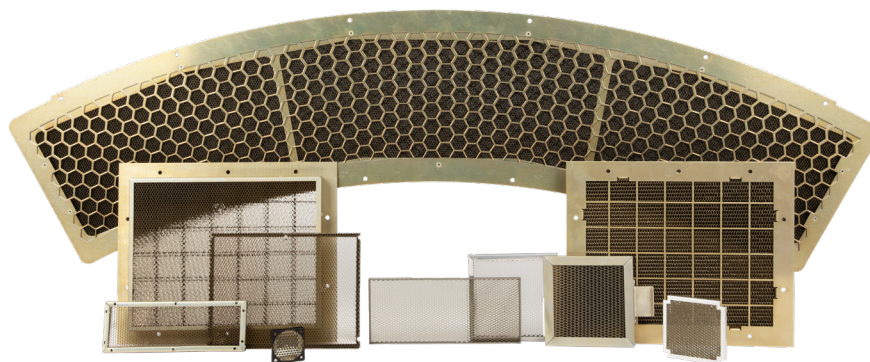


FaraVent™ EMI Vent Panels and Filters

Superior shielding for electronics, telecom, medical and military applications

Power usage electronic equipment is increasing at a pace that space cannot accommodate. With space at a premium, electronic enclosures become smaller and are required to be installed in close proximity to other electronic devices which can cause disruption due to electromagnetic interference (EMI). UAF offers custom EMI Shielding Solutions for forced air cooled and passively vented electronic equipment that provide protection from EMI emissions as well as dust ingress where needed. UAF has FaraVent™ and FaraVent™OS solutions that provide shielding effectiveness levels of 30dB to 80dB at frequencies ranging from 100MHz to 40 GHz.

UAF engineers provide application-specific support to navigate unique EMI vent design challenges as well as advise on additional features to enhance protection, performance, aesthetics, and convenience.



FaraVent™ and FaraVent™OS EMI Vent Panels

UAF FaraVent™ and FaraVent™OS EMI Vent Panels use an aluminum honeycomb with a cell structure that helps reduce the electromagnetic interference created by sophisticated electronic systems. The honeycomb used in FaraVent™ EMI vent panels can be configured to provide the optimal shielding effectiveness at frequencies from 100MHz to 40 GHz. FaraVent™OS EMI Vent panels limit polarity differences by offsetting the cell structure to provide consistent attenuation in both vertical and horizontal fields. Stainless steel mesh can be added FaraVent™ EMI Vent panels to achieve even higher levels of shielding effectiveness. Conductive corrosion resistance finishes can be added to the aluminum honeycomb and frame to ensure attenuation levels are maintained for the life of the vent panel.

Features

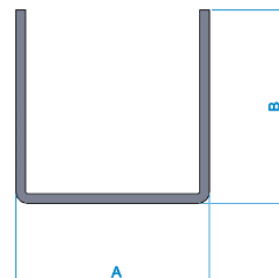
- Multiple aluminum honeycomb configurations for optimal EMI shielding effectiveness
- 97% open area provides near zero resistance
- Air flow straightening
- 45 Degree angled honeycomb for directional air flow available
- Available EMI gasket to optimize conductivity between the filter and equipment
- UL94 Fabric over foam EMI gaskets available
- Corrosion resistant finishes and SST mesh screens available
- Lightweight
- Meets NEBS, UL, CE, RoHS

UNIVERSAL AIR FILTER – EMI SHIELDING SOLUTIONS

FaraVent™ EMI Vent Panels – Model Configurations

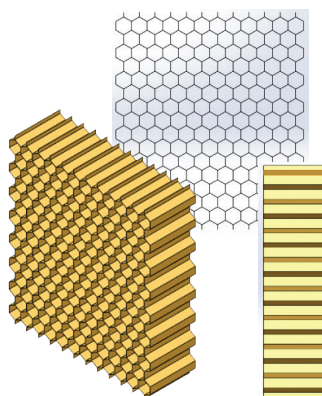
Roll Channel Frame Options
.025" Thick, 3003 Aluminum

Model	Frame Thickness (A)	Flange Width (B)	Honeycomb Thickness
HC-3	0.3	0.5	0.25
HC-5	0.43	0.38	0.38
HC-5X	0.5	0.5	0.38
HC-1025-B	0.88	0.63	0.25
HC-1050-B	0.88	0.63	0.5

ROLL CHANNEL
DIMENSION PROFILE

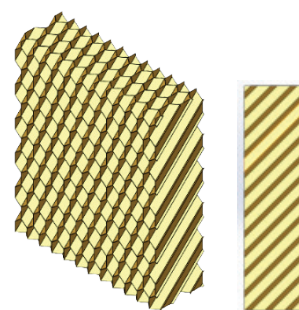
Aluminum Honeycomb Options

Cell Size (in.)	Thickness (in.)	Angle
1/8 (0.125)	1/8 (0.125)	0°
1/8 (0.125)	1/4 (0.250)	0°
1/8 (0.125)	1/2 (0.500)	0°
1/8 (0.125)	1/4 (0.250)	45°
1/8 (0.125)	1/2 (0.500)	45°



Straight Honeycomb

1/8" cell, 1/2" and 1/4" thick



45 Degree Honeycomb

1/4" and 1/2" thick

*Non-standard honeycomb available based on MOQ

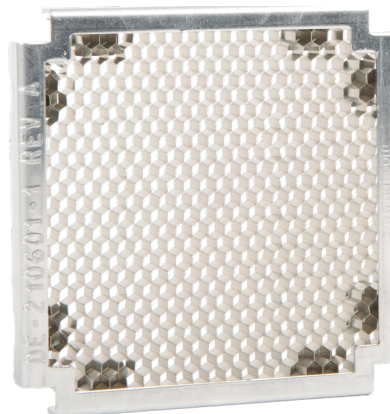
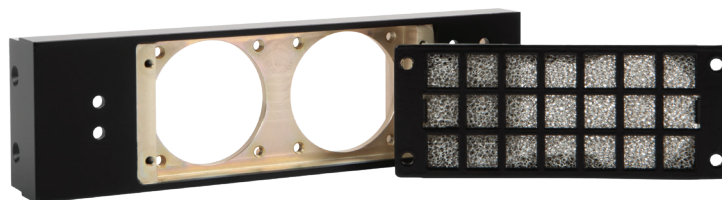
Custom Sheetmetal Frames

.032" Thick, 3003 Aluminum

.040" Thick, 3003 Aluminum

.063" Thick, 3003 Aluminum

20 GA. (.036") CRS w/ Zinc plate



UNIVERSAL AIR FILTER – EMI SHIELDING SOLUTIONS

FaraVent™ EMI Vent Panels – Shield Effectiveness Test Data

FaraVent™ Single Layer, 1/8" x 1/4"

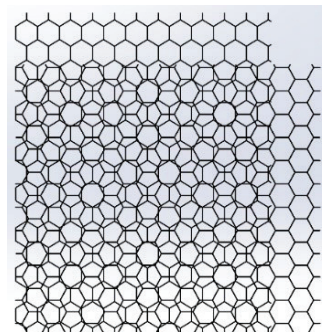
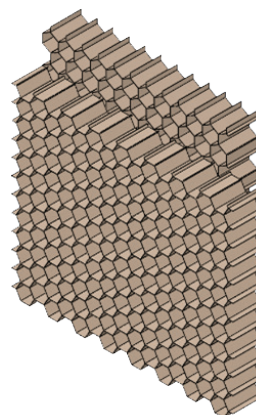
Frequency	Attenuation Horizontal	Attenuation Vertical
100 MHz	64 dB	49 dB
600 MHz	63 dB	53 dB
1 GHz	65 dB	40 dB
5 GHz	43 dB	39 dB
10 GHz	54 dB	40 dB
18 GHz	47 dB	39 dB
26 GHz	44 dB	42 dB
30 GHz	51 dB	44 dB
40 GHz	55 dB	41 dB

FaraVent™OS Double Layer, 1/8" x 1/8"

Frequency	Attenuation Horizontal	Attenuation Vertical
100 MHz	69 dB	67 dB
600 MHz	63 dB	55 dB
1 GHz	56 dB	55 dB
5 GHz	47 dB	44 dB
10 GHz	72 dB	51 dB
18 GHz	64 dB	54 dB
26 GHz	63 dB	56 dB
30 GHz	46 dB	43 dB
40 GHz	44 dB	34 dB

FaraVent™ Single Layer, 1/8" x 1/4"; 45 Degree

Frequency	Attenuation Horizontal	Attenuation Vertical
100 MHz	57 dB	45 dB
600 MHz	64 dB	55 dB
1 GHz	54 dB	32 dB
5 GHz	47 dB	40 dB
10 GHz	52 dB	38 dB
18 GHz	50 dB	38 dB
26 GHz	67 dB	41 dB
30 GHz	52 dB	28 dB
40 GHz	56 dB	22 dB

**FaraVent™OS (2)**

HC Layers, Offset 90 degrees

FaraVent™ Single Layer, 1/8" x 1/2"

Frequency	Attenuation Horizontal	Attenuation Vertical
100 MHz	62 dB	43 dB
600 MHz	64 dB	55 dB
1 GHz	54 dB	38 dB
5 GHz	60 dB	34 dB
10 GHz	41 dB	39 dB
18 GHz	54 dB	40 dB
26 GHz	64 dB	45 dB
30 GHz	58 dB	47 dB
40 GHz	65 dB	59 dB

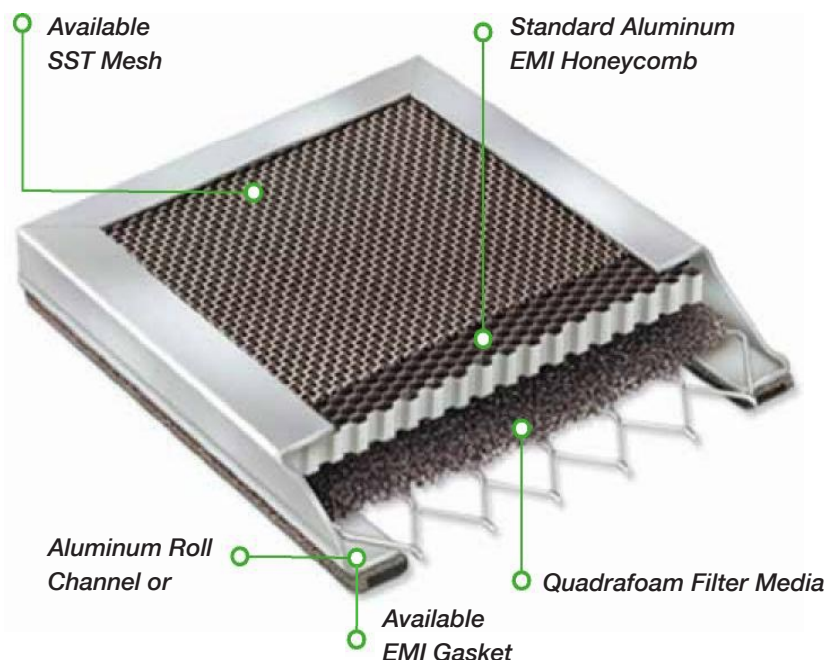
FaraVent™OS Double Layer, 1/8" x 1/4"

Frequency	Attenuation Horizontal	Attenuation Vertical
100 MHz	74 dB	71 dB
600 MHz	66 dB	64 dB
1 GHz	65 dB	61 dB
5 GHz	62 dB	51 dB
10 GHz	47 dB	44 dB
18 GHz	55 dB	47 dB
26 GHz	54 dB	54 dB
30 GHz	66 dB	57 dB
40 GHz	62 dB	60 dB

UNIVERSAL AIR FILTER – EMI SHIELDING SOLUTIONS

FaraVent™ Duo - Dual EMI Vent Panels

Universal Air Filter's unique Dual EMI vent Panels increase EMI protection to another by providing additional layer of particulate filtration using UAF Quadrafoam to limit ingress of dust that can build up sensitive electronics on time and cause acute failures. Adding the particulate filtration layer can also prevent tin/zin whiskers moving from one system to another. UAF's Quadrafoam media is rated UL94 HF-1 for flammability safety and is cleanable to increase the filter life cycle. The Quadrafoam media is low resistance particulate filter and can be configured to meet the system protections and resistance requirements. Dual EMI filters can be designed using one of our roll channel frame models or in a more custom windowpane design. Conductive corrosion resistance finishes, stainless steel mesh, and fabric over foam EMI gaskets can be added to provide optimize EMI attenuation levels.



FaraVent™ Duo
Dual EMI with Single Layer, 1/8" x 1/4"

Frequency	Attenuation Horizontal	Attenuation Vertical
100 MHz	77 dB	62 dB
600 MHz	63 dB	56 dB
1 GHz	58 dB	46 dB
5 GHz	46 dB	43 dB
10 GHz	37 dB	35 dB
18 GHz	48 dB	37 dB
26 GHz	65 dB	55 dB
30 GHz	48 dB	45 dB
40 GHz	45 dB	38 dB

Features

- Multiple aluminum honeycomb configurations for optimal EMI shielding effectiveness
- High dust arrestance, low resistance filter media
- Air flow straightening
- Available EMI gasket to optimize conductivity between the filter and equipment
- Flame retardant media/gasket
- Corrosion resistant finishes and SST mesh screens available
- Lightweight
- UV/Fungus resistance
- Meets NEBS, UL, CE, RoHS

FARAVENT™ DUO WITH REPLACEABLE FILTER MEDIA

