

## PRODUCT OVERVIEW



### MANUFACTURING CAPABILITIES

Donaldson prides itself in offering customers a wide variety of manufacturing capabilities, which includes:

- Rotary die cutting
- Over-molding
- Thermal attachment of filter material to plastic
- Cleanroom levels from Class 10,000 to 100
- Thermal and adhesive lamination
- ISO 9001 - 2000 certification
- Cost-effective solutions
- Global operations

### VENTING PRODUCTS



**Breather Filter** is designed to provide protection from particles, oils, and liquids without negatively affecting operation of the device. It is comprised of a filtration membrane and a pressure-sensitive adhesive ring for securing the filter to the device.



The **Breather Assembly** provides protection from particles, oils, and liquids while allowing pressure equalization in micro-environments. BAs are typically used in devices where adhesives are not appropriate, where chemical incompatibilities or extreme temperatures exist, in devices requiring physical protection of the filter path, and/or ease of assembly into the device.



**Acoustic Vents** are essential to protecting the speaker and microphone on portable electronic devices. Donaldson's acoustically transparent filtration products provide speakers and microphones with an effective barrier to dirt, dust, hair spray, oils, perspiration, and water.



**Screw Vents** provide protection from particles, water, oils, and liquids while allowing pressure equalization in micro-environments. This durable, threaded vent is easily integrated into existing equipment and can be used in a variety of applications including sensors, protective cases, lighting enclosures, appliances and general enclosures where protective venting is required.



Adsorbent filters are designed to provide protection from hydrocarbons, acid and base gases, and the effects of water vapor without negatively affecting operation of the device. These products are available as **Adsorbent Breather Filter, Adsorbent Label Filter, Adsorbent Breather Assembly** and **Adsorbent Pouch Filter**.

Contact us to increase the reliability of your micro-electronics.

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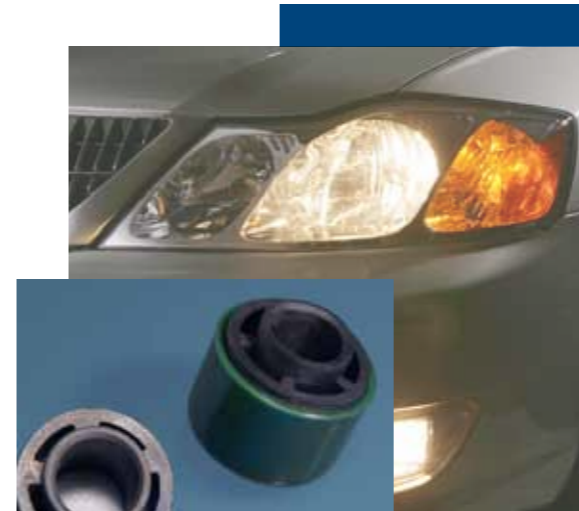
Integrated Venting Solutions Brochure (POB002.EN.02.11)  
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## PRODUCT OVERVIEW OPTIMIZING MICRO-ENVIRONMENTS

Integrated Venting Solutions

### HEADLAMP VENTS



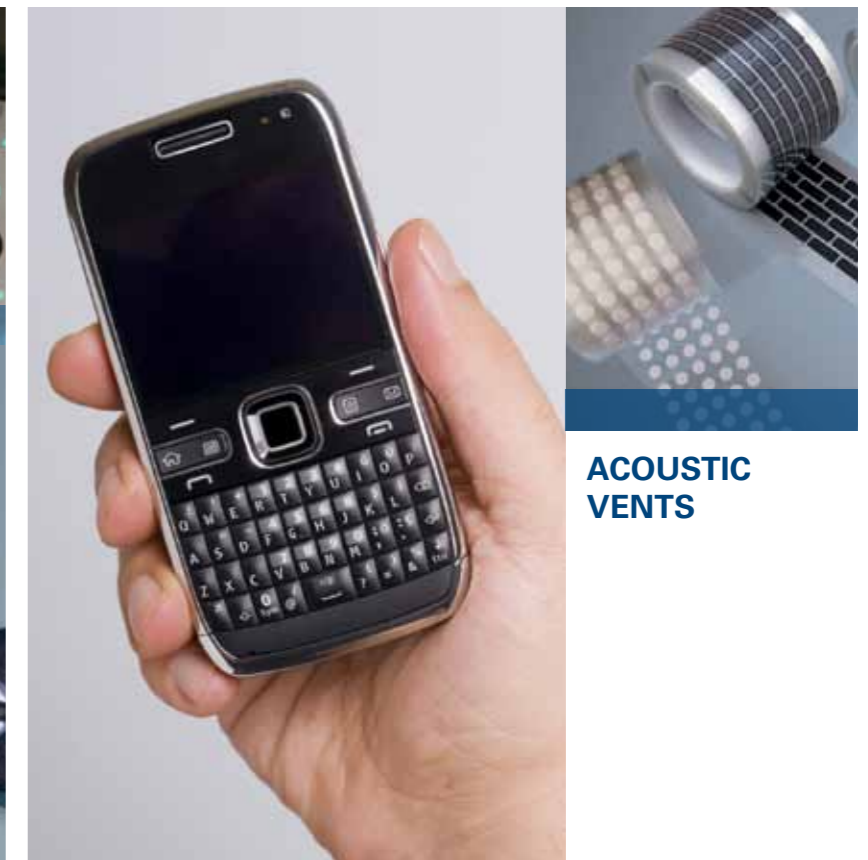
### HEARING AID VENTS



### SENSOR VENTS



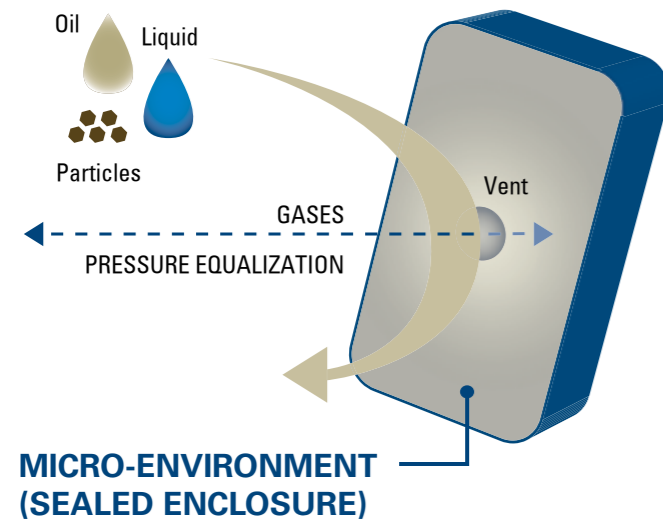
### ACOUSTIC VENTS



Donaldson Company has supplied more than a billion vents that protect devices and enclosures from temperature and pressure fluctuations, moisture, and harmful contaminants. Our wide range of venting options increases the effectiveness and reliability of micro-environments and extends product life.

**DESIGN EXPERTISE**

Our experts will provide the most optimal venting solution for your needs by helping you select the appropriate filtration material, adsorbent(s), and integration option.



**YOUR INTEGRATED VENTING SOLUTION EQUATION**

Filtration Material Options:

- High efficiency
- Oleophobic
- Hydrophobic
- Acoustically-transparent
- Ultra-clean (as required)

+ Adsorbent Options to Control:

- Water vapor
- Volatile organics
- Acid gases
- Base gases

+ Integration Options:

- Sonic welding
- Pressure-sensitive adhesive
- Injection over-molding
- Heat welding



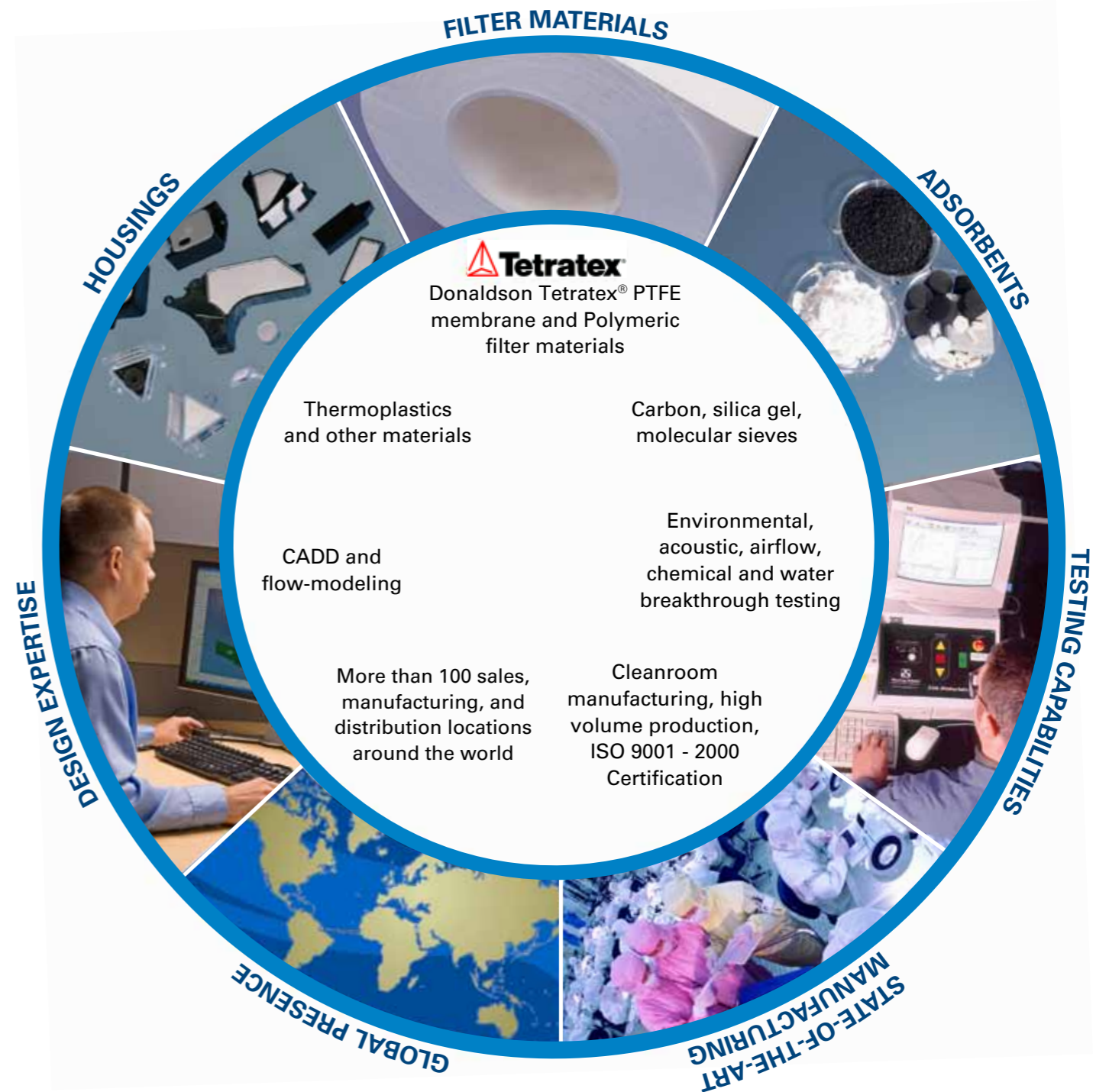
**TYPICAL APPLICATIONS**

- Mobile Phones
- Electronic Enclosures
- MEMS/Microsystems
- Hearing Aids
- Sensors
- Headlamps
- Caps and Closures
- Transducer Protectors
- Ostomy and Urine Bags
- Solar Panels
- Display (OLED, LCD, LED, etc.)

**FEATURES AND BENEFITS**

- Filters air and removes particulates
- Equalizes pressure
- Repels water and oil
- Regulates moisture vapor transmission rate
- Acoustic media has low sound transmission loss
- Adsorbs gases and/or moisture
- Customized designs for your applications
- Dissipates heat in micro-environments
- Low cost alternative to hermetic sealing

**YOUR INTEGRATED VENTING SOLUTION**



Partnering globally with our customers to provide effective and competitively priced integrated venting solutions