Replacement Element FF / MF / SMF / AK

DELTECH DFD / PFD / HFD / CFD

(Particulate, Coalescing, Oil vapour removal)

Description

ultrafilter replacement filter elements have been specifically developed for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air [(1)].
Replacement filter elements are designed to fit into Deltech filter housings.

Applications [(2)]

- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

[(1)] For any other technical gas please contact us or your local dealer
[(2)] ***ultrafilter*** replacement filter elements can be used in variety of applications. For applications not listed please contact us or your local dealer.

Filter Element Rating According to ISO 8573-1 (2010)

Deltech type / ***ultrafilter*** type	Solid particles	Water	Oil
DFD/**FF**	Class 3	-	-
PFD/**MF**	Class 2	-	Class 2
HFD/**SMF**	Class 2	-	Class 1
CFD/**AK**	-	-	Class 0/1

Validated according to ISO12500-1 and ISO12500-3

Technical Specification

	DFD/**FF** [(6)]	PFD/**MF** [(6)]	HFD/**SMF** [(6)]	CFD/**AK** [(6)]
Operating temperature		1,5 - 65 °C/ 35 - 149 °F		1,5 - 45 °C/35 - 113 °F
Operating pressure		0 - 16 barg/ 0 - 232 psi		
Differential pressure (dry)	20 mbar 0,290 psi	50 mbar/ 0,725 psi	80 mbar/ 1,160 psi	60 mbar/ 0,870 psi
Differential pressure (wet)	40 mbar 0,580 PSI	120 mbar/ 1,740 psi	190 mbar/ 2,756 psi	N/A
Particle retention (nominal)	99,9999% (1 µm)	99,9999% (0,1 µm)	99,9999% (0,01 µm)	N/A
Particle retention rate ISO [(3)]	99,8 %	99,98 %	99,9994 %	N/A
Residual oil content [(4)]	N/A	< 0,1mg/m^3	< 0,01mg/m^3	< 0,005mg/m^3
Capacity (ISO12500-2) [(5)]	N/A	N/A	N/A	20 min

[(3)] Tested according to ISO12500-3, 1bar(a), nominal flow, 03/10, DFD/**FF**, PFD/**MF**, HFD/**SMF**, MPPS-(0,3μm)
[(4)] Tested according to ISO12500-1, 03/10, PFD/**MF**, HFD/**SMF** oil aerosol viscosity 32mm^2/s, inlet concentration 10mg/m^3
[(5)] Tested according to ISO12500-2, 03/10, CFD/**AK** tested with n-Hexane, test concentration 100mg/kg, 80% Saturation
[(6)] Cross reference ***ultrafilter*** – Deltech filtration grades:

ultrafilter fine filter **FF** = DFD/**FF** = DFD
ultrafilter Microfilter **MF** =PFD/**MF** = PFD
ultrafilter Submicrofilter **SMF** = HFD/**SMF** = HFD
ultrafilter activated carbon filter **AK** = CFD/**AK** = CFD

GB - 2020-01-01

ultrafilter **ag** ● Leutschenbachstrasse 45 ● CH-8050 Zürich
Fon: +41 (0)44 – 224 60 60 ● Fax: +41 (0)44 – 224 60 61
E-Mail: info@ultrafilter.ch ● Internet: www.ultrafilter.ch

ULTRAFILTER
THE FILTRATION MANUFACTURER
Kronsbein ultrafilter ®

Sizes

Filter Element Type / Size Aluminum end caps	Dimensions [mm]	Flow Capacity [Nm³/h]	Flow Capacity [scfm]	Fits into Filter Housing type
XXX 9 _ _ _ AL	Ø=42; h=62	30	51	PF 9
XXX 18 _ _ _ AL	Ø=42; h=62	60	102	PF 18
XXX 36 _ _ _ AL	Ø=42; h=111	120	204	PF 36
XXX 54 _ _ _ AL	Ø=55; h=132	180	306	PF 54
XXX 90 _ _ _ AL	Ø=55; h=245	300	510	PF 90
XXX 135 _ _ _ AL	Ø=80; h=192	450	765	PF 135
XXX 216 _ _ _ AL	Ø=80; h=312	720	1223	PF 216
XXX 285 _ _ _ AL	Ø=98; h=281	950	1614	PF 285
XXX 405 _ _ _ AL	Ø=98; h=427	1.350	2294	PF 405
XXX 540 _ _ _ AL	Ø=118; h=539	1.800	3058	PF 540
XXX 750 _ _ _ AL	Ø=118; h=666	2.500	4248	PF 750
2 x XXX 8113 _ _ _ AL	Ø=84; h=495 (750)*	2.700	4587	PF 810
3 x XXX 8113 _ _ _ AL	Ø=84; h=495 (750)*	4.050	6880	PF 1215
4 x XXX 8113 _ _ _ AL	Ø=84; h=495 (750)*	5.400	9175	PF 1620
5 x XXX 8113 _ _ _ AL	Ø=84; h=495 (750)*	6.750	11468	PF 2025
6 x XXX 8113 _ _ _ AL	Ø=84; h=495 (750)*	8.100	13762	PF 2430
9 x XXX 8113 _ _ _ AL	Ø=84; h=495 (750)*	12.150	20643	PF 3645
12 x XXX 8113 _ _ _ AL	Ø=84; h=495 (750)*	17.550	29818	PF 5265
16 x XXX 8113 _ _ _ AL	Ø=84; h=495 (750)*	21.600	36699	PF 6480
18 x XXX 8113 _ _ _ AL	Ø=84; h=495 (750)*	24.300	41286	PF 7290

XXX = ***ultrafilter*** filtration grade FF, MF, SMF or AK
_ _ _ = Filtration grade DELTECH DFD, PFD, HFD or CFD

Example for ***ultrafilter*** designation: **SMF 540 HFD AL**

ø=Diameter; h=Height
*HFDL grade other grades on request

Materials

	DFD/**FF** PFD/**MF** HFD/**SMF**	CFD/**AK**
Filter media	Borosilicate micro fibers (glass fibre)	Borosilicate microfibers (glass fibre)
Drainage media	Polyurethane	/
Adsorption media	/	Activated carbon granulate PES (Polyester)
Support (inner-outer)	Stainless steel 1.4301	
Bonding	Polyurethane	
Endcaps	Aluminum	
Sealing	NBR	

Correction Factors

To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s). CORRECTED CAPACITY = NOMINAL FLOW CAPACITY x C_{OP}

Operating Pressure

[bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
[psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
C_{OP}	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

Maintenance

Replace filter element grade DFD/**FF**, PFD/**MF**, HFD/**SMF** at least once per year or when pressure drop reaches 350mbar.
Replace filter element grade CFD/**AK**, at least every 6 months.

ultrafilter **ag** ● Leutschenbachstrasse 45 ● CH-8050 Zürich
Fon: +41 (0)44 – 224 60 60 ● Fax: +41 (0)44 – 224 60 61
E-Mail: info@ultrafilter.ch ● Internet: www.ultrafilter.ch