

## TDB Series Breathers

The TDB series is equipped to function in almost any environment with many connection options. It is fully serviceable, provides high dirt holding capacity, and includes a durable glass-filled nylon standpipe with built in oil mist reducer to prevent oil from reaching the desiccant.



### ORDERING CODES:

TDB		BOX 1		BOX 2		BOX 3		BOX 4			
Size [Box 1]		Drying Agent [Box 2]		Check Valves [Box 3]		Connections [Box 4]					
Code	Description	Code	Description	Code	Description	93 & 96 Series		121 Series			
						Code	Description	Code	Description		
93	320 cc	R	ZR Gel	V	With Check Valves	34B	¾" BSPP male	1B	1" BSPP male		
96	600 cc			-	Without Check Valves	1B	1" BSPP male	1N	1" NPT male		
121	1040 cc					1N	1" NPT male	114B	1 ¼" BSPP male		
						DIN6	DIN 24557/2 6-hole pattern	DIN6	DIN 24557/2 6-hole pattern		

### MATERIALS & COMPONENTS:

- **Filter Media:** Glass Fiber
- **Hydrophilic Media:** ZR Gel
- **Check Valves:** Silicone
- **All other Components:** Copolyester, Buna-N, Stainless steel, Nylon 6/6, 30% Glass Filled

### CHEMICAL COMPATIBILITY:

Compatible with all mineral oils, most synthetic oils and diesel fuels (Contact Des-Case technical support for chemical compatibility inquiries)

### PERFORMANCE SPECIFICATIONS:

Product Size	93	96	121
Temperature Range	-40°F to 194°F (-40°C to 90°C)		
Filter Efficiency	3 µm absolute (β <sub>3</sub> ≥ 200)		
Adsorption Material	ZR Gel 3-6 mm		
ZR Gel Volume	320 cc	600 cc	1040 cc
Amount of Desiccant	.6 lbs (250 g)	1 lbs (460 g)	1.8 lbs (800 g)
Water Adsorption Capacity (Maximum Water Retention)	3 fl. oz (94 ml)	5.5 fl. oz (172 ml)	10 fl. oz (300 ml)
Color Indication	Red to Yellow		
Check Valve Cracking Pressure (For order codes ending in "V")	.05 psi (.003 bar)		
<b><sup>2</sup>Application Sizing Recommendations</b>			
Max. Airflow without Check Valves	25 cfm (700 l/min)	25 cfm (700 l/min)	53 cfm (1500 l/min)
Max. Airflow with Check Valves	11 cfm (300 l/min)	11 cfm (300 l/min)	14 cfm (400 l/min)

<sup>1</sup>**NOTE:** Small variations in the manufacturing process can be common and will be within the allowable engineering tolerances. All above data is nominal and provided for information only and subject to change. All metric conversions are approximate.

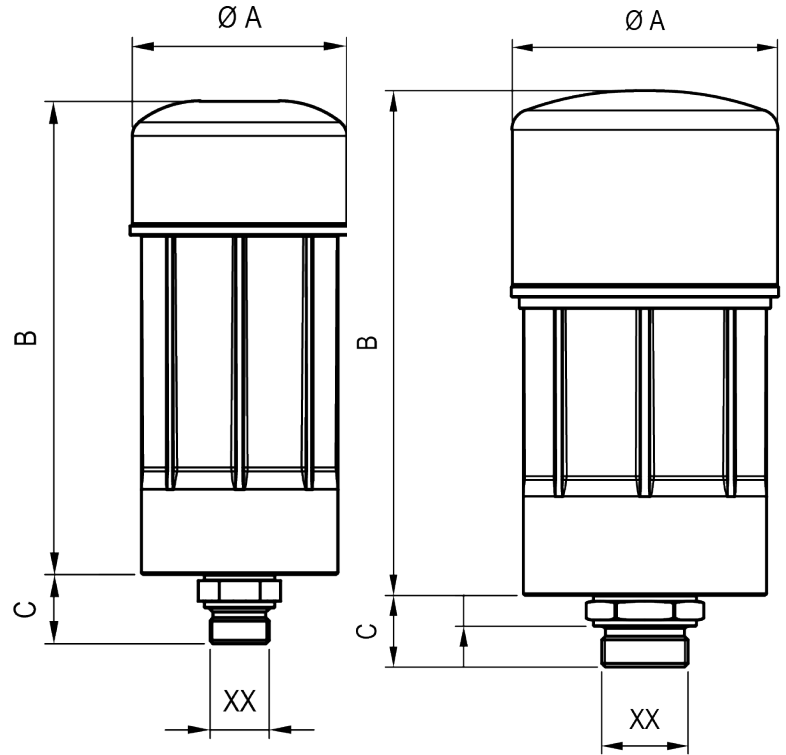
<sup>2</sup>**NOTE:** This is intended as a general guideline for sizing only; other considerations, such as: humidity level, frequency of air flow, ambient temperatures, and chemical compatibility are very important in sizing a breather properly. Larger applications and special circumstances typically require the most thorough analysis. Please contact Des-Case for assistance in sizing a breather.

## DIMENSIONS:

93 Series in inch / mm			
XX	A	B	C
¾" BSPP	3.9 / 98	6 / 152	1.3 / 33
1" BSPP			1.3 / 33
1" NPT			1.5 / 39
DIN 24557/2 6-hole pattern			2.8 / 70

96 Series in inch / mm			
XX	A	B	C
¾" BSPP	3.9 / 98	8.3 / 212	1.3 / 33
1" BSPP			1.3 / 33
1" NPT			1.5 / 39
DIN 24557/2 6-hole pattern			2.8 / 70

121 Series in inch / mm			
XX	A	B	C
1 ¼" BSPP	5.1 / 130	9.6 / 245	1.4 / 35
1" BSPP			1.3 / 32
1" NPT			1.5 / 37
DIN 24557/2 6-hole pattern			2.8 / 70



## SPARE PARTS:

Product Spare Parts	93 Series	96 Series	121 Series
Air Filter	KL90 (9331034)		KL120 (9317903)
ZR Gel Refill	RF-300 (9331156)	RF-600 (9331155)	RF-1000 (9331157)
Spare Kit*	RK-93 (9318115)	RK-96 (9318116)	RK-121 (9318117)

\*The spare kit contains 1x air filter, 1 ZR Gel refill, 2x foam filters, 1x bottom seal stickers, 1x adapter plug.

## Typical Applications:

- Mobile & off-road equipment
- Hydraulics
- Nautical applications
- Truck differentials

## Typical Industries:

- Wind Energy
- Pulp & Paper
- Mining
- Aviation
- Petrochemical