NS4
SWIRL DIFFUSER WITH FIXED VANES

SMAY™

Description:
Rectangular or circular steel swirl diffuser with fixed vanes.

Intended use

NS4 diffusers are designed for low- and medium-pressure ventilation systems. They provide a swirling air supply and are particularly recommended for 2.6 to 4 m high rooms, when the difference in temperature between the supply of air and the air in the room is up to 10 K. NS4 diffusers may be used in extraction mode.

Design

NS4 diffusers are equipped with fixed vanes that generate the swirling airflow. The front panel of the diffuser may be round or square. They are normally made of powder-coated steel, painted with RAL9010 paint. On special request, they may also be coated with other RAL colours. NS4 diffusers can be made in a supply version (a plenum box with a deflector) or in an exhaust version (a plenum box without a deflector). NS4 diffusers are available in two variants – standard or horizontal.

Installation

- **R1** – round panel, one bolt positioned centrally,
- **K1** – square panel, one bolt positioned centrally
- **K4** – square panel, four screws in the corners (recommended for sizes 600, 625, 600D and 625D diffusers).

> ℹ Technical data for the diffusers, including pressure drop, noise level and stream ranges, is available at www.smay.eu, in the diffuser selection program.
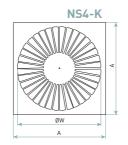
Dimensions
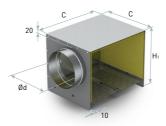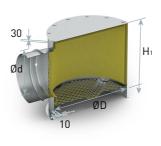

Figure 1. NS4 front panel dimensions.

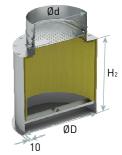*Figure 2. Dimensions of the SR rectangular plenum boxes for NS4-K panels.*

Figure 3. Dimensions of the SRR round plenum boxes for NS4-R panels.

Table 1. Standard dimensions of NS4 diffusers and plenum boxes.

Size	A [mm]	ØD₁ [mm]	ØW [mm]	Ød [mm]	C [mm]	ØD [mm]	H₁ [mm]	H₂ [mm]
300	298	300	250	158	293	270	290	200
400	398	400	350	198	393	370	330	300
500	498	500	350	198	393	370	330	300
600	598	600	350	198	393	370	330	300
625	623	625	350	198	393	370	330	300
600D	598	600	540	248	593	570	380	300
625D	623	625	540	248	593	570	380	300

SMAY™

SL | RAL

NS4 – Swirl diffuser with fixed vanes

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

Accessories:

Plenum box as per the configuration below:

NS4 - <C> – <W> <T> - SL<RAL> / <ADD>

<TYP> <I> <W> - <H> – <K><D><R> - <P>

Where:

C	Front panel and the mounting method*
R1	– Round panel, installation with a single bolt
K1	**– Square panel, installation with a single bolt**
K4	– Square panel, installation with four screws
W	Size: 300, 400, 500, 600, 625, 600D, 625D
T	Version*
None	**– Standard**
H	– Horizontal
SL	Finish: coated steel
RAL	Colour according to RAL colour chart*
ADD	Specify additional accessories here, as below**

* Optional values – if not specified, default values will be used
** For more information on accessories see the accessories sheet

Sample order:

NS4-K1-600-SL9010 / SRts-380-b248P

> ℹ Blocks for REVIT software, the selection range and certificates are available at www.smay.pl.

Where:

TYPE	Plenum box type
SR	– Rectangular plenum box
SRe	– Rectangular box, cost-effective version
SRR	– Round plenum box
I	Insulation*
None	**– No insulation**
t	– Insulated
W	Screen deflector*
None	**– No deflector (default for exhaust)**
s	– With a deflector (default for supply)
H	Plenum box height in mm*
K	Connection pipe position *
b	– Side
g	– Top
D	Connection pipe diameter in mm*
R	Damper in a connection pipe*
None	**– No damper**
P	– Damper adjusted from outside the box (for SR or SRR only)
Pc	– Damper adjusted from inside the box with a cord (for SR or SRR only)
Pd	– Damper adjusted from inside the box with a lever (for SR or SRR with no deflector only)
Pe	– Damper adjusted from inside the box with a lever (for SRe with no deflector only)
P	Design*
SO	**- Galvanised steel**
SN	– Stainless steel, grade 1.4301 (304 according to AISI, 0H18N9 according to PN) (for SR only)
SM	– Stainless steel, grade 1.4404 (316L according to AISI, 0H17N14M2 according to PN) (for SR only)