

# MANUAL FILTERS

AFFORDABLE FILTRATION SOLUTIONS



**DANGO & DIENENTHAL**

BETTER VALUES.

OUR FILTERS IN ACTION



- ADVANTAGES**
- ⊕ Low investment costs
  - ⊕ Robust design
  - ⊕ Filter monitoring by differential pressure indicator
  - ⊕ Diversity of materials
  - ⊕ No interruption of operation during manual cleaning (DF 20 / DF 40)
  - ⊕ Fine filtration possible down to 1 µm
  - ⊕ Filtration possible at low and high flow rates



**OUR FILTER SYSTEMS PROTECT**

- ⊕ Plate heat exchangers
- ⊕ Spray nozzles
- ⊕ Piping systems
- ⊕ Mechanical seals
- ⊕ Pumps
- ⊕ Microfiltration systems
- ⊕ The environment
- ⊕ Final products

**THE NEW DEFINITION OF PURITY FOR YOUR MEDIUM**

- ⊕ Cooling water
- ⊕ River water
- ⊕ Seawater & ballast water
- ⊕ Sinter & scale water
- ⊕ Process water
- ⊕ Oils & emulsions
- ⊕ Mussels & mussel larvae infested waters
- ⊕ Drinking water
- ⊕ Effluent water



# SINGLE FILTER (EF 15)

## MANUAL FILTER – PURE AND SIMPLE

The Single Filter EF 15 is a versatile filter for both liquid and gaseous media and separates particles from the volume flow with the aid of a reusable filter basket. The EF 15 boasts high performance, a low space requirement, and fast and easy cleaning. Its inlet and outlet flanges are mounted opposite each other at the same height (inline design). Filtration must be interrupted while cleaning.

### TECHNICAL DATA

Flow rate	Max. 635 m <sup>3</sup> /h
Filter fineness	≥ 10 µm
Operating pressure	0 to 16 bar
Pressure loss with clean filter	0.1 to 0.2 bar
Flanges	DN 25 to 300
Temperature	0 to 80 °C
Manual cleaning	Yes
Filter housing	Cast iron
Filter element	Stainless steel
Inline design	Yes



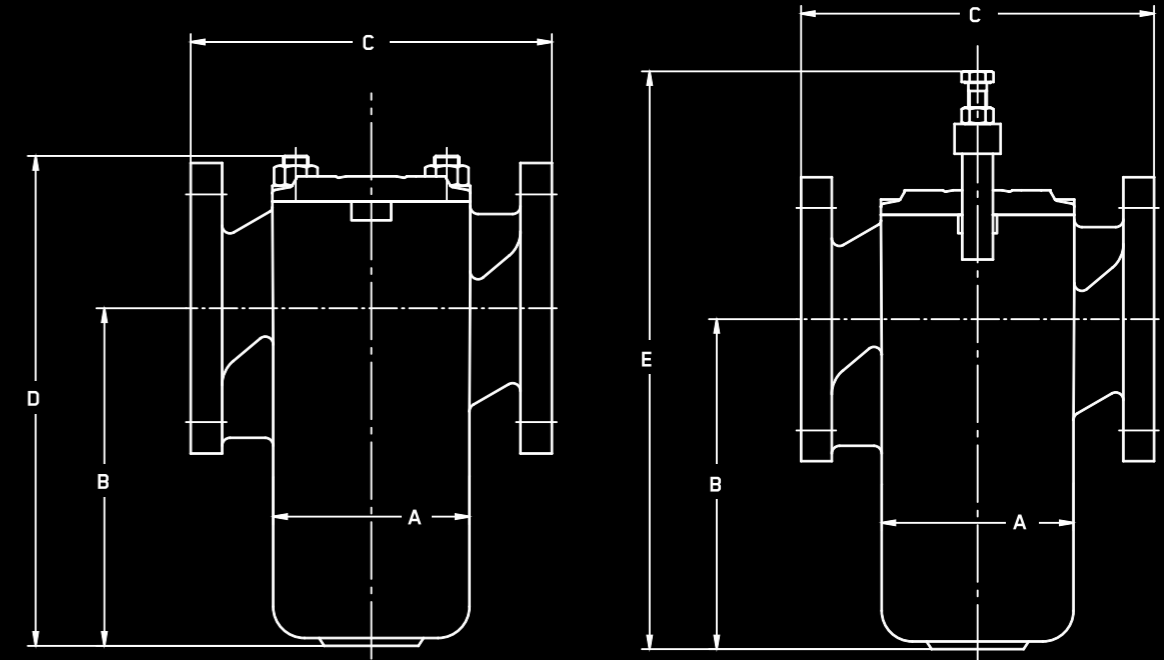
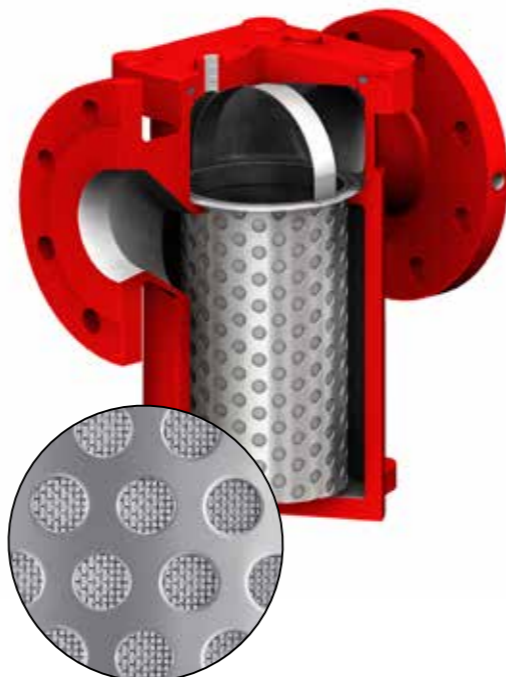
### DIFFERENTIAL PRESSURE INDICATOR

The differential pressure indicator informs you about the current degree of contamination of the filter element. Upon reaching a predefined differential pressure between the filter inlet and outlet, a signal is triggered via an integrated switching contact on the differential pressure indicator. This signal can be routed to an external control room. The color of the optical display changes when the predefined differential pressure is reached.



### FILTER ELEMENT

The filter basket consists of a perforated plate, with an additional wire mesh incorporated depending on the filter fineness. This makes both higher and lower degrees of fineness down to 10 µm possible.



Cover plate with screwed fastening (SF)

Cover plate with clamp lock (CL)

TYPE / DN	HOUSING SIZE	PN		DIMENSIONS IN MM					FLOW RATE m <sup>3</sup> /h	VOLUME l	FILTER AREA cm <sup>2</sup>	WEIGHT EMPTY kg
		CL bar	SF bar	A	B	C	D	E				
25	1	16	16	80	155	170	219	263	4,5	1	150	6
32	2	10	16	100	165	190	262	317	7	1,2	270	15
40	2	10	16	100	165	190	262	317	12	1,2	270	15
50	2	10	16	100	165	190	262	317	18	1,2	270	15
65	3	10	16	125	215	230	344	387	30	3,5	440	25
80	4	10	16	166	230	280	375	439	45	6,5	740	28
100	5	10	16	176	324	317	450	570	70	9	950	42
125	6	6	16	220	325	380	519	596	110	15	1,350	55
150	7	6	16	260	390	462	611	710	160	27	1,980	75
200	8	6	10	320	490	598	765	880	280	53	2,950	140
250	9	-	10	402	599	604	889	-	440	85	3,590	195
300	10	-	6 / 10 *	470	720	720	1,065	-	635	140	5,610	300

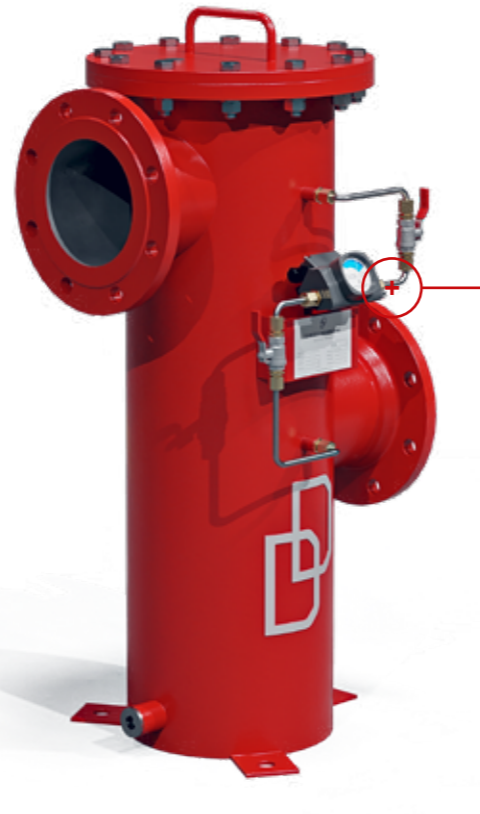
\* Available at extra cost

# SINGLE FILTER (EF 30)

## MANUAL FILTER WITH A GREAT DIVERSITY OF MATERIALS

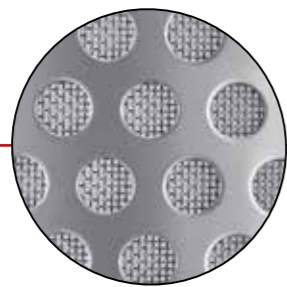
Like the EF 15, the Single Filter EF 30 is a versatile filter for both liquid and gaseous media and separates particles from the volume flow with the aid of a reusable filter basket. The two single filters also have high performance, a low space requirement, and fast and easy cleaning in common. Filtration must be interrupted while cleaning.

Compared to the EF 15, the inlet and outlet flanges of the EF 30 can be variably adapted to various housing sizes. In addition, the EF 30 incorporates a greater diversity of materials.



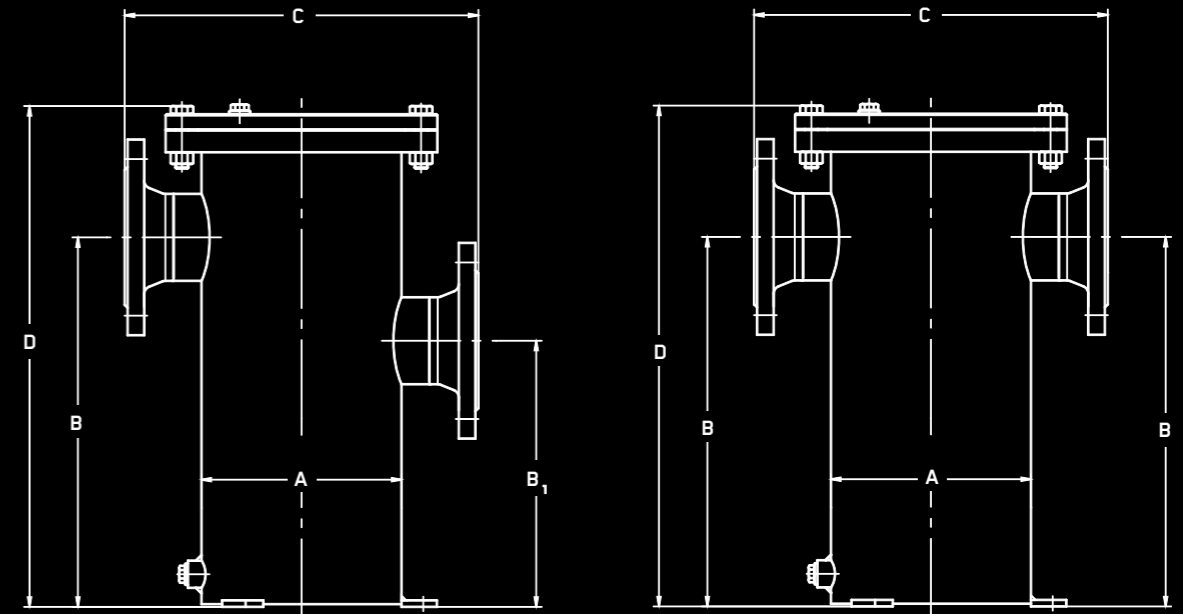
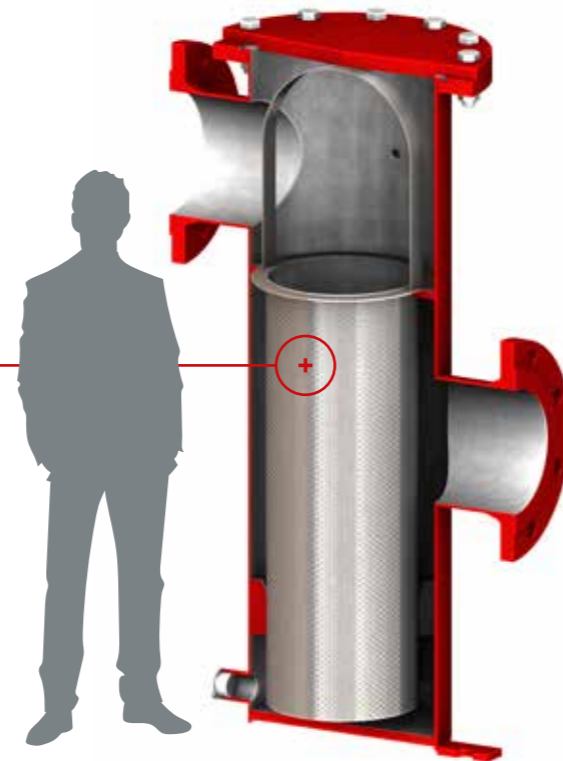
DIFFERENTIAL PRESSURE INDICATOR

TECHNICAL DATA	
Flow rate	Max. 7,000 m <sup>3</sup> /h
Filter fineness	≥ 10 μm
Operating pressure	Max. 63 bar
Pressure loss with clean filter	0.1 to 0.2 bar
Flanges	DN 15 to 1,000
Temperature	0 to 80 °C
Manual cleaning	Yes
Filter housing	Steel, stainless steel, GRP, plastic
Filter element	Stainless steel
Inline design	Possible



FILTER ELEMENT

The filter basket consists of a perforated plate, with an additional wire mesh incorporated depending on the filter fineness. This makes both higher and lower degrees of fineness down to 10 μm possible.



TYPE / DN	PN SHR bar	DIMENSIONS IN MM					FLOW RATE m <sup>3</sup> /h	VOLUME l	FILTER AREA cm <sup>2</sup>	WEIGHT EMPTY kg
		A	B	B <sub>1</sub>	C	D				
15	10	76	215	60	200	315	1.5	1	250	6
20	10	76	215	60	200	315	3	1	250	7
25	10	76	215	60	200	315	4.5	1	250	7
32	10	76	215	60	200	315	7	1	250	12
40	10	114	305	175	270	445	12	4	500	13
50	10	114	305	175	270	445	18	4	500	15
65	10	168	325	180	400	480	30	9	880	32
80	10	168	325	180	400	480	45	9	880	50
100	10	219	465	280	400	657	70	21	2,000	53
125	10	219	465	280	400	657	110	22	2,100	71
150	10	273	730	430	500	950	160	50	3,580	96
200	10	356	750	455	570	1,005	280	100	4,250	150
250	10	406	925	500	700	1,210	440	160	6,870	266
300	10	508	1,175	765	770	1,525	636	285	11,350	310
400	10	610	1,430	970	870	2,000	1,130	530	15,550	583
500	10	762	1,635	1,075	1,100	2,285	1,766	910	22,460	765
600	10	762	1,550	800	1,100	2,500	2,543	920	22,460	897
700	10	1,000	1,400	650	1,300	2,600	3,642	2,500	30,780	2,500
1,000	10	1,400	2,150	700	1,800	3,100	7,000	4,700	52,770	4,500

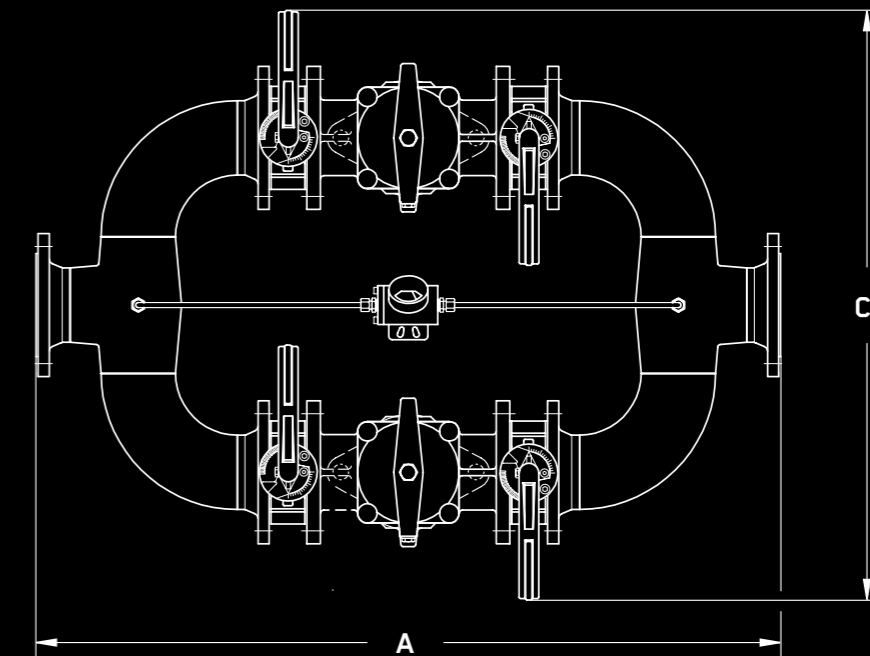
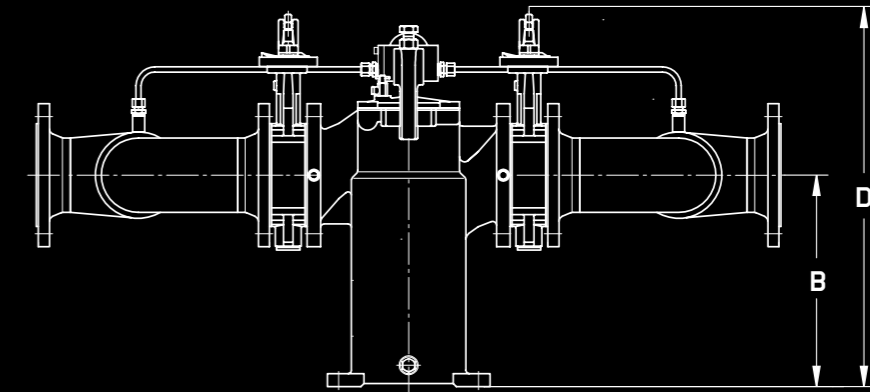
# DUPLEX FILTER (DF 20)

## CONTINUOUS FILTRATION WITH MANUAL SWITCHING

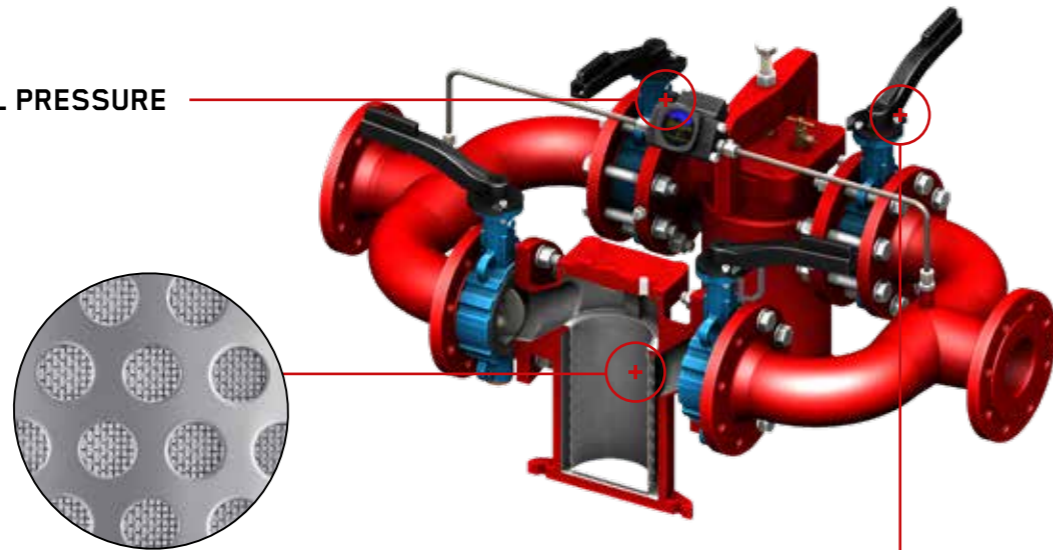
The Duplex Filter DF 20 is a versatile filter for liquid media and separates particles from the volume flow with the aid of a reusable filter basket. The DF 20 boasts high performance, a low space requirement, and fast and easy cleaning. Operation does not need to be interrupted while cleaning the filter. This guarantees a continuous flow.

### TECHNICAL DATA

Flow rate	Max. 160 m <sup>3</sup> /h
Filter fineness	≥ 10 μm
Operating pressure	0 to 16 bar
Pressure loss with clean filter	0.1 to 0.2 bar
Flanges	DN 25 to 150
Temperature	0 to 80 °C
Manual cleaning	Yes
Filter housing	Cast iron
Filter element	Stainless steel
Inline design	Yes



### DIFFERENTIAL PRESSURE INDICATOR



### FILTER ELEMENT

The filter basket consists of a perforated plate, with an additional wire mesh incorporated depending on the filter fineness. This makes both higher and lower degrees of fineness down to 10 μm possible.

### SHUT-OFF VALVE

A shut-off valve is used to separate the dirty filter from the flow so that it can be cleaned. The second filter is in filtration mode during cleaning.

TYPE / DN	HOUSING SIZE	PN		DIMENSIONS IN MM				FLOW RATE m <sup>3</sup> /h	VOLUME l	FILTER AREA cm <sup>2</sup>	WEIGHT EMPTY kg
		CL bar	SF bar	A	B	C	D				
25	1	16	16	490	155	370	335	4.5	3	150	25
32	2	10	16	580	165	450	262	7	4	270	40
40	2	10	16	652	165	538	348	12	5	270	45
50	2	10	16	736	165	590	361	18	5	270	50
65	3	10	16	844	215	652	419	30	9	440	70
80	4	10	16	974	230	788	467	45	15	740	124
100	5	10	16	1,144	325	904	572	70	23	950	125
125	6	6	10	1,340	325	1,018	596	110	35	1,350	220
150	7	6	10	1,538	390	1,296	692	160	40	1,980	270

# DUPLEX FILTER (DF 40)

## CONTINUOUS FILTRATION WITH A HIGH DIVERSITY OF MATERIALS

Like the DF 20, the Duplex Filter DF 40 is a versatile filter for liquid media and separates particles from the volume flow with the aid of a reusable filter basket. The two duplex filters also have high performance, a low space requirement, and fast and easy cleaning in common. Operation does not need to be interrupted while cleaning the filter. This guarantees a continuous flow.

Compared to the DF 20, the inlet and outlet flanges of the DF 40 can be individually adapted to customer requirements. In addition, the DF 40 has a greater diversity of materials.

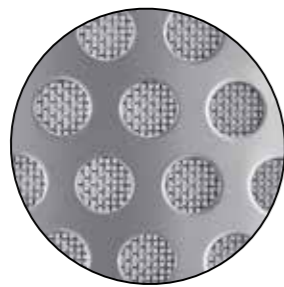
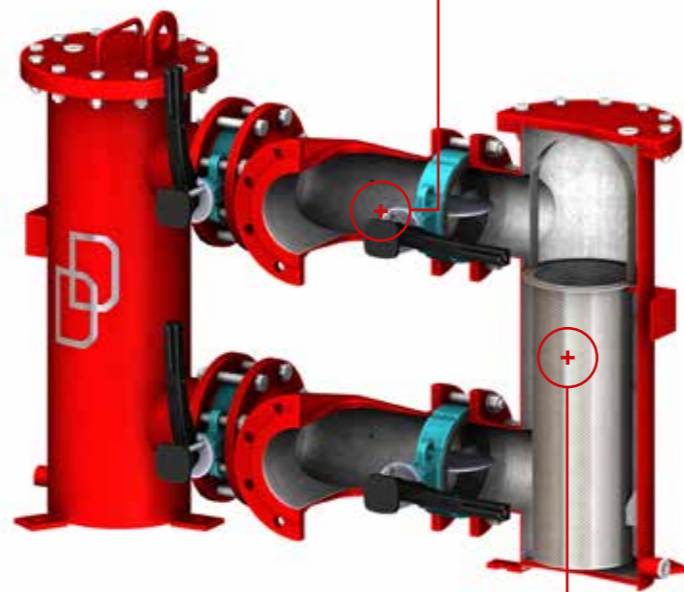
### TECHNICAL DATA

Flow rate	Max. 1,800 m <sup>3</sup> /h
Filter fineness	≥ 10 μm
Operating pressure	0 to 63 bar
Pressure loss with clean filter	0.1 to 0.2 bar
Flanges	DN 15 to 500
Temperature	0 to 80 °C
Manual cleaning	Yes
Filter housing	Steel, stainless steel, GRP, plastic
Filter element	Stainless steel
Inline design	Yes



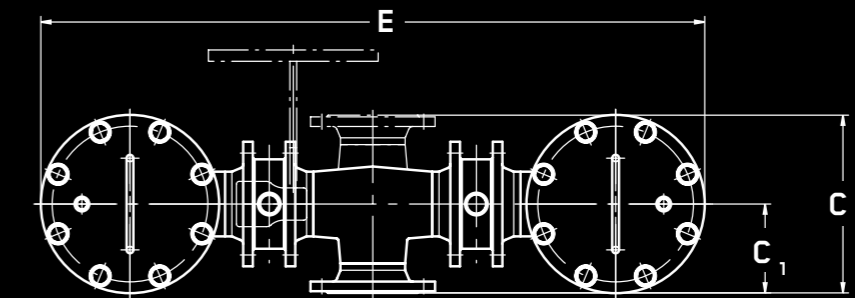
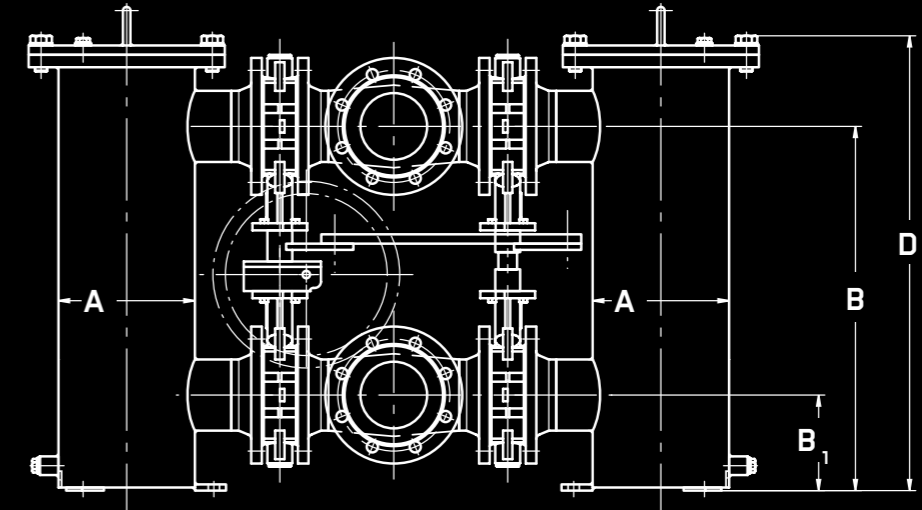
DIFFERENTIAL PRESSURE INDICATOR

SHUT-OFF VALVE



### FILTER ELEMENT

The filter basket consists of a perforated plate, with an additional wire mesh incorporated depending on the filter fineness. This makes both higher and lower degrees of fineness down to 10 μm possible.



TYPE / DN	PN bar	DIMENSIONS IN MM							FLOW RATE m <sup>3</sup> /h	VOLUME l	FILTER AREA cm <sup>2</sup>	WEIGHT EMPTY kg
		A	B	B <sub>1</sub>	C	C <sub>1</sub>	D	E				
15	10/16	76	215	60	120	60	331	408	1.5	2	250	24
25	10/16	76	215	60	270	135	331	410	4.5	3	250	24
50	10/16	114	320	110	218	109	490	855	18	10	650	70
65	10/16	168	450	200	242	121	667	1,099	35	18	1,000	130
80	10/16	219	545	145	272	136	745	1,129	45	50	2,000	170
100	10/16	219	600	150	314	157	861	1,173	71	60	2,000	180
150	10/16	273	700	200	462	198	957	1,513	160	100	3,580	350
200	10/16	356	750	300	480	240	1,098	1,650	280	240	4,300	410
250	10/16	406	975	475	568	284	1,376	1,972	440	410	6,700	780
300	10/16	508	1,175	436	664	322	1,548	2,195	636	760	11,100	1,350
400	10/16	610	1,430	514	780	390	2,008	2,874	1,130	530	15,600	1,430
500	10/16	762	1,609	485	782	391	2,294	3,266	1,766	910	22,500	1,980

# BAG FILTER (EFB-S)

MANUAL FILTRATION DOWN TO 1  $\mu\text{m}$

The Bag Filter EFB-S is used for applications with the toughest demands. Both the filter housings and the filter bags are specially adapted to the medium to be filtered. Fine filtration starting at 1  $\mu\text{m}$  and a large filter area are the highlights of this filter.

## TECHNICAL DATA

Flow rate	Max. 60 m <sup>3</sup> /h
Filter fineness	$\geq 1 \mu\text{m}$
Operating pressure	0 to 63 bar
Flanges	DN 50 to 100
Manual cleaning	Yes
Filter housing	Steel, stainless steel, plastic

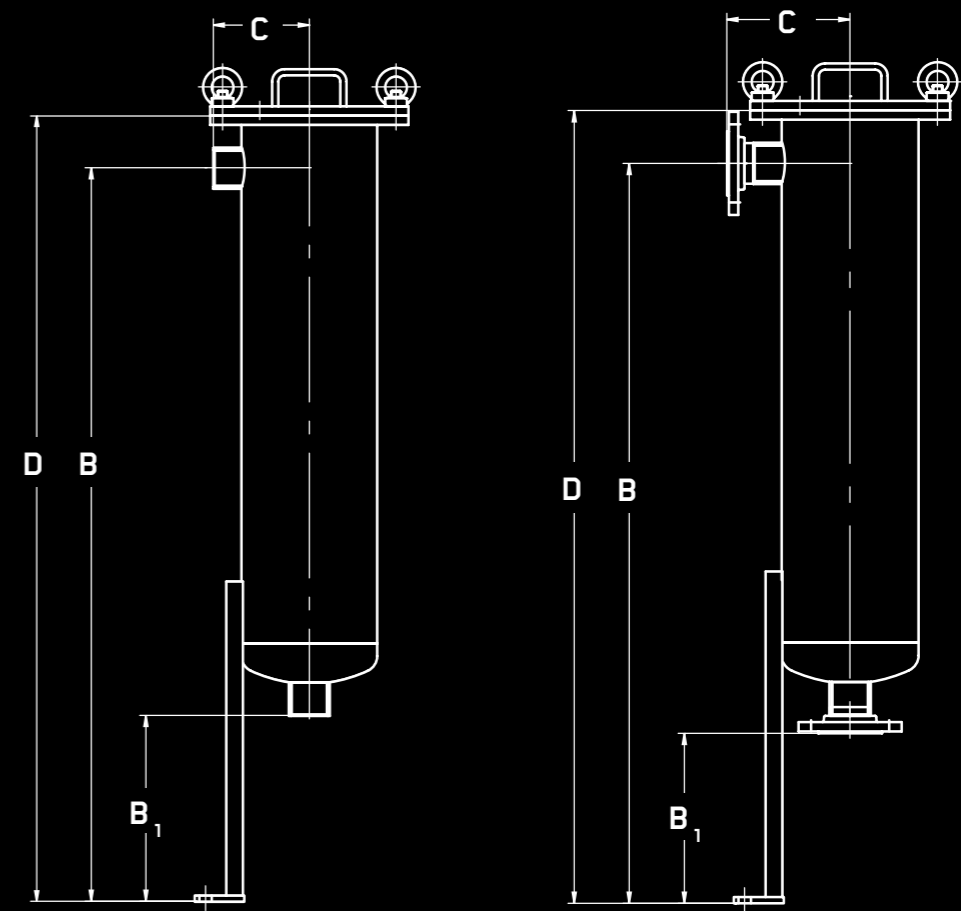


DIFFERENTIAL PRESSURE INDICATOR



## FILTER ELEMENT

The filter bag boasts a fineness starting at 1  $\mu\text{m}$  and a large filter area. A variety of different filter materials can be used, such as polyester needle felt, polypropylene, or nylon.



With female thread connection (2")

With flange connection (DN 50, 80, or 100)

TYPE / DN	SF bar	DIMENSIONS IN MM				FLOW RATE m <sup>3</sup> /h	VOLUME l	FILTER AREA cm <sup>2</sup>	WEIGHT EMPTY kg
		B	B <sub>1</sub>	C	D				
2"	10	1,184	300	150	1,269	30	15	5,000	27
50	10	1,184	300	150	1,269	30	15	5,000	27
80	10	1,200	300	225	1,285	60	29	5,000	29
100	10	1,200	300	225	1,285	60	31	5,000	31

# MULTI-BAG FILTER (EFB-M)

## BAG FILTER FOR HIGHER FLOW RATES

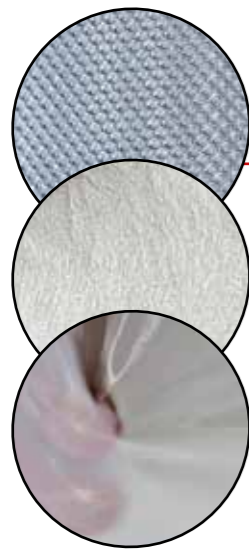
The Bag Filter EFB-M is similar to the EFB-S, but multiple filter bags are integrated in a single filter housing. The larger filter area extends the operating time and allows higher flow rates. The EFB-M also uses filter bags starting at 1 µm in a wide variety of materials.

### TECHNICAL DATA

Flow rate	Max. 360 m <sup>3</sup> /h
Filter fineness	≥ 1 µm
Operating pressure	0 to 63 bar
Flanges	DN 100 to 500
Manual cleaning	Yes
Filter housing	Steel, stainless steel, GRP, plastic

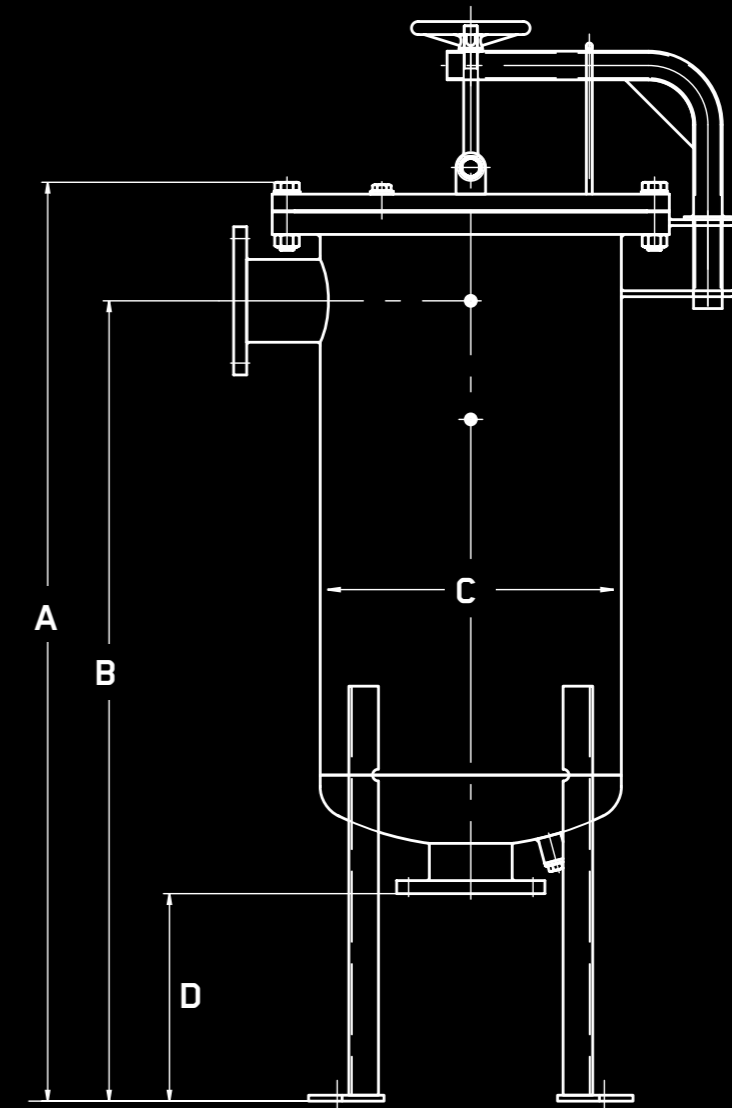


DIFFERENTIAL PRESSURE INDICATOR



### FILTER ELEMENT

The filter bags boast a fineness starting at 1 µm and a large filter area. A variety of different filter materials can be used, such as polyester needle felt, polypropylene, or nylon.



TYPE / DN	SF bar	DIMENSIONS IN MM				FLOW RATE m <sup>3</sup> /h	VOLUME l	FILTER AREA cm <sup>2</sup>	WEIGHT EMPTY kg
		A	B	C	D				
125	10	1,280	1,000	700	360	150	224	20,000	240
200	10	1,710	1,375	900	580	350	578	40,000	980
250	10	1,870	1,550	1,000	700	460	950	60,000	1,300

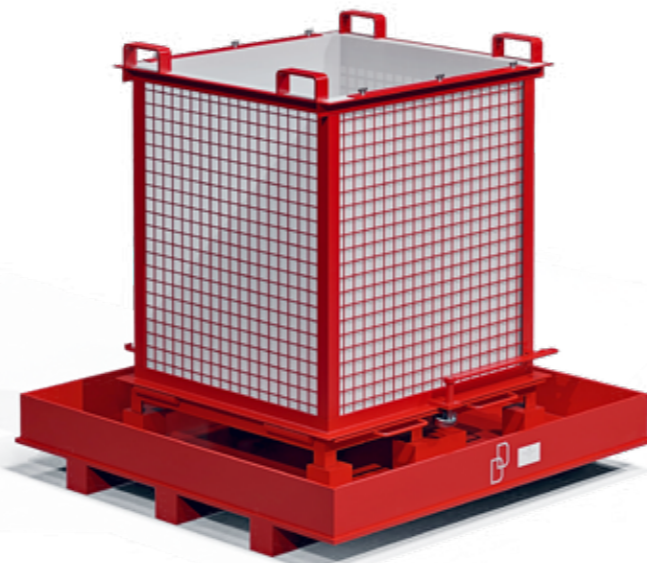
# SLUDGE DEWATERING DEVICE (SCHLAMMCON)

## FOR BACKWASH WATER TREATMENT

The SCHLAMMCON is often used in combination with automatic backwash filters or separators to treat discharged backwash water. This can reduce the consumption of flushing water. The particles are retained in the box bags, while the purified water is collected in a drip tray and then pumped back into the system. The contents of the SCHLAMMCON can then be disposed of properly.

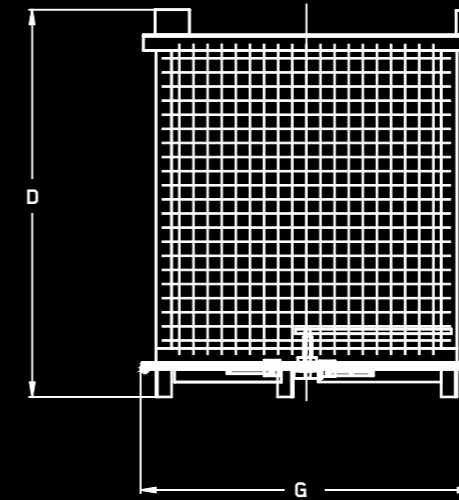
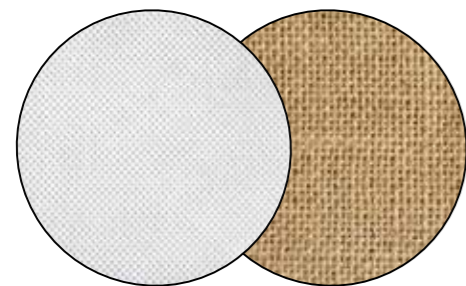
### TECHNICAL DATA

Container volume	1 m <sup>3</sup>
Filter fineness	≥ 5 μm
Temperature	0 to 80 °C
Manual cleaning	Yes
Filter housing	Steel, stainless steel
Drip tray material	Polypropylene (PP), steel, stainless steel

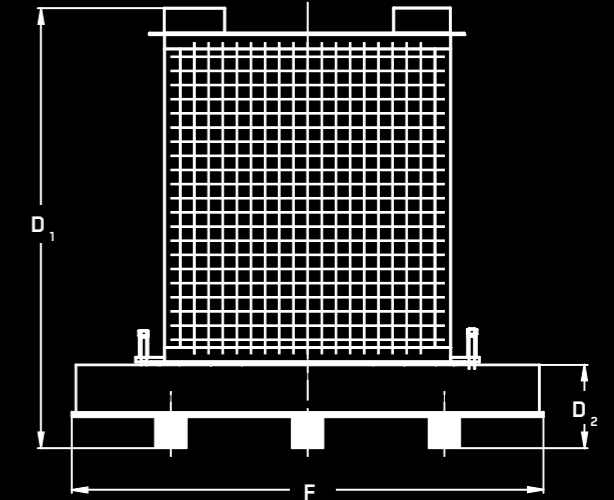


### FILTER ELEMENT

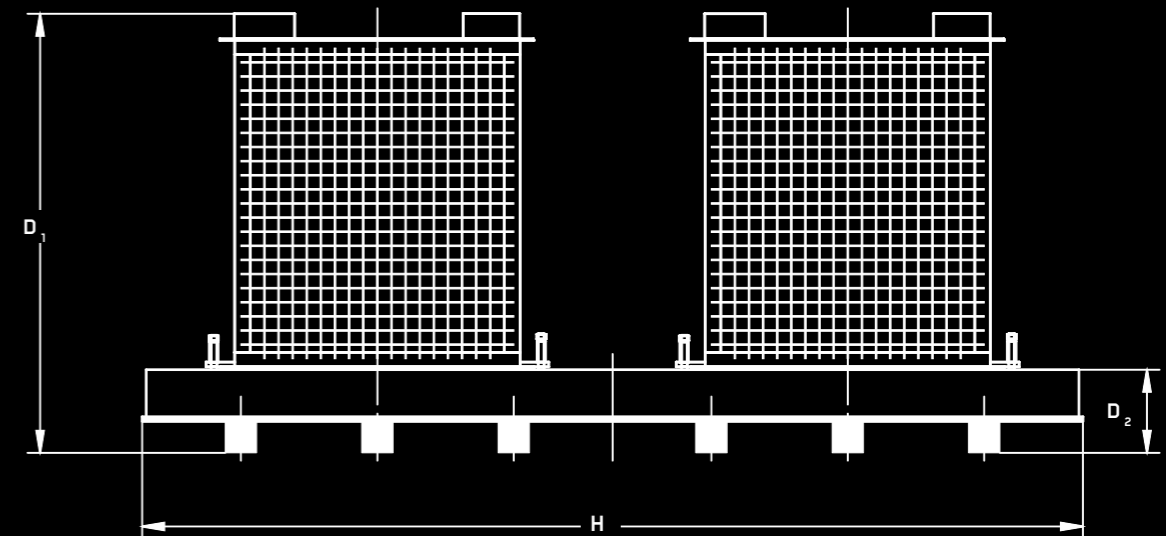
The SCHLAMMCON is equipped with a box bag as a filter element. Like the bags used in the Bag Filter, this bag is intended either for disposable use or as a reusable stainless steel mesh. The filter fineness of the mesh can vary from 5 μm to 1,000 μm. Materials available for selection include polyester needle felt, polyethylene, polypropylene, and stainless steel.



SCHLAMMCON without drip tray





SCHLAMMCON with drip tray

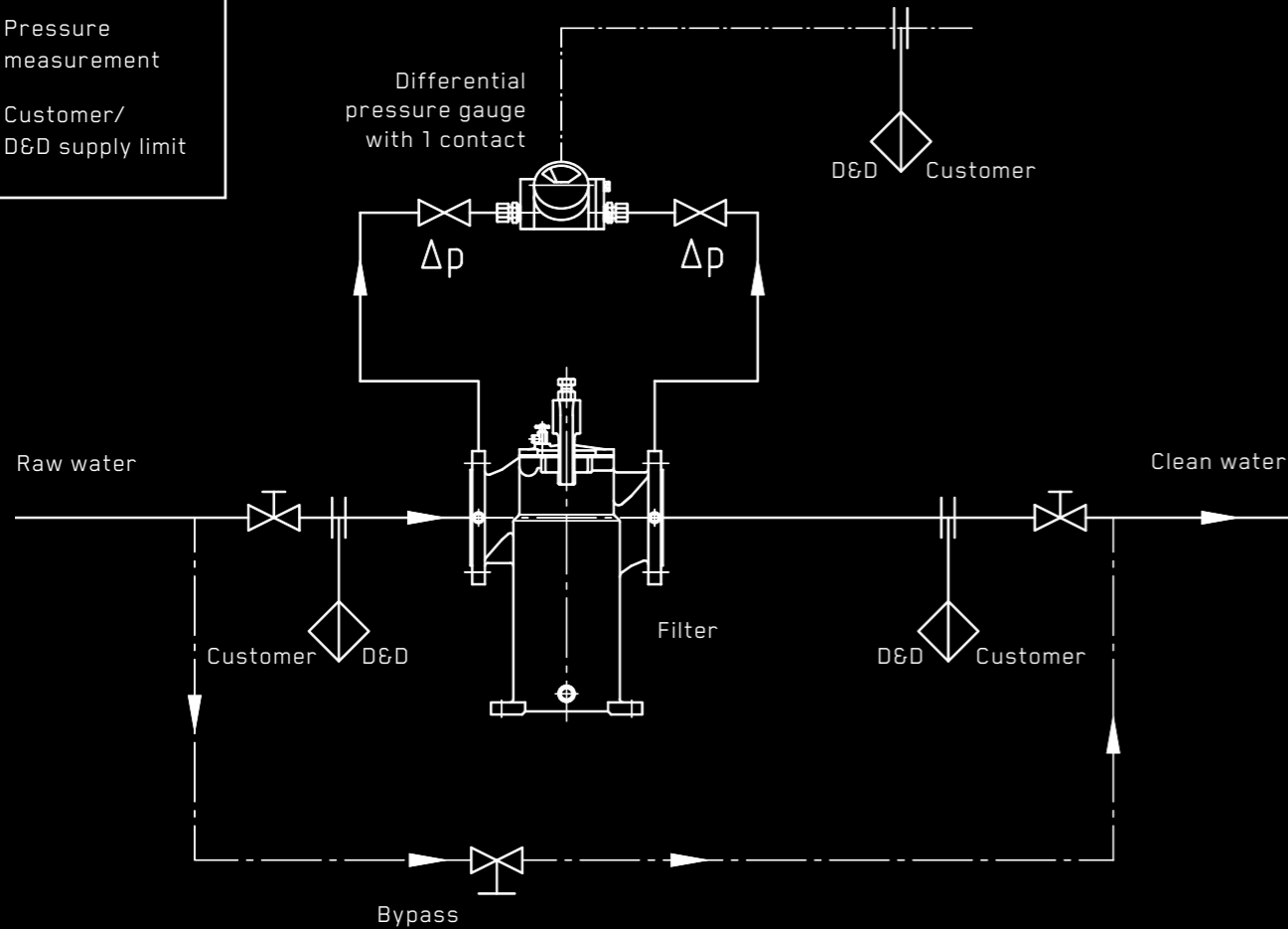


SCHLAMMCON with double drip tray

DIMENSIONS IN MM						VOLUME	FILTER AREA	WEIGHT EMPTY
D	D <sub>1</sub>	D <sub>2</sub>	F	G	H	I	cm <sup>2</sup>	kg
1,235	1,400	265	1,500	1,058	3,000	1,000	40,000	150

## PROCESS DIAGRAM

-  Shut-off valve
- $\Delta p$  Pressure measurement
-  Customer/  
D&D supply limit



# SHAPE BETTER VALUES

CLOSER. BETTER. SIMPLER.

We make sure that you get the filter that is perfectly suited to your application. Our engineering office will design the filter to match your operating parameters. This allows us to adapt our product to your specific use.



### EXPERIENCED PARTNER

All DANGO & DIENENTHAL filters are handled by our specially qualified and regularly trained staff. Both our mechanical production and assembly departments have extensive expertise.



### CERTIFIED TESTING

Our certified quality management system enables seamless monitoring and control of all production steps. This ensures early detection and troubleshooting, allowing us to offer you a high level of quality.



### THE TEAM AT YOUR SIDE

If you require staff for training or maintenance at your company, don't hesitate to contact us. Our specially qualified employees will be happy to assist you.













### IDEAL PRODUCTION CONDITIONS

We have been producing filters in our factory in Siegen, Germany, since 1941. Our continuously improved, state-of-the-art range of machinery and modern factory buildings provide an environment that is essential for manufacturing high-quality products.

## TECHNICAL INFORMATION

### SCOPE OF DELIVERY

-  Pressure Equipment Directive (PED)
-  American Society of Mechanical Engineers (ASME) standard \*
-  Differential pressure measurement \*
-  Differential pressure as 4-20 mA signal \*
-  Signal exchange with process control system (PCS)
-  Outer coating
-  Inner coating \*
-  Documentation
-  Certificates \*
-  Function test at the manufacturer's factory

\* Available at extra cost

### WE ARE HERE TO ASSIST YOU

+49 271 401 4123

Monday-Friday:

8:00 a.m. - 4:00 p.m. (CET)

(except for holidays)

Or by e-mail: [post@dds-filter.com](mailto:post@dds-filter.com)

You can find us at the following address:

Hagener Str. 103

57072 Siegen, Germany



[WWW.DDS-FILTER.COM](http://WWW.DDS-FILTER.COM)