



**A**

**ACTIVATED CARBON  
FILTER ELEMENTS**

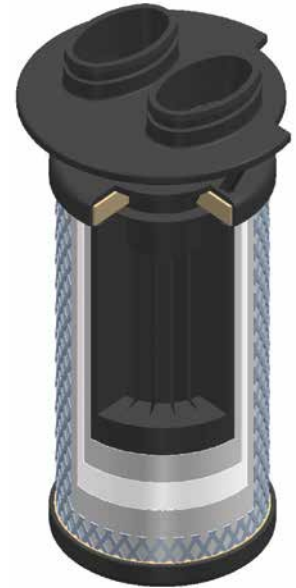
fits Donaldson DF housings

Process Filtration

**Donaldson® activated carbon vapor filter elements are designed for the removal of oil, hydrocarbons, odors, and vapors.**

The 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 pre-filtration).



**APPLICATIONS**

A adsorption filters are ideal in the following industries and applications:

- Chemical
- Petrochemical
- Pharmaceutical
- Food & beverage
- Pre-filtration of sterile air
- Filling machines
- Packaging machines
- Breathing air supply
- Process (instrumentation and control air)

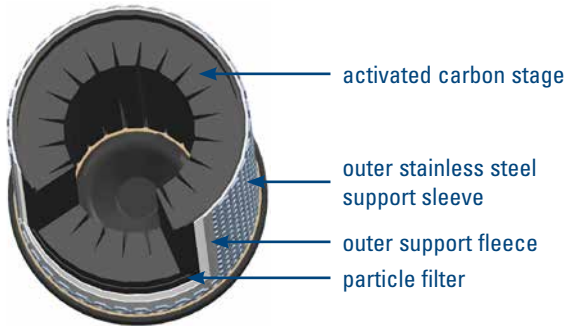
FEATURES	BENEFITS
Optimized flow distributor at filter inlet	Reduces flow resistance, minimizing pressure drop resulting in energy savings; equalized flow through media surface
Activated carbon granules embedded in support foam	Prevents abrasion of activated carbon material
Highly dense packing of activated carbon on inside surface of support foam	High adsorption capacity and improved efficiency for optimum performance throughout element life
Microfiber polyamide fleece support layer after borosilicate media	Improves overall particle retention rate, achieving ISO Class 2 quality (ISO 8573-1)

## SPECIFICATIONS

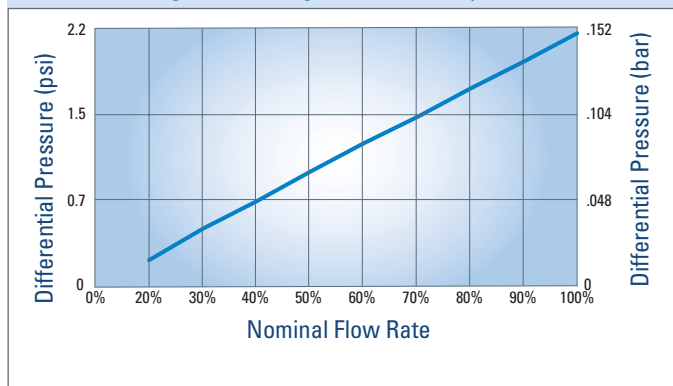
MATERIALS	
Adsorption Stage	Activated carbon granulate, embedded in PUR ester carrier material
Filter Media	Binder-free borosilicate
Support Fleece	Polyamide fleece
Bonding	Polyurethane
End Caps	Glass-fiber reinforced polymer
O-Rings	Viton®*: silicone free and free of parting compound (standard)
Support Sleeves	304 SS

\* Viton is a registered trademark of DuPont PerformanceElastomers L.L.C.

### Adsorption Filter Design



### DIFFERENTIAL PRESSURE OF A FILTER ELEMENT (including filter housing @ 8.00 bar (116 psi) absolute)



**Important Notice:** Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, specifications, availability and data are subject to change without notice, and may vary by region or country.



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Recommended Application Temperature	+10° C to +40° C (+50° F to +104° F). Temperature maximum: XX° C (XX° F)
Retention Rate	Residual oil content < 0.003 PPM with appropriate pre-filtration
Initial Differential Pressure at Nominal Flow	0.10 bar (1.45 psi)

### A ELEMENT ADSORPTION EFFECTIVENESS

Oil Vapor	Very good
Benzene	Very good
Ethane	Slight
Toluene	Very good
Acetic Acid	Very good
Methanol	Good
Acetone	Good
Isopropyl Ether	Very good
Methyl Acetate	Good
Sulfuric Acid	Very good
Hydrogen Sulphide	Poor
Chlorine	Good
Freon	Poor
Ammonia	Poor
Citrus Fruits	Very good