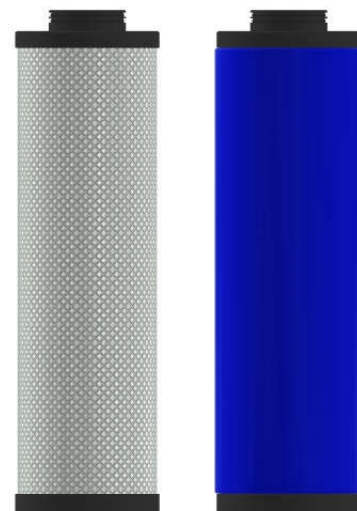


Replacement Element MF / SMF / AK

Atlas Copco type DD+, PD+, UD+, QD+

Description

ultrafilter replacement filter elements have been developed for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air.



Filter Element Rating According ISO 8573-1:2010

Atlas Copco / ultrafilter type	Solid particles class	Water class	Oil class
DD+/MF	2	/	2
PD+/SMF & UD+/SMF	1-2	/	1
QD+/AK	/	/	0/1*

Validated according to ISO12500-1, ISO12500-2 and ISO12500-3

* Valid if "SMF" filter cartridge is installed upstream

Technical Specification

	DD+/MF ⁽⁶⁾	PD+/SMF & UD+/SMF ⁽⁶⁾	QD+/AK ⁽⁶⁾
Operating temperature	1,5 - 65 °C/ 35 - 149 °F	1,5 - 65 °C/ 35 - 149 °F	1,5 - 45 °C/ 35 - 113 °F
Operating pressure	0 - 16 barg/ 0 - 232 psi	0 - 16 barg/ 0 - 232 psi	0 - 16 barg/ 0 - 232 psi
Differential pressure (dry)	50 mbar/ 0,725 psi	80 mbar/ 1,160 psi	60 mbar/ 0,870 psi
Differential pressure (wet)	120 mbar/ 1,740 psi	190 mbar/ 2,756 psi	/
Particle retention (nominal)	99,9999% (0,1 µm)	99,9999% (0,01 µm)	/
Particle retention rate ISO ⁽³⁾	99,98 %	99,9994 %	/
Residual oil content ⁽⁴⁾	< 0,1mg/m ³	< 0,01mg/m ³	< 0,005mg/m ³
Flow Direction	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE
Capacity (ISO12500-2) ⁽⁵⁾	/	/	20 min

(3) Tested according to ISO12500-3, 1bar(a), nominal flow, MF 03/10, SMF - MPPS-(0,3µm)

(4) Tested according to ISO12500-1, MF 03/10, SMF - Oil aerosol viscosity 32mm²/s, inlet concentration 10mg/m³

(5) Tested according to ISO12500-2, AK 03/10 - tested with n-Hexane, test concentration 100mg/kg, 80% Saturation

(6) Cross reference **ultrafilter** – Atlas Copco filtration grades: **MF** = DD+, **SMF** = PD+, **SMF** = UD+, **AK** = QD+

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

Materials

	DD+/MF	PD+/SMF & UD+/SMF	QD+/AK
Filter media	Borosilicate micro fibers	Borosilicate micro fibers	Borosilicate micro fibers
Protection media	Polyester fleece	Polyester fleece	Polyester fleece
Drainage media	Polyester based polyurethane	Polyester based polyurethane	/
Adsorption media	/	/	Activated carbon granulate
Support (inner-outer)	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301
Bonding	Polyurethane	Polyurethane	Polyurethane
Endcaps	PA6 with 30% glass fibers	PA6 with 30% glass fibers	PA6 with 30% glass fibers
Sealing	NBR	NBR	NBR

Sizes

Type * <i>ultrafilter</i> MF SMF AK	Type * Atlas Copco DD+ PD+ QD+	Type Atlas Copco / <i>ultrafilter</i> UD+/SMF	Diameter [mm]	Height [mm]	Flow Capacity [Nm ³ /h]	Flow Capacity [scfm]	Fits into filter housing for
XX 2/1.5+	__ 10+	UD 9+ / SMF 9+	46	56	36 (32,4)	21 (19)	10 (UD 9+)
XX 4/1.5+	__ 20+	UD 15+ / SMF 15+	46	91	72 (54)	42 (32)	20 (UD 15+)
XX 5/1.5+	__ 35+	UD 25+ / SMF 25+	46	146	126 (90)	74 (53)	35 (UD 25+)
XX 6/2.5+	__ 50+	UD 45+ / SMF 45+	61	155	180 (162)	106 (95)	50 (UD 45+)
XX 8/2.5+	__ 70+	UD 60+ / SMF 60+	61	195	252 (216)	148 (127)	70 (UD 60+)
		UD 100+ / SMF 100+	86	288	(360)	(212)	(UD 100+)
XX 11/3+	__ 130+	UD 140+ / SMF 140+	86	323	468 (504)	275 (297)	130 (UD 140+)
XX 12/3+	__ 170+	UD 180+ / SMF 180+	86	368	612 (648)	360 (381)	170 (UD 180+)
XX 14/3+	__ 210+	UD 220+ / SMF 220+	102	420	756 (792)	445 (466)	210 (UD 220+)
XX 16/3.5+	__ 310+	UD 310+ / SMF 310+	120	509	1116 (1116)	657 (657)	310 (UD 310+)
XX 20/4+	__ 425+	UD 425+ / SMF 425+	120	679	1530 (1530)	901 (901)	425 (UD 425+)
XX 26/4+	__ 550+	UD 550+ / SMF 550+	120	683	1980 (1980)	1165 (1165)	550 (UD 550+)

* Filter cartridge names consist of cartridge size and filtration grade.

XX = Filtration grade designation *ultrafilter* type MF, SMF or AK
before filter size. e.g. SMF 8/2.5 (PD 70+) or SMF 100+ (UD 100+).

__ = Filtration grade designation Atlas Copco DD+, PD+, UD+ or QD+

Maintenance

DD+/MF, PD+/SMF, UD+/SMF - Replace filter element at least once per year or when pressure drop reaches 350mbar.

QD+/AK - Replace filter element at least every 6 months.