



From Pure to Sterile – Process Filtration



Hygiene at its best

Process liquid filter housings „Code 7“ Design. PF-EG stainless steel housings have been developed for filtration of almost all kinds of liquids



Size	Capacity [l/min]*, 5 µm	Element	Connection size	Surface Finish			Volume [l]	Weight [kg]	Dimensions [mm]**		Maximum operating pressure [bar]		Design Temperature [°C]
				Standard	Superplus	Pharma			Height	Width	for liquids [50°C]	for saturated steam [150°C]	
0003	3	03/10	DN10	inner and outer etched & passivated	inner and outer electropolished, Ra < 0,8	inner and outer electropolished, Ra < 0,5	0,3	1,4	280	180	10	3,7	180
0012	12	5/3 Code7	DN25				1,5	5,8	375	250		3,7	
0025	25	10/3 Code7	DN25				2,5	6,5	505	250		3,7	
0050	50	20/2 Code7	DN25				4,5	7,7	765	250		3,7	
0075	75	30/3 Code7	DN25				6,6	9,1	1025	250		3,7	
0080	75	3x10/3 Code7	DN40				8,1	16,0	690	330		3,7	
0150	150	3x20/3 Code7	DN40				12,9	18,3	935	330		3,7	
0225	225	3x30/3 Code7	DN40				18,6	20,8	1205	330		3,7	
0250	250	5x20/3 Code7	DN50				23,3	24,0	965	400		3,7	
0375	375	5x30/3 Code7	DN50				32,5	27,0	1215	400		3,7	
0400	400	8x20/3 Code7	DN65				46,5	36,9	985	500		3,7	
0600	600	8x30/3 Code7	DN65				64,2	41,3	1235	500		3,0 (144°C)	

	Connections (other connections on request)		
	Standard	Superplus	Pharma
Milkpipe	standard	standard	available
Tri Clamp	available	available	standard
Welded Ends	available	available	available
DIN-Flange	available	available	available
ANSI-Flange	available	available	available

Materials

Filter Housing	Stainless Steel 1.4404 (316L)
Housing Gasket:	EPDM (other gaskets on request)

* Capacity based on water at 20°C. Technical data sheet for individual element capacity characteristics available

** Values depend on connections

Larger housings available on request

Economic solutions in industrial quality

P-EG stainless steel housing – Stainless steel gas filter housing in industrial quality

Size	Capacity [m ³ /h] at 7bar operating pressure*		Element	Connection size	Connections (other connections on request)		
	Nominal	Maximal			BSP Thread Connection	DIN - Flange	Welded End
0006	60	90	03/10	R 1/4"	standard	available	available
0009	90	120	04/10	R 3/8"			
0012	120	180	04/20	R 1/2"			
0018	180	270	05/20	R 3/4"			
0027	270	360	05/25	R 1"			
0036	360	480	07/25	R 1 1/4"			
0048	480	720	07/30	R 1 1/2"			
0072	720	1080	10/30	R 2"			
0108	1080	1440	15/30	R 2"			
0144	1440	1920	20/30	R 2 1/2"			
0192	1920	2880	30/30	R 3"			
0288	288	4320	30/50	R 3"			
0432	4320	5760	3x20/30	DN100	not available	standard	
0576	5760	7680	3x30/30	DN100			
0768	7680	11520	4x30/30	DN150			
1152	11520	15360	6x30/30	DN150			
1536	15360	19200	8x30/30	DN200			
1920	19200	23040	10x30/30	DN200			



Size	Surface Finish		Volume [l]	Weight [kg]	Dimensions [mm]**		Maximum operating pressure [bar]	Maximum operating Temperature [°C]	Design Temperature [°C]
	Inside	Outside			Height	Width			
0006	etched & passivated Ra < 1,6	etched, passivated and polished, Ra < 1,6	0,55	1,7	215	108	16	-25 / +150	200
0009			0,65	1,9	243	108	16		
0012			0,65	1,9	243	108	16		
0018			0,75	2,0	266	125	16		
0027			1,0	2,6	293	125	16		
0036			1,25	3,0	344	140	16		
0048			2,3	4,3	386	170	16		
0072			3,3	4,8	460	170	16		
0108			4,3	5,3	587	170	16		
0144			8,0	9,0	732	216	16		
0192			11,1	10,8	987	216	16		
0288			16,5	16,2	1026	240	12		
0432		36,0	43,0	1090	410	10			
0576		45,0	44,0	1350	410	10			
0768		77,0	70,0	1410	480	10			
1152		110,0	80,0	1460	540	10			
1536		190,0	135,0	1600	660	10			
1920		190,0	135,0	1600	660	10			

Materials

Filter housings	Stainless Steel 1.4301 (304) or 1.4404 (316L)
Housing Gasket:	EPDM up to 0288, from 0288 to 1920 flat gasket (other gaskets on request)

Operating overpressure (bar)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor	0,25	0,36	0,5	0,6	0,75	0,9	1	1,1	1,2	1,4	1,5	1,6	1,75	1,9	2	2,1

* [m³/h] based on 1 bar at 20°C; for different working pressure see conversion factor table

** Average values depend on connections

Larger housings available on request

Solutions in sanitary quality

PG-EG stainless steel housing – Stainless steel gas filter housing in sanitary quality

Materials

Filter housing	Stainless steel 1.4301 (304) or 1.4404 (316L)
Clamp	Stainless steel 1.4301 (304)
Pharma Plug	Stainless steel 1.4301 (304)
Pharma Valve	Stainless steel 1.4301 (304)
Housing Gasket	EPDM (other gaskets on request)



Size	Capacity [m³/h] at 1bar abs., 20°C operating pressure*	Element	Connection size	Connections (other connections on request)			Volume [l]	Weight [kg]
				Clamp	DIN - Flange	Welded End		
0006	7,5	03/10	DN10	standard	available	available	0,5	2,2
0018	22,5	05/20	DN15				0,75	3,7
0032	45	05/30	DN25				2,2	4,8
0048	60	07/30	DN32				2,8	5,5
0072	90	10/30	DN40				3,5	7,2
0108	135	15/30	DN50				4,7	9,0
0144	180	20/30	DN65				8,3	13,1
0192	270	30/30	DN80				11,4	16,2
0432	540	3x20/30	DN100	available	standard	available	36,0	43,0
0576	810	3x30/30	DN100				45,0	44,0
0768	1080	4x30/30	DN150				77,0	70,0
1152	1620	6x30/30	DN150				110,0	80,0
1536	2160	8x30/30	DN200				190,0	135,0
1920	2700	10x30/30	DN200				190,0	135,0

Size	Dimensions [mm]**		Surface Finish	Maximum operating pressure [bar]	Maximum operating Temperature [°C]	Design Temperature [°C]
	Height	Width				
0006	260	190	inner and outer etched, passivated and electropolished; Ra < 0,8	16	-25 / +150	200
0018	315	190		16		
0032	360	235		16		
0048	410	240		16		
0072	485	245		16		
0108	610	250		16		
0144	820	275		16		
0192	1080	285		16		
0432	1090	410		10		
0576	1350	410		10		
0768	1410	480		10		
1152	1460	540		10		
1536	1600	660		10		
1920	1600	660		10		

Operating overpressure (bar)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

* For different operating pressure see conversion factor table

** Average values depend on connections

Larger housings available on request

The innovative answer of sterile aeration

P-BE stainless steel housing – Filter housing for the aeration and de-aeration of sterile storage tanks or containers for transport



Size	Capacity [m ³ /h] at*		Element	Conne- ction size	Connection			Surface Finish	Weight [kg]	Dimensions [mm]		Maximum Operating Temp- erature [°C]
	∅p =20 mbar	∅p =40 mbar			Milkpipe DIN11851	DIN Flange	Clamp			Height	Diameter	
0006	4,5	9	03/10	DN 32	standard	available	available	finished on the inside	1,5	110	85,0	200
0027	12	24	05/25	DN 40					2,2	168	104,0	
0032	17	35	05/30	DN 50					2,4	186	114,3	
0072	35	70	10/30	DN 50					3,3	312	114,3	
0144	70	140	20/30	DN 80					9,2	550	154,0	
0192	105	210	30/30	DN 80					11,6	805	154,0	
0432	210	420	3x20/30	DN 100	available	standard	Ra < 1,6, polished on the outside;	14,5	670	219,1		
0576	315	630	3x30/30	DN 100				17,5	925	219,1		
0768	420	840	4x30/30	DN 150				30	950	273,0		
1152	630	1260	6x30/30	DN 150				30	950	323,9		
1536	840	1680	8x30/30	DN 200				43	960	406,4		
1920	1050	2010	10x30/30	DN 200				43	960	406,4		

Materials

Filter housing	Stainless steel 1.4301 (304); or 1.4404 (316L) on request
Attaching Parts	Stainless steel 1.4301 (304) or 1.4404 (316L) on request

* m³/h related to 1 bar at 20°C

Economic filtration solution

P-KG plastic housing – Filter housing made of polypropylene for the filtration of liquid media



Type	Max. Flow Rate [l/min]	Element length [mm]	Dimensions				Maximum Operating Pressure [bar] at 50°C
			Height [mm]	Locating Distance [mm]	Connection	Weight [kg]	
0072	38	254 (10")	294	122	3/4" G	0,7	8
0144	76	508 (20")	570	122	1" G	1,2	8

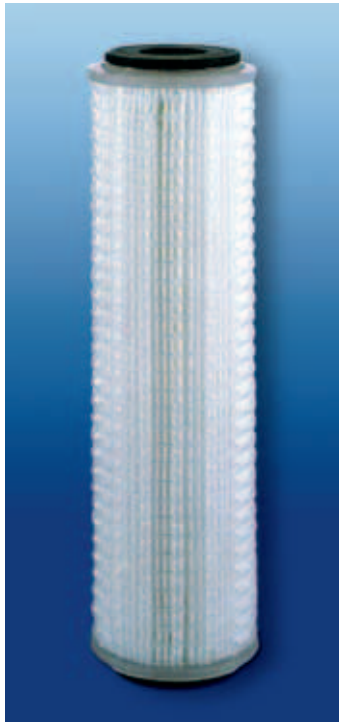
Materials

Filter	Break resistant
Housing	Polypropylene
Housing Gasket	EPDM O-ring or Viton O-ring

Adapters: The P-KG housings can only be used with filter elements with DOE (double open end) connections.

Highest quality for your process

Process filter elements for the filtration of liquids, steam and gases



	Ultrapolydepth PP-TF	Ultramesh (P)-SM	Ultrex P-GS
Filter media	Pleated Polypropylene	Stainless Steel Mesh 1.4301 (304)	Sintered Stainless Steel 1.4404 (316L)
Retention rates [µm]	1; 3; 5; 10; 15; 25; 50 nominal	5; 25; 50; 100; 250 nominal	1; 5; 25 absolute for gas, nominal for steam
In- & Outer Core	Polypropylene		
End caps	Polypropylene	1.4301 (304)	1.4301 (304)
O-rings (other on request)	EPDM	EPDM	EPDM
Element	5", 10", 20", 30", 40"	03/10; 04/10; 04/20; 05/20; 05/25; 07/25; 05/30; 07/30; 10/30; 15/30; 20/30; 30/30; 30/50	03/10; 04/10; 04/20; 05/20; 05/25; 07/25; 05/30; 07/30; 10/30; 15/30; 20/30; 30/30; 30/50
Connections	DOE	uf, P2, P3, P7, P8, P9, DOE, SOE	uf
Recommended Housings	P-KG	PF-EG, P-EG, PG-EG, P-KG	P-EG
Sterilization	-	-	-
Operating Temperature [°C]	up to + 80°C	up to + 200°C * (* > 200°C on request)	up to + 200°C *
Maximal Differential Pressure (35°C)	5,5 bar (< 35°C), 2 bar (< 80°C) in flow-through direction	5 bar (20°C) in flow-through direction	5 bar (20°C) in flow-through direction
Applications	Pre filter for liquids and gases	Pre filter for liquids and gases	Filter for gases, steam filter

*only for welded endcaps

Efficient purification



	Ultrapolyplea (P)-PP	Ultrapolyplea (P)-PP100	Ultradept II (P)-SRF N	Ultradept II (P)-BE
Filter media	Pleated Polypropylene	Pleated Polypropylene	Borosilicate	Borosilicate
Retention rates [µm]	0,1; 0,2; 0,4; 1; 3; 5; 10; 30 nominal	0,45; 0,6; 0,8; 1,2; 2,4; 5; 7; 10; 20; 30; 40 absolute	0,01	0,01
In- & Outer Core	Polypropylene	Polypropylene	1.4301 (304)	1.4301 (304)
End caps	Polypropylene	Polypropylene	1.4301 (304)	1.4301 (304)
O-rings (other on request)	EPDM	EPDM	Silicone	Silicone
Element	5", 10", 20", 30", 40"	5", 10", 20", 30", 40"	03/20; 04/20; 05/20; 05/25; 07/25; 07/30; 10/30; 15/30; 20/30; 30/30	03/10; 05/25; 05/30; 10/30; 20/30; 30/30
Connections	uf, P2, P3, P7, P8, P9, DOE, SOE	uf, P2, P3, P7, P8, P9, DOE, SOE	uf, P2, P3, P7, P8, P9, DOE, SOE	uf, P2, P3, P7, P8, P9, DOE, SOE
Recommended Housings	PF-EG, P-KG	PF-EG, PG-EG, P-KG	P-EG, PG-EG, P-BE	P-BE
Sterilization	In-Line sterilization: 121°C-135°C for 30-60 minutes Autoclave: 121°C-125°C for 30-60 minutes	In-Line sterilization: 121°C-135°C for 30-60 minutes Autoclave: 121°C-125°C for 30-60 minutes	In-Line sterilization: 121°C-141°C for 10-30 minutes Autoclave: 125°C for 30 minutes	In-Line sterilization: 121°C-141°C for 10-30 minutes Autoclave: 125°C for 30 minutes
Operating Temperature [°C]	up to +80°C	up to +80°C	up to +200°C (> 150°C for dry air only)	up to +200°C (> 150°C for dry air only)
Maximal Differential Pressure [35°C]	5,5 bar (< 35°C), 2 bar (< 80°C) in flow-through direction	5,5 bar (< 35°C), 2 bar (< 80°C) in flow-through direction	5 bar (independent from flow direction)	5 bar (in flow-through direction)
Applications	Pre and fine filter for liquids and gases	Pre and fine filter for liquids and gases	Sterile filtration of compressed air and gas/tank venting	Sterile air (tank venting)

Declaration of Compliance

▶ All filter elements mentioned are produced, packaged and shipped under the strictest control and conform to exact quality and performance standards as specified in product data sheets. No changes in critical filter specifications will be made without notification in advance. All products have been inspected and released by quality assurance as having met the following requirements:

▶ All filters are fabricated without the use of binders, adhesives, additives or surface-active agents.

▶ All materials used in filter constructions are cited for food contact use according to CFR (Code of Federal Regulations) Title 21.

▶ All filter components based on plastics are non-toxic and are certified biosafe in accordance with current USP Class VI Tests for Plastic.

▶ All sterile filter are integrity tested to verify compliance with established quality and design specifications and to assure consistent and reliable performance.

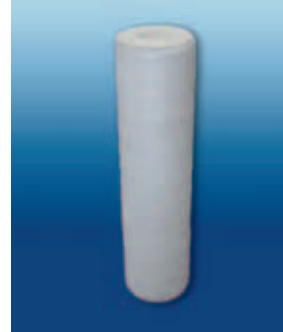
When it has to be pure and sterile



	Ultrapolymem (P)-PF-PP	Ultrabeve (P)-PF-BEV	Ultrasulfomem (P)-PF-PES	Ultrateflomem (P)-PF-PT
Filter media	Pleated Polypropylene Membrane	Pleated Polyethersulfone Membrane	Pleated Polyethersulfone Membrane	Pleated PTFE Membrane
Retention rates [µm]	0,04; 0,1; 0,2 absolute	0,2; 0,45; 0,6 absolute	0,04; 0,1; 0,2; 0,45; 0,6 absolute	Liquids: 0,1; 0,2; 0,45; 1 Gases: 0.01 up to 0.1
In- & Outer Core	Polypropylene	Polypropylene	Polypropylene	Polypropylene
End caps	Polypropylene	Polypropylene	Polypropylene	Polypropylene
O-rings (other on request)	EPDM	EPDM	EPDM	EPDM
Element	5", 10", 20", 30", 40"	10", 20", 30", 40"	10", 20", 30", 40"	5", 10", 20", 30", 40"
Connections	uf, P2, P3, P7, P8, P9, DOE, SOE	uf, P2, P3, P7, P8, P9, DOE, SOE	uf, P2, P3, P7, P8, P9, DOE, SOE	uf, P2, P3, P7, P8, P9, DOE, SOE
Recommended Housings	P-EG, PF-EG, PG-EG, P-BE	PF-EG	PF-EG	PF-EG, PG-EG, P-BE, P-EG
Sterilization	In-Line sterilization: 121°C-135°C for 30-60 minutes Autoclave: 121°C-125°C for 30-60 minutes	In-Line sterilization: 121°C-135°C for 30-60 minutes Autoclave: 121°C-125°C for 30-60 minutes	In-Line sterilization: 121°C-135°C for 30-60 minutes Autoclave: 121°C-125°C for 30-60 minutes	In-Line sterilization: 121°C-135°C for 30-60 minutes Autoclave: 121°C-125°C for 30-60 minutes
Operating Temperature [°C]	up to + 80°C	up to + 80°C	up to + 80°C	up to + 80°C
Maximal Differential Pressure (35°C)	5,5 bar (< 35°C), 2 bar (< 80°C) in flow-through direction	5,5 bar (< 35°C), 2 bar (< 80°C) in flow-through direction	5,5 bar (< 35°C), 2 bar (< 80°C) in flow-through direction	5,5 bar (< 35°C), 2 bar (< 80°C) in flow-through direction
Applications	Sterile filtration of liquids and gases	Sterile filter for beverages	Sterile filter for water and biological liquids	Sterile filter for air and gases. Fine filter for aggressive chemicals



Reliance and confidence for your applications



	Ultrafiber PP-FC	Ultrafiber PP-FC100
Filter media	Polypropylene	Polypropylene
Retention rates [µm]	1; 5; 10; 20; 30; 50; 75; 100; 150 nominal	0,5; 1; 3; 5; 10; 20; 30; 50; 70; 90; 120; 150; 180 absolute
In- & Outer Core	Polypropylene	Polypropylene
End caps	Polypropylene	Polypropylene
O-rings (other on request)	Silicone	Silicone
Element	10", 20", 30", 40"	10", 20", 30", 40"
Connections	P7, no end caps	P7, no end caps
Recommended Housings	PF-EG, P-KG	PF-EG, P-KG
Sterilization	not recommended	In-Line sterilization: 121°C for 30-45 minutes Autoclave: 121°C-125°C for 30-60 minutes
Operating Temperature [°C]	up to +80°C	up to +80°C
Maximal Differential Pressure [35°C]	3 bar	3 bar
Applications	Coarse and prefiltration of liquids	Pre and fine filter for liquids

Connections

▶ Donaldson can also deliver elements with different types of adapters, that fit into competitor housings.



uf 2"- plug connection, flat end cap



P 2 bayonet 2 locking tabs, flat end cap



P 3 flat connection, flat end cap



P 7 bayonet 2 locking tabs, locating fin



P 8 plug connection, locating fin



P 9 bayonet 3 locking tabs, locating fin



DOE double open end



SOE single open end

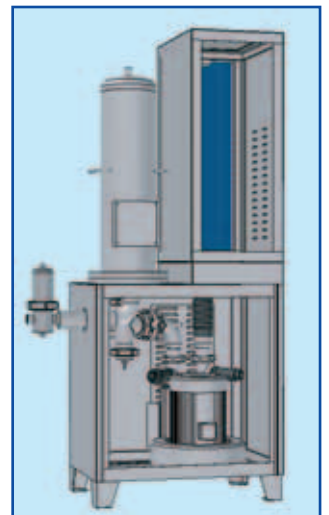
Satisfying your demands for purity

P-SLF – Mobile sterile air unit for aseptic applications within the food & beverage (dairies), the chemical, the pharmaceutical and the cosmetic industry

Type	Power Consumption [kW]	Flow rate [m ³ /h]		Element		Power Supply
		Øp=100 mbar	Øp=200 mbar	Size	Type	
0288-0	0,85	75	35	2x20/30	FF	220V - 240V / 345 415V, 50Hz
				2x20/30	BE	
				1x05/25	P-GS	
0432-0	1,6	130	65	3x20/30	FF	220V - 240V / 345 415V, 50Hz
				3x20/30	BE	
				1x05/25	P-GS	
0576-0	2,2	210	110	3x30/30	FF	220V - 240V / 345 415V, 50Hz
				3x30/30	BE	
				1x05/25	P-GS	
0768-0	2,2	260	210	4x20/30	FF	220V - 240V / 345 415V, 50Hz
				4x20/30	BE	
				1x05/25	P-GS	
1152-0	4,0	410	300	6x30/30	FF	400V / 690V, 50Hz
				6x30/30	BE	
				1x05/25	P-GS	
1536-0	7,5	450	390	8x30/30	FF	400V / 690V, 50Hz
				8x30/30	BE	
				1x07/30	P-GS	
2304-0	11	800	620	12x30/30	FF	400V / 690V, 50Hz
				12x30/30	BE	
				1x07/30	P-GS	
3072-0	13	900	790	16x30/30	FF	400V / 690V, 50Hz
				16x30/30	BE	
				1x10/30	P-GS	



Type	Power Consumption [kW]	Flow rate [m ³ /h]		Element		Power Supply
		Øp=100 mbar	Øp=200 mbar	Size	Type	
0288-4	0,85	75	35	2x20/30	FF	220V - 240V / 345 415V, 50Hz
				2x20/30	P-BE	
				1x05/25	P-GS	
0432-4	1,6	130	65	3x20/30	FF	220V - 240V / 345 415V, 50Hz
				3x20/30	P-BE	
				1x05/25	P-GS	
0576-4	2,2	210	110	3x30/30	FF	220V - 240V / 345 415V, 50Hz
				3x30/30	P-BE	
				1x05/25	P-GS	
0768-4	2,2	260	210	4x20/30	FF	220V - 240V / 345 415V, 50Hz
				4x20/30	P-BE	
				1x05/25	P-GS	
1152-4	4,0	410	300	6x30/30	FF	400V / 690V, 50Hz
				6x30/30	P-BE	
				1x05/25	P-GS	
1536-4	7,5	450	390	8x30/30	FF	400V / 690V, 50Hz
				8x30/30	P-BE	
				1x07/30	P-GS	
2304-4	11	800	620	12x30/30	FF	400V / 690V, 50Hz
				12x30/30	P-BE	
				1x07/30	P-GS	
3072-4	13	900	790	16x30/30	FF	400V / 690V, 50Hz
				16x30/30	P-BE	
				1x10/30	P-GS	

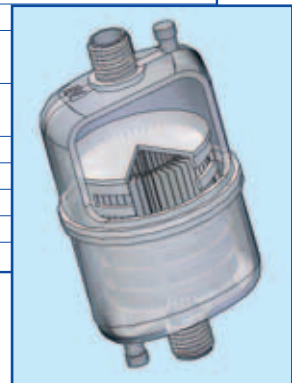


PN4 version can be sterilised with saturated steam up to 4 bar or 140°C

Fulfilling high sterile requirements

One way capsule filter UFTD for critical applications and for the filtration of small volume flows of gases or liquids

	UFTD-PP100	UFTD-PP	UFTD-PF-PP	UFTD-PF-PT	UFTD-PF-PES
Filter media	Polypropylene microfiber	Polypropylene microfiber	Polypropylene membrane	PTFE membrane	Polyethersulfon membrane
Retention Rate [µm]	0,45; 0,6; 0,8; 1,2; 2,4; 5; 7;10; 20; 30; 40 absolute	0,1; 0,2; 0,4; 1; 3; 5; 10; 30 nominal	0,04; 0,1; 0,2	0,1; 0,2; 0,45; 1	0,04; 0,1; 0,2; 0,45; 0,6
Filter Housing	Polypropylene				
Sealing	thermally sealed				
Sterilization	Autoclave: 121-125°C for 30-60 minutes				
Operating Pressure [bar]	5				
Gas Applications					
Operating Pressure [bar]	3,5				
Application with Liquids					
Operating Temperature [°C]	0-40				
Maximum Temperature [°C]	70 (2,5 bar)				
Sizes	UFTD-L: 70mm / 175mm; UFTD-S: 70mm / 115mm				
Effective Filtration Area [cm2]	UFTD-L: 2000; UFTD-S: 1000				
Connections	3/8" hose connection; 1/4"MNPT; 3/8" MNPT; 3/8" FNPT, 1"TC				



The one way capsule filter UFTD is used by the following industries as contamination control at the point of use:

- Pharmaceutical industry
- Biotechnology
- Cosmetics
- Varnishes and inks
- Chemical industry
- Electronics
- Food and beverages

Technical alterations reserved (8/2007)

Donaldson. And everything just got better.

Total Filtration Management

► Donaldson offers a wide variety of solutions to reduce your energy costs, improve your productivity, guarantee production quality and help preserve the environment.

Compressed Air Filtration, Sterile Filtration, Process Filtration, Refrigerant Drying, Adsorption Drying, Condensate Drains, Condensate Purification Systems, Water Chillers, Air / Oil Separation, Dust and Fume Removal, Process Air and Gas Processing, Oil Mist Separation, Industrial Hydraulics

Total Filtration Service

► A comprehensive range of services especially designed to keep your production at peak performance and at the lowest total cost of ownership.

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