numatics®

DeltaSeries

Premium Filters

We're everywhere you need us to be!

Delta Series 3-12

Rev. 11/03

Delta Series
Premium Filters

The Numatics Delta Series™ offers premium filtration for applications which require high flows. The standard aluminum end caps on every element, premium manual drain, seals made of Viton®, and available 3 micron internal pleated prefilter sets the Delta Series™ apart from other competitors.

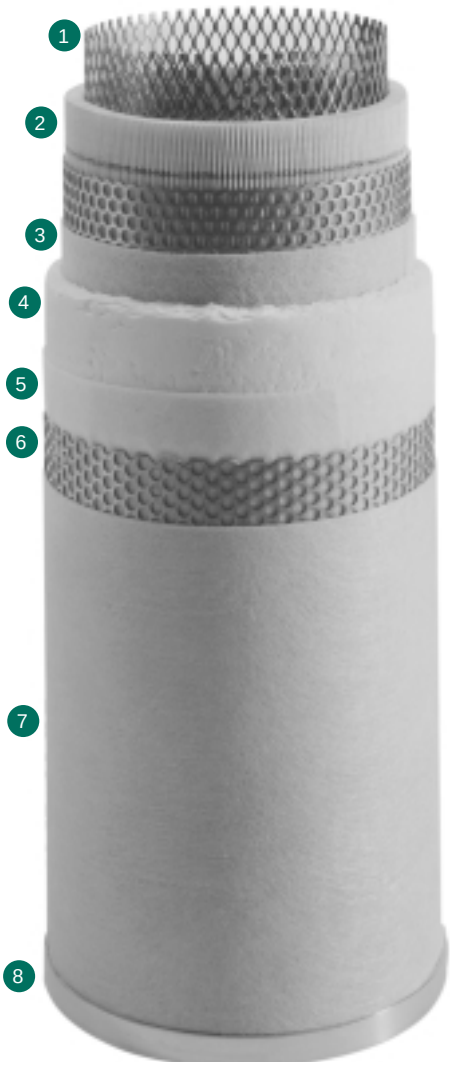
Delta Series™ filters are ideal for use in many applications including industrial, process, and medical, and are perfectly suited for compressor applications.

General purpose filtration
- Civil engineering
- Rock quarrying
- Shotblasting
- Prefiltration for oil removal on dryers
- Industrial

Oil-free compressed air application
- Spray painting
- Air conveying
- Air motors
- Process control
- Blowmoldings
- Pre-filter for vacuum pumps

Critical applications
- Breathing air
- Process air
- Food industry
- Breweries
- Hospital service
- Dryer
- Medical applications
- Film processing

The Numatics **Delta Series™** coalescing filters use a borosilicate glass fiber to remove contaminant from air lines. Air flows from the inside to the outside of the element through a converging/diverging pore structure, trapping contaminant particles in the media (not just on the surface) and forcing liquids to form into larger drops and drain to the bottom of the bowl. Numatics filters are used to remove hydrocarbon, oil, liquid water, rust, and more. The coalescing filters are made up of eight main features:



1. Inner core
Prevents element from collapsing in backflow conditions

2. Optional internal pleated prefilter
3.0 micron media protects the fine borosilicate fibers from large particles, extending the life of the coalescing media

3. Inner media wrap
Allows crossflow of gas which initiates the coalescing process

4. Media
Three coalescing media choices for best performance. Proprietary glass fiber blend combines low differential pressures and high efficiencies with maximum holding capacity (3 micron particulate and adsorbing grade also available)

5. Outer media wrap
Allows crossflow of gas and improves performance

6. Metal retainers
Supports the media both inside and outside during pressure spikes or high differential pressures

7. Drain layer
Large pore fibers allow the large coalesced liquids to drain to the bottom of the bowl

8. End caps
Aluminum end caps provide sturdiness and durability. The design of the bottom caps make inserting a new filter element easy.

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F900X-12 pictured

Water Separator

F900X Series

Application

The water separator is an ideal solution where water contamination is present. Water can damage pneumatic components, degrade your final product, and cause valves and cylinders to stick.
The F900X series utilizes an internal spinner to remove large quantities of contamination by centrifugal action. Water, debris, and rust are spun outward to the inside diameter of the bowl. Gravity then sends the contaminant to the bottom of the bowl for discharge.

Recommended Uses

- Bulk liquid and solid contamination removal
- Downstream from compressor/aftercoolers
- Protection for coalescing elements from large liquid loading
- Refrigerated compressed air dryers

Specifications

Maximum temperature: 175ºF (80ºC)
Maximum pressure: 250 PSIG (17 bar)

Materials of Construction

Body: Aluminum Drain: Brass Baffle: Polyamide
Seals: Viton®

Flow Ratings

MODEL NUMBER	SCFM Based on 60 PSI inlet w/.75 PSID	dm^3/s
F900X-02	14	6.6
F900X-04	38	18
F900X-06	76	36
F900X-08	114	54
F900X-12	230	109
F900X-16	460	217
F900X-24	843	398

MODEL NUMBER	SCFM Based on 100 PSI inlet w/.75 PSID	dm^3/s
F900X-02	18	8.5
F900X-04	58	27
F900X-06	117	55
F900X-08	176	83
F900X-12	353	167
F900X-16	706	333
F900X-24	1294	611

NOTE: Maximum water removal efficiency occurs at stated flows

How to Order

F 900 X - 16 BN

Model
F = Filter

Series
900 = Delta Series™

Type
X = Water Separator

Threads
- = NPTF
G = G Tap (BSPP)

Port Size
02 = 1/4
03 = 3/8
04 = 1/2
06 = 3/4
12 = 1-1/2
16 = 2
24 = 3

Options
A = Auto Drain
B = Mounting Brackets
N = Electronic Drain Valve

NEED MORE PARTS AND INFORMATION?
• See page 11 for dimensional drawings and data.
• See page 12 for information on ordering replacement parts.

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Delta Series
Premium Filters

F900G-08G pictured

ANSI SYMBOL

3.0 Micron Particulate Filter

F900G Series

Application

The particulate filter is designed for heavy dirt loading. Large particles such as rust, desiccant dust, and debris will rob the life of your pneumatic components. Contaminant is generated from desiccant type air dryers, older carbon steel pipes, and from the intake of a compressor.
The F900G series features a pleated design - folds of cellulose composite media which provide a large amount of surface area and extend the life of the element. When air flows - from the outside of the element to the inside - the particles are trapped in the space between the filter bowl and the element.

Recommended Uses

- Solid bulk contamination removal
- Afterfilter to a desiccant dryer
- Protection for coalescers in heavy aerosol applications
- 3 micron particle removal in 'dry' systems

Specifications

OPTIONS	NONE	A	A	G	N	AG	AG	GN
Port	all	1/4-1	1 1/4-3	all	all	1/4-1	1 1/4-3	all
Max. press. PSIG (bar)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)
Max. temp. ºF (ºC)	275 (135)	150 (66)	250 (121)	175 (80)	130 (55)	150 (66)	175 (80)	130 (55)

Materials of Construction

Body: aluminum
Seals: Viton®
Drain: brass
Tie rod: brass
End caps: anodized aluminum

Flow Ratings

MODEL NUMBER	SCFM Based on 60 PSI inlet w/1.5 PSID	dm^3/s
F900G-02	70	33
F900G-03	70	33
F900G-04	70	33
F900G-06	107	51
F900G-08	129	61
F900G-08X	172	81
F900G-10	322	152
F900G-12	387	183
F900G-16	752	355
F900G-20	967	456
F900G-24	1209	571

MODEL NUMBER	SCFM Based on 100 PSI inlet w/1.5 PSID	dm^3/s
F900G-02	107	51
F900G-03	107	51
F900G-04	107	51
F900G-06	165	78
F900G-08	198	93
F900G-08X	264	125
F900G-10	495	234
F900G-12	594	280
F900G-16	1155	545
F900G-20	1485	701
F900G-24	1856	876

NOTE: Maximum efficiency occurs at stated flows

How to Order

F 900 G - 04 AG

Model
F = Filter

Series
900 = Delta Series™

Element
G = 3.0 Micron

Threads
- = NPTF
G = G Tap (BSPP)

Options
A = Auto Drain
B = Mounting Brackets
G = Differential Pressure Gauge
N = Electronic Drain Valve

Port Size
02 = 1/4
03 = 3/8
04 = 1/2
06 = 3/4
08 = 1
08X = 1 High Flow
12 = 1-1/2
16 = 2
20 = 2-1/2
24 = 3

NEED MORE PARTS AND INFORMATION?
• See page 11 for dimensional drawings and data.

Delta Series
Premium Filters

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F900H-08G pictured

ANSI SYMBOL

1.0 Micron Course Coalescer

F900H Series

Application

The coarse coalescing filter is utilized when low pressure drop or crude separation is required. The coarse filter element is preferred in low pressure and vacuum application so that the efficiency of the compressor or pump is not sacrificed. Also, the coalescing element will take out crude amounts of large liquid oil and water particles, specifically downstream of a compressor to protect a dryer. The F900H features a unique vacuum-formed process. It utilizes micro-glass fibers in raw form to create a seamless, depth-loading media. Combined with a rigid fiber-coating epoxy, the filter element has great strength, high efficiency, and superior life.

Recommended Uses

- Mainline plant filtration
- Prefilter to refrigerated air dryer
- 1 micron particle removal in 'dry' systems
- Heavy oil concentration removal

Specifications

OPTIONS	NONE	A	A	G	N	AG	AG	GN
Port	all	1/4-1	1 1/4-3	all	all	1/4-1	1 1/4-3	all
Max. press. PSIG (bar)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)
Max. temp. ºF (ºC)	275 (135)	150 (66)	250 (121)	175 (80)	130 (55)	150 (66)	175 (80)	130 (55)

Materials of Construction

Body: aluminum
Seals: Viton®
Drain: brass
Tie rod: brass
End caps: anodized aluminum

Optional Internal Pleated Prefilter

Numatics Delta Series™ filters are premium quality filters which include an optional 3.0 micron, internal pleated prefilter. This prefilter provides protection for the fine borosilicate fibers by removing over 99% of 3.0 micron and larger particles, extending the life of the filter element.

Flow Ratings

MODEL NUMBER	SCFM Based on 60 PSI inlet w/1.5 PSID	dm^3/s
F900H-02	68	32
F900H-03	68	32
F900H-04	68	32
F900H-06	104	49
F900H-08	125	59
F900H-08X	167	79
F900H-10	313	148
F900H-12	375	177
F900H-16	729	344
F900H-20	938	443
F900H-24	1172	553

MODEL NUMBER	SCFM Based on 100 PSI inlet w/1.5 PSID	dm^3/s
F900H-02	104	49
F900H-03	104	49
F900H-04	104	49
F900H-06	160	76
F900H-08	192	91
F900H-08X	256	121
F900H-10	480	227
F900H-12	576	272
F900H-16	1120	529
F900H-20	1440	680
F900H-24	1800	850

NOTE: Maximum efficiency occurs at stated flows

How to Order

F 900 H - 04 AG

Model
F = Filter

Series
900 = Delta Series™

Element
H = 1.0 Micron

Threads
- = NPTF
G = G Tap (BSPP)

Options
A = Auto Drain
B = Mounting Brackets
D = Internal Pleated Prefilter
G = Differential Pressure Gauge
N = Electronic Drain Valve

Port Size
02 = 1/4
03 = 3/8
04 = 1/2
06 = 3/4
08 = 1
08X = 1 High Flow
12 = 1-1/2
16 = 2
20 = 2-1/2

NEED MORE PARTS AND INFORMATION?
• See page 11 for dimensional drawings and data.

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Delta Series
Premium Filters

F900D-08G pictured

ANSI SYMBOL

0.3 Micron Fine Coalescer

F900D Series

Application

The fine coalescing filter is utilized when clean air is required and longer component life is desired. It is recommend in most point-of-use applications for industrial use. Also, the fine coalescer removes small particles of oil, water, and rust that can create problems in painting and coating processes. The F900D features a unique vacuum-formed process. It utilizes micro-glass fibers in raw form to create a seamless, depth-loading media. Combined with a rigid fiber-coating epoxy, the filter element has great strength, high efficiency, and superior life.

Recommended Uses

- Paint spraying
- Pneumatic tools and instrumentation
- Robotics
- 0.3 micron particle removal in 'dry' systems
- Moderate oil concentration removal

Specifications

OPTIONS	NONE	A	A	G	N	AG	AG	GN
Port	all	1/4-1	1 1/4-3	all	all	1/4-1	1 1/4-3	all
Max. press. PSIG (bar)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)
Max. temp. ºF (ºC)	275 (135)	150 (66)	250 (121)	175 (80)	130 (55)	150 (66)	175 (80)	130 (55)

Materials of Construction

Body: aluminum
Seals: Viton®
Drain: brass
Tie rod: brass
End caps: anodized aluminum

Optional Internal Pleated Prefilter

Numatics Delta Series™ filters are premium quality filters which include an optional 3.0 micron, internal pleated prefilter. This prefilter provides protection for the fine borosilicate fibers by removing over 99% of 3.0 micron and larger particles, extending the life of the filter element.

Flow Ratings

MODEL NUMBER	SCFM Based on 60 PSI inlet w/1.5 PSID	dm^3/s
F900D-02	42	20
F900D-03	42	20
F900D-04	42	20
F900D-06	65	31
F900D-08	78	37
F900D-08X	104	49
F900D-10	195	92
F900D-12	234	110
F900D-16	456	215
F900D-20	586	277
F900D-24	733	346

MODEL NUMBER	SCFM Based on 100 PSI inlet w/1.5 PSID	dm^3/s
F900D-02	65	31
F900D-03	65	31
F900D-04	65	31
F900D-06	100	47
F900D-08	120	57
F900D-08X	160	76
F900D-10	300	142
F900D-12	360	170
F900D-16	700	330
F900D-20	900	425
F900D-24	1125	531

NOTE: Maximum efficiency occurs at stated flows

How to Order

F 900 D - 16 BN

Model
F = Filter

Series
900 = Delta Series™

Element
D = 0.3 Micron

Threads
- = NPTF
G = G Tap (BSPP)

Options
A = Auto Drain
B = Mounting Brackets
D = Internal Pleated Prefilter
G = Differential Pressure Gauge
N = Electronic Drain Valve

Port Size
02 = 1/4
03 = 3/8
04 = 1/2
06 = 3/4
08 = 1
08X = 1 High Flow
10 = 1-1/4
12 = 1-1/2
16 = 2
20 = 2-1/2

NEED MORE PARTS AND INFORMATION?
• See page 11 for dimensional drawings and data.

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F900E-08G pictured

ANSI SYMBOL

0.01 Micron Ultra Fine Coalescer

F900E Series

Application

The ultra fine coalescing filter is ideal where critically clean air is needed and pressure drop is not a concern. It is a polishing filter to clean up any remains of particles or oil that are left over from the compressor room filtration. It is mainly a point-of-use filter that is targeted specifically for critical processes. It is also used to protect and extend the life of membrane filters. The F900E features a unique vacuum-formed process. It utilizes micro-glass fibers in raw form to create a seamless, depth-loading media. Combined with a rigid fiber-coating epoxy, the filter element has great strength, high efficiency, and superior life.

Recommended Uses

- Blow molding plastics
- Semiconductor packaging
- Critical instrumentation
- 0.01 micron particle removal in 'dry' systems
- Low oil concentration removal

Specifications

OPTIONS	NONE	A	A	G	N	AG	AG	GN
Port	all	1/4-1	1 1/4-3	all	all	1/4-1	1 1/4-3	all
Max. press. PSIG (bar)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)	250 (17)
Max. temp. ºF (ºC)	275 (135)	150 (66)	250 (121)	175 (80)	130 (55)	150 (66)	175 (80)	130 (55)

Materials of Construction

Body: aluminum
Seals: Viton®
Drain: brass
Tie rod: brass
End caps: anodized aluminum

Optional Internal Pleated Prefilter

Numatics Delta Series™ filters are premium quality filters which include an optional 3.0 micron, internal pleated prefilter. This prefilter provides protection for the fine borosilicate fibers by removing over 99% of 3.0 micron and larger particles, extending the life of the filter element.

Flow Ratings

MODEL NUMBER	SCFM Based on 60 PSI inlet w/1.5 PSID	dm^3/s
F900E-02	25	12
F900E-03	25	12
F900E-04	25	12
F900E-06	39	18
F900E-08	47	22
F900E-08X	63	30
F900E-10	117	55
F900E-12	141	67
F900E-16	274	129
F900E-20	352	166
F900E-24	440	208

MODEL NUMBER	SCFM Based on 100 PSI inlet w/1.5 PSID	dm^3/s
F900E-02	39	18
F900E-03	39	18
F900E-04	39	18
F900E-06	60	28
F900E-08	72	34
F900E-08X	96	45
F900E-10	180	85
F900E-12	216	102
F900E-16	420	198
F900E-20	540	255
F900E-24	675	319

NOTE: Maximum efficiency occurs at stated flows

How to Order

F 900 E - 24 AB

Model
F = Filter

Series
900 = Delta Series™

Element
E = 0.01 Micron Element

Threads
- = NPTF
G = G Tap (BSPP)

Port Size
02 = 1/4
03 = 3/8
04 = 1/2
06 = 3/4
08 = 1
08X = 1 High Flow
10 = 1-1/4
12 = 1-1/2
16 = 2
20 = 2 1/2

Options
A = Auto Drain
B = Mounting Brackets
D = Internal Pleated Prefilter
G = Differential Pressure Gauge
N = Electronic Drain Valve

NEED MORE PARTS AND INFORMATION?
• See page 11 for dimensional drawings and data

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Delta Series
Premium Filters

F900F-12 pictured

Adsorbing Grade Filter

F900F Series

Application

The adsorbing filter removes oil and larger hydrocarbon vapor from the compressed air stream. Since it only removes vapor, a coalescing element - specifically the F900D - should be used immediately upstream of the adsorbing filter. Since optimum adsorption occurs at lower temperatures, it is recommended to apply the filter as close to the point-of-use as possible. The F900F features fine activated charcoal impregnated on polyester. The activated carbon particles have a high affinity to vapor and are extremely efficient due to the tremendous amount of surface area present. The adsorbing element and the coalescing element should be changed every 3 to 6 months depending on the application.

Recommended Uses

- Breathing air applications
- Food and drug industries having direct product contact with exhaust air
- Odor-free air applications
- Heavier hydrocarbon vapor removal

Specifications

Maximum temperature: 150ºF (66ºC)
Maximum pressure: 250 PSIG (17 bar)

Materials of Construction

Body: aluminum
Seals: Viton®
Drain: brass
Tie rod: brass
End caps: anodized aluminum

Flow Ratings

MODEL NUMBER	SCFM Based on 60 PSI inlet w/1.5 PSID	dm^3/s
F900F-02	42	20
F900F-03	42	20
F900F-04	42	20
F900F-06	65	31
F900F-08	78	37
F900F-08X	104	49
F900F-10	195	92
F900F-12	234	110
F900F-16	456	215
F900F-20	586	276
F900F-24	733	346

MODEL NUMBER	SCFM Based on 100 PSI inlet w/1.5 PSID	dm^3/s
F900F-02	65	31
F900F-03	65	31
F900F-04	65	31
F900F-06	100	47
F900F-08	120	57
F900F-08X	160	76
F900F-10	300	142
F900F-12	360	170
F900F-16	700	330
F900F-20	900	425
F900F-24	1125	531

NOTE: Maximum efficiency occurs at stated flows

How to Order

F 900 F - 06 B

Model
F = Filter

Series
900 = Delta Series™

Element
F = Adsorbing Grade Element

Threads
- = NPTF
G = G Tap (BSPP)

Options
B = Mounting Brackets

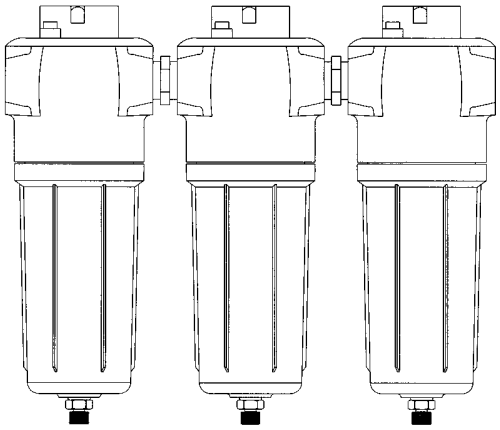
Port Size
02 = 1/4
03 = 3/8
04 = 1/2
06 = 3/4
08 = 1
08X = 1 High Flow
10 = 1-1/4
12 = 1-1/2
16 = 2
20 = 2-1/2
24 = 3

NEED MORE PARTS AND INFORMATION?

- See page 11 for dimensional drawings and data.
- See page 12 for information on ordering replacement parts.

Combination Filter Assemblies

Flow rates for filter assemblies



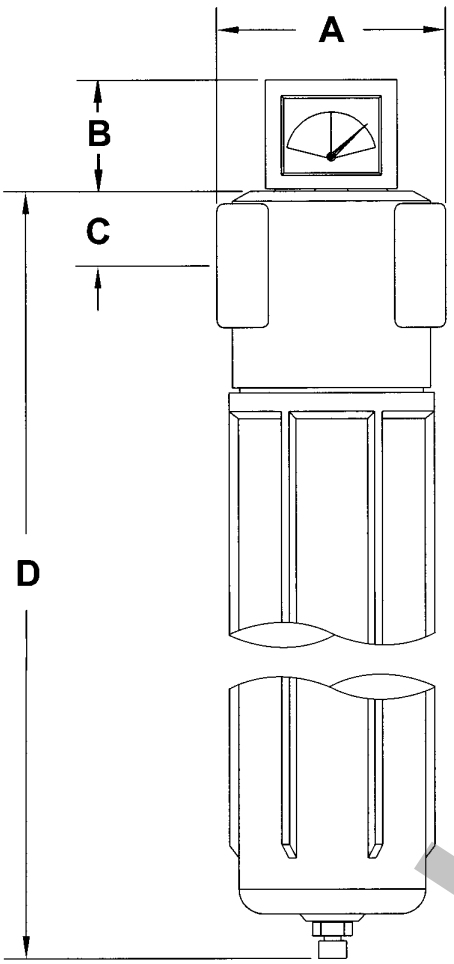
Many applications require air quality that cannot be attained with one filter housing. The chart below shows typical applications and their recommended filter element combinations. Using this chart, determine the port size and flow for your application.

NOTE: For options and ratings, please see the preceding pages for the corresponding filter. Pressure drops are additive with combination elements. Flows based on 100 PSI inlet (7 bar).

APPLICATIONS	RECOMMENDED FILTER ELEMENT COMBINATIONS	SCFM (dm³/s) by port size based on 100 PSI inlet (7 bar) 1/4	3/8	1/2	3/4	1	1X	1 1/4
Between aftercooler and dryer	X → H	18 (8.5)	N/A	58 (27)	117 (55)	176 (83)	N/A	N/A
Blow molding	G → D → F	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Breathing air	G → D → F	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Compressed air measuring instruments	G → D	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Compressed air motors	G → D	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Electronic	G → H → E	39 (18)	39 (18)	39 (18)	60 (28)	72 (34)	96 (45)	180 (85)
Film laboratories	G → D → F	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Food packaging	G → D → F	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Hospital services	G → D → F	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Paint spraying systems	G → D	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Paint spraying systems (critical)	G → D → F	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Pharmaceutical industry	G → D → F	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Pneumatic control systems	G → D	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Pneumatic conveying systems	G → D	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
pneumatic tools	G → D	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Precision analyzers	G → H → F	39 (18)	39 (18)	39 (18)	60 (28)	72 (34)	96 (45)	180 (85)
Process air	H → D → F	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)
Surface treatment	G → H → D	65 (31)	65 (31)	65 (31)	100 (47)	120 (57)	160 (76)	300 (142)

APPLICATIONS	RECOMMENDED FILTER ELEMENT COMBINATIONS	SCFM (dm³/s) by port size based on 100 PSI inlet (7 bar) 1 1/2	2	2 1/2	3
Between aftercooler and dryer	X → H	353 (167)	706 (333)	N/A	1294 (611)
Blow molding	G → D → F	360 (170)	700 (330)	900 (145)	1125 (531)
Breathing air	G → D → F	360 (170)	700 (330)	900 (145)	1125 (531)
Compressed air measuring instruments	G → D	360 (170)	700 (330)	900 (145)	1125 (531)
Compressed air motors	G → D	360 (170)	700 (330)	900 (145)	1125 (531)
Electronic	G → H → E	216 (102)	420 (198)	540 (255)	675 (319)
Film laboratories	G → D → F	360 (170)	700 (330)	900 (145)	1125 (531)
Food packaging	G → D → F	360 (170)	700 (330)	900 (145)	1125 (531)
Hospital services	G → D → F	360 (170)	700 (330)	900 (145)	1125 (531)
Paint spraying systems	G → D	360 (170)	700 (330)	900 (145)	1125 (531)
Paint spraying systems (critical)	G → D → F	360 (170)	700 (330)	900 (145)	1125 (531)
Pharmaceutical industry	G → D → F	360 (170)	700 (330)	900 (145)	1125 (531)
Pneumatic control systems	G → D	360 (170)	700 (330)	900 (145)	1125 (531)
Pneumatic conveying systems	G → D	360 (170)	700 (330)	900 (145)	1125 (531)
pneumatic tools	G → D	360 (170)	700 (330)	900 (145)	1125 (531)
Precision analyzers	G → H → F	216 (102)	420 (198)	540 (255)	675 (319)
Process air	H → D → F	360 (170)	700 (330)	900 (145)	1125 (531)
Surface treatment	G → H → D	360 (170)	700 (330)	900 (145)	1125 (531)

Filter element grades
X = water separator (pg. 4)
G = 3 micron particulate filter (pg. 5)
H = 1.0 micron coarse coalescer (pg. 6)
D = 0.3 micron fine coalescer (pg. 7)
E = 0.01 micron ultra fine filter (pg. 8)
F = adsorbing grade filter (pg. 9)



Filter Dimensions – inches (millimeters)

MODEL	A	B	C	D	E*
F900*-02	3.8 (97)	0.9 (23)	0.7 (18)	9.3 (236)	5.9 (150)
F900*-03	3.8 (97)	0.9 (23)	0.7 (18)	9.3 (236)	5.9 (150)
F900*-04	3.8 (97)	0.9 (23)	0.7 (18)	9.3 (236)	5.9 (150)
F900*-06	4.6 (117)	2.3 (58)	1.3 (33)	14.8 (376)	9.8 (250)
F900*-08	4.6 (117)	2.3 (58)	1.3 (33)	14.8 (376)	9.8 (250)
F900*-08X	4.6 (117)	2.3 (58)	1.3 (33)	18.3 (465)	11.8 (300)
F900*-10	4.6 (117)	2.3 (58)	1.3 (33)	21 (533)	16.7 (425)
F900*-12	4.6 (117)	2.3 (58)	1.3 (33)	21 (533)	16.7 (425)
F900*-16	6.1 (155)	2.3 (58)	1.7 (43)	26.8 (681)	21.7 (550)
F900*-20	9.3 (236)	2.3 (58)	2.9 (74)	31.3 (795)	21.7 (550)
F900*-24	9.3 (236)	2.3 (58)	2.9 (74)	31.3 (795)	21.7 (550)

* The "E" dimension refers to the amount of space needed below the bottom of the bowl in order to remove the bowl.

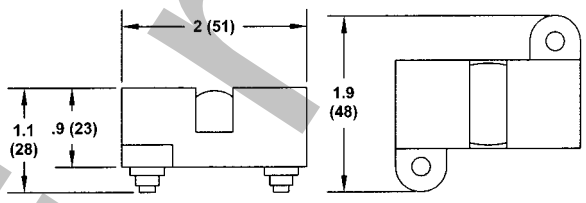
Separator Dimensions – inches (millimeters)

MODEL	A	B	C	D	E
F900X-02	3.8 (97)	N/A	0.7 (18)	9.3 (236)	2.0 (51)
F900X-04	3.8 (97)	N/A	0.7 (18)	9.3 (236)	2.0 (51)
F900X-06	4.6 (117)	N/A	1.3 (33)	11.0 (279)	2.0 (51)
F900X-08	4.6 (117)	N/A	1.3 (33)	11.0 (279)	2.0 (51)
F900X-12	4.6 (117)	N/A	1.3 (33)	11.0 (279)	2.0 (51)
F900X-16	6.1 (155)	N/A	1.7 (43)	12.8 (325)	4.0 (102)
F900X-24	9.3 (236)	N/A	2.9 (74)	17.0 (432)	6.0 (152)

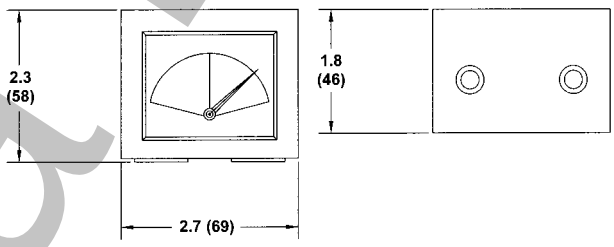
Delta Series™ Filters

Differential Pressure Indicators

Slide Pressure Indicator (Model #PDI90)
(for port sizes 1/4, 3/8, & 1/2 only)

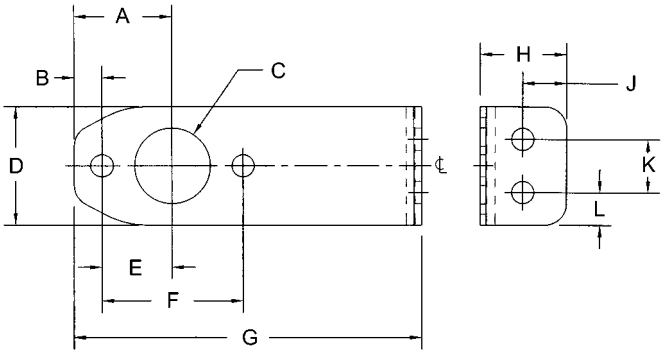


Square Dial Indicator (Model #PDI91)
(for port sizes 3/4 through 3 only)



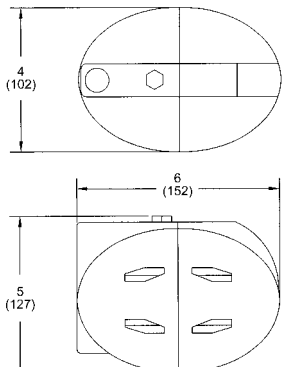
Mounting Bracket

(Includes 2 brackets and required screws)



	A	B	C	D	E	F	G	H	J	K	L
BRK9001	1.13	.32	Ø.88	1.38	.82	1.63	4.0	1.0	.5	.62	.38
(1/4-1/2 Models)	(29)	(8)	(Ø22)	(35)	(21)	(41)	(102)	(25)	(13)	(16)	(10)
BRK9002	1.5	.27	Ø1.94	2.5	1.24	2.47	5.0	1.0	.4	1.5	.5
(3/4-1 1/2 Models)	(38)	(7)	(Ø42)	(64)	(31)	(63)	(127)	(25)	(10)	(38)	(13)

Automatic Drain — Model #AKF91



Delta Series
Premium Filters

numatics®

Replacement Kits

Element Replacement Kits

INCLUDES FILTER ELEMENT ONLY	
KIT #	DESCRIPTION
1/4, 3/8, & 1/2 UNITS	
EKF9004G	900 Series, 3.0 micron element
EKF9004H	900 Series, 1.0 micron element
EKF9004HD	900 Series, 1.0 micron element w/ prefilter
EKF9004D	900 Series, 0.3 micron element
EKF9004DD	900 Series, 0.3 micron element w/ prefilter
EKF9004E	900 Series, 0.01 micron element
EKF9004ED	900 Series, 0.01 micron element w/ prefilter
EKF9004F	900 Series, adsorbing element
3/4 & 1 UNITS	
EKF9008G	900 Series, 3.0 micron element
EKF9008H	900 Series, 1.0 micron element
EKF9008HD	900 Series, 1.0 micron element w/ prefilter
EKF9008D	900 Series, 0.3 micron element
EKF9008DD	900 Series, 0.3 micron element w/ prefilter
EKF9008E	900 Series, 0.01 micron element
EKF9008ED	900 Series, 0.01 micron element w/ prefilter
EKF9008F	900 Series, adsorbing element
1 HIGH FLOW UNITS	
EKF9008XG	900 Series, 3.0 micron element
EKF9008XH	900 Series, 1.0 micron element
EKF9008XHD	900 Series, 1.0 micron element w/ prefilter
EKF9008XD	900 Series, 0.3 micron element
EKF9008XDD	900 Series, 0.3 micron element w/ prefilter
EKF9008XE	900 Series, 0.01 micron element
EKF9008XED	900 Series, 0.01 micron element w/ prefilter
EKF9008XF	900 Series, adsorbing element
1 1/4 & 1 1/2 UNITS	
EKF9012G	900 Series, 3.0 micron element
EKF9012H	900 Series, 1.0 micron element
EKF9012HD	900 Series, 1.0 micron element w/ prefilter
EKF9012D	900 Series, 0.3 micron element
EKF9012DD	900 Series, 0.3 micron element w/ prefilter
EKF9012E	900 Series, 0.01 micron element
EKF9012ED	900 Series, 0.01 micron element w/ prefilter
EKF9012F	900 Series, adsorbing element
2 UNITS	
EKF9016G	900 Series, 3.0 micron element
EKF9016H	900 Series, 1.0 micron element
EKF9016HD	900 Series, 1.0 micron element w/ prefilter
EKF9016D	900 Series, 0.3 micron element
EKF9016DD	900 Series, 0.3 micron element w/ prefilter
EKF9016E	900 Series, 0.01 micron element
EKF9016ED	900 Series, 0.01 micron element w/ prefilter
EKF9016F	900 Series, adsorbing element
2 1/2 & 3 UNITS	
EKF9024G	900 Series, 3.0 micron element
EKF9024H	900 Series, 1.0 micron element
EKF9024HD	900 Series, 1.0 micron element w/ prefilter
EKF9024D	900 Series, 0.3 micron element
EKF9024DD	900 Series, 0.3 micron element w/ prefilter
EKF9024E	900 Series, 0.01 micron element
EKF9024ED	900 Series, 0.01 micron element w/ prefilter
EKF9024F	900 Series, adsorbing element

Bowl Replacement Kits

INCLUDES BOWL ONLY	
KIT #	DESCRIPTION
BKF9001	for 1/4, 3/8, & 1/2 units
BKF9002	for 3/4 & 1 units
BKF9003	for 1 high flow unit
BKF9004	for 1 1/4 & 1 1/2 units
BKF9005	for 2 unit
BKF9006	for 2 1/2 & 3 units

Housing Seal Kits

INCLUDES O-RING ONLY	
KIT #	DESCRIPTION
FPHS9001-04	for 1/4, 3/8, & 1/2 units
FPHS9001-12	for 3/4, 1, 1 high flow, 1 1/4, & 1 1/2 units
FPHS9001-16	for 2 units
FPHS9001-24	for 2 1/2 & 3 units

Manual Drain Kits

INCLUDES COMPLETE DRAIN ASS'Y	
MD90	for all sizes

Separator Bowl Kits

INCLUDES BOWL ONLY	
KIT #	DESCRIPTION
BKF9001	for 1/4 & 1/2 units
BKF9004S	for 3/4, 1, 1 1/2, & 2 units
BKF9005S	for 2 units
BKF9006S	for 3 units

Separator Housing Seal Kits

INCLUDES O-RING ONLY	
KIT #	DESCRIPTION
FPHS9001-04	for 1/4 & 1/2 units
FPHS9001-12	for 3/4, 1, & 1 1/2 units
FPHS9001-16	for 2 units
FPHS9001-24	for 3 units

Separator Manual Drain Kits

INCLUDES COMPLETE DRAIN ASS'Y	
MD90	for all sizes

Auto Drain Upgrade Kits

CONVERTS EXISTING STANDARD DRAIN TO AUTOMATIC FLOAT DRAIN; INCLUDES FLOAT DRAIN & BOWL BUSHING	
MD89	for port sizes 1/4 through 1X
AKF91	for port sizes 1 1/4 through 3