Air Breathers

Breathers are integral components of any hydraulic system. A common mistake is treating breathers as a commodity and selecting one based solely on price. Due to particulate contamination found in harsh industrial and mobile environments, this mistake can lead to system inefficiencies and component failures. We offer a portfolio of high quality, cost effective air breathers with various options for a wide range of applications. Choosing the proper breather combats the ingestion of airborne contamination while increasing the efficiency and improving the reliability of your hydraulic system.

Breather elements are typically constructed with low-grade paper or low-quality sponge material, which tend to tear when exposed to moisture and provide insufficient filtration ratings. Conversely, our breather elements are constructed of phenolic resin impregnated paper or synthetic media. Both types provide high resistance to moisture and adequate micron ratings, ensuring proper filtration while extending the operational service life of the breather.

Increasing demands for fluid cleanliness levels are requiring more frequent use of high-quality media for the filtration of oils. Schroeder recommends selecting a breather with a filtration rating (micron rating) that is equivalent to or finer than your finest system filters.

Since breathers do get clogged over time, Schroeder recommends the following change-out schedules:

Breathers without pressure gauges or visual indicators change your breather every 6 months or with every service interval.

Breathers with pressure gauges change your breather at 3 psi pressure drop (at higher pressure drops, the pump can cavitate).
Schroeder offers high quality breathers to effectively combat the ingress of airborne contamination and moisture, therefore increasing the efficiency and reliability of the system.

Available breather series are ABF, PAB, SAB, and D-AB. Many are available with filler strainer, dipstick, indicator and check/relief valve options. The ABC air breather check can takes the guesswork out of when to change your breather.

### Features and Benefits
- Durable metal housing
- Optional filler strainer
- Large pleated surface areas offers high dirt holding and air flow capacity
- NPT or Flange adapter available
- Available with three micron rating

### Specifications

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>B</th>
<th>Adapter Type</th>
<th>Minimal Micron Retention</th>
<th>Max Flow Rate</th>
<th>Air Flow psi Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABF-3/10</td>
<td>3.69 (94)</td>
<td>4.28 (109)</td>
<td>.75&quot; NPT Nylon</td>
<td>3</td>
<td>40 SCFM</td>
<td>0.4 psi at 20 SCFM-1.25 psi at 40 SCFM</td>
</tr>
<tr>
<td>ABF-3/10-M-P12</td>
<td>3.69 (94)</td>
<td>4.28 (109)</td>
<td>.75&quot; NPT Steel</td>
<td>3</td>
<td>40 SCFM</td>
<td>0.29 psi at 20 SCFM-1.06 psi at 40 SCFM</td>
</tr>
<tr>
<td>ABF-S40</td>
<td>5.06 (128)</td>
<td>8.31 (211)</td>
<td>1.25&quot; NPT Steel</td>
<td>3</td>
<td>200 SCFM</td>
<td>0.3 psi at 70 SCFM-1.25 psi at 200 SCFM</td>
</tr>
<tr>
<td>ABF-S40-M-P12</td>
<td>5.06 (128)</td>
<td>8.31 (211)</td>
<td>1.25&quot; NPT Steel</td>
<td>3</td>
<td>200 SCFM</td>
<td>0.3 psi at 70 SCFM-1.25 psi at 200 SCFM</td>
</tr>
</tbody>
</table>

SCFM = Standard Cubic Feet per Minute

### ABF-3/10-F / ABF-S40-F

These breathers are designed for retrofit on hydraulic reservoirs using the SAE-type flange fill port assembly.

The Air Breather Check (ABC) takes the guesswork out of when to change your air breather because it doesn’t care how dirty the air breather looks or how long it’s been installed. It only cares how well the breather is working. The air breather check is calibrated in inches of water and will activate, providing a visual indication, when a vacuum equivalent of 15 inches of water (3.75 kPa) is reached. The ABC can be reset simply by depressing the yellow button and used over and over again.
Air Breathers

Filler Breather with Strainer

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Adapter Type</th>
<th>Minimal Micron Retention</th>
<th>Max Flow Rate</th>
<th>Air Flow/psi Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABF-3/10-S</td>
<td>SAE-type flange</td>
<td>10</td>
<td>40 SCFM</td>
<td>0.4 psi at 20 SCFM - 1.25 psi at 40 SCFM</td>
</tr>
<tr>
<td>ABF-3/10-S6</td>
<td>SAE-type flange</td>
<td>10</td>
<td>40 SCFM</td>
<td></td>
</tr>
<tr>
<td>ABF-S40-S</td>
<td>SAE-type flange</td>
<td>40</td>
<td>40 SCFM</td>
<td>0.29 psi at 20 SCFM - 1.06 psi at 40 SCFM</td>
</tr>
<tr>
<td>ABF-S40-S6</td>
<td>SAE-type flange</td>
<td>40</td>
<td>40 SCFM</td>
<td></td>
</tr>
</tbody>
</table>

SCFM = Standard Cubic Feet per Minute

To replace breather only, order ABF-3/10-F or ABF-S40-F.

MOUNTING REQUIREMENT

MODEL NUMBER
ABF-3/10-S
3.69 Ø
(94)

4.48
(114)

2.12 (54) DIA. HOLE

.5 = 3.71 (94)
.56 = 6.00 (152)

STRAINER
**Features and Benefits**

- Durable synthetic Nylon 6 housing
- Phenolic resin impregnated filter element
- Standard Buna N O-Ring
- Available with anti-splash or relief valve
- Optional customer logo (contact factory)
- Optional dipstick (contact factory)

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**Specifications**

- **Max. Flow Rate:**
  - 7 SCFM / 51 gpm at .15 psi
  - 13 SCFM / 100 gpm at .6 psi

- **Filtration Rating:** 3 µm absolute

- **Operational Temperature:** -22˚ to 212˚F (-30˚ to 100˚C)

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**How to Build a Valid Model Number for a Schroeder PAB1:**

```
BOX 1       BOX 2       BOX 3       BOX 4       BOX 5       BOX 6       BOX 7
PAB1    -    -    -    -    -    -    -
```

**Example:**

```
BOX 1       BOX 2       BOX 3       BOX 4       BOX 5       BOX 6       BOX 7
PAB1       P       3       N       .5       R6
```

**Model Number:** PAB1

**Replacement Element:** Omit

**Connection Type:**
- P = NPT
- S = SAE
- F = Flanged

**Filteration Rating:**
- 3

**Gauge Option:**
- N = No Gauge

**Connection Size:**
- 5 = 1/2" NPT
- 12 = 3/4" SAE

**Options:**
- AS = Anti-Splash
- R6 = 6 psi relief valve
- D = Dipstick

**For PAB1 Only:**

```
AS    R6    D
```

**For PABS1 Only:**

```
PABS1
```

**Replacement Elements:**

```
PAB1M3N22
```

**NOTE:** Contact factory for lead time and minimum order quantity for other models.
Air Breathers

**Features and Benefits**
- Durable synthetic Nylon 6 housing
- Phenolic resin impregnated filter element
- Standard Buna N O-Ring
- Available with anti-splash or relief valve
- Optional customer logo (contact factory)
- Optional dipstick (contact factory)

**Specifications**

<table>
<thead>
<tr>
<th>Filter Model Number Selection</th>
<th>Max. Flow Rate: 14 SCFM / 105 gpm at .15 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30 SCFM / 230 gpm at .6 psi</td>
</tr>
<tr>
<td></td>
<td>Filtration Rating: 3 µm absolute</td>
</tr>
<tr>
<td></td>
<td>Operational Temperature: -22˚ to 212˚F (-30˚ to 100˚C)</td>
</tr>
</tbody>
</table>

**How to Build a Valid Model Number for a Schroeder PAB3:**

```
BOX 1  BOX 2  BOX 3  BOX 4  BOX 5  BOX 6  BOX 7
PAB3

Example: NOTE: One option per box

BOX 1  BOX 2  BOX 3  BOX 4  BOX 5  BOX 6  BOX 7
PAB3  P  3  N  .75  R6
= PAB3P3N.75R6
```

**NOTE:**
- Contact factory for lead time and minimum order quantity for other models.

**Options**
- AS = Anti-Splash
- R6 = 6 psi relief valve
- F = Flanged
- D = Dipstick

**For PABS3 Only**
- Replacement Elements: PABM3N22

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*SCHROEDER INDUSTRIES | ACCESSORIES*
Features and Benefits

- Durable synthetic Nylon 6 housing
- Phenolic resin impregnated filter element
- Standard Buna N O-Ring
- Integrated anti-splash insert for PABR7 only
- Optional differential gauge
- Optional customer logo (contact factory)

Max. Flow Rate: 35 SCFM / 260 gpm at .15 psi
64 SCFM / 475 gpm at .6 psi

Filtration Rating: 3 µm

Operational Temperature: -22˚ to 212˚F (-30˚ to 100˚C)

Range of Indication: 0.5 psi

How to Build a Valid Model Number for a Schroeder PABR7:

Example: NOTE: One option per box

BOX 1  BOX 2  BOX 3  BOX 4  BOX 5  BOX 6
PABR7  P  3  N  .75  AS  = PABR7P3N.75AS

For PABSR7 Only

Replacement Elements: R-PAB7-3

NOTE:
Contact factory for lead time and minimum order quantity for other models.
**Air Breathers**

**SAB22 Breather**

**SABS22 Breather**

**Features and Benefits**
- Durable steel housing
- Wide range of flow rates
- Replaceable element

**Specifications**

<table>
<thead>
<tr>
<th>Max. Flow Rate:</th>
<th>90 SCFM / 685 gpm at .15 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>105 SCFM / 790 gpm at .6 psi</td>
</tr>
</tbody>
</table>

**Filtration Rating:**
- 3 µm absolute, Phenolic resin impregnated filter element

**Connection:**
- G2 ½" female thread

**Lid:** Removable lid to access fill port

**How to Build a Valid Model Number for a Schroeder SAB22:**

<table>
<thead>
<tr>
<th>BOX 1</th>
<th>BOX 2</th>
<th>BOX 3</th>
<th>BOX 4</th>
<th>BOX 5</th>
<th>BOX 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAB22</td>
<td>R</td>
<td>G</td>
<td>3</td>
<td>N</td>
<td>2.5</td>
</tr>
</tbody>
</table>

*Example: NOTE: One option per box*

<table>
<thead>
<tr>
<th>BOX 1</th>
<th>BOX 2</th>
<th>BOX 3</th>
<th>BOX 4</th>
<th>BOX 5</th>
<th>BOX 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAB22</td>
<td>R</td>
<td>G</td>
<td>3</td>
<td>N</td>
<td>2.5</td>
</tr>
</tbody>
</table>

= SAB22RG3N2.5

**Filter Model Number Selection**

**SAB22**

- **Model Number:**
- **Replacement Element:** R = Replacement Elements
- **Connection Type:** G = BSPP
- **Filtration Rating:** 3
- **Gauge Option:** N = No Gauge

**SABS22**

- **Model Number:**
- **Connection Size:** 2.5 = Female BSPP
- **Replacement Elements:** R-SAB22-3
### Features and Benefits
- Durable steel housing
- Wide range of flow rates
- Replaceable element

### Specifications
- **Max. Flow Rate:**
  - 127 SCFM / 950 gpm at .15 psi
  - 176 SCFM / 1320 gpm at .6 psi
- **Filtration Rating:**
  - 3 µm absolute, Phenolic resin impregnated filter element
- **Connection:**
  - G2 ½” female thread
- **Lid:**
  - Removable lid to access fill port

### How to Build a Valid Model Number for a Schroeder SAB35:

**Example:**

BOX 1 | BOX 2 | BOX 3 | BOX 4 | BOX 5 | BOX 6
---|---|---|---|---|---
SAB35 | R | G | 3 | N | 2.5

= **SAB35RG3N2.5**

### Filter Model Number Selection

**SAB35:**

- **Replacement Elements:** R-SAB22-3 (2 per breather)
- **Connection Size:** 2.5 = Female BSPP
- **Connection Type:** G = BSPP
- **Filtration Rating:** 3
- **Gauge Option:** N = No Gauge

**SABS35:**

- **Connection Size:** 2 = Female BSPP

**Contact factory for lead time and minimum order quantity for other models.**
Air Breathers

SAB70 Breather

Features and Benefits
- Ideal for large reservoir with high return flow
- Durable steel housing
- Replaceable element
- Unique Oil Mist Trap design
- Optional pressure indicator

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.

Specifications

Max. Flow Rate:
- 340 SCFM / 2560 gpm at .15 psi
- 528 SCFM / 3960 gpm at .6 psi

Filtration Rating: 2 µm Excellement® Z-Media®
Connection: 8 bolt DN 125 flange

How to Build a Valid Model Number for a Schroeder SAB70:

BOX 1  BOX 2  BOX 3  BOX 4  BOX 5  BOX 6
SAB70  R  F  2  N  1 = SAB70RF2N1

Example: NOTE: One option per box

BOX 1  BOX 2  BOX 3  BOX 4  BOX 5  BOX 6
SAB70  R  F  2  N  1 = SAB70RF2N1

Model Number
SAB70

Replacement Element
R = Replacement Elements

Connection Type
F = Flanged

Filtration Rating
2

Gauge Option
N = No Gauge
W = With Gauge

Connection Size
1 = Standard (DN125)

Replacement Elements: R-SAB70-Z2