




# New Development of Desiccant Breather Product Offering



<b>Features</b>	Bead Color (Ideally we would show Scale/Change)	 Yellow to Green	 Yellow to Green	 Red to Yellow
	Cartridge / Base Design	One Piece Fully Disposable	Separate Cartridge & Base, Cartridge is replaceable and disposable	
	Molecular Sieve Material for Rapid Absorption	N	N	Y

Environmental Impact      1 Leaf 🍃 (OK)      3 Leaves 🍃🍃🍃 (Good)      3 Leaves 🍃🍃🍃 (Good)

# BREATHERS

## BDE Series

### Drymicron



Replacement cartridge only, does not include the base.

BDE model code includes the cartridge & base.

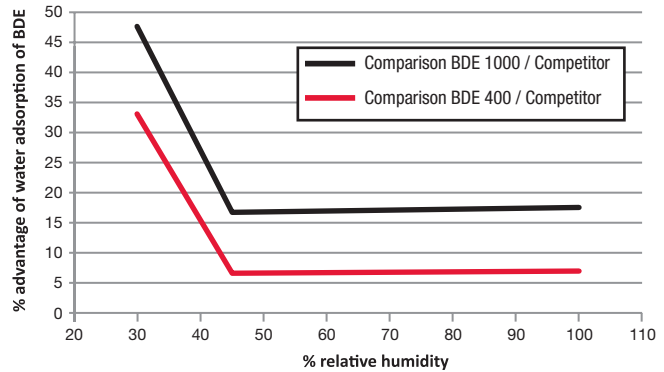
### Benefits

- 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

### Advantages

#### Water Absorption Efficiency

% advantage of water capacity of BDE vs. Competitor



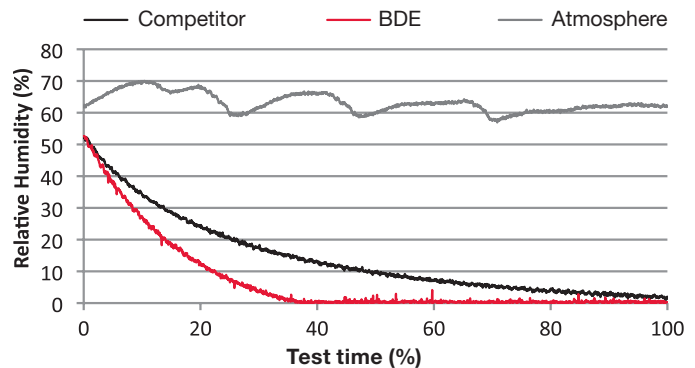
### Description

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

### Features

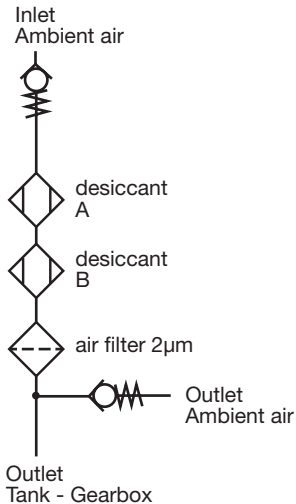
- 2-Stage Adsorbent Filling
- Distribution of Flow by special design of the inner components
- Star-pleated air filter element (2  $\mu\text{m}$ ) reduces/prevents dirt and dust ingress into tank
- Integrated anti-splash tool to protect the adsorbent from oil contamination
- Replacement cartridges
-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

#### Water Adsorption Efficiency

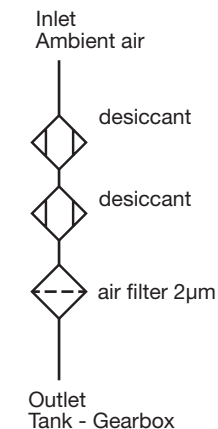


### Hydraulic Symbols

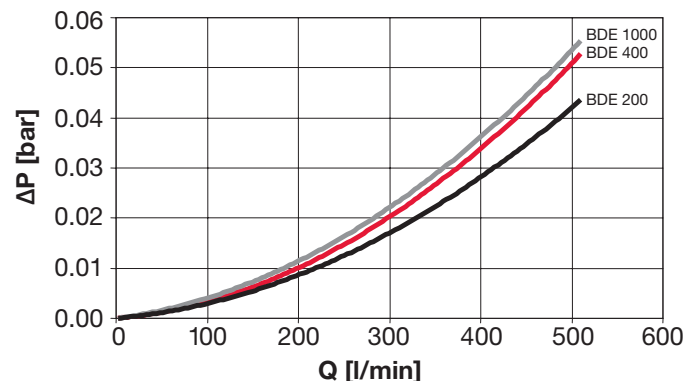
#### BDE with valves



#### BDE without valves



### $\Delta p-Q$



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

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 . R / -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

- R = Red desiccant
- Y = Yellow desiccant

### 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)

## Replacement Cartridge Model Code



Cartridge only

**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

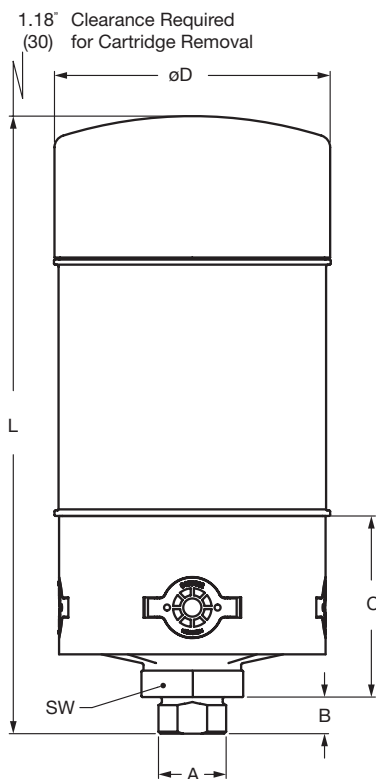
### Modification Number

*Not all combinations are available*

Note: This model code does not include the base.

# BREATHERS

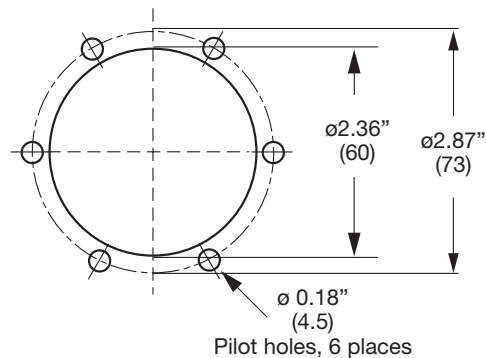
## BDE Dimensions



## Mounting Hole Patterns

### ELF 3

(flange interface to DIN 24557/T2)

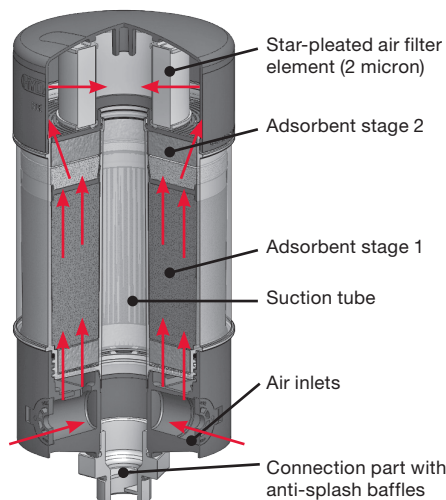
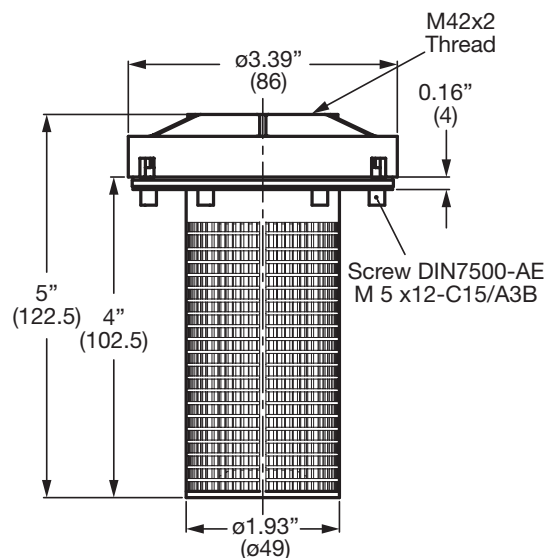


Connection A	Thread length B	AF with SW
1" Slip fit connection Ø33.4	0.71 (18)	1.97 (50)
G1"	0.71 (18)	1.97 (50)
NPT 1"	0.71 (18)	1.97 (50)
NPT 2"	0.94 (24)	2.56 (65)
Flange adapter DIN 24557	0.79 (20)	1.97 (50)
M42x2	0.71 (18)	1.97 (50)

Size	C	ø D	L	Optimum air flow rate * (l <sub>air</sub> /min)	Max. drying capacity for avg. humidity (m <sup>3</sup> <sub>air</sub> )	Max. drying capacity for high humidity (m <sup>3</sup> <sub>air</sub> )	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)

## ELF Filler Basket



## 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.

# BDA Series

Drymicron



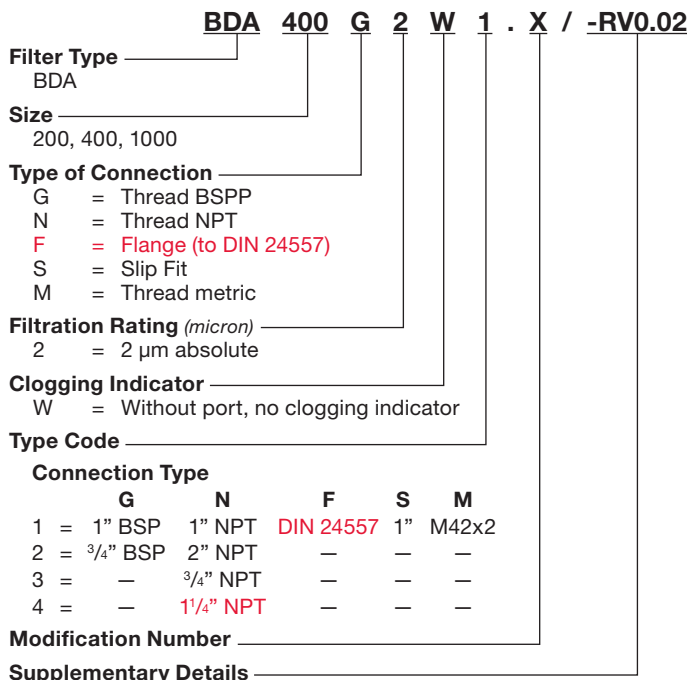
## Description

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



### 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)

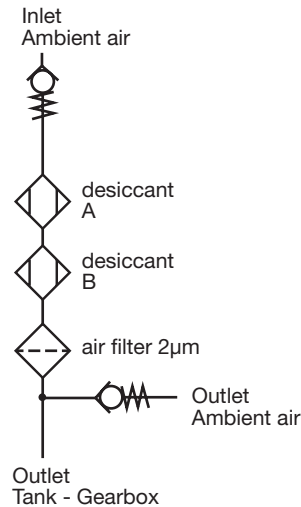
## Benefits

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

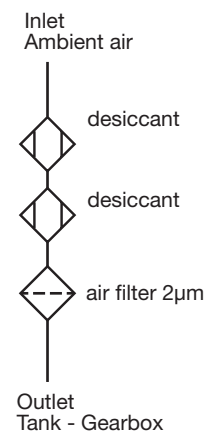
- Mitigating corrosion
- Extending life of hydraulic, lubrication, and process fluids
- Minimizing component wear, downtime, and repairs
- Eliminating oil oxidation, additive depletion, and freezing
- Extending oil filter life

## Hydraulic Symbols

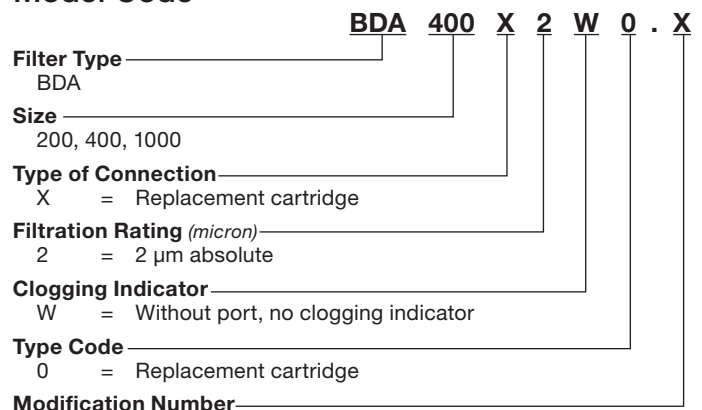
### BDA with valves



### BDA without valves



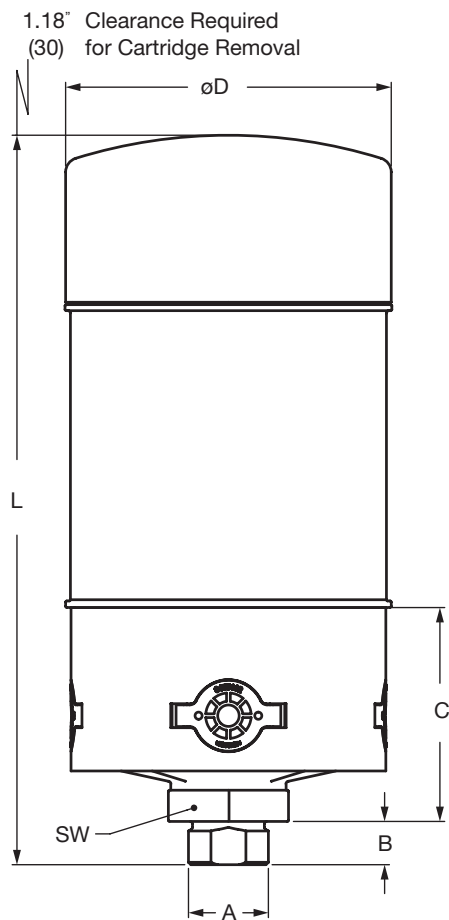
## Replacement Cartridge Model Code



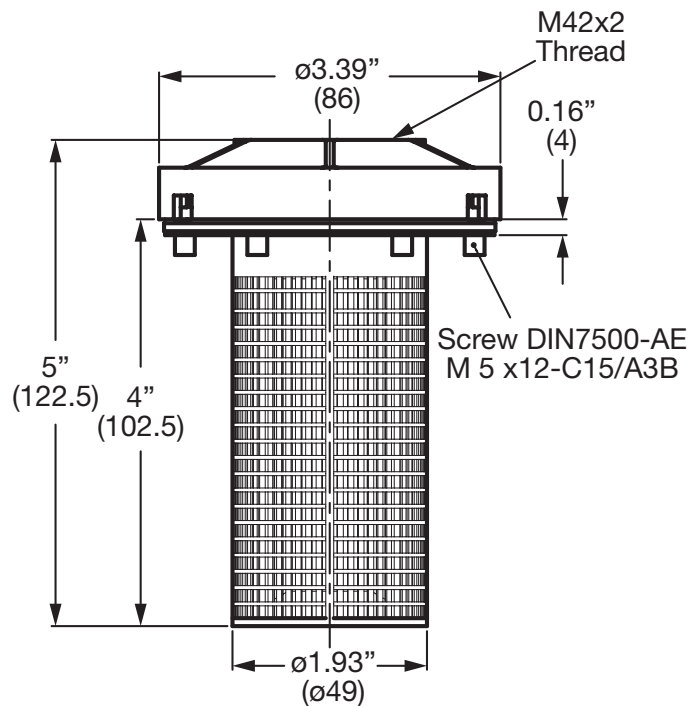
*Not all combinations are available*

# BREATHERS

## BDA Dimensions

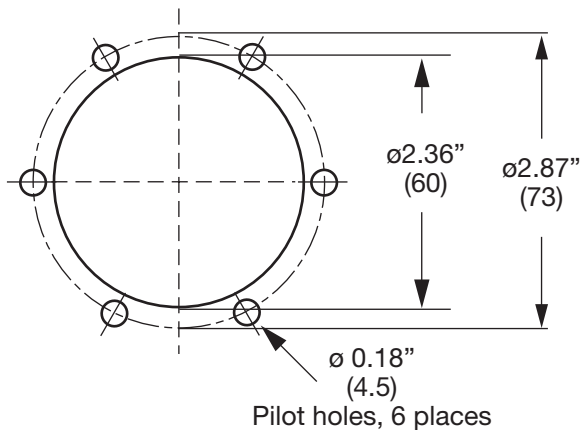


## ELF Filler Basket



## Mounting Hole Patterns

ELF 3  
(flange interface to DIN 24557/T2)



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

Connection A	Thread length B	AF with SW
1" Slip fit connection $\phi 33.4$	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)

# BD Series

Drymicron



## Description

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

## Benefits

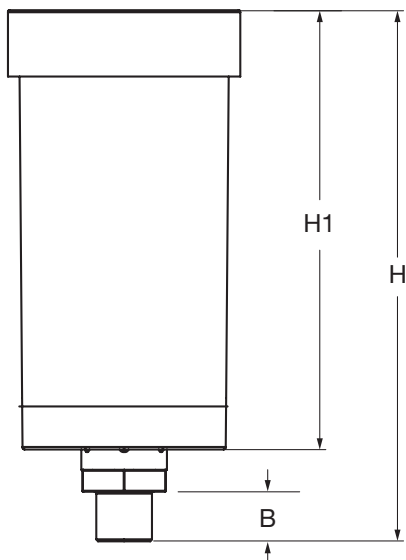
HYDAC BD breathers keep dirt and water vapor from entering the gearbox or hydraulic system, increasing equipment life.

- Minimize Corrosion
- Extend Oil Life

## Features

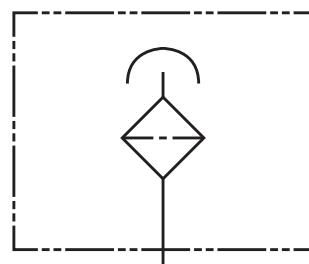
- Wide range of connection adaptors
- Completely disposable

## BD Dimensions



Size	Standard Connection	H	H1	ØD	Flow rate at 1 psi	H <sub>2</sub> 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

## Hydraulic Symbol



## Replacement Cartridge

**BD 400 G 2 W 1 . X**

**Filter Type** ———— BD  
BD

**Size** ———— 400  
200, 400, 800

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

**Filtration Rating (micron)** ———— 2  
2 = 2 µm absolute

**Clogging Indicator** ———— W  
W = Without port, no clogging indicator

**Type Code** ———— 1 . X

**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 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

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)

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

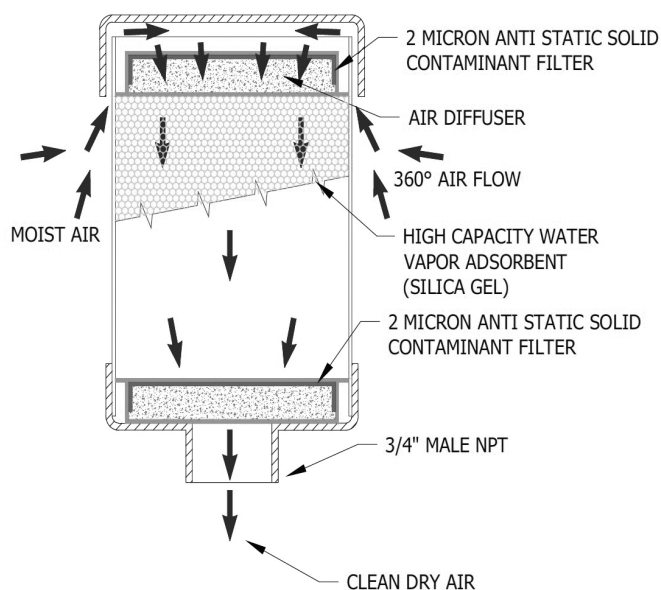
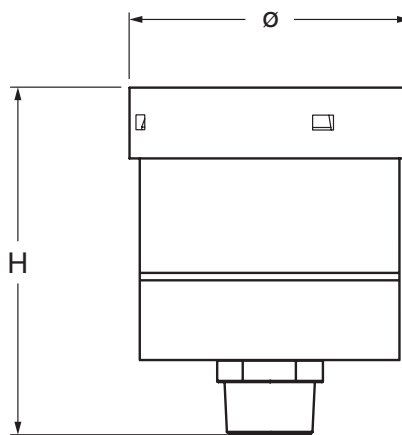
# BREATHERS

## 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

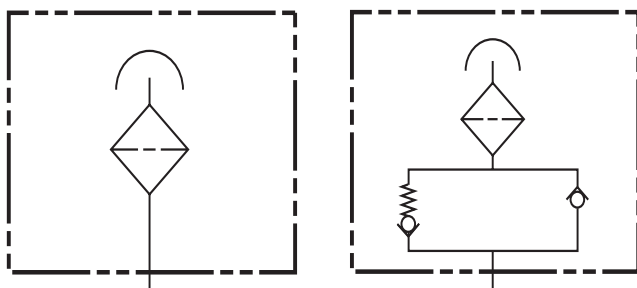
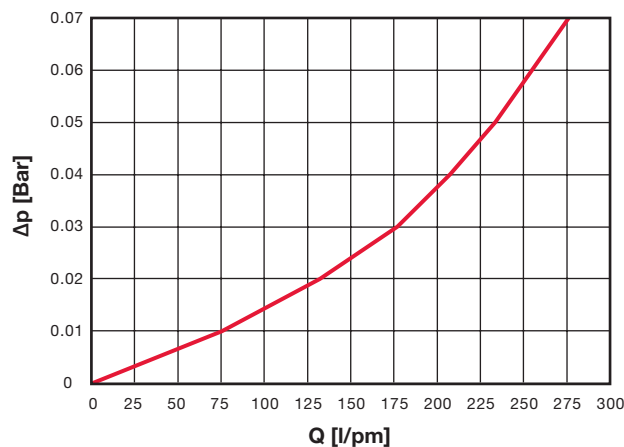
- HYDAC BDM breathers prevent dirt and water vapor from entering the gearbox or hydraulic system, improving the overall life of the equipment they're mounted on.
- The optional check valves increase the overall service life of the unit.

### Features

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

### Performance

BDM  $\Delta p$ -Q graph



Model	H2O 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.

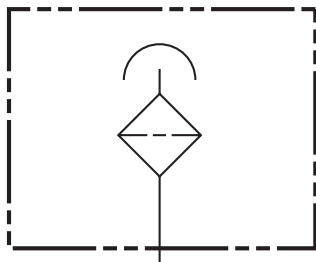
## Features

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

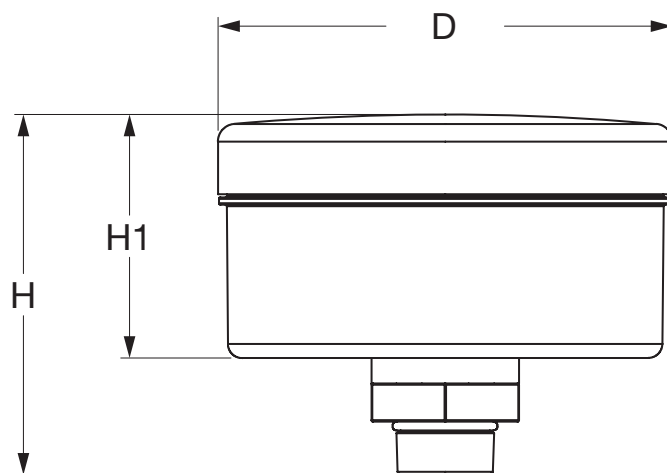
## Benefits

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

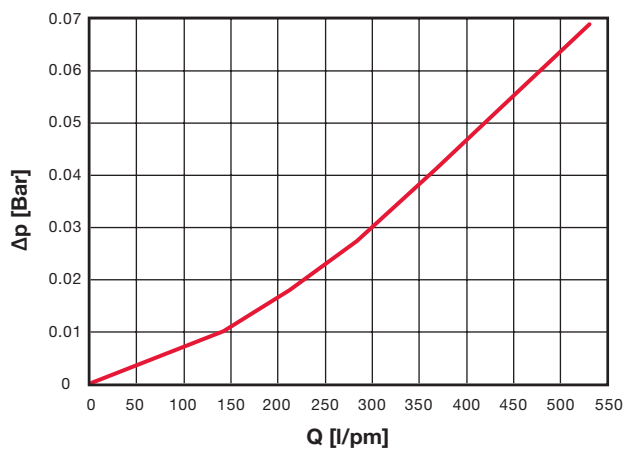


## BDLP Dimensions



## Performance

BDLP  $\Delta p$ -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.

