

**Ultrac A**

Activated Carbon  
Vapor Filter Element

Aircel Ultrac A adsorption filter elements incorporate two stages of filtration. The first stage contains activated carbon for removal of oil, hydrocarbon and odor vapors through adsorption. The second filtration stage consists of binder-free borosilicate depth media, supported by microfiber polyamide fleece, for removal of particulate contamination in the air or gas stream. These filtration stages are followed and supported by an outer stainless steel core, which also protects the element against pressure shock.

Flow distribution into and through the element has been optimized by the use of a carefully designed inlet/outlet end cap incorporated into the element itself. Flow direction through the element is inside-to-outside, which minimizes pressure drop and assures full utilization of both layers of filter media. Residual oil content is less than 0.003 ppm with an inlet challenge of 0.01 ppm (might require recommended prefiltration).

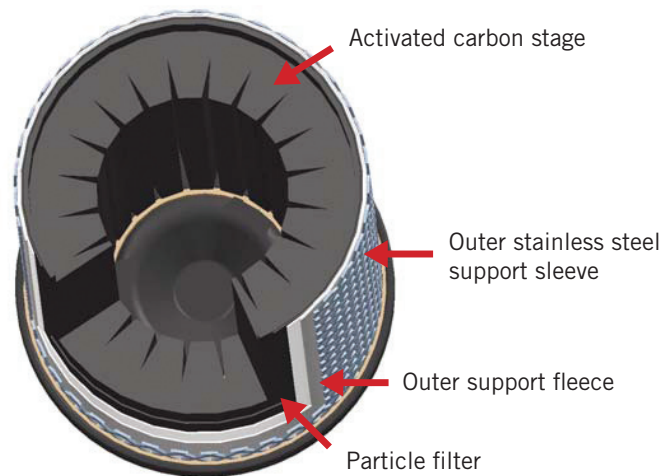
### A Series Features

- Optimized flow distributor at filter inlet
- Activated carbon granules embedded in support foam
- High density packing of activated carbon on inside surface of support foam
- Microfiber polyamide fleece support layer after borosilicate media

### A Series Benefits

- Reduces flow resistance, minimizing pressure drop resulting in energy savings; equalized flow through entire surface for full utilization of media
- Prevents abrasion of activated carbon material
- High adsorption capacity and improved efficiency for optimum performance throughout element life
- Improves overall particle retention rate, achieving ISO Class 2 quality (ISO 8573-1)

### A SERIES Adsorption Filter Design



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# A SERIES TECHNICAL SPECIFICATIONS



## A Model Comparison

### Specifications

<b>Recommended Application Temperature:</b>	+50°F +104°F (Tmax = +140°F)
<b>Recommended Prefiltration:</b>	Residual oil content < 0.01 PPM, e.g. by submicrofilter
<b>Retention Rate:</b>	Residual oil content < 0.003 PPM with appropriate prefiltration
<b>Initial Differential Pressure at Nominal Flow:</b>	1.45 psi

### Materials

<b>Adsorption Stage:</b>	Activated carbon granulate, embedded in PUR ester carrier material
<b>Filter Medium:</b>	Binder-free borosilicate
<b>Support Fleece:</b>	Polyamide fleece
<b>Bonding:</b>	Polyurethane
<b>End Caps:</b>	Glass-fiber reinforced polymer
<b>Two O-Rings:</b>	Perbunan®*: silicone free and free of compound (standard)
<b>Support Sleeves:</b>	304 Stainless steel

### A Element Typical Adsorption Effectiveness

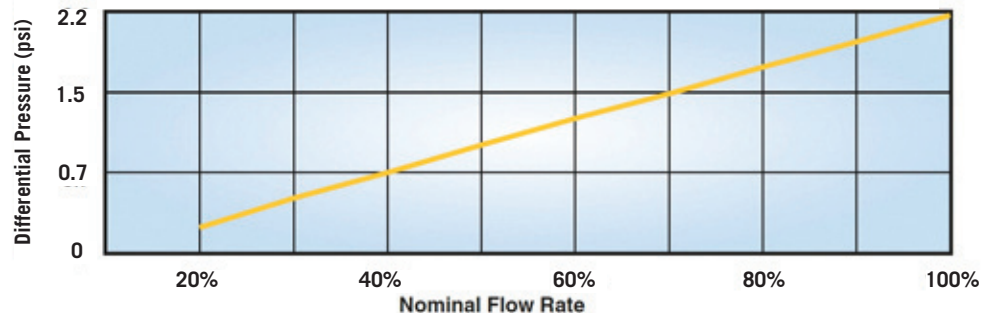
<b>Oil Vapor</b>	VERY GOOD
<b>Benzene</b>	VERY GOOD
<b>Ethane</b>	SLIGHT
<b>Toluene</b>	VERY GOOD
<b>Acetic Acid</b>	VERY GOOD
<b>Methanol</b>	GOOD
<b>Acetone</b>	GOOD
<b>Isopropyl Ether</b>	VERY GOOD
<b>Methyl Acetate</b>	GOOD
<b>Sulfuric Acid</b>	VERY GOOD
<b>Hydrogen Sulphide</b>	POOR
<b>Chlorine</b>	GOOD
<b>Freon</b>	POOR
<b>Ammonia</b>	POOR
<b>Citrus Fruits</b>	VERY GOOD
<b>Perfumes</b>	VERY GOOD

### A Series Applications

The Aircel Ultrac A adsorption filter is ideal in the following industries and applications:

- Chemical
- Petrochemical
- Pharmaceutical
- Beverage
- Prefiltration of sterile air
- Process (instrumentation and control air)
- Filling machines
- Packaging machines
- Food industry
- Breathing air supply

Differential pressure of A - filter element including filter housing at 116 psi absolute



Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.