Donaldson
FILTRATION SOLUTIONS

AG COMPRESSED AIR FILTERS

Compressed Air & Process Filtration

Aluminum filter housings designed for the purification of compressed air and gases in industrial operations.

Donaldson® AG Aluminum filter housings are equipped with all of the features required to make this the most efficient and cost-effective filter for your compressed air system. Its three-part aluminum housing design allows for easy disassembly and element changeout. Low pressure drop is achieved through optimal flow-path design. The tapered bowl and non-turbulent lower filter zone ensure that no condensate gets re-entrained in the airstream. The AG standard comes with an Econometer differential pressure gauge and a float type drain and is available with an optional programmable Economizer differential pressure gauge and Ultramat UFM-D zero air-loss condensate drain valve.

Available in three different filter housing sizes from 864 to 1728 scfm. Several different element types are available to meet specific purification requirements.

AG Standard
with Float-Type
Condensate Drain Valve
and Econometer

FEATURES	BENEFITS
Three part housing design	Easy installation and maintenance
Optimized housing construction for best flow velocity	Low pressure drop saves in purification costs of compressed air and gases
Economizer with integrated microprocessor (optional)	Determines the most cost-effective time to exchange the filter element

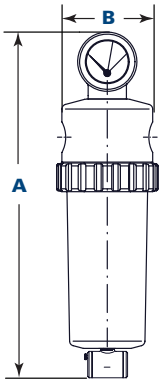
AG COMPRESSED AIR FILTERS

SPECIFICATIONS

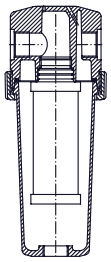
MATERIALS	
Filter Housing	Aluminum mold casting
Screw Locking Ring	Aluminum w/acoustic warning signal
Differential Pressure Gauge	Econometer
Drain	Float type
Sealing	Parting compound free o-ring made of Perbunan®*
Surface Finish	Polyester powder coating
Connection	2½-inch to 3-inch FNPT

MAXIMUM OPERATING PRESSURE
150 psig (standard)
232 psig (optional)

MAXIMUM OPERATING TEMPERATURE	
Filter Housing	250°F
Standard Econometer + Float Drain	160°F



AG Standard
with Float-Type Condensate
Drain Valve and Econometer



AG Standard
Cutaway View

Housing Size	Capacity[1] (scfm)	Connections (inches FNPT)	Dimensions (inches)		Element Size
			A	B	
0144	864	2.5	37	7	2030
0192	1152	3.0	47	7	3030
0288	1728	3.0	47	8	3050

[1] Capacity based on 100 psig inlet pressure.

CAPACITY CORRECTION FACTORS

System Pressure (psig)	15	30	45	60	75	90	100	115	130	150	160	175	190	200	220	232
Correction Factor	0.25	0.36	0.5	0.6	0.75	0.9	1	1.1	1.2	1.4	1.5	1.6	1.75	1.9	2	2.1

* Perbunan is a registered trademark of LANXESS Deutschland GmbH.

Donaldson
FILTRATION SOLUTIONS

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Member of CAGI
Compressed Air and Gas Institute
www.cagi.org

AG Compressed Air Filters Data Sheet (09/11)

Donaldson
FILTRATION SOLUTIONS

ULTRA-FILTER™
COMPRESSED AIR FILTERS – DF SERIES

Compressed Air & Process Filtration

Think Purity. Think Donaldson.

As one of the world's leading manufacturers of compressed air purification equipment and process filters, and with over 35 years of expertise, Donaldson has built a comprehensive engineering, manufacturing, and customer support network providing filters that meet the most demanding application requirements.

Donaldson's innovative designs focus on energy-efficient operation and reliable performance to minimize operating expenses and reduce downtime. Donaldson provides industrial air, sterile air, culinary steam, tank venting and process liquid filtration products from prefiltration to final, and from low to high capacity, so when you think purity, think Donaldson.

The Donaldson Ultra-Filter (DF) Filters are designed for high quality filtration of compressed air or gas in a wide range of applications. The total filter design concept of the filter combines high performance, efficiency, ease of use, flexibility, and safety.

FEATURES & BENEFITS

- Reduced pressure drop by 50% uses less energy.
- Coalescing filter elements performance data validated according to ISO 12500-1 assuring reliable achievement of compressed air quality according to ISO 8573-1.
- Filter element can be removed together with filter bowl, reducing overall installation height requirements.
- Changing the code clip inside the filter bowl changes the flow direction through the element so that the filter can be used either as a coalescing filter (inside to outside flow) or a particulate filter (outside to inside flow).
- The integrated differential pressure indicator can be easily rotated in the filter head.
- The bayonet lock ensures that the filter cannot be opened under pressure for increased safety.
- Filter housings are immersion-coated ensuring long-term protection against corrosion.
- Nine sizes, six filter element types, and available options meet virtually all industrial air purification application requirements.

Ultra-Filter DF Series
Superplus Version

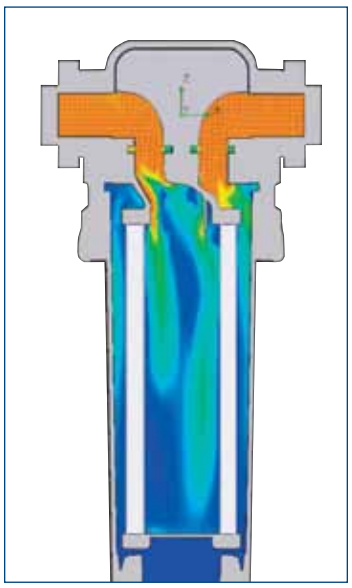
For more information on the Donaldson Ultra-Filter elements, please refer to respective brochures.

THE NEW DESIGN — INNOVATIVE TO THE CORE

Unrivaled high performance. Donaldson Ultra-Filter was developed on the basis of worldwide experiences and innovative design resulting in a highly efficient and economic filtration concept.

- A flow-optimized filter design provides minimum pressure loss.
- The innovative filtration technology ensures high separation efficiency.
- A total filter design concept delivers unrivaled efficiency.

Computer-aided simulation was the basis for the turbulence-free design with optimized airflow through the filter housing and into the element. This ensures low pressure losses. The core of each filtration system is the filter element. Careful selection of filtration media, optimized pleating, and advanced production technology, produce a reduction of pressure loss by 50% while concurrently increasing separation efficiency. The element coalescing drainage layer is fixed in place by the outer support sleeve ensuring a constant cross-section between the element and housing at all times.

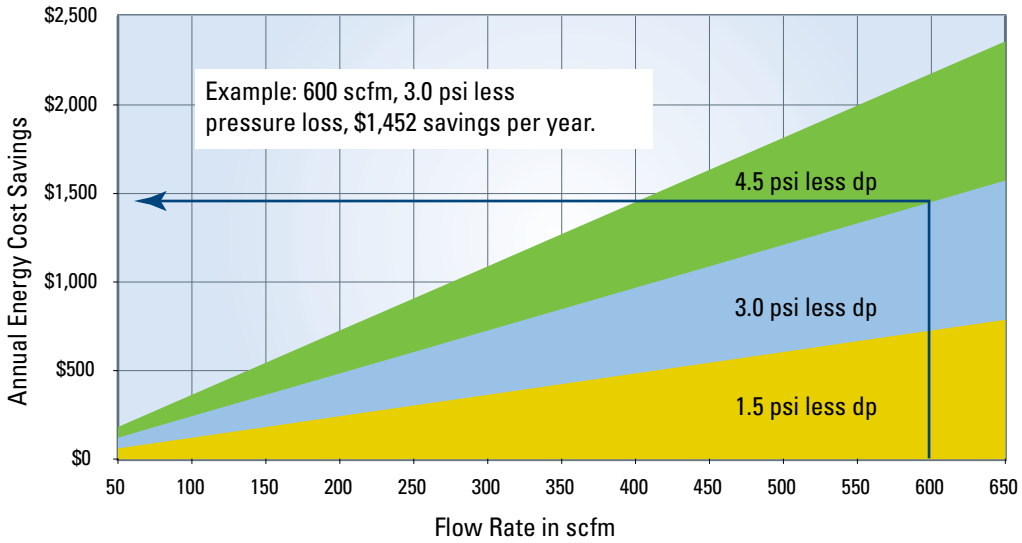


Flow Optimized Airflow

UNRIVALED EFFICIENCY

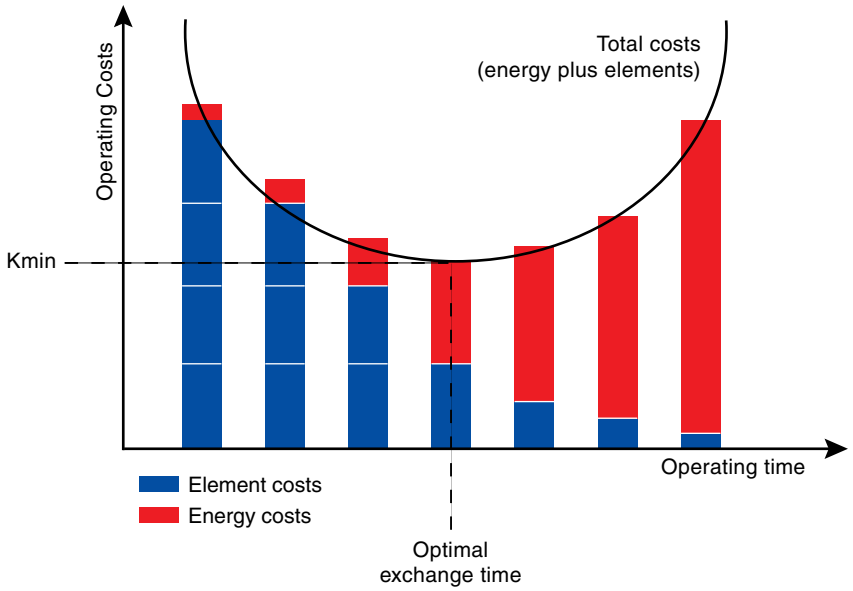
The economic efficiency is clearly indicated by the reduction in differential pressure. A 3.0 PSI lower differential pressure over 8000 operating hours at 600 scfm saves $1,452 per year (based on 100 psig operating pressure, 120 kW installed power and $0.08/kWh.) This practical example shows that the investment in optimizing the compressed air system rapidly pays for itself.

Energy Cost Savings Through Reduction of Differential Pressure



UNRIVALED ENERGY SAVINGS

Further energy savings are achieved by the timely replacement of used filter elements. The most economic time for filter changeout is determined by the Economizer that continuously measures the differential pressure. An integrated microprocessor evaluates the measurement data and compares the higher energy costs caused by pressure loss with the costs of a new filter element. The most cost-effective element replacement time is calculated and LEDs then signal that filter changeout is necessary.



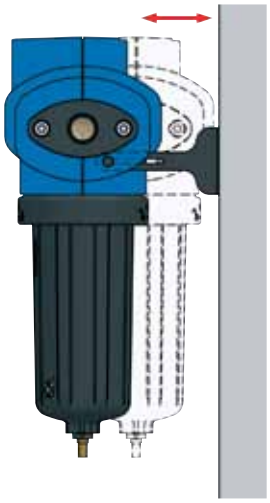
ECONOMIZER

UNRIVALED EASE OF USE

The new Donaldson Ultra-Filter is unrivaled in its ease of use both during installation and filter element replacement. The filter bowl is rotated slightly via a bayonet lock and can be removed together with the filter element requiring only an inch of ground clearance. The integrated condensate drain allows new element changeout without disconnecting power and condensate drains. The cover with integrated differential pressure displays can be rotated so that the display stays visible from the selected side.

UNRIVALED FLEXIBILITY

All filters can be used either as coalescing filters (flow through the element from the inside to the outside) or as particulate filters (outside to inside flow). If the requirements change, the filter head does not need to be rotated. Changing the coding clip inside the filter bowl allows the filter element to be rotated and changes the flow direction. The coalescing filter becomes a particulate filter in seconds – and vice versa. Optional wall supports are available on request for flexible wall mounting. The telescopic design of the support provides broad adjustability. A series of filters with different element types maybe installed with connection adapters. The Ultra-Filter is simple to mount and fits into the smallest space.



With nine sizes, the new Donaldson Ultra-Filter covers the performance range from 20 to 647 scfm flow rate corresponding to conventional compressor capacities between 2 and 120 kW. The Ultra-Filter compressed air filter is available in two models:

- Standard with float condensate drain and Econometer.
- Superplus with level-controlled condensate drain UFM-T and Economizer.

Coalescing, particulate, and activated carbon elements are available in different grades to fit your application needs.

UNRIVALED SAFETY

The bayonet lock ensures that the filter cannot be operated under pressure. Lock and unlock symbols on the filter head clearly indicates the filter's seal.

DIMENSIONS & SPECIFICATIONS

Model	Capacity[1] (scfm)	Connection (inches FNPT)	Element		Dimensions (inches)				Standard[2] Weight (lbs)	Superplus[2] Weight (lbs)
					Standard		Superplus			
			Size	Qty.	Height	Width	Height	Width		
DF 0035	20	1/4	0035	1	7.5	3.5	16	3.5	1	3
DF 0070	41	3/8	0070	1	11.5	4.5	18	4.5	2	4
DF 0120	70	1/2	0120	1	13.5	4.5	20	4.5	2	4
DF 0210	123	3/4	0210	1	14.5	6	21	6	5	6
DF 0320	188	1	0320	1	17.5	6	24	6	5	7
DF 0450	264	1-1/4	0450	1	23	7.5	29	7.5	12	7
DF 0600	353	1-1/2	0600	1	23	7.5	31	7.5	12	7
DF 0750	441	2	0750	1	23	7.5	31	7.5	12	7
DF 1100	647	2	1100	1	30	7.5	35	7.5	16	15

[1] Capacity based on 100 psig inlet pressure.
[2] Without filter element.

MATERIALS

Filter Housing	Aluminum die cast
Econometer	Polymer
Float Drain	Polymer / aluminum mold cast (Standard) Aluminum, glass fiber reinforced polymer (Superplus)
Gaskets	Viton®

Maximum Operating Inlet Pressure:	250 psig
Maximum Operating Inlet Temperature:	150°F (65°C)

Viton® is a registered trademark of DuPont Performance Elastomers L.L.C.

FILTER ELEMENT DATA

Type	Initial Dp (psid)	Residual Oil Content	Particle Retention Rate
S Coalescing Filter	1.45	<0.01 ppm[1]	99.99998% on 0.01 micron particles
M Coalescing Filter	1.3	1 ppm[1]	99.9999% on 0.01 micron particles
V Coalescence Filter	0.7	1 ppm[1]	90% on ISO fine dust
P Particulate Filter	0.7	100%[2]	N/A
B Particulate Filter	0.7	100%[2]	N/A
A Activated Carbon Filter	1.45	<0.003 ppm[1]	N/A

[1] Based on inlet concentration of 3 ppm.
[2] Related to the pore size.

CAPACITY CORRECTION FACTORS

The published standard capacities for compressed air Ultra-Filter DF Series filters are based on 100 psig inlet pressure and 100°F inlet temperature. When these conditions vary, a given Ultra-Filter DF Series filter will be able to purify either more or less compressed air than its standard capacity. There are two ways in which this information can be used. The first is to start with a specific Ultra-Filter DF Series filter size and recalculate its capacity based on the known operating conditions using the correction factors given below. The other, with a given set of operating conditions, is to select the proper Ultra-Filter DF Series filter size based on applying the correction factors to the flow rate. Examples based on applying the correction factors are shown below.

Capacity correction factors for differing system air pressure (C1)

System Pressure (psig)	15	30	45	60	75	90	**100**	115	130	150	160	175	190	200	220	250
Correction Factor	0.26	0.39	0.52	0.65	0.78	0.91	**1**	1.13	1.26	1.44	1.52	1.65	1.78	1.87	2.05	2.31

Capacity correction factors for differing system air temperature (C2)

System Temperature (°F)	-20	0	20	40	60	80	**100**	120	140	150
Correction Factor	1.52	1.41	1.31	1.22	1.14	1.07	**1**	0.94	0.88	0.86

TO SIZE THE ULTRA-FILTER MODEL CAPACITY FOR ACTUAL CONDITIONS

Adjusted Capacity = scfm x C1 x C2

To calculate the capacity of a given Ultra-Filter DF Series filter based on non-standard operating conditions, multiply the standard capacity by the appropriate correction factor(s).

EXAMPLE:

Ultra-Filter DF Series Model:	DF 0210 MK
Standard Capacity:	123 scfm
Actual Operating Conditions:	75 psig inlet pressure: **C1 = 0.78** 120°F inlet temperature: **C2 = 0.94**

Adjusted Capacity = 123 scfm x 0.78 x 0.94 = **90 scfm**

TO SELECT THE ULTRA-FILTER MODEL FOR ACTUAL CONDITIONS

Adjusted Capacity = scfm/C1/C2

To choose a Ultra-Filter DF Series filter based on a given flow at non-standard operating conditions, divide the given flow by the appropriate correction factor(s).

EXAMPLE:

Given Flow:	500 scfm
Actual Operating Conditions:	130 psig inlet pressure: **C1 = 1.26** 60°F inlet temperature: **C2 = 1.14**

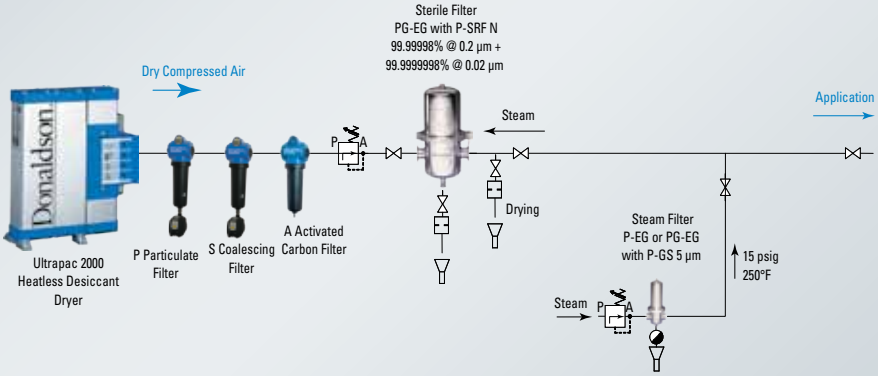
Adjusted Capacity = 500 scfm /1.26/1.14 = **348 scfm**
Selected Ultra-Filter Model = **DF 0600 MK**

think PURITY
think DONALDSON

LEADING TECHNOLOGY

- Over 1,000 engineers and scientists worldwide
- Over 1,500 issued, active and pending patents
- Proprietary media for durability and performance

FILTRATION SOLUTIONS



- Energy saving, reliable filters and dryers
- Industrial air, sterile air, culinary steam, tank venting and process liquid filtration

KNOWLEDGEABLE SERVICE

- Ready-to-ship filters and POU dryers within 24 hours
- Technical expertise and support

Registered Quality Management System 9001:2008 ISO

Member of COMPRESSED AIR AND GAS INSTITUTE CAGI www.cagi.org

fpsa FOOD PROCESSING SUPPLIERS ASSOCIATION PROUD MEMBER

Member of: IDFA

Member of MWFPA Midwest Food Processors Association, Inc.

Donaldson FILTRATION SOLUTIONS

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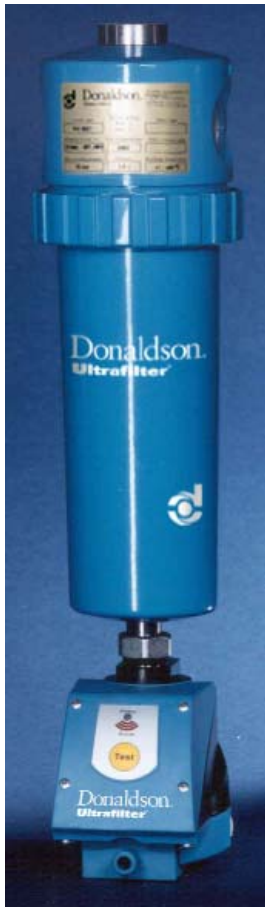
Ultra-Filter Compressed Air Filters – DF Series Brochure (10/10)

Water separator Ultradri® AG-Z

The aluminium water separator is designed for the purification of compressed air and gases, especially for removing free floating water.



Product description:

The AG-Z water separator was designed for the purification of air and other gases in an industrial range of applications.
The housings made out of three parts with swirl vanes offer low differential pressures at high flow rates. The Ultradri® is available in a superplus version, where it will be supplied with an electronically controlled zeroloss drain. this product series offers 8 different housings available ranging from a volume flow of 125 to 2250 m^3/h (related to 7 bar (ü)).

Features:

The conical form of the lower filter bowl is designed to eleminate aerosol carry over.

The turbulent free zone in the lower part of the filter housing prevents condensate from being carried over from the clean air out of the wet area.

The AG-Z water separator conforms to the requirements of the European directive 97/23/EG for pressure vessels.

Technical data

Materials:	
Housing	Aluminium
Screw locking ring with acoustic warning signal	Aluminium
electrical resp. electronic controlled drain	GFK and Aluminium
Sealing: O-ring	Parting compound, free made of Perbunan

Maximum operating temperature:
+ 1°C / +65°C

Surface finish:
Polyester resin coating

Connection:
½” bis 3” BSP

Maximum operating pressure:	
0125 - 2250	16 bar

Retention rate:
99% related to 10 µm

Donaldson Filtration Deutschland GmbH · Industrial Filtration Solutions · Büssingstraße 1 · D-42781 Haan · Telefon +49/2129/569-0 · Telefax +49/2129/569-100

Dimension Sheet

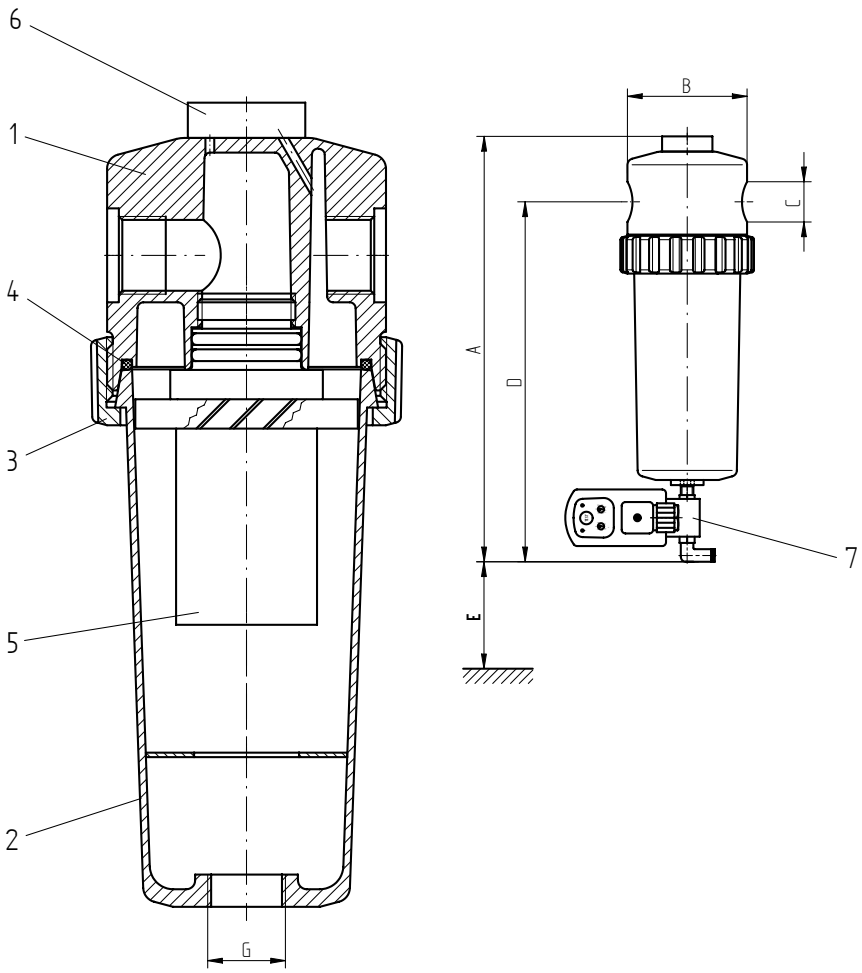
Donaldson Ultrafilter

Industrial filter AG-Z 0125-2250

Pos.	Piece	Description
7	1	screw plug
6	1	cap
5	1	centrifugal insert
4	1	housing O-ring
3	1	screw locking ring
2	1	lower housing bowl
1	1	upper housing bowl

Max. working-pressure:	16 bar
Test pressure:	22.88 bar
Max. working-temperature:	+1°C / +65°C
Material:	AG 0125 - 0550 EN AC-AlSi 12 (Fe) AG 0750 - 2250 EN AC-AlSi 7 Mg 0.3
Paint coat:	Polyester resin coating

Classification acc. to 97 / 23 / EG for fluids group 2	
AG-Z 0125 - 0550	Art. 3, par. 3
AG-Z 0750 - 2250	Cat. I



Housing size	Volume (l)	Weight (kg)	A mm	ø B mm	C ISO 228/1	D mm	E mm	G ISO 228/1
0125	0.5	1.4	325	80	G ½	265	120	G ½
0225	0.9	1.9	345	95	G ¾	290	150	G ½
0375	1.4	2.2	420	110	G 1	355	150	G ½
0550	1.4	2.2	420	110	G 1¼	355	200	G ½
0750	4.5	5.5	535	150	G 1½	460	200	G ½
1000	4.5	5.5	535	150	G 2	460	200	G ½
1650	7.0	9.1	645	180	G 2½	560	200	G ¾
2250	7.0	9.2	645	180	G 3	560	200	G ¾

Dimension Sheet

Donaldson Ultrafilter

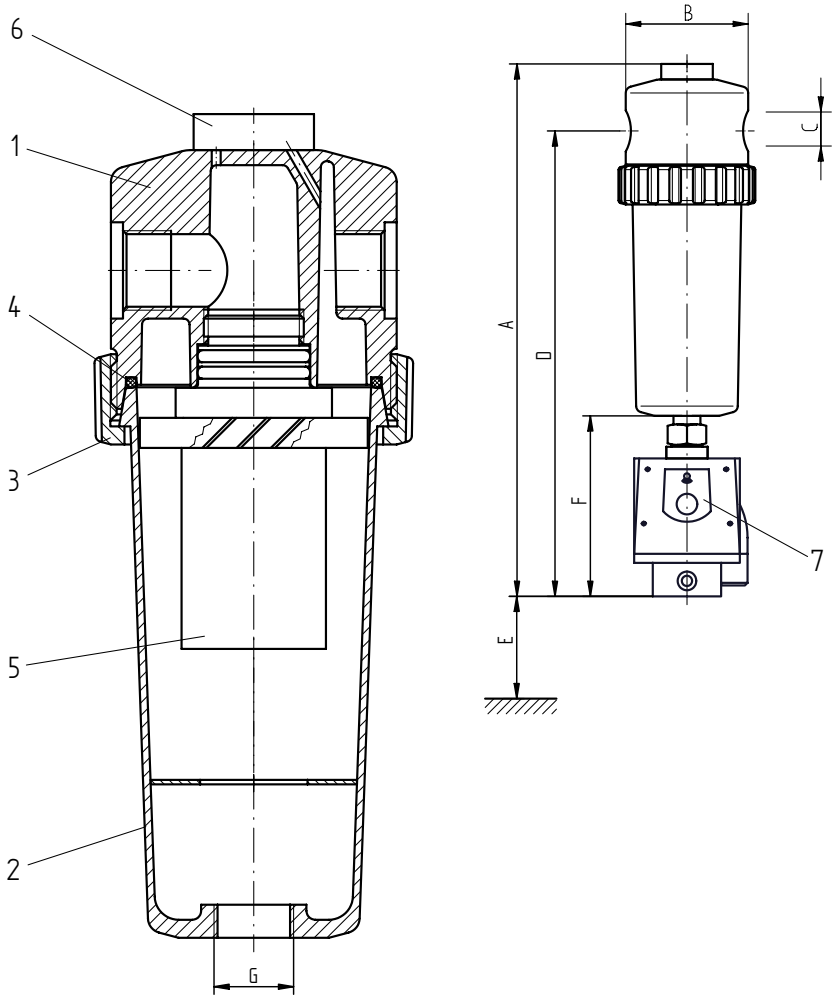
Industrial filter AG-Z 0125-2250 SP

Pos.	Piece	Description
7	1	drain
6	1	cap
5	1	centrifugal insert
4	1	housing O-ring
3	1	screw locking ring
2	1	lower housing bowl
1	1	upper housing bowl

Max. operating pressure:	16 bar
Test pressure:	22.88 bar
Max. operating temperature:	+1°C / +65°C
Material:	0125 - 0550 EN AC-AlSi 12 (Fe) 0750 - 2250 EN AC-AlSi 7 Mg 0.3
Paint coat:	Polyester resin coating

Drain-Type AG-Z SP	
Type	
0125-0225	with UFM-T 05
0375-0550	with UFM-T 1
0750-1000	with UFM-T 20
1650-2250	with UFM-T 100

Classification acc. to 97 / 23 / EG for fluids group 2	
AG-Z 0125 - 0550	Art. 3, par. 3
AG-Z 0750 - 2250	Cat. I



Housing size	Volume (l)	Weight (kg)	A mm	ø B mm	C ISO 228/1	D mm	E mm	F mm	G ISO 228/1
0125	0.5	2.0	375	80	G ½	320	120	140	G ½
0225	0.9	2.5	395	95	G ¾	345	150	140	G ½
0375	1.4	2.8	490	110	G 1	425	150	140	G ½
0550	1.4	2.8	490	110	G 1¼	425	200	140	G ½
0750	4.5	6.1	630	150	G 1½	555	200	140	G ½
1000	4.5	6.1	695	150	G 2	620	200	145	G ½
1650	7.0	9.9	795	180	G 2½	710	200	155	G ¾
2250	7.0	9.8	795	180	G 3	710	200	155	G ¾

Donaldson
FILTRATION SOLUTIONS

SG
COMPRESSED AIR FILTERS

Compressed Air & Process Filtration

Steel filter housings designed for the purification of compressed air and gases in industrial operations.

Donaldson® SG Steel filter housings are equipped with all of the features required to make this the most efficient and cost-effective filter for your compressed air system. The flanged housings offer low pressure drop through optimal flow-path design. The SG standard filter housings come with an Econometer differential pressure gauge and pneumatic drain and is available with an optional Economizer differential pressure gauge and Ultramat zero air-loss condensate drain.

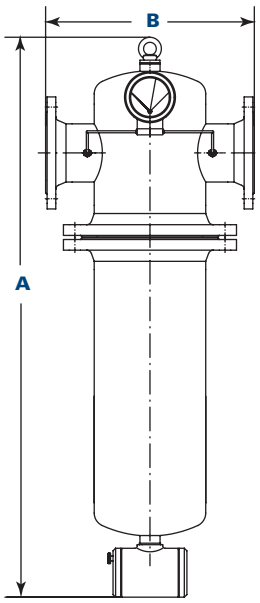
Available in three different housing sizes from 1728 to 4608 scfm. Several different filter element types are available to meet specific purification requirements.

SG Standard
with Pneumatic Drain
Valve and Econometer

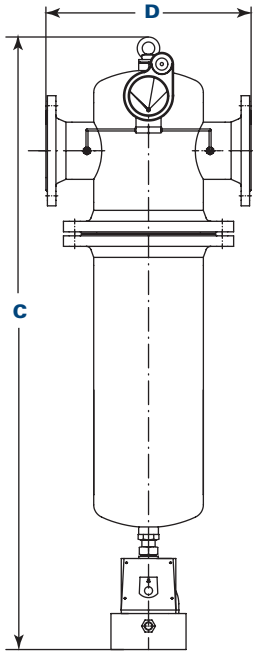
SPECIFICATIONS

MATERIALS	
Filter Housings	Carbon Steel
Differential Pressure Gauge	Econometer (standard), Economizer (optional)
Drain	Pneumatic (standard) Ultramat UFM-D zero air-loss (optional)
Sealing	Asbestos-free sealing following ANSI 16.21
Surface Finish	Polyester powder coating
Connection	Flange 4" and 6" 150 lb., ANSI B 16.5, RF
Maximum Operating Pressure	150 psig (standard) and 250 psig (optional)
Maximum Operating Temperature	Designed and tested for a maximum operating temperature of 250°F

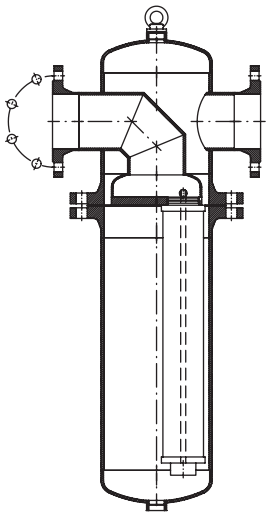
DIMENSIONS



SG Standard with Pneumatic Drain Valve and Econometer



SG Standard with Optional Ultramat UFM-D Zero Air-Loss Condensate Drain Valve and Economizer



SG Standard Cutaway View

Housing Size	Capacity* (scfm)	Connections (inches FNPT)	Element	Dimensions (inches)			
				A	B	C	D
0288	1728	4	3050	54	18	57	18
0432	2592	4	2030	43	16	49	16
0768	4608	6	3030	59	19	64	19

* Capacity based on 100 psig inlet pressure.

CAPACITY CORRECTION FACTORS

System Pressure (psig)	15	30	45	60	75	90	100	115	130	150	160	175	190	200	220	232
Correction Factor	0.25	0.36	0.5	0.6	0.75	0.9	1	1.1	1.2	1.4	1.5	1.6	1.75	1.9	2	2.1

Donaldson FILTRATION SOLUTIONS

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SG Compressed Air Filters Data Sheet (09/11)

Donaldson
FILTRATION SOLUTIONS

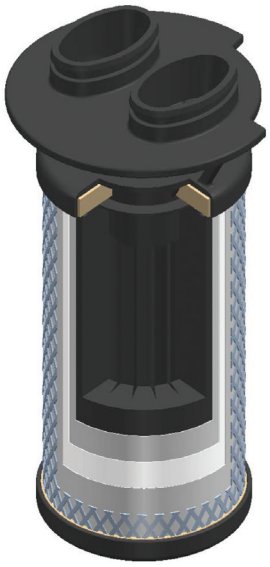
ULTRAC A
ACTIVATED CARBON VAPOR FILTER ELEMENTS

Compressed Air & Process Filtration

Adsorption filter for the removal of oil, hydrocarbons, odors and vapors.

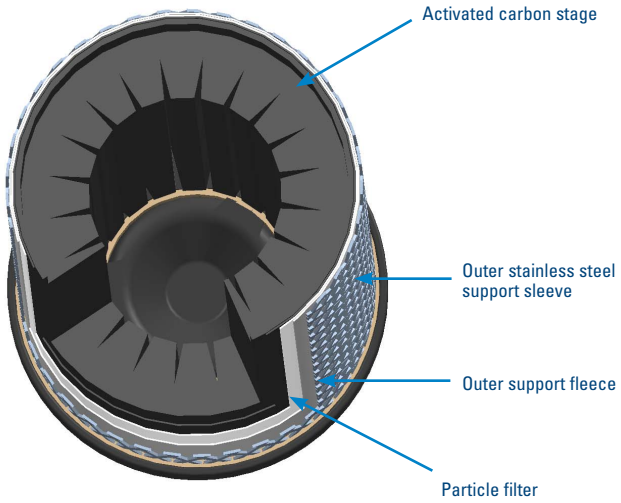
Donaldson Ultrac A adsorption filter elements incorporate two stages of filtration. The first stage contains activated carbon for removal of oil, hydrocarbon and odor vapors through adsorption. The second filtration stage consists of binder-free borosilicate depth media, supported by microfiber polyamide 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).



Ultrac A
Activated Carbon Vapor Filter Element

Adsorption Filter Design



APPLICATIONS

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

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

ULTRAC A

FEATURES	BENEFITS
Optimized flow distributor at filter inlet	Reduces flow resistance, minimizing pressure drop resulting in energy savings; equalized flow through entire surface for full utilization of media
Activated carbon granules embedded in support foam	Prevents abrasion of activated carbon material
High density 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)

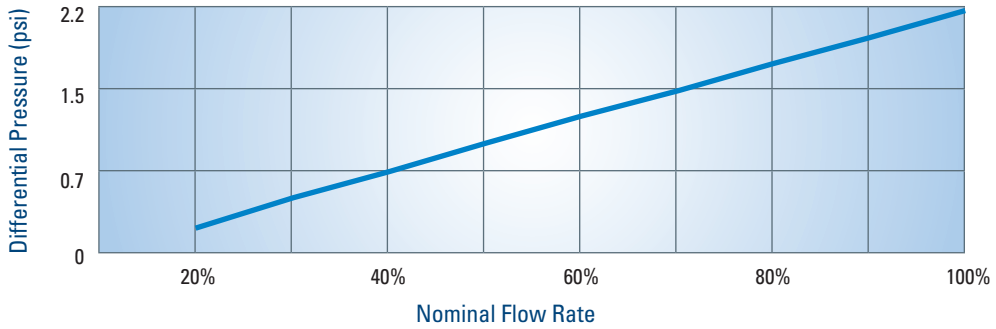
SPECIFICATIONS

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

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

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



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

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Ultrac A Activated Carbon Vapor Filter Elements Data Sheet (09/11)

Donaldson®
Ultrafilter™

Ultrac™ AK

Activated Carbon Filter Element

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

Donaldson® Ultrac™ AK adsorption 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 at 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.

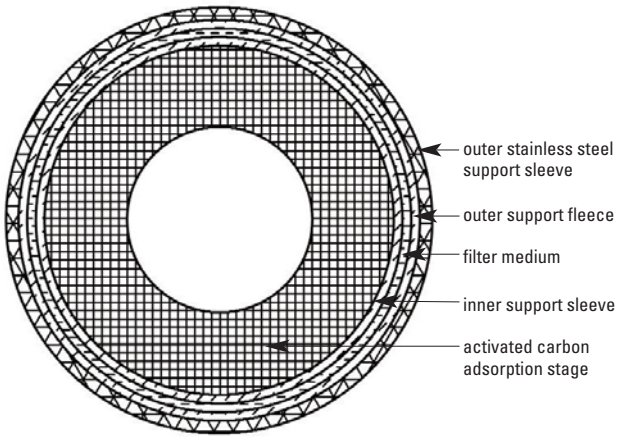
Ultrac AK Activated Carbon Filter Element

Characteristics

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 <0.003 mg/m^3 is achieved.

Adsorption Filter Design



Inside-to-Outside Flow

Applications

The Donaldson Ultrac AK adsorption filter element is 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

Ultrac™ AK

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

Recommended Prepurification	Residual oil content <0.01 mg/m³ – use submicrofilter SMF element
Retention Rate	Residual oil content <0.003 mg/m³ in combination with SMF element
Initial Differential Pressure at Nominal Flow	1.16 psi
Recommended Application Temperature	50°F-104°F (Tmax = 140°F)

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	Perbunan®*: silicone free and free of parting compound (standard)
Support Sleeves	304 stainless steel

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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