**DESIGN EXPERTISE**

Donaldson Company has supplied more than a billion vents that protect devices and enclosures from pressure fluctuations, moisture, and harmful contaminants. Our wide range of venting options increases the effectiveness and reliability of enclosures and extends product life. Our technical experts will provide the most optimal venting solution for your needs by helping you select the appropriate filtration material, adsorbent(s), and integration option.

**TYPICAL APPLICATIONS**

**AUTOMOTIVE**
- Lighting (Headlamps, fog lamps, rear lights, side markers, etc.)
- Electronics (Sensors, electronic control units, motors, etc.)
- Powertrain (Axles, transmissions, transfer cases, etc.)
- Fluid Reservoirs (SCR systems, wiper fluid tanks, filler caps, etc.)

**MOBILE ELECTRONICS**
- Mobile phones and cases
- Tablets
- Digital cameras
- Wearable electronics

**MEDICAL ELECTRONICS**
- Hearing aids
- Automated external defibrillators (AED)
- Insulin pumps
- Patient monitoring devices
- Mobile/Personal Emergency Response Systems (MERS and PERS)

**FEATURES & BENEFITS**
- Filters air and removes particulates
- Equalizes pressure
- Repels water and oil
- Regulates moisture vapor transmission rate
- Adsorbs gases, odors, and/or moisture
- Customized designs for your applications
- Allows cooling in enclosures
- Low cost alternative to hermetic sealing
- Acoustic media has low sound transmission loss

**DONALDSON VENTING SOLUTION EQUATION**

**Filtration Material Options:**
- High efficiency
- Oleophobic
- Hydrophobic
- Acoustically transparent
- Ultra-clean (as required)

**Adsorbent Options to Control:**
- Odor
- Water vapor
- Volatile organics
- Acid gases
- Base gases

**Integration Options:**
- Sonic welding
- Pressure-sensitive adhesive
- Injection over-molding
- Heat welding
VENTING PRODUCTS

**Protective Vents** are designed to provide protection from particles, oils, and liquids without negatively affecting the operation of the device. They are comprised of a filtration membrane and a pressure-sensitive adhesive ring for securing the filter to the device.

**Vent Assemblies** provide protection from particles, oils, and liquids while allowing pressure equalization in enclosures. Vent Assemblies 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 vents 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 enclosures. 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. Screw Vents are ideal for harsh environments where protection of the vent is necessary.

**Adsorbent Filters** are designed to remove odors, 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 Filters, Adsorbent Label Filters, Adsorbent Breather Assemblies, and Adsorbent Pouch Filters.

**Snap-Fit Vents** provide dust and liquid protection while equalizing pressure. The robust design provides maximum protection from harsh environments and can be easily integrated into your device for quick assembly. The secure vent cap design will not separate from the body during installation or application. Both standard and low profile designs are available.

MANUFACTURING CAPABILITIES

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

- Cost-effective solutions
- Thermal and adhesive lamination
- Thermal attachment of filter material to plastic
- Die cutting
- Over-molding
- Cleanroom levels from Class 10,000 to 100
- ISO 9001 - 2008 certification
- ISO/TS 16949:2009 certification
- Global operations
Important Notice
Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user’s knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user’s application.

All products, product specifications, availability and data are subject to change without notice, and may vary by region or country.