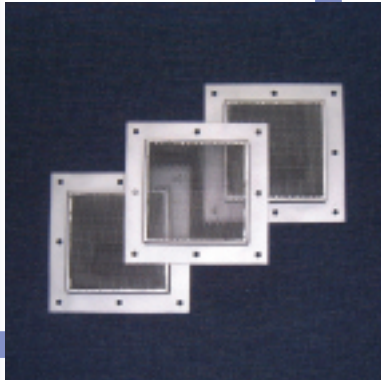


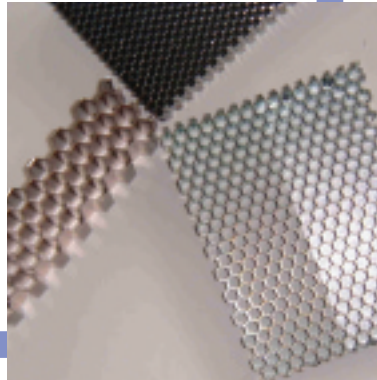
# STEEL HIGH PERFORMANCE SHIELDED WAVEGUIDE VENTS

EEP

European EMC Products Ltd



Steel waveguides with tin/solder finish



Formed honeycomb in a selection of cell sizes

The EMC experience of EEP combined with the honeycomb manufacturing capability of Neomet Ltd have combined to offer the widest range of RF shielded vents available anywhere.

These RF (radio frequency) shielded waveguide vents consist of a steel honeycomb that allows air to pass through but attenuates radiated electromagnetic interference. They are designed for use in all high performance EMC and TEMPEST applications requiring a robust, lightweight and low profile vent.

Being manufactured from steel they offer excellent shielding performance in the H field, as well as the E field and Plane wave modes. Specialist application vents can be also made from stainless steel, brass, copper and phosphor bronze.

## TECHNICAL SPECIFICATION

**Material:** Mild steel honeycomb, surface finish: bright zinc plate (BZP), tin/solder or electroless nickel. Paint finishes for marine or external applications can also be applied.

**Standard dimensions:** 12.7, 16.25 or 25.4mm cell depth by 1.57, 2.54, 3.17 or 4.76mm cell width. Other sizes available to special order. 12.7 x 3.17 mm and 25.4 x 3.17mm are the most readily available sizes.

### RF performance for mild steel honeycomb with BZP finish

Results based on 300 x 300 waveguide tested to Mil Std 285.

Frequency (Hz)	Mode	Attenuation for 12.7 x 3.2mm cell	Attenuation for 25.4 x 3.2mm cell
10 k	H	36	58
100 k	H	59	85
200 k	H	65	89
1 M	H	74	100
10 M	H	100	100
100 k	E	100	100
200 k	E	100	100
1 M	E	100	100
10 M	E	100	100
40 M	E	100	100
100 M	E	100	100
400 M	P	100	100
1 G	P	100	100
10 G	P	95	100

### European EMC Products Ltd

Unit 4 Saffron Business Centre Elizabeth Way Saffron Walden Essex CB10 2BL

Tel: + 44 1799 523073 Fax: + 44 1799 521191 Email: euomc@dial.pipex.com Web: <http://www.euro-emc.co.uk>

# STEEL HIGH PERFORMANCE SHIELDED WAVEGUIDE VENTS

EEP

European EMC Products Ltd



Waveguides of all sizes and designs can be supplied

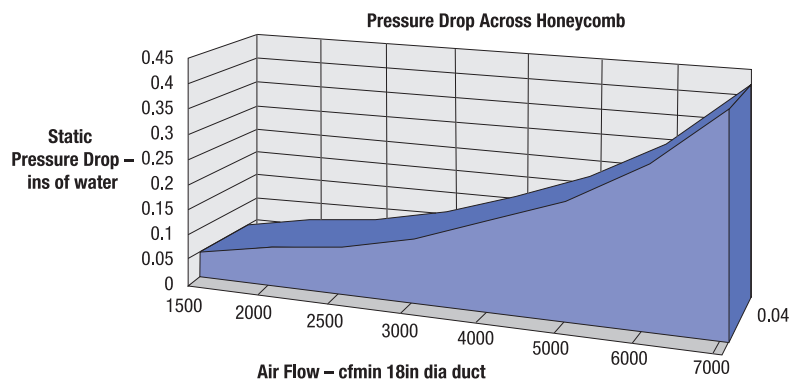
## Honeycomb for Radio Frequency (RF) shielded waveguide vents - Standard dimensions, materials and finishes

Material	Cell width mm	Cell depth mm	Material thickness	Assembly method	Finishes
Mild steel CS4	4.76	12.7	Mild steel 0.15mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Stainless steel 304	4.76	16.25	Stainless steel 0.075mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Mild steel CS4	4.76	16.25	Mild steel 0.15mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Stainless steel 304	4.76	16.25	Stainless steel 0.075mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Mild steel CS4	3.17	12.7	Mild steel 0.15mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Stainless steel 304	3.17	12.7	Stainless steel 0.075mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Mild steel CS4	3.17	16.25	Mild steel 0.15mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Stainless steel 304	3.17	16.25	Stainless steel 0.075mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Mild steel CS4	3.17	25.4	Mild steel 0.15mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Stainless steel 304	3.17	25.4	Stainless steel 0.075mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Mild steel CS4	2.54	12.7	Mild steel 0.15mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Stainless steel 304	2.54	12.7	Stainless steel 0.075mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Mild steel CS4	1.57	12.7	Mild steel 0.15mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)
Stainless steel 304	1.57	12.7	Stainless steel 0.075mm	Laser welded, 1 or 2 welds per joint	Plain, hot tin/solder dipped, BZP (Bright Zinc Plate)

Waveguides can be formed in mild and stainless steel, brass, phosphor bronze and copper, non standard size honeycomb can be formed in mild and stainless steel.

Waveguides can be supplied in any of the following forms:

Untreated, cut to size (including shaped or circular form), fitted into frames, plated, tinned and/or painted, fitted with RF gaskets, RF tested.



The pressure drop across the honeycomb is extremely small compared with wire screens and perforated panels because of the large frontal open area of honeycomb. EEP honeycombs have an open area of over 90%. The figures show the pressure drop measured across a mild steel honeycomb with cell width 3.2 mm (1/8in) and depth 25.4 mm (1 in) made in a straight 450 mm (18 in) diameter duct.

European EMC Products Ltd

Unit 4 Saffron Business Centre Elizabeth Way Saffron Walden Essex CB10 2BL

Tel: + 44 1799 523073 Fax: + 44 1799 521191 Email: euomc@dial.pipex.com Web: <http://www.euro-emc.co.uk>