



# DF SERIES

## COMPRESSED AIR FILTER HOUSINGS

Process Filtration

**Donaldson® DF filter housings are designed for high quality filtration of compressed air or gas in a wide range of applications.**

The filter design combines high performance, greater efficiency, ease of use, flexibility, and safety.

- High performance — the flow-optimized filter design, paired with innovative filtration technology, reduces pressure loss by 50% compared to conventional filters.
- Safety — the unique bayonet lock ensures that the filter cannot be opened under pressure for increased safety.
- Energy savings — you will find that greater energy savings are achieved through timely filter element replacement. Element change out is determined by the Economizer that continuously measures the differential pressure. An integrated microprocessor evaluates the measured data and compares the higher energy costs caused by pressure loss with the costs of a new filter element.



**DF SERIES**

FEATURES	BENEFITS
Multiple housing sizes, element types and accessories	Allows for unique and specialized solutions for each application
Optimized flow design — reduced pressure drop by 50%	Minimum pressure loss means lower energy consumption compared to conventional filters
Performance data is validated according to ISO 12500-1	Reliable filtration of compressed air according to ISO 8573-1
Filter element can be removed together with filter bowl	Minimizes space needed for filtration installation
Code clip inside the filter bowl can be changed for multiple flow directions through the element	Dual use housings can be used either as a coalescing filter (inside to outside flow) or a particulate filter (outside to inside flow)
Bayonet filter bowl lock - filter cannot be opened under pressure	Increased safety
Integrated differential pressure indicator	Allows user to replace filter element at the proper interval
Immersion-coated housing	Long-term protection against corrosion

## SPECIFICATIONS

MATERIALS		DESIGN PRESSURE AND TEMPERATURE
Filter Housing	Aluminum die cast	17.25 bar @ 66° C (250 psig @ 150° F)
Differential Pressure	DF Standard: Econometer DF SuperPlus: Economizer	
Float Drain	DF Standard: polymer/aluminum mold cast (Note: DF1100 MK comes with UFM-P drain valve) DF SuperPlus: Aluminum, glass fiber reinforced polymer	
Housing Bowl Gasket	Buna	

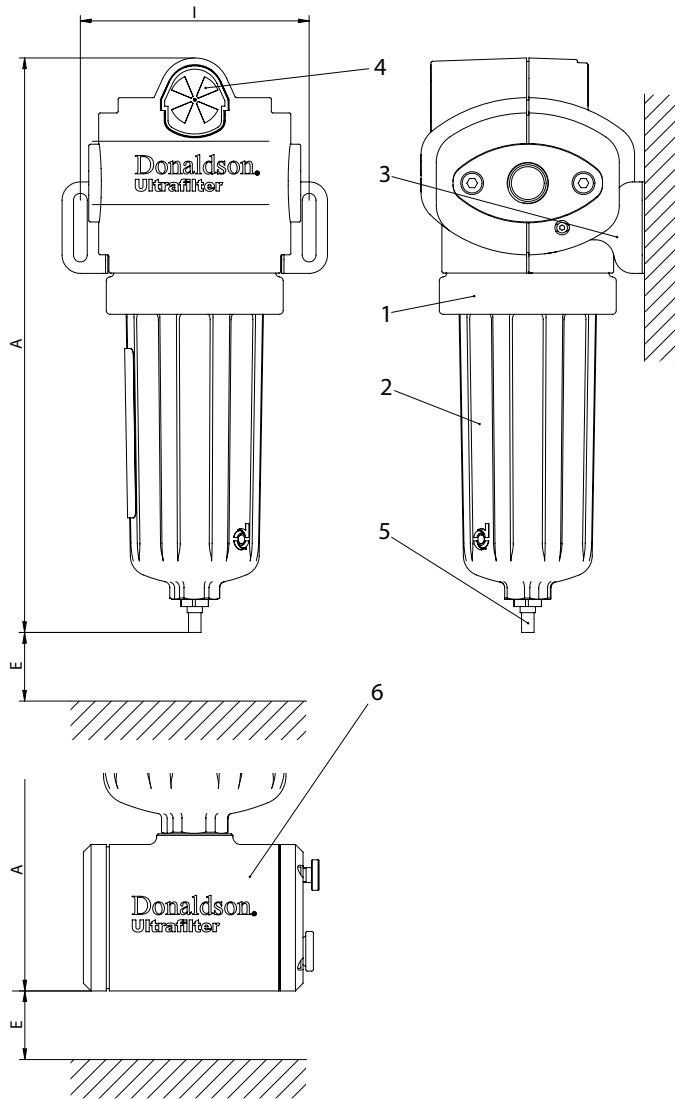
CAPACITY CORRECTION FACTORS																
Operating Pressure (bar)	1.0	2.1	3.1	4.1	5.2	6.2	6.9	7.9	9.0	10.3	11.0	12.1	13.1	13.8	15.2	15.9
Operating Pressure (psig)	15	30	45	60	75	90	100	115	130	150	160	175	190	200	220	230
Correction Factor	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.1	1.2	1.4	1.5	1.6	1.8	1.9	2.0	2.1

## DIMENSIONS

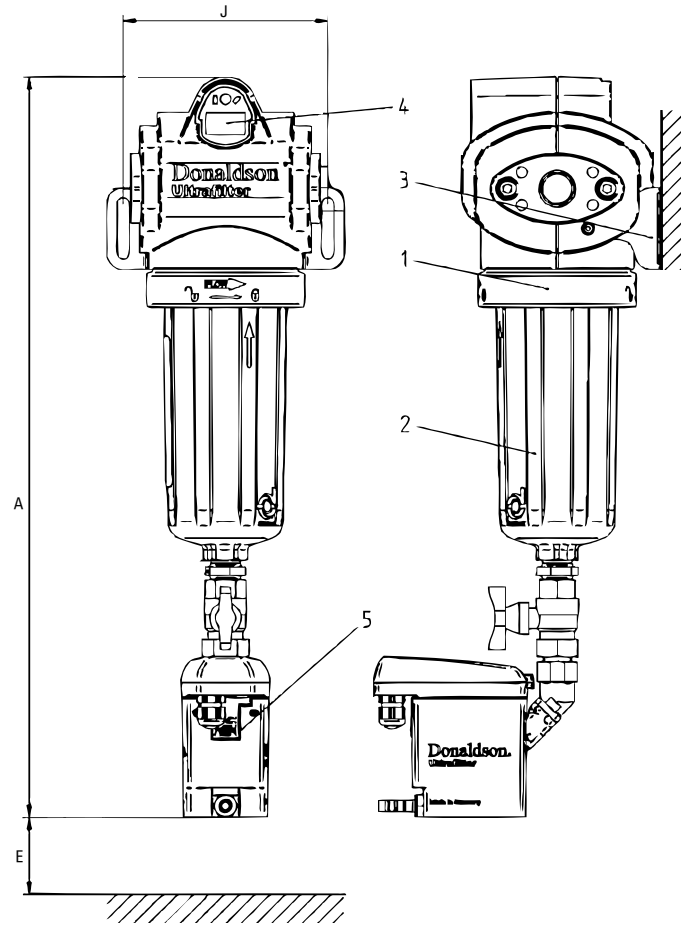
Model	Capacity <sup>1</sup>		Connection (FNPT)		Element		Dimensions								Weight			
							Standard				SuperPlus				Standard <sup>2</sup>		SuperPlus <sup>2</sup>	
	m <sup>3</sup> /hr	scfm	mm	in	Size	Qty	mm	in	mm	in	mm	in	mm	in	kg	lbs	kg	lbs
DF 0035	34	20	6	1/4"	0035	1	191	7.5	89	3.5	406	16	89	3.5	0.5	1	1.4	3
DF 0070	70	41	10	3/8"	0070	1	292	11.5	114	4.5	457	18	114	4.5	0.9	2	1.8	4
DF 0120	119	70	13	1/2"	0120	1	343	13.5	114	4.5	508	20	114	4.5	0.9	2	1.8	4
DF 0210	209	123	19	3/4"	0210	1	368	14.5	152	6	533	21	152	6	2.3	5	2.7	6
DF 0320	319	188	25	1"	0320	1	445	17.5	152	6	610	24	152	6	2.3	5	3.2	7
DF 0450	449	264	32	1-1/4"	0450	1	584	23	191	7.5	737	29	191	7.5	5.4	12	3.2	7
DF 0600	600	353	38	1-1/2"	0600	1	584	23	191	7.5	787	31	191	7.5	5.4	12	3.2	7
DF 0750	749	441	51	2"	0750	1	584	23	191	7.5	787	31	191	7.5	5.4	12	3.2	7
DF 1100	1099	647	51	2"	1100	1	762	30	191	7.5	889	35	191	7.5	7.3	16	6.8	15

<sup>1</sup> Capacity based on 69 bar (100 psig) inlet pressure.

<sup>2</sup> Without filter element.



**DF STANDARD**



**DF SUPERPLUS**

NO.	QTY	DESCRIPTION
1	1	Filter head
2	1	Lower housing bowl
3	2	Wall bracket (option)
4	1	Economizer
5	1	Internal automatic drain KA 1/2
6	1	External automatic drain UFM-P (optional)

NO.	QTY	DESCRIPTION
1	1	Filter head
2	1	Lower housing bowl
3	2	Wall bracket (option)
4	1	Economizer
5	1	Condensate UFM-D03 (DF 0035 - DF 1100)

## PERFORMANCE DATA

Type	Element & Housing		Element Only		Residual Oil Content	Particle Retention Rate
	Initial $\Delta p$ (bar) Dry	Initial $\Delta p$ (bar) Wet	Initial $\Delta p$ (bar) Dry	Initial $\Delta p$ (bar) Wet		
V Coalescing Filter	0.110	1.74	0.120	0.045	1 ppm	99.9% on 5 micron particles
M UltraPleat™ Coalescing Filter	0.075	2.03	0.140	0.105	1 ppm	99.9999% on 0.01 micron particles
S UltraPleat™ Coalescing Filter	0.100	2.61	0.180	0.138	<0.003 ppm	99.99998% on 0.01 micron particles
A Carbon Filter	0.069	NA	NA!	NA	<0.003 ppm	1 micron absolute

Type	Element & Housing		Element Only		Residual Oil Content	Particle Retention Rate
	Initial $\Delta p$ (psid) Dry	Initial $\Delta p$ (psid) Wet	Initial $\Delta p$ (psid) Dry	Initial $\Delta p$ (psid) Wet		
V Coalescing Filter	1.60	1.74	0.50	0.65	1 ppm	99.9% on 5 micron particles
M UltraPleat™ Coalescing Filter	1.09	2.03	0.50	1.52	1 ppm	99.9999% on 0.01 micron particles
S UltraPleat™ Coalescing Filter	1.45	2.61	0.64	2.00	<0.003 ppm	99.99998% on 0.01 micron particles
A Carbon Filter	1	NA	0.79	NA	<0.003 ppm	1 micron 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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