

BREATHERS

BDE Series

Drymicron



BDE model code includes the cartridge & base.



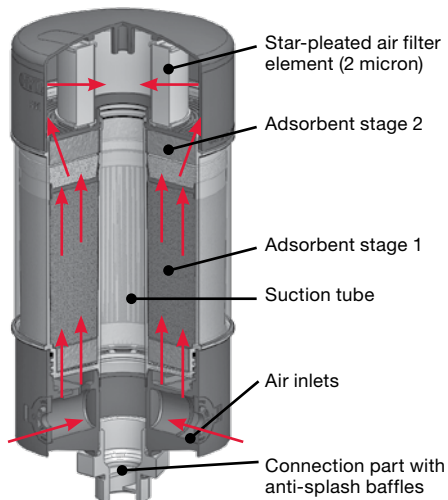
Replacement cartridge only, does not include the base.

Description

Desiccant Breather for removing moisture from air entering gearboxes, reservoirs, fuel tanks, etc. BDE is not intended for high vibration elements.

Features

- 2-Stage Adsorbent Filling
- Distribution of Flow by special design of the inner components
- Star-pleated air filter element (2 µm) reduces/prevents dirt and dust ingress into tank
- Integrated anti-splash tool to protect the adsorbent from oil contamination
- Replacement cartridges
- Color Indication: When maximum adsorption is reached, the silica gel turns from purple to orange
- Optional visual indicator



Shelf Life

- BDE Desiccant breathers have a recommended shelf life of 18 months from the date of manufacturing. All desiccant breather cartridge packaging is labeled with a manufactured date.
- In order to achieve the recommended shelf life the product must be stored in its original packaging in a climate controlled warehouse without direct exposure to UV light.

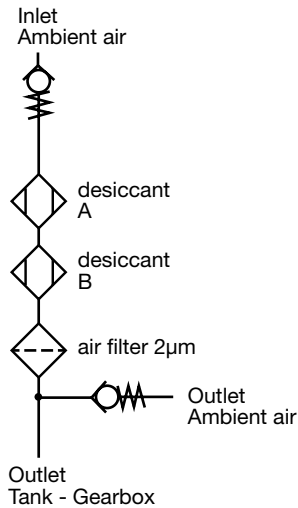
Note: Low temperature options available. All breathers are available with special options and materials. Please contact the factory. **NOT** intended for high vibration environments.

Benefits

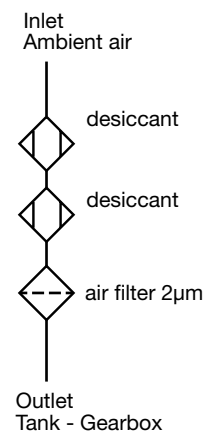
- Extending the life cycle of the lube oil
- Minimize component wear, down time and repairs due to moisture
- Minimize oil oxidation, additive depletion and freezing due to moisture
- Minimize corrosion
- Extended oil filter life

Hydraulic Symbols

BDE with valves



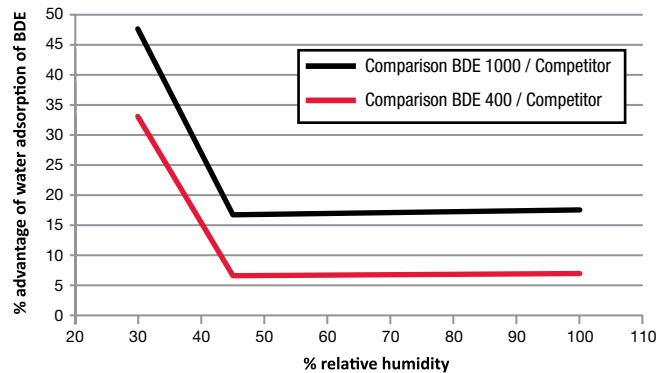
BDE without valves



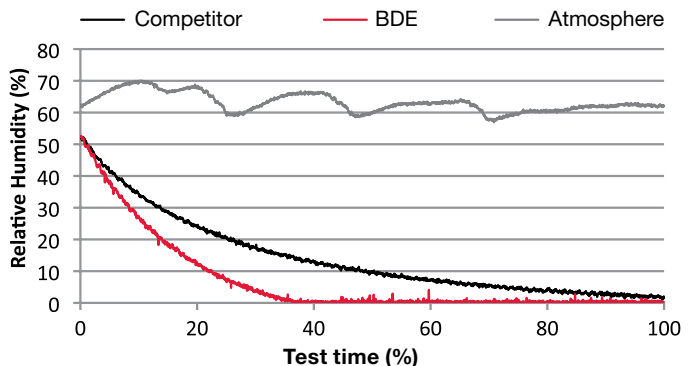
Advantages

Water Adsorption Efficiency

% advantage of water capacity of BDE vs. Competitor



Water Adsorption Efficiency



Assembly part number and description is included on the packaging and not on the individual component. The assembly number is the Top level part number for the cartridge and base being sold as a complete unit.



Cartridge & Base

Model Code

BDE 400 G 2 W 1 . X / -RV0.02

Filter Type

BDE

Size

200, 400, 1000

Type of Connection

- G = Thread BSPP
- N = Thread NPT
- F = Flange (to DIN 24557)
- S = Slip Fit
- M = Thread metric

Filtration Rating (micron)

2 = 2 µm absolute

Clogging Indicator

- W = Without port, no clogging indicator
- UBM = Vacuum indicator

Type Code

Connection Type

	G	N	F	S	M
1 = 1" BSP	1" NPT	DIN 24557	1"	M42x2	
2 = 3/4" BSP	2" NPT				
3 = -	3/4" NPT				
4 = -	1 1/4" NPT				

Modification Number

Supplementary Details

- RV0.003 = Relief valve with 0.04 psi (0.003 bar) pressure setting
- RV0.02 = Relief valve with 0.30 psi (0.02 bar) pressure setting
- ELF = With filler basket (only for connection type F flange)



Cartridge only

Replacement Cartridge Model Code

BDE 400 X 2 W 0 . X

Filter Type

BDE

Size

200, 400, 1000

Type of Connection

X = Replacement cartridge

Filtration Rating (micron)

2 = 2 µm absolute

Clogging Indicator

- W = Without port, no clogging indicator
- UBM = Vacuum indicator

Type Code

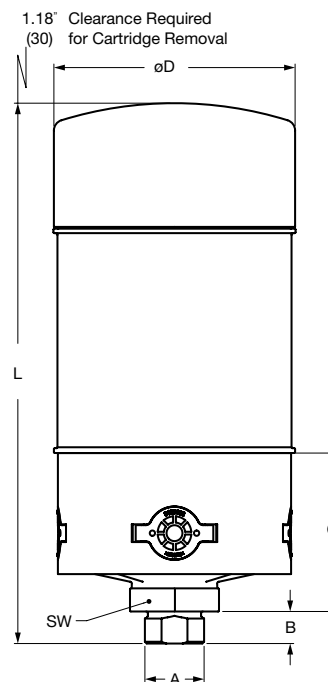
0 = Replacement cartridge

Modification Number

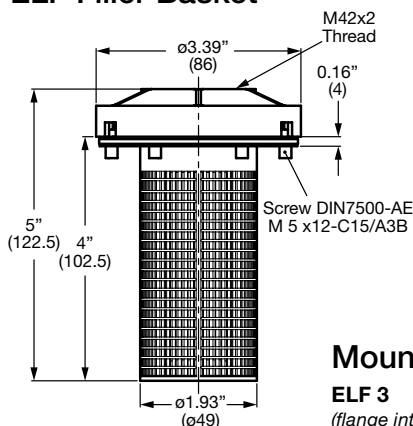
Not all combinations are available

Note: This model code does not include the base.

BDE Dimensions



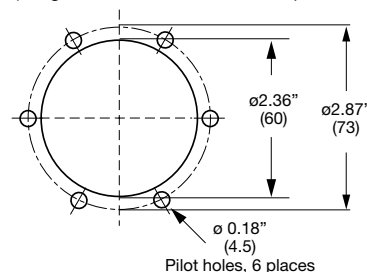
ELF Filler Basket



Mounting Hole Patterns

ELF 3

(flange interface to DIN 24557/T2)



Connection A	Thread length B	AF with SW
1" Slip fit connection Ø33.4	0.71 (18)	1.97 (50)
G1"	0.71 (18)	1.97 (50)
NPT 1"	0.71 (18)	1.97 (50)
NPT 2"	0.94 (24)	2.56 (65)
Flange adapter DIN 24557	0.79 (20)	1.97 (50)
M42x2	0.71 (18)	1.97 (50)

Size	C	Ø D	L	Optimum air flow rate* (l _{air} /min)	Max. drying capacity for avg. humidity (m ³ _{air})	Max. drying capacity for high humidity (m ³ _{air})	Water Retention Capacity	Weight
200	3.50 (89)	5.35 (136)	8.86 (225)	10	10	6	0.25l	3.75 (1.7)
400			11.97 (304)	20	25	15	0.50l	5.07 (2.3)
1000			15.12 (384)	35	42	25	0.75l	6.61 (3.0)

*Air flow rate with the highest drying efficiency. Dimensions are in inches/(mm) and lbs./(kg)

Note: Low temperature options available. All breathers are available with special options and materials. Please contact the factory.

BREATHERS

BDA Series

Drymicron



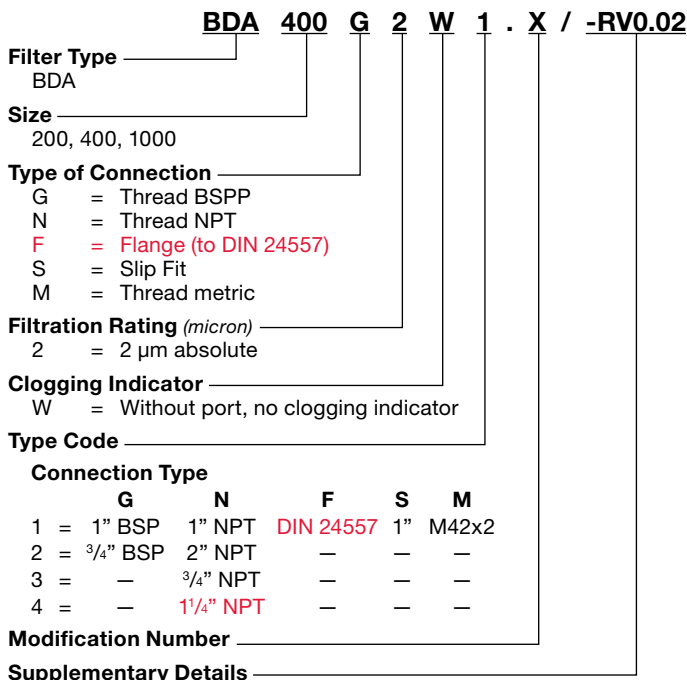
Description

Economy Cartridge Style desiccant breather for mitigate moisture ingress into gearboxes, reservoirs, and other equipment

Features

- Single Stage moisture Absorption
- Color Indication - When maximum absorption is reached, the silica gel turns from yellow to dark green
- Start pleated air filter element (2micron) reduce / prevents dirt and dust ingress into tank
- Integrated anti-splash to protect absorbent from oil contamination
- Replacement cartridges

Model Code



- RV0.003 = Relief valve with 0.04 psi (0.003 bar) pressure setting
RV0.02 = Relief valve with 0.30 psi (0.02 bar) pressure setting
ELF = With filler basket (only for connection type F flange)

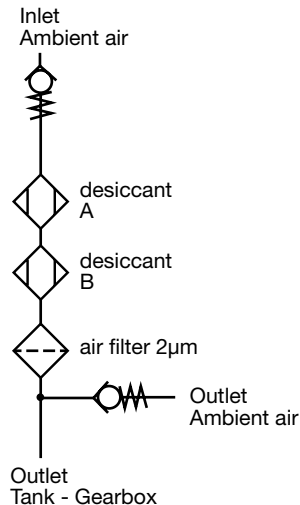
Benefits

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

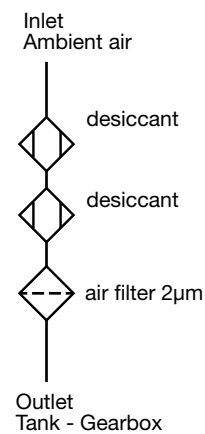
- Mitigating corrosion
- Extending life of hydraulic, lubrication, and process fluids
- Minimizing component wear, downtime, and repairs
- Eliminating oil oxidation, additive depletion, and freezing
- Extending oil filter life

Hydraulic Symbols

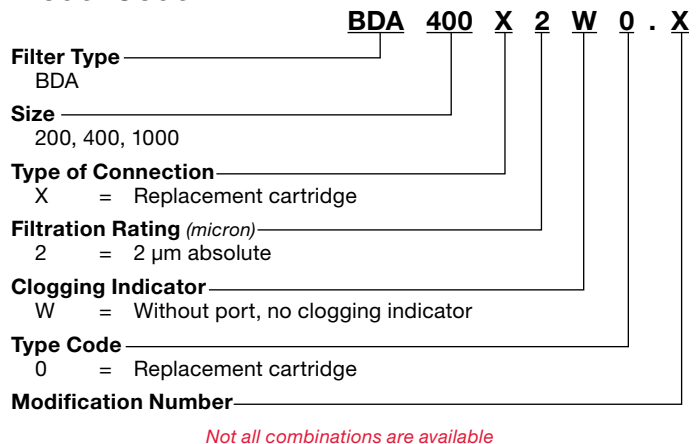
BDA with valves



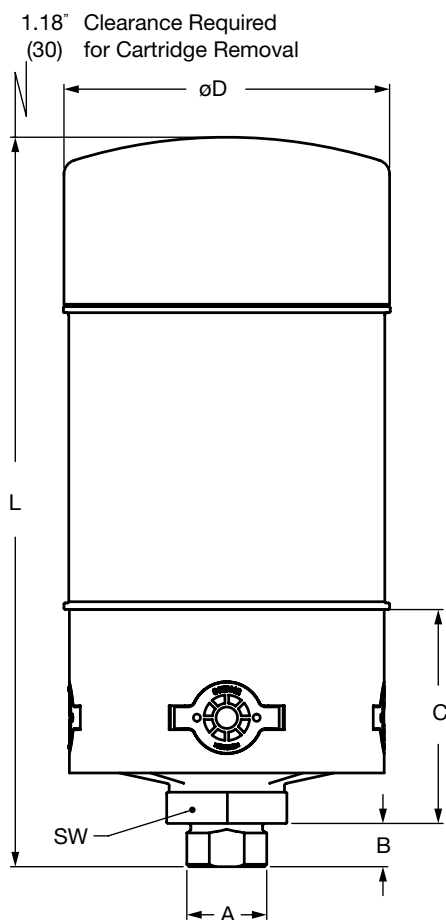
BDA without valves



Replacement Cartridge Model Code

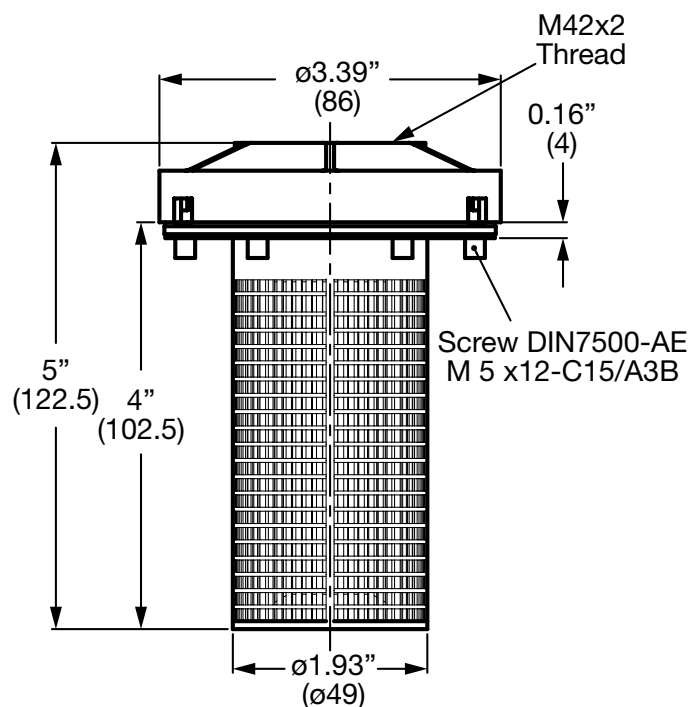


BDA Dimensions



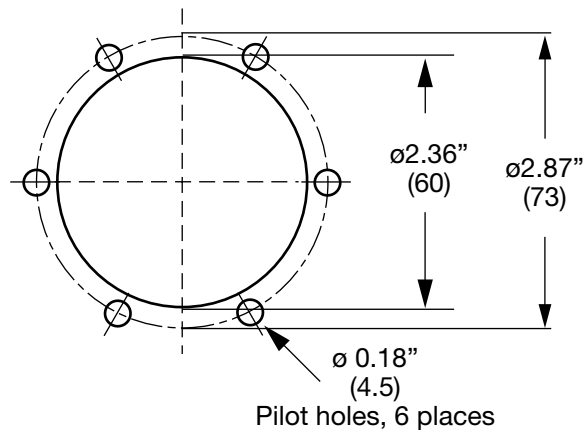
Size	C	ø D	L
200	3.50 (89)	5.35 (136)	8.86 (225)
400			11.97 (304)
1000			15.12 (384)

ELF Filler Basket



Mounting Hole Patterns

ELF 3
(flange interface to DIN 24557/T2)



Connection A	Thread length B	AF with SW
1" Slip fit connection Ø33.4	0.71 (18)	1.97 (50)
G1"	0.71 (18)	1.97 (50)
NPT 1"	0.71 (18)	1.97 (50)
NPT 2"	0.94 (24)	2.56 (65)
Flange adapter DIN 24557	0.79 (20)	1.97 (50)
M42x2	0.71 (18)	1.97 (50)

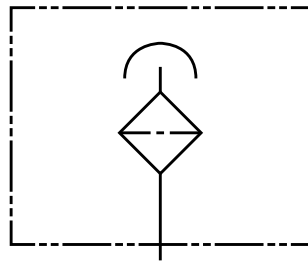
BREATHERS

BD Series

Drymicron



Hydraulic Symbol



Description

HYDAC BD entry level desiccant breathers are specifically designed for Hydraulic Reservoirs, Gearboxes, and Storage tanks.

Benefits

HYDAC BD breathers keep dirt and water vapor from entering the gearbox or hydraulic system, increasing equipment life.

- Minimize Corrosion
- Extend Oil Life

Features

- Wide range of connection adaptors
- Completely disposable

Replacement Cartridge

BD 400 G 2 W 1 . X

Filter Type _____
BD

Size _____
200, 400, 800

Type of Connection _____
G = Thread BSPP
N = Thread NPT
F = Flange (to DIN 24557)
S = Slip Fit
M = Thread metric

Filtration Rating (micron) _____
2 = 2 µm absolute

Clogging Indicator _____
W = Without port, no clogging indicator

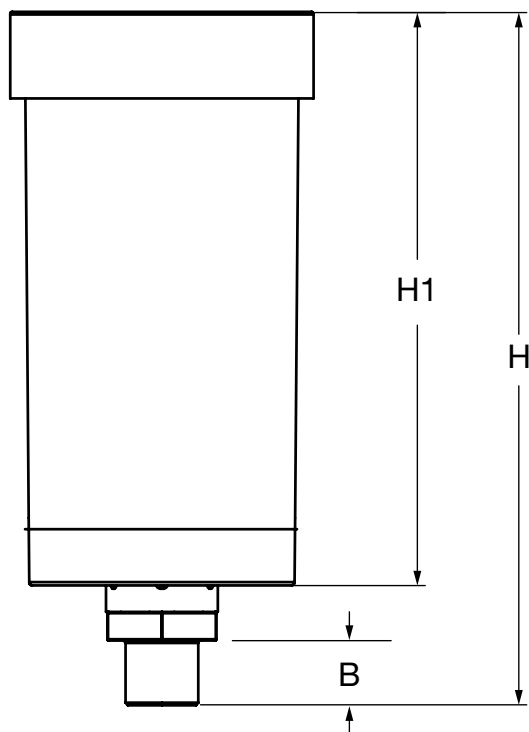
Type Code _____

Connection Type		G	N	F	S	M
1	= 1" BSP	1" NPT	DIN 24557	1"	M42x2	
2	= 3/4" BSP	2" NPT	—	—	—	
3	= —	3/4" NPT	—	—	—	
4	= —	1 1/4" NPT	—	—	—	

Modification Number _____

Model Codes Containing RED are non-stock items — Minimum quantities may apply – Contact HYDAC for information and availability

BD Dimensions



Connection A	Thread length B
1" Slip fit connection Ø33.4	0.71 (18)
G1"	0.71 (18)
NPT 1"	0.71 (18)
NPT 2"	0.94 (24)
Flange adapter DIN 24557/T2	0.79 (20)
M42x2	0.71 (18)
G 3/4"	0.71 (18)
NPT 3/4"	0.71 (18)
NPT 1-1/4"	0.89 (22.5)

Size	Standard Connection	H	H1	ØD	Flow rate at 1 psi	H ₂ O Capacity (lbs)
200	1" NPT	7.05 (179)	5.35 (136)	5.47 (139)	17 cfm / 125 gpm	0.3 kg / .6 lb
400	1" NPT	9.96 (253)	8.26 (210)	5.47 (139)	17 cfm / 125 gpm	0.5 kg / 1.1lb
800	2" NPT	12.32 (313)	10.39 (264)	5.47 (139)	19 cfm / 140 gpm	0.7 kg / 1.6 lb

Model Code	Part Number	Connection	Weight (lbs)
BD 200 N 2 W 1.1	2212324	1" NPT	1.8
BD 200 S 2 W 1.1	2213232	Slip Fit	1.8
BD 400 N 2 W 1.1	2212325	1" NPT	3.4
BD 400 S 2 W 1.1	2213233	Slip Fit	3.4
BD 800 N 2 W 2.1	2212326	2" NPT	4.5

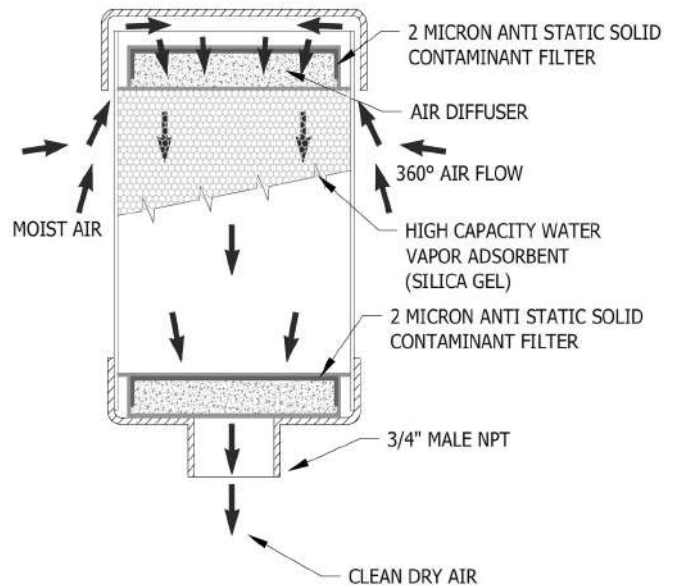
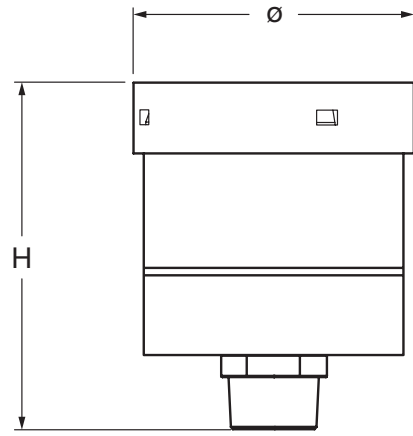
BREATHERS

BDM Series

Mobile Mini Drymicron



BDM Dimensions



Description

HYDAC BDM mini desiccant breathers are specifically designed for models markets. Their compact packaging allows them to be placed where space is limited.

Benefits

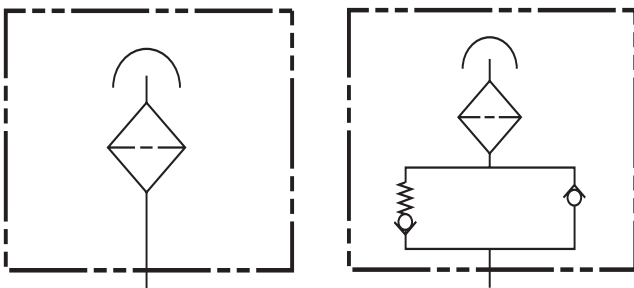
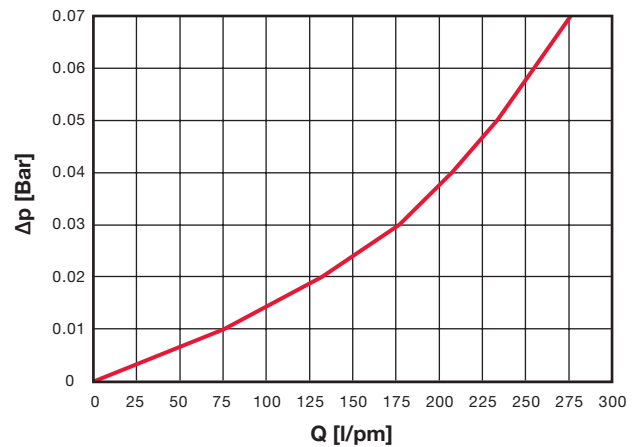
- HYDAC BDM breathers prevent dirt and water vapor from entering the gearbox or hydraulic system, improving the overall life of the equipment they're mounted on.
- The optional check valves increase the overall service life of the unit.

Features

- 2 micron Filter
- 3/4" NPT male fitting
- All models are rated for 5 SCFM at 1 psig
- Optional Check valves

Performance

BDM Δp -Q graph



Model	H ₂ O Capacity lbs (ltr)	Flow Rate @ .01 BAR	Part Number	H	Ø	Weight (lbs)
BDM 085 N 2 W 2.0	0.18 (0.082)	75 LPM	2207462	4.41	3.25	.75
BDM 085 N 2 W 2.0 / -RV0.02	0.18 (0.082)	75 LPM	2207463	4.41	3.25	.75

Notes:

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

All breathers are available with special options and materials. Please contact the factory.

BDLP Series

Mobile Drymicron



Description

HYDAC BDLP desiccant breathers are specifically designed large for mobile machines.

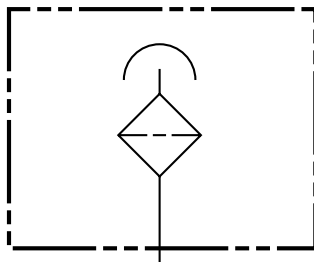
Features

- 2 Micron Filter
- 0.280 lb Water adsorption capacity
- Standard NPT & BSPP 1" male fittings available

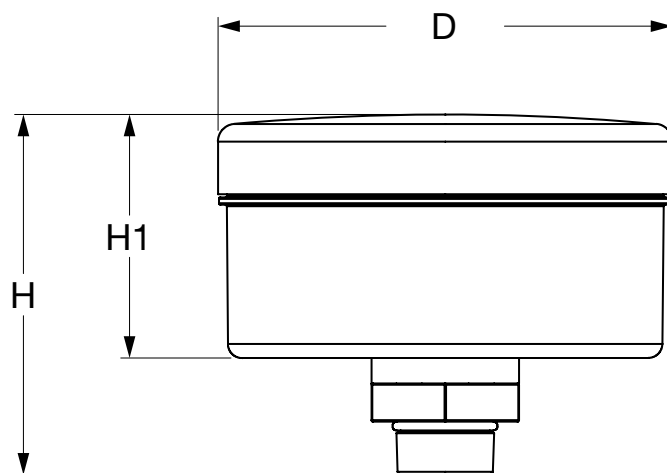
Benefits

HYDAC BDLP breathers prevent dirt and water vapor from entering the gearbox or hydraulic system, improving the overall life of the equipment they're mounted on.

Hydraulic Symbols

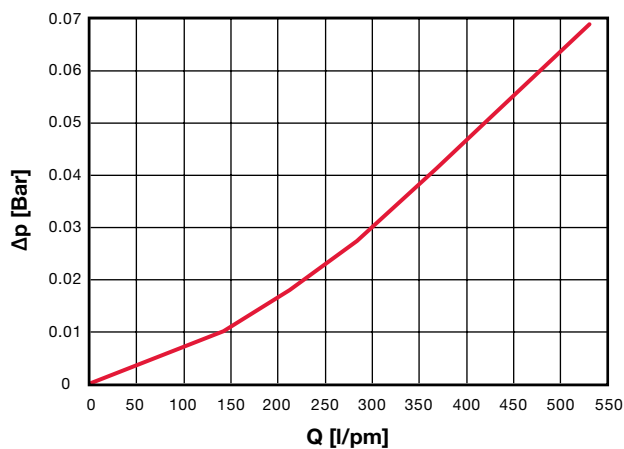


BDLP Dimensions



Performance

BDLP Δp -Q graph



Model	H2O Capacity (lbs)	Flow Rate @ .01 BAR	Part Number	H1	H	D
BDLP G 2 W 1.0	.280	142 LPM	2206357	4.75	3.25	6.00
BDLP N 2 W 1.0	.280	142 LPM	2207476	4.75	3.25	6.00

Notes:

1. Dimensions are in inches (mm) and lbs (kg).

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

All breathers are available with special options and materials. Please contact the factory.