

# C1

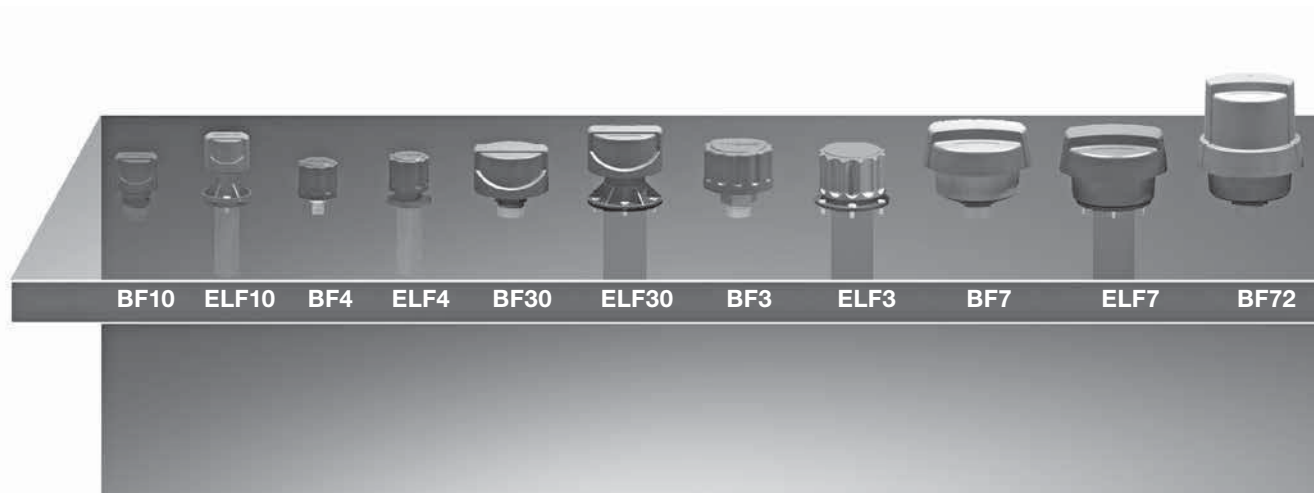
## Breathers Overview

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 costs 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 outweigh the costs. Whether removing particulate, preventing moisture from getting into your reservoir or both, HYDAC has a solution, the know-how, and a product for you.

# BREATHERS OVERVIEW

## Overview

Breather & Filler Breather Product Range



### Model

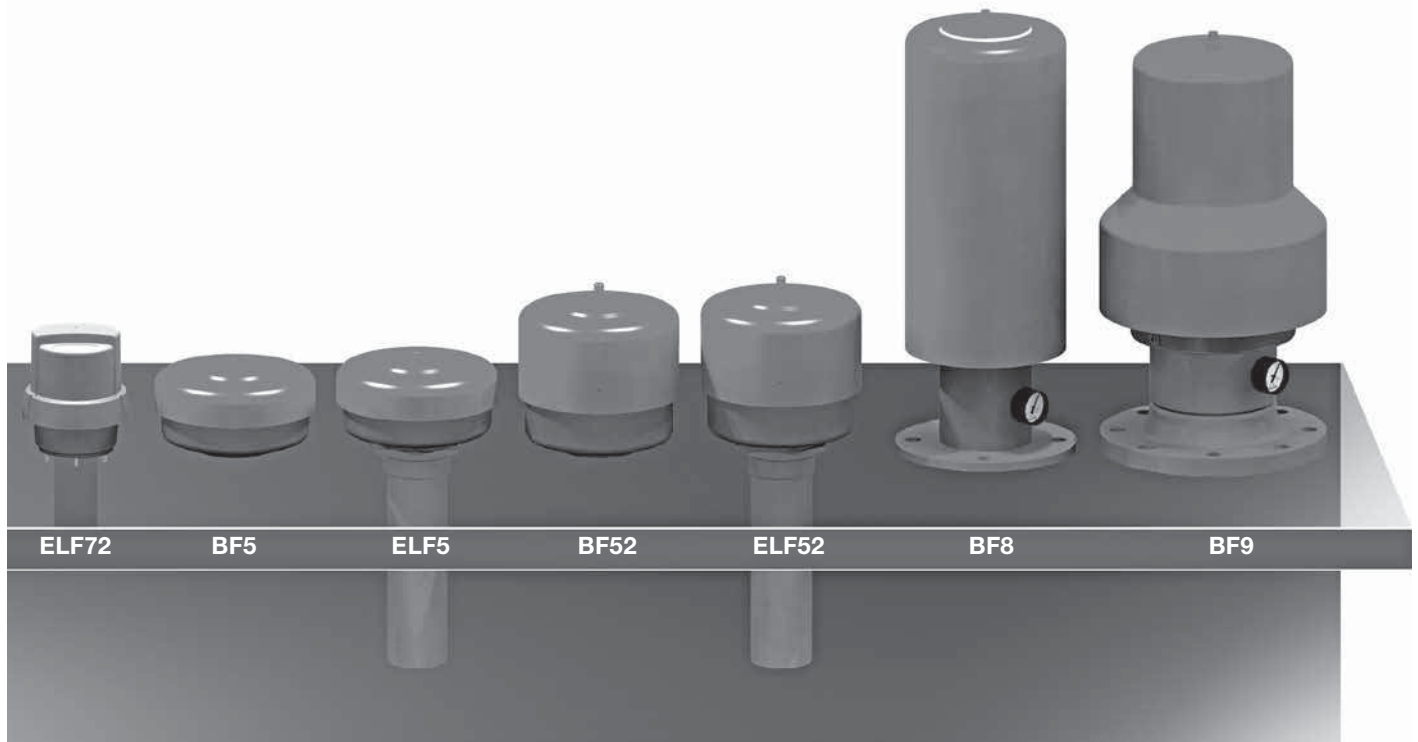
Technical Details	BF10	ELF10	BF4	ELF4	BF30	ELF30	BF3	ELF3	BF7	ELF7	BF72
<b>GPM (cfm) (at <math>\Delta p = 0.01</math> bar)</b>	53 (7)	53 (7)	33 (4.4)	33 (4.4)	105 (14)	105 (14)	105 (14)	105 (14)	105 (14)	105 (14)	260 (35)
<b>GPM (cfm) (at <math>\Delta p = 0.04</math> bar)</b>	100 (13)	100 (13)	90 (12)	90 (12)	230 (31)	230 (31)	230 (31)	230 (31)	230 (31)	230 (31)	475 (63)
<b>Cap Material</b>	Polyamide	Polyamide	Steel	Steel	Polyamide	Polyamide	Steel	Steel	Steel	Steel	Polyamide
<b>Strainer Material</b>	N/A	Polyamide	N/A	Polyamide	N/A	Polyamide	N/A	Polyamide	N/A	Polyamide	N/A
<b>Replaceable Element</b>	No	No	No	No	No	No	No	No	No	No	Yes
<b>Connection Type</b>	Threaded	Flanged	Threaded	Flanged	Threaded	Flanged	Threaded	Flanged	Threaded	Flanged	Threaded
<b>Connection Size(s)</b>	G 1/4, 1/2 NPT, M22, M18, SAE-12, 3/8 NPT	3 hole flange	G1/4	3 hole flange	G 3/4, 3/4 NPT, 1 NPT, M42, SAE-12	6 hole flange	G 3/8, G 1/2, G 3/4, 3/4 NPT	6 hole flange	G 1, 3/4 NPT, SAE-16	6 hole flange	G 1, 3/4 NPT, SAE-16
<b>Element Media</b>	3 $\mu$ m paper	3 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper

### Options

<b>Clogging Indicator</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Optional
<b>Relief Valve</b>	Optional	Optional	N/A	N/A	Optional	Optional	Optional	Optional	Optional	N/A
<b>Antisplash</b>	Optional	Optional	N/A	N/A	Optional	Optional	N/A	N/A	N/A	Optional
<b>Dipstick</b>	Optional	Optional	N/A	N/A	Optional	Optional	Optional	Optional	Optional	N/A

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

# BREATHERS OVERVIEW



## Model

ELF7	BF72	ELF72
260 (35)	315 (42)	315 (42)
475 (63)	555 (74)	555 (74)
Polyamide	Polyamide	Polyamide
Polyamide	N/A	Polyamide
Yes	Yes	Yes
Flanged	Threaded	Flanged
6 hole flange	G1	6 hole flange
3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper

Technical Details	BF5	ELF5	BF52	ELF52	BF8	BF9
<b>GPM (cfm) (at v = 20 m/s)</b>	690 (92)	690 (92)	950 (127)	950 (127)	1450 (193)	2550 (340)
<b>GPM (cfm) (at <math>\Delta p = 0.01</math> bar)</b>	790 (105)	790 (105)	1320 (176)	1320 (176)	2640 (352)	3960 (528)
<b>Cap Material</b>	Steel	Steel	Steel	Steel	Steel	Steel
<b>Strainer Material</b>	N/A	Steel	N/A	Steel	N/A	N/A
<b>Replaceable Element</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Connection Type</b>	Threaded	Flanged	Threaded	Flanged	Flanged	Flanged
<b>Connection Size(s)</b>	G 2-1/2 female	G 2-1/2, G 3 male	G 2-1/2 female	G 2-1/2, G3 male	DN93 4 hole flange	DN125 8 hole flange
<b>Element Media</b>	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	3 or 10 $\mu$ m paper	1 or 2 $\mu$ m betamicon	2 $\mu$ m betamicon

## Options

Optional	Optional	Optional
N/A	N/A	N/A
Optional	N/A	N/A
N/A	N/A	N/A

<b>Clogging Indicator</b>	N/A	N/A	N/A	N/A	Optional	Optional
<b>Relief Valve</b>	Optional	N/A	N/A	N/A	N/A	N/A
<b>Antisplash</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Dipstick</b>	N/A	N/A	N/A	N/A	N/A	N/A

For sizes BF/ELF 5 thru BF 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 Accessories Division if you have any questions).

# BREATHERS OVERVIEW

## BL Series (C1-17 – C1-18)



### Specifications:

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

## BDE Series (C1-19 – C1-20)



### Specifications

- Durable ABS plastic and impact-modified Plexiglas
- 2 micron, 100% efficiency
- Airflow up to 100 scfm (750 gpm)