Description

Intake/exhaust grille pitch 100 mm. Inclined blades with anti-rain profile. Fixing by visible frontal screws. It is commonly used for air intake/exhaust in air conditioning/ ventilating systems usually in the industrial field.

Dimensions

B (mm): 400 - 2000 (with increments of 100)
H (mm): 350 - 2050 (with increments of 100)

Construction

Galvanised steel sheet frame thickness 15/10, galvanised steel blade thickness 10/10.

Finish

Galvanised steel.

Other versions

GVZ 100 R : with anti-mouse mesh.

GVZ 105 : with adjustment damper.

GVX 100 : stainless steel execution.

GVA 100 : anodised aluminium execution.

Accessories

CTZ : galvanised steel counterframe thickness 20/10.

Specifications

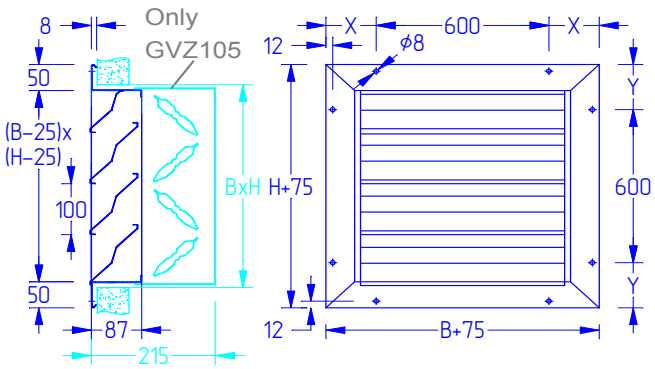
Intake/exhaust grille pitch 100 mm. Construction in galvanised steel sheet. Fixing by visible screws.

B (mm)	X (mm)	N*
400	237,5	1
500	287,5	1
600	337,5	1
700	387,5	1
800	137,5	2
900	187,5	2
1000	237,5	2
1100	287,5	2
1200	337,5	2
1300	387,5	2
1400	137,5	3
1500	187,5	3
1600	237,5	3
1700	287,5	3
1800	337,5	3
1900	387,5	3
2000	137,5	4

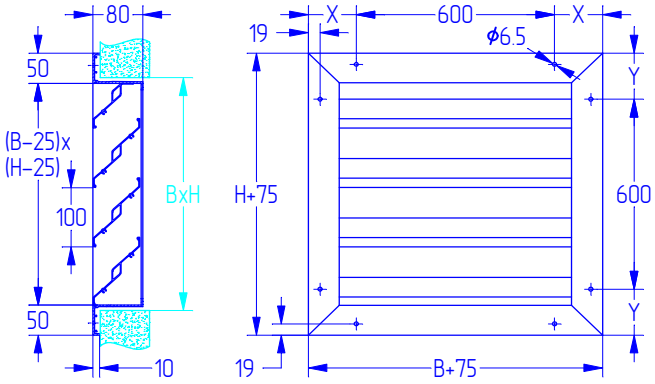
** n° of holes on each side*

H (mm)	Y (mm)	N*
350	212,5	1
450	262,5	1
550	312,5	1
650	362,5	1
750	112,5	2
850	162,5	2
950	212,5	2
1050	262,5	2
1150	312,5	2
1250	362,5	2
1350	112,5	3
1450	162,5	3
1550	212,5	3
1650	262,5	3
1750	312,5	3
1850	362,5	3
1950	112,5	4
2050	162,5	4

** n° of holes on each side*



GVZ/GVX 100



GVA 100

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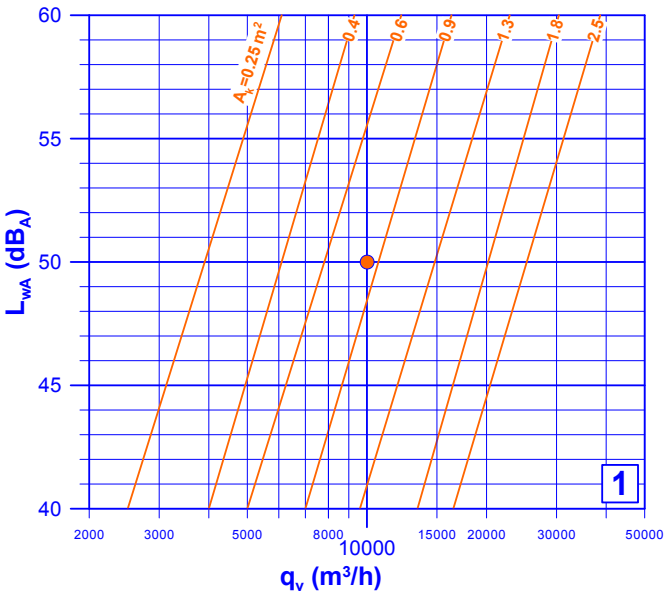
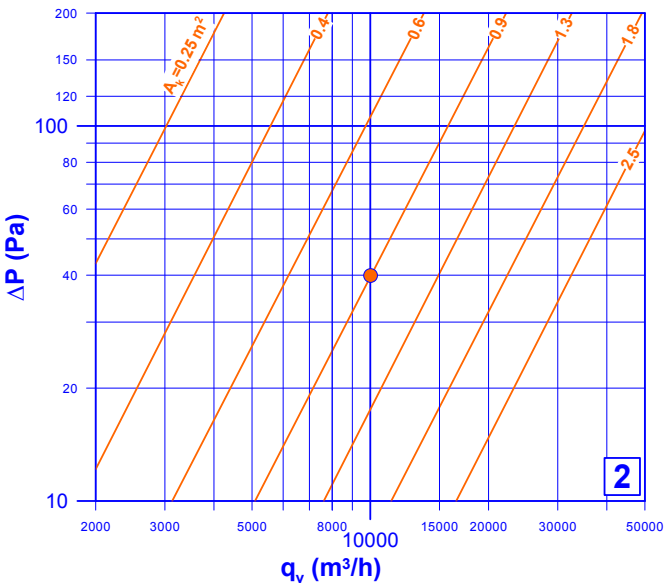
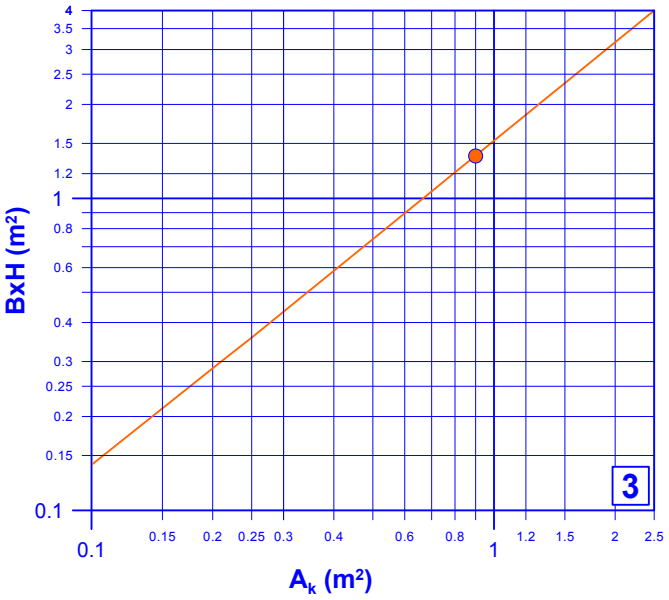
Performances







Selection

1. At the requested air flow q_v , with allowed sound power level L_{WA}, you can determine from diagram 1 (by excess) the effective area A_k which the grille must have.
2. At the requested air flow q_v, with the value A_k resulting at point 1, from diagram 2 you can check that the pressure drop ΔP is compatible with the plan's value.
3. With the value A_k resulting at point 1, from diagram 3 you can determine the product BxH, therefore the nominal dimensions **B** and **H** of the grille (setting for instance B and getting H).

Example

You must intake 10000 m³/h air from a room where a sound power level L_{WA} of 50 dB$_A$ is allowed. You want to select a grille of the correct dimensions.

From the first diagram you get A_k < 0,9 m² you choose A_k = 0,9 m²

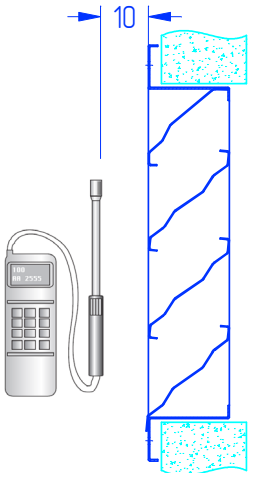
From the second diagram you have : ΔP = 40 Pa

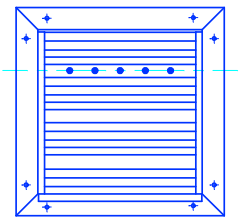
From the third diagram you find out that a grille with A_k = 0,9 m², has BxH equal to about 1,4 m² : you can use for example a grille 1400 x 1000 mm or a 2000x700 mm.

Air flow calculation

It is necessary to position the velocity probe to measure v_k as showed in the picture. You must use hot wire anemometers taking care to orient the reading "window" against the flow. In each point you must measure the average velocity in an interval of time of at least 1 minute (average in time). In order to get the air flow you must calculate therefore the arithmetic mean ($\tilde{v}_k$) of the values measured in this way and multiply it by the value of A_k resulting from the third diagram.

$$q_v = \tilde{v}_k \times A_k \times 3600$$





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