Moisture Meets Its Match

Donaldson T.R.A.P.™ breathers collect and expel moisture out of reservoirs. This means you won’t need to change the breather due to water saturation, unlike desiccant filters which require frequent change-out. TRAP water and particulate before it gets in without restricting air flow – letting your reservoirs breathe easy.
The circuit “breathes in” air containing moisture vapor. The T.R.A.P.™ breather strips moisture and particulate from the incoming air, allowing only clean, dry air to enter the circuit. During the “exhalation” cycle, the T.R.A.P.™ breather allows unrestricted airflow outward. The outflow of dry air picks up the moisture collected by the T.R.A.P.™ breather during intake, and “blows it back out” – fully regenerating the T.R.A.P.™ breather’s water-holding capacity.
Water has a way of sneaking into your hydraulic circuits – unless you have a Donaldson T.R.A.P.™ breather standing guard over your system.

Donaldson’s T.R.A.P.™ breather removes moisture at relative humidity levels as low as 15%. T.R.A.P.™ filtration technology reacts instantly to changes in thermal conditions – blocking moisture. T.R.A.P.™ breathers strip moisture vapor from intake air and release it back into the atmosphere on the outflow cycle. The filter continuously regenerates its water holding capacity. T.R.A.P.™ breathers expel the moisture back out, eliminating the need to change the breather due to water saturation - unlike desiccant filters that require frequent change-out. T.R.A.P.™ breathers not only protect against moisture but also provide advanced particulate filtration.

TRAP water before it gets in without restricting air flow, letting your hydraulic and lube oil reservoirs BREATHE.

<table>
<thead>
<tr>
<th>Compare</th>
<th>T.R.A.P.™ Technology</th>
<th>Desiccant Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Life</td>
<td>Extended life (expels moisture and refreshes its holding capacity on each cycle).</td>
<td>Shorter life (due to saturation of filtering material), leading to frequent replacement.</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Reacts instantly to conditions in the hydraulic circuit, creating a moisture barrier without impeding airflow.</td>
<td>Requires extended exposure to the air stream before absorption begins. Restrictions airflow.</td>
</tr>
<tr>
<td>Maintenance costs</td>
<td>Increased service hours.</td>
<td>Reduced service hours.</td>
</tr>
<tr>
<td>Technology</td>
<td>Thermally reactive barrier that removes moisture at relative humidity levels as low as 15%.</td>
<td>Absorbent filtering material that loses holding capacity with each cycle.</td>
</tr>
<tr>
<td>Filtration</td>
<td>Superior moisture blocking and particulate filtration, down to 3 microns at 97% with up to 7x the media area.</td>
<td>Less effective moisture blocking and particulate filtration with smaller filtration area.</td>
</tr>
<tr>
<td>Oil Mist</td>
<td>Built-in coalescing stage.</td>
<td>No oil mist control.</td>
</tr>
<tr>
<td>Rugged Design</td>
<td>Effective to -40°C. Robust housing protects media. Because it withstands high vibration, T.R.A.P.™ is suitable for both stationary and mobile applications.</td>
<td>Subject to freezing in winter conditions.</td>
</tr>
</tbody>
</table>
**Extended Range**

**T.R.A.P.™ Breather Technology**

Donaldson T.R.A.P.™ breathers are available in a variety of configurations:
- ABS plastic, nylon or epoxy-coated steel construction
- NPT, BSP, UN straight thread or bayonet connections
- With and without electronic indicator options to fit a broad range of applications

**T.R.A.P.™ Breather Sizing**

<table>
<thead>
<tr>
<th>Trap Model</th>
<th>Hydraulic System (l)</th>
<th>In-plant Lube (l)</th>
<th>Outside (l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>375</td>
<td>1875</td>
<td>938</td>
</tr>
<tr>
<td>Metal</td>
<td>150</td>
<td>750</td>
<td>375</td>
</tr>
<tr>
<td>Mini</td>
<td>15</td>
<td>75</td>
<td>38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Connection</th>
<th>Maximum Flow (lpm)</th>
<th>Indicator</th>
<th>Moisture Removal</th>
</tr>
</thead>
<tbody>
<tr>
<td>P566151*</td>
<td>1&quot; NPT</td>
<td>1274</td>
<td>opt mechanical indicator kit</td>
<td>Yes</td>
</tr>
<tr>
<td>P566608</td>
<td>1&quot; NPT</td>
<td>1274</td>
<td>electronic</td>
<td>Yes</td>
</tr>
<tr>
<td>P566156</td>
<td>Bayonet</td>
<td>1274</td>
<td>none</td>
<td>Yes</td>
</tr>
<tr>
<td>P566156</td>
<td>Bayonet</td>
<td>1274</td>
<td>electronic</td>
<td>Yes</td>
</tr>
<tr>
<td>P565857*</td>
<td>3/4&quot; NPT</td>
<td>708</td>
<td>opt mechanical indicator kit</td>
<td>Yes</td>
</tr>
<tr>
<td>P565858</td>
<td>Bayonet</td>
<td>708</td>
<td>none</td>
<td>Yes</td>
</tr>
<tr>
<td>P568037</td>
<td>3/4&quot; BSP</td>
<td>708</td>
<td>none</td>
<td>Yes</td>
</tr>
<tr>
<td>P575077</td>
<td>Bayonet, with Lock Tab</td>
<td>708</td>
<td>none</td>
<td>Yes</td>
</tr>
<tr>
<td>P556174</td>
<td>9/16&quot;-18 UNF</td>
<td>85</td>
<td>none</td>
<td>Yes</td>
</tr>
<tr>
<td>P567390</td>
<td>3/8&quot; NPT</td>
<td>85</td>
<td>none</td>
<td>Yes</td>
</tr>
<tr>
<td>P567392</td>
<td>1/4&quot; NPT</td>
<td>85</td>
<td>none</td>
<td>Yes</td>
</tr>
<tr>
<td>P567931</td>
<td>9/16&quot;-18 UNF</td>
<td>85</td>
<td>none</td>
<td>No</td>
</tr>
<tr>
<td>P567932</td>
<td>3/8&quot; NPT</td>
<td>85</td>
<td>none</td>
<td>No</td>
</tr>
<tr>
<td>P567933</td>
<td>1/4&quot; NPT</td>
<td>85</td>
<td>none</td>
<td>No</td>
</tr>
</tbody>
</table>

*Mechanical Indicator Kit - For use with P566151 & P565857 (requires customer-supplied 3/4"x1" NPT reducer bushing)

**Part No.**

P566168 1" NPT coupling 20" H2O/5 kPa trip point

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>P566321</td>
<td>3&quot; Stainless steel basket</td>
<td>6-bolt 2.81/71.4 circle</td>
</tr>
<tr>
<td>P575080</td>
<td>6&quot; Stainless steel basket with Lock Tab</td>
<td>6-bolt 2.81/71.4 circle</td>
</tr>
<tr>
<td>P563874</td>
<td>4&quot; Nylon Basket</td>
<td>6-bolt 2.81/71.4 circle</td>
</tr>
<tr>
<td>P563453</td>
<td>6&quot; Stainless steel basket</td>
<td>6-bolt 2.81/71.4 circle</td>
</tr>
</tbody>
</table>
## T.R.A.P.™ Breather Specifications

### Standard

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>P565616</td>
<td>(electronic indicator) Bayonet connection</td>
<td><img src="image" alt="P565616" /></td>
</tr>
<tr>
<td>P566156</td>
<td>(no indicator version) Bayonet connection</td>
<td><img src="image" alt="P566156" /></td>
</tr>
<tr>
<td>P564669</td>
<td>(optional mechanical) 1&quot; NPT connection</td>
<td><img src="image" alt="P564669" /></td>
</tr>
<tr>
<td>P566151</td>
<td>(no indicator version) 1&quot; NPT connection</td>
<td><img src="image" alt="P566151" /></td>
</tr>
</tbody>
</table>

### Metal

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>P565858</td>
<td>Bayonet connection</td>
<td><img src="image" alt="P565858" /></td>
</tr>
<tr>
<td>P575077</td>
<td>Bayonet connection with Lock Tab / P570353</td>
<td><img src="image" alt="P575077" /></td>
</tr>
<tr>
<td>P565857</td>
<td>(3/4&quot; NPT connection, optional mechanical indicator) P566037 (3/4&quot; BSP connection)</td>
<td><img src="image" alt="P565857" /></td>
</tr>
</tbody>
</table>

### Mini

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>P566174 / P567390 / P567392</td>
<td></td>
<td><img src="image" alt="P566174" /></td>
</tr>
</tbody>
</table>

### Mechanical Indicator Kit

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>P566188</td>
<td>Suitable for use with P566151 and P565857°</td>
<td><img src="image" alt="P566188" /></td>
</tr>
</tbody>
</table>

*Requires additional 3/4" x 1" reducer bushing (supplied by customer)

### Bayonet Style Filler Basket/Flange Kits

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>P56321</td>
<td>3&quot; Stainless Steel Basket</td>
<td><img src="image" alt="P56321" /></td>
</tr>
<tr>
<td>P575080</td>
<td>6&quot; Stainless Steel Basket</td>
<td><img src="image" alt="P575080" /></td>
</tr>
<tr>
<td>P563453</td>
<td>6&quot; Stainless Steel Basket</td>
<td><img src="image" alt="P563453" /></td>
</tr>
</tbody>
</table>
Extended Range
T.R.A.P.™ Breather Technology

Cap color depending on characteristics

**Blue**
Non pressurized

**White**
Leakage reduction

**Red**
Pressurized up to 0.4 bar

T.R.A.P.™ PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>10µm Cellulose Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>non-pressurized</td>
</tr>
<tr>
<td></td>
<td>Anti-Rollover valve</td>
</tr>
<tr>
<td></td>
<td>(leakage reduction)</td>
</tr>
<tr>
<td></td>
<td>pressurized 0.4 bar</td>
</tr>
<tr>
<td>Blue</td>
<td>Family</td>
</tr>
<tr>
<td></td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>Red</td>
</tr>
<tr>
<td>RMF</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>300</td>
</tr>
<tr>
<td>FS7</td>
<td>P767027</td>
</tr>
<tr>
<td></td>
<td>F7</td>
</tr>
<tr>
<td></td>
<td>P767025</td>
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<tr>
<td></td>
<td>FSP7</td>
</tr>
<tr>
<td></td>
<td>P767023</td>
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<tr>
<td>FS8</td>
<td>P767029</td>
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<td>F8</td>
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<td>P766645</td>
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<td>FSP8</td>
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<td>P767019</td>
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<tr>
<td>FS9</td>
<td>P767031</td>
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<tr>
<td></td>
<td>F9</td>
</tr>
<tr>
<td></td>
<td>P766646</td>
</tr>
<tr>
<td></td>
<td>FSP9</td>
</tr>
<tr>
<td></td>
<td>P767021</td>
</tr>
</tbody>
</table>

RMF = Recommended Maximum AIR-Flow in liters/minute

<table>
<thead>
<tr>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>FS7</td>
</tr>
<tr>
<td>FS8</td>
</tr>
<tr>
<td>FS9</td>
</tr>
</tbody>
</table>
T.R.A.P.™ Breather Technology
Eliminates Moisture and Particulate from Reservoirs

**Technical Features**

**Operating Temperature Range**
- -40°C to 93°C
- Intermittent operation to 121°C

**Connection Sizes**
- 1” and 3/4” NPT, 3/4” BSP Bayonet
- 1/4” and 3/8” NPT, 9/16”-18UN
- 1/2”, 3/4” and 1” BSP

**Flow Rates**
- 1274 lpm
- 708 lpm
- 300 lpm
- 85 lpm

**Particulate Filter**
- Highly efficient pleated particulate filter stops particle sizes down to 3 μm at 97%.

**Service Interval**
- Optional mechanical indicator available
- Models with no indicator: change breather every 6 months.

**Electronic Indicator**
- Actuated by pressure differential, flashes red to indicate change out is needed. Indicator setting, 1 psid (6.9kPa). Indicator power source: 3V lithium battery CR2032.

**Mechanical Indicator Kit**
- Install kit between reservoir and T.R.A.P.™ breather. Lock-up style indicator with manual reset. Highly visible, bright red band shows when restriction limit is reached. Indicator setting 20” H₂O (5.0 kPa).

**Specific features**
- Pressurized versions available up to 0.4 bar
- Anti leakage versions available (in case of machine roll over)

**Caution!**
In environments with combustible dusts or vapors, use non-electrical models only.

---

**T.R.A.P.™ PERFORMANCE DATA**

<table>
<thead>
<tr>
<th>Flow Rate (cfm)</th>
<th>Pressure Drop Return (in H₂O)</th>
<th>Pressure Drop Return (in kPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
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<td>20</td>
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<td>40</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>45</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

Legend:
- Mini
- Metal
- Standard
Why Donaldson

Broad product offering for heavy on-road engines
- Light to heavy particle filtration
- Filtration solutions for new equipment
- Replacements for in-use equipment
- Wide variety of accessories

Proven technology
- PowerCore® systems
- Ultra-Web® nanofiber technology
- Pleatloc™ media spacing
- Radial seal housings
- Donaldson BLUE™
- Single & two-stage filtration
- Pre-cleaners & inlet hoods
- Filter indicators & gauges

Lasting quality & value
- Quality & environmental management practices
- TS & ISO Certified
- Durable products that protect engines and control maintenance costs

Readily available
- Stock Product
- Ship orders same day received
- Local availability through distributors and OE dealers

Single filtration source
- Donaldson has air, lube, fuel, coolant, hydraulic, transmission filters for all vehicles from pick-ups and SUVs to mining haul trucks and airplanes!

History of innovation
- Established as a filtration company in 1915
- Over 1500 active patents worldwide