

Description and application

Ventilation grilles double sides, have the function of equalizing-flow. They are part of the ventilation system to ensure flow between rooms and through building partitions. Grilles have still blades in the shape of an inverted V, blocking the visibility. Due to its construction grille flow are used in areas exposed to mechanical damage (boiler rooms, garages, gyms, as well as external air intakes louvres). On request it is possible to make the grille with a damper for controlling the flow of air. They are designed for mounting on ducts, walls and door leaves and garage doors (KWSP/D), using visible screws in stamped holes or pressed-in fitting in an additional mounting frame RM.

Grille has Hygienic Certificate HK/K/0522/01/2016

Material and workmanship

Grille is made of powder coated galvanized sheet steel. On the special request it can be made of stainless steel or aluminum and painted in any RAL color. Grilles do not have plastic components. Making the order give the information if the grille will be mounted inside or outside the building.

Size

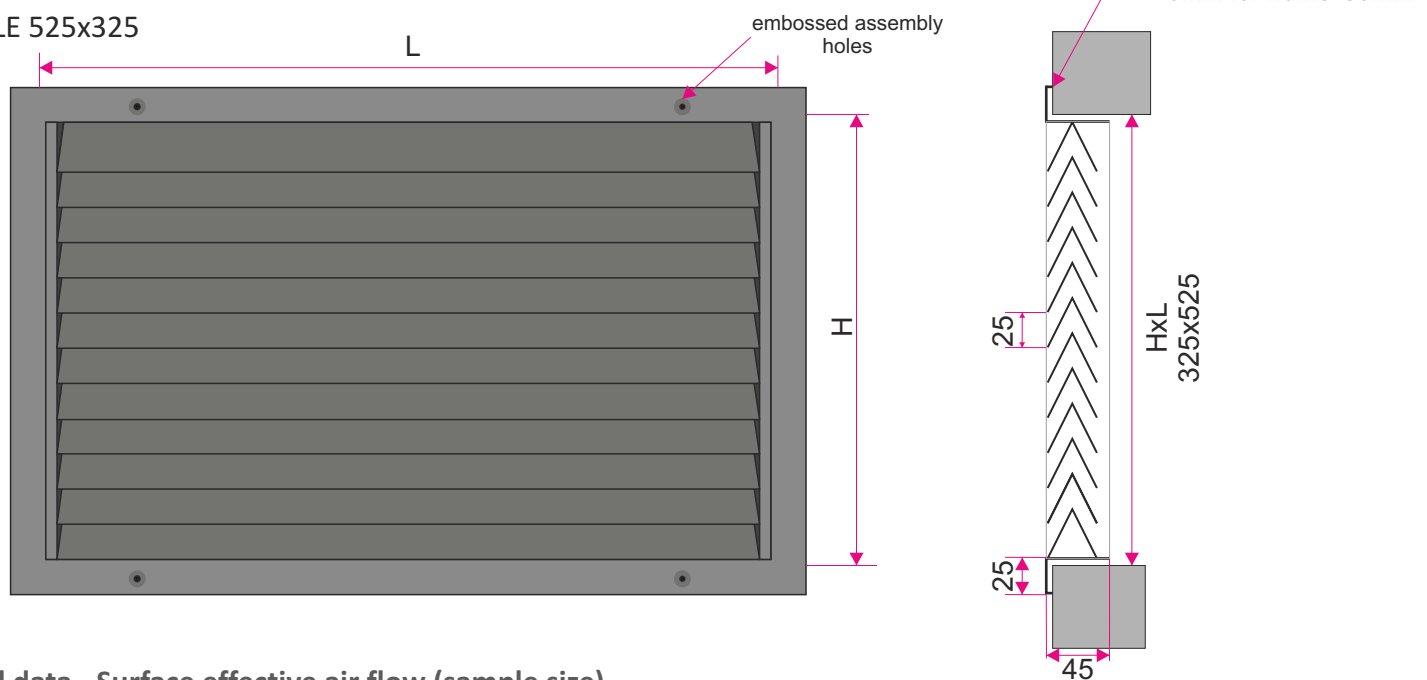
Grilles are manufactured to order. Grilles dimension by the customer request. For $L > 600$ louvre is divided.

The width of the frame:

L and $H < 1000\text{mm}$ = 25mm

L and $H > 1000\text{mm}$ = 50mm

EXAMPLE 525x325



Technical data - Surface effective air flow (sample size)

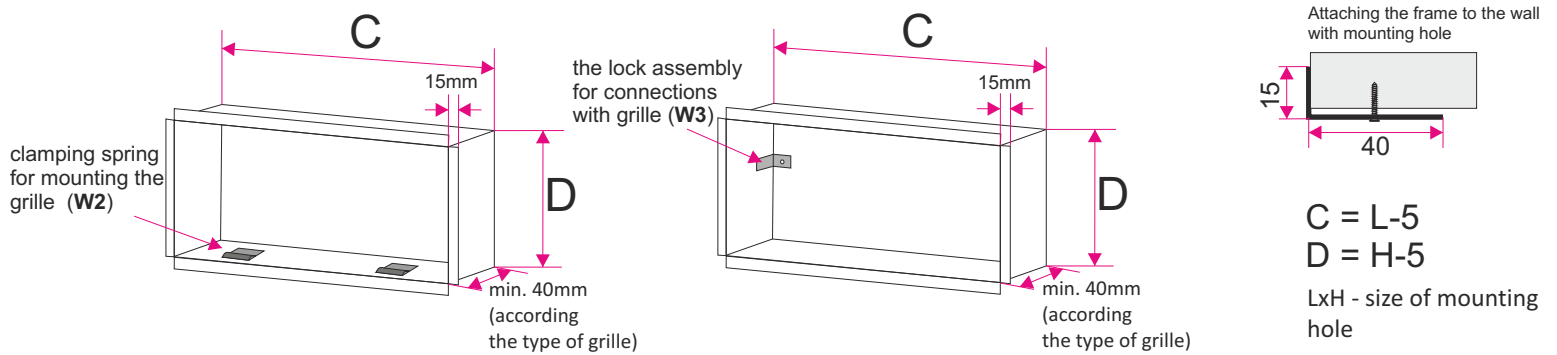
H \ L	225	325	425	525	625	825	1025	1225
mm	Aef (m ²) effective area							
125	0,008	0,012	0,015	0,018	0,022	0,029	0,035	0,041
225	0,018	0,026	0,034	0,042	0,051	0,066	0,082	0,099
325		0,040	0,052	0,065	0,077	0,103	0,128	0,153
425			0,069	0,085	0,102	0,135	0,168	0,202
525				0,106	0,127	0,168	0,210	0,250
625					0,157	0,208	0,262	0,310

Grilles are made on request.

The dimensions in the table are only used for determine the effective area the grille.

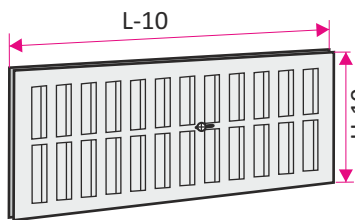
Accessories - RM frame for invisible installation

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.

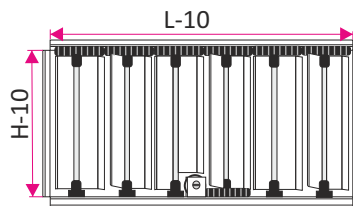


Accessories- dampers

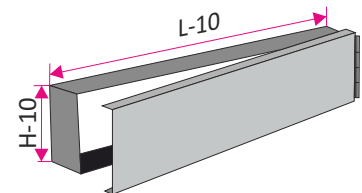
Grille KWSP can also be equipped with a damper, positioned directly behind the grille blades. In this type of grill, damper regulation is possible after it's disassembly. Below there are the types of dampers used for the ventilation grilles.



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

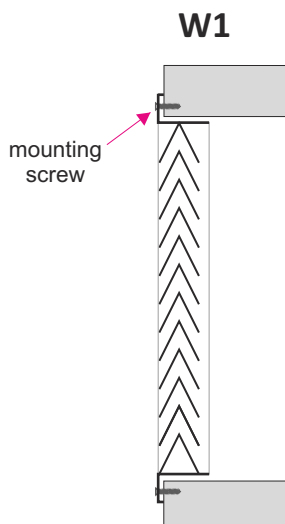


GP - damper with counter running blades
 (above the size of 525x425 the damper must be divided)

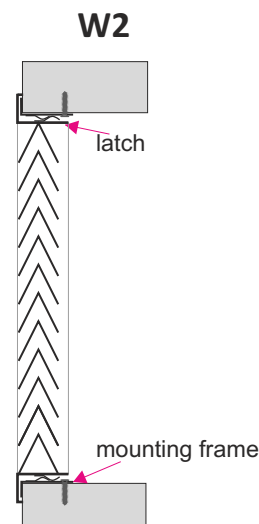


GU - cantilevered damper
 (especially recommended for grills to spiro channel)

Methods of mounting



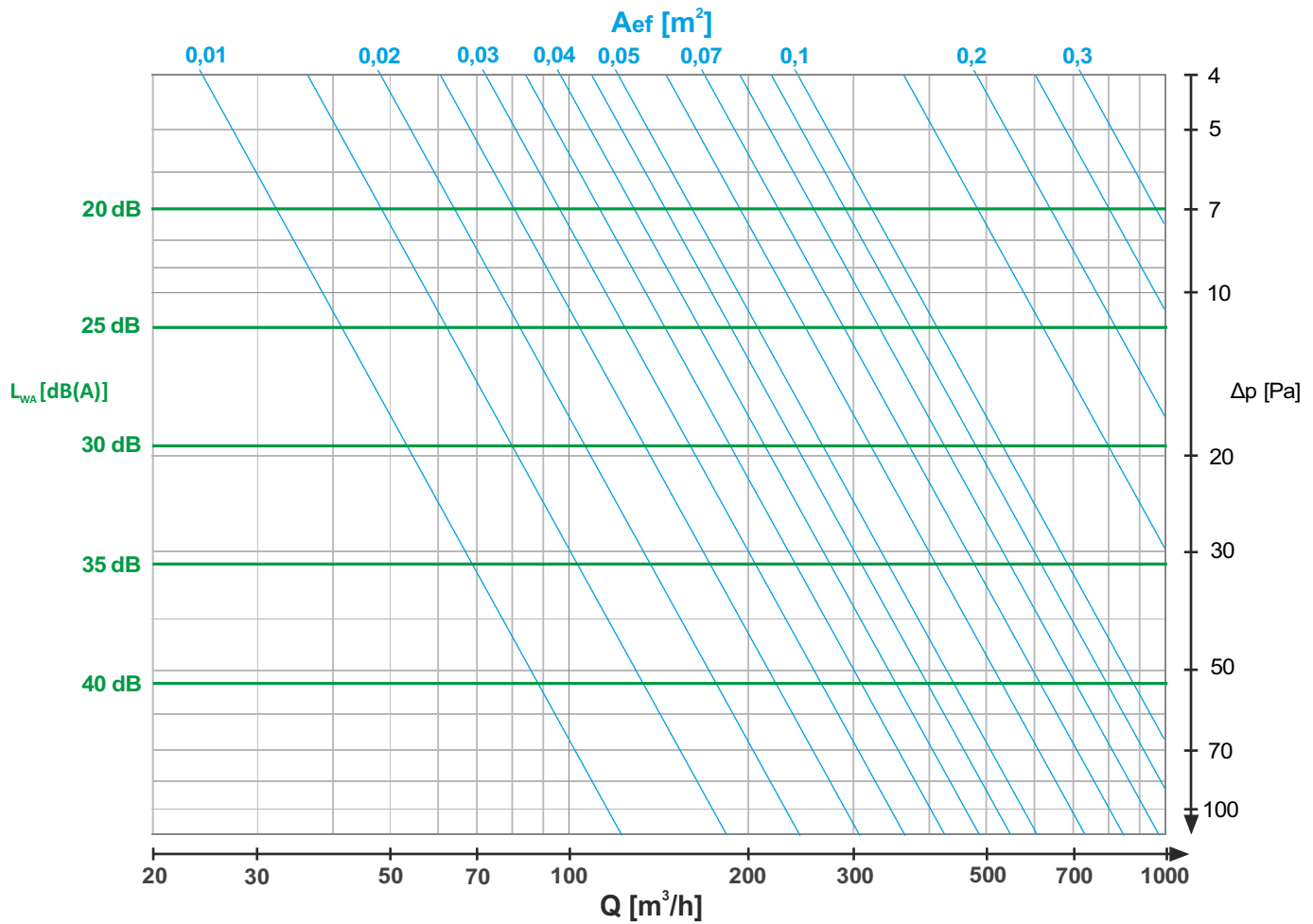
Assembling visible through screws and mounting holes in the grille frame.



Assembling invisible by latches in grille and mounting frame RM or in plenum box.

Technical data

Pressure drop and acoustic power



Marking:

Q [m^3/h]- air volume flow

L_{wa} [dB(A)]- acoustic power level

ΔP [Pa]- pressure drop

A_{ef} [m^2]- effective area of grille

EXAMPLE

EXAMPLE

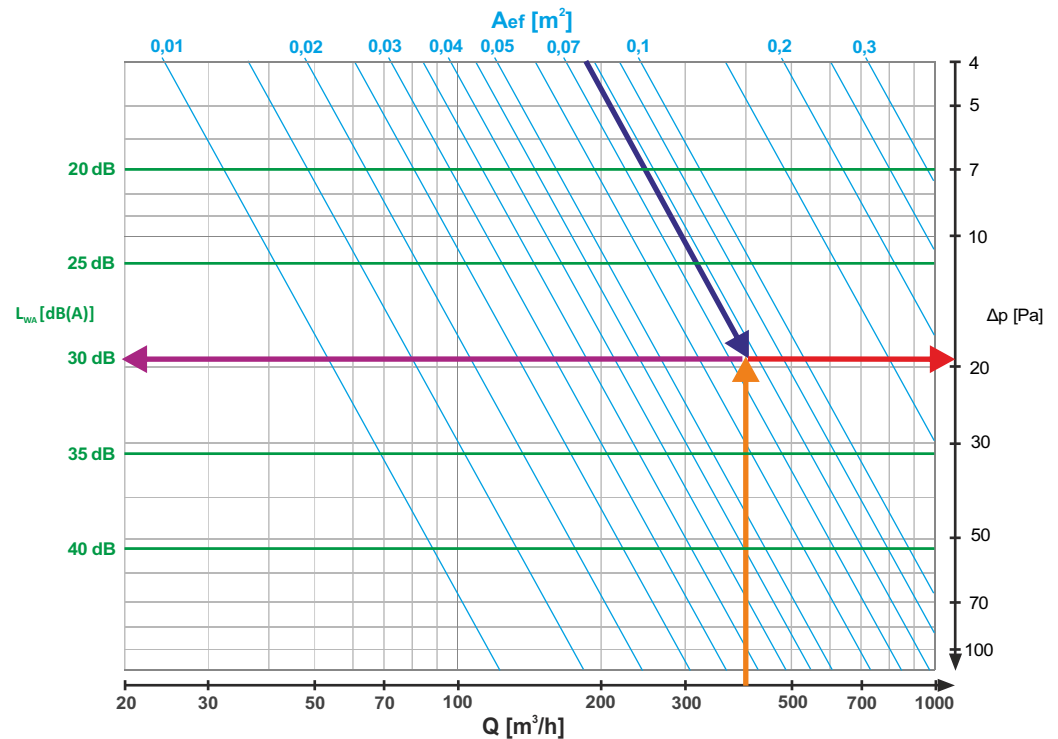
- efficiency of grille $Q=400 m^3/h$
- grille 625x325

Reading the table:

- $A_{ef}=0,077 [m^2]$

	225	325	425	525	625	825	1025	1225
mm	A_{ef} (m^2) effective area							
125	0,008	0,012	0,015	0,018	0,022	0,029	0,035	0,041
225	0,018	0,026	0,034	0,042	0,051	0,066	0,082	0,099
325		0,040	0,052	0,065	0,077	0,103	0,128	0,153
425			0,069	0,085	0,102	0,135	0,168	0,202
525				0,106	0,127	0,168	0,210	0,250
625					0,157	0,208	0,262	0,310

EXAMPLE CONTINUED



EXAMPLE

- $A_{ef} = 0,077$ [m²]
- efficiency of grille $Q = 400$ m³/h

Reading the graph:

- acoustic power $L_{WA} = 30$ dB
- pressure drop $\Delta p < 20$ Pa

The method of placing an order

Please make orders according to the following formula:

KWSP/ 'G' / 'LxH' / 'RAL' / 'M' / 'W' / 'MM'

- 'G'
- adjustment by damper
 - none**- grille without damper*
 - GP** - regulation by damper with counter running blades behind grille
 - GS** - slot damper
 - GU** - cantilevered damper
- 'LxH'
- mounting hole size (width x height) in mm
- 'RAL'
- grille color according to RAL palette (standard RAL9016*)
- 'M'
- material:
 - OC**- powder coated steel*
 - AL** - aluminum powder coated
 - KO** - stainless steel / acid proof steel (type 1.4301 or 1.4404)
- 'W'
- mounting option:
 - W1** - visible assembly through screws in holes in grille front frame *
 - W2** - invisible mounting using latch springs and additional mounting frame
- 'MM'
- mounting place
 - W** - inside building
 - Z** - outside building (elevations, outside doors)

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