

## KL Series Breathers

The KL series desiccant breathers are built around a steel standpipe making them well suited for vibration and harsh environments, while also providing serviceability and high dirt holding capacity.



### ORDERING CODES:

#### BOX 1

#### BOX 2

#### BOX 3

| KL           |             |                      |             |                      |                      |
|--------------|-------------|----------------------|-------------|----------------------|----------------------|
| Size [Box 1] |             | Drying Agent [Box 2] |             | Check Valves [Box 3] |                      |
| Code         | Description | Code                 | Description | Code                 | Description          |
| 93           | 320 cc      | R                    | ZR Gel      | V                    | With Check Valves    |
| 96           | 600 cc      |                      |             | -                    | Without Check Valves |
| 121          | 1040 cc     |                      |             |                      |                      |

### MATERIALS & COMPONENTS:

- **Filter Media:** Glass Fiber
- **Hydrophilic Media:** ZR Gel
- **Check Valves:** Silicone
- **All Other Components:** Copolyester, Buna-N, Stainless Steel, Galvanized Steel, Aluminum (check valve breathers)

### 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<br>(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<br>(For order codes ending in "V") | .05 psi (.003 bar)                    |                       |                       |
| ²Application Sizing Recommendations                              |                                       |                       |                       |
| 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<br>(300 l/min)                 | 11 cfm<br>(300 l/min) | 14 cfm<br>(400 l/min) |

**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.

**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.

### Typical Applications:

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

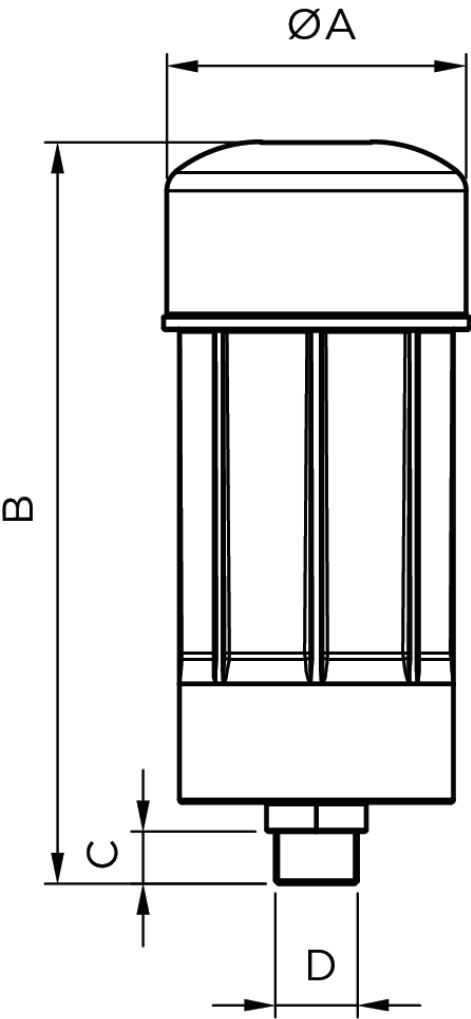
### Typical Industries:

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



### DIMENSIONS:

|                 | A              | B         | C         |
|-----------------|----------------|-----------|-----------|
| Series          | Inch / mm      | Inch / mm | Inch / mm |
| 93              | 3.9 / 98       | 7.1 / 180 | 0.6 / 16  |
| 96              | 3.9 / 98       | 9.4 / 240 | 0.7 / 17  |
| 121             | 5.1 / 130      | 11 / 280  | 1 / 25    |
| Thread Size (D) |                |           |           |
| KL 93 & 96      | ¾" BSPP male   |           |           |
| KL 121          | 1 ¼" BSPP male |           |           |



### SPARE PARTS:

| Product Spare Parts | 93 Series        | 96 Series        | 121 Series        |
|---------------------|------------------|------------------|-------------------|
| KL Spin-On          | KL90 (9331034)   |                  | KL120 (9317903)   |
| ZR Gel              | 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 KL Spin-On, 1x ZR Gel refill, 2x foam filters, 1x bottom seal stickers, 1x adapter plug.