

TECHNICAL SPECIFICATION
Shielded Honeycomb air vent



Description

Honeycomb vent are utilized to obtain effective electromagnetic shielding while assuring, at the same time, excellent airflow. The filters may be provided in various materials, with or without frame and gaskets (and environmental sealing), ready for installation.

Applications

They are used in all apparatus where electromagnetic shielding and airflow are required, such as for example, military, shelter, electrical control panel, etc., air conditioning systems.

MATERIALS

Honeycomb filters may be realised in different materials according to the requested utilisation.

Brass

Utilized both in the industrial and military sectors: excellent resistance to corrosion and reasonable costs.

Shielding Effectiveness from 1 KHz to 40 GHz.

Steel – C1010

This is the type most utilised, both in civil and military applications, for the correct compromise between costs, performance and corrosion resistance. This resistance may be improved with painted coatings (both conductive and/or protective from the aggression of external elements).

Shielding Effectiveness from 1 KHz to 40 GHz.

Stainless steel SS304

Utilisation both in civil and military sectors, excellent for all environments.

Shielding Effectiveness from 1 KHz to 40 GHz.

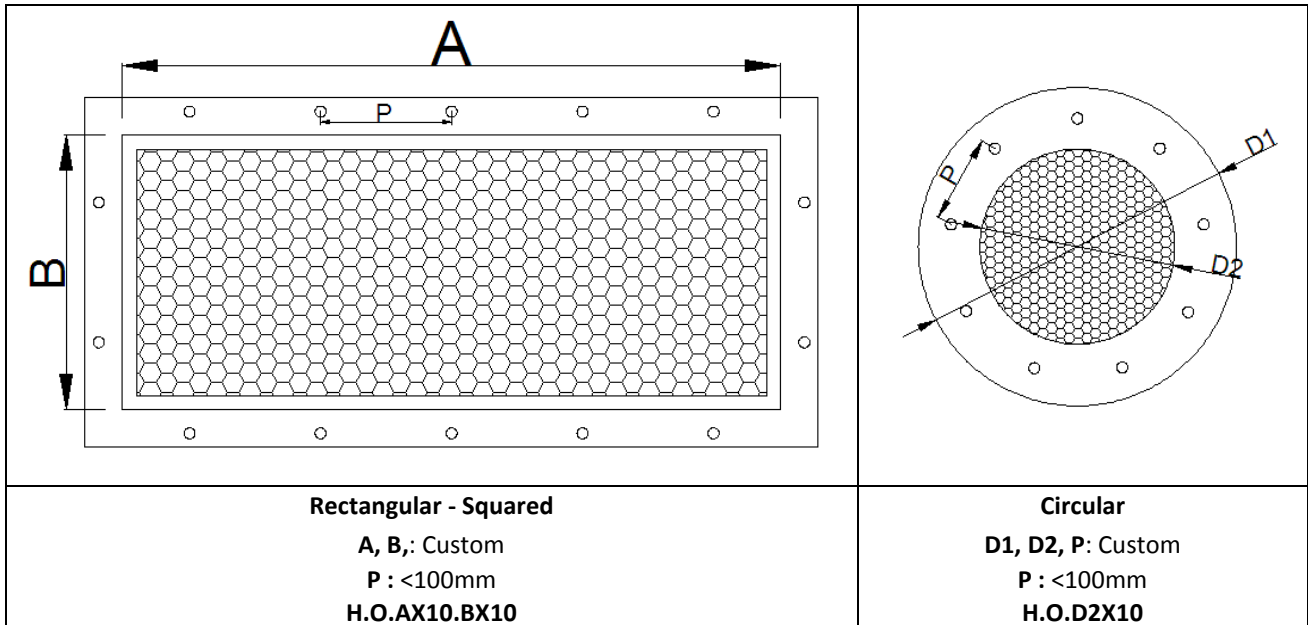
PART NUMBER FORMULATION

Example:

H.O.9000.3000.25,4MM.S.3/16".L

H.O.2600.12,7MM.BR.1/8".H1

1. Shape

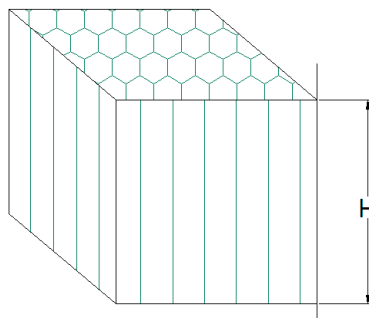


Example:

H.O.9000.3000.25,4MM.S.3/16".L

H.O.2600.12,7MM.BR.1/8".H1

2. Filter width



The width of the filter can be 12.7 mm (1/2") or 25.4 mm (1")

Example:

H.O.9000.3000.25,4MM.S.3/16".L

H.O.2600.12,7MM.BR.1/8".H1

3. Material

BR -Brass

Utilized both in the industrial and military sectors: excellent resistance to corrosion and reasonable costs.

Shielding Effectiveness from 1 KHz to 40 GHz.

S -Steel – C1010

This is the type most utilised, both in civil and military applications, for the correct compromise between costs, performance and corrosion resistance. This resistance may be improved with painted coatings (both conductive and/or protective from the aggression of external elements).

Shielding Effectiveness from 1 KHz to 40 GHz.

SS - Stainless steel SS304

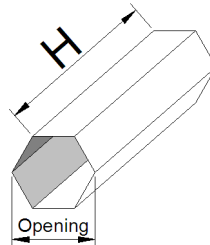
Utilisation both in civil and military sectors, excellent for all

Example:

H.O.9000.3000.25,4MM.S.3/16".L

H.O.2600.12,7MM.BR.1/8".H1

4. Cell Size

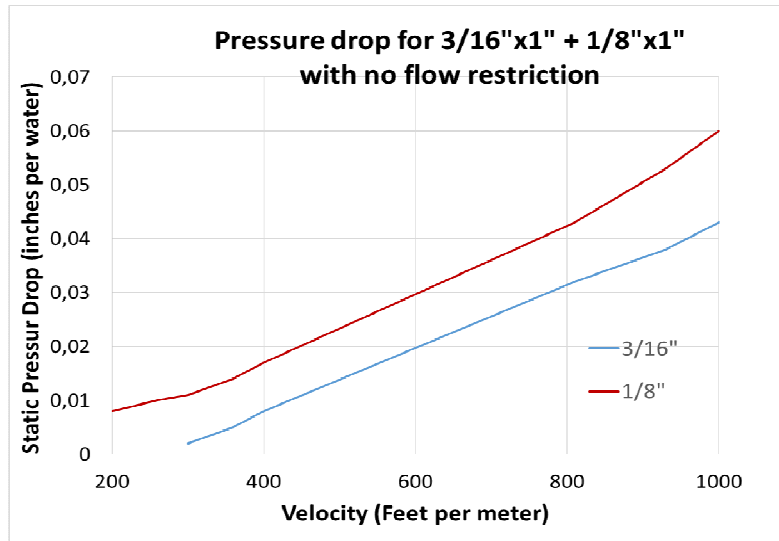


STANDARD OPENING			STANDARD DEPTH (H)		
A	1/8 "	3,18 mm	A	1/2"	12,7 mm
B	3/16 "	4,76 mm	B	1 "	25,4 mm

Example:

H.O.9000.3000.25,4MM.S.3/16".L

H.O.2600.12,7MM.BR.1/8".H1



The chart indicates the pressure drop due to the presence of the honeycomb filter, in relation to the speed of the incoming air. This parameter has to be considered in the project, for the calculation of the net size of the honeycomb panel, to ensure the minimum required flow within the room, where the filter has to be installed.

5. Standard frame

<p>Type L frame</p>	<p>Type H1 Frame</p>
<p>H: 12.7 mm (1/2")/ 25.4 mm (1") B: Custom S: 1 – 2 – 3 mm</p>	<p>H: 12.7 mm (1/2")/ 25.4 mm (1") A, B: Custom S: 1 – 2 – 3 mm</p>
<p>Type C frame</p>	<p>Type H2 Frame</p>
<p>H: 12.7 mm (1/2")/ 25.4 mm (1") A: Custom S: 1 – 2 – 3 mm</p>	<p>H: 12.7 mm (1/2")/ 25.4 mm (1") A, B: Custom S: 1 – 2 – 3 mm</p>

Welding: See "IO_PRD1_45 Saldatura a stagno Ed. 1 del 24-10-2012"

Tolerances of the product are defined according to "IO_PRD1_02 Parameters and Tolerances - Ed. 3".

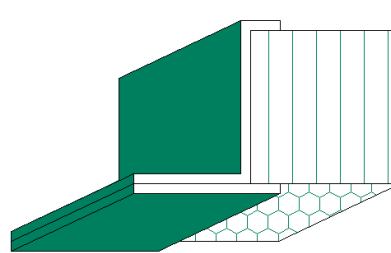
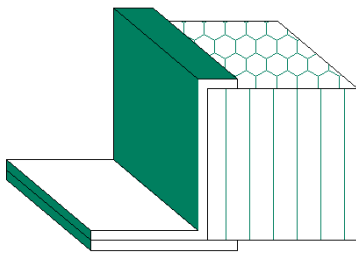
Example:

H.O.9000.3000.25,4MM.S.3/16".L

H.O.2600.12,7MM.BR.1/8".H1

6. Treatment

Honeycomb air vent panel filters can be treated with anti corrosion paint.



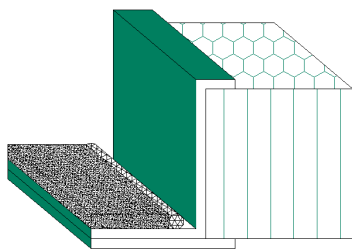
Painting: See "IO_PRD1_04 Processo Verniciatura"

Example:

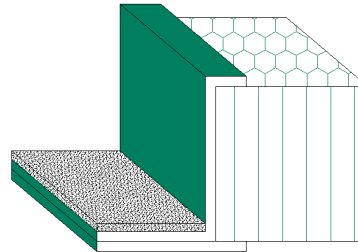
H.O.9000.3000.25,4MM.S.3/16".L.VC

7. Gaskets

Two possible types of installed gaskets.



Twinshield Gasket (D.A. Specification)



Non Woven gaskets

8. Shielding effectiveness

Shielding Effectiveness							
MATERIAL		Brass	Brass	Brass	Steel and Stainless Steel	Steel and Stainless Steel	Steel and Stainless Steel
Frequency	Field	1/8" x 1/2"	1/8" x 1"	3/16"x 1"	1/8" x 1/2"	1/8"x 1"	3/16"x 1"
1 KHz	Magnetic	13	25	20	16	30	29
10 KHz	Magnetic	38	80	70	50	85	72
100 KHz	Magnetic	80	100	95	90	118	108
1 MHz	Magnetic	105	110	110	110	118	115
10 MHz	Magnetic	105	110	110	110	118	115
1 KHz	Electrical	110	110	110	110	111	111
10 KHz	Electrical	115	115	115	115	115	115
100KHz	Electrical	115	120	120	115	120	120
1MHz	Electrical	115	120	120	115	120	120
10 MHz	Electrical	115	120	120	115	120	120
100 MHz	Plane Wave	115	130	130	115	130	130
400 MHz	Plane Wave	115	130	130	115	130	130
1 GHz	Plane Wave	105	120	120	105	120	120
10 GHz	Microwaves	105	120	120	105	120	120
18 GHz	Microwaves	105	110	110	105	110	110
26 GHz	MM waves	105	110	110	105	110	110
40 GHz	MM waves	60	110	N/A	60	110	N/A