



Donaldson
FILTRATION SOLUTIONS

Compressed Air Filtration

Filter Housings Standard and Superplus

SG

MAIN FEATURES & BENEFITS:

- Innovative filtration technology, high retention rate, low pressure loss
- Validated performance data acc. to ISO 12500-1 and ISO 12500-3, reliable achievement of compressed air quality acc. to ISO 8573-1
- Intelligent overall concept meet requirements of industrial air purification
- Flow-optimised design, minimum pressure loss for economic compressed air purification (saving of energy costs)
- Housing internally and externally coated, long-term corrosion protection
- Robust steel design with flange connection for easy installation
- Sizes 1152-3840 with bottom hinge for easy replacement of the filter elements

INDUSTRIES



- Chemical and pharmaceutical industry



- PCB assembly and CD manufacturing



- Surface finishing



- Machine building industry and plant engineering / construction



- Energy and power generation



Version Superplus
with bottom hinge

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Donaldson®
Ultrafilter

PRODUCT DESCRIPTION

SG Standard housings are designed for the purification of compressed air and gases in an industrial operation. The flanged housings due to an optimized construction offer low differential pressures at high flow rates and as a standard equipped with an economizer and an electronically controlled drain. Between drain and housing a ball valve is installed.

SG Superplus housings due are as a standard equipped with an economizer and an electronically controlled drain. Between drain and housing a ball valve is installed.

A multitude of various housings with different connections, single or multiple, allow to match the requirements of the application, e.g. the compressor size. This product series offers 13 different housings ranging from a volume flow of 1080 m³/h to 38400 m³/h (related to 7 bar (ü) and 20°C).

The SG housings conform to the requirements of the European directive 2014/29/EU or 2014/68/EU for pressure vessels.



**Version
Superplus**

The SG filter is designed and developed for the following applications:

- **Central compressed air processing:**
Pre-filter for the protection of fridge dryers, high performance coalescence filter for the removal of oil and water aerosols as well as particles
- **Adsorption dryers:**
Pre-filter to protect adsorption dryers, dust filter downstream adsorption dryers
- **Automotive industry:**
Purification of paint and lacquering finishing air

PRODUCT SPECIFICATIONS

Features	Benefits
Validated performance data acc. to ISO 12500-1 and ISO 12500-3	Reliable achievement of compressed air quality acc. to ISO 8573-1
Intelligent overall concept	Flow range, filtration performance data, integrated control functions as well as automatic condensate drain perfectly meet the requirements of central and de-central compressed air applications
Flow-optimised design of filter housing and filter element	Low pressure losses, thereby saving of energy costs
Robust steel design as welded pressure vessels with flange connection	Easy installation and long life-time of filter housing even at extreme operating conditions
Housing internally and externally coated	Ensures long-term corrosion protection
Superplus version with Economizer and electronic level-controlled condensate drain UFM-D	Economizer: Differential pressure indicator for determination of most economical for replacement of the filter element UFM-D: No expensive compressed air losses, condensate drain depending on condensate demand, sensor detects each kind of condensate (even pure oil)
Sizes 1152 - 3840: design with bottom hinge	Easy replacement of the filter elements, little space required for element replacement

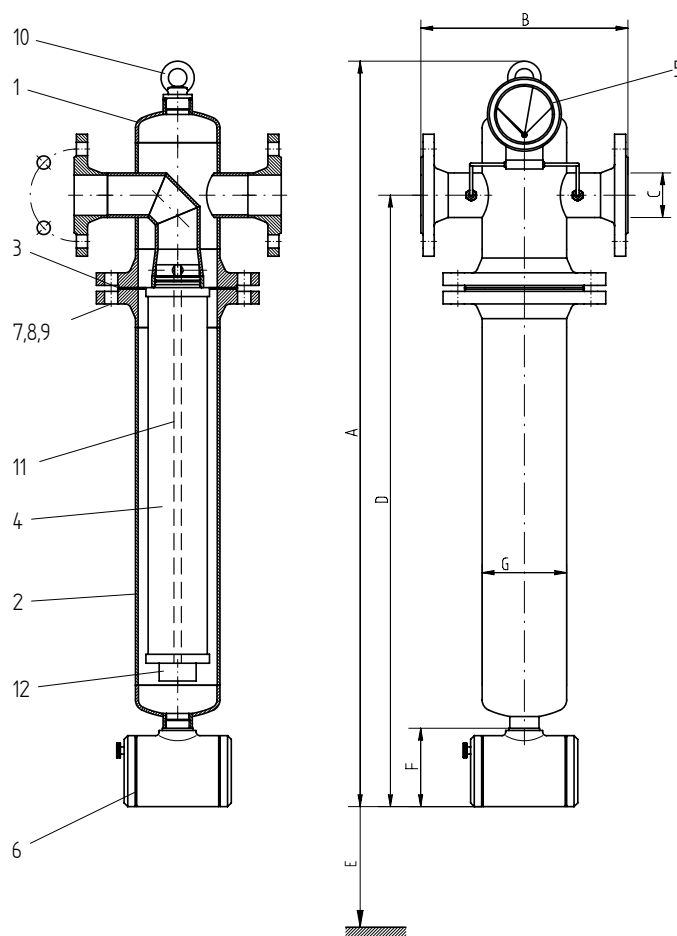
Filter Elements (for detailed performance data see separate data sheet)		
PE filter Particle filter	Initial differential pressure : 0,15 bar Efficiency : 100% related to 25 µm	1
SB filter Particle filter	Initial differential pressure : 0,12 bar Efficiency : 100% bezogen auf 25 µm	1
AK filter Activated carbon filter	Initial differential pressure : 0,13 bar Residual oil content (total) : 0,003 mg/m³	1 3
FF filter Coalescence filter / particle filter	Initial differential pressure : 0,03 bar Residual oil content (total) : < 0,03 mg/m³	1 2
MF filter Coalescence filter / particle filter	Initial differential pressure : 0,04 bar Residual oil content (total) : < 0,02 mg/m³	1 2
SMF filter Coalescence filter / particle filter	Initial differential pressure : 0,05 bar Residual oil content (total) : < 0,01 mg/m³	1 2
1 related to nominal performance at 7 bar, dry condition 2 related to a inlet concentration of 3 mg/m³ 3 when upstream connected a MF or SMF filter		

MATERIALS/ DIMENSIONS

SG STANDARD 0108 - 0288

Pos.	Stck.	Benennung
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	1	Econometer
6	1	Drain
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Econometer	Polymer
Float drain	aluminium mold cast
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	24 bar
Perm. operating temperature:	+1°C / +50°C
16 bar	+1°C / +65°C
15 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B±2 mm	C	D mm	E mm	F mm	Ø G mm	Element
0108	1080	7,5	28	1000	280	DN 50	820	450	105	114,3	15/30
0144	1440	8,0	33	1000	280	DN 65	820	580	105	114,3	20/30
0192	1920	16,0	40	1310	320	DN 80	1120	850	105	139,7	30/30
0288	2880	23,5	54	1350	360	DN 80	1135	850	105	168,3	30/50

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

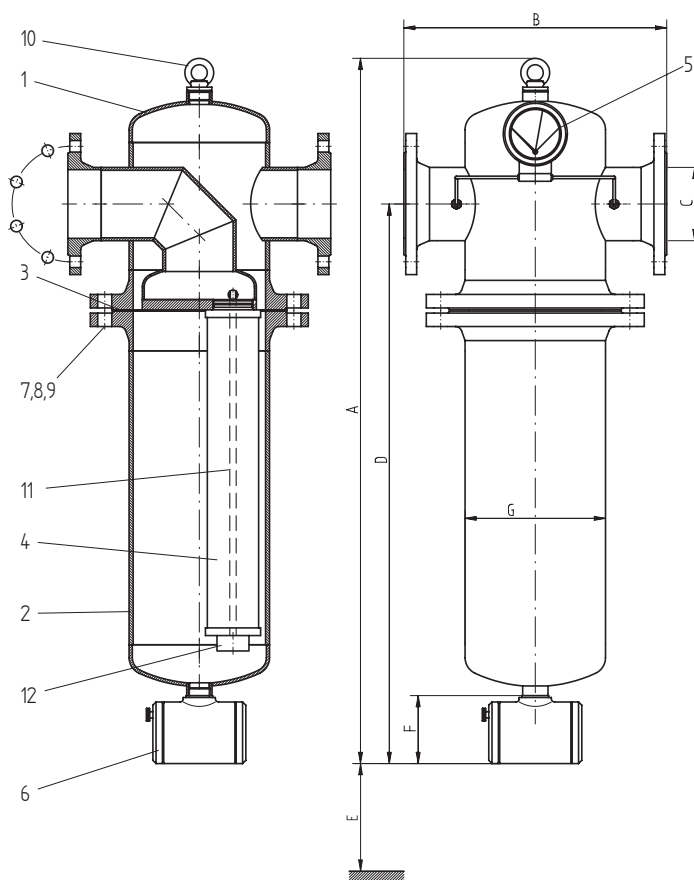
** without filter element

MATERIALS/ DIMENSIONS

SG STANDARD 0432 - 0768

Pos.	Stck.	Benennung
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	1	Econometer
6	1	Drain
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Econometer	Polymer
Float drain	aluminium mold cast
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	24 bar
Perm. operating temperature:	+1°C / +50°C
16 bar	+1°C / +65°C
15 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B±2 mm	C	D mm	E mm	F mm	Ø G mm	Element
0432	4320	31	80	1095	410	DN 100	870	580	105	219,1	3x20/30
0576	5760	40	90	1365	410	DN 100	1140	850	105	219,1	3x30/30
0768	7680	70	130	1475	480	DN 150	1210	875	105	273	4x30/30

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

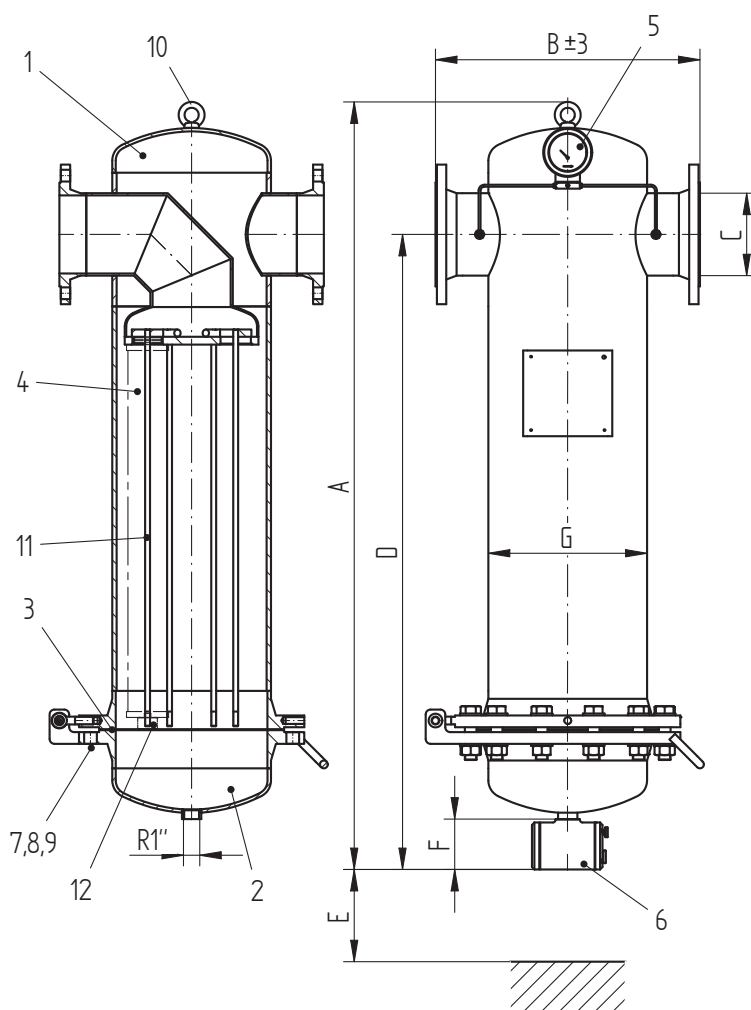
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MATERIALS/ DIMENSIONS

SG STANDARD 1152 - 3840

Pos.	Stck.	Benennung
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	1	Econometer
6	1	Drain
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Econometer	Polymer
Float drain	aluminium mold cast
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	22,9 bar
Perm. operating temperature:	+1°C / +50°C
16 bar	+1°C / +65°C
15 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B mm	C EN 1092-1	D mm	E mm	F mm	Ø G mm	Element
1152	11520	107	166	1560	540	DN 150	1300	875	105	323,9	6x30/30
1536	15360	192	262	1735	660	DN 200	1390	875	105	406,4	8x30/30
1920	19200	192	262	1735	660	DN 200	1390	875	105	406,4	10x30/30
2304	23040	335	400	1880	800	DN 250	1485	875	105	508	12x30/30
3072	30720	335	400	1880	800	DN 250	1485	875	105	508	16x30/30
3840	38400	516	590	1980	930	DN 300	1555	900	105	610	20x30/30

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

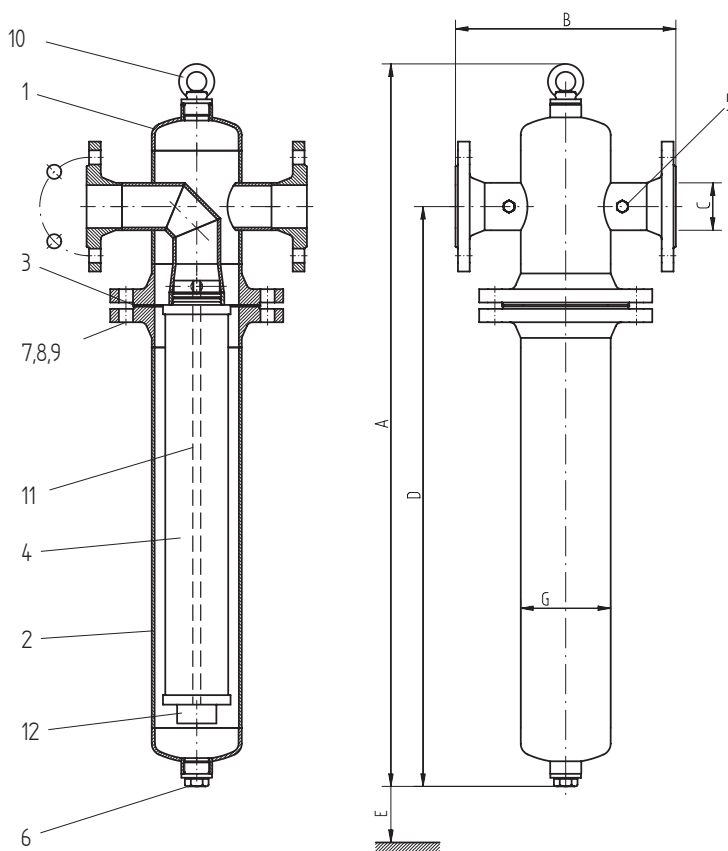
** without filter element

MATERIALS/ DIMENSIONS

SG STANDARD 0108 A - 0288 A

Pos.	Stck.	Benennung
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	2	Screw plug
6	1	Screw plug
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	24 bar
Perm. operating temperature:	-20°C / +50°C
16 bar	-20°C / +65°C
15 bar	-20°C / +120°C
13 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B±2 mm	C	D mm	E mm	Ø G mm	Element
0108	1080	7,5	26,5	910	280	DN 50	730	450	114,3	15/30
0144	1440	8,0	30,5	910	280	DN 65	730	580	114,3	20/30
0192	1920	16,0	37,5	1220	320	DN 80	1030	850	139,7	30/30
0288	2880	23,5	51,5	1260	360	DN 80	1045	850	168,3	30/50

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

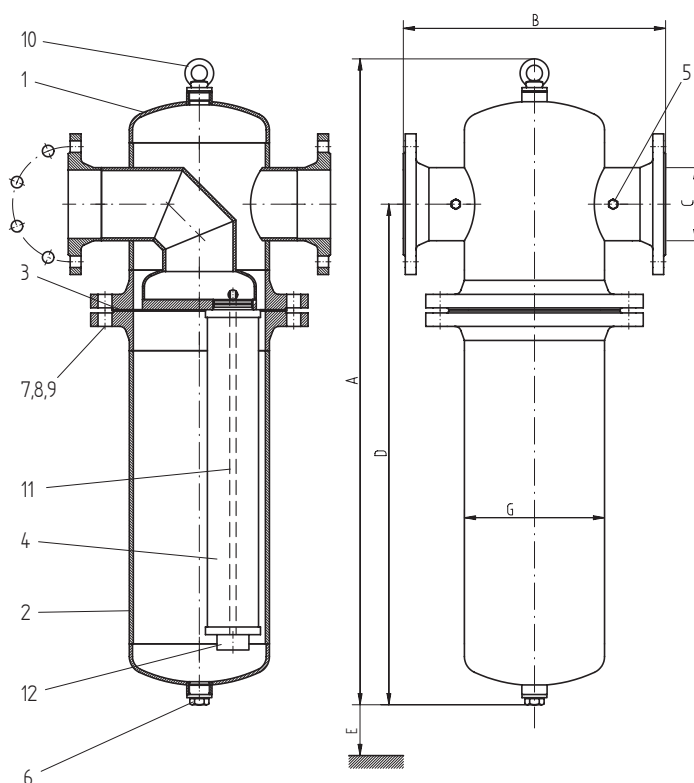
** without filter element

MATERIALS/ DIMENSIONS

SG STANDARD 0432 A - 0768 A

Pos.	Stck.	Benennung
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	2	Screw plug
6	1	Screw plug
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	24 bar
Perm. operating temperature:	-20°C / +50°C
16 bar	-20°C / +65°C
15 bar	-20°C / +120°C
13 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B±2 mm	C DIN 2633	D mm	E mm	Ø G mm	Element
0432	4320	31	77,5	1005	410	DN 100	780	580	219,1	3x20/30
0576	5760	40	87,5	1275	410	DN 100	1050	850	219,1	3x30/30
0768	7680	70	127,5	1385	480	DN 150	1120	875	273	4x30/30

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

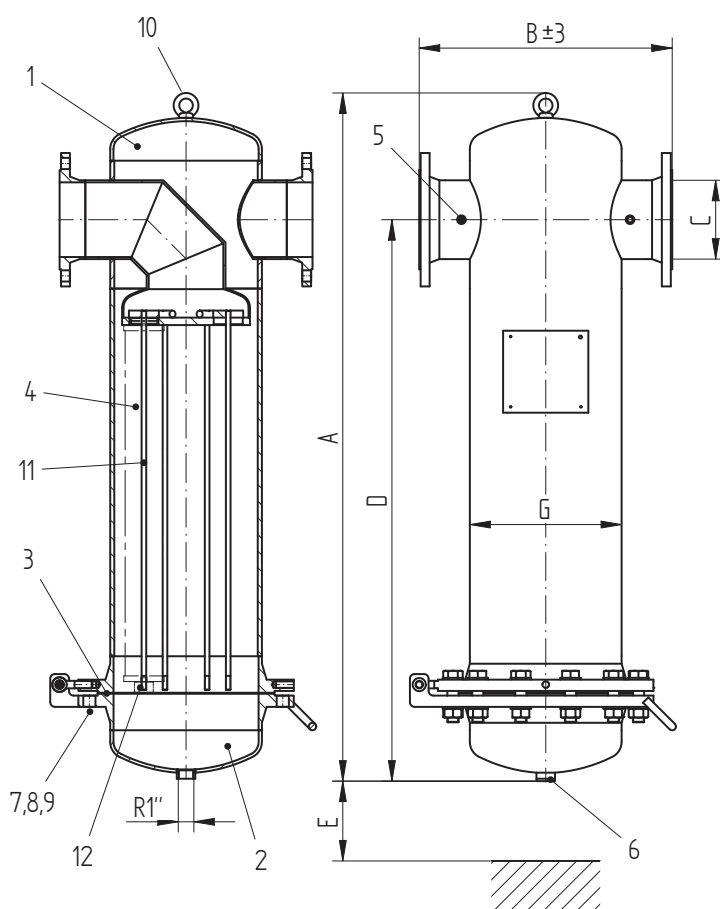
** without filter element

MATERIALS/ DIMENSIONS

SG STANDARD 1152 A - 3840 A

Pos.	Stck.	Benennung
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	2	Screw plug
6	1	Screw plug
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	22,9 bar
Perm. operating temperature:	-20°C / +50°C
16 bar	-20°C / +65°C
15 bar	-20°C / +120°C
13 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B mm	C EN 1092-1	D mm	E mm	Ø G mm	Element
1152	11520	107	164	1470	540	DN 150	1210	875	323,9	6x30/30
1536	15360	192	260	1645	660	DN 200	1300	875	406,4	8x30/30
1920	19200	192	260	1645	660	DN 200	1300	875	406,4	10x30/30
2304	23040	335	398	1790	800	DN 250	1395	875	508	12x30/30
3072	30720	335	398	1790	800	DN 250	1395	875	508	16x30/30
3840	38400	516	588	1890	930	DN 300	1465	900	610	20x30/30

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

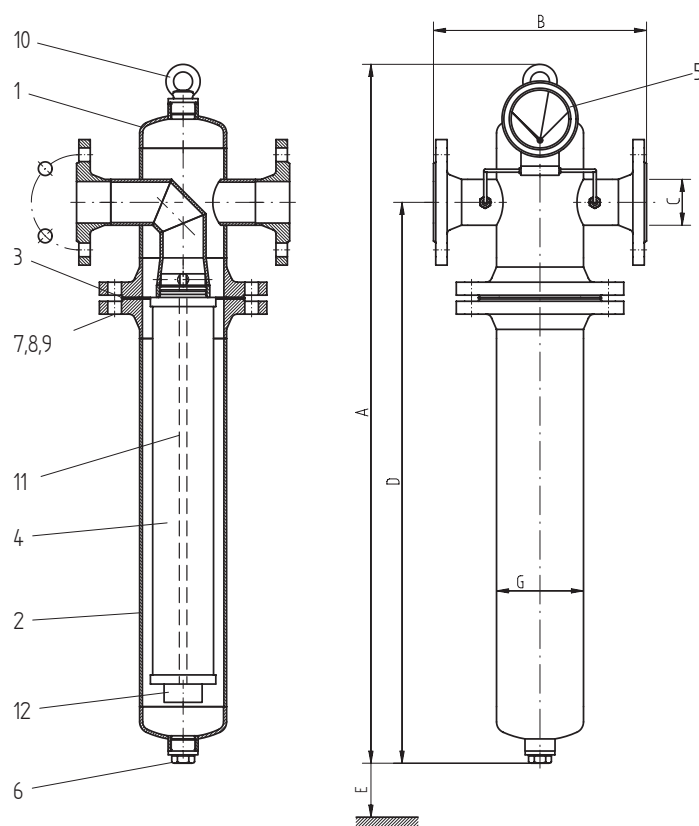
** without filter element

MATERIALS/ DIMENSIONS

SG STANDARD 0108 S - 0288 S

Pos.	Pcs.	Description
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	1	Econometer
6	1	Screw plug
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Econometer	Polymer
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	24 bar
Perm. operating temperature:	-10°C / +50°C
16 bar	-10°C / +65°C
15 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B±2 mm	C	D mm	E mm	Ø G mm	Element
0108	1080	7,5	26,5	910	280	DN 50	730	450	114,3	15/30
0144	1440	8,0	31,5	910	280	DN 65	730	580	114,3	20/30
0192	1920	16,0	38,5	1220	320	DN 80	1030	850	139,7	30/30
0288	2880	23,5	52,5	1260	360	DN 80	1045	850	168,3	30/50

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

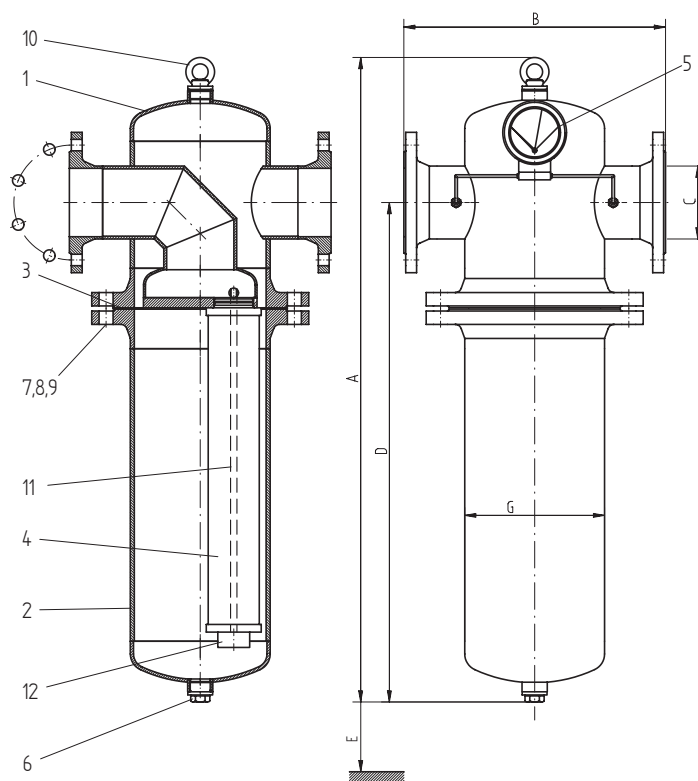
** without filter element

MATERIALS/ DIMENSIONS

SG STANDARD 0432 S - 0768 S

Pos.	Pcs.	Description
1	1	upper housing bowl
2	1	lower housing bowl
3	1	housing gasket
4	1	filter element
5	1	Econometer
6	1	Screw plug
7	1	hexagon bolt
8	1	hexagon nut
9	1	washer
10	1	lifting eye bolt
11	1	anchor bolt
12	1	knurled nut

Materials filter housing	
Filter housing	Steel
Econometer	Polymer
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	24 bar
Perm. operating temperature:	-10°C / +50°C
16 bar	-10°C / +65°C
15 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B±2 mm	C DIN 2633	D mm	E mm	Ø G mm	Element
0432	4320	31	78,5	1005	410	DN 100	780	580	219,1	3x20/30
0576	5760	40	88,5	1275	410	DN 100	1050	850	219,1	3x30/30
0768	7680	70	128,5	1385	480	DN 150	1120	875	273	4x30/30

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

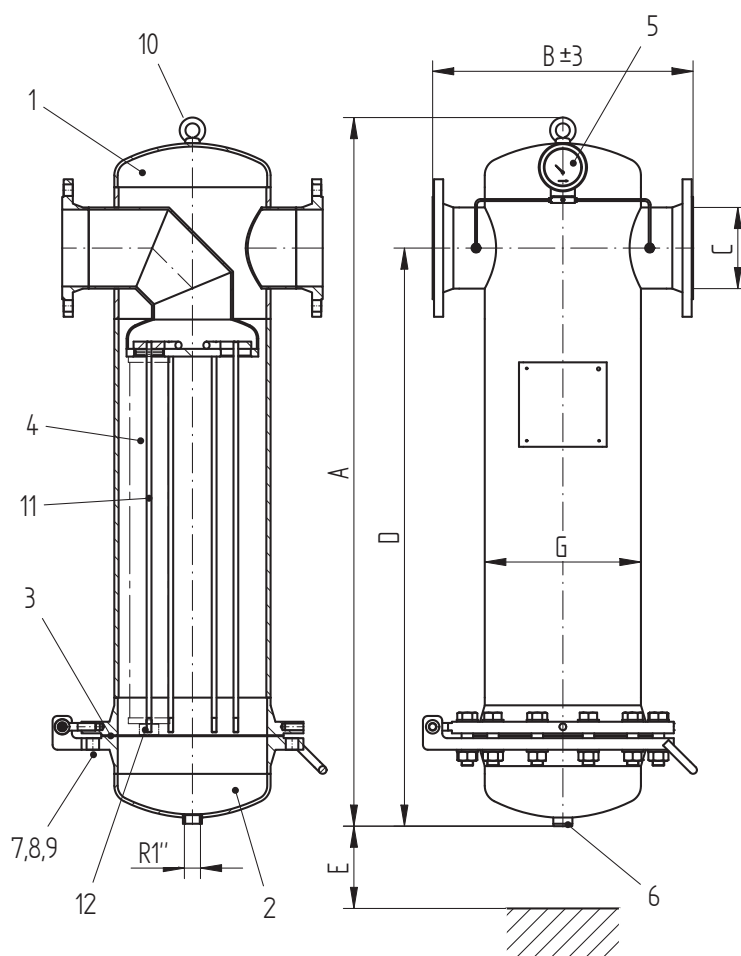
** without filter element

MATERIALS/ DIMENSIONS

SG STANDARD 1152 S - 3840 S

Pos.	Pcs.	Description
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	1	Econometer
6	1	Screw plug
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Econometer	Polymer
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	22,9 bar
Perm. operating temperature:	-10°C / +50°C
16 bar	-10°C / +65°C
15 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B mm	C EN 1092-1	D mm	E mm	Ø G mm	Element
1152	11520	107	164	1470	540	DN 150	1210	875	323,9	6x30/30
1536	15360	192	260	1645	660	DN 200	1300	875	406,4	8x30/30
1920	19200	192	260	1645	660	DN 200	1300	875	406,4	10x30/30
2304	23040	335	398	1790	800	DN 250	1395	875	508	12x30/30
3072	30720	335	398	1790	800	DN 250	1395	875	508	16x30/30
3840	38400	516	588	1890	930	DN 300	1465	900	610	20x30/30

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

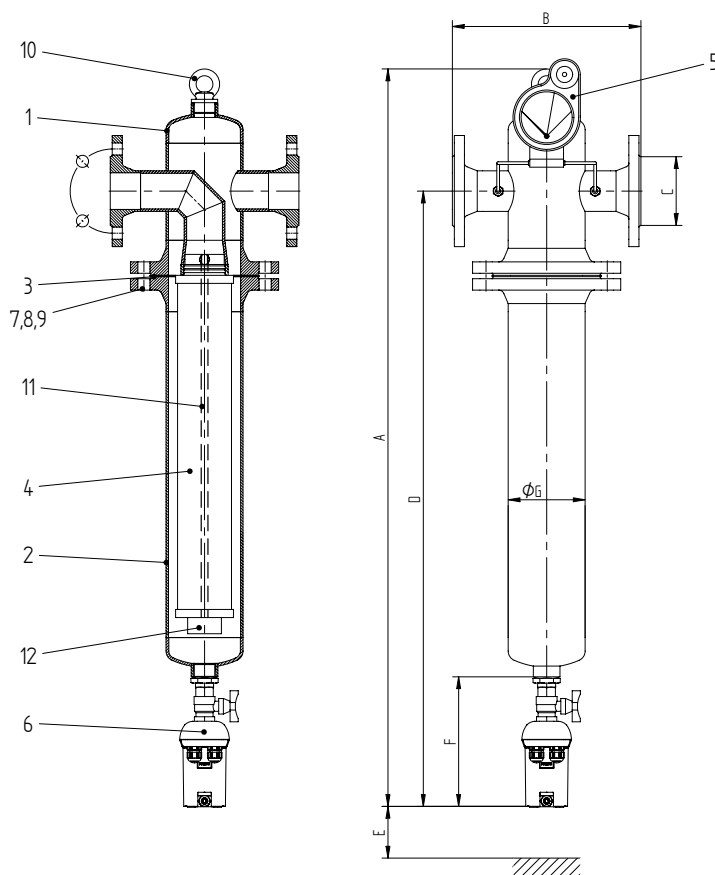
** without filter element

MATERIALS/ DIMENSIONS

SG SUPERPLUS 0108 SP - 0288 SP

Pos.	Pcs.	Description
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	1	Econometer
6	1	Drain UFM-D
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Economizer	Polymer
Condensate drain	Aluminium / fiber-glass reinforced plastic
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	24 bar
Perm. operating temperature:	+1°C / +50°C
16 bar	+1°C / +65°C
15 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B±2 mm	C	D mm	E mm	F mm	Ø G mm	Element
0108	1080	7,5	27,8	1090	280	DN 50	910	450	195	114,3	15/30
0144	1440	8,0	32,8	1090	280	DN 65	910	580	195	114,3	20/30
0192	1920	16,0	39,8	1400	320	DN 80	1210	850	195	139,7	30/30
0288	2880	23,5	53,8	1440	360	DN 80	1225	850	195	168,3	30/50

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

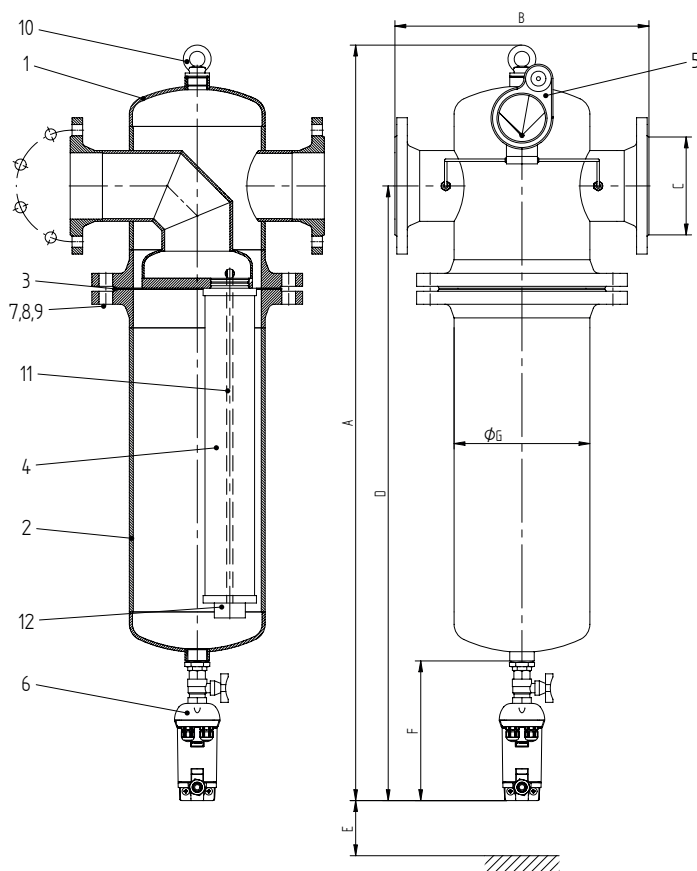
** without filter element

MATERIALS/ DIMENSIONS

SG SUPERPLUS 0432 SP - 0768 SP

Pos.	Pcs.	Description
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	1	Economizer
6	1	Drain UFM-D
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Econometer	Polymer
Condensate drain	Aluminium / fiber-glass reinforced plastic
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	24 bar
Perm. operating temperature:	+1°C / +50°C
16 bar	+1°C / +65°C
15 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B±2 mm	C DIN 2633	D mm	E mm	F mm	Ø G mm	Element
0432	4320	31	84	1215	410	DN 100	990	580	225	219,1	3x20/30
0576	5760	40	94	1485	410	DN 100	1260	850	225	219,1	3x30/30
0768	7680	70	134	1595	480	DN 150	1330	875	225	273	4x30/30

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

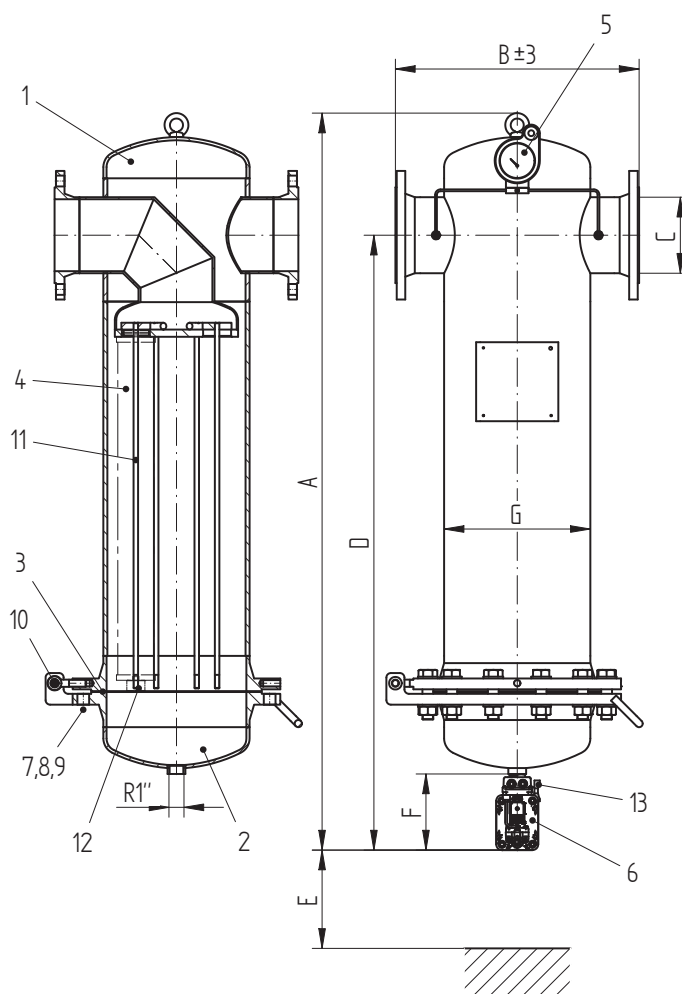
** without filter element

MATERIALS/ DIMENSIONS

SG SUPERPLUS 0432 SP - 3840 SP

Pos.	Pcs.	Description
1	1	Upper housing bowl
2	1	Lower housing bowl
3	1	Housing gasket
4	1	Filter element
5	1	Econometer
6	1	Drain UFM-D
7	1	Hexagon bolt
8	1	Hexagon nut
9	1	Washer
10	1	Lifting eye bolt
11	1	Anchor bolt
12	1	Knurled nut

Materials filter housing	
Filter housing	Steel
Econometer	Polymer
Condensate drain	Aluminium / fiber-glass reinforced plastic
Sealings	Aramide fibers
Coating	Polyester resin, powder-coated



Technical Data	
Max. operating pressure:	16 bar
Test pressure:	22,9 bar
Perm. operating temperature:	+1°C / +50°C
16 bar	+1°C / +65°C
15 bar	

Sizing housing	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B±2 mm	C DIN 2633	D mm	E mm	F mm	Ø G mm	Element
1152	11520	107	167	1630	540	DN 150	1370	875	175	323,9	6x30/30
1536	15360	192	263	1805	660	DN 200	1460	875	175	406,4	8x30/30
1920	19200	192	263	1805	660	DN 200	1460	875	175	406,4	10x30/30
2304	23040	335	402	2010	800	DN 250	1615	875	235	508	12x30/30
3072	30720	335	402	2010	800	DN 250	1615	875	235	508	16x30/30
3840	38400	516	592	2110	930	DN 300	1685	900	235	600	20x30/30

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

** without filter element