### Technical Details

<table>
<thead>
<tr>
<th>Model</th>
<th>BF10</th>
<th>ELF10</th>
<th>BF4</th>
<th>ELF4</th>
<th>BF30</th>
<th>ELF30</th>
<th>BF3</th>
<th>ELF3</th>
<th>BF7</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPM (cfm)</td>
<td>53 (7)</td>
<td>53 (7)</td>
<td>33 (4.4)</td>
<td>33 (4.4)</td>
<td>105 (14)</td>
<td>105 (14)</td>
<td>105 (14)</td>
<td>105 (14)</td>
<td>260 (35)</td>
</tr>
<tr>
<td>GPM (cfm)</td>
<td>100 (13)</td>
<td>100 (13)</td>
<td>90 (12)</td>
<td>90 (12)</td>
<td>230 (31)</td>
<td>230 (31)</td>
<td>230 (31)</td>
<td>230 (31)</td>
<td>475 (63)</td>
</tr>
<tr>
<td>Cap Material</td>
<td>Polyamide</td>
<td>Polyamide</td>
<td>Steel</td>
<td>Steel</td>
<td>Polyamide</td>
<td>Polyamide</td>
<td>Steel</td>
<td>Steel</td>
<td>Polyamide</td>
</tr>
<tr>
<td>Strainer Material</td>
<td>N/A</td>
<td>Polyamide</td>
<td>N/A</td>
<td>Polyamide</td>
<td>N/A</td>
<td>Polyamide</td>
<td>N/A</td>
<td>Polyamide</td>
<td>N/A</td>
</tr>
<tr>
<td>Replaceable Element</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Connection Type</td>
<td>Threaded</td>
<td>Flanged</td>
<td>Threaded</td>
<td>Flanged</td>
<td>Threaded</td>
<td>Flanged</td>
<td>Threaded</td>
<td>Flanged</td>
<td>Threaded</td>
</tr>
<tr>
<td>Connection Size(s)</td>
<td>G 1/4, 1/2 NPT, M22, SAE-12</td>
<td>3 hole flange</td>
<td>G 1/4</td>
<td>3 hole flange</td>
<td>G 3/4, 3/4 NPT, 1 NPT, M42, SAE-12</td>
<td>6 hole flange</td>
<td>G 3/8, G 1/2, G 3/4, 3/4 NPT</td>
<td>6 hole flange</td>
<td>G 1, 3/4 NPT, SAE-16</td>
</tr>
<tr>
<td>Element Media</td>
<td>3 μm paper</td>
<td>3 μm paper</td>
<td>3 or 10 μm paper</td>
<td>3 or 10 μm paper</td>
<td>3 or 10 μm paper</td>
<td>3 or 10 μm paper</td>
<td>3 or 10 μm paper</td>
<td>3 or 10 μm paper</td>
<td></td>
</tr>
</tbody>
</table>

### Options

<table>
<thead>
<tr>
<th>Option</th>
<th>BF10</th>
<th>ELF10</th>
<th>BF4</th>
<th>ELF4</th>
<th>BF30</th>
<th>ELF30</th>
<th>BF3</th>
<th>ELF3</th>
<th>BF7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clogging Indicator</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Relief Valve</td>
<td>Optional</td>
<td>Optional</td>
<td>N/A</td>
<td>N/A</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Antisplash</td>
<td>Optional</td>
<td>Optional</td>
<td>N/A</td>
<td>N/A</td>
<td>Optional</td>
<td>Optional</td>
<td>N/A</td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>Dipstick</td>
<td>Optional</td>
<td>Optional</td>
<td>N/A</td>
<td>N/A</td>
<td>Optional</td>
<td>Optional</td>
<td>N/A</td>
<td>Optional</td>
<td></td>
</tr>
</tbody>
</table>

For sizes BF/ELF 10 thru BF/ELF 72 we recommend you size the breathers at $p = 0.01$ bar but in optimal conditions you may size the breathers at up to $p = 0.04$ bar (Call HYDAC if you have any questions).

See other Breather options available on page 107.
For sizes BF/ELF 5 thru BF/ELF 9 we recommend you size the breathers at v = 20 m/s but in optimal conditions you may size the breathers at up to $\Delta p = 0.01$ bar. (Call HYDAC if you have any questions).

See other Breather options available on page 107.
**BL Series** (pages 119-120)

*Specifications:*
- Maximum flow rate: 110 SCFM/850 GPM
- 3 or 10 micron
- Steel Canister
- 10 micron Betamicron®
- Replaceable element

**BD Series** (pages 121-126)

*Specifications*
- Durable ABS plastic and impact-modified Plexiglas
- 2 micron, 100% efficiency
- Airflow up to 100 scfm (750 gpm)
Breathers & Filler Breather Technical Overview

**Importance of Breathers**

Breathers are an integral component in any Hydraulic system. Breathers provide protection from contamination found in harsh industrial environments. It is well advised to address both contaminant exclusion and removal. An old rule of thumb states that it **cost 10 times as much to REMOVE a particle from your system as it does to EXCLUDE it**. Since this is true, it is easy to see that the benefits of using a high quality breather greatly out-weigh the costs.

**Recommendations**

1) HYDAC recommends selecting a breather with a filtration rating (micron rating) that is equivalent to or finer than your finest system filter.

2) Breathers do get clogged over time. HYDAC recommends the following change-out schedules:
   - For breathers without pressure gauges
     - Change your breather annually or with every service interval
   - For breathers with pressure gauges
     - Change your breathers at a 3 psi pressure drop, at 7 psi pressure drop the pump can cavitate

**HYDAC High Quality Breathers**

HYDAC Breathers use HIGH quality filtration.

- For 3μm breathers: \(d_{99.85} = 3 \, \mu m\) The d100 rating means that 100% of 10 μm particles are captured by the breather during a standard ISO single pass test.
- For 10μm breathers: \(d_{100} = 10 \, \mu m\)

Standard elements are made of phenolic resin impregnated paper, which provides resistance to moisture, ensuring proper filtration over the operational service life of your breather.

**Pressurized Breathers**

The use of pressurized breathers adds certain benefits:

- Provides additional protection from moisture which can condense in your tank, causing oil degradation and tank erosion
- Provides positive pressure to pump suction line
- Increased breather service life due to less breathing
- Performs anti-splash function

---

**Tank Pressure Using a Standard Breather**

- **Positive Pressure** (tank breathes out)
  - When fluid level rises, the tank pressure rises and air is immediately expelled through the breather whenever positive pressure exists.
  - When fluid level lowers, the tank pressure drops and air is immediately drawn in through the breather whenever a vacuum exists.
  - Air is constantly moving through the breather in order to maintain atmospheric pressure.

- **Vacuum** (tank breathes in)

**Tank Pressure Using a Pressurized Breather**

- **Positive Pressure Above Cracking Pressure** (tank breathes out)
  - When fluid level rises, the existing air volume is compressed, and no air is expelled until the cracking pressure is surpassed.
  - When fluid level lowers, the tank pressure drops until a vacuum is created at which point, air will be drawn in through the breather.
  - Air is only expelled when the tank pressure is above the cracking pressure, and air is only drawn in below atmospheric pressure.

- **Vacuum** (tank breathes in)

The majority of the operational cycle will take place between these two conditions.
**BF...3 & BF...4 Series**

### Specifications
- Maximum flow rate - 31 scfm / 230 gpm at 0.04 bar
- Epoxy coated steel cap
- Zinc-plated internals
- 3 or 10 micron
- Threaded connection
- Pressurized breather with relief valve (optional - BF3 only)
- Phenolic resin impregnated filter element

### Dimensions

<table>
<thead>
<tr>
<th>Size</th>
<th>(\phi) D1</th>
<th>D2 (male)</th>
<th>H1</th>
<th>H3</th>
<th>HEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF 3...1.0</td>
<td>2.99&quot; (76mm)</td>
<td>G 3/4 (ISO 228)</td>
<td>3.11&quot; (79mm)</td>
<td>0.63&quot; (16mm)</td>
<td>1 7/16&quot; (36mm)</td>
</tr>
<tr>
<td>BF 3...2.0</td>
<td>2.99&quot; (76mm)</td>
<td>G 3/8 (ISO 228)</td>
<td>2.83&quot; (72mm)</td>
<td>0.47&quot; (12mm)</td>
<td>7/8&quot; (22mm)</td>
</tr>
<tr>
<td>BF 3...3.0</td>
<td>2.99&quot; (76mm)</td>
<td>G 1/2 (ISO 228)</td>
<td>2.99&quot; (76mm)</td>
<td>0.55&quot; (14mm)</td>
<td>1 1/16&quot; (27mm)</td>
</tr>
<tr>
<td>BF 3...4.0</td>
<td>1.73&quot; (44mm)</td>
<td>G 1/4 (ISO 228)</td>
<td>2.44&quot; (62mm)</td>
<td>0.53&quot; (13.5mm)</td>
<td>11/16&quot; (17mm)</td>
</tr>
</tbody>
</table>

### Model Code

<table>
<thead>
<tr>
<th>Filter Type</th>
<th>BF = Breather</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Element Material</td>
<td>P = Phenolic Resin Impregnated Paper</td>
</tr>
<tr>
<td>Size</td>
<td>3 = 31 scfm (230 gpm) max.</td>
</tr>
<tr>
<td></td>
<td>4 = 12 scfm (90 gpm) max.</td>
</tr>
<tr>
<td>Type of Connection</td>
<td>G = Threaded</td>
</tr>
<tr>
<td>Filtration Rating (micron)</td>
<td>3 = 3(\mu)m Air Filtration</td>
</tr>
<tr>
<td></td>
<td>10 = 10(\mu)m Air Filtration</td>
</tr>
<tr>
<td>Gauge Options</td>
<td>W = Without Indicator</td>
</tr>
<tr>
<td>Modification Number</td>
<td>HEX</td>
</tr>
</tbody>
</table>

### Supplementary Details
- (omit) = standard
- RV = Relief Valve (for use on pressurized tanks) (BF3 only)

Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply
Contact HYDAC for information and availability

Not all combinations are available

---

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.
Dimensions are in inches/\(\text{mm}\) and lbs./\(\text{kg}\).
BF...10 Series

Hydraulic Symbols

Dimensions

Specifications
- Maximum Flow Rate 13 scfm / 100 gpm at 0.04 bar
- Durable synthetic material (PA6)
- Filtration Rating 3 μm
- Buna N O-Ring
- Optional dipstick (contact factory)
- Optional customer logo (contact factory)
- Optional pressurized breather with relief valve
- Optional anti-splash device
- -22° to 212°F (-30° to 100°C)
- Phenolic resin impregnated filter element

Model Code

Filter Type
BF = Breather

Filter Element Material
P = Phenolic Resin Impregnated Paper

Size
10

Type of Connection
G = BSPP
N = NPT
U = SAE
M = Metric threads

Filtration Rating (micron)
3 = 3 μm Air Filtration

Gauge Option
W = Without Indicator

Modification Number
Connection Type
1.0 = G 1/4 1/2 NPT – – M22x1.5
2.0 = G 1/2 – – – M18x1.5
3.0 = – – – SAE-12 –

Options
(omit) = None
RV0.2 = Relief Pressure 3 psi (0.2 bar)
RV0.4 = Relief Pressure 6 psi (0.4 bar)
RV0.7 = Relief Pressure 10 psi (0.7 bar)
AS = Anti-splash protection (only for version without RV)

Not all combinations are available

Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply
Contact HYDAC for information and availability

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.
Dimensions are in inches/(mm) and lbs./(kg.)
BF...30 Series

Specifications
- Maximum flow rate - 31 scfm / 230 gpm at 0.04 bar
- Durable synthetic material (PA6)
- 3 or 10 micron
- Buna N O-Ring
- Threaded breather connection
- Optional dipstick (contact factory)
- Optional customer logo (contact factory)
- Optional pressurized breather with relief valve
- Optional anti-splash device
- -22° to 212°F (-30° to 100°C)
- Phenolic resin impregnated filter element

Model Code
Filter Type
- BF = Breather

Filter Element Material
- P = Phenolic Resin Impregnated Paper

Size
- 30

Type of Connection
- G = BSPP
- N = NPT
- U = SAE
- M = Metric Threads

Filtration Rating (micron)
- 3 = 3μm Air Filtration
- 10 = 10μm Air Filtration

Gauge Options
- W = Without Indicator

Modification Number

Options
- (omit) = none
- RV0.4 = Relief Pressure 6 psi (0.4 bar)
- AS = Anti-Splash protection (only for version without RV)

Dimensions

Hydraulic Symbols

Anti-Splash

Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply.
Contact HYDAC for information and availability.
Not all combinations are available.

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.
Dimensions are in inches/(mm) and lbs./(kg.)
**Breathers**

**BF...7 Series**

**Hydraulic Symbols**

- **standard**
- **with indicator**

**Specifications**
- Maximum flow rate - 63 scfm / 475 gpm at 0.04 bar
- Durable synthetic material (PA6)
- 3 or 10 micron
- Replaceable element Phenolic resin impregnated paper
- Threaded breather cap connection
- Differential gauge (optional)
- -22° to 212°F (-30° to 100°C)

**Model Code**

<table>
<thead>
<tr>
<th>Filter Type</th>
<th>Filter Element Material</th>
<th>Size</th>
<th>Type of Connection</th>
<th>Filtration Rating (micron)</th>
<th>Gauge Options</th>
<th>Modification Number</th>
<th>Connection Type</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF</td>
<td>Phenolic Resin Impregnated Paper</td>
<td>7</td>
<td>Threaded BSPP</td>
<td>3</td>
<td>W/ K</td>
<td>G (BSPP) 1.0</td>
<td>G (BSPP) N (NPT) U (SAE)</td>
<td>AS</td>
</tr>
</tbody>
</table>

**Dimensions**

- **ø 4.72” (120mm)**
- **ø 4.57” (116mm)**
- **ø 1.73” (44mm)**
- **4.33” (110mm)**
- **1 5/8” HEX (41mm)**
- **0.71” (18mm)**

- Clearance Required for Element Removal

**Replacement Elements**

<table>
<thead>
<tr>
<th>Micron</th>
<th>Model Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0007L003P</td>
<td>00310948</td>
</tr>
<tr>
<td>10</td>
<td>0007L010P</td>
<td>00310485</td>
</tr>
</tbody>
</table>

Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply. Contact HYDAC for information and availability. Not all combinations are available.

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print. Dimensions are in inches/(mm) and lbs./(kg.)
BF...7/72 Series
Breathers with Visual Indicator

Specifications
- Maximum flow rate - up to 74 scfm / 555 gpm at 0.04 bar
- Durable synthetic material (PA6)
- 3 or 10 micron
- Replaceable element
- Phenolic resin impregnated paper
- Threaded or flanged breather connection
- Visual indicator (see below)
- -22° to 212°F (-30° to 100°C)

Model Code

Filter Type
BF = Breather

Filter Element Material
P = Phenolic Resin Impregnated Paper

Size
7 (63 scfm / 475 gpm)
72 (74 scfm / 555 gpm)

Type of Connection
F = Flanged
G = Threaded

Filtration Rating (micron)
3 = 3μm Air Filtration
10 = 10μm Air Filtration

Gauge Options
UBM = Visual Indicator of Vacuum Pressure with Manual Reset - Range to 0.5 psi (0.035 bar)

Tank Connection
0 = with 6 hole flange to DIN 24557/2 (F connection)
2 = 3/4” BSPP male (G connection)
3 = 1 1/2-16 UN-2B female (G connection)
(use with BL 160 adapters - see page 118)

Modification Number
0 = Standard

Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply
Contact HYDAC for information and availability
Not all combinations are available

Replacement Elements

<table>
<thead>
<tr>
<th>Micron</th>
<th>Model Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0072L003P</td>
<td>03269023</td>
</tr>
<tr>
<td>10</td>
<td>0072L010P</td>
<td>03190037</td>
</tr>
<tr>
<td>3</td>
<td>0007L003P</td>
<td>00310948</td>
</tr>
<tr>
<td>10</td>
<td>0007L010P</td>
<td>00310485</td>
</tr>
</tbody>
</table>

Dimensions

BFP7F...0.0 version shown with 6 hole flange

Visual Indicator
The visual indicator shows by percentage the increase in vacuum pressure drop across the element. The percentage remains visible even when the system is turned off. When the element is changed a manual reset button must be pressed.

Model Code
VMF 0.035 UBM.X

Part Number
01279244

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.
Dimensions are in inches/(mm) and lbs./(kg.)
Breathers

**BF...72 Series**

**Hydraulic Symbols**

**Specifications**
- Maximum flow rate - 74 scfm / 555 gpm at 0.04 bar
- Durable synthetic material (PA6)
- 3 or 10 micron
- Replaceable element
- Phenolic resin impregnated paper
- Removable lid to access fill port
- Threaded breather cap connection
- Differential gauge (optional)
- -22° to 212°F (-30° to 100°C)

**Model Code**

<table>
<thead>
<tr>
<th>Filter Type</th>
<th>BF = Breather</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Element Material</td>
<td>P = Phenolic Resin Impregnated Paper</td>
</tr>
<tr>
<td>Size</td>
<td>72</td>
</tr>
<tr>
<td>Type of Connection</td>
<td>G = Threaded BSPP, N = Threaded NPT (consult factory)</td>
</tr>
<tr>
<td>Filtration Rating (micron)</td>
<td>3 = 3μm Air Filtration, 10 = 10μm Air Filtration</td>
</tr>
<tr>
<td>Gauge Options</td>
<td>W = Without Indicator</td>
</tr>
<tr>
<td>Tank Thread Connection (ISO 228)</td>
<td>1 = G 1 (1” BSPP)</td>
</tr>
<tr>
<td>Modification Number</td>
<td>0 = Standard</td>
</tr>
</tbody>
</table>

Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply. Contact HYDAC for information and availability.

Not all combinations are available.

**Dimensions**

BFP7G...1.0 version shown

---

**Replacement Elements**

<table>
<thead>
<tr>
<th>Micron</th>
<th>Model Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0072L003P</td>
<td>03269023</td>
</tr>
<tr>
<td>10</td>
<td>0072L010P</td>
<td>03190037</td>
</tr>
</tbody>
</table>

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.
Dimensions are in inches/(mm) and lbs./(kg.)
**BF...5 Series**

**Hydraulic Symbols**

- Standard
- With relief valve

**Specifications**

- Maximum flow rate - 105 scfm / 790 gpm at 0.01 bar
- Steel housing
- 3 or 10 micron
- Replaceable element
- G2 1/2 female threaded connection
- Phenolic resin impregnated filter element

**Dimensions**

- Clearance Required for Element Removal: 3.54" (90mm)
- \( \phi \) 6.97" (177mm)
- 4.21" (107mm)
- \( G \) 2 1/2" (ISO 228) female

**Model Code**

- **Filter Type**
  - BF = Breather
- **Filter Element Material**
  - P = Phenolic Resin Impregnated Paper
- **Size**
  - 5
- **Type of Connection**
  - G = Threaded
- **Filtration Rating (micron)**
  - 3 = 3μm Air Filtration
  - 10 = 10μm Air Filtration
- **Gauge Options**
  - W = Without Indicator
- **Tank Thread Connection (ISO 228)**
  - 1 = G 2 1/2 (standard)
- **Modification Number**
  - 0 = Standard
- **Options**
  - RV0.4 = Relief Pressure 6 psi (0.4 bar)

**Replacement Elements**

<table>
<thead>
<tr>
<th>Micron</th>
<th>Model Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0005L003P</td>
<td>00309450</td>
</tr>
<tr>
<td>10</td>
<td>0005L010P</td>
<td>00306097</td>
</tr>
</tbody>
</table>

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.
Dimensions are in inches/(mm) and lbs./(kg.)
**BF...52 Series**

**Hydraulic Symbols**

**Specifications**
- Maximum flow rate - 176 scfm / 1320 gpm at 0.01 bar
- Steel housing
- 3 or 10 micron
- Replaceable element
  - Uses 2 of the standard size 5 elements
- Phenolic resin impregnated paper
- G 2 1/2” female threaded connection

**Model Code**

<table>
<thead>
<tr>
<th>Filter Type</th>
<th>BF = Breather</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Element Material</td>
<td>P = Phenolic Resin Impregnated Paper</td>
</tr>
<tr>
<td>Size</td>
<td>52</td>
</tr>
<tr>
<td>Type of Connection</td>
<td>G = Threaded</td>
</tr>
<tr>
<td>Filtration Rating (micron)</td>
<td>3 = 3μm Air Filtration, 10 = 10μm Air Filtration</td>
</tr>
<tr>
<td>Gauge Options</td>
<td>W = Without Indicator</td>
</tr>
<tr>
<td>Connection Type</td>
<td>1 = G 2 1/2 (standard)</td>
</tr>
<tr>
<td>Modification Number</td>
<td>0 = Standard</td>
</tr>
</tbody>
</table>

**Dimensions**

- Maximum flow rate - 176 scfm / 1320 gpm at 0.01 bar
- Steel housing
- 3 or 10 micron
- Replaceable element
  - Uses 2 of the standard size 5 elements
- Phenolic resin impregnated paper
- G 2 1/2” female threaded connection

**Replacement Elements**

<table>
<thead>
<tr>
<th>Micron</th>
<th>Model Code</th>
<th>Part No.</th>
<th>Qty Req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0005L003P</td>
<td>00309450</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>0005L010P</td>
<td>00306097</td>
<td>2</td>
</tr>
</tbody>
</table>
**BF...8 Series**

**Hydraulic Symbols**

- **standard**
- **with indicator**

**Specifications**
- Maximum flow rate - 352 scfm / 2640 gpm at 0.01 bar
- Steel housing
- 1 micron Air Filter
- Replaceable element
- 4 bolt DN 93 flange

**Model Code**

<table>
<thead>
<tr>
<th>Filter Type</th>
<th>BF = Breather</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Element Material</td>
<td>BN = Betamicron®</td>
</tr>
<tr>
<td>Size</td>
<td>8</td>
</tr>
<tr>
<td>Type of Connection</td>
<td>F = Flanged (DN 93, 4 bolt)</td>
</tr>
<tr>
<td>Filtration Rating</td>
<td>1 = 1μm Air Filtration</td>
</tr>
<tr>
<td></td>
<td>2 = 2μm Air Filtration</td>
</tr>
<tr>
<td>Gauge Options</td>
<td>A = Without Indicator</td>
</tr>
<tr>
<td></td>
<td>K = With Indicator Gauge (-1 bar to 0.6 bar)</td>
</tr>
<tr>
<td>Modification Number</td>
<td>1.0 = Standard</td>
</tr>
</tbody>
</table>

Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply
Contact HYDAC for information and availability
Not all combinations are available

**Dimensions**

- **6.97” (177mm)**
- **14.37” (365mm)**
- **19.63” (499mm)**

**Replacement Elements**

<table>
<thead>
<tr>
<th>Micron</th>
<th>Model Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0008L001BN4</td>
<td>01266598</td>
</tr>
<tr>
<td>2</td>
<td>0008L002BN4</td>
<td>01265021</td>
</tr>
</tbody>
</table>

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.
Dimensions are in inches/(mm) and lbs./(kg.)
BF...9 Series
Breathers with Oil Mist Trap

Hydraulic Symbols

Model Code

Filter Type
BF = Breather

Filter Element Material
BN = Betamicron® Element

Size
9

Type of Connection
F = Flanged

Filtration Rating (micron)
2 = 2μm Air Filtration

Gauge Options
A = Without Indicator
K = With Indicator - Range: -14.5 to 9 psi (-1 to 0.6 bar)

Modification Number
1.0 = Standard

Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply
Contact HYDAC for information and availability
Not all combinations are available

Specifications
• Maximum flow rate - 528 scfm / 3960 gpm at 0.01 bar
• Aluminum housing
• Replaceable element
• 2 μm Air Filter
• 8 bolt DN 125 flange

Oil Mist Trap
The oil mist in the filter is collected in a “drip tray” and is returned safely to the tank, or it can be drained via an oil drain plug.
No oil runs down onto the top of the tank.

Dimensions

Clearance Required for Element Removal

Replacement Elements

<table>
<thead>
<tr>
<th>Micron</th>
<th>Model Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0009L002BN</td>
<td>01287471</td>
</tr>
</tbody>
</table>

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.
Dimensions are in inches/(mm) and lbs./(kg.)
**BL Series**

**Spin-on Breathers**

**Hydraulic Symbols**

**Specifications:**
- Maximum flow rate: 110 scfm / 850 gpm
- 3 or 10 micron
- Steel Canister
- 10 micron Betamicron®
- Replaceable element

**Dimensions**

- Maximum flow rate: 110 scfm / 850 gpm
- 3 or 10 micron
- Steel Canister
- 10 micron Betamicron®
- Replaceable element

<table>
<thead>
<tr>
<th>Specifications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum flow rate: 110 scfm / 850 gpm</td>
</tr>
<tr>
<td>3 or 10 micron</td>
</tr>
<tr>
<td>Steel Canister</td>
</tr>
<tr>
<td>10 micron Betamicron®</td>
</tr>
<tr>
<td>Replaceable element</td>
</tr>
</tbody>
</table>

**Model Code**

**Filter Type**
- BL = Spin-on Breather
- BLT = Spin-on Breather with Dehumidifying Element (size 160 only) (in 3 micron only)

**Filter Element Material**
- P = Impregnated Paper
- BN = Betamicron®
- M = Desiccant (type BLT only)

**Size**
- 080 = 35 scfm (250 gpm) max.
- 160 = 110 scfm (850 gpm) max.
- 180 = 110 scfm (850 gpm) max.

**Type of Connection**
- G = Threaded
- F = Flanged (gasket included, does not include mounting hardware)
- S = Weld Fitting

**Filtration Rating (micron)**
- 3 = 3μm Air Filtration (paper only)
- 10 = 10μm Air Filtration

**Gauge Options**
- W = Without Indicator

**Type Number**

<table>
<thead>
<tr>
<th>Size</th>
<th>Tank Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BLT 160 1 1/4&quot; NPT Thread, Flange, or Weld Fitting</td>
</tr>
<tr>
<td>2</td>
<td>160/180 1 1/4&quot; NPT Thread, Flange, or Weld Fitting</td>
</tr>
<tr>
<td>3</td>
<td>080 3/4&quot; NPT Thread</td>
</tr>
</tbody>
</table>

**Modification Number** (standard)

<table>
<thead>
<tr>
<th>Modify Number (standard)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply</td>
</tr>
<tr>
<td>Contact HYDAC for information and availability</td>
</tr>
<tr>
<td>Not all combinations are available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø D1</td>
</tr>
<tr>
<td>H1</td>
</tr>
<tr>
<td>H2</td>
</tr>
<tr>
<td>H3</td>
</tr>
</tbody>
</table>

**Table:**

<table>
<thead>
<tr>
<th>Size</th>
<th>ø D1</th>
<th>D2 NPT</th>
<th>D3</th>
<th>H1 (F or S)</th>
<th>H1 (G)</th>
<th>H2</th>
<th>H3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL...80</td>
<td>3.67</td>
<td>3/4&quot;</td>
<td>1&quot;-12UNF-2B</td>
<td>-</td>
<td>7 (178)</td>
<td>5.4(137)</td>
<td>0.75(19)</td>
</tr>
<tr>
<td>BL...160</td>
<td>5.00</td>
<td>1 1/4&quot;</td>
<td>1 1/2&quot;-16UN-2B</td>
<td>9.25 (235)</td>
<td>8.75 (222)</td>
<td>7</td>
<td>1.00 (25.4)</td>
</tr>
<tr>
<td>BL...180</td>
<td>5.00</td>
<td>1 1/4&quot;</td>
<td>1 1/2&quot;-16UN-2B</td>
<td>13.25 (337)</td>
<td>12.75 (324)</td>
<td>11</td>
<td>0.75 (25.4)</td>
</tr>
<tr>
<td>BLT...160</td>
<td>5.33</td>
<td>1 1/4&quot;</td>
<td>1 1/2&quot;-16UN-2B</td>
<td>9.25 (235)</td>
<td>8.75 (222)</td>
<td>7</td>
<td>1.00 (25.4)</td>
</tr>
</tbody>
</table>

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.
Dimensions are in inches (mm)
### Breathers

#### INNOVATIVE FLUID POWER

---

### Breather Components

#### Replacement Elements

<table>
<thead>
<tr>
<th>Size</th>
<th>10 micron Paper</th>
<th>3 micron Paper</th>
<th>10 micron Betamicron®</th>
<th>3 micron BLT Desiccant</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>0080MA010P 02058058</td>
<td>0080MA003P 02058079</td>
<td>0080MA010BN 02058424</td>
<td>N/A</td>
</tr>
<tr>
<td>160</td>
<td>0160MA010P 02058116</td>
<td>0160MA003P 02058114</td>
<td>0160MA010BN 02058436</td>
<td>0160MU003M 01265765</td>
</tr>
<tr>
<td>180</td>
<td>0180MA010P 02058121</td>
<td>0180MA003P 02057912</td>
<td>0180MA010BN 02058440</td>
<td>N/A</td>
</tr>
</tbody>
</table>

---

### Adapters

**Fiber Gasket Sold Separately**

Order Part Number 00247102

<table>
<thead>
<tr>
<th>Size</th>
<th>G Threaded Adapter</th>
<th>F Flanged Adapter</th>
<th>S Welded Adapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>ADAPTER BL 080G 3/4&quot; NPT NBR 02064393</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>160</td>
<td>ADAPTER BL 160/180 G 1 1/4&quot; NPT NBR 02064394</td>
<td>ADAPTER BL 160/180 F (PHOS) 00407646 (w/out Gasket) 02073864 (w/ Gasket)</td>
<td>ADAPTER BL 160/180 S (PHOS) 00416311</td>
</tr>
</tbody>
</table>

---

### Weights

<table>
<thead>
<tr>
<th>Model</th>
<th>lbs.</th>
<th>kg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELF 3</td>
<td>0.55</td>
<td>0.25</td>
</tr>
<tr>
<td>ELF E RV</td>
<td>0.66</td>
<td>0.30</td>
</tr>
<tr>
<td>ELF 4</td>
<td>0.44</td>
<td>0.20</td>
</tr>
<tr>
<td>ELF 5 (type no. 2)</td>
<td>5.95</td>
<td>2.70</td>
</tr>
<tr>
<td>ELF 5 (type no. 3)</td>
<td>6.83</td>
<td>3.10</td>
</tr>
<tr>
<td>ELF 7</td>
<td>0.84</td>
<td>0.38</td>
</tr>
<tr>
<td>BF 3</td>
<td>0.62</td>
<td>0.28</td>
</tr>
<tr>
<td>BF 3 RV</td>
<td>0.73</td>
<td>0.33</td>
</tr>
<tr>
<td>BF 4</td>
<td>0.18</td>
<td>0.08</td>
</tr>
<tr>
<td>BF 5</td>
<td>4.41</td>
<td>2.00</td>
</tr>
<tr>
<td>BF 7</td>
<td>0.88</td>
<td>0.40</td>
</tr>
<tr>
<td>BL 160</td>
<td>4.63</td>
<td>2.10</td>
</tr>
<tr>
<td>BL 80G</td>
<td>1.40</td>
<td>0.60</td>
</tr>
<tr>
<td>BL 160G</td>
<td>2.60</td>
<td>1.20</td>
</tr>
<tr>
<td>BL 180G</td>
<td>3.48</td>
<td>1.58</td>
</tr>
<tr>
<td>BL 160S</td>
<td>3.86</td>
<td>1.75</td>
</tr>
<tr>
<td>BL 180S</td>
<td>4.22</td>
<td>1.91</td>
</tr>
<tr>
<td>BLT 160</td>
<td>5.31</td>
<td>2.41</td>
</tr>
</tbody>
</table>

---

### Engineering Data for Breathers (Models ELF, BF & BL)

- **Mounting Position:** ELF & BF (spin-ons) Vertical (max. 30° off vertical axis) Vertical or Horizontal
- **Air Filter Material:** Phenolic Resin Impregnated Paper
  - Note: None of the air filter elements can be cleaned.
- **Temperature Range:** -22° to 212°F (-30° to 100°C)
  - Please contact HYDAC for information on extreme low or high temperature applications
- **Fluid Compatibility:** (ISO 2943)
  - Compatible with all petroleum oils.
  - Contact HYDAC office for information on other fluids.
Description

Drymicron breathers use a three-stage filtration design to ensure optimum protection by removing water vapor and solid contaminant before they enter the fluid system.

Drymicron Breathers replace the standard breather cap or vent tube on a tank or reservoir. They are easy to install using one of several adapters designed for different applications.

When the fluid in the system is lowered, or pressure changes occur, air is drawn in through openings under the breather cap. First, air passes through a fine, 2 micron solid particle filter. The air then passes through a diffuser to ensure maximum effectiveness within the silica gel chamber.

Next, water vapor is removed as the air travels through a bed of silica gel — the highest capacity adsorbent available. After being dried, the air passes through a second 2 micron solid particle filter and enters the reservoir clean and dry!

Advantages

Drymicron Breathers protect expensive equipment, increase operation efficiency, and reduce maintenance costs by:

- Eliminating corrosion
- Extending life of hydraulic, lubrication, and process fluids
- Minimizing component wear, downtime, and repairs
- Eliminating oil oxidation, additive depletion, and freezing
- Extending oil filter life

Applications

- Hydraulic Reservoirs
- Gear Boxes
- Storage Tanks

Operational Features

Bi-directional Air Flow

- Air entering is cleaned and dried. Expelled air partially regenerates the silica gel and “backflushes” the particulate filter to prolong the life of the breather.

Durable Construction

- DRYMICRON is manufactured from rugged ABS plastic and impact-modified Plexiglas.

Water Vapor Adsorbent

- Silica gel is chemically inert, non-toxic, and non-corrosive. The internal structure is composed of interconnected microscopic pores that adsorb up to 40% of its weight.

Color Indicator

- When maximum adsorption is reached, the silica gel turns from gold to green to indicate that replacement of the breather is required.

Safety Sealed

- Seals keep moisture from entering the units until they are placed in service. They are easily removed without tools or sharp instruments.

Unit Selection Guide (adapters sold separately)

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Part No.</th>
<th>Height (A)</th>
<th>Weight</th>
<th>Max. H2O Capacity lbs (ltr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BD 100 X 2 W 0.0</td>
<td>02074253</td>
<td>3.5 (90)</td>
<td>1.3 (0.6)</td>
<td>0.2 (0.1)</td>
</tr>
<tr>
<td>BD 200 X 2 W 0.0</td>
<td>02074254</td>
<td>5 (128)</td>
<td>1.9 (0.9)</td>
<td>0.4 (0.2)</td>
</tr>
<tr>
<td>BD 400 X 2 W 0.0</td>
<td>02074465</td>
<td>8 (205)</td>
<td>3.3 (1.5)</td>
<td>0.9 (0.4)</td>
</tr>
<tr>
<td>BD 800 X 2 W 0.0</td>
<td>02075158</td>
<td>10 (254)</td>
<td>4.9 (2.2)</td>
<td>1.3 (0.6)</td>
</tr>
</tbody>
</table>

Dimensions are for general information only; all critical dimensions should be verified by requesting a certified print. Dimensions are in inches/(mm) and lbs./(kg.)
**Product Specifications**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Air Flow Rate BD 100-400</td>
<td>35 scfm (990 l/min) Equivalent of 260 gpm of fluid volume change</td>
</tr>
<tr>
<td>BD 800</td>
<td>100 scfm (2850 l/min) Equivalent of 750 gpm of fluid volume change</td>
</tr>
<tr>
<td>Solid Contamination Filtration Level</td>
<td>2 micron, 100% efficiency @ 35 scfm air flow</td>
</tr>
<tr>
<td>Solid Contamination Filtration Surface area</td>
<td>20.6 in² / 133 cm²</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-26˚ to 200˚F (-32˚ to 93˚C)</td>
</tr>
<tr>
<td>Silica Gel:</td>
<td>Adsorption</td>
</tr>
<tr>
<td>Chemical Resistance acids, salt water, and mineral or synthetic oils</td>
<td>Resistant to alkalis, hydrocarbons, non-oxidizing</td>
</tr>
</tbody>
</table>

**Flow Rate vs Pressure Drop**

![Graph showing Flow Rate vs Pressure Drop]

**Adapters Selection Guide**  (adapters sold separately - Note: no adapter needed for BD 800)

- **Bayonet Adapter**  
  Part No. 02074251
  - 1 Friction fit

- **Plastic Threaded Adapter**  
  Part No. 02074248 (3/4” NPT)  
  Part No. 02074249 (1” NPT)
  - 1 Friction fit

- **Plastic Threaded Standpipe Adapter**  
  Part No. 02077124
  - 1 Friction fit

- **Plastic Flange Adapter**  
  Part No. 02074250 (not drilled)  
  Part No. 02075193 (pre-drilled)
  - gasket not provided

- **Bayonet Flange Kit with 3.5” Steel Basket**  
  Part No. 02079076
  - 1 Bayonet Fitting
  - 1 gasket
  - 1 Filler Basket
  - 1 gasket
  - 6 Screws for Installation

- **Plastic Bypass Adapter**  
  Part No. 01278016
  - 1 Friction Fit to Drymicron Breather
  - 0.3 psi spring in both check valves
  - Vent to atmosphere

- **Plastic Adapter**  
  Part No. 02081637
  - 1 Friction Fit to any Drymicron Adapter
  - 1 1/4” NPT Female

**Silica Gel:** Adsorption  
Up to 40% of its weight of water
**BD 900 Series**

*Designed for high airflow requirements*

DRYMICRONS help stop oil contamination and protect your expensive equipment!

**Description**

A disposable desiccant cartridge screws into the top cap assembly for economical replacement when the breather has reached the end of its useful life. The BD 900 is designed for applications with airflow requirements up to 250 scfm (1875 gpm). Operating at this flow rate produces a pressure drop of less than 1 psi. Water and abrasive particles are removed before the air enters the system.

**Replacement Cartridge** *(top cap not included)*

BD 900 G 2W 1.0 / Cartridge

**Part Number**

02081633

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Part Number</th>
<th>Rated Airflow</th>
<th>H2O Capacity</th>
<th>Mounting</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BD 900 G 2 W 1.0</td>
<td>02080979</td>
<td>250 cfm / 1875 gpm</td>
<td>1.2 lbs / 0.54 liter</td>
<td>3” Male NPT</td>
<td>6.5 (2.9)</td>
</tr>
</tbody>
</table>
**BDR Series**

**Mobile DRYMICRON**

**Description**
HYDAC BDR Series breathers are designed for applications where gearboxes and reservoirs are subjected to continuous vibration such as railroad maintenance equipment, off-road vehicles, mining equipment, and many more.

The units are easily attached to the equipment by rugged steel pipe threads.

**Features**
The metal reinforced base of the unit remains on the gearbox or reservoir, and a replacement cartridge is threaded into the base.

**Benefits**
- Minimize rust & acid corrosion
- Reduce component wear
- Reduce maintenance cost
- Prolong fluid life
- Reduce oil oxidation
- Enhance lubrication

**Components**

**Drymicrons help stop oil contamination and protect your expensive equipment!**

**Dimensions**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BDR 100 G 2 W 1.0</td>
<td>02080971</td>
<td>5.0&quot;</td>
<td>5.2&quot;</td>
<td>4.0&quot;</td>
<td>5.0&quot;</td>
<td>260 gpm</td>
<td>0.2 (0.1)</td>
<td>2.5</td>
</tr>
<tr>
<td>BDR 200 G 2 W 1.0</td>
<td>02080972</td>
<td>5.0&quot;</td>
<td>5.2&quot;</td>
<td>5.5&quot;</td>
<td>6.5&quot;</td>
<td>260 gpm</td>
<td>0.4 (0.2)</td>
<td>3.2</td>
</tr>
<tr>
<td>BDR 400 G 2 W 1.0</td>
<td>02080973</td>
<td>5.0&quot;</td>
<td>5.2&quot;</td>
<td>8.5&quot;</td>
<td>9.5&quot;</td>
<td>260 gpm</td>
<td>0.9 (0.4)</td>
<td>4.5</td>
</tr>
<tr>
<td>BDR 800 G 2 W 1.0</td>
<td>02080974</td>
<td>5.0&quot;</td>
<td>5.2&quot;</td>
<td>10.5</td>
<td>12.0&quot;</td>
<td>750 gpm</td>
<td>1.3 (0.6)</td>
<td>5.5</td>
</tr>
<tr>
<td>BDR 100 X 2 W 0.0/Cartridge</td>
<td>02080975</td>
<td>5.0&quot;</td>
<td>–</td>
<td>3.75&quot;</td>
<td>–</td>
<td>260 gpm</td>
<td>0.2 (0.1)</td>
<td>1.8</td>
</tr>
<tr>
<td>BDR 200 X 2 W 0.0/Cartridge</td>
<td>02080976</td>
<td>5.0&quot;</td>
<td>–</td>
<td>5.0&quot;</td>
<td>–</td>
<td>260 gpm</td>
<td>0.4 (0.2)</td>
<td>2.0</td>
</tr>
<tr>
<td>BDR 400 X 2 W 0.0/Cartridge</td>
<td>02080977</td>
<td>5.0&quot;</td>
<td>–</td>
<td>8.0&quot;</td>
<td>–</td>
<td>260 gpm</td>
<td>0.9 (0.4)</td>
<td>3.3</td>
</tr>
<tr>
<td>BDR 800 X 2 W 0.0/Cartridge</td>
<td>02080978</td>
<td>5.0&quot;</td>
<td>–</td>
<td>10.0&quot;</td>
<td>–</td>
<td>750 gpm</td>
<td>1.3 (0.6)</td>
<td>4.6</td>
</tr>
</tbody>
</table>

BDR Series breathers are attached to the reservoir, gearbox, or tank by 1" male NPT (Models BDR 100, BDR 200, & BDR 400), and by a 2" male NPT (Models BDR 800).
Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print. Dimensions are in inches and lbs.
**BDX Series**

**Extreme Operating Environment Drymicron**

**Drymicrons help stop oil contamination and protect your expensive equipment!**

**Description**

The BDX Series is ideal for certain extreme operating environments such as paper mill, steam cleaning rooms, etc. The humidity level far exceeds that which is experienced in normal industrial applications. In these situations, lubricants and other fluids stored in tanks and reservoirs need the protection of a desiccant breather even more. However, small temperature variations draw in the humid air and unnecessarily reduce the life of the breather.

**Features**

Two check valves
- One to control airflow into the protected reservoir
- One to control airflow out
- These valves establish thresholds of vacuum and pressure.

**Benefits**

- Reduced breathing cycles extend product life span, air to flow through the breather only when needed to protect the integrity of the tank
- The rugged design includes a reusable top cap which allows the economic replacement of the desiccant cartridge

**Hydraulic Symbols**

**Dimensions**

**Model Code**

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Part No.</th>
<th>Connection (C)</th>
<th>Height (A)</th>
<th>Clearance (B)</th>
<th>Rated Airflow</th>
<th>H20 Capacity (lbs)</th>
<th>In (psi)</th>
<th>Out (psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDX 200 X 2 W 0.0/RV 0.3/2.1</td>
<td>02084491</td>
<td>1&quot; press fit</td>
<td>7 (178)</td>
<td>1.25 (32)</td>
<td>35 scfm / (260 gpm)</td>
<td>0.4</td>
<td>0.3</td>
<td>2.1</td>
</tr>
<tr>
<td>BDX 400 X 2 W 0.0/RV 0.3/2.1</td>
<td>02084492</td>
<td>1&quot; press fit</td>
<td>10 (254)</td>
<td>1.25 (32)</td>
<td>35 scfm / (260 gpm)</td>
<td>0.9</td>
<td>0.3</td>
<td>2.1</td>
</tr>
<tr>
<td>BDX 200 G 2 W 1.0/RV 0.3/2.1</td>
<td>02084493</td>
<td>2&quot; male NPT</td>
<td>7 (178)</td>
<td>1.5 (38)</td>
<td>35 scfm / (260 gpm)</td>
<td>0.4</td>
<td>0.3</td>
<td>2.1</td>
</tr>
<tr>
<td>BDX 400 G 2 W 1.0/RV 0.3/2.1</td>
<td>02084494</td>
<td>2&quot; male NPT</td>
<td>10 (254)</td>
<td>1.5 (38)</td>
<td>35 scfm / (260 gpm)</td>
<td>0.9</td>
<td>0.3</td>
<td>2.1</td>
</tr>
<tr>
<td>BDX 200 X 2 W 0.0/Cartridge</td>
<td>02084495</td>
<td>1&quot; press fit</td>
<td>5 (127)</td>
<td>1.25 (32)</td>
<td>35 scfm / (260 gpm)</td>
<td>0.4</td>
<td>0.3</td>
<td>2.1</td>
</tr>
<tr>
<td>BDX 400 X 2 W 0.0/Cartridge</td>
<td>02084496</td>
<td>1&quot; press fit</td>
<td>8 (203)</td>
<td>1.25 (32)</td>
<td>35 scfm / (260 gpm)</td>
<td>0.9</td>
<td>0.3</td>
<td>2.1</td>
</tr>
<tr>
<td>BDX 200 G 2 W 1.0/Cartridge</td>
<td>02084497</td>
<td>2&quot; male NPT</td>
<td>5 (127)</td>
<td>1.5 (38)</td>
<td>35 scfm / (260 gpm)</td>
<td>0.4</td>
<td>0.3</td>
<td>2.1</td>
</tr>
<tr>
<td>BDX 400 G 2 W 1.0/Cartridge</td>
<td>02084498</td>
<td>2&quot; male NPT</td>
<td>8 (203)</td>
<td>1.5 (38)</td>
<td>35 scfm / (260 gpm)</td>
<td>0.9</td>
<td>0.3</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.

Dimensions are in inches/(mm)
Description
HYDAC BDZ Series breathers are designed for applications when space is limited. They can replace all standard breather caps. HYDAC BDZ Series breathers prevent dirt and water vapor from entering the gearbox or hydraulic system.

Features
- 1/2” NPT female threaded mounting hole (1.0 models only)
- 3/4” NPT male fitting (2.0 model only)
- All models are rated for 10 scfm airflow.

Benefits
- Minimize rust & acid corrosion
- Reduce component wear
- Reduce maintenance cost
- Prolong fluid life
- Reduce oil oxidation
- Enhance lubrication
- Rated Airflow - 75 gpm / 10 scfm

Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>H₂O Capacity</th>
<th>Part Number</th>
<th>A</th>
<th>B</th>
<th>Weight (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDZ 015 G 2 W 1.0</td>
<td>0.032 (0.015)</td>
<td>02080980</td>
<td>2.00&quot;</td>
<td>2.25&quot;</td>
<td>0.19</td>
</tr>
<tr>
<td>BDZ 025 G 2 W 1.0</td>
<td>0.056 (0.025)</td>
<td>02080981</td>
<td>2.00&quot;</td>
<td>3.50&quot;</td>
<td>0.27</td>
</tr>
<tr>
<td>BDZ 045 G 2 W 1.0</td>
<td>0.104 (0.047)</td>
<td>02080982</td>
<td>3.25&quot;</td>
<td>2.25&quot;</td>
<td>0.50</td>
</tr>
<tr>
<td>BDZ 085 G 2 W 1.0</td>
<td>0.180 (0.082)</td>
<td>02080983</td>
<td>3.25&quot;</td>
<td>3.50&quot;</td>
<td>0.75</td>
</tr>
<tr>
<td>BDZ 085 G 2 W 2.0</td>
<td>0.180 (0.082)</td>
<td>02082356</td>
<td>3.25&quot;</td>
<td>3.50&quot;</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print. Dimensions are in inches and lbs.