

Steel and Brass Honeycomb Shielded Vents



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Parker Chomerics steel honeycomb ventilation panels are designed for maximum H-field shielding effectiveness. They are especially suited for use in military enclosures, communications shelters and shielded rooms, and should be of interest to designers of EMP-hardened and TEMPEST equipment. In applications where environmental concerns are critical, brass honeycomb shielded vents are recommended. They provide optimum EMI shielding performance plus corrosion resistance.

Custom constructed using welded steel or brass frames with steel or brass honeycomb inserts, these panels are offered in a full range of shapes, including circular, in 0.5 in. (12.7 mm) and 1.0 in. (25.4 mm) thicknesses. The straight-through cell design minimizes pressure drop. When desirable, the honeycomb inserts may be stacked for additional thickness. In addition, shielding performance is optimized by specifying that the honeycomb be soldered to the frame. Panel surfaces are finished with cadmium, tin or nickel plating, depending on customer requirements. Stainless steel units are also available.

These panels are provided ready-to-install by welding in place (no gasket), or with mounting holes when supplied with integral EMI gasketing. Typically Ferrex® wire/neoprene COMBO® gasketing is specified, but conductive elastomer gasketing is available on request.

Ordering Procedure:

Parker Chomerics steel and brass honeycomb shielded vents are custom fabricated to specified dimensions. Part numbers will be assigned by Parker Chomerics. A detailed drawing should be provided to Parker Chomerics.

Table 1

SPECIFICATIONS	
Steel	
Frame	SAE 1010 steel
Honeycomb	SAE 1010 steel, welded or soldered. Foil thickness 0.005 in. (0.127 mm) and 0.006 in. (0.152 mm). Cell size 1/8 in. (3.18 mm), 3/16 in. (4.76 mm) and 1/4 in. (6.35 mm).
EMI Gasketing	Typically COMBO gasketing consisting of Ferrex wire mesh in parallel with neoprene elastomer weather seal (refer to COMBO STRIP pages in the Metal EMI Gaskets section). Also available with conductive elastomer EMI gasket.
Finish Options	Cadmium plate per QQ-P-416 Type II, Class 2 chro-mate; tin plate per MIL-T-10727 Type 1; nickel plate per MIL-C-2607A.
Brass	
Frame	Brass Alloy 260 1/2 hard
Honeycomb	Brass Alloy 260 1/2 hard per QQ-B-613. Foil thickness 0.005 in. (0.127 mm) ±0.0005 in. (0.013 mm). Cell size 1/8 in. (3.18 mm), 3/16 in. (4.76 mm), and 1/4 in. (6.35 mm).
EMI Gasketing	Typically COMBO gasketing consisting of Ferrex wire mesh in parallel with neoprene elastomer weather seal (refer to COMBO STRIP pages in Metal-Based Gaskets section). Also available with conductive elastomer EMI gasket.
Finish	Copper plate per MIL-C-14550, Class 4, followed by tin plate 0.0003 in. min. per MIL-T-10727 Type.

* Ferrex® is Parker Chomerics tin-plated, copper-clad steel wire per ASTM B-520. ASTM (QQ-W343) tin-plate, 2-3% by weight; ASTM B-227 coppercladding 30-40% by weight; SAE 1010 steel wire, balance by weight.

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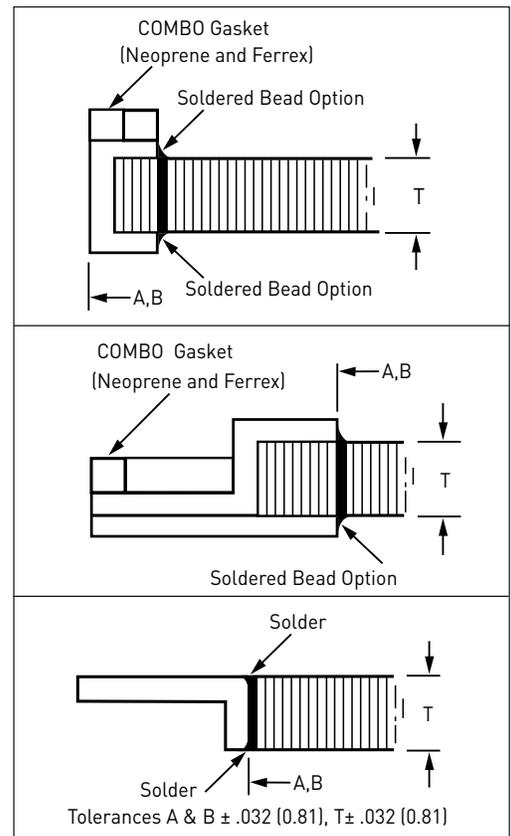


Figure 1 Typical Frame Styles (others available)