

# MICROVENT® FRONT PANELS

## DATASHEET

### FEATURES

- Improves EMI integrity
- Increased air flow
- Extruded shape or sheet stock aluminum
- Industry standard sizes of 1U, 2U and 3U
- Prototypes available now

MicroVent® front panels incorporate Atrenne's MicroVent Technology to address the increasing power dissipation and heat generation of electronics in custom enclosures. This increasing problem in the electronics industry has required front to back cooling in order to reach EMI (electromagnetic interference) and air flow requirements.

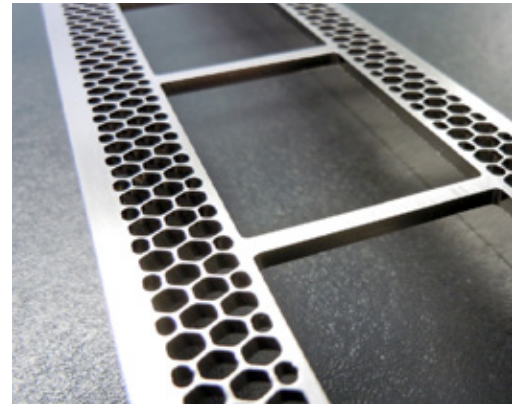
MicroVent front panels provide up to 85%+ open area for increased air flow all while providing EMI integrity to control electronic noise escaping from the cooling path of complex mechanical enclosures.

The highly configurable features can be easily oriented to maximize cooling in close proximity to I/O openings for precise targeting of heat generating components, producing an accurate, repeatable, aesthetic, robust and cost effective perforation method. Available in industry standard 1U, 2U and 3U rackmount enclosures, they easily attach to computers, servers, switches, routers, or mainframes.

Application specific EMI testing using MicroVent has been done up to 40 Gig providing excellent results. Along with the EMI result data Atrenne has simulated air flow data on our MicroVent front panels versus standard off the shelf industry solutions. Atrenne has also conducted air flow test on MicroVent versus industry standard EMI gasket solutions currently used in the industry.

Atrenne's MicroVent Technology provides the most open area for air flow providing improved cooling of electronic components while improving the EMI integrity of the system.

(1) MicroVent is a registered trademark of Atrenne, a Celestica company, LLC and is registered in the United States Patent and Trademark Office



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### WHAT IS MICROVENT?

MicroVent Technology addresses the need for more efficient thermal management in custom, electromechanical enclosures across many industries. The MicroVent pattern incorporated in an extruded or sheet metal front panel design provides additional air flow to the system, for thermal management requirements, while meeting system EMI/RFI requirements.

MicroVent is a sophisticated technology yielding hexagonal apertures with up to 86% open area in thick panel applications. The advanced MicroVent pattern provides a cosmetic, integrated component in next generation telecommunications, computing and data storage systems that require increased air flow cooling and EMI attenuation.

MicroVent offers measurable performance improvements in air flow, reduced back pressure, and EMI shielding, maintaining structural integrity, and reducing assembly costs. This proven technology is currently being utilized in a wide variety of customer applications and industries, including global Fortune 500 companies.



#### COMMON FEATURE DIMENSIONS

Hex (flat)		Radii		Web		% Open
mm	In	mm	In	mm	In	
3.0	0.118	0.8	0.030	0.3	0.013	79.3
3.5	0.138	0.8	0.030	0.3	0.013	82.1
4.0	0.157	0.8	0.030	0.3	0.013	84.2

Material : Aluminum; extruded shape or sheet stock

Material Thickness: 2-3mm optimal; Contact Atrenne for thicker material options.

### CONTACT INFORMATION

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