

Description and application

Grille ALWP-1 has been created especially for buildings of high standard, where aesthetics are important in spaces such as hotels and conference rooms. Grille performs the functions of supply and exhaust air. It is designed for wall mounting in previously prepared mounting holes. The grille frame may have embossing on the screws, for attaching the grille directly to the wall, but because of the kind of frame it is recommended for invisible assembly with an additional mounting frame. Solid construction causes ALWP-1 is resistant to mechanical damage, while not losing any lightness (aluminum) so that it can also be mounted in sports halls.

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

Material and workmanship

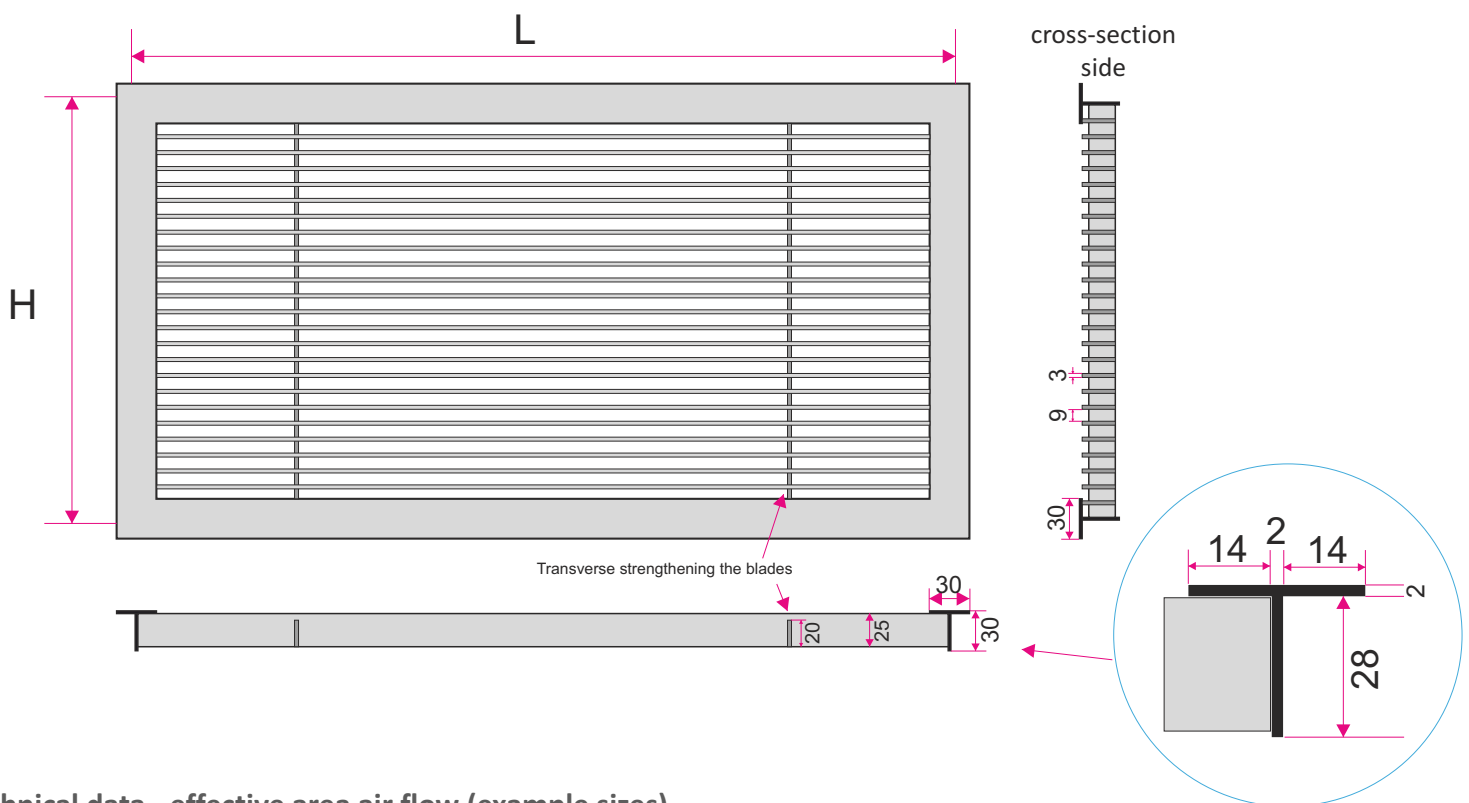
The grille is all made of aluminum powder coated. On customer request can be powder coated to any color from the RAL palette. Grille frame standard is made of an aluminum T-bar (T). Possible to do the frame of an aluminium angle bar (L).

Size

Grilles are manufactured to order. Grilles dimension by the customer request.

H - the height of the mounting hole

L - the width of the mounting hole



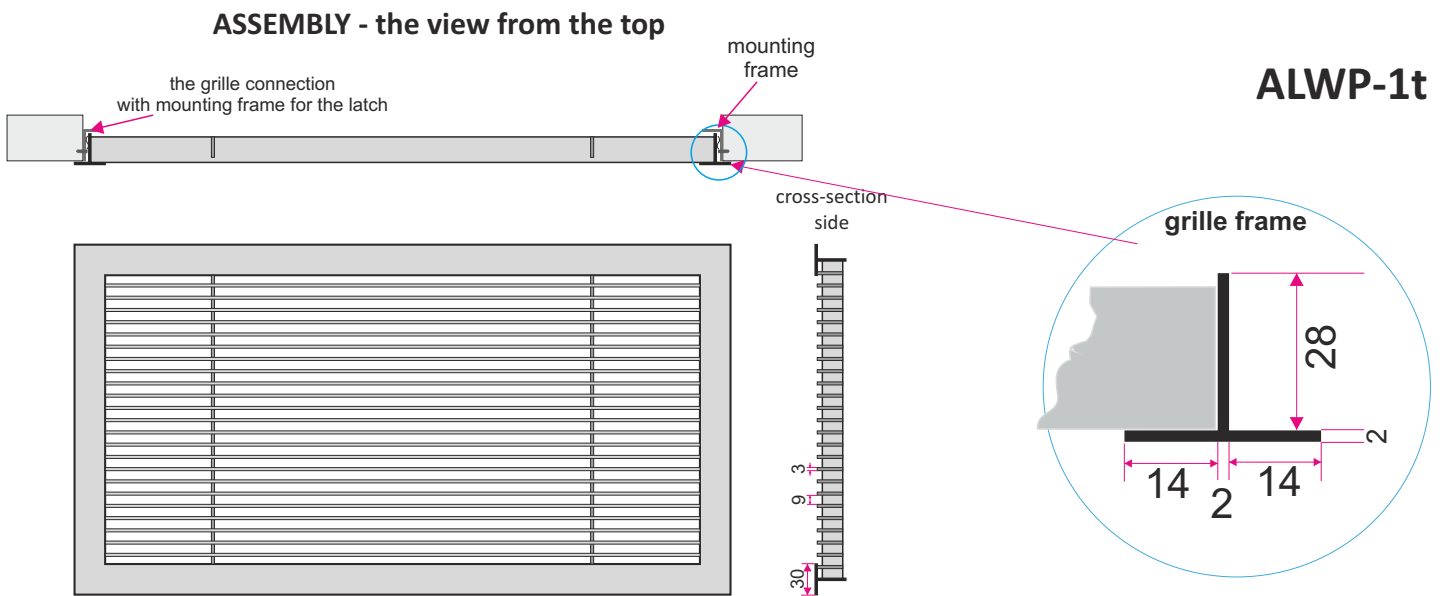
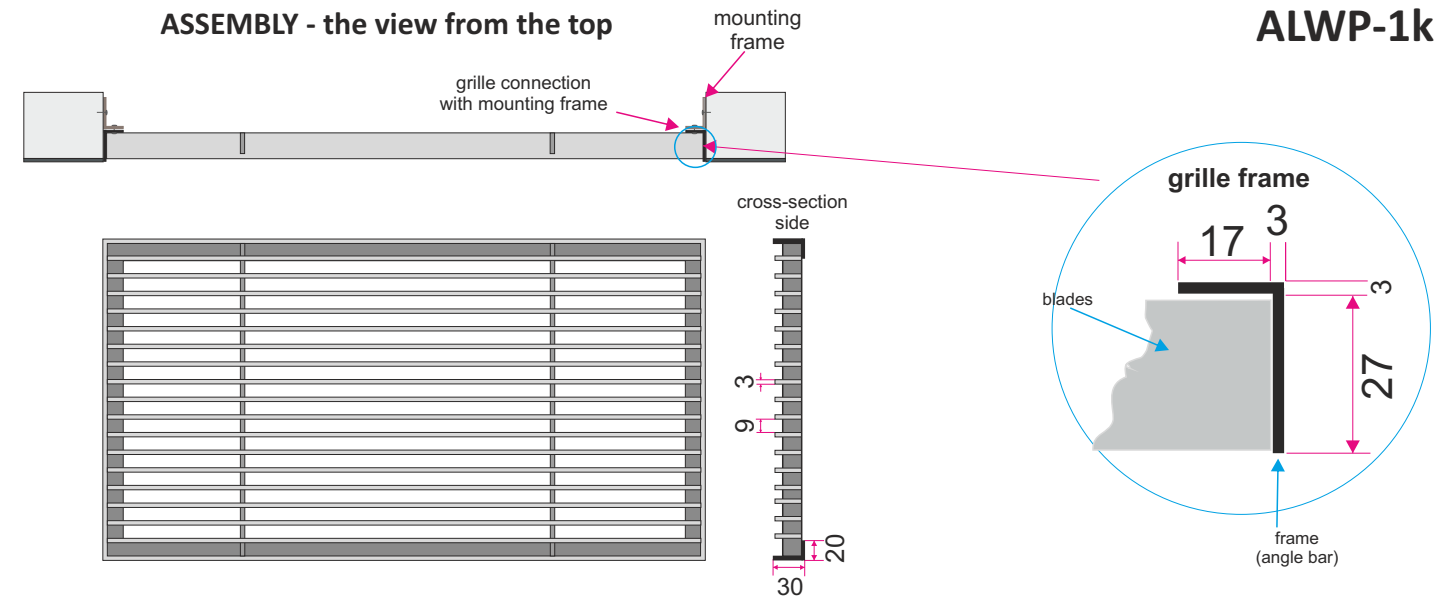
Technical data - effective area air flow (example sizes)

H [mm] \ L [mm]	100	200	300	400	500	600	800	1000	1200
A_{ef} (m ²) effective area									
100	0,003	0,007	0,011	0,016	0,020	0,025	0,034	0,045	0,054
200		0,018	0,026	0,043	0,054	0,066	0,091	0,115	0,139
300			0,050	0,069	0,088	0,108	0,147	0,187	0,224
400				0,095	0,121	0,148	0,202	0,256	0,310
500					0,155	0,190	0,257	0,326	0,395
600						0,231	0,316	0,400	0,485

Grilles are made to order, according to measures LxH. The dimensions in the table are only used for determining the grille effective area.

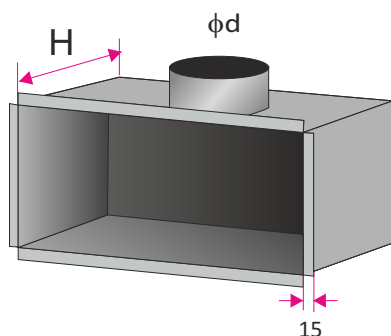
Execution details

Grille frame standard is made of an aluminum T-bar (ALWP-1t). Possible to do the grille in frame of an aluminium angle bar (ALWP-1k).

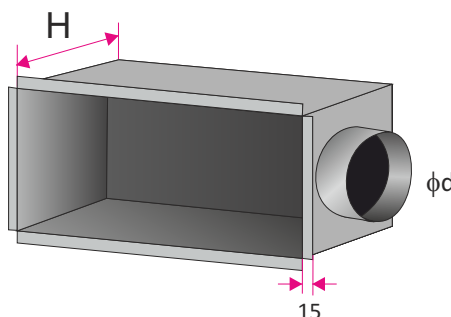


Accessories- plenum box

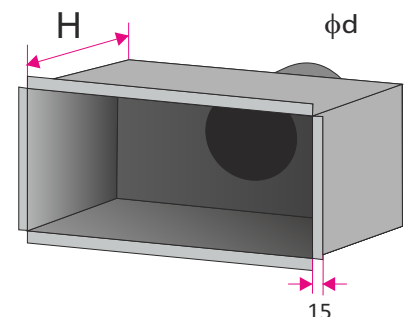
Plenum box is made of galvanized steel. On request it can be equipped with a damper control onto the connected spigot. The plenum box is isolated inside with rubber (acoustic) or outside with mineral wool (thermal). In the standard height of the plenum box is adapted to size of the spigot or grille size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



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



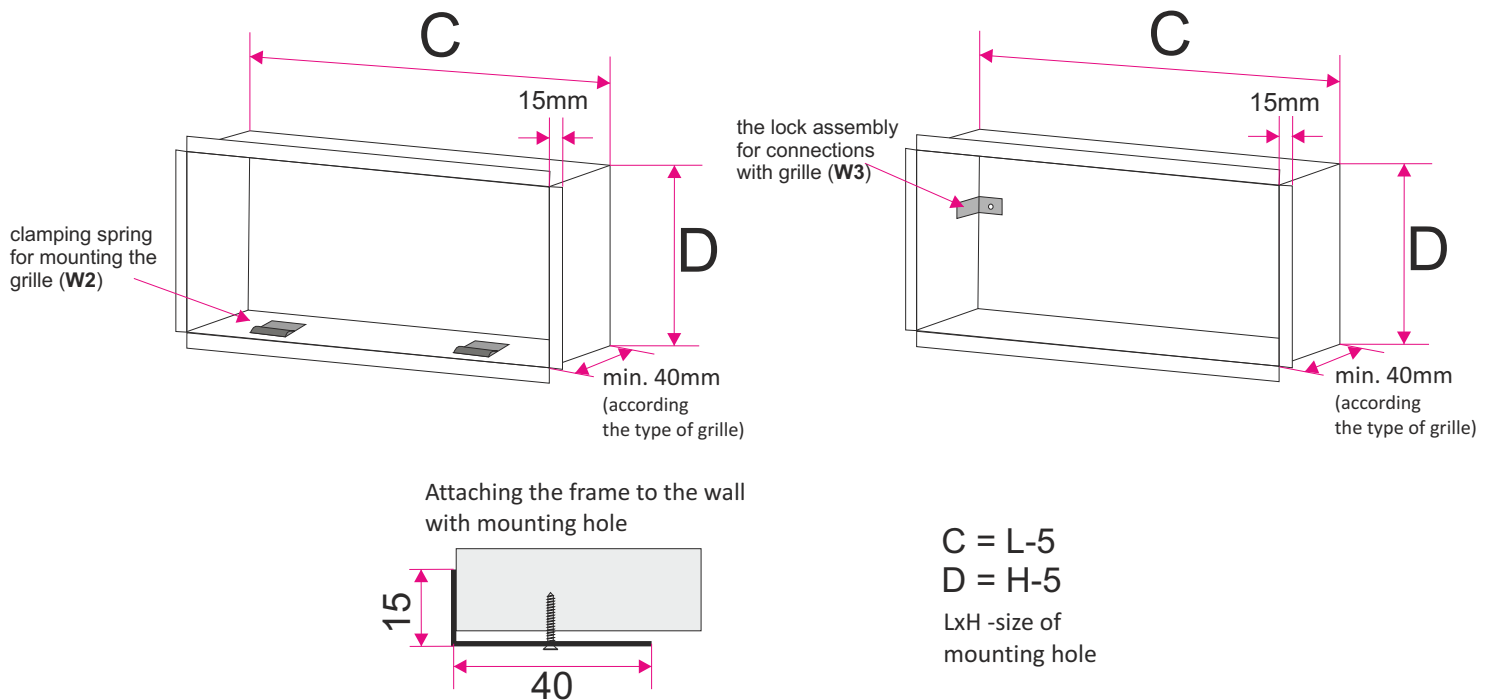
SR-Bw - plenum box with the spigot on the side



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

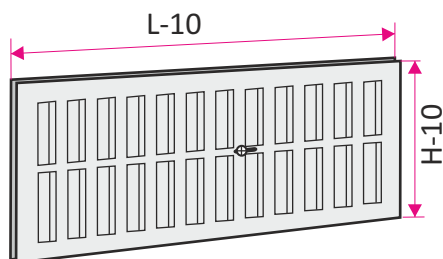
Accessories - RM frame for invisible installation

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.

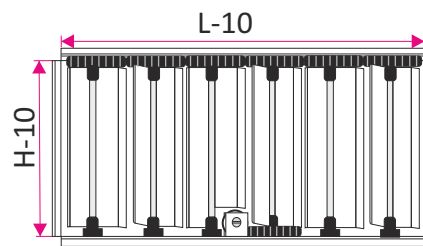


Accessories- dampers

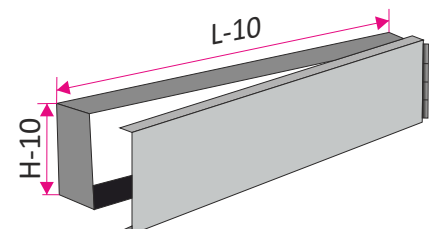
Grille ALWP-1 can also be equipped with a damper, positioned directly behind the grille blades. In this type of grill, damper regulation is possible from the front side of grille, without the need for disassembly (between the blades). Below there are the types of dampers used for the ventilation grilles.



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

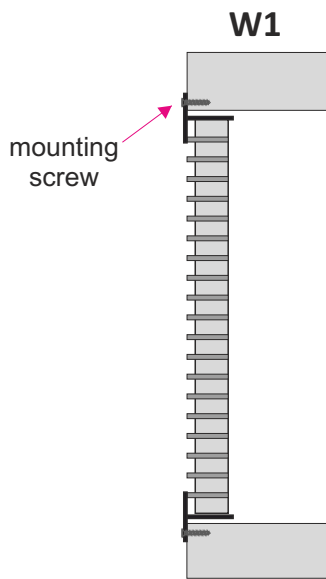


GP - damper with counter running blades
 (above the size of 525x425 the damper must be divided)

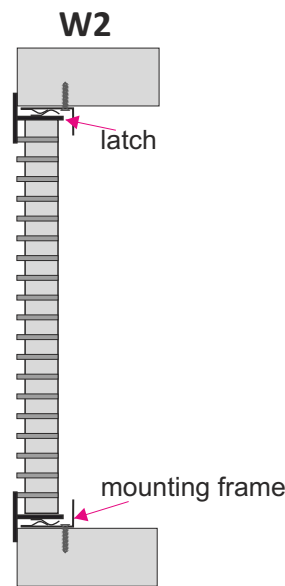


GU - cantilevered damper
 (especially recommended for grills to spiro channel)

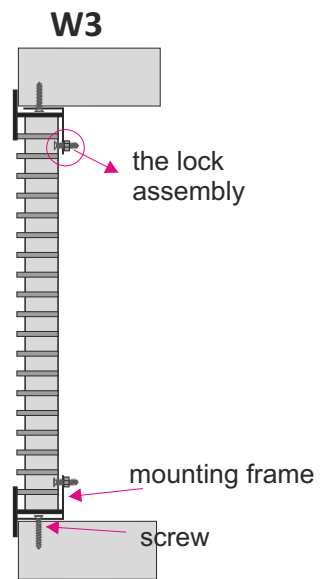
Methods of mounting - ALWP-1t



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



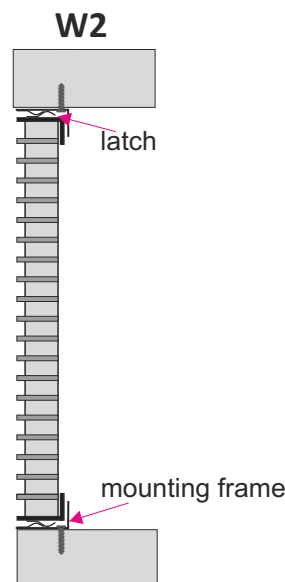
Assembling invisible by latches in grille and mounting frame RM or in plenum box.



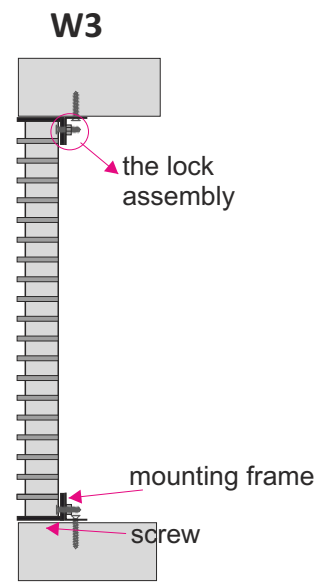
Assembling invisible by screws and lock assembly in mounting frame RM or in plenum box. Option recommended for invisible installation in the ceiling.

Methods of mounting - ALWP-1k

W1
no option



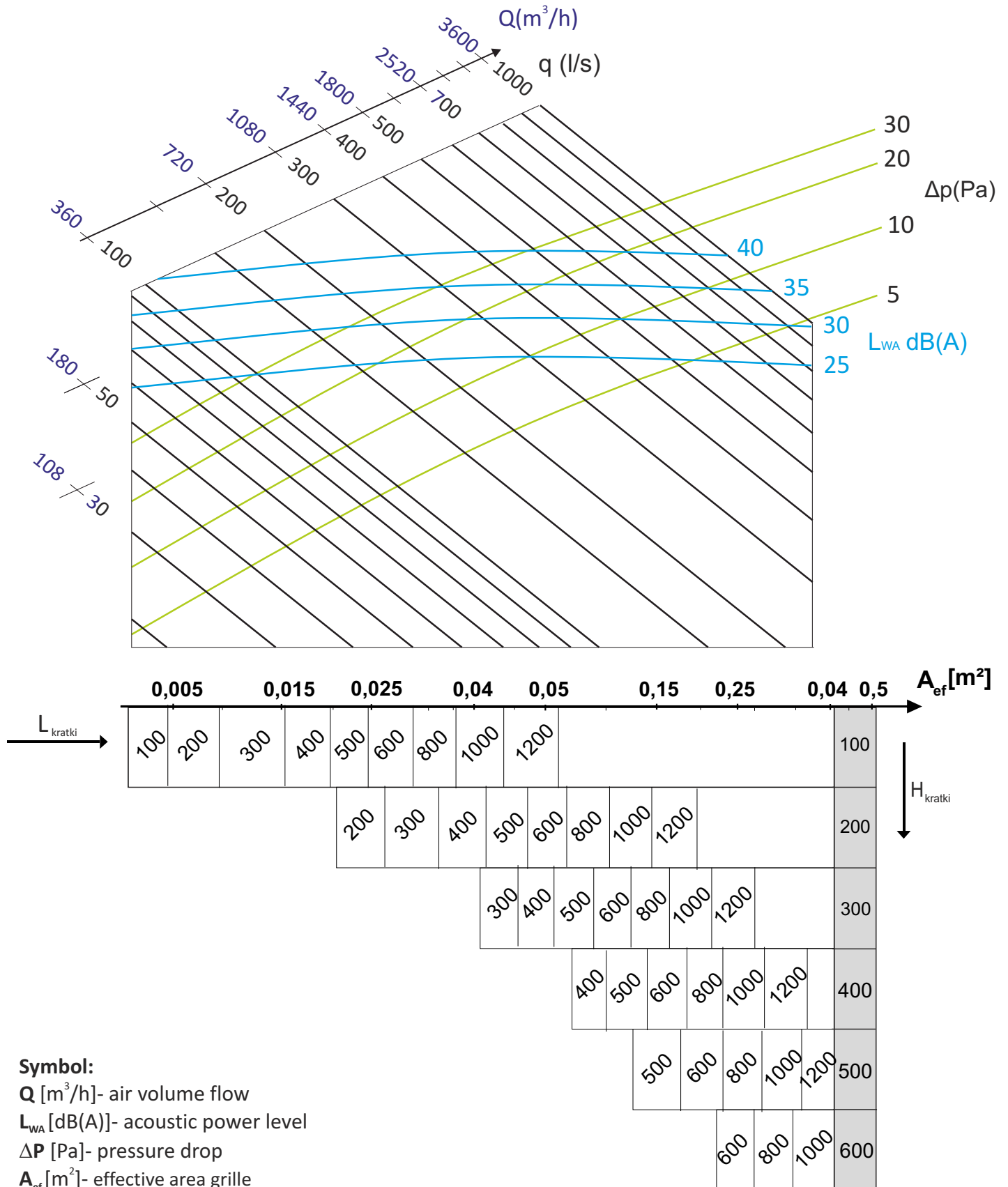
Assembling invisible by latches in grille and mounting frame RM or in plenum box.



Assembling invisible by screws and lock assembly in mounting frame RM or in plenum box. Option recommended for invisible installation in the ceiling.

Technical data

The dependence of pressure drop Δp (Pa) and acoustic power level L_{WA} (dB) of air volume flow Q (m³/h).



Symbol:

Q [m³/h]- air volume flow

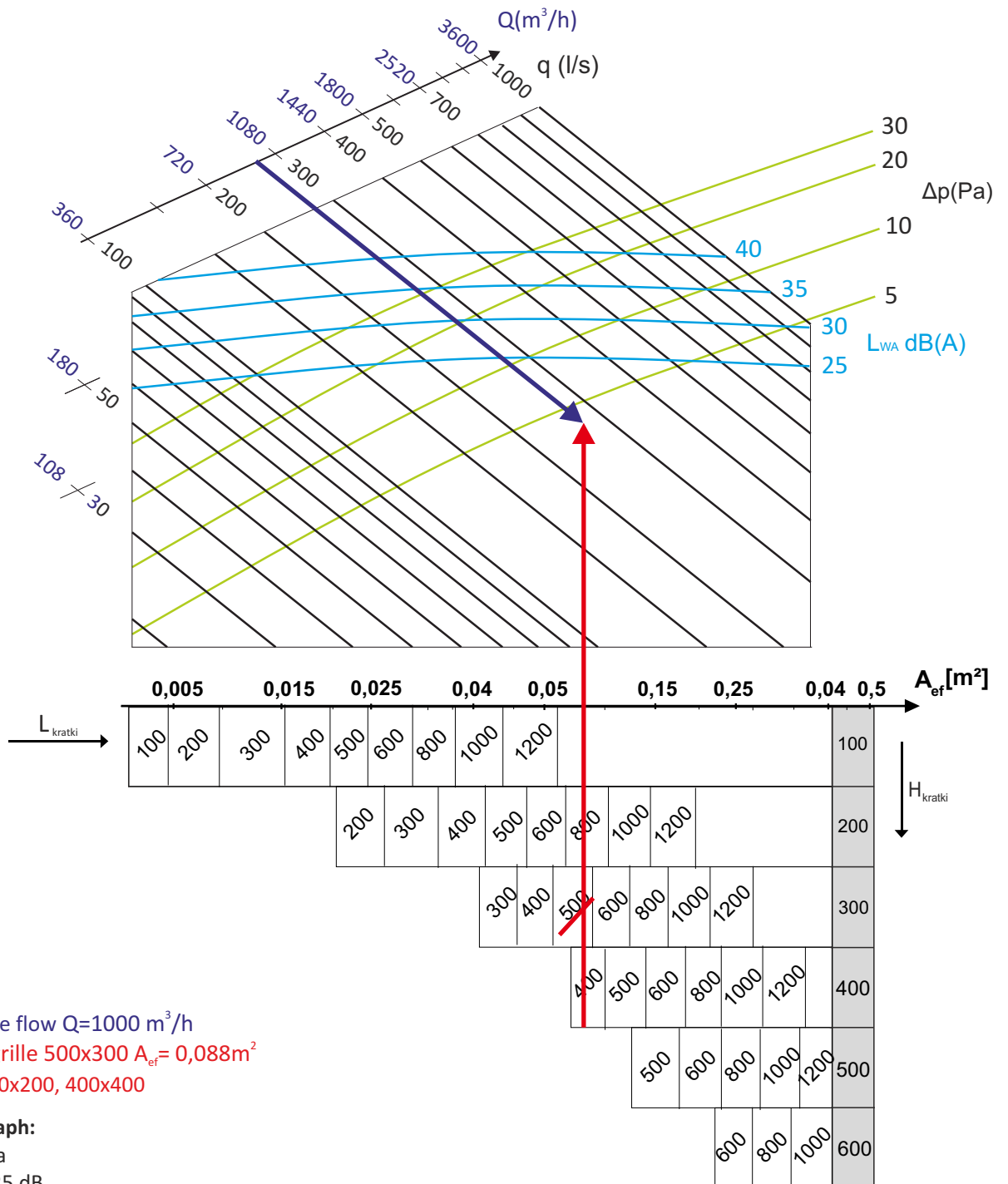
L_{WA} [dB(A)]- acoustic power level

ΔP [Pa]- pressure drop

A_{ef} [m²]- effective area grille

EXAMPLE

H [mm] \ L [mm]	100	200	300	400	500	600	800	1000	1200
A _{ef} (m ²) effective area									
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EXAMPLE

- specified air volume flow $Q=1000$ m³/h
- effective area of grille 500×300 $A_{ef} = 0,088$ m²
alternative size: 800×200 , 400×400

Reading from the graph:

- pressure drop: 5 Pa
- acoustic power: <25 dB

The method of placing an order

Please make orders according to the following formula:

ALWP-1/ 'R' / 'G' / 'LxH' / 'RAL' / 'W' + 'SR' / 'I' / 'P' / 'K' / 'H'

'R'	the frame type t - frame with aluminum T-bar (T) k - frame with aluminum angle bar (L)
'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*)
'W'	- mounting option: W1 - visible assembly through screws in holes in grille front frame * W2 - invisible mounting using latch springs and additional mounting frame W3 - invisible assembly using screws, and an additional mounting frame
'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* lz - outside isolation (thermal) lw - 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.