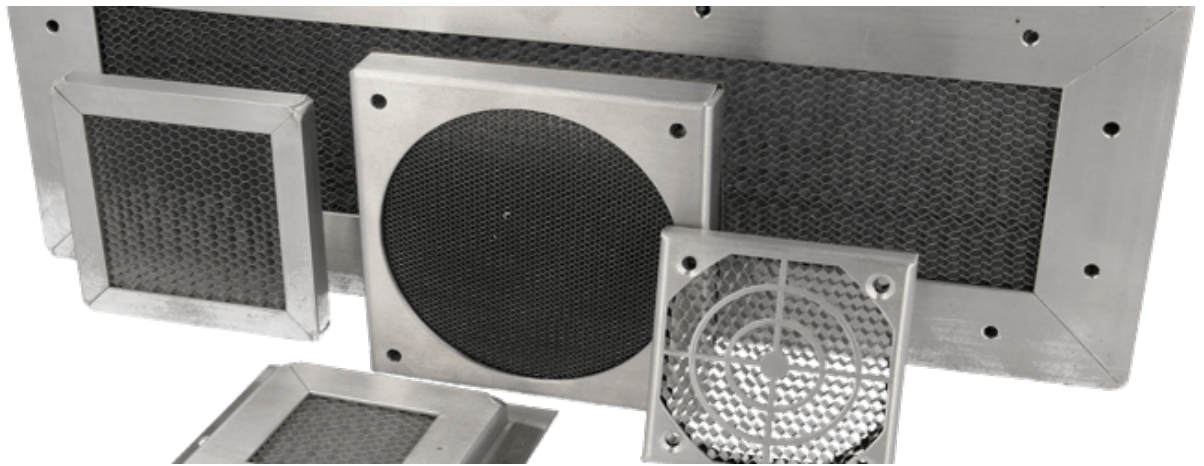


Honeycomb ventilation panels



Honeycomb ventilation panels 9500

EMI shielded ventilation panels for ventilation and heating in screened rooms, EMI shielding rooms & Faraday cages
Honeycomb vents are used to shield openings for ventilation or acoustic/visual contact. We can make these vents according to your drawing within a few days, or you can use our standard range from stock.

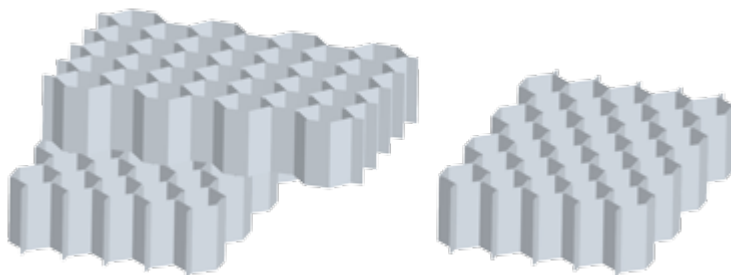
We can supply Honeycomb vents with frames, pre-drilled with fasteners, or with flow-drilled thread holes. The standard material is aluminium which can be given a nickel finish (or any other finish you choose).

If high shielding levels are required, the use of cross-cell honeycombs is recommended. These are constructed from multiple sections of 6.35 mm or 12.7 mm or 26.3 mm thick honeycombs within a single frame. The shielding performance will improve as airflow is decreased, but not eliminated.

For military applications we make a heavy hot-dip galvanized mild-steel version. Please contact us for more information.

Honeycombs are also frequently used as flow straighteners to create a laminar flow.

Standard and cross cell versions



Material specifications

Honeycomb ventilation panels

| | |
|-----------------------------|--|
| Extrusion | Aluminium alloy 6063-T1 QQ-A-200/9 |
| Filter media | Aluminium alloy 5056, per RR-W-365 |
| Honeycomb | Aluminium alloy MIL-C-7438 |
| Grilles | Aluminium alloy 3003-H-14 per QQ-A-359 |
| Finish | Chem film to MIL-C-5541 Class 1A (standard) Also available: Bright tin, Electroless nickel or Chem film - Class 3 |
| EMI (optional) / RFI gasket | Amucor shield 6800 or Knitted wire mesh. |

Benefits

- Lightweight
- High shielding performance
- Low air-flow resistance
- Reduction of turbulence

Options

- Cross-cell honeycomb for extra high shielding performance
- Slant honeycomb 30°, 45°, 60° for outdoor rainproof applications
- 45° degrees is the most common implementation
Please note, slant honeycombs are available on request
- Polyurethane filter for dust protection
- Kick plate for mechanical protection
- Stainless steel, mild steel or brass versions
- Cell sizes 1.6mm, 3.2mm, 6.4mm, 9.5mm, 12.7mm, or 19mm (standard 3.2mm)
- Gaskets for firm connections

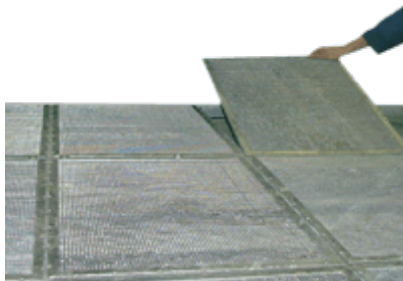
Approximately 95% of the honeycomb vents we produce are made to customer specifications.

Shielding performance (dB)

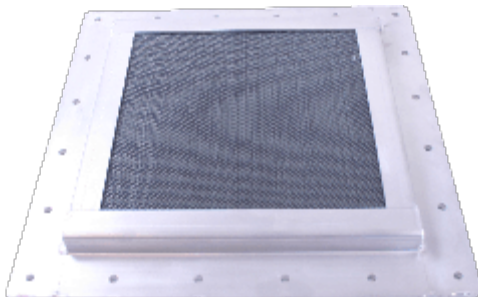
Honeycomb ventilation panels

| Frequency | Field | Single-layer 6.35 mm thick honeycomb material | Cross-cell 6.35 mm thick honeycomb material | Single-layer 12.7 mm thick honeycomb material | Cross-cell 54 mm thick honeycomb material |
|-----------|-------|---|---|---|---|
| | | Frames B, C, D, G, L | Frame H | Frames E, F | Frame K |
| 200kHz | H | 39 | 71 | 78 | 85 |
| 100MHz | E | 80 | 105 | 100 | 110 |
| 500MHz | P | 55 | 93 | 55 | 95 |
| 2GHz | P | 52 | 94 | 96 | 98 |
| 10GHz | P | 61 | 82 | 80 | 90 |

These values were measured under laboratory conditions, Honeycomb 80 x 80 mm and with proper gasket material used. In other situations, results may differ. Please read our Guarantee.



Honeycomb ventilation panels Mild steel ventilation panels for EMP

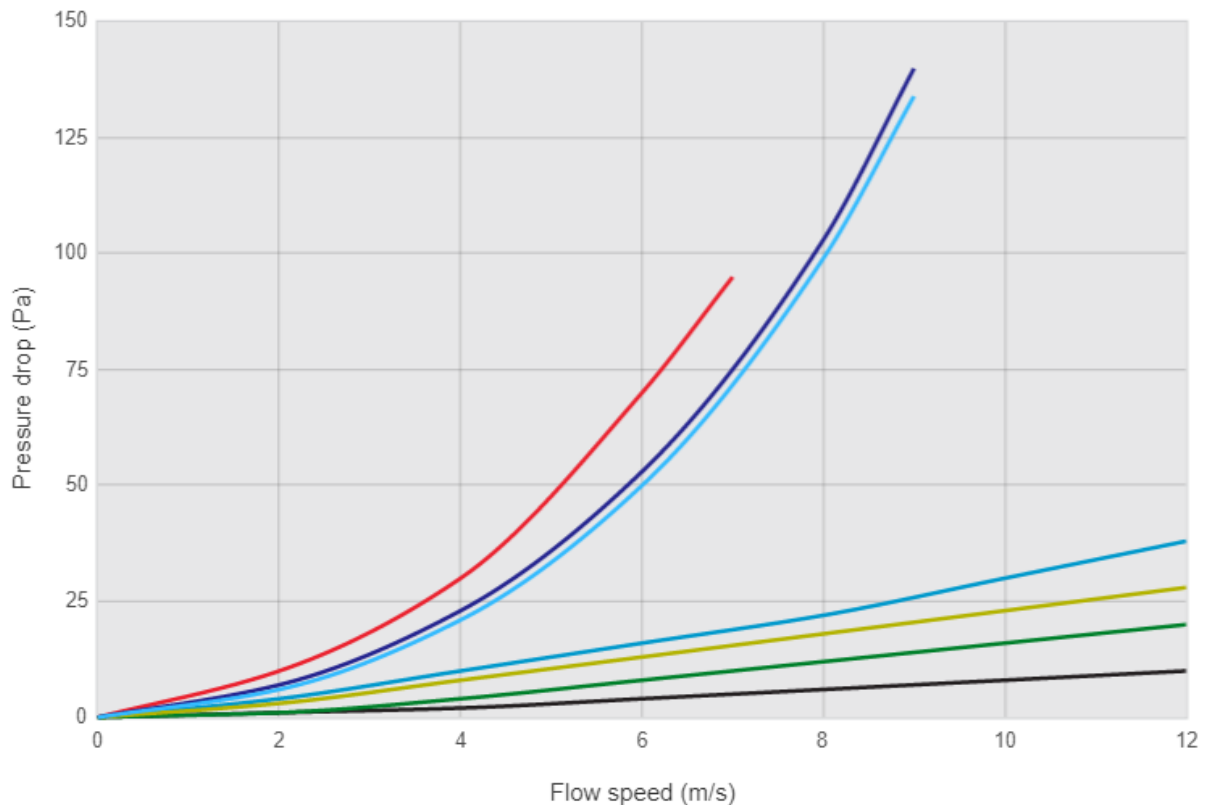


Panels made in different sizes and amounts made according to your drawing



Honeycomb ventilation frame panel type h

Honeycomb ventilation panels



■ 9520 - EMC Woven mesh ventilation panel

■ 9500 - Honeycomb ventilation panel (1 layer 3.2 cell x 6.35 mm thick honeycomb)

■ 9500 - Honeycomb ventilation panel (2 layers 3.2 cell x 6.35 mm thick honeycomb)

■ 9500 - Honeycomb ventilation panel (1 layer 1.6 cell x 6.35 mm thick honeycomb)

■ 9500 - Honeycomb ventilation panel (1 layer 3.2 cell x 12.7 mm thick honeycomb)

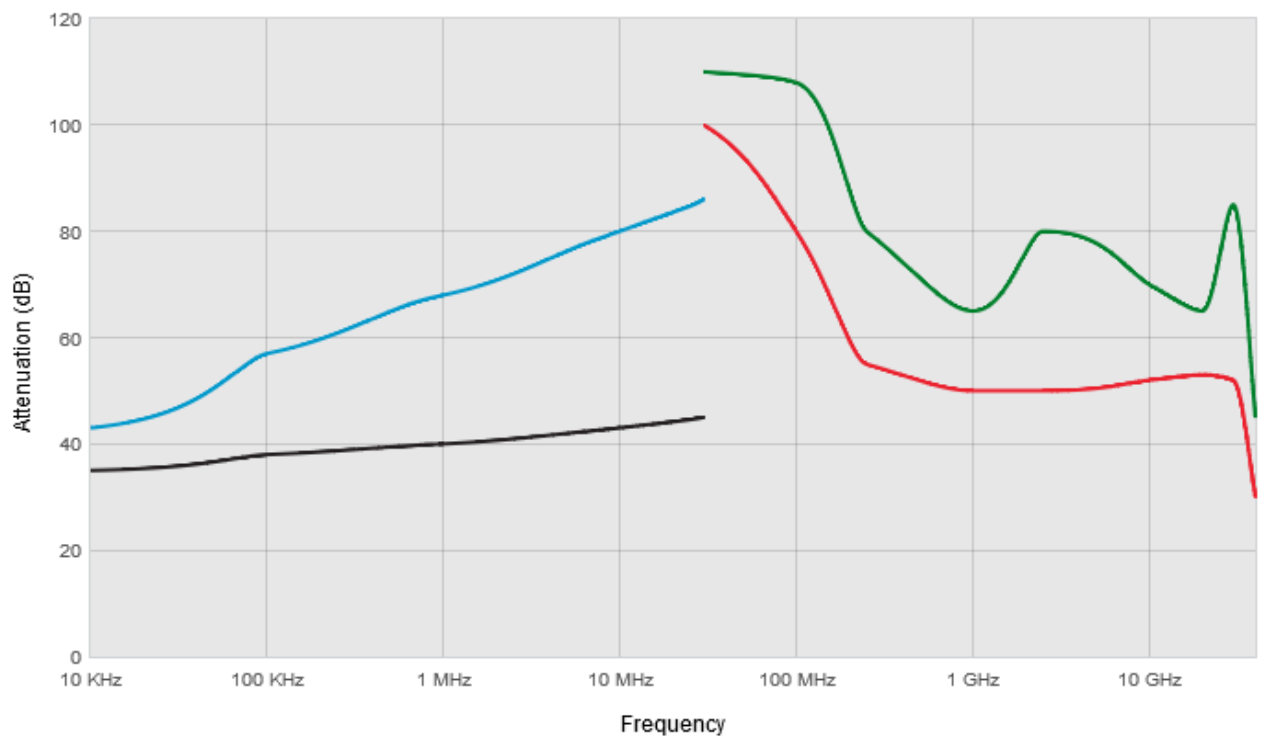
■ 9500 - Honeycomb ventilation panel (1 layer 3.2 cell x 6.35 mm thick honeycomb + 1 layer 45° slant 3.2 cell x 6.35 mm thick honeycomb for water protection)

■ 9500 - Honeycomb ventilation panel (1 layer 45° slant 3.2 cell x 6.35 mm thick honeycomb for water protection)

Please note: These values are measured under laboratory conditions. Results may vary in other situations; please read our Guarantee.

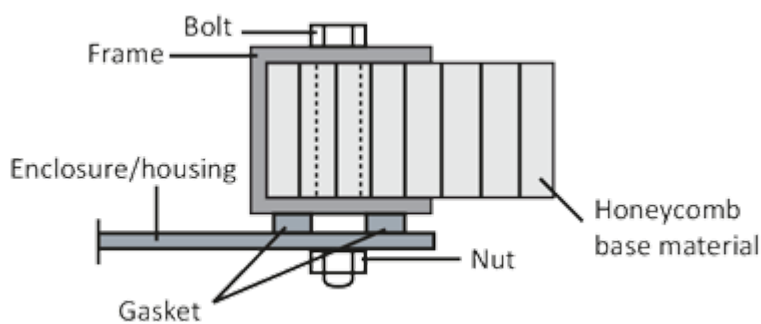
Shielding effectiveness

Honeycomb ventilation panels

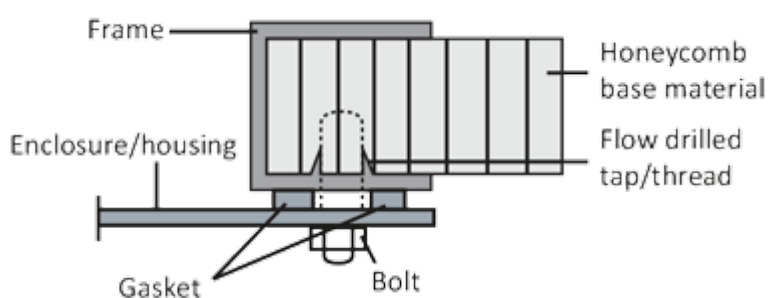


- Honeycomb 400 x 400 mm single 3,6 mm cell 12,7 mm thick electric
- Honeycomb 400 x 400 mm single 3,6 mm cell 12,7 mm thick magnetic
- Honeycomb 400 x 400 mm cross 3,6 mm cell 25,3 mm thick electric
- Honeycomb 400 x 400 mm cross 3,6 mm cell 25,3 mm thick magnetic

Mounting options



Option 1 : Through hole/bolt

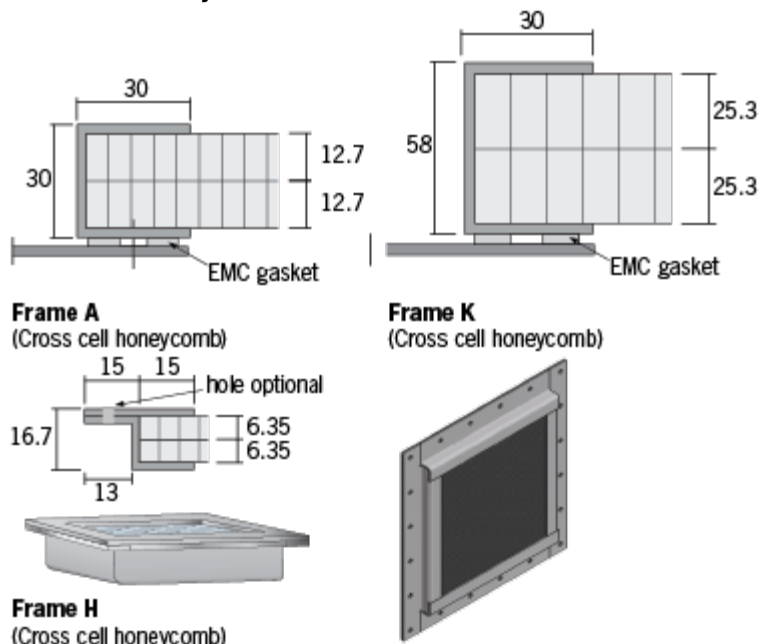


Honeycomb ventilation panels

Option 2: Flow-drilled tap/thread

Frame Options

Cross-cell honeycombs



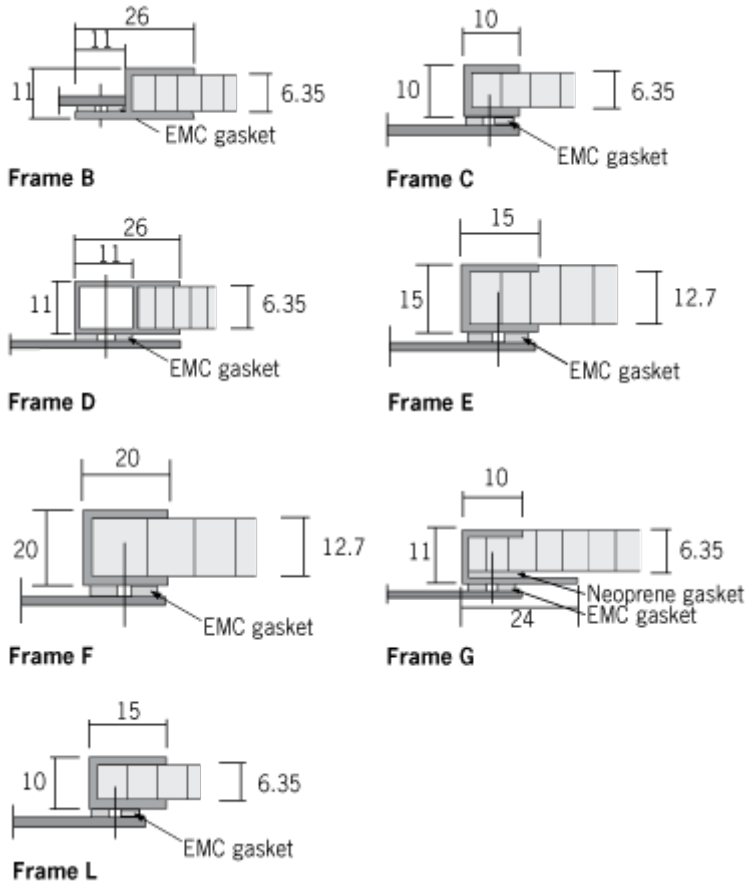
For **frame H** we recommend sending your drawing to Info@hollandshielding.com. When designing the drawing for frame H please keep in mind to use a hole distance of minimal 75mm.

Gasket material

Our 9500 series framed Honeycomb ventilation panels are generally supplied with a 6800 series Amucor gasket. This is an EMC gasket with an aluminum alloy. Suitable for most applications. However, due to galvanic corrosion for some applications, the Honeycombs can also be supplied with a 1200 series Metal knit gasket.

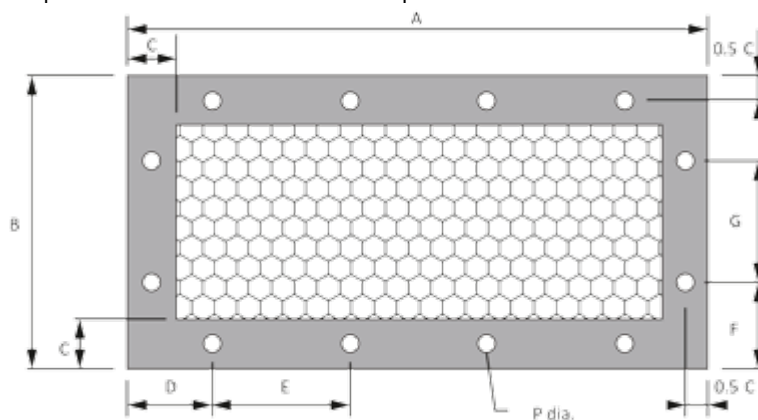
Single-layer honeycombs

Honeycomb ventilation panels



Standard dimensions

Our Honeycomb ventilation panels are usually custom made for our client. However, some common dimensions are in stock. In the standard dimensions table below some common types of Honeycomb ventilation panels are specified to illustrate the required information. Hole diameter P is standard 3.5 mm, with other dimensions possible on request. Also available with screw apertures or inserts.



Honeycomb ventilation panels

| Outer dimensions | | Mounting holes horizontal | | | Mounting holes vertical | | |
|------------------|-----|---------------------------|----|-----|-------------------------|------|-----|
| A | B | Holes | D | E | Holes | F | G |
| 150 | 75 | 2 | 40 | 70 | 1 | 37.5 | - |
| 100 | 100 | 1 | 50 | - | 1 | 50 | - |
| 200 | 100 | 3 | 20 | 80 | 1 | 50 | - |
| 125 | 125 | 2 | 20 | 85 | 1 | 62.5 | - |
| 250 | 125 | 3 | 30 | 95 | 1 | 62.5 | - |
| 150 | 150 | 2 | 25 | 100 | 2 | 25 | 100 |
| 300 | 150 | 4 | 30 | 80 | 2 | 25 | 100 |
| 175 | 175 | 2 | 40 | 95 | 2 | 40 | 95 |
| 350 | 175 | 4 | 40 | 90 | 2 | 40 | 95 |
| 200 | 200 | 3 | 40 | 60 | 3 | 40 | 60 |
| 400 | 200 | 5 | 30 | 85 | 3 | 20 | 80 |
| 250 | 250 | 3 | 30 | 95 | 3 | 30 | 95 |
| 300 | 300 | 4 | 30 | 80 | 4 | 30 | 80 |
| 600 | 300 | 7 | 30 | 90 | 4 | 30 | 80 |

| Series | Height (mm) | Width (mm) | Frame | Drill pattern | Gasket material |
|--------|--|--|---|---|--|
| 9500 | Please note: Specify the outer dimension in mm | Please note: Specify the outer dimension in mm | Select an option: A : Frame A B : Frame B C : Frame C D : Frame D E : Frame E F : Frame F G : Frame G H : Frame H K : Frame K L : Frame L | Select an option: DS : Standard drill pattern DC : Custom drill pattern N : No holes | Select an option: A : Amucor (standard) K : Knitted wire mesh N : No gasket |