

Description and application:

Grille intake and exhaust used in low and medium pressure industrial facilities or public areas where it is necessary to exchange a large amount of air. Is designed to installation in walls, ceilings or directly on the ducts using visible screws in stamped holes in front frame or with an additional frame to hide the assembly elements. The air flow can be adjusted by GP damper with counter running blades located directly behind the grille or single-leaf damper P on spigot plenum box.

Grille has Hygienic Certificate

Material and workmanship

In standard grille is made of galvanized steel, whole grille is powder coated in white color RAL 9016. On request, it is possible to paint in any RAL color and execution of stainless steel or aluminum.

The manufacturer reserves the right to make technological changes.

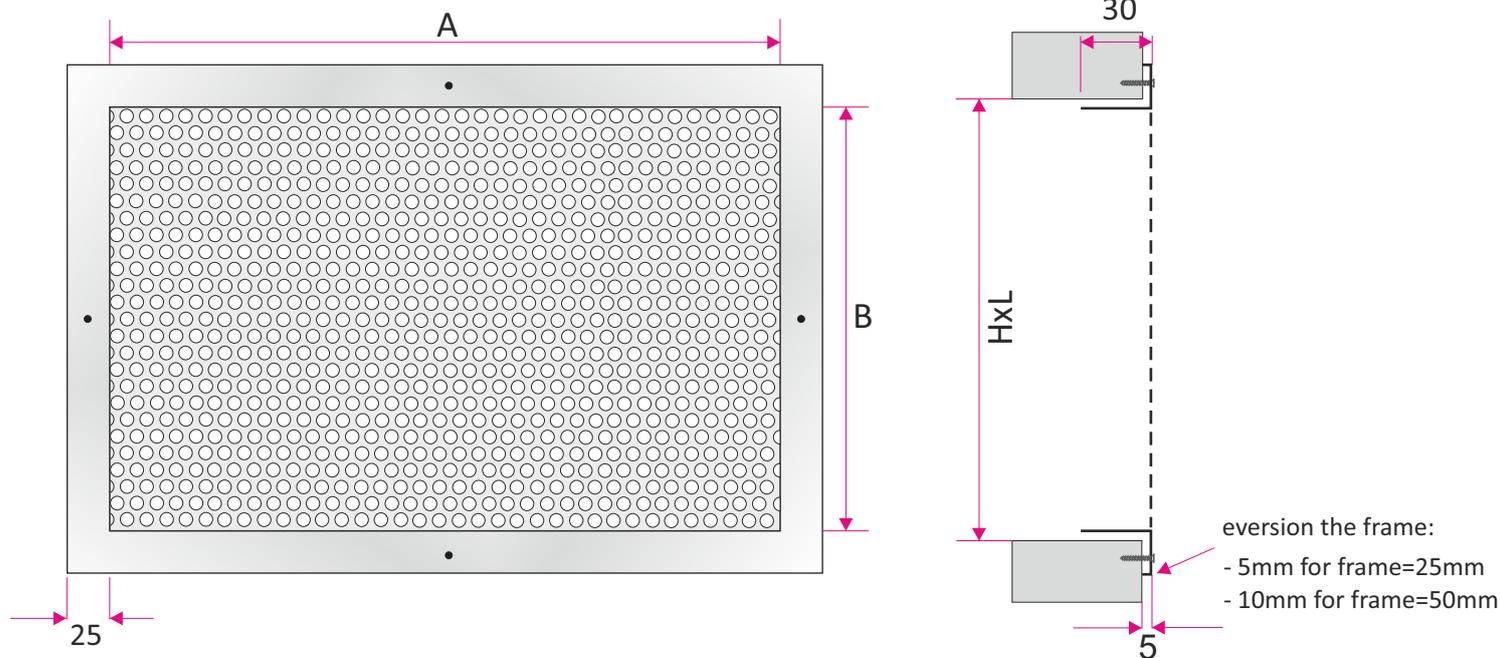
Size

Grilles are manufactured to order. Dimension grilles by the customer request (LxH).

Width of the frame for dimensions

L and H < 1000mm = 25mm

L and H > 1000mm = 50mm



The effective area for the perforation Rv 8-10 (mesh f 8)

H \ L	125	225	325	425	525	625	825	1025	1225
mm	Aef (m ²) - effective area								
75	0,004	0,008	0,012	0,016	0,019	0,023	0,031	0,038	0,046
125	0,008	0,014	0,021	0,028	0,034	0,041	0,054	0,068	0,081
225		0,027	0,039	0,052	0,064	0,077	0,102	0,127	0,152
325			0,058	0,076	0,094	0,112	0,149	0,186	0,222
425				0,099	0,124	0,148	0,196	0,245	0,293
525					0,154	0,184	0,244	0,303	0,363
625						0,220	0,291	0,362	0,434

On request, grille can be made with perforations of different size and layout of the mesh, and the formula.

clearance relative:

Rv 4-6 - mesh f 4 - 40,31%

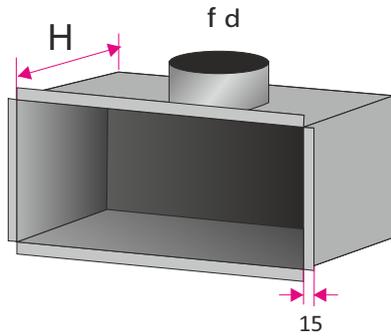
Rv 6-8 - mesh f 6 - 51,02%

Rv 8-10 - mesh f 8 - 58,05%

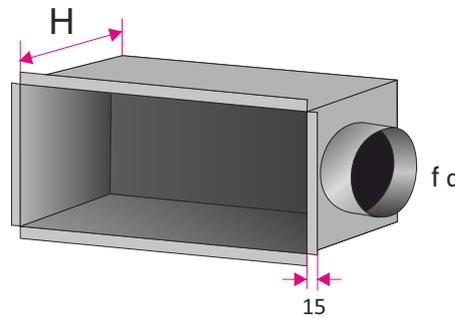
L and H grille mounting hole size

Accessories- plenum box

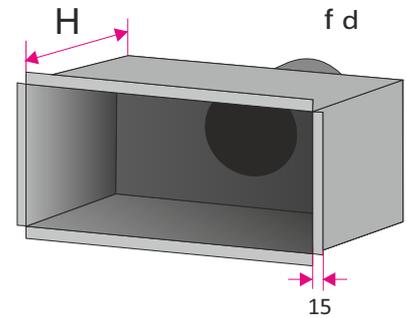
Plenum box is made of galvanized steel. On request it can be equipped with a damper control onto the connected spigot. The plenum box is isolated inside with rubber (acoustic) or outside with mineral wool (thermal). In the standard height of the plenum box is adapted to size of the spigot or diffuser size (you can specify the height of the plenum box).



SR-Gw - plenum box with the spigot on the top



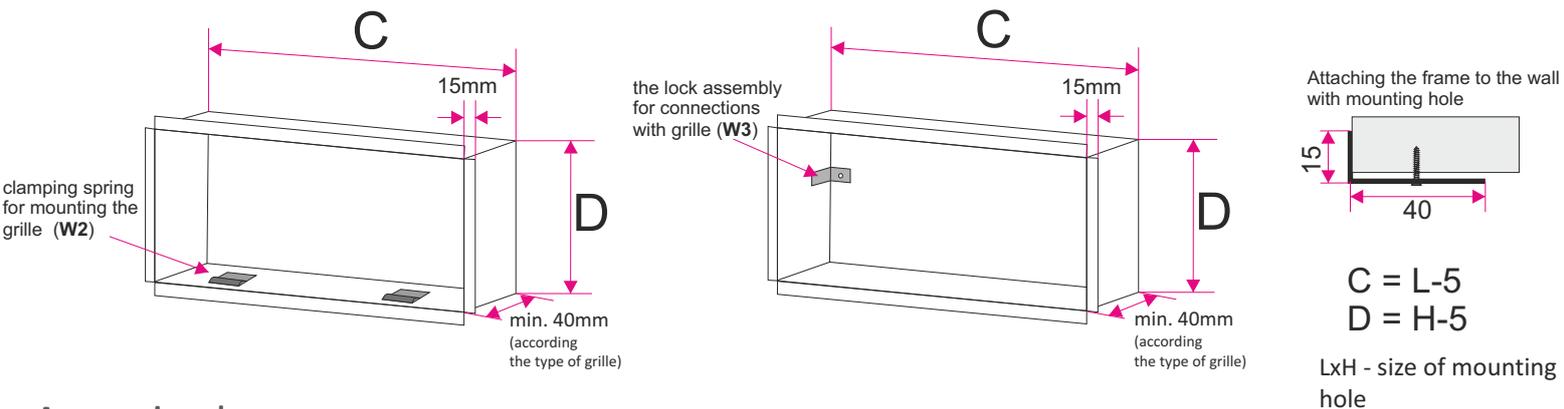
SR-Bw - plenum box with the spigot on the side



SR-Tw - plenum box with the spigot on the back

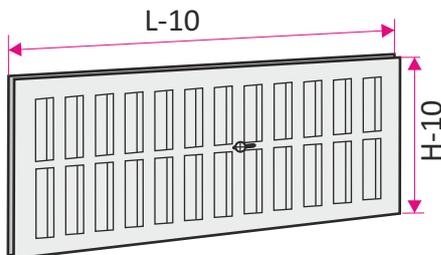
Accessories - RM frame for invisible installation

RM frame used in the ventilation holes for invisible mounting ventilation components. Mounting frame for grilles in standard are made of galvanized steel (in the case of aluminum grilles on request frame can be also aluminum). There is possibility to make mounting frame with a filter.

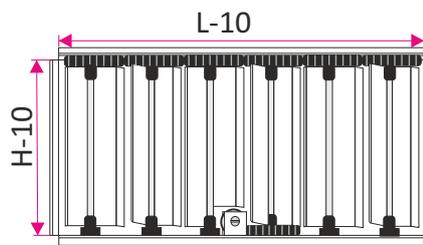


Accessories- dampers

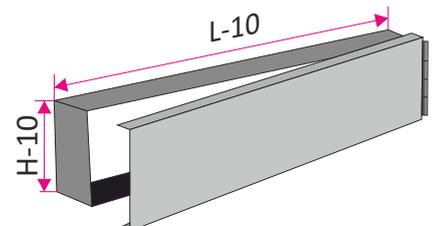
Grille KSO can also be equipped with a damper, positioned directly behind the grille blades. In this type of grill, damper regulation is possible from the front side of grille, after it's disassembly. Below there are the types of dampers used for the ventilation grilles.



GS - slot damper
(above the size of 525x425 the damper must be divided)

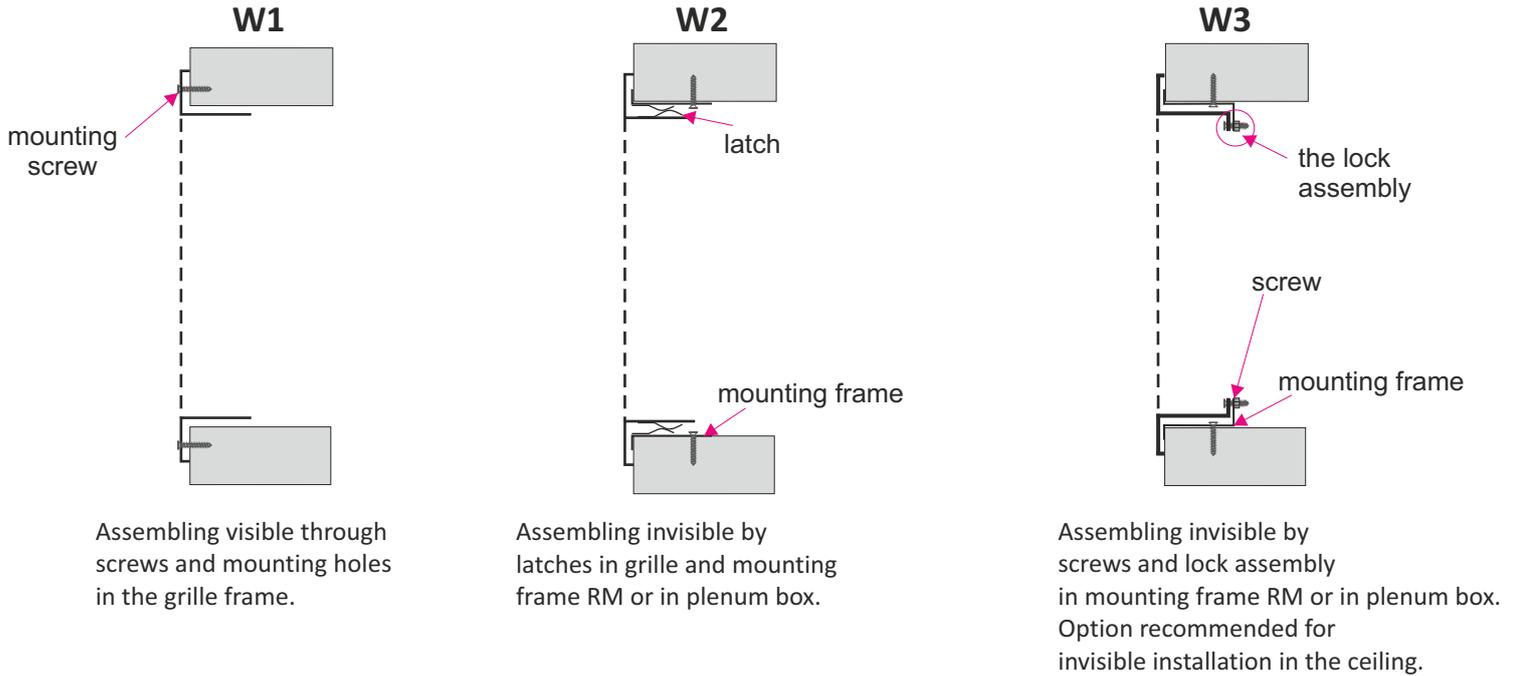


GP - damper with counter running blades
(above the size of 525x425 the damper must be divided)



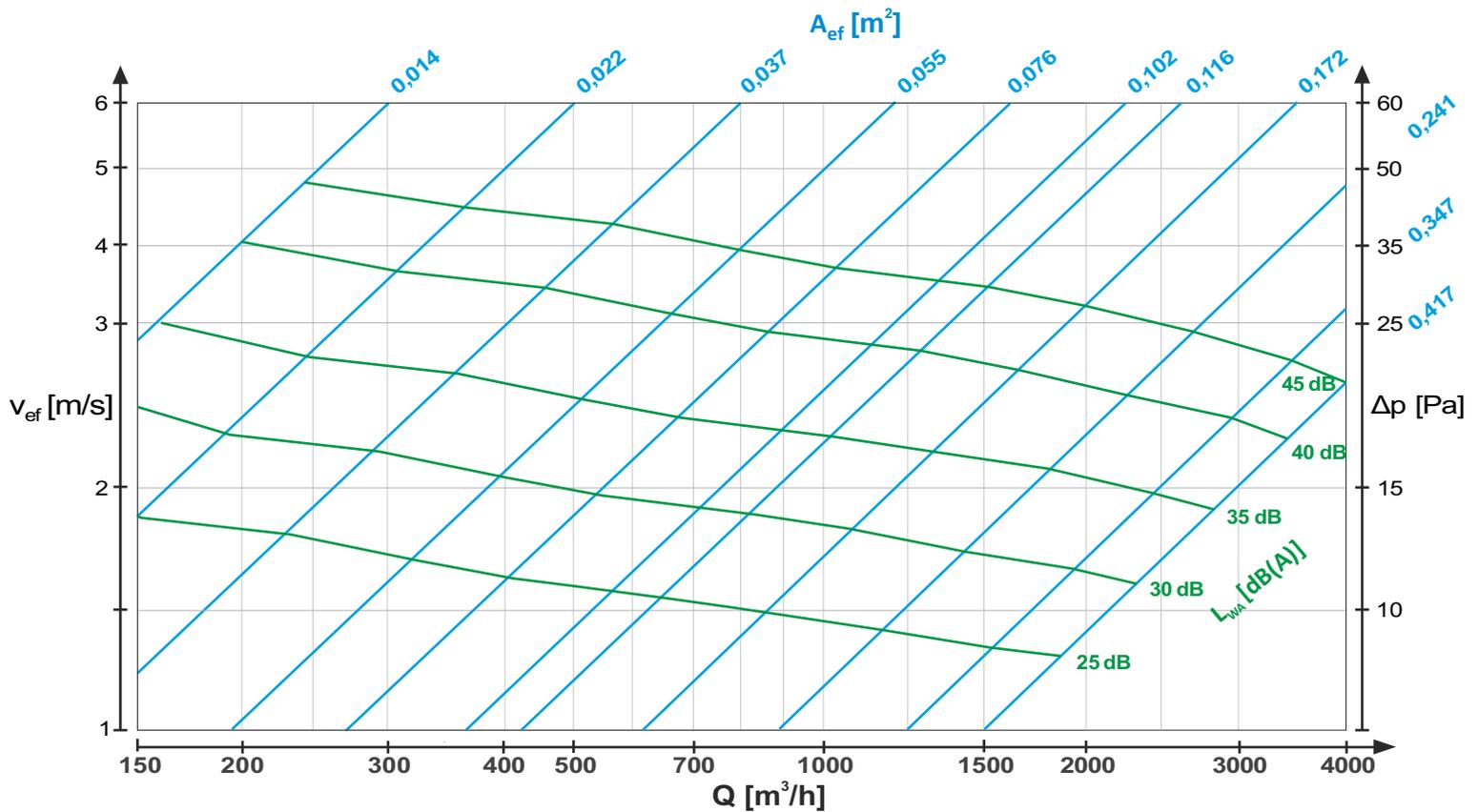
GU - cantilevered damper
(especially recommended for grilles to spiro channel)

Methods of mounting



Technical data

Pressure drop and acoustic power KSO-1



Symbol:

Q [m³/h]- air volume flow
 L_{WA} [dB(A)]- acoustic power level
 A_{ef} [m²]- effective area

Δp [Pa]- pressure drop
 v_{ef} [m/s]- effective speed

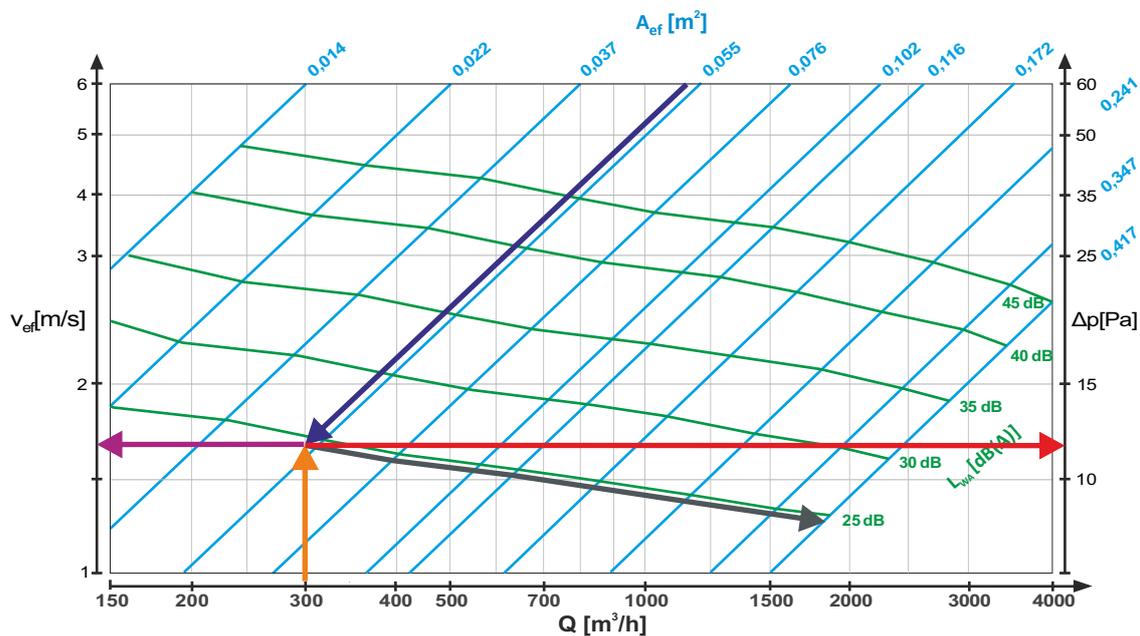
Effective area for the perforation Rv 4-6 (mesh f 4)

H \ L	125	225	325	425	525	625	825	1025	1225
mm	Aef (m ²) - effective area								
75	0,003	0,006	0,008	0,011	0,013	0,016	0,021	0,026	0,032
125	0,006	0,010	0,015	0,019	0,024	0,028	0,037	0,047	0,056
225		0,019	0,027	0,036	0,044	0,053	0,070	0,087	0,105
325			0,040	0,052	0,065	0,077	0,103	0,128	0,153
425				0,069	0,086	0,102	0,135	0,168	0,202
525					0,106	0,127	0,168	0,209	0,250
625						0,151	0,200	0,250	0,299

Effective area for the perforation Rv 8-10 (mesh f 8)

H \ L	125	225	325	425	525	625	825	1025	1225
mm	Aef (m ²) - effective area								
75	0,004	0,008	0,012	0,016	0,019	0,023	0,031	0,038	0,046
125	0,008	0,014	0,021	0,028	0,034	0,041	0,054	0,068	0,081
225		0,027	0,039	0,052	0,064	0,077	0,102	0,127	0,152
325			0,058	0,076	0,094	0,112	0,149	0,186	0,222
425				0,099	0,124	0,148	0,196	0,245	0,293
525					0,154	0,184	0,244	0,303	0,363
625						0,220	0,291	0,362	0,434

EXAMPLE:



EXAMPLE

Size KSO-1: 425x225

- For Rv8-10 $A_{ef}=0,052$ [m²]
- efficiency $Q=300$ m³/h

Odczyt z wykresu:

- acoustic power $L_{WA}=25$ dB
- drop pressure $\Delta p=12$ Pa
- effective speed $v_{ef}=1,7$ m/s

The method of placing an order

Please make orders according to the following formula:

KSO-1 / 'LxH' / 'RAL' / 'M' / 'W'

'LxH'	duct size/mounting hole size
'RAL'	grille color according to RAL palette (standard RAL9016*)
'M'	material: ST - powder coated steel* AL - aluminum powder coated KO - stainless steel / acid proof steel (type 1.4301 or 1.4404)
'W'	mounting option: W1, W2, W3
'SR'	- plenum box: SR-Gw - plenum box with top spigot connection SR-Bw - plenum box with side spigot connection SR-Tw - plenum box with back spigot connection
'I'	- isolation: none - plenum box without isolation* Iz - outside isolation (thermal) Iw - inside isolation (acoustic)
'P'	-adjustment damper at spigot connection: none - no damper* P - damper on spigot connection adjustable from the outside PP - damper on spigot connection adjustable from the inside
'K'	-diameter spigot connection in size mm
'H'	-the height of the plenum box in mm*

* - If you don't give the information will be used standard parameters.