in mm*
R	damper in connection pipe*
	none - no damper
	P - damper with external adjustment
	Pc - damper adjustable from inside the box using a pull cord
	Pd - damper with adjustment from inside the box using a lever (only for number of slots W≥2)
	Pe - damper with adjustment from inside the box using a lever (only for number of slots W≥2)