

# Hy-Dry Breathers

## Disposable Air Purifying Breathers



Fluid contamination is the root cause of most hydraulic system failures. Controlling contamination in the air a system breathes is critical. The synergy of Hy-Pro fluid filter elements and Hy-Dry desiccant breathers yields fluid clarification and a healthy hydraulic system.

**PRODUCT SPECIFICATIONS**

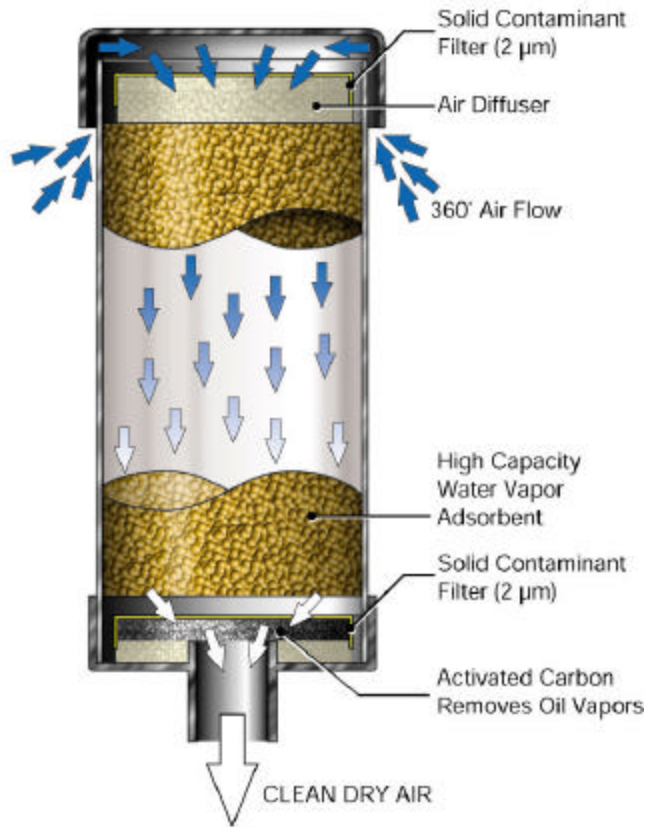
Air flow rate	35 CFM (990 l/min) equivalent to 260 gpm of fluid volume change
Solid contaminant filtration efficiency	2 micron, 100% efficiency (35 CFM)
Chemical resistance	Impervious to alkalis, mineral oils, non-oxidizing acids, salt water, hydrocarbons, and synthetic oils.
HPB-100	0.2 lb / 0.1 liter water capacity
HPB-101	0.4 lb / 0.2 liter water capacity
HPB-102	0.9 lb / 0.5 liter water capacity
HPB-302	0.9 lb / 0.5 liter water capacity
HPBR-102	0.9 lb / 0.5 liter water capacity
Operating temp.	-20f (-28c) to 200f (93c)

**FEATURES, BENEFITS, ADVANTAGES**

Retro-fit existing reservoirs	With adaptors a Hy-Dry breather can be installed on virtually any existing reservoir. (Versatility)
Water adsorption	Eliminate water contamination from reservoir ingress Minimize rust and acid corrosion. Reduce component wear. Reduce maintenance costs. Prolong fluid life. Reduce oil oxidation. Enhance lubricity of fluids.
Chemically inert	Gold silica gel is chemically inert, non toxic, non-deliquescent and non-corrosive. (chemically inert)
Disposable	Materials meet U.S Pharmacopoeia XXI Class VI toxicity requirements. Hy-Dry contains no metal components. (easy disposal)
Color indicator	When maximum adsorption is reached Hy-Dry will turn from Gold to Green as an indicator to replace it. (easy condition indicator)
Bi-directional air flow	Air inhaled is cleaned and dried, and oil is removed from exhausted air .
Activated carbon	As air is exhausted from the tank activated carbon removes oil vapor, fumes, and odors. (clean exhaust)

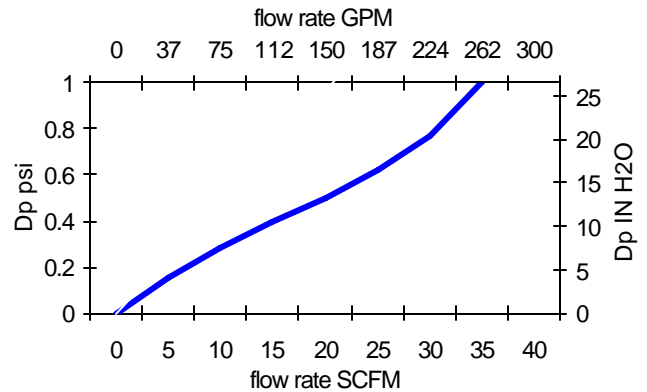
Contaminant	Problem	Solution
Water vapor	Rust & oxidation	Water adsorbent silica
	Additive depletion	
	Freezing	
	Increased conductivity	
	Fluid degradation	
Solid particulate	Component wear	2 micron removal efficiency
	Stiction	
	Orifice blockage	
Acids & salts	Chemical reaction	100 %
	Microbial growth	
	Overheating	
	Corrosion	





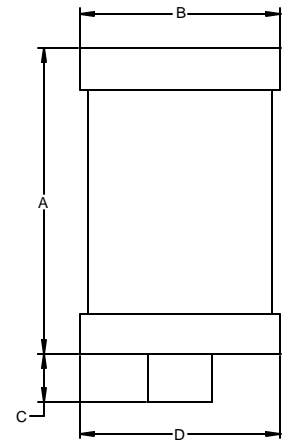
Silica gel changes from Gold to Dark Green indicating saturation (Change breather).

Hy-Dry pressure drop vs flow rate



## HY-DRY BREATHER AND ADAPTER ORDER GUIDE

Hy-Dry Cartridge	A	B	C	D	Weight
HPB-100	3.5" (9cm)	5.0" (12,8cm)	1.25" (3,2cm)	5.0" (12,8cm)	1.3lb (0.6kg)
HPB-101	5.0" (12,8cm)	5.0" (12,8cm)	1.25" (3,2cm)	5.0" (12,8cm)	1.9lb (0.9kg)
HPB-102	8.0" (20,5cm)	5.0" (12,8cm)	1.25" (3,2cm)	5.0" (12,8cm)	3.3lb (1.5kg)
HPB-302*	8.5" (21,8cm)	5.0" (12,8cm)	N/A	5.2" (13,3cm)	3.3lb (1.5kg)
HPBR-102*	9.5" (24,4cm)	5.0" (12,8cm)	N/A	5.2" (13,3cm)	5.0lb (2.3kg)



\*HPBR-102 assembly is complete with a metal reinforced base, that remains with the reservoir or gearbox, and a replacement breather cartridge (HPB-302) threaded into the base. Upon indication remove the cartridge only (HPB-302) and replace with a new cartridge. The HPBR-102 assembly is recommended for Heavy Duty, Continuous vibration, and Extreme climate applications. HPBR-102 has a 1" Male NPT connection.

Don't forget the adaptor for Retro-fits and New installations!!

Hy-Dry Adaptor	Type
HPBA-101	Flange (no holes)
HPBA-102	1" Male NPT
HPBA-103	3/4" Male NPT
HPBA-104	Bayonet (standard filler/breather flange)
HPBA-105	1"-12 UNF
HPBA-106	1 1/2"-16 UNF
HPBA-114	Flange (6 holes)
HPBA-201	1 1/8"-16UNF

