


FIK

Max Flow: 170 gpm (643 lpm)

FIK In-Tank Filters

Working Pressures to: 145 *psi*
1000 kPa
10 bar

Rated Static Burst to: 217 *psi*
1500 kPa
15 bar

Flow Range to: 170 *gpm*
643 *lpm*



Features

FIK in-tank filters are economical, space-saving units offering a variety of options including aluminum or plastic access covers, mounting option, breathers and accessories including diffusers and oil dipsticks. FIK filters, featuring a die-cast aluminum head and a steel or plastic canister are designed to handle heavy-duty applications. The head (and the inlet) sit above the tank, while the housing remains inside the tank, offering design-in flexibility. Optional air breather featuring T.R.A.P.[™] technology are available with style A and B, designed to allow the breather to be mounted directly in the FIK filter head, thus eliminating the cost associated with an additional penetration to the hydraulic tank for breather installation. FIK filters offer three service indicators to choose from: pressure gauge, visual indicator and electrical indicator. FIK filter assemblies are shipped from the factory with cellulose or Synteq[™] synthetic filter media, and replacement cartridges are offered in a range of media types and performance ratings.

Beta Rating

- Performance to $\beta_{8(c)}=1000$

Porting Size Options

- 1/2", 3/4", 1" NPT
- SAE-8,-12,-16,-20,-24 O-ring
- 2" SAE 4-Bolt Flange Code 61

Standard Bypass Rating

- 22 *psi* / 150 kPa / 1.5 bar

Operating Temperatures

- -4°F to 194°F / -20°C to 90°C

Collapse Rating

- 145 *psid* / 1000 kPa / 10 bar

Redesigned with Features for Application Flexibility, Improved Servicing and Enhanced Filtration Performance

STYLE B Shown Below

Applications

- Cooling Circuits
- Fluid Conditioning Systems
- Lube Oil Systems
- Process Systems
- Return Lines
- Side Loop Systems

Multifunctional Ports (custom)

Contact your Donaldson sales representative for details

- Can be converted into auxiliary inlet ports
- The two secondary inlet ports can be used in conjunction with the main inlet port for higher flow rates

Flat Gasket Design

- For leak-tight operation

Service Indicator Ports

- Electrical, visual or pressure gauge options

Accessories (custom)

Contact your Donaldson sales representative for details

- Oil dipstick
- Diffuser
- Extension tube

T.R.A.P.™ Breather Technology Breather ordered separately Plug ships standard. Pressurized & atmospheric breathers available.

- Quick fit connection
- Anti-splash design allows smooth operation under tilt conditions
- Keeps reservoir free from condensation

Flexible Mounting Configurations

2 or 4 hole mounting option

- Better sealing and stability
- Enhanced stability on plastic tanks
- Reverse compatible – retrofit existing tanks with the new hole configuration –

Built-In By-Pass Valve

- New by-pass valve installed with every filter replacement

Filter Media Technology

Wide range of Donaldson media offerings – to meet various performance targets and cleanliness standards





FIK

Max Flow: 170 gpm (643 lpm)



FIK Specification Illustrations

Low Flow Assemblies

< 32 gpm (120 lpm)

STYLE A

K030319



Improved Design Features

- 2 or 4 hole mounting options
- Built-in by-pass valve in the cartridge
- Improved seal design
- Anti-splash air flow path
- Optional mini T.R.A.P. breather

STYLE B

K040811
K040812
K040813
K041782



Improved Design Features

- 2 or 4 hole mounting options
- Built-in by-pass valve in the cartridge
- Improved seal design
- Anti-splash air flow path
- Optional T.R.A.P.™ breathers
- Multifunctional ports for accessories

High Flow Assemblies

5 - 170 gpm (18 - 643 lpm)

STYLE C, D, E

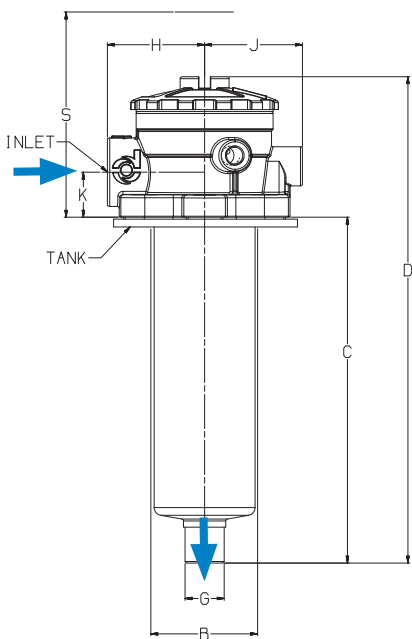
Assembly part numbers on following page

Improved Design Features

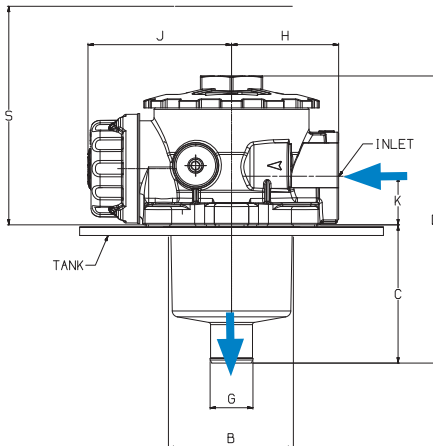
- Improved seal design
- Built-in by-pass valve in the cartridge

Assembly - Side Views

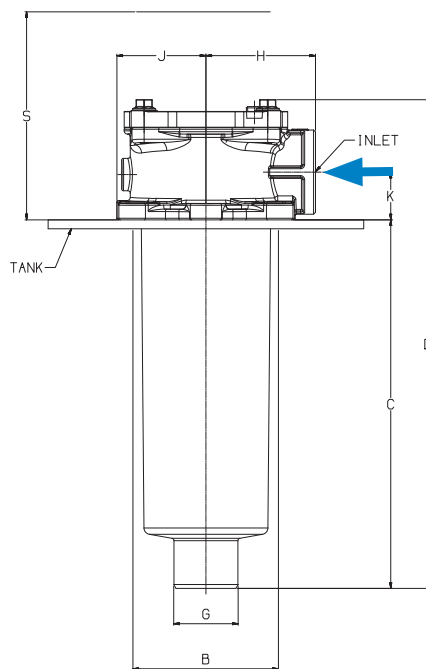
STYLE A



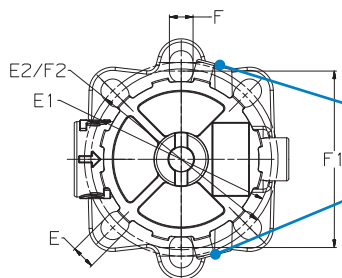
STYLE B



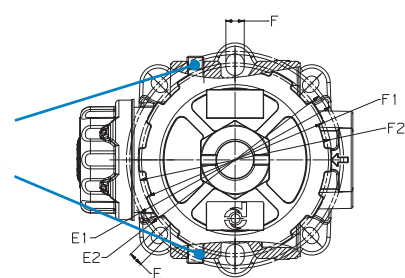
STYLE C, D, E



Head - Top Views



Ports for service indicator



High Flow Assemblies

5 - 170 gpm (18 - 643 lpm)

STYLE C

K041770 K041774
K041771 K040799
K041772 K040798
K041773
K031027 (2 point mount only)



Improved Design Feature

- 2 or 4 hole mounting options

STYLE D

K070248 K070250
K071001 K071003
K070249
K071002



Design Feature

- 4 hole mounting

STYLE E

K051204
K052053

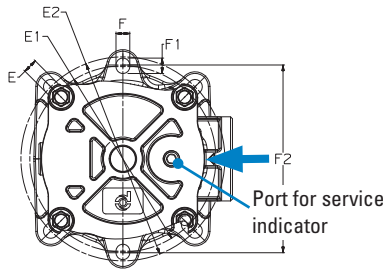


Design Feature

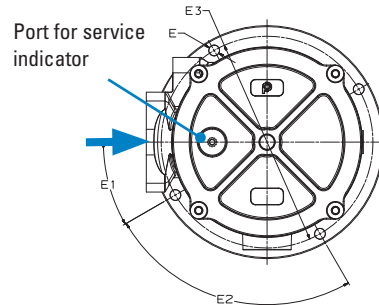
- 3 hole mounting

Head - Top Views

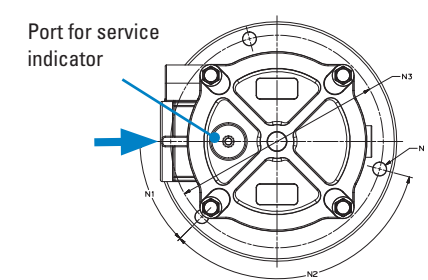
STYLE C



STYLE D



STYLE E



Dimensions

ASSEMBLY DIMENSIONS	ASSEMBLY PART NUMBER																							
	STYLE A		STYLE B				STYLE C						STYLE D				STYLE E							
	K030319	K040811	K040812	K040813 K041782		K031027 <i>2 pt mount only</i>	K041770		K041771 K041772 K041773 K041774 K040799		K040798		K070248 K071001		K070249 K071002		K070250 K071003		K051204 K052053					
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in			
C	176.8	6.96	91.0	3.58	141.0	5.55	218.0	8.58	78.0	3.07	99.0	3.90	149.0	5.87	227.7	8.96	242.0	9.53	290.0	11.42	434.0	17.09	224.0	8.82
D	248.6	9.79	189.0	7.44	239.0	9.41	316.0	12.44	132.0	5.20	173.3	6.82	223.2	8.79	301.9	11.89	348.0	13.70	395.5	15.57	539.5	21.24	313.8	12.35
S SERVICE CLEARANCE	220.0	8.66	180.0	7.09	220.0	8.66	305.0	12.01	149.0	5.87	170.0	6.69	220.0	8.66	299.0	11.77	320.0	12.60	365.0	14.37	515.0	20.28	305.0	12.01
G	20.0	0.79	27.6	1.09	27.6	1.09	39.6	1.56	25.2	0.99	27.6	1.09	27.6	1.09	39.5	1.56	50.0	1.97	63.5	2.50	63.5	2.50	40.0	1.57
B TANK OPENING	57.0	2.24	90.0	3.54	90.0	3.54	90.0	3.54	68.6	2.70	90.0	3.54	90.0	3.54	90.0	3.54	175.0	6.89	175.0	6.89	175.0	6.89	131.0	5.16
H	49.7	1.96	70.5	2.78	70.5	2.78	70.5	2.78	49.0	1.93	68.0	2.68	68.0	2.68	68.0	2.68	120.0	4.72	126.0	4.96	126.0	4.96	95.0	3.74
J	54.2	2.13	94.5	3.72	94.5	3.72	94.5	3.72	44.0	1.73	55.0	2.17	55.0	2.17	55.0	2.17	100.0	3.94	100.0	3.94	100.0	3.94	78.0	3.07
K	23.0	0.91	32.0	1.26	32.0	1.26	32.0	1.26	22.0	0.87	29.5	1.16	29.5	1.16	29.5	1.16	41.0	1.61	48.5	1.91	48.5	1.91	35.0	1.38
F 2 POINT MOUNT	11.0	0.43	11.0	0.43	11.0	0.43	11.0	0.43	Ø6.4	Ø0.25	8.5	0.33	8.5	0.33	8.5	0.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F1	Ø82	Ø3.23	Ø112	Ø4.41	Ø112	Ø4.41	Ø112	Ø4.41	90.0	3.54	9.5	0.37	9.5	0.37	9.5	0.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F2	Ø90	Ø3.54	Ø116	Ø4.57	Ø116	Ø4.57	Ø116	Ø4.57	N/A	N/A	115.0	4.53	115.0	4.53	115.0	4.53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N 3 POINT MOUNT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	45°
N2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120°
N3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Ø175
E 4 POINT MOUNT	11.0	0.43	8.5	0.33	8.5	0.33	8.5	0.33	N/A	N/A	9.0	0.35	9.0	0.35	9.0	0.35	Ø10.5	Ø0.41	Ø11	Ø0.43	Ø11	Ø0.43	N/A	N/A
E1	Ø84	Ø3.31	Ø126	Ø4.96	Ø126	Ø4.96	Ø126	Ø4.96	N/A	N/A	Ø115	Ø4.53	Ø115	Ø4.53	Ø115	Ø4.53	30°	30°	30°	30°	30°	30°	30°	N/A
E2	Ø90	Ø3.54	Ø130	Ø5.12	Ø130	Ø5.12	Ø130	Ø5.12	N/A	N/A	Ø126	Ø4.96	Ø126	Ø4.96	Ø126	Ø4.96	90°	90°	90°	90°	90°	90°	90°	N/A
E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Ø220	Ø8.66	Ø220	Ø8.66	Ø220	Ø8.66	Ø220	Ø8.66
WEIGHT	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
K	1.8	0.8	2.1	0.95	3.2	1.45	4.1	1.86	1.1	0.5	1.8	0.8	2.1	0.95	2.43	1.1	10.0	4.5	13.1	5.9	18.6	8.4	7.0	3.2



FIK

Max Flow: 170 gpm (643 lpm)



FIK Components Assembly Choices

Port Size	Bypass Rating*	Assembly Part No.	$\beta_{x(c)} = 1000$	Filter Media [†]	Provided with Filter	Filter Diameter (in./mm)	Filter Length (in./mm)	Flow Range (@~5 psid / 34.5 kPa)
-----------	----------------	-------------------	-----------------------	---------------------------	----------------------	--------------------------	------------------------	----------------------------------

[†]additional filter choices on following pages to meet various performance requirements

Low Flow Assemblies

STYLE A								
SAE-8 O-Ring	22 psi/1.5 bar	K030319	36 μ m	Cellulose	P171839	1.69 / 43	6.38 / 162	10 gpm / 38 lpm
STYLE B								
SAE-12 O-Ring	22 psi/1.5 bar	K040811	36 μ m	Cellulose	P171527	2.76 / 70	3.23 / 82	14 gpm / 53 lpm
SAE-16 O-Ring	22 psi/1.5 bar	K040812	36 μ m	Cellulose	P171533	2.76 / 70	5.04 / 128	23 gpm / 86 lpm
SAE-20 O-Ring	22 psi/1.5 bar	K040813	36 μ m	Cellulose	P171840	2.76 / 70	8.27 / 210	32 gpm / 120 lpm
SAE-20 O-Ring	22 psi/1.5 bar	K041782	11 μ m	Synthetic	P171846	2.76 / 70	8.27 / 210	28 gpm / 106 lpm

High Flow Assemblies

STYLE C								
1/2" NPT	22 psi/1.5 bar	K031027	36 μ m	Cellulose	P171503	2.05 / 52	2.64 / 67	5 gpm / 18 lpm
1" NPT	22 psi/1.5 bar	K041770	36 μ m	Cellulose	P171527	2.76 / 70	3.23 / 82	15 gpm / 56 lpm
3/4" NPT	22 psi/1.5 bar	K041771	36 μ m	Cellulose	P171533	2.76 / 70	5.04 / 128	18 gpm / 68 lpm
1" NPT	22 psi/1.5 bar	K041772	36 μ m	Cellulose	P171533	2.76 / 70	5.04 / 128	21 gpm / 79 lpm
SAE-12 O-Ring	22 psi/1.5 bar	K041773	36 μ m	Cellulose	P171533	2.76 / 70	5.04 / 128	18 gpm / 68 lpm
SAE-12 O-Ring	22 psi/1.5 bar	K041774	11 μ m	Synteq	P171531	2.76 / 70	5.04 / 128	13 gpm / 49 lpm
SAE-16 O-Ring	22 psi/1.5 bar	K040799	36 μ m	Cellulose	P171533	2.76 / 70	5.04 / 128	21 gpm / 79 lpm
SAE-16 O-Ring	22 psi/1.5 bar	K040798	36 μ m	Cellulose	P171840	2.76 / 70	8.22 / 209	32 gpm / 120 lpm
STYLE D								
SAE-24 O-Ring	22 psi/1.5 bar	K070248	36 μ m	Cellulose	P171557	5.51 / 140	7.49 / 203	66 gpm / 248 lpm
SAE-24 O-Ring	22 psi/1.5 bar	K071001	11 μ m	Synteq	P171555	5.51 / 140	7.49 / 203	44 gpm / 165 lpm
2" SAE 4-Bolt	22 psi/1.5 bar	K070249	36 μ m	Cellulose	P171575	5.51 / 140	9.84 / 250	106 gpm / 399 lpm
2" SAE 4-Bolt	22 psi/1.5 bar	K071002	11 μ m	Synteq	P171573	5.51 / 140	9.84 / 250	74 gpm / 278 lpm
2" SAE 4-Bolt	22 psi/1.5 bar	K070250	36 μ m	Cellulose	P171581	5.51 / 140	15.75 / 400	170 gpm / 643 lpm
2" SAE 4-Bolt	22 psi/1.5 bar	K071003	11 μ m	Synteq	P171579	5.51 / 140	15.75 / 400	120 gpm / 451 lpm
STYLE E								
SAE-20 O-Ring	22 psi/1.5 bar	K051204	36 μ m	Cellulose	P171539	3.74 / 95	7.49 / 203	47 gpm / 177 lpm
SAE-20 O-Ring	22 psi/1.5 bar	K052053	11 μ m	Synteq	P171537	3.74 / 95	7.49 / 203	32 gpm / 120 lpm

Note

* Bypass valve is an integral part of the replacement filter. Service indicator port available for all assemblies.

Filter Notes





- FIK filters utilize either glass fiber, cellulose, or wire mesh media.
- All FIK filters are potted with polyurethane adhesives.
- Synteq media designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity.
- Buna-N® seals are standard on all FIK filters. Buna-N® is a registered trademark of E. I. DuPont de Nemours and Company.

T.R.A.P.™ Breather Choices



For Redesigned Style A and B Assemblies with 4 Hole Mounting Configurations Only

Note: T.R.A.P. breathers are not compatible on older style assemblies with 2 hole mounting configuration

Part No.	Description	Efficiency	Fits Assembly Models:
STYLE A			
 P567392	Mini T.R.A.P.	3 µm @ 97%	K030319
STYLE B			
 P766528	Black Standard plug (no air exchange)	N/A	K040811, K040812, K040813, K041782
 P766530	Blue Atmospheric pressure	10 µm @ 98%	K040811, K040812, K040813, K041782
 P766538	Red 7.3 psi (½ bar) pressurized	10 µm @ 98%	K040811, K040812, K040813, K041782


STYLE A

STYLE B

Standard Breather Choices

Replacement Breathers for Older Style A and B Assemblies with 2 Hole Mounting Configuration Only

Part No.	Efficiency	Fits Assembly Models:
STYLE A		
P173330	10 µm	K030319
STYLE B		
P172434	10 µm	K040811, K040812, K040813



Service Indicators

Pressure Gauges P171956

G 1/8"
(center back)



P171953

G 1/8"
(bottom mount)

-14.5 to 72 psi
-1 to +5 bar

DC Electrical Indicator P171966

17 psi / 1.2 bar
(48V AC/DC)



G 1/8" →

Visual Indicator P171958

17 psi / 1.2 bar



G 1/8" →



FIK

Max Flow: 170 gpm (643 lpm)



FIK Components

Filter Choices - Low Flow Assemblies

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.
			in	mm	
STYLE A					
K030319					
Synteq Synthetic	8 μ m	6.38	162		P569273
	11 μ m	6.38	162		P171845
	23 μ m	6.38	162		P171842
Cellulose	7 μ m	6.38	162		P171839
	27 μ m	6.38	162		P171836
Wire Mesh	60 μ m	6.38	162		P171833
	90 μ m	6.38	162		P171830

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.
			in	mm	
STYLE B					
K040811					
Synteq Synthetic	8 μ m	3.23	82		P569274
	11 μ m	3.23	82		P171525
	23 μ m	3.23	82		P171526
Cellulose	7 μ m	3.23	82		P171527
	27 μ m	3.23	82		P171528
Wire Mesh	60 μ m	3.23	82		P171529
	90 μ m	3.23	82		P171524

K040812

Synteq Synthetic	8 μ m	5.04	128		P569275
	11 μ m	5.04	128		P171531
	23 μ m	5.04	128		P171532
Cellulose	7 μ m	5.04	128		P171533
	27 μ m	5.04	128		P171534
Wire Mesh	60 μ m	5.04	128		P171535
	90 μ m	5.04	128		P171530

K040813

Synteq Synthetic	8 μ m	8.27	210		P569276
	11 μ m	8.27	210		P171846
	23 μ m	8.27	210		P171843
Cellulose	7 μ m	8.27	210		P171840
	27 μ m	8.27	210		P171837
Wire Mesh	60 μ m	8.27	210		P171834

K041782

Synteq Synthetic	8 μ m	8.27	210		P569276
	11 μ m	8.27	210		P171846
	23 μ m	8.27	210		P171843
Cellulose	7 μ m	8.27	210		P171840
	27 μ m	8.27	210		P171837
Wire Mesh	60 μ m	8.27	210		P171834



High Flow Assemblies

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.
			in	mm	
STYLE C					
K031027					
Synteq Synthetic	8 μ m		2.64	67	P569277
	11 μ m		2.64	67	P171501
	23 μ m		2.64	67	P171502
Cellulose	7 μ m		2.64	67	P171503
	27 μ m		2.64	67	P171504
Wire Mesh	60 μ m		2.64	67	P171505
	90 μ m		2.64	67	P171500
K041770					
Synteq Synthetic	8 μ m		3.23	82	P569274
	11 μ m		3.23	82	P171525
	23 μ m		3.23	82	P171526
Cellulose	7 μ m		3.23	82	P171527
	27 μ m		3.23	82	P171528
Wire Mesh	60 μ m		3.23	82	P171529
	90 μ m		3.23	82	P171524
K041771, K041772, K041773, K041774, K040799					
Synteq Synthetic	8 μ m		5.04	128	P569275
	11 μ m		5.04	128	P171531
	23 μ m		5.04	128	P171532
Cellulose	7 μ m		5.04	128	P171533
	27 μ m		5.04	128	P171534
Wire Mesh	60 μ m		5.04	128	P171535
	90 μ m		5.04	128	P171530
K040798					
Synteq Synthetic	8 μ m		8.22	209	P569276
	11 μ m		8.22	209	P171846
	23 μ m		8.22	209	P171843
Cellulose	7 μ m		8.22	209	P171840
	27 μ m		8.22	209	P171837
Wire Mesh	60 μ m		8.22	209	P171834

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.
			in	mm	
STYLE D					
K070248, K071001					
Synteq Synthetic	8 μ m		7.49	203	P569279
	11 μ m		7.49	203	P171555
	23 μ m		7.49	203	P171556
Cellulose	7 μ m		7.49	203	P171557
	27 μ m		7.49	203	P171558
Wire Mesh	60 μ m		7.49	203	P171559
K070249, K071002					
Synteq Synthetic	8 μ m		9.84	250	P569280
	11 μ m		9.84	250	P171573
	23 μ m		9.84	250	P171574
Cellulose	7 μ m		9.84	250	P171575
	27 μ m		9.84	250	P171576
Wire Mesh	90 μ m		9.84	250	P171572
K070250, K071003					
Synteq	8 μ m		15.75	400	P176749
	11 μ m		15.75	400	P171579
	23 μ m		15.75	400	P171580
Cellulose	7 μ m		15.75	400	P171581
	27 μ m		15.75	400	P171582
Wire Mesh	60 μ m		15.75	400	P171583
	90 μ m		15.75	400	P171578
STYLE E					
K051204, K052053					
Synteq	8 μ m		7.49	203	P569278
	11 μ m		7.49	203	P171537
	23 μ m		7.49	203	P171538
Cellulose	7 μ m		7.49	203	P171539
	27 μ m		7.49	203	P171540
Wire Mesh	60 μ m		7.49	203	P171541
	90 μ m		7.49	203	P171536



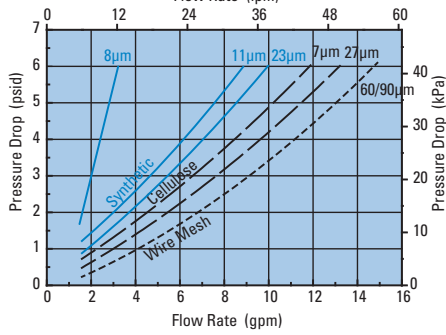
Performance Data

STYLE A

K030319 Assembly

(6.38"/162mm)

Flow Rate (lpm)



NOTE:
Please note that the line styles used represent different media types

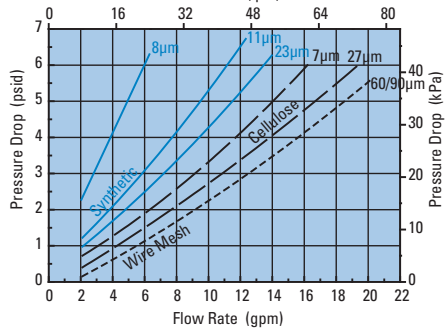
- Synteq Synthetic
- Cellulose
- Wire Mesh

STYLE B

K040811 Assembly

(3.23"/82mm)

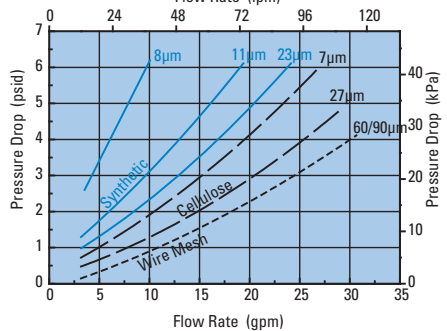
Flow Rate (lpm)



K040812 Assembly

(5.04"/128mm)

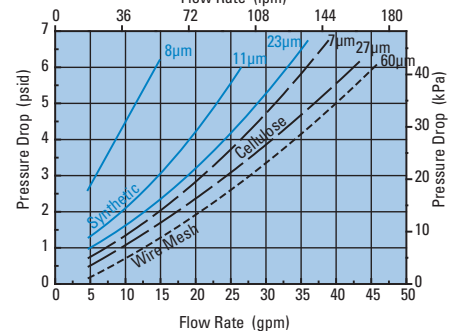
Flow Rate (lpm)



K040813 & K041782 Assemblies

(8.27"/210mm)

Flow Rate (lpm)

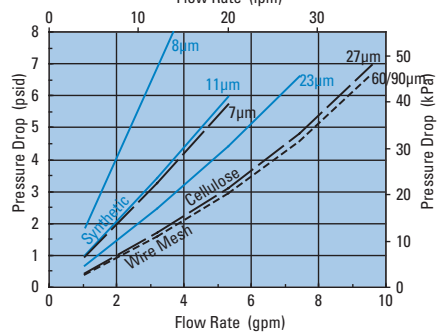


STYLE C

K031027 Assembly

(2.64"/67mm)

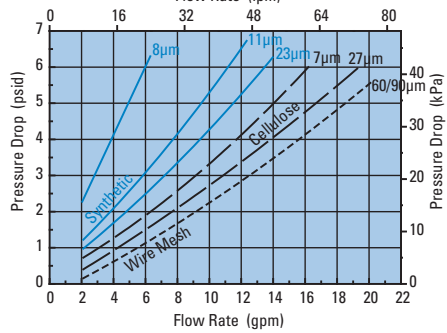
Flow Rate (lpm)



K0041770* Assembly

(3.23"/82mm)

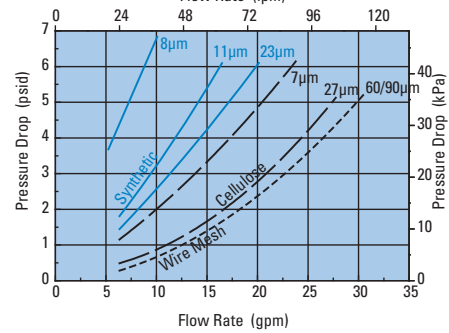
Flow Rate (lpm)



K0041771**, K041772, K041773**, K041774** & K040799 Assemblies

(5.04"/128mm)

Flow Rate (lpm)



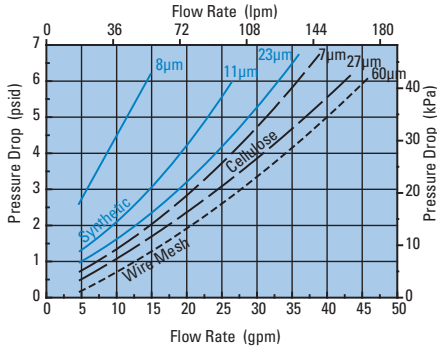
*Subtract ½ psi
**Add ½ psi



Performance Data

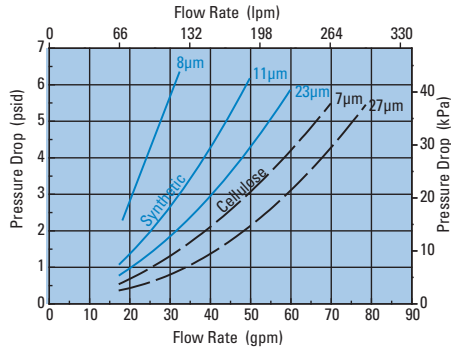
STYLE C, continued

K040798 Assembly
(8.22"/209mm)

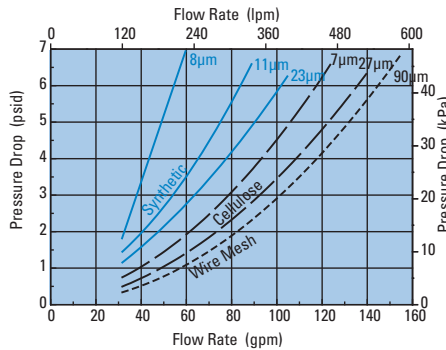


STYLE D

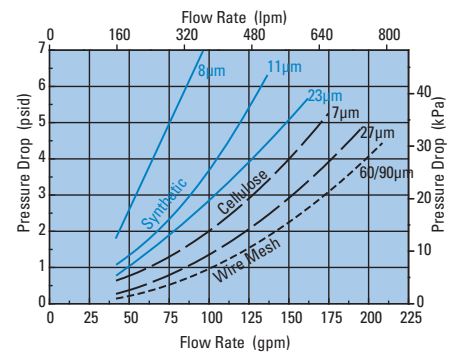
K070248 & K071001 Assemblies
(7.49"/203mm)



K070249 & K071002 Assemblies
(9.84"/250mm)



K070250 & K071003 Assemblies
(15.75"/400mm)



STYLE E

K051204 & K052053 Assemblies
(7.49"/203mm)

