KAREI





DESCRIPTIONS

SF Wound depth cartridge filter is designed for applications when silicone-free and depth filtration is required.

Top-of-line cartridges, manufacture using state-of-art, high technology computerized system to guarantee consistent reliable quality.

SF offers a gradual increase of pressure drop throughout the life span of filter compare to surface type media that has an abrupt flow cut off when loaded.

SF provides true depth filtration utilizing thousands of tapered filtering passages of controlled size and shape.

SF cartridges are wounded, each layer of roving is napped to increase filtration area and capabilities. Thus, results high efficiency true depth filters by trapping particles evenly. In addition, the irregular blinding pattern increases surface area and assuring longer cartridge life span with full cartridge utilization.

Available in wide range of FDA Code Of Federal Regulation Title 21 compliances yarn material for food and beverage use.

A broad range of media provides excellent chemical compatibility including chemicals, organic solvents, animal, petroleum, vegetable oils, etc. Thus, suitable for wide variety of applications.

Advance developed filter media assures non fiber migration and non-contamination of filtrate. Hence, increase production yield.

Eliminate fiber shredding by using inner core mesh for filter less than 10 micron.

Individual sealed in poly bag with indication label for easy recognition.

Guaranteed quality product (ISO 9001 Certified).

Silicone-Free Non Foaming media combined with all the other advantages results in efficient and economical filtration.

SPECIFICATIONS

NOMINAL MICRON RATING

0.5, 1, 3, 5, 10, 25, 50, 75, 100, 125 & 150 micron

MEDIA MATERIAL

- 1) Standard Polypropylene
- 2) Silicone-Free Polypropylene
- 3) Silicone & Fiber-Free Polypropylene
- 4) Silicone-Free Fibrillated Polypropylene
- 5) Polyester
- 6) Standard Micro Fiber-Glass
- 7) Baked Micro Fiber-Glass
- 8) Acryl
- 9) Bleached Cotton
- 10) Natural Cotton

CORE MATERIAL

- 1) Pure Polypropylene
- 2) Reinforced Polypropylene With Glass
- 3) SUS 304
- 4) SUS 316
- 5) Tin Plated Steel

INNER MESH PROTECTION MATERIAL

- 1) Non Woven Polypropylene
- 2) Non Woven Polyester
- 3) Micro Fiber-Glass Mesh

OUTER CAGE MATERIAL (OPTIONAL)

- 1) Pure Polypropylene
- 2) Reinforced Polypropylene By Glass

END CAP MATERIAL (OPTIONAL)

Pure Polypropylene

NOMINAL LENGTH

125, 250, 500, 750, 1000, 1250 mm or 127, 254, 508, 762, 1016, 1270 mm

NOMINAL INNER/OUTER DIAMETER (ID/OD)

Standard : 28/63 mm With Outer Cage : 30/68 mm

OPERATING CONDITIONS

MAX. DIFFERENTIAL PRESSURE

4.3 Bar (64 PSID)

MAX. OPERATING TEMPERATURE

Depends on media & core material

CHANGE OUT DIFFERENTIAL PRESSURE

2.4 Bar (35 PSID)

PARTICLES REMOVAL EFFICIENCY

MICRON	FILTER MEDIA	β = 1000 (99.9%)	β = 100 (99.0%)	β = 10 (90.0%)
	Polypropylene	11	9	<3
0.5	Cotton	10	6	<3
	Micro Fiber-Glass	8	5	<3
	Polypropylene	14	12	<4
1	Cotton	13	10	4
	Micro Fiber-Glass	10	9	4
	Polypropylene	21	13	8
3	Cotton	16	11	7
	Micro Fiber-Glass	12	10	6
	Polypropylene	29	15	12
5	Cotton	20	12	10
	Micro Fiber-Glass	18	11	9
	Polypropylene	48	22	16
10	Cotton	40	19	14
	Micro Fiber-Glass	34	16	13
	Polypropylene	67	34	22
25	Cotton	54	28	19
	Micro Fiber-Glass	40	20	18
	Polypropylene	72	58	39
50	Cotton	67	48	32
	Micro Fiber-Glass	55	39	26
	Polypropylene	109	70	63
75	Cotton	93	64	53
	Micro Fiber-Glass	82	54	49
	Polypropylene	125	97	78
100	Cotton	115	87	64
	Micro Fiber-Glass	102	84	52
	Polypropylene	139	124	89
125	Cotton	121	108	71
	Micro Fiber-Glass	114	102	60
	Polypropylene	174	142	96
150	Cotton	168	127	85
	Micro Fiber-Glass	153	114	67

The removal efficiency was obtained using specific testing ISO standard dusts.

COMPARATIVE PROPERTIES OF WOUND DEPTH FILTER

	COTTON	POLYESTER	ACRYL	POLYPROPYLENE	MICRO GLASS-FIBER
SPECIFIC GRAVITY	1.5	1.4	1.2	0.9	2.1
TENSILE STRENGTH (RELATIVE)	2-4	4-6	2-4	4-6	8-15
ELONGATION AT BREAK (%)	5-7	11-14	17-42	35	2-4
MAXIMUM SERVICE TEMP.	150	125	150	90	400
CHEMICAL RESISTANCE					
1) STRONG ACIDS	X	G	G	Е	G
2) WEAK ACIDS	F	Е	Е	E	G
3) STRONG BASES	G	X	G	G	Е
4) WEAK BASES	Е	F	G	E	G
5) SOLVENTS	G	G	G	X	Е
6) OXIDIZING AGENT	F	Е	G	X	Е
7) MOISTURE AND HEAT	G	X	Е	F	G

E = EXCELLENT G = GOOD

F = FAIR X = NOT RECOMMENDED

WATER PRESSURE DROP (10 INCHES CARTRIDGE)-SF

10 50 2.0 75 PRESSURE DROP (PSID) 100 1.5 125 150 1.0 0.5 0.0 20 10 30 WATER FLOW RATE (L/MIN)

WATER FLOW RATE AT 2.0 PSID – 25°C

MEDIA MICRON	PP	СОТТОМ	MICRO FIBER-GLASS	
0.5	22	14	19	
1	25	17	23	
3	28	20	24	
5	30	24	25	
10	35	28	28	
25	37	33	35	
50	38	35	37	
75	40	37	39	
100	48	40	42	
125	53	44	46	
150	60	50	53	

Note: The above data was obtained based on specified controlled ISO test standard on Polypropylene media.

ORDERING GUIDE

KAREI - SF - (A) - (B) - (C) - (D) - (E) - (F) - (G)

(A)	MICRON	05=0.5, 1=1, 3=3, 5=5, 10=10, 25=25,	
		50=50, 75=75, 100=100, 125=125, 150=150	
(B)	LENGTH	125, 250, 500, 750, 1000, 1250 or 127, 254, 508, 762, 1016, 1270 mm	
(C)	OUTER DIAMETER	NONE=63, BB=114 mm	
(D)	MEDIA MATERIAL	NONE = Standard Polypropylene A = Silicone-Free Polypropylene B = Silicone & Fiber-Free Polypropylene FP = Silicone-Free Fibrillated Polypropylene PE = Polyester FGS = Standard Micro Fiber-Glass FG = Baked Micro Fiber-Glass AC = Acryl BC = Bleached Cotton NC = Natural Cotton	
(E)	CORE MATERIAL	NONE = Standard Polypropylene RPG = Reinforced Polypropylene With Glass (90°C) S4 = Stainless Steel 304 S6 = Stainless Steel 316 TPS = Tin Plated Steel	
(F)	END STYLE	NONE = DOE DPE = DOE With PE Foamed Gasket DGC = DOE With Gasket & Cage S2C = SOE, 222 O-Ring & Closed End S2F = SOE, 222 O-Ring & Finned End S6C = SOE, 226 O-Ring & Closed End S6F = SOE, 226 O-Ring & Finned End	
(G)	GASKET MATERIAL	NONE = EPDM V = Viton S = Silicone T = Teflon Note : Apply to SF with end style of DGC, S2C, S2F, S6C & S6F only.	

EXAMPLE:

- 1) KAREI-SF-05-1016-BB-FG (SF, 0.5 um, 1016mm, Big Blue 114mm OD, Baked Fiber-Glass, DOE)
- 2) KAREI-SF-5-500-BC-S4-S2C-V (SF, 5 um, 500mm, Bleached Cotton, Stainless Steel 304 Inner Core, 222 Viton O-Ring With Closed End)

Note: We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used. We accept no responsibility for results obtained by the applications. Users are advised to make their own testing under actual condition to determine the safety and suitability of each product or product combination for their own purposes and applications. Buyers and users assume all responsibility for liability performance or damage. We reserve the entire right to modify the information without prior notice due to continuous R & D.