



# Desiccant Breathers

Defends against moisture and particulate contamination

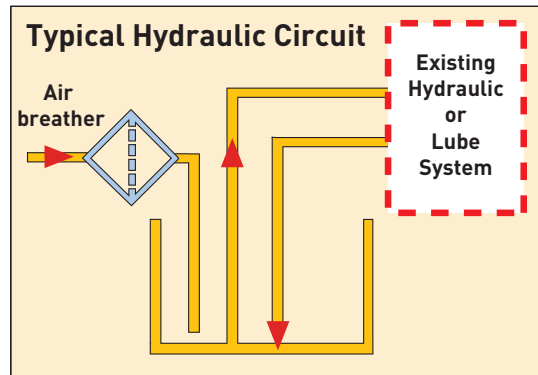


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# Desiccant Breathers

## Applications

- Reservoirs
- Mobile Equipment
- Gearboxes
- Transformers
- Storage Tanks
- Totes
- 55 Gallon Drums



The Hydraulic and Fuel Filtration Division's desiccant breather portfolio offers a wide selection of breather designs and desiccant types to deliver optimum performance. Reservoirs open to atmosphere are subject to an array of ambient conditions and require clean dry air on demand.

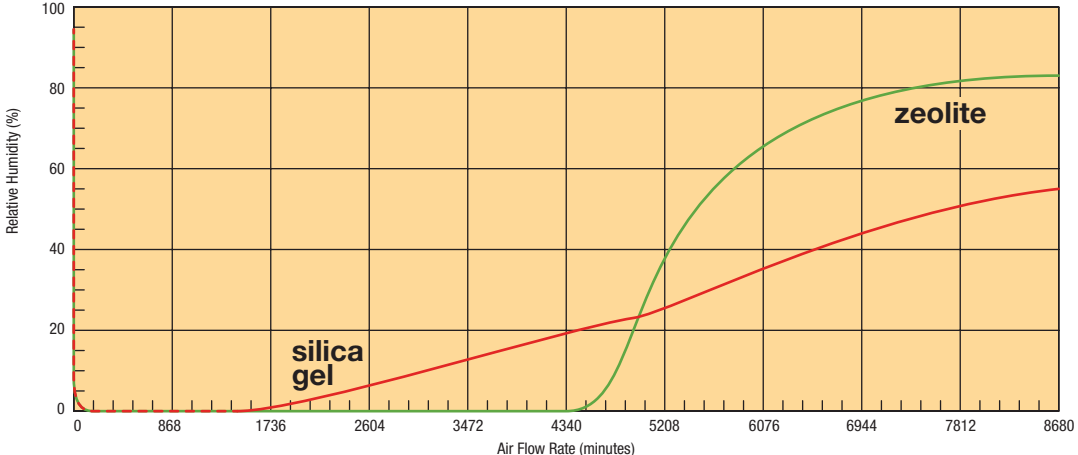
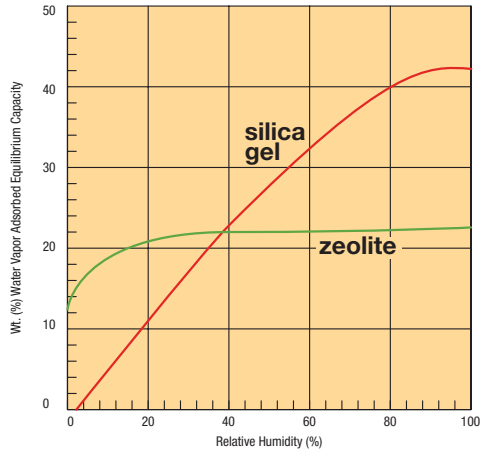
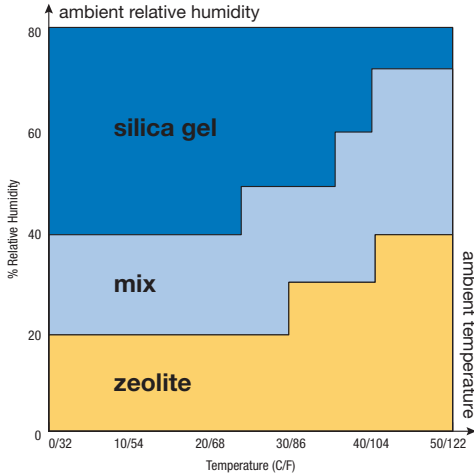
	<p><b>E Z Dri</b> <i>Zeolite Breather</i></p>	<ul style="list-style-type: none"> <li>• Reduces head space Relative Humidity to as low as 5%</li> <li>• Excellent temperature resistance for &gt;100°F applications</li> <li>• Color indicating beads provide visual identification for service on demand</li> </ul>
	<p><b>TriCeptor</b> <i>Silica Gel Breather</i></p>	<ul style="list-style-type: none"> <li>• Reduces head space Relative Humidity to as low as 20%</li> <li>• Excellent performance in high humidity (&gt;40% RH) environments</li> <li>• Color indicating desiccant provides visual identification for service on demand</li> </ul>
	<p><b>Mobile</b> <i>Rugged Breather</i></p>	<ul style="list-style-type: none"> <li>• E Z Dri or TriCeptor options available</li> <li>• Clean, dry air on demand via high flow check valves to maximize breather life</li> <li>• Rugged construction to withstand the most demanding service</li> </ul>
	<p><b>TriCeptor Plus</b> <i>80% Silica Gel 20% Zeolite</i></p>	<ul style="list-style-type: none"> <li>• Clean, dry air on demand via high flow check valves to maximize breather life</li> <li>• Mixed desiccant provides the ultimate application flexibility</li> <li>• Reduces head space Relative Humidity to as low as 5%</li> <li>• Color indicating desiccant provides visual identification for service on demand</li> </ul>
	<p><b>TriCeptor Extended</b> <i>80% Silica Gel 20% Zeolite</i></p>	<ul style="list-style-type: none"> <li>• Double the capacity of a standard breather</li> <li>• Clean, dry air on demand via high flow check valves to maximize breather life</li> <li>• Mixed desiccant provides the ultimate application flexibility</li> <li>• Reduces head space Relative Humidity to as low as 5%</li> <li>• Color indicating desiccant provides visual identification for service on demand</li> <li>• Integrated oilmist coalescer protects the desiccant from hydrocarbon contaminants</li> </ul>
	<p><b>ClearConnect</b> <i>Wired Relative Humidity Sensor</i></p>	<ul style="list-style-type: none"> <li>• Relative humidity sensor provides realtime system monitoring</li> <li>• Clean, dry air on demand via high flow check valves to maximize breather life</li> <li>• Standard or extended sizes to meet desired service intervals</li> <li>• Clear silica gel desiccant offers up to a 20% improvement in absorption capacity</li> </ul>

# Desiccant Breathers

## Selection Guide

### Features

	EZ Dri	TriCeptor	E Z Dri Mobile	TriCeptor Mobile	TriCeptor Plus	TriCeptor Extended	ClearConnect
Zeolite	X		X	X	X	X	
Color Indicating Silica Gel		X		X	X	X	
Clear Silica Gel							X
Mechanical Adsorption		X		X	X	X	X
1" Multi Fit Threaded Connection	X	X			X		X
1" FNPT Connection						X	X
1 1/2" SAE Connection			X	X			
Clean Air on Demand via high flow check valves				X	X	X	X
Wired Relative Humidity Sensor							X
Rugged Construction			X	X			
Increased Desiccant Volume						X	X
External Ribbing for Change Out	X	X			X		X
Integrated Stand Pipe	X	X	X	X	X	X	X
Honeycomb to Capture Oil Mist						X	X
Headspace RH% Minimized (<5%)	X		X		X	X	
Good for low humidity environments (<40%)	X		X		X	X	
Good for high humidity environments (>40%)		X		X	X	X	X



# E Z Dri

## Features

### Materials:

Housing: Polycarbonate, Nylon 6/6 30% Glass Filled, Polypropylene

**Filter Efficiency:** 3 $\mu$  absolute ( $\beta_3 \geq 200$ )

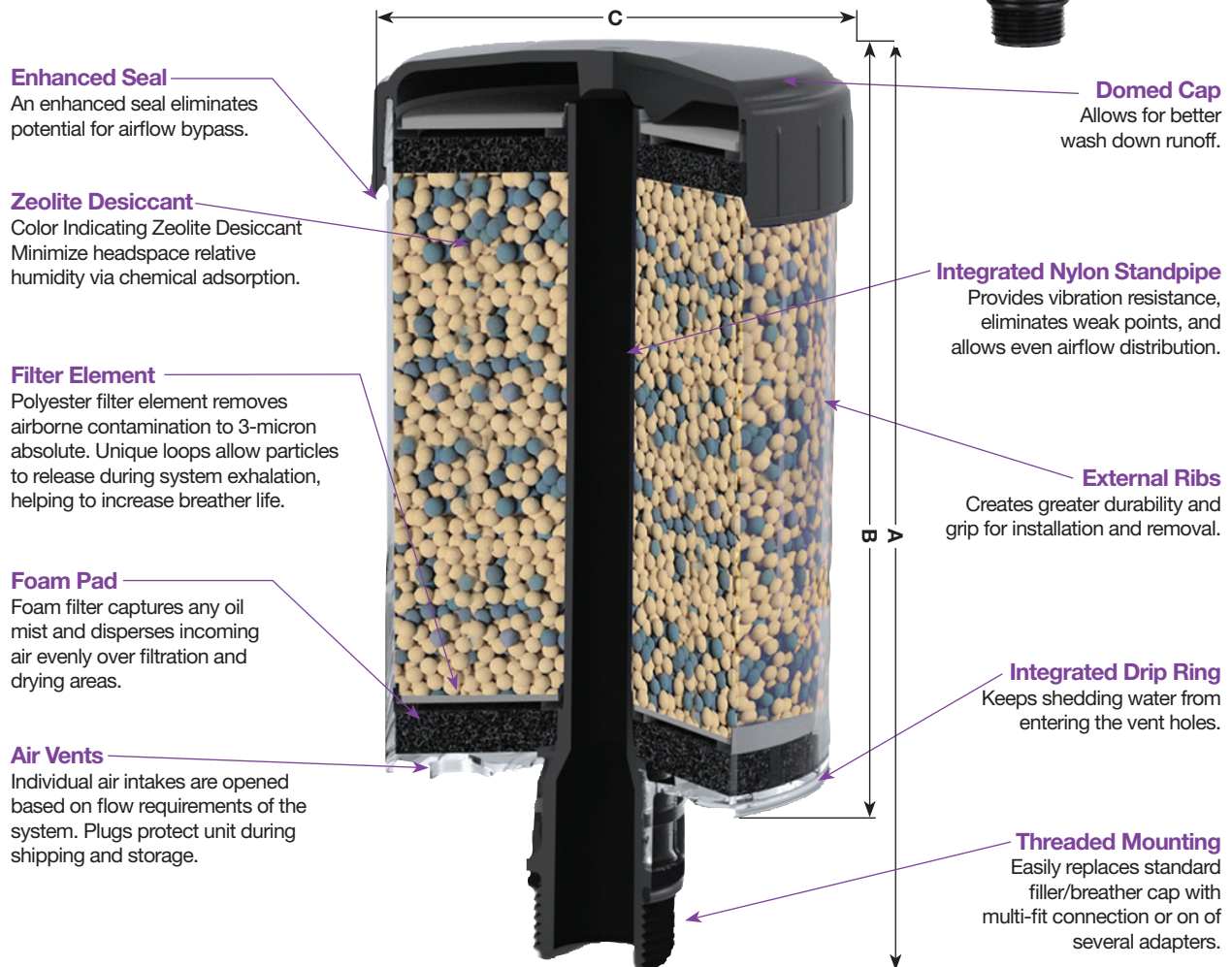
**Operating Temperatures:** -20°F (-29°C) to 200°F (93°C)

**Seals:** Nitrile, PVC



Active

Replace



Part Number	A (in/mm)	B (in/mm)	C (in/mm)	Thread	Qty
934330	6.00/152	5.33/135	4.10/104	1" multi-fit male thread with o-ring seal compatible with 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP	6 pcs
934331	8.00/203	7.33/186	4.10/104	1" multi-fit male thread with o-ring seal compatible with 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP	6 pcs
934332	10.00/254	9.33/237	4.10/104	1" multi-fit male thread with o-ring seal compatible with 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP	6 pcs

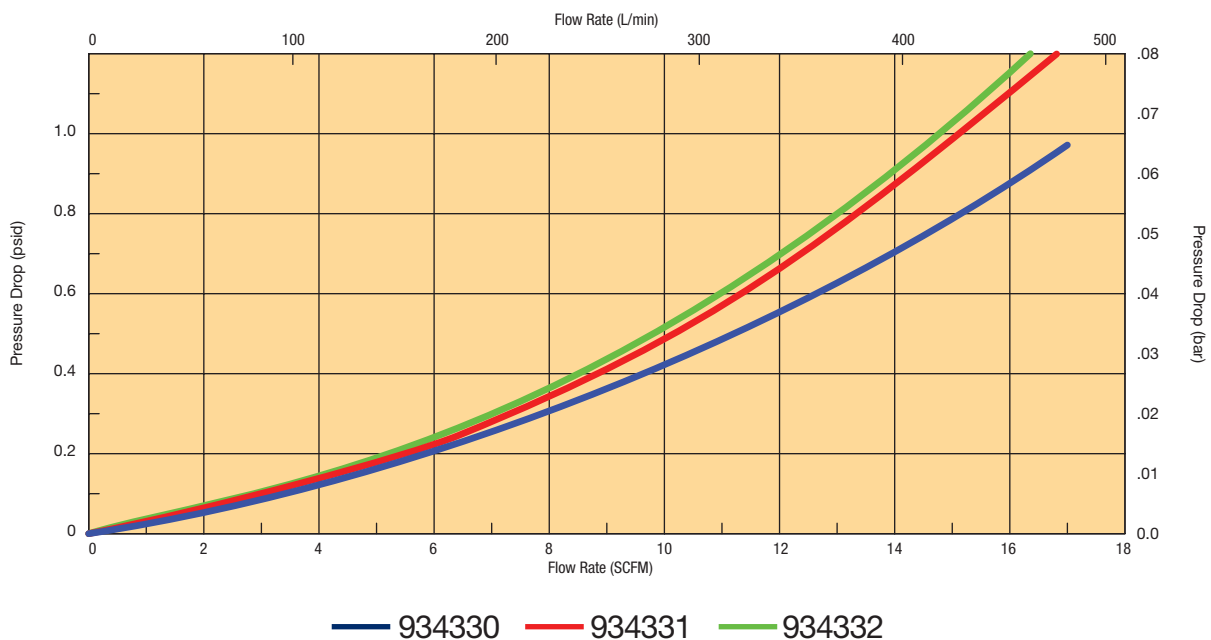
# E Z Dri

## Specifications

General Data	934330	934331	934332
Amount of ZEOLITE	0.83 lbs	1.33 lbs	1.81 lbs
	.376 kg	.603 kg	0.82 kg
Adsorption Capacity	84 ml	157 ml	209 ml
	2.8 fl oz	5 fl oz	7.1 fl oz
Net Weight of Unit	0.5 kg	0.8 kg	1.1 kg
	1.2 lbs	1.8 lbs	2.5 lbs
Filtration Area	8.4 in <sup>2</sup> / 54.2 cm <sup>2</sup>	8.4 in <sup>2</sup> / 54.2 cm <sup>2</sup>	8.4 in <sup>2</sup> / 54.2 cm <sup>2</sup>
Direction of Flow	Bidirectional	Bidirectional	Bidirectional
Operating Temp Range	-40°F to 302°F / -40°C to 150°C	-40°F to 302°F / -40°C to 150°C	-40°F to 302°F / -40°C to 150°C
Maximum Air Flow Rate	15 SCFM	15 SCFM	15 SCFM

### Air Flow Performance

The curves below show the air flow performance of the E Z Dri breathers. To ensure the longest life possible, the initial clean pressure drop should not exceed 1.0 psid (.07 bar).



# TriCeptor

## Features

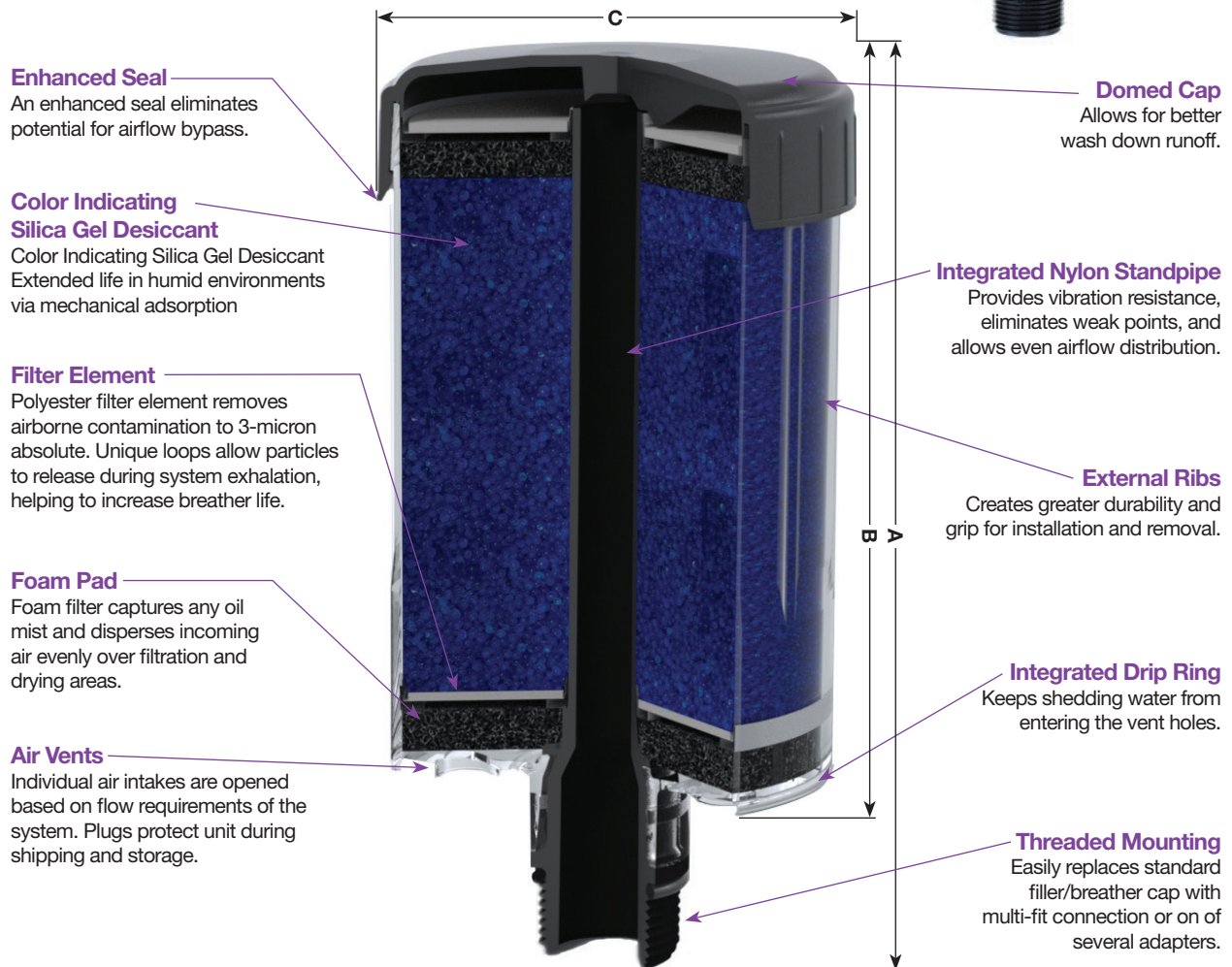
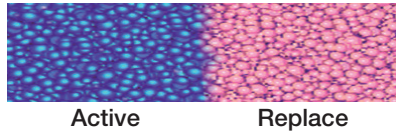
**Materials:**

Housing: Polycarbonate, Nylon 6/6 30% Glass Filled, Polypropylene

**Filter Efficiency:** 3μ absolute ( $\beta_3 \geq 200$ )

**Operating Temperatures:** -20°F (-29°C) to 200°F (93°C)

**Seals:** Nitrile, PVC



Part Number	A (in/mm)	B (in/mm)	C (in/mm)	Thread	Qty
934330T	6.00/152	5.33/135	4.10/104	1" multi-fit male thread with o-ring seal compatible with 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP	6 pcs
934331T	8.00/203	7.33/186	4.10/104	1" multi-fit male thread with o-ring seal compatible with 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP	6 pcs
934332T	10.00/254	9.33/237	4.10/104	1" multi-fit male thread with o-ring seal compatible with 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP	6 pcs

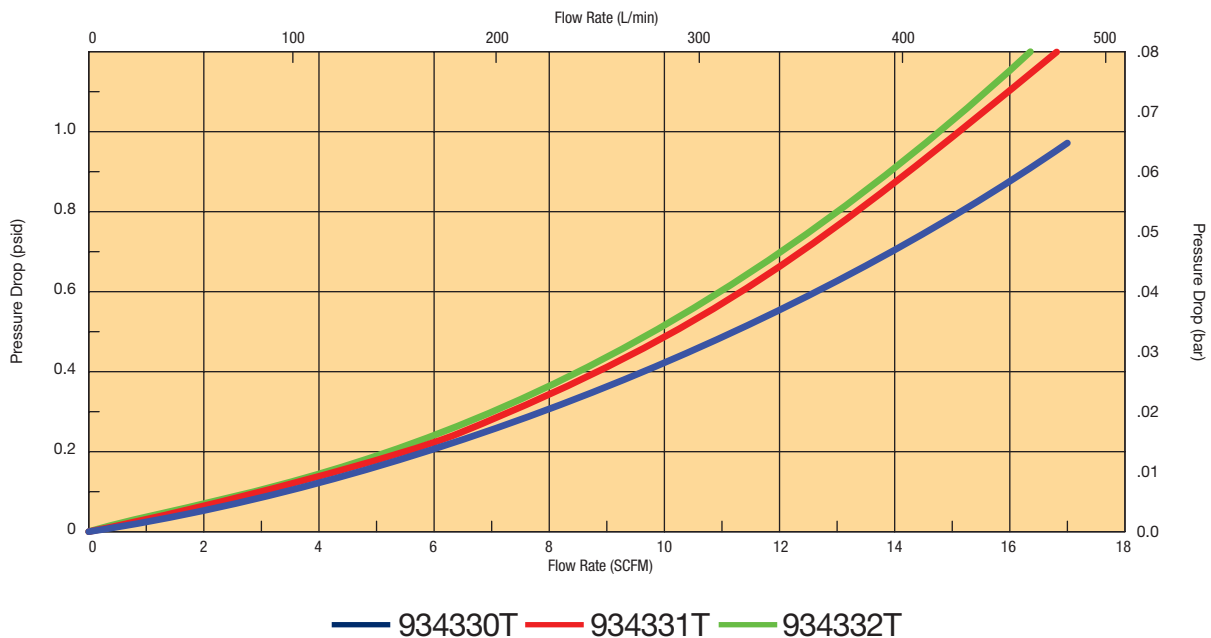
# TriCeptor

## Specifications

General Data	934330T	934331T	934332T
Amount of Silica Gel	0.8 lbs	1.4 lbs	2.0 lbs
	0.4 kg	0.6 kg	0.9 kg
Adsorption Capacity	4.9 fl oz	8.7 fl oz	12.4 fl oz
	146 ml	257 ml	365 ml
Net Weight of Unit	1.2 lbs	1.9 lbs	2.6 lbs
	0.5 kg	0.9 kg	1.2 kg
Direction of Flow	Bidirectional	Bidirectional	Bidirectional
Operating Temp Range	-20°F to 200°F / -29°C to 93°C	-20°F to 200°F / -29°C to 93°C	-20°F to 200°F / -29°C to 93°C
Maximum Air Flow Rate	16 SCFM	16 SCFM	16 SCFM

### Air Flow Performance

The curves below show the air flow performance of the TriCeptor breathers. To ensure the longest life possible, the initial clean pressure drop should not exceed 1.0 psid (.07 bar).



# E Z Dri Mobile

## Features and Specifications

### Materials:

Casing: Polycarbonate/Polybutylene, Terephthalate, Aluminum, Polyurethane, Polycarbonate  
Stand pipe: Polycarbonate tube

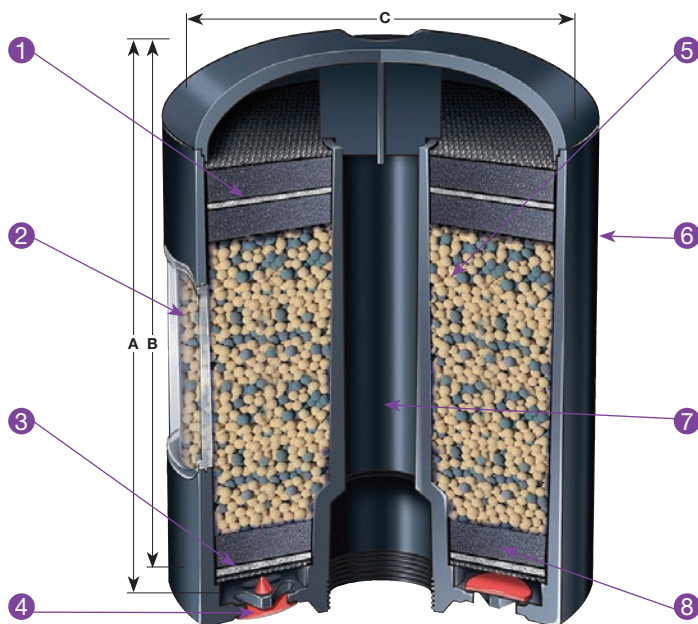
**Multi-layer Filtration:** Foam pad filter, 3µ polyester filter, 0.3µ PTFE filter,

**Operating Temperatures:** -40°F (-40°C) to 300°F (149°C)

**Seals:** None



Active Replace



**1 Filter Element** - Second particulate filter element protects against migration of desiccant.

**2 Visual Indicator** - Windows on two sides of breather allow for easy monitoring of desiccant.

**3 Filter Element** - ePTFE filter removes airborne contamination to 0.3 absolute.

**4 Quad Check Valves** - Check-valves provide system pressurization, protecting system integrity and extending product life.

**5 Water Vapor Adsorbent** - Color-indicating zeolite adsorbs water from incoming air.

**6 Rugged Housing** - PC/PBT allow maximizes chemical compatibility at the surface and impact resistance at the core.

**7 Integrated Standpipe** - Resilient construction provides durability and allows oil mist to coalesce and drain back into the reservoir.

**8 Foam Pad** - Foam filter captures any oil mist and disperses incoming air evenly over filtration and drying areas.



941655

### General Data

Amount of Desiccant	1.59 lbs / 0.72 kg
Adsorption Capacity	6.1 fl oz / 176 ml
Net Weight of Unit	3.2 lbs / 1.5 kg
Direction of Flow	Bidirectional
Operating Temperature Range	-40°F to 300°F/ -40°C to 150°C
Maximum Flow Rate	15 SCFM

### Unit Material Data

Material	Nylon and MXD6
Maximum Operating Temperature	300°F/149°C
Melting Point	320°F/160°C
Check Valve Adapter	Zinc Plated Steel

### Filter Media

Material	EPTFE
Porosity	3.5-7.5 ft/min @ 0.5 in - H <sub>2</sub> O (ASTM D 373)
Filtration Efficiency	Beta 200 @ 0.3µ (IES-RP-CCo21.1)

### General Data

Apparent Bulk Density	700-800 kg/m <sup>3</sup>
Average Particle Diameter	0.145"/3.68 mm
Specific Heat	0.25 BTU/lb F
Nominal Mesh Range	4x8
Average Crush Strength	35 lbs/15.9 kg

Part Number	A (in/mm)	B (in/mm)	C (in/mm)	Thread	Qty*
941665	6.34/158.5	6.17/156.7	5.1/129.5	1 1/2" - 16 UN Female Thread	1 pc

\* Must be ordered in multiples of six (6).



# TriCeptor Mobile

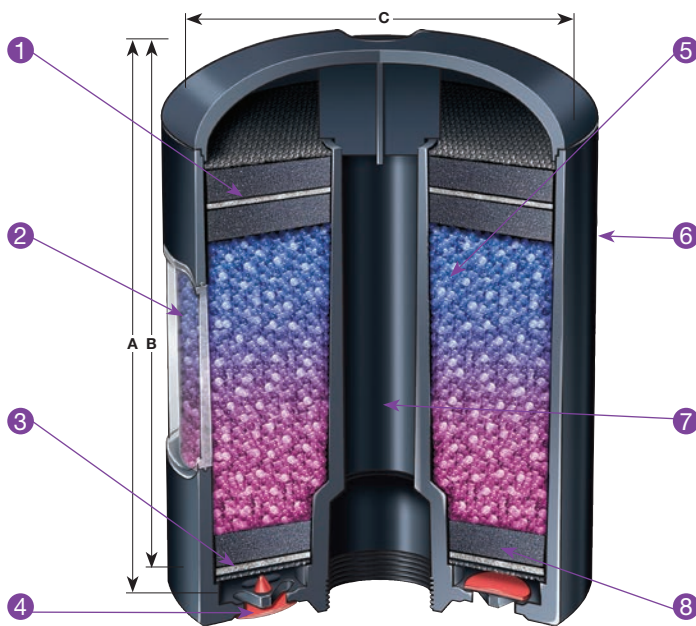
## Features and Specifications

### Materials:

Casing: Polycarbonate/Polybutylene, Terephthalate, Aluminum, Polyurethane, Polycarbonate  
Stand pipe: Polycarbonate tube

**Multi-layer Filtration:** Foam pad filter, 3µ polyester filter, 0.3µ PTFE filter,  
**Operating Temperatures:** -40°F (-40°C) to 300°F (149°C)

**Seals:** None



- 1 **Filter Element** - Second particulate filter element protects against migration of desiccant.
- 2 **Visual Indicator** - Windows on two sides of breather allow for easy monitoring of desiccant.
- 3 **Filter Element** - ePTFE filter removes airborne contamination to 0.3 absolute.
- 4 **Quad Check Valves** - Check-valves provide system pressurization, protecting system integrity and extending product life.
- 5 **Water Vapor Adsorbent** - Color-indicating silica gel adsorbs water from incoming air.
- 6 **Rugged Housing** - PC/PBT allow maximizes chemical compatibility at the surface and impact resistance at the core.
- 7 **Integrated Standpipe** - Resilient construction provides durability and allows oil mist to coalesce and drain back into the reservoir.
- 8 **Foam Pad** - Foam filter captures any oil mist and disperses incoming air evenly over filtration and drying areas.



**941655T**

### General Data

Amount of Desiccant	1.75 lbs / 0.79 kg
Adsorption Capacity	10.7 fl oz / 315 ml
Net Weight of Unit	3.3 lbs / 1.5 kg
Direction of Flow	Bidirectional
Operating Temperature Range	-40°F to 300°F/ -40°C to 150°C
Maximum Flow Rate	16 SCFM

### Unit Material Data

Material	Nylon and MXD6
Maximum Operating Temperature	300°F/148.9°C
Melting Point	320°F/160°C
Check Valve Adapter	Zinc Plated Steel

### Filter Media

Material	EPTFE
Porosity	3.5-7.5 ft/min @ 0.5 in - H <sub>2</sub> O (ASTM D 373)
Filtration Efficiency	Beta 200 @ 0.3µ (IES-RP-CCo21.1)

### General Data

Apparent Bulk Density	700-800 kg/m <sup>3</sup>
Average Particle Diameter	0.145"/3.68 mm
Specific Heat	0.25 BTU/lb F
Nominal Mesh Range	8x12
Average Crush Strength	35 lbs/15.9 kg

Part Number	A (in/mm)	B (in/mm)	C (in/mm)	Thread	Qty*
941665T	6.34/158.5	6.17/156.7	5.1/129.5	1 1/2" - 16 UN Female Thread	1 pc

\* Must be ordered in multiples of six (6).

# TriCeptor Plus

## Features

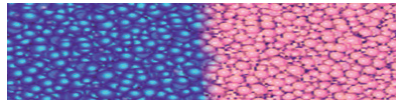
### Materials:

Housing: Polycarbonate, Nylon 6/6 30% Glass Filled, Polypropylene

**Filter Efficiency:** 3 $\mu$  absolute ( $\beta_3 \geq 200$ )

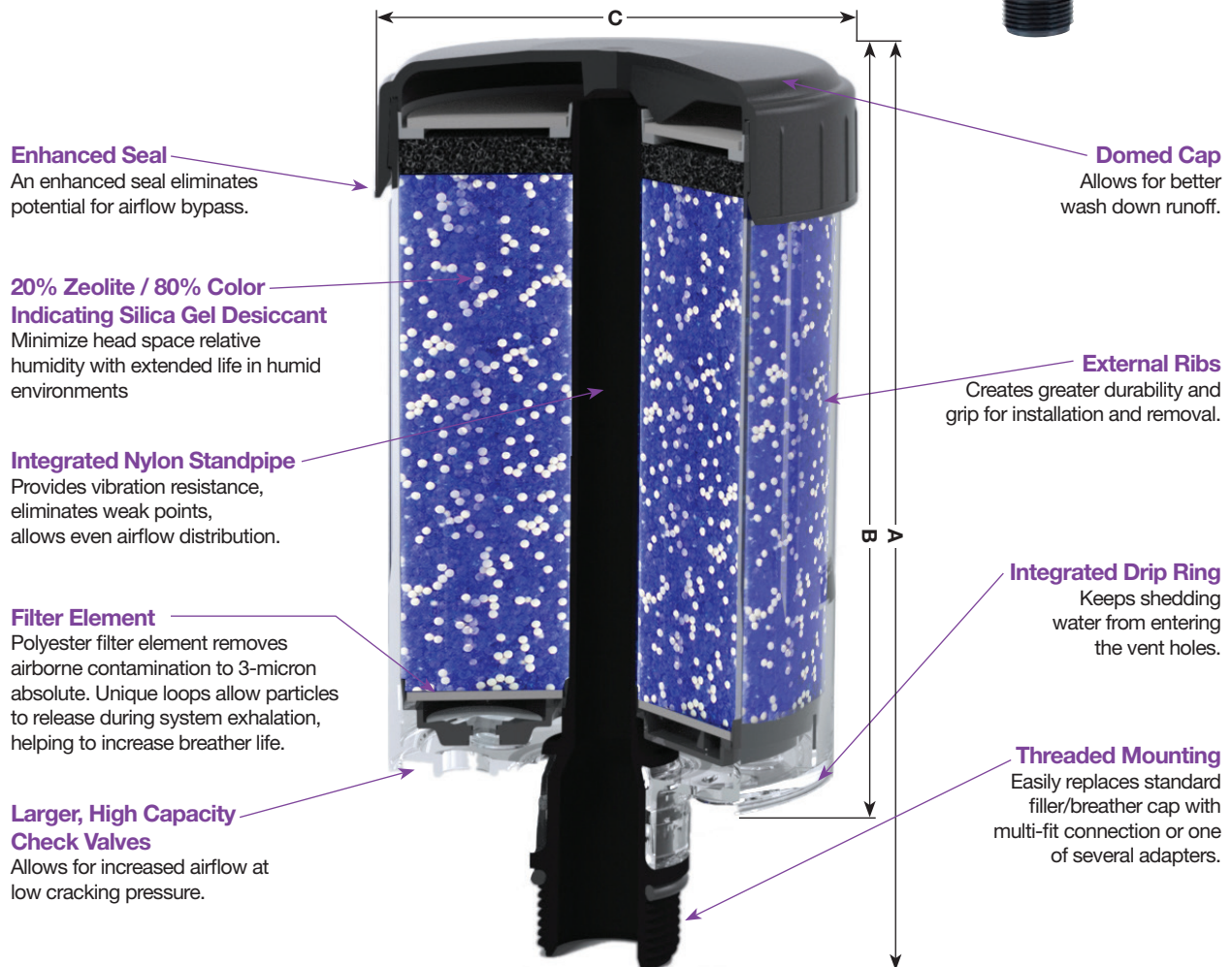
**Operating Temperatures:** -20°F (-29°C) to 200°F (93°C)

**Seals:** Nitrile, PVC



Active

Replace



Part Number	A (in/mm)	B (in/mm)	C (in/mm)	Thread	Qty
947333	6.00/152	5.33/135	4.10/104	1" multi-fit male thread with o-ring seal compatible with 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP	6 pcs
947334	8.00/203	7.33/186	4.10/104	1" multi-fit male thread with o-ring seal compatible with 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP	6 pcs
947335	10.00/254	9.33/237	4.10/104	1" multi-fit male thread with o-ring seal compatible with 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP	6 pcs