

Replacement Element VF / MF / SMF / AK

HIROSS (new) Q / P / S / C

(Particulate, Coalescing, Oil vapour removal)

Description

We have designed HIROSS new filter elements for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air⁽¹⁾.

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⁾ HIROSS (new) filter element 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)

HIROSS (new) / <i>ultrafilter</i> type		Water	Oil
Q / VF	Class 6	-	-
P / Mf	Class 2-3	-	Class 2
S / SMF	Class 2	-	Class 1
C / AK	Class 2	-	Class 0/1

Validated according to ISO12500-1 and ISO12500-3

Technical Specification

Filtration grade name	Q / VF ⁽⁶⁾	P / MF ⁽⁶⁾	S / SMF ⁽⁶⁾	C / AK ⁽⁶⁾
Operating temperature		1,5 - 65 °C 35 - 149 °F		1,5 - 45 °C 35 - 113 °F
Differential pressure (dry)	10 mbar 0,290 PSI	50 mbar 0,725 psi	80 mbar 1,160 PSI	60 mbar 0,870 PSI
Differential pressure (wet)	20 mbar 0,290 PSI	120 mbar 1,740 PSI	190 mbar 2,756 PSI	N/A
Particle retention (nominal)	99,99% (3 µm)	99,9999% (0,1 µm)	99,9999% (0,01 µm)	N/A
Particle retention rate ISO ⁽³⁾	95%	99,98%	99,998%	N/A
Residual oil content ⁽⁴⁾	N/A	< 0,1mg/m	< 0,01mg/m ³	<0,005mg/m ³
Capacity (ISO12500-2) ⁽⁵⁾		N/A		20 min

(3) Tested according to ISO12500-3, 1bar(a), at nominal flow, 03/10 Q/VF, P/MF, S/SMF, MPPS-(0,3 Mic)

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

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

(6) Cross reference *ultrafilter* vs. HIROSS (new) filtration grades:

VF = Q/VF = Q

MF = P/MF = P

SMF = S/SMF = S

AK = C/AK = C

Sizes

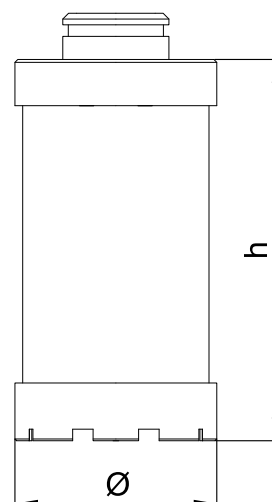
Filter Element Size	Dimensions [mm]	Flow Capacity	
		[Nm³/h]	[scfm]
XX 005 _ (AL)	Ø=35; h=66	32	19
XX 010 _ (AL)	Ø=50; h=77,5	61	36
XX 016 _ (AL)	Ø=50; h=126	107	63
XX 022 _ (AL)	Ø=50; h=151	132	78
XX 030 _ (AL)	Ø=62; h=156	166	98
XX 045 _ (AL)	Ø=62; h=225	252	148
XX 072 _ (AL)	Ø=62; h=372	429	252
XX 135 _ (AL)	Ø=87; h=382	620	365
XX 175 _ (AL)	Ø=87; h=512	843	496
XX 205 _ (AL)	Ø=87; h=610	290	171
XX 250 _ (AL)	Ø=87; h=760	1264	744
XX 300 _ (AL)	Ø=108; h=550	1129	665
XX 370 _ (AL)	Ø=108; h=750	1558	917

Ø=Diameter; h=Height

XX = Filtration grade **ultrafilter** VF, MF, SMF or AK

_ = Filtration grade HIROSS (new) Q, P, S or C

for aluminum end caps (option) just add 'AL' at the end of the designation: "VF 135 Q", for aluminium endcaps: "VF 135 Q AL".



Materials

	Q / VF	P / MF	S / SMF	C / AK
Filter media	Acrylic fibers, cellulose	Borosilicate micro fibers	Borosilicate micro fibers	Glass fiber, borosilicate microfibres
Drainage media	Polyester	Polyester based polyurethane	Polyester based polyurethane	
Adsorption media	/	/		Activated carbon granulate PES (Polyester)
Support (inner-outer)			Stainless steel 1.4301	
Bonding			Polyurethane	
Endcaps			PA6 with 30% glass fibers OR Aluminium	
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 Q/**VF**, P/**MF** and S/**SMF** at least once per year or when pressure drop reaches 350mbar.

Replace filter element grade C/**AK** at least every 6 months.