Donaldson
FILTRATION SOLUTIONS

AK

ACTIVATED CARBON FILTER ELEMENTS

fits Donaldson AG, HD & SG housings

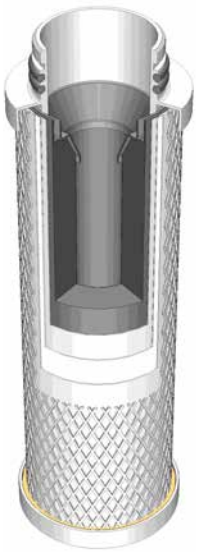
Process Filtration

Adsorption filter elements for the removal of oil and other hydrocarbon vapors, chemicals, and odors.

Donaldson® AK adsorption activated carbon filter elements consist of two filter stages. At the activated carbon stage, oil and hydrocarbon vapors and odors are removed by adsorption. Particles are removed using the microfiber fleece depth filter 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.

When appropriate pre-purification is used (such as an SMF pre-filter), a residual oil content of <0.003 mg/m³ is achieved.



AK

APPLICATIONS

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

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

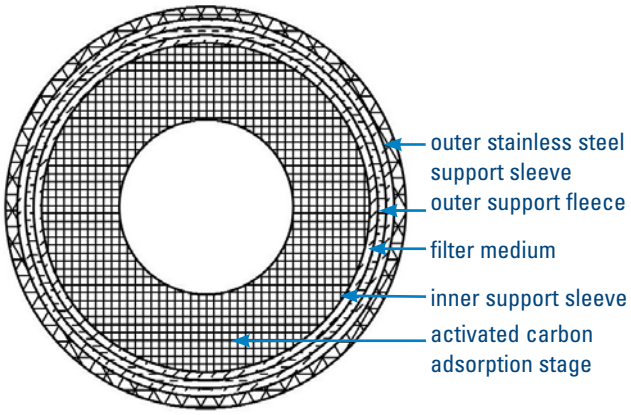
FEATURES	BENEFITS
High density and internal surface area of activated carbon media	High adsorption capacity and improved efficiency guarantee optimal purification performance over lifetime
Flow distributor at filter inlet	Reduced flow resistance ensures optimal incoming flow of adsorption material
Activated carbon incorporated into support foam	Prevention of activated carbon abrasion
Microfiber fleece depth filter stage at the filter outlet	Improved particle retention - class 2 acc. to ISO8573-1 achievable

SPECIFICATIONS

MATERIALS

Adsorption Stage	Activated carbon granulate, embedded into PUR ester foam
Filter Media	Borosilicate
Support Fleece	Polyamide fleece
Bonding	Polyurethane
End Caps	Aluminum
Two O-Rings	Buna
Support Sleeves	304 SS

Adsorption Filter Design



Inside-to-Outside Flow

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

Retention Rate	Residual oil content <0.003 mg/m^3 in combination with SMF element
Initial Differential Pressure at Nominal Flow	0.08 bar (1.16 PSI)
Recommended Application Temperature	10° C - 40° C (50° F - 104° F). Temperature maximum = 60° C (140° F). Adsorption efficiency decreases at higher temperatures)
Recommended Replacement Interval	2,000 operating hours

MEMBER OF CAGI Compressed Air & Gas Institute

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F117044 ENG (11/21) AK Activated Carbon Filter Elements