

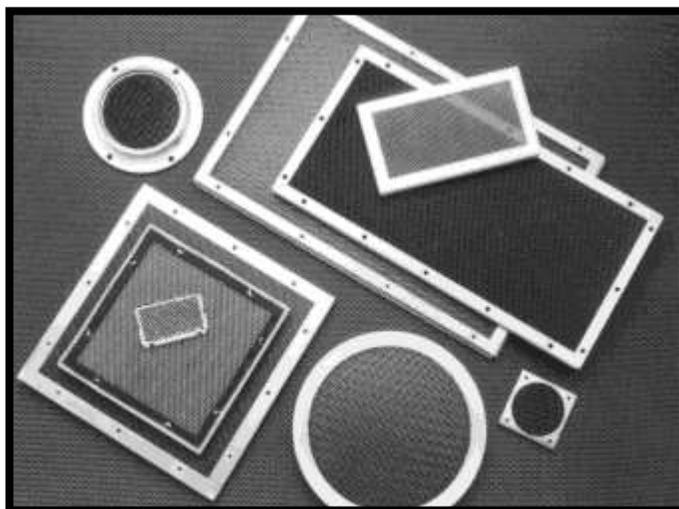
## EMI/RFI Shielded Ventilation Panels (3000 Series)

### Product Summary

MAJR Products 3000 Series of ready-to-install honeycomb cooling vents provides optimum EMI/RFI shielding with minimum static pressure drop. Honeycomb designed airflow panels accomplish shielding effectiveness utilizing waveguide design principles.

### Product Application

- Custom honeycomb panels are designed to meet specific shielding, airflow, and mounting requirements.
- Available in chromate aluminum, tin plated aluminum, or tin plated steel honeycomb to meet specific attenuation and environmental requirements. (Table 1)
- High permeability steel, Code-44, honeycomb available for magnetic (H-Field) shielding to 60 dB attenuation levels. (>80 dB attenuation using 1 in. thick steel honeycomb)
- Standard sizes and mounting configurations available.
- An EMI gasket is always supplied as an integral part of the vent panel assembly.
- Mounting is accomplished with either frame thru-holes or captive fasteners located and installed to standard or custom dimensions.



### Product Technical Data

Figure 1

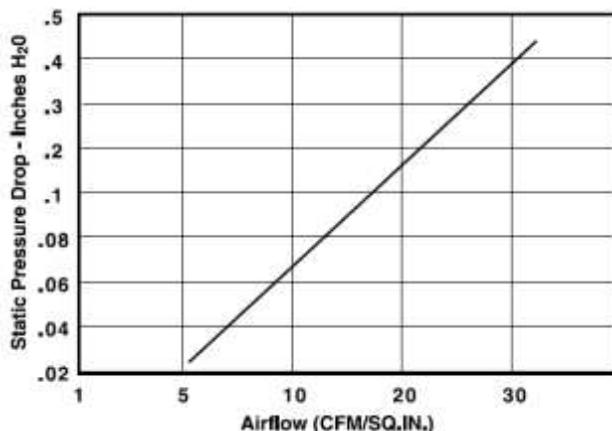


Table 1

#### CHROMATE FINISH

Field	Aluminum Material Code - 32						
	Frequency						
	100 KHz	1 MHz	18 MHz	100 MHz	400 MHz	1 GHz	10 GHz
H	35	50	—	—	—	—	50
E	—	—	75	—	—	—	—
PW	—	—	—	75	75	65	—

Field	Aluminum Tin Plate Material Code - 42						
	Frequency						
	100 KHz	1 MHz	18 MHz	100 MHz	400 MHz	1 GHz	10 GHz
H	65	80	—	—	—	—	—
E	—	—	100	—	—	—	—
PW	—	—	—	95	95	95	90

Field	Steel Tin Plate Material Code - 44						
	Frequency						
	100 KHz	1 MHz	18 MHz	100 MHz	400 MHz	1 GHz	10 GHz
H	75	80	—	—	—	—	—
E	—	—	110	—	—	—	—
PW	—	—	—	110	110	110	100

## EMI/RFI Shielded Ventilation Panels (3000 Series) (Cont.)

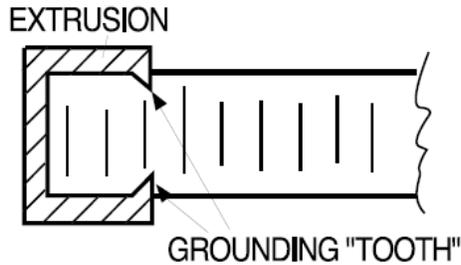
The low resistance to airflow of MAJR's shielded honeycomb panels will minimize pressure drop within cabinet, allowing air to move freely through the intake and exhaust to perform the desired cooling function. The curve in Figure 1 shows the resistance per square inch for standard honeycomb vents.

The data in Table 1 indicates shielding characteristics for standard MAJR shielded honeycomb vents. Note that the data indicated is based on a unit whose opening is 12.00 x 12.00 (305 x 305 mm) and tested under laboratory conditions per MIL-STD 285.

### Mounting Installation

Four mounting frames are offered as a standard for installation into the cabinet. In each case, the extruded aluminum frame is designed with a "tooth" that bites into the honeycomb to ensure grounding of the frame to the honeycomb. (See Figure 2).

Figure 2



Figures 3 through 5 depict the frames offered as standard mounting configurations. Although these frames represent those sections that are most popular, MAJR offers a wide range of shapes for those applications requiring special mounting.

Figure 3 - Style 3031 Through Hole

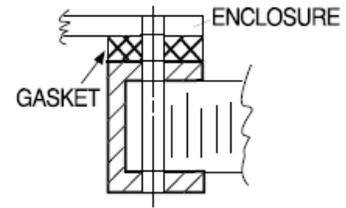


Figure 4 - Style 3032 Captive Fastener

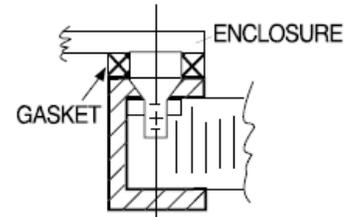


Figure 5 - Style 3036 Recess Mount

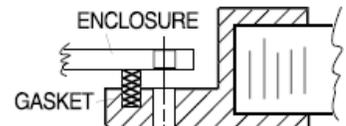
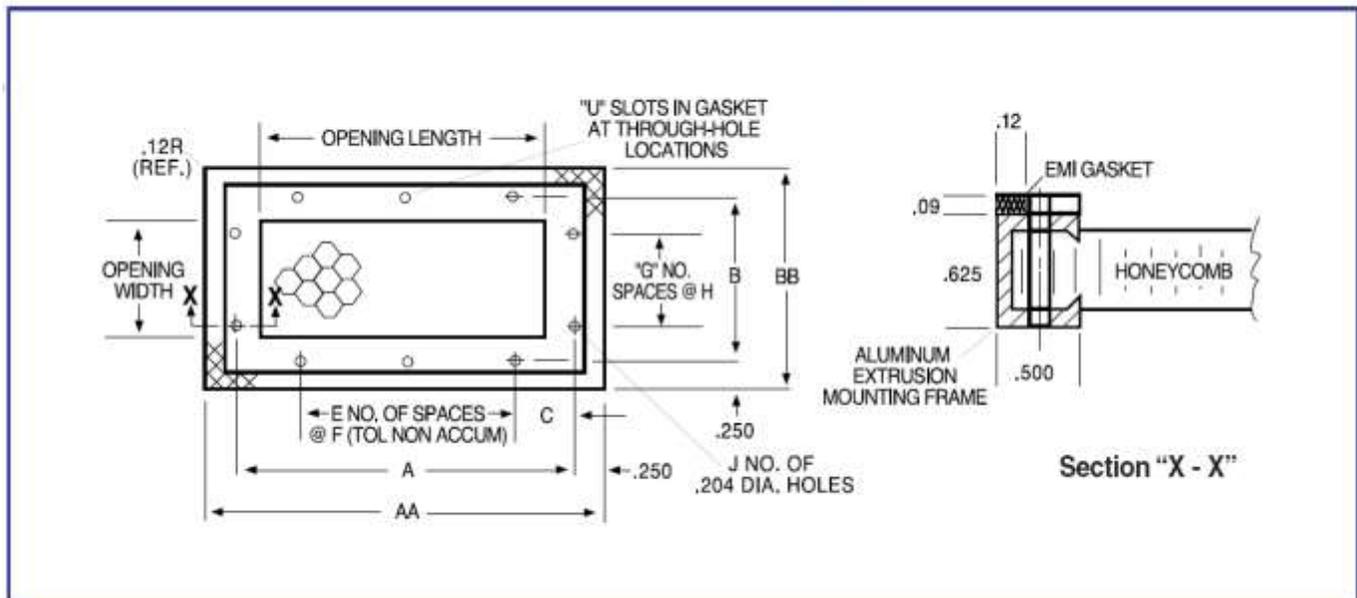


Figure 6 - Style 3031 EMI/RFI Shielded Ventilation Panel with Through Holes



## EMI/RFI Shielded Ventilation Panels (3000 Series) (Cont.)

Table 2

OPENING		Part Number -32 Material	FRAME DIMENSIONS										
Width	Length		AA	BB	A	B	C	D	E	F	G	H	J
3.00 (76.2)	3.00 (76.2)	3031-20303-xx	4.00 (101.6)	4.00 (101.6)	3.50 (88.9)	3.50 (88.9)	1.75 (44.5)	1.75 (44.5)	—	—	—	—	4
3.00 (76.2)	5.00 (127.0)	3031-20305-xx	6.00 (152.4)	4.00 (101.6)	5.50 (139.7)	3.50 (88.9)	1.00 (25.4)	1.75 (44.5)	1	3.50 (88.9)	—	—	6
3.00 (76.2)	11.00 (279.4)	3031-20311-xx	12.00 (304.8)	4.00 (101.6)	11.50 (292.1)	3.50 (88.9)	1.25 (31.8)	1.75 (44.5)	3	3.00 (76.2)	—	—	10
4.00 (101.6)	4.00 (101.6)	3031-20404-xx	5.00 (127.0)	5.00 (127.0)	4.50 (114.3)	4.50 (114.3)	.750 (19.1)	2.25 (57.2)	1	3.00 (76.2)	—	—	6
4.00 (101.6)	9.00 (228.6)	3031-20409-xx	10.00 (254.0)	5.00 (127.0)	9.50 (241.3)	4.50 (114.3)	1.25 (31.8)	2.25 (57.2)	2	3.50 (88.9)	—	—	8
5.00 (127.0)	5.00 (127.0)	3031-20505-xx	6.00 (152.4)	6.00 (152.4)	5.50 (139.7)	5.50 (139.7)	1.00 (25.4)	1.00 (25.4)	1	3.50 (88.9)	1	3.50 (88.9)	8
5.00 (127.0)	11.00 (279.4)	3031-20511-xx	12.00 (304.8)	6.00 (152.4)	11.50 (292.1)	5.50 (139.7)	1.25 (31.8)	1.00 (25.4)	3	3.00 (76.2)	1	3.50 (88.9)	12
6.00 (152.4)	6.00 (152.4)	3031-20606-xx	7.00 (177.8)	7.00 (177.8)	6.50 (165.1)	6.50 (165.1)	1.50 (38.1)	1.50 (38.1)	1	3.50 (88.9)	1	3.50 (88.9)	8
6.00 (152.4)	9.00 (228.6)	3031-20609-xx	10.00 (254.0)	7.00 (177.8)	9.50 (241.3)	6.50 (165.1)	1.25 (31.8)	1.50 (38.1)	2	3.50 (88.9)	1	3.50 (88.9)	10
7.00 (177.8)	14.00 (355.6)	3031-20714-xx	15.00 (381.0)	8.00 (203.2)	14.50 (368.3)	7.50 (190.5)	.750 (19.1)	.750 (19.1)	4	3.25 (82.6)	2	3.00 (76.2)	16
9.00 (228.6)	9.00 (228.6)	3031-20909-xx	10.00 (254.0)	10.00 (254.0)	9.50 (241.3)	9.50 (241.3)	1.25 (31.8)	1.25 (31.8)	2	3.50 (88.9)	2	3.50 (88.9)	12
11.00 (279.4)	11.00 (279.4)	3031-21111-xx	12.00 (304.8)	12.00 (304.8)	11.50 (292.1)	11.50 (292.1)	1.25 (31.8)	1.25 (31.8)	3	3.00 (76.2)	3	3.00 (76.2)	16
14.00 (355.6)	14.00 (355.6)	3031-21414-xx	15.00 (381.0)	15.00 (381.0)	14.50 (368.3)	14.50 (368.3)	1.25 (31.8)	1.25 (31.8)	4	3.00 (76.2)	4	3.00 (76.2)	20
18.00 (457.2)	18.00 (457.2)	3031-21818-xx	19.00 (482.6)	19.00 (482.6)	18.50 (469.9)	18.50 (469.9)	1.75 (44.5)	1.75 (44.5)	5	3.00 (76.2)	5	3.00 (76.2)	24

xx = Require Finish

3031-20303-32 — Ventilation Panel with Chromate Finish

### Fan Ventilation Panels

MAJR's fan ventilation panels are manufactured to meet the commercial market's requirements for a low-cost, high-quality EMI-shielded ventilation panel. These units are available in five standard sizes using a 0.250" thick honeycomb material and have an overall thickness with gasket of 0.407". Standard gasket is a Monel wire embedded in a solid silicone with an optional gasket of a beryllium copper fingerstock. Tin plate (MIL-T-10727), nickel plate (MIL-C-26074A) or an RoHS compliant plating available upon request. Shielding effectiveness is in the 50-60 dB range at 1 GHz, depending on the gasket material used. Standard lead times are in the two-to-three week range for most sizes with quicker deliveries available based on plating and quantities required.

Table 3

Dimensions	Part Numbers
+ .015" (038 mm)	
1.57" x 1.57" (40mm x 40mm)	3031-04040-32
1.97" x 1.97" (50mm x 50mm)	3031-05050-32
2.36" x 2.36" (60mm x 60mm)	3031-06060-32
3.15" x 3.15" (80mm x 80mm)	3031-08080-32
4.72" x 4.72" (120 mm x 120mm)	3031-12012-32

For a tin-plated panel, use -42;

for electroless nickel -49;

for a filter media -57;

for RoHS compliant -90.

Other sizes available upon request.

ISO-9001:2000 Certified - Veteran Owned Manufacturer

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