

Adsorption filter elements for the removal of oil and other hydrocarbon vapors as well as odors.

Donaldson® Ultrac™ P-AK adsorption activated carbon filter elements consist of two filter stages. At the activated carbon first stage, oil and hydrocarbon vapors and odors are removed by adsorption. Particles are removed at the microfiber fleece depth filter second stage. In addition, support fleece and an outer stainless steel support sleeve ensure structural integrity of the adsorption and filter stages.

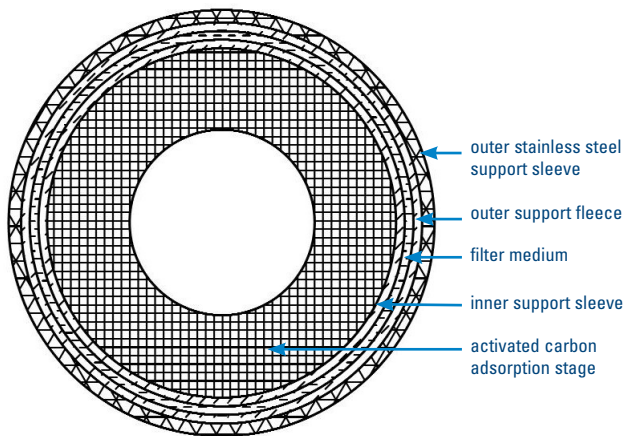
A special flow insert ensures optimum flow distribution through the filter from inside to outside. This creates minimum pressure loss and ensures maximum usage of the filter material.

At appropriate prepurification (see recommended prepurification) a residual oil content of <math><0.003 \text{ mg/m}^3</math> is achieved.



Ultrac P-AK

Adsorption Filter Design



Inside-to-Outside Flow

APPLICATIONS

Ultrac P-AK adsorption filter elements are ideal in the following industries and applications:

- Chemical
- Petrochemical
- Pharmaceutical
- Breathing air supply
- Prefiltration of sterile air
- Filling machines
- Packaging machines
- Food
- Beverage
- Instrumentation and control air

FEATURES	BENEFITS
High packing density and inner surface of activated carbon foam	High adsorption capacity and improved efficiency ensure optimum purification performance over the filter life
Flow distributor at filter inlet	Reduces flow resistance and ensure optimum oncoming flow of the adsorption material
Activated carbon incorporated into support foam	Prevention of activated carbon abrasion
Microfiber fleece depth filter stage at filter outlet	Improvement of particle retention - class 2 according to ISO8573-1 achievable

SPECIFICATIONS

MATERIALS		Recommended Prepurification	Residual oil content <0.01 mg/m ³ – use submicrofilter SMF element
Adsorption Stage	Activated carbon granulate, embedded into PUR ester foam	Initial Differential Pressure at Nominal Flow	1.16 psi
Filter Media	Borosilicate	Recommended Application Temperature	50°F-104°F (Tmax = 140°F)
Support Fleece	Polyamide fleece		
Bonding	Polyurethane		
End Caps	Aluminum		
Two O-Rings	Perbunan®*: silicone free and free of parting compound (standard)		
Support Sleeves	304 Stainless steel		

* Perbunan® is a registered trademark of LANXESS Deutschland GmbH.

P-AK ELEMENT ADSORPTION EFFECTIVENESS

Ethane	SLIGHT
Toluene	VERY GOOD
Acetic Acid	VERY GOOD
Methanol	GOOD
Acetone	GOOD
Isopropyl Ether	VERY GOOD
Methyl Acetate	GOOD
Sulphuric Acid	VERY GOOD
Hydrogen Sulphide	POOR
Chlorine	GOOD
Freon	POOR
Ammonia	POOR
Citrus Fruits	VERY GOOD
Perfumes	VERY GOOD



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