

# ACCESSORIES

## FOR GRILLES AND DIFFUSERS



SMAY



### NDS connection pipe for round ventilation ducts

#### Intended use

The NDS connection pipe makes it possible to connect any rectangular ventilation grille to a round spiro ventilation duct. Its height is matched so that the grille body does not interfere with the air flowing through the ventilation duct. At the same time, it is recommended that the NDS connection pipe height corresponds to the thermal insulation of a ventilation duct. When specifying the "w" parameter (w = 50 mm as standard), the presence of additional accessories should be considered.

#### Design

The NDS connection pipes are made of galvanized or stainless steel as standard. The connection pipes can be powder coated in RAL colours upon request.

#### Installation

The NDS connection pipes are fixed to ventilation ducts with rivets.

#### Dimensions

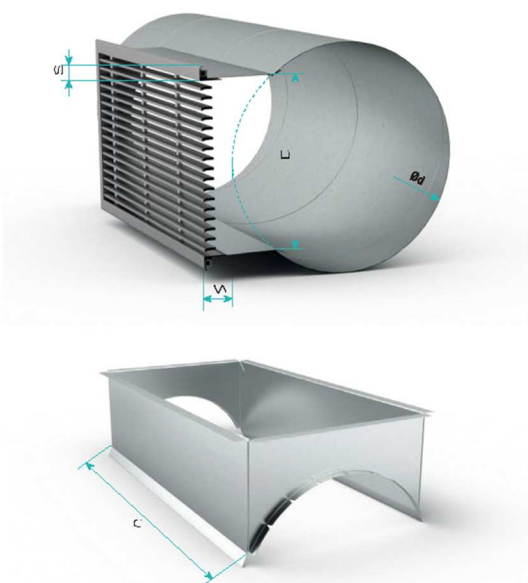


Figure 1. NDS socket dimensions

### RM(Z) assembling frames

#### Intended use

Assembling frames are used when installing ventilation grilles in mounting holes, ventilation ducts or space dividers. Assembling frames ensure easy installation and subsequent disassembly of grilles for maintenance. The RM assembling frames are used when a ventilation grille is fixed to a frame by means of visible screws. The RMZ assembling frames are used when a ventilation grille is fixed to a frame by means of externally invisible latches.

#### Design

The RM and RMZ assembling frames are made of a galvanized steel sheet as standard.

#### Installation

The RM and RMZ assembling frames are fixed to a ventilation duct with rivets or screws. When installing in space dividers, bent anchors are used in order to facilitate building in frames.

#### Dimensions

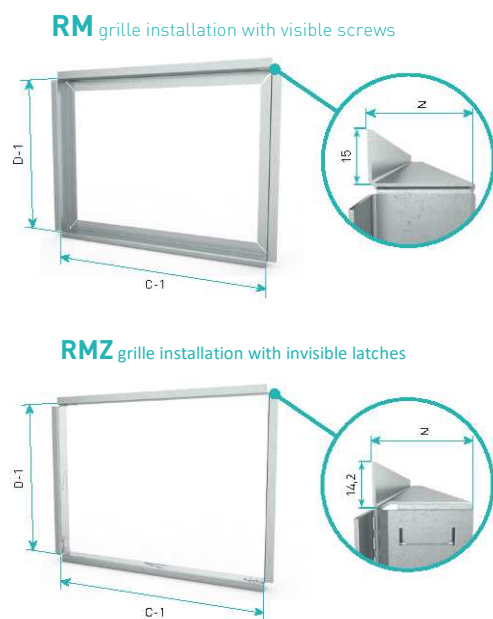
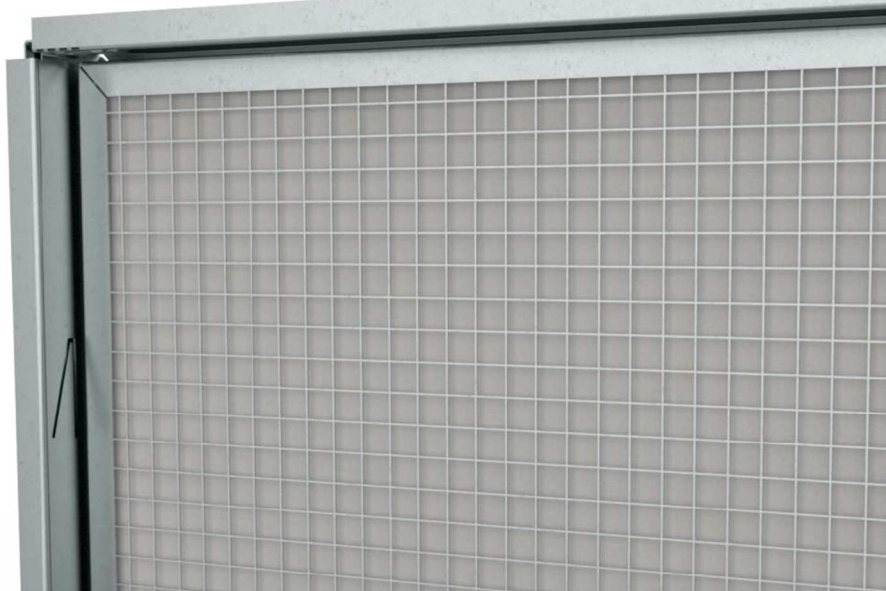


Figure 2. RM(Z) assembling frame dimensions



## RM(Z) assembling frames with air filters

### Intended use

The RM-F and RMZ-F assembling frames are used when installing ventilation grilles in mounting holes, ventilation ducts or space dividers in order to facilitate the installation and subsequent disassembly of grilles for maintenance. They are equipped with an EU3 filter as standard. Different filter classes are available upon request.

The RM-F assembling frames are used when a ventilation grille is fixed to a frame by means of visible screws. The RMZ-F assembling frames are used when a ventilation grille is fixed to a frame by means of externally invisible latches.

### Design

The RM-F and RMZ-F assembling frames are made of a galvanized steel sheet as standard.

### Installation

The RM and RMZ assembling frames are fixed to a ventilation duct with rivets or screws. When installing in space dividers, bent anchors are used in order to facilitate building in frames.

Table 1. Air filter specifications

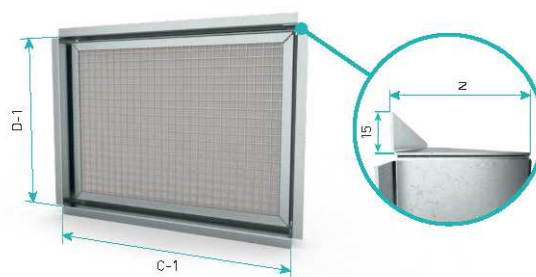
<b>Classification according to EN 779 (DIN 24185)</b>	G3 (EU3)
<b>Density [g/m<sup>2</sup>]</b>	190
<b>Average filtration ratio (Am) [%]</b>	87
<b>Initial resistance of a clean filter [Pa]</b>	33
<b>Recommended final resistance of a filter for replacement [Pa]</b>	250
<b>Average efficiency [m<sup>3</sup>/h/m<sup>2</sup>]</b>	5400
<b>Maximum temperature [°C]</b>	100
<b>Fire resistance</b>	Slow-burning according to DIN 53438F1

Table 2. RM(Z) and RM(Z)-F assembling frame dimensions

Grille name	Grille depth	RM(Z)-F	RM(Z)
		z	z
STWS-L, STSW-L, ALWT	55	82	29.5
ALSW-L, ALWS- L	40	67	29.5
ALW-L, ALS-L, ALP, ALWT-2, STW-L, STS-L, KH	30	57	29.5
AL/ST-ST5, AL/ST-SI1 AL/ST-SI2, KRS	25	52	29.5

## Dimensions

RM+F grille installation with visible screws



RMZ+F grille installation with invisible latches

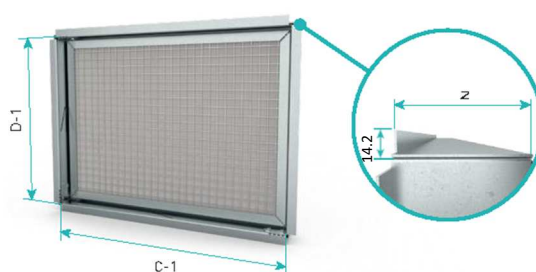


Figure 3. RM(Z)-F assembling frame dimensions

When only ordering a filter, please provide information according to the following pattern:

FRM - <A>x<B> - <P>

Where:

- A** filter length (A=C-15)
- B** filter width (B=D-15)
- P** finish\*

**S0** – galvanized steel

**SN** – stainless steel

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

## GA opposed blade dampers made of aluminium



Figure 4. GA opposed multi-blade damper made of aluminium

### Intended use

The GA opposed blade dampers are used for adjusting the air flowing through ventilation grilles in medium- and low-pressure ventilation installations. Standard GA dampers can be adjusted manually from the front side of a diffuser or grille and are locked with a screw.

### Design

The GA dampers are made of aluminium profiles. The actuating components of damper blades are made of plastic. The blades can be equipped with Igelit seals upon request.

### Dimensions

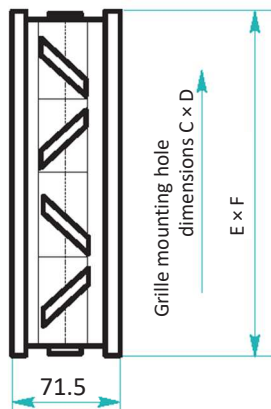


Figure 5. GA damper dimensions

Table 3. Standard dimensions

C/D	75	125	225	325	425	525	625
75							
125							
225							
325							
425							
525							
625							

When the C or D side  $\geq 625$  mm, dampers are made of smaller, individually adjusted modules. The dampers can be manufactured with custom C x D dimensions upon request.

The standard dimensions are compatible with the standard dimensions of grilles and diffusers offered by Smay Sp. z o.o.

## GSN concurrent dampers made of steel



Figure 6. GSN parallel multi-blade damper made of steel

### Intended use

The GSN concurrent multi-blade dampers are used for adjusting the air flowing through ventilation grilles in medium- and low-pressure ventilation installations. The GSN dampers can be adjusted manually from the front side of the grille (without disassembly) with a self-locking helical gearbox. The dampers are equipped with concurrent blades.

### Design

The GSN dampers are made of stainless steel.

### Dimensions

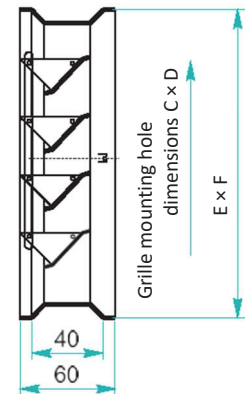


Figure 7. GSN damper dimensions

Table 4. The number of windows depends on the damper size.

Number of windows	E:50-805	E:810-1,605	E:1,610-2,000
F:55-805	1	2	3
F:810-1,215	2	4	6

When the E or F side  $\geq 810$  mm, dampers are divided into windows with separate adjustment modules. The standard dimensions are compatible with the standard dimensions of grilles manufactured by Smay Sp. z o.o. The dampers can be manufactured with custom C x D dimensions upon request.

## GC(N) full reclining dampers made of steel



### Intended use

The GC reclining dampers are used for adjusting the air flowing through ventilation grilles in medium- and low-pressure ventilation installations. These types of dampers are particularly recommended for grilles fixed to round spiro ventilation ducts.

### Design

The GC dampers are made of galvanized steel profiles. The dampers can be made of stainless steel upon request (designated GCN).



More information on the damper is available in the data sheet:  
<http://www.smay.pl/pl/product/stalowa-przepustnica-uchylna-gc/>

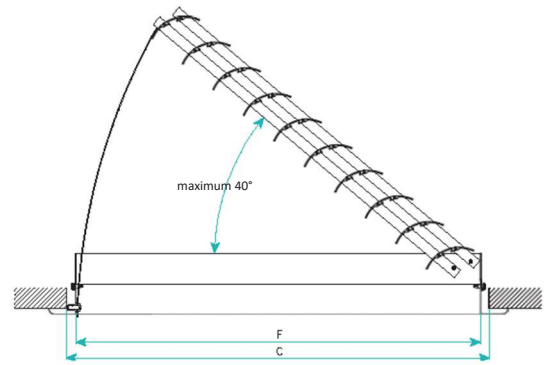


Figure 8. GM damper dimensions



More information on the damper is available in the data sheet:  
<http://www.smay.pl/pl/product/przepustnica-uchylna-lukowa-gm/>

## GP opposed blade dampers made of steel

### Intended use

The GP opposed blade dampers are used for adjusting the air flowing through the ventilation grilles or diffusers in medium- and low-pressure ventilation installations.

### Design

The GP dampers are made of galvanized steel profiles. Upon request, it is possible to make them of stainless steel (1.4301).

### Air flow adjustment

The GP dampers may be adjusted manually from the front side of a diffuser or grille. Dismantling is not required. The adjustment is carried out by switching the cogged wheels gear mechanism by means of a flat bladed screwdriver.

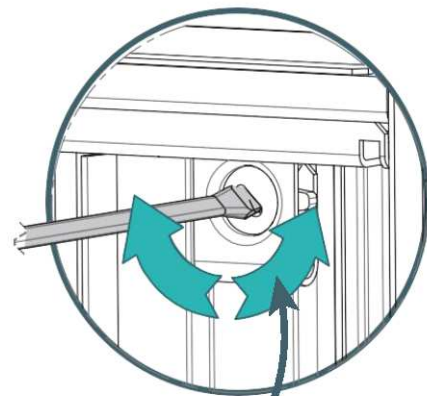


Figure 9. Damper adjustment

### Dimensions

Dimension range of a single damper (E×F):  
E: 55–1,000 mm  
F: 55–625 mm

## GM arched reclining dampers made of steel



### Intended use

The GM arched reclining dampers are used for adjusting the air flowing through ventilation grilles in medium- and low-pressure ventilation installations. A number of specifically shaped vanes direct air towards the grille exhaust ensuring better flow and acoustic characteristics compared to regular dampers. The GM dampers can be adjusted manually without disassembling the ventilation grille or diffuser. These types of dampers are particularly recommended for grilles fixed to round spiro ventilation ducts.

### Design

The body and actuating components of the GM dampers are made of galvanized steel profiles. The shaped vanes are made of aluminium.

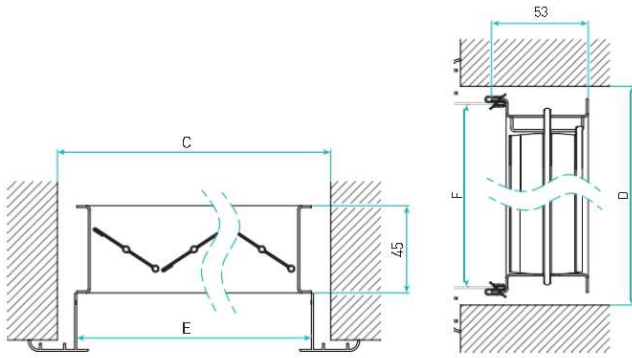


Figure 10. Dimensions of the damper, grille light (E x F) and mounting hole (C x D).

In the case of larger dimensions, dampers are installed in sets, in accordance with the table below.

E \ F	100	150	200	250	300	375	450	600	800	1000	1200	1500	1800	2000
100														
150														
200														
250														
300														
375														
450														
600														
800														
1000														
1200														
1500														
1800														
2000														

Figure 11. Chart with damper dimensions and their configuration

**When  $E \geq F$**  – the following configurations are in use: a, b, c, d, e.

**When  $E < F$**  – the following configurations are in use: f, g, h, i, j.

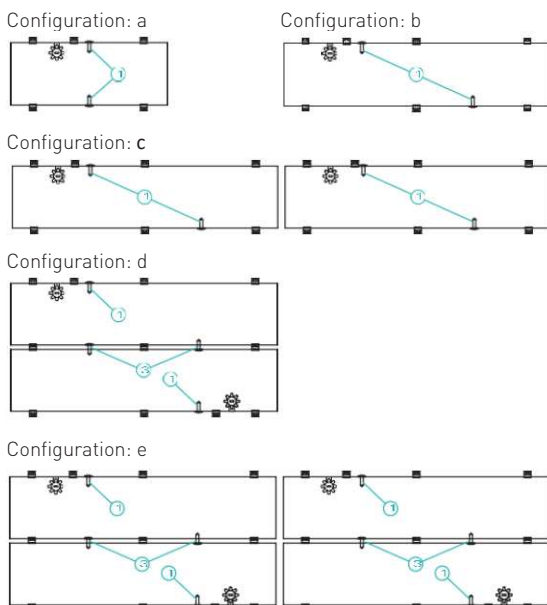


Figure 12. Ways of configuring dampers and division into sets regarding to the damper dimensions

1. For "a" – "e" configurations damper blades are oriented vertically.
2. For "f" – "j" configurations damper blades are oriented horizontally.
3. For "a" – "e" configurations, when  $E > 300$ , we recommend using additional fastening of dampers to grilles by means of two additional screws,
4. For "f" – "j" configurations, when  $F > 300$ , we recommend using additional fastening of dampers to grilles by means of two additional screws,
5. For "d", "e", "i" and "j" configurations we recommend using additional mutual fastening of two dampers by means of two additional screws.

### GT(N) slot dampers made of steel



Figure 13. GT steel damper

The GT steel dampers are used for adjusting the air flowing through ventilation grilles in medium- and low-pressure ventilation installations. The GT dampers can be adjusted manually. These types of dampers are particularly recommended for grilles fixed to round spiro ventilation ducts.

### Design

The GT dampers are made of galvanized steel profiles. The dampers can be made of stainless steel upon request (designated GTN).

### Dimensions

The standard dimensions are presented below. Upon request, we can deliver the GT dampers with any dimensions within the ranges of  $C < 1225$  and  $D < 825$ .

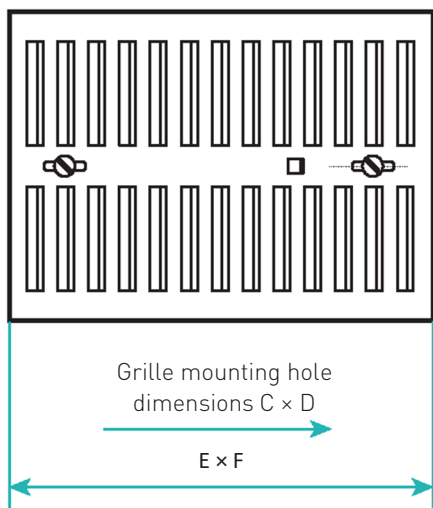


Figure 14. GT damper dimensions

Table 5. Standard dimensions

C/D	75	125	225	325	425	525	625	825
75								
225								
325								
425								
525								
625								
825								
825								
1025								
1225								

The standard dimensions are compatible with the standard dimensions of grilles and diffusers offered by Smay Sp. z o.o.

### L01 and L02 screen deflectors

Screen deflectors are used to improve air flow through ventilation grilles. Using deflectors, the air is evenly supplied over the entire surface of a ventilation grille or a diffuser. The L01 version is equipped with a steel screen with an effective area of 35% in relation to the total area. The L02 version is equipped with a steel screen with an effective area of 58%.

### Design

Both L01 and L02 screen deflectors are made of galvanised steel.

### Dimensions

The deflector dimensions are compatible with the standard dimensions of grilles and diffusers offered by Smay Sp. z o.o.

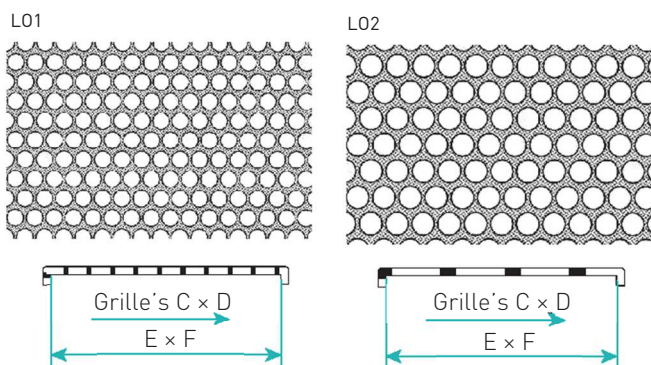


Figure 15. L01 and L02 screen deflector dimensions

## SR plenum boxes

### Intended use

The SR plenum boxes are connected to supply and exhaust diffusers. They are designed for low- and medium-pressure ventilation systems.

### Design

The SR plenum boxes are made of galvanised metal sheet as standard. Upon request, they can be painted in any RAL colour or made of stainless steel. They can be equipped with either a top or side nipple connection pipe and can optionally be equipped with a damper. The SR plenum boxes can be delivered insulated. Upon request, they can be equipped with a screen deflector.

As standard, the dimensions of connection pipes for rectangular boxes are selected according to the shorter side. For a 600 x 200 box the connection pipe dimension would be ø123.

Table 6. Sample SR plenum box dimensions

C [mm]	D [mm]	øD [mm]	Ød [mm]	H1 [mm]	H2 [mm]
up to 200	up to 200	up to 204	123	270	270
201-300	201-300	205-311	158	270	270
301-400	301-400	312-423	198	330	330
401-500	401-500	424-500	248	380	380
501-600	501-600	501-600	313*	430*	430*

\* For the SRR, the connection pipe ød = 248 mm and height H1 = H2 = 380 mm.

Boxes with different dimensions can be delivered upon request.

Table 7. Connection pipe lengths

connection pipe diameter Ød [mm]	galvanised steel		stainless steel	
	without a damper	with a damper	without a damper	with a damper
80-99	75	140	75	140
100-299	75	100	75	140
300-450	75	140	75	140

### Dimensions

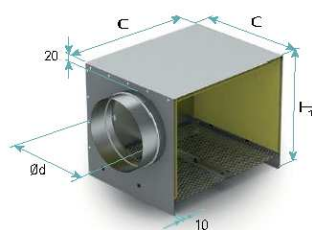


Figure 16. Dimensions of a rectangular box with a side connection pipe

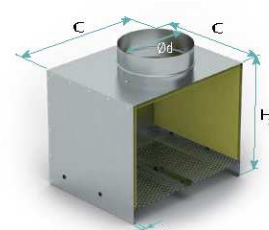


Figure 17. Dimensions of a rectangular box with a top connection pipe



More information on the damper is available in the data sheet:  
<https://www.smay.pl/product/skrzynki-rozprezne-sr/>