Single Filter F105A/F105B
DN 15-300

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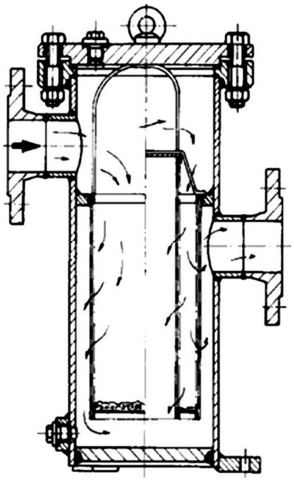

Fig. 1: F105A

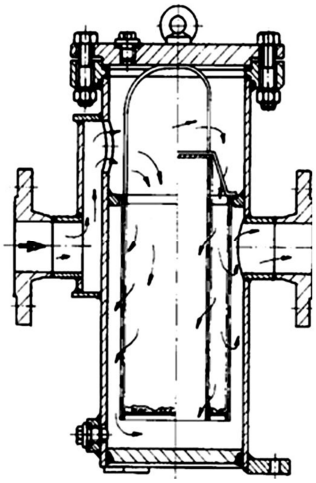

Fig. 2: F105B

Field of application
The single filter type F105 is a multi purpose filter for gaseous, liquid and pasty media. What makes this filter stand out is its high efficiency, the small place it requires, as well as quick and easy cleaning. As a special design, the inlet and outlet flange can be positioned where ever you want. The field of application of the standard design can be extended by additional equipment.

Abstract
The standard design of the filter consists of a welded body whose cover is fixed with bolts and nuts, alternatively with clamp, lever or the quick release cross-lock. Alternatively the filter can be equipped with a basket or ring type strainer, made of a perforated plate, alternatively covered with mesh having different mesh widths. The medium to be filtered flows through the strainer from the inside to the outside. The distinguishing feature between the designs A and B is the arrangement of the connection flanges (Fig. 1, Fig. 2).

Safety advice
The filter with clamp lock is not applicable for the filtration of dangerous media (e.g. toxic, flammable or caustic) and gases and respectively steam! In these cases cover lock with bolts and nuts, quick release lever-lock V150 or quick release cross-lock must be chosen.

Installation
The installation into pipings will be effected by means of flanges. Please ensure that the filter of the standard design is vertically installed - with the cover located at the top, without any additional loads and mechanically stress-free. The medium must flow in the direction indicated at the housing. A wrong installation may lead to functional disturbances of the filter.

Commissioning / Instruction manual
1. Open the venting device until the liquid emerges
2. Close the venting device
3. The filter is ready for use

Attention! As we are dealing with a pressure vessel, it should be ensured at any rate that the vessel is absolutely pressureless prior to starting the maintenance work. The safety rules and the regulations for the prevention of accidents required for the relevant medium have to be followed.

Cleaning
1. Depressurize the filter using venting or drain devices
2. Loosen the lock of the vessel and lift off the cover
3. Using the drain device, empty the filter at least down to the level of the strainer support
4. Pull the strainer insert upwards and lift it out of the filter body. Now the strainer can be cleaned by blowing out or blasting, using compressed air, steam, or water. If necessary, the strainer should be soaked and cleaned using a suitable agent. Possibly, an optimal cleaning will be obtained using ultrasonics. In case of all these modes of cleaning you should always take care not to damage the filter mesh
5. During the reassembly, following the disassembly procedure in the reverse, you should make sure to avoid any damage to the sealing elements; if necessary, they have to be replaced

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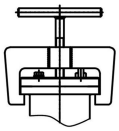
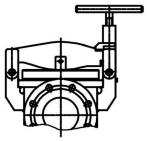
	Standard design	Special designs resp. supplementary equipment
Strainer insert	DN 15 - 40 : Basket strainer (Fig.1,left) DN 50 - 300 : Ring type strainer (Fig.1, right)	Ring type strainer, Filter bag Duplex filter bag, Filter Pleated Basket Strainer Cartridge
Filter fineness	80 - 1000 µm : mesh with support plate from 1 mm : perforated sheet	10 - 60 µm
Filter lock	Trough bolts with nuts (Fig. 1)	DN 15 - 50 Clamp lock (Fig. 3a) DN 65 - 100 Quick release lever-lock V150 with enforcement ventilation (Fig. 3b)  Fig. 3a  Fig. 3b
Venting device	Locking screw	Ball valve
Drain device	Locking screw	Ball valve
Connection	acc. design pressure of the filter inlet and outlet height-displaced: F 105 A (Fig. 1) inlet and outlet same height: F 105 B (Fig. 2)	acc. customer's specification, counter flanges, counter flanges with thread outlet with 90° elbow in torispherical head
Materials:		
Body and cover	St35.8/P265GH, 1.4541/1.4571	1.4571
Filter lock	acc. materials of the body	-
Cover sealing	asbestos-free flat gasket	O-Ring: Buna N, FPM, EPDM, MPQ, PTFE
Perforated plate/mesh (strainer)	Steel, Steel/1.4401, 1.4301, 1.4301/1.4401	1.4571, 1.4571/1.4401, Brass/Bronze, Hastelloy C4
Venting screw	Stainless steel	-
Venting ball valve	-	Steel, brass, stainless steel
Drain screw	Stainless steel	-
Drain ball valve	-	Steel, brass, stainless steel
Surface treatment inside		
Body steel	Conservation oil	Primer, Epoxy resin, rubber, E-CTFE
Body stainless steel	Glas bead blasted	Pickled and passivated
Surface treatment outside		
Body steel	Synthetic enamel RAL 5018 turquoise	-
Body stainless steel	Glas bead blasted	Pickled and passivated
Options:		
Differential pressure indicator optical, electrical		
Zinc anode		
Magnetic insert		
Steam, hot water or electrical heating, jacket heating		

Special design and materials are available upon request.

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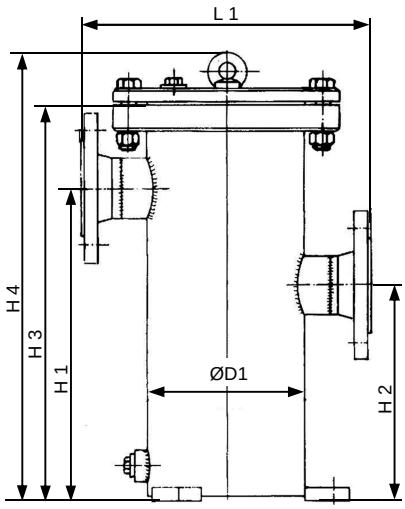
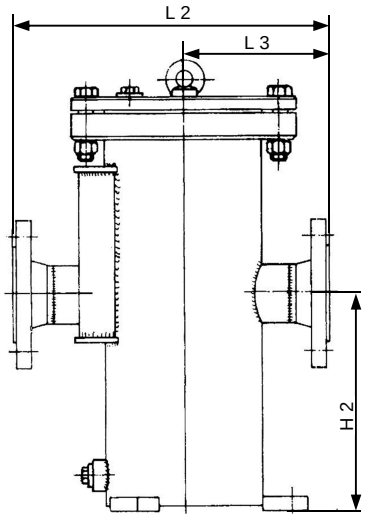
Technical data and dimensions



F 105 A



F 105 B

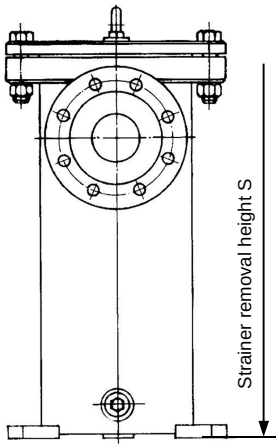


Fig. 4: Dimensions of the standard design

Fig. 5: Cover for DN 15 - 50 square type

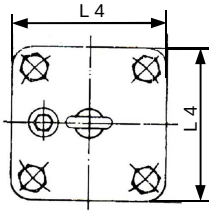


Fig. 6: Cover for DN 15 - 300 round type

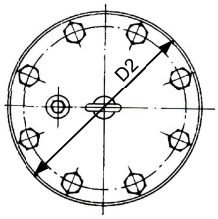
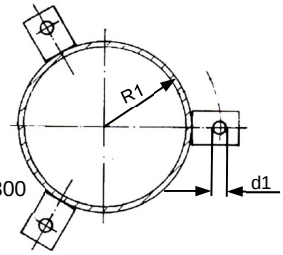


Fig. 7: Feet for DN 80 - 300



DN	PN	D1	D2*	H1	H2	H3	H4	L1	L2	L3	L4*	R1	d1	S	Volume	Flow capacity	Filter area appr.		Weight appr.
																	Basket strainer	Ring type strainer	
mm	bar	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	dm^3	m^3/h	cm^2	cm^2	kg
15	25	76	165	215	130	290	315	200	200	100	120	-	-	590	1	1,5	180	-	6
20	25	76	165	215	130	290	315	200	200	100	120	-	-	590	1	3	180	-	7
25	25	76	165	215	130	290	315	200	200	100	120	-	-	590	1	4,5	180	-	7
32	25	114	200	245	155	315	375	250	270	125	150	-	-	650	3	7	380	620	12
40	25	114	200	280	160	355	415	265	285	132,5	150	-	-	720	3,5	12	430	690	13
50	25	114	200	305	175	385	445	270	300	135	150	-	-	790	4	18	500	720	15
65	16	168	260	325	180	415	480	350	360	175	-	-	-	850	9	30	720	1120	32
80	16	219	315	400	240	515	580	390	435	195	-	140	18	1040	18	45	1180	1850	50
100	16	219	315	465	280	580	645	390	445	195	-	140	18	1170	21	70	1400	2200	53
125	16	244	335	575	365	705	770	420	505	210	-	152	18	1460	26	110	2260	3300	71
150	16	273	365	730	485	880	950	460	570	230	-	177	23	1760	50	160	3400	4900	96
200	16	356	470	750	455	930	1005	570	710	285	-	218	23	1840	90	280	4000	6800	175
250	16	406	520	1080	720	1310	1410	630	825	315	-	243	23	2600	170	440	6850	10000	266
300	16	508	640	1175	765	1425	1525	770	975	385	-	294	23	2830	285	610	9600	14100	418

* = The design of the cover (round or square type) at DN 15 - 50 depends on the availability.

Bigger nominal diameters, higher operating pressures and designs with torispherical heads upon request. The flow rates refer to an inlet speed of 2,5 m/s in pressure pipes, a viscosity of 1 mPas (water) and filter fineness of ≥ 80 µm. For suction pipes half of the flow is recommended.
The measurements for ancillary and special equipment are available on request.

Our quality assurance system
conforms to ISO 9001:2008

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001