Delta™ Filter Series • Water Separator

Applications

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 F901X 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.

The standard execution has got a manual drain.

Order code: (example)

F901 X G 12 B

Series		Threads		Port Size		Port Size		Options	
F901 =	Delta™	**G =**	G Threads	**02 =**	1/4“	**12 =**	1 1/2“	**A =**	Automatic Drain (AKF61, 1/4“ - 3“)
		— =	NPTF Threads	**04 =**	1/2“	**16 =**	2“	**B =**	Mounting Bracket (to port size 1 1/2)
				06 =	3/4“	**24 =**	3“		
				08 =	1“				

Type

X = Water Separator

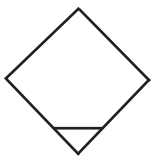
Order Example: **F901XG12B**

This is a Delta™ Series Water Separator. Port size is G 1 1/2. It is delivered with a mounted mounting bracket.

Technical Data

Delta™ Filter Series • Water Separator			
Technical Data		**Materials of Construction**	
Maximum Temperature:	80 °C	Body:	Aluminium
Maximum Pressure:	15 bar (Port size 3“: 10 bar)	Seals:	Viton®* (FPM)
		Drain:	Brass
		Baffle:	Polyamid, Aluminium

* More Information see page 11



RECOMMENDED USES

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

Flow Rates

based on 7 bar inlet and Δp of 0.1 bar

Series	Port Size	Flow Rate Nl/min	Flow Rate m^3/h
F901XG02	1/4	850	51.0
F901XG04	1/2	2550	153.0
F901XG06	3/4	4672	280.3
F901XG08	1	6088	365.3
F901XG12	1 1/2	9995	599.7
F901XG16	2	19990	1199.4
F900XG24	3	36638	2198.3

Flow Rate Correction Table

for other operating pressures

Operating Pressure [bar]	1	3	5	7	9	11	13	15
Correction Factor	0.38	0.65	0.84	1	1.15	1.25	1.36	1.46

Delta™ Filter Series • 40 / 25 / 3 µm Particulate Filter

Applications

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 F901A / I / G 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.

The standard execution has got a manual drain. Oil contents remaining after the Particulate Filter: up to approx. 15 mg/m³.

Order code: (example)

F901 G G 04 04 A

Series		Typ		Threads		Port Size		Port Size		Options	
F901 =	Delta™	A =	40 µm Filter Element	G =	G Threads	02 =	1/4“	10 =	1 1/4“	A =	Automatic Drain (AKF61, 1/4“ - 3“)
		I =	25 µm Filter Element	— =	NPTF Threads	03 =	3/8“	12 =	1 1/2“	B =	Mounting Bracket (to port size 1 1/2)
		G =	3 µm Filter Element			04 =	1/2“	16 =	2“	G =	Diffential Pressure Gauge
						06 =	3/4“	20 =	2 1/2“	F =	Electronic Delta Filter Control DFC91A
						08 =	1“	24 =	3		

Order Example: **F901GG04**

This is a Delta™ Series 3 µm Particulate Filter. Port size is G 1/2. It is equipped with a manual drain (standard).

Technical Data

Delta™ Filter Series • 40 / 25 / 3 µm Particulate Filter							
Option Port Size	No Option 1/4 - 3	Option A 1/4 - 1	Option A 1 1/4 - 3	Option G 1/4 - 3	Option AG 1/4 - 1	Option AG 1 1/4 - 3	Option F 1/4 - 3
Maximum Temperature:	135 °C	65 °C	120 °C	80 °C	65 °C	80 °C	50 °C
* Maximum Pressure:	*15 bar	10 bar	10 bar	*15 bar	10 bar	10 bar	10 bar

* Maximum Pressure Port Sizes 2 1/2 and 3“ : 10 bar

Materials of Construction			
Body:	Aluminium	Tie Rod:	Brass
Seals:	Viton®** (FPM)	End Caps:	Anodized Aluminium
Drain:	Brass		

** More Information see page 11

Option G

Option F

Flow Rates

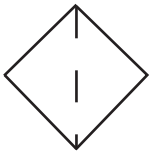
based on 7 bar inlet and Δp of 0,1 bar

Series	Port Size	Flow Rate Nl/min	Flow Rate m³/h
F901GG02	1/4	1048	62.9
F901GG03	3/8	2265	135.9
F901GG04	1/2	2973	178.4
F901GG06	3/4	5097	305.8
F901GG08	1	7079	424.7
F901GG10	1 1/4	14015	841.0
F901GG12	1 1/2	16819	1009.1
F901GG16	2	32703	1962.2
F901GG20	2 1/2	42046	2522.9
F901GG24	3	52550	3153.0

Flow values for 40 and 25 µm filter element on request

RECOMMENDED USES

- Solid bulk contamination removal
- Afterfilter to a desiccant dryer
- Protection for coalescing in heavy aerosol applications
- 40 resp. 25 or 3 µm particle removal in “Dry“ systems



Flow Rate Correction Table

for other operating pressures

Operating Pressure [bar]	1	3	5	7	9	11	13	15
Correction Factor	0.38	0.65	0.84	1	1.15	1.25	1.36	1.46

Delta™ Filter Series • 1 µm Fine Coalescing Filter

Applications

The Fine Coalescing Filter is utilized when low pressure drop or crude separation is required. The 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, specially downstream of a compressor to protect a dryer. This filter removes over 99.9% of 1.0 µm and larger particles.

The F901H 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.

The standard execution has got a manual drain. Oil contents remaining after the Fine Coalescing Filter: up to approx. 0.5 mg/m³.

Order code: example

F901 H G 04 AG

Series

F901 = Delta™

Type

H = 1 µm Filter Element

Threads

G =	G Threads
— =	NPTF Threads

Port Size

02 =	1/4“
03 =	3/8“
04 =	1/2“
06 =	3/4“
08 =	1“

Port Size

10 =	1 1/4“
12 =	1 1/2“
16 =	2“
20 =	2 1/2“
24 =	3“

Options

A =	Automatic Drain (AKF61, 1/4“ - 3“)
B =	Mounting Bracket (to port size 1 1/2)
D =	Internal Pleated 3 µm Prefilter
G =	Differential Pressure Gauge
F =	Electronic Delta Filter Control DFC91A

Order Example: **F901HG04AG**

This is a Delta™ Series 1 µm Fine Coalescing Filter. Port size is G 1/2. It is equipped with an automatic drain and a mounted diffential pressure gauge.

Technical Data

Delta™ Filter Series • 1 µm Fine Coalescing Filter							
Option / **Port Size**	**No Option** / **1/4 - 3**	**Option A** / **1/4 - 1**	**Option A** / **1 1/4 - 3**	**Option G** / **1/4 - 3**	**Option AG** / **1/4 - 1**	**Option AG** / **1 1/4 - 3**	**Option F** / **1/4 - 3**
Maximum Temperature:	135 °C	65 °C	120 °C	80 °C	65 °C	80 °C	50 °C
* Maximum Pressure:	*15 bar	10 bar	10 bar	*15 bar	10 bar	10 bar	10 bar

* Maximum Pressure Port Sizes 2 1/2 and 3“ : 10 bar

Option G

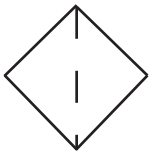
Option F

Materials of Construction			
Body:	Aluminium	Tie Rod:	Brass
Seals:	Viton®** (FPM)	End Caps:	Anodized Aluminium
Drain:	Brass		

** More Information see page 11

RECOMMENDED USES

- Mainline plant filtration
- Prefilter to refrigerated air dryer
- Heavy oil concentration removal
- 1 µm particle removal in “Dry“ systems



Flow Rates

based on 7 bar inlet and Δp of 0.1 bar

Series	Port Size	Flow Rate Nl/min	Flow Rate m³/h
F901HG02	1/4	850	51.0
F901HG03	3/8	1699	101.9
F901HG04	1/2	1982	118.8
F901HG06	3/4	4955	297.0
F901HG08	1	7079	424.2
F901HG10	1 1/4	13591	815.4
F901HG12	1 1/2	16309	978.6
F901HG16	2	31712	1902.6
F901HG20	2 1/2	40772	2446.2
F901HG24	3	50965	3058.2

Flow Rate Correction Table

for other operating pressures

Operating Pressure [bar]	1	3	5	7	9	11	13	15
Correction Factor	0.38	0.65	0.84	1	1.15	1.25	1.36	1.46

Delta™ Filter Series • 0.3 µm Finest Coalescing Filter

Applications

The Finest Coalescing Filter is utilized when clean air is required and longer component life is desired. It is recommended in most point-of-use applications for industrial use. Also, the Finest Coalescing Filter removes small particles of oil, water, and rust that can create problems in painting and coating processes. This filter removes over 99.9% of 0.3 µm and larger particles.

The F901D 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.

The standard execution has got a manual drain. Oil contents remaining after the Finest Coalescing Filter: up to approx. 0.1 mg/m³.

Order code:

F901 D G 12 BG

Series		Type		Threads		Port Size		Port Size		Options	
F901 =	Delta™	D =	0.3 µm Filter Element	G =	G Threads	02 =	1/4“	10 =	1 1/4“	A =	Automatic Drain (AKF61, 1/4“ - 3“)
				— =	NPTF Threads	03 =	3/8“	12 =	1 1/2“	B =	Mounting Bracket (to port size 1 1/2)
						04 =	1/2“	16 =	2“	D =	Internal Pleated 3 µm Prefilter
						06 =	3/4“	20 =	2 1/2“	G =	Differential Pressure Gauge
						08 =	1“	24 =	3“	F =	Electronic Delta Filter Control DFC91A

Order Example: **F901DG12BG**

This is a Delta™ Series 0.3 µm Finest Coalescing Filter. Port size is G 1 1/2. It is delivered with mounting bracket and diffential pressure gauge mounted.

Technical Data

Delta™ Filter Series • 1 µm Fine Coalescing Filter							
Option Port Size	No Option 1/4 - 3	Option A 1/4 - 1	Option A 1 1/4 - 3	Option G 1/4 - 3	Option AG 1/4 - 1	Option AG 1 1/4 - 3	Option F 1/4 - 3
Maximum Temperature:	135 °C	65 °C	120 °C	80 °C	65 °C	80 °C	50 °C
* Maximum Pressure:	*15 bar	10 bar	10 bar	*15 bar	10 bar	10 bar	10 bar

* Maximum Pressure Port Sizes 2 1/2 and 3“ : 10 bar

Materials of Construction			
Body:	Aluminium	Tie Rod:	Brass
Seals:	Viton®** (FPM)	End Caps:	Anodized Aluminium
Drain:	Brass		

** More Information see page 11

Option G

Option F

Flow Rates

based on 7 bar inlet and Δp of 0.1 bar

Series	Port Size	Flow Rate Nl/min	Flow Rate m³/h
F901DG02	1/4	793	47.4
F901DG03	3/8	1642	98.4
F901DG04	1/2	1840	110.4
F901DG06	3/4	3681	220.8
F901DG08	1	4955	297.0
F901DG10	1 1/4	8494	509.4
F901DG12	1 1/2	10193	611.4
F901DG16	2	19820	1189.1
F901DG20	2 1/2	25483	1528.9
F901DG24	3	31853	1911.0

RECOMMENDED USES

- Paint spraying
- Pneumatic tools and instrumentation
- Robotics
- 0.3 µm particle removal in “Dry“ systems
- Moderate oil concentration removal

Flow Rate Correction Table

for other operating pressures

Operating Pressure [bar]	1	3	5	7	9	11	13	15
Correction Factor	0.38	0.65	0.84	1	1.15	1.25	1.36	1.46

Delta™ Filter Series • 0.01 µm Ultra Fine Coalescing Filter

Applications

The Ultra Fine Coalescing Filter is ideal where critically clean air is needed and pressure drop is not a concern. It is a polisher 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. This filter removes over 99.9% of 0.01 µm and larger particles.

The F901E 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.

The standard execution has got a manual drain. Oil contents remaining after the Ultra Fine Coalescing Filter: up to approx. 0.01 mg/m³.

Order code:

F901 E G 24 A

Series

F901 = Delta™

Type

E = 0.01 µm Filter Element

Threads

G =	G Threads
— =	NPTF Threads

Port Size

02 =	1/4“
03 =	3/8“
04 =	1/2“
06 =	3/4“
08 =	1“

Port Size

10 =	1 1/4“
12 =	1 1/2“
16 =	2“
20 =	2 1/2“
24 =	3“

Options

A =	Automatic Drain (AKF61, 1/4“ - 3“)
B =	Mounting Bracket (to port size 1 1/2)
D =	Internal Pleated 3 µm Prefilter
G =	Differential Pressure Gauge
F =	Electronic Delta Filter Control DFC91A

Order Example: **F901EG24A**

This is a Delta™ Series 0.01 µm Ultra Fine Coalescing Filter. Port size is G 3. It is equipped with an automatic drain.

Technical Data

Delta™ Filter Series • 0.01 µm Fine Coalescing Filter							
Option Port Size	**No Option 1/4 - 3**	**Option A 1/4 - 1**	**Option A 1 1/4 - 3**	**Option G 1/4 - 3**	**Option AG 1/4 - 1**	**Option AG 1 1/4 - 3**	**Option F 1/4 - 3**
Maximum Temperature:	135 °C	65 °C	120 °C	80 °C	65 °C	80 °C	50 °C
* Maximum Pressure:	*15 bar	10 bar	10 bar	*15 bar	10 bar	10 bar	10 bar

* Maximum Pressure Port Sizes $2^1/_2$ and 3“ : 10 bar

Option G

Option F

Materials of Construction			
Body:	Aluminium	Tie Rod:	Brass
Seals:	Viton®** (FPM)	End Caps:	Anodized Aluminium
Drain:	Brass		

** More Information see page 11

RECOMMENDED USES

- Blow molding plastics
- Semiconductor packaging
- Critical instrumentation
- 0.01 µm particle removal in “Dry“ systems
- Removal of low oil concentration

Flow Rates

based on 7 bar inlet and Δp of 0.1 bar

Series	Port Size	Flow Rate Nl/min	Flow Rate m³/h
F901EG02	1/4	566	33.9
F901EG03	3/8	991	59.4
F901EG04	1/2	1133	67.8
F901EG06	3/4	2265	136.2
F901EG08	1	2973	178.2
F901EG10	1 1/4	5097	306.0
F901EG12	1 1/2	6116	367.2
F901EG16	2	11892	714.0
F901EG20	2 1/2	15290	918.0
F901EG24	3	19112	1146.6

Flow Rate Correction Table

for other operating pressures

Operating Pressure [bar]	1	3	5	7	9	11	13	15
Correction Factor	0.38	0.65	0.84	1	1.15	1.25	1.36	1.46

Delta™ Filter Series • Adsorbing Grade Filter

Applications

The Adsorbing Grade Filter removes oil and larger hydrocarbon vapor from the compressed air stream. Since it only removes vapor, a coalescing filter - specifically the F901D - should be used immediately upstream of the adsorbing filter. Since optimum adsorption occurs at lower temperatures, it is recommended to apply the filter als close to the point-of-use as possible.

The F901F 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.

The standard execution has got a manual drain. Oil contents remaining after the Adsorbing Grade Filter: up to approx. 0,003 mg/m^3.

Order code:

F901 F G 06 B

Series

F901 = Delta™

Type

F = Adsorbing Grade Filter

Threads

G = G Threads

— = NPTF Threads

Port Size

02 =	1/4“
03 =	3/8“
04 =	1/2“
06 =	3/4“
08 =	1“

Port Size

10 =	1 1/4“
12 =	1 1/2“
16 =	2“
20 =	2 1/2“
24 =	3“

Options

B = Mounting Bracket (to port size 1 1/2)

Order Example: **F901FG06B**

This is a Delta™ Series Adsorbing Grade Filter. Port size is G 3/4. It is equipped with a manual drain (standard) and is delivered with a mounted mounting bracket.

Technical Data

Delta™ Filter Series • Adsorbing Grade Filter			
Technical Data		**Materials of Construction**	
Maximum Temperature:	65 °C	Body:	Aluminium
Maximum Pressure:	15 bar (Port sizes 2 1/2 and 3“: 10 bar)	Seals:	Viton®** (FPM)
		Drain:	Brass
		Tie Rod:	Brass
		End Caps:	Anodized Aluminium

** More Information see page 11

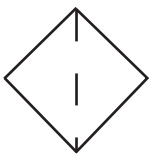
Flow Rates

based on 7 bar inlet and Δp of 0.1 bar

Series	Port Size	Flow Rate Nl/min	Flow Rate m^3/h
F901FG02	1/4	850	51.0
F901FG03	3/8	2124	127.2
F901FG04	1/2	2548	153.0
F901FG06	3/4	5663	339.6
F901FG08	1	7079	424.8
F901FG10	1 1/4	8494	510.0
F901FG12	1 1/2	10193	611.4
F901FG16	2	19820	1189.2
F901FG20	2 1/2	25483	1528.8
F901FG24	3	31853	1911.0

RECOMMENDED USES

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



Flow Rate Correction Table

for other operating pressures

Operating Pressure [bar]	1	3	5	7	9	11	13	15
Correction Factor	0.38	0.65	0.84	1	1.15	1.25	1.36	1.46