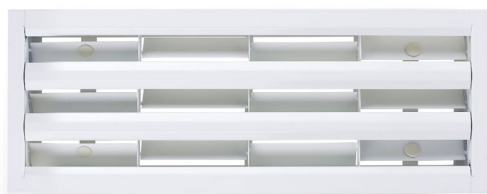


NSL

SUPPLY AND EXHAUST SLOT DIFFUSERS



Intended Use:

NSL diffusers are designed for application in low- and medium-pressure ventilation systems with constant or variable air flow.

Intended Use

The diffusers can be mounted in ceilings or in walls. They are particularly recommended for 2.6 to 6 m high rooms, when the difference in temperature between the supply air and the air in the room is up to 10 K.

Wykonanie

NSL diffusers may have from 1 to 6 slots. The slots have stationary modular vanes, which allow for vertical, horizontal, or skew air supply. Alternate setting of vanes is possible in a single slot of the diffuser. The length of a single vane module is 100 mm.

NSL frame is made of aluminium and the vanes are made of steel. The diffuser is powder-coated with RAL9010 white paint. It can also be coated to order with other RAL colour.

The diffusers which are longer than 2000 mm are made of smaller modules, to be combined at the construction site. A non-standard L-length diffuser can also be ordered.

Installation

The diffuser is mounted to a plenum box by means of screws led through the holes in the diffuser frame or by means of invisible mounting bolts.

Warianty wykonania

NSL-1	1-slot diffuser
NSL-2	2-slot diffuser
NSL-3	3-slot diffuser
NSL-4	4-slot diffuser
NSL-5	4-slot diffuser
NSL-6	5-slot diffuser

Air supply direction

The diffusers are normally delivered with vanes set for the skew air supply (45°). When ordering, please provide information about required configuration of the vanes (see – Ordering).

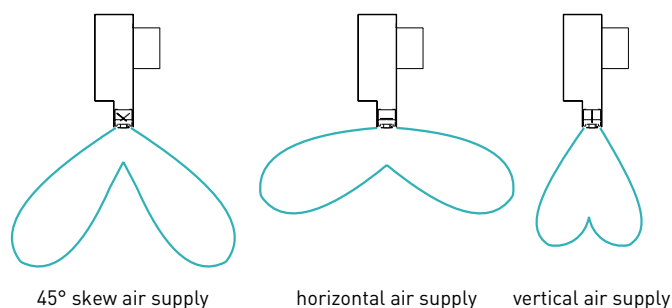


Figure 1. Air supply direction of NSL diffuser.

The number of connection pipes

Below are given the standard diameters and numbers of connection pipes versus the diffuser dimensions. Additionally, it is possible to make plenum boxes of the diameter and number of connection pipes in accordance to the customer requirements.

Table 1. The number of NSL connection pipes.

Number of diffuser rows	diffuser length L [mm]						
	500	800	1000	1200	1500	1800	2000
1	1-78	1-98	1-123	2-98	2-98	2-123	2-123
2	1-98	1-123	1-123	2-98	2-123	2-123	2-123
3	1-123	1-158	1-158	1-158	2-123	2-158	2-158
4 and more	1-158	1-158	2-123	2-123	2-158	2-158	2-158

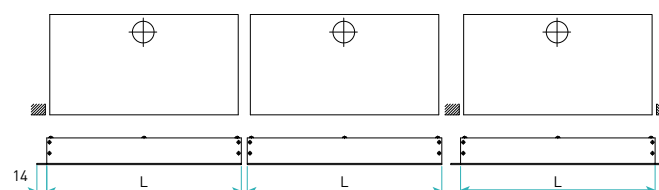


Figure 2. The number of NSL connection pipes.



Dimensions

Plenum box

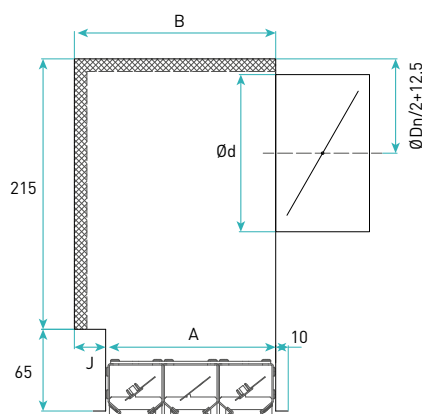


Figure 3. NSL/SR(t) dimensions.

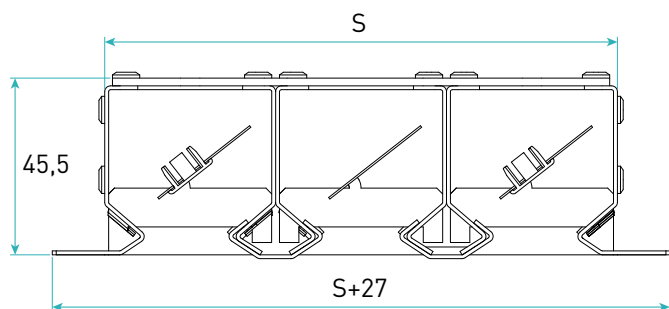


Figure 4. Wymiary NSL.

Table 2. NSL dimensions.

Number of rows	S	A	B	J
1	44	48	96	48
2	88	92	121	29
3	132	136	161	25
4	176	180	205	25
5	220	224	249	25
6	264	268	293	25

Selection

Marking:

- V [m³/h]** – Total airflow with respect to a 1 meter long diffuser
- L_H [m]** – Air flow vertical range
- L_A [m]** – Air flow horizontal range
- ΔP [Pa]** – Total pressure loss
- L_w [dB_(A)]** – Sound level

The vertical and horizontal range of the diffuser at the standard setting of the vanes (45° alternately). The curves are drawn for the speed of 0.1 m/s.

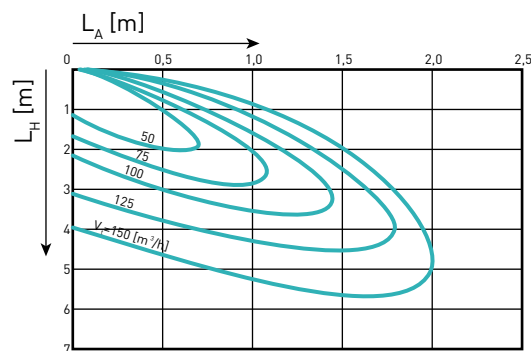


Chart 1. NSL selection.

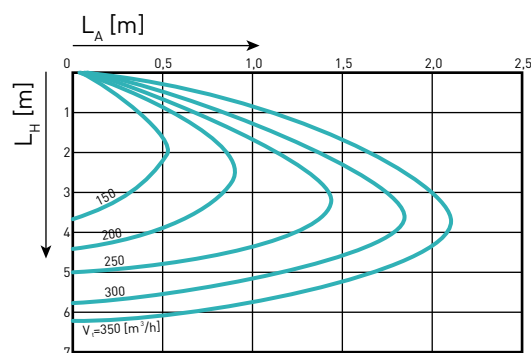


Chart 2. NSL selection.

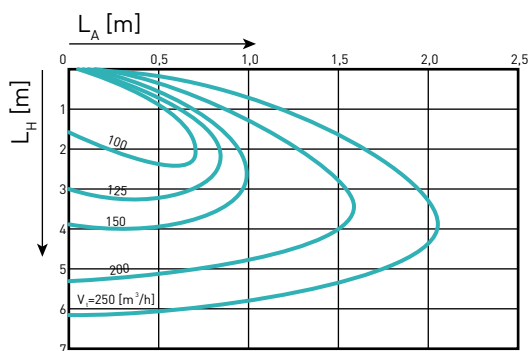


Chart 3. NSL selection.

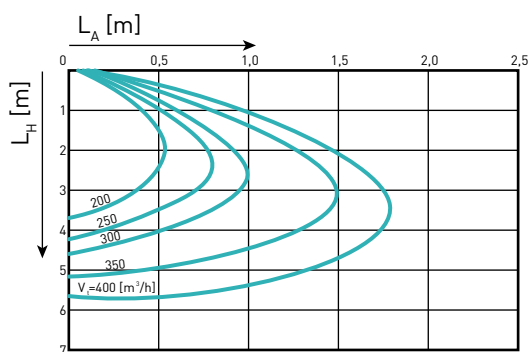


Chart 4. NSL selection.

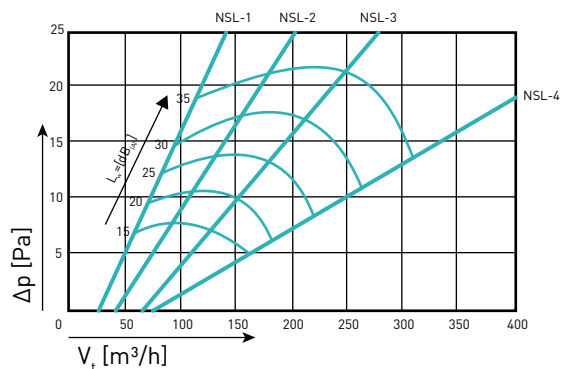


Chart 5. NSL selection.

The given parameters are valid when there is no control element or when it is fully open.

Table 3. Correction factors for L_w values for individual diffuser lengths.

Number of diffuser rows	diffuser length L [mm]					
	500	800	1200	1500	1800	2000
	L_w [dB _A] factor					
1	1	2	0	1	2	2
2	t	-2		-2		0
3	-4	-5	0	-4	-3	-2
4		0		0	1	0

NSL – Supply and exhaust slot diffusers

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

NSL - <W> <L> - <X> - <M> - <NAW> - SL <RAL> / <ADD>

Where:

W	number of the diffuser slots: 1, 2, 3, 4, 5, 6
L	diffuser nominal length in mm: 500, 800, 1000, 1200, 1500, 2000
X	type of the diffuser installation*
	no data - single installation
	SK - linear installation, outermost element
	WN - linear installation, inner element
M	mounting method*
	no data - mounting bolt
	WK - visible screws
NAW	air supply direction
	U1 - 45 degrees skew air supply, unidirectional
	U2 - 45 degrees skew air supply, bidirectional
SL	finish: powder coating
RAL	colour according to the RAL Colour Chart*
ADD	specify additional accessories here, as below:

Accessories*

Plenum box as per the configuration below:

<SR> <I> - <N> - <Dk> - <R>

I	insulation*
	brak - no insulation
	t - insulated
N	number of connection pipes*
Dk	connection pipe diameter in mm*
R	damper in the connection pipe*
	no data - no damper
	P - damper adjusted from outside the box
	Pd - damper adjusted from inside the plenum box

* optional values, if they are not provided, the default values will be used

Order example:

NSL-4-1000WK-PI-SL9010/SRt-2-125-P