

Duplex Filter F605

DN 25 – 150

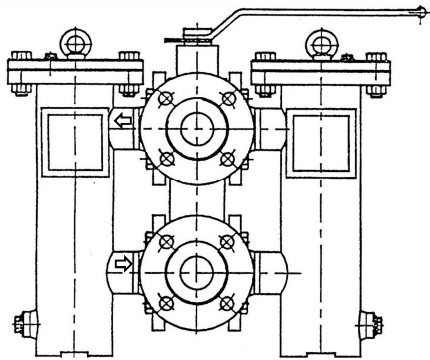


Fig. 1: F605 with A600

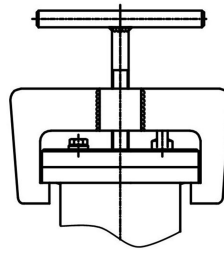


Fig. 2: Clip lock

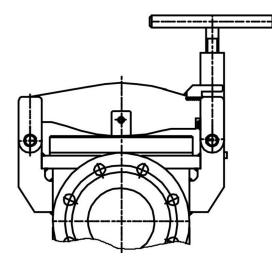


Fig. 3: Quick acting lever lock

Field of application

The duplex filter type F605 with the switch-over device A600 is a multi-purpose filter for liquid and gaseous media.

Advantages

- continuous filter operation during the cleaning phase
- no interruption of the flow during the switching-over phase
- low filter finenesses
- quick replacement of the strainer if equipped with quick-release locks

Abstract

The duplex filter consists of two individual filters which can be operated alternatively or in parallel via 3-way ball valve fittings. The single filters of the standard design consist of welded steel bodies provided with covers which are fixed by means of bolts and nuts. The scope of delivery will comprehend the venting devices within the covers and the drain devices within the bodies.

The filter can be equipped with basket or ring type strainers. The strainer inserts consist of a perforated plate optionally covered with cloths having different mesh widths. The medium to be filtered will flow through the strainer from the inside to the outside.

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 to be filtered should enter the filter via the upper connection flange. A wrong installation may lead to functional disturbances of the filter.

Commissioning / Instruction manual

1. Bring the switch-over into the wanted operating position (consider the position indicator)
2. Open the venting device until the liquid emerges
3. Close the venting device
4. The filtering bowl is ready to be used

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.

Switching-over procedure

1. Rotate the switch-over lever by 180° or the hand wheel up to the stop
2. Open the venting device of the filter bowl to be operated until the liquid emerges
3. Close the venting device. The filter has been switched over

Cleaning

1. Depressurize the filter bowl shut down using the venting or drain devices.
2. Loosen the filter lock 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 out of the filter housing. 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 cloth.
5. During the reassembly following the disassembly procedure in the reverse, the sealing elements should be checked if they are intact. If necessary they should be replaced.

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Heating system

(Suffix of the type designation code:-H) As a starting aid and in order to achieve a permanent decrease of the viscosity of the medium to be filtered, the filter can additionally be equipped with a heating system. The heating system will be designed as steam or hot water dome heating system or as an electric heating system respectively which can be supplied in steel or stainless steel and which will have a flange connection DN 15 or an Ermeto coupling respectively. Furthermore, we would like to offer you a steam heating as a heating system within the outer mantle. Upon request we shall let you have the data of this particular design.

	Standard design	Special design or supplementary equipment respectively
Strainer insert	DN 25 - 40 : basket strainer DN 50 - 150 : ring type strainer	Ring type strainer, duplex strainer basket strainer, pleated basket strainer, filter bags, filter elements
Filter fineness	80 - 1000 µm: mesh with support plate from 1mm : perforated sheet	10 - 60 µm
Filter lock	Through bolts with nuts (Fig. 1)	DN 25 - 50 Clip lock (Fig. 2) DN 32 - 100 Quick acting lever lock (Fig. 3) DN 80 - 100 Quick-release cross lock
Venting devices	Locking screw	Ball valve
Drain devices	Locking screw	Ball valve
Connection	Flanges acc. DIN 2501 Position of flanges: superposed	acc. customer's specification
Materials:		
Bodies and covers	St35.8/P265GH, 1.4541/1.4571	1.4571
Filter lock	acc. the body material	1.4571
Cover sealings	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
Switch-over device	1.0619/1.4408/TFM-25% Glas/FPM	1.4571/1.4408/TFM-25% glass/FPM
Venting screws	Stainless steel	-
Venting ball valves	-	Steel, brass, stainless steel
Drain screws	Stainless steel	-
Drain ball valves	-	Steel, brass, stainless steel
Surface treatment inside		
Body steel	Conservation oil	Anti-corrosion protection enamel, epoxy resin, rubber, E-OTFE
Body stainless steel	Pickled and passivated	Glass bead blasted
Surface treatment outside		
Body steel:	Synthetic enamel RAL 5018, turquoise	-
Body stainless steel	Pickled and passivated	Glass bead blasted
Options:		
Differential pressure indicator optical, electrical		
Zinc anode		
Magnetic insert		
Steam, warm water or electrical heating		

On customer's request further design and material variants will be manufactured and supplied.

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Technical data and dimensions

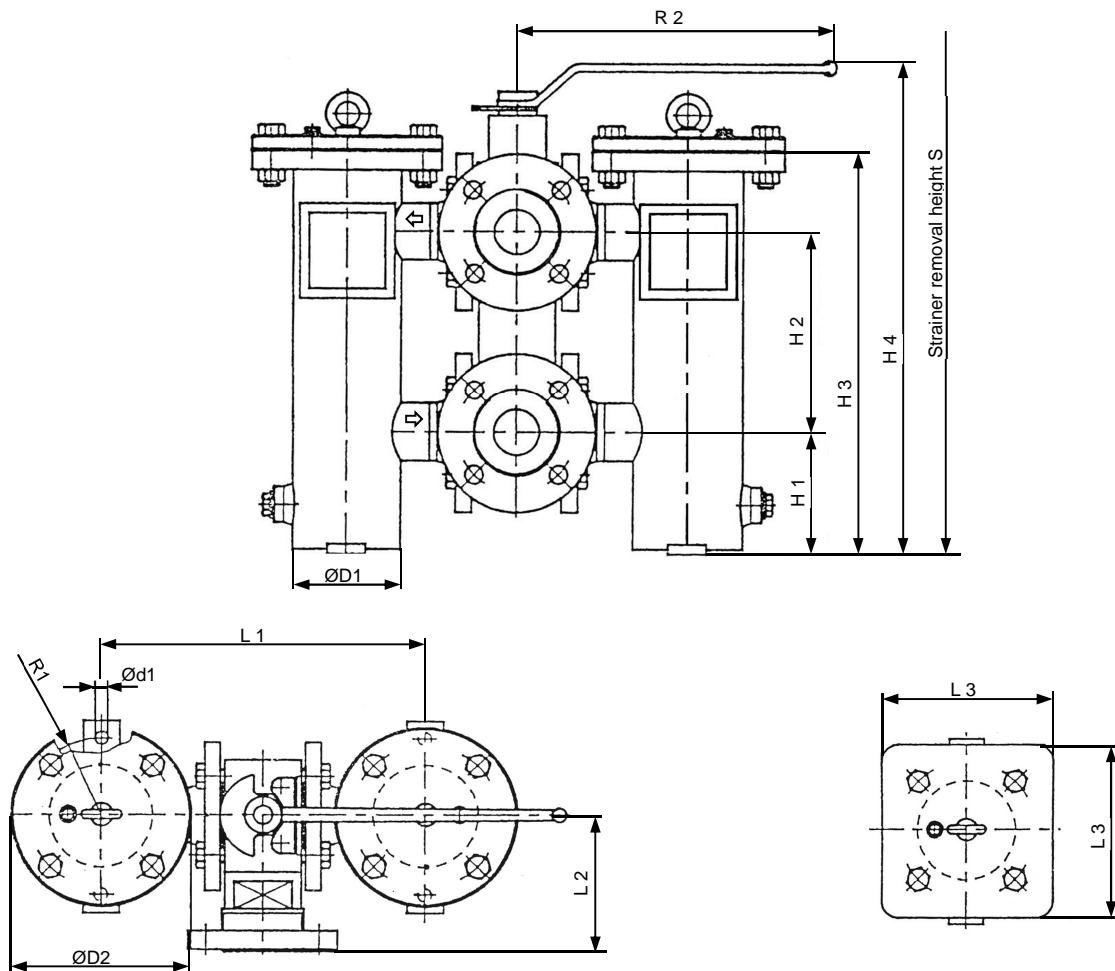


Fig. 4: Dimensions of standard design

DN	PN	D1	D2*	H1	H2	H3	H4	L1	L2	L3*	R1	R2	d1	S	Volume	Flow rate	Filter area		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
25	16	76	-	95	155	325	393	268	93	120	68	260	14	630	1	4,5	180	-	30
50	16	114	200	125	210	420	595	358	149	150	87	332	14	830	4,5	18	500	760	60
80	16	219	315	240	300	675	740	575	155	-	140	160	18	1370	24	45	1850	2950	180
100	16	219	315	265	345	770	835	606	175	-	140	160	18	1560	28	70	2100	3300	220
150	16	273	365	295	435	950	1017	766	240	-	177	200	23	1910	50	160	3400	4900	375

* = The design of the covers (round or square type) at DN15 - 50 depends on the availability.

The flow rate refers to an inlet speed of 2,5 m/s in pressure pipes, a viscosity of 1 mPas (water) and filter units of $\geq 80 \mu\text{m}$. Half the flow rate is recommended for suction pipes.

BS: basket strainer RS: ring type strainer

The measurements for ancillary and special equipment are available on request.

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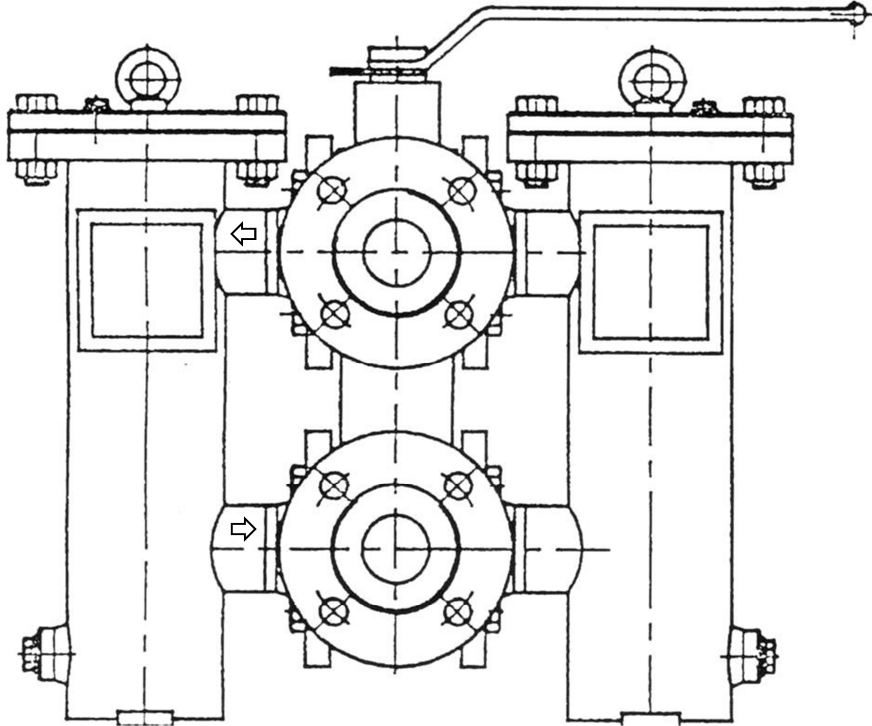


Fig. 5: F605 with A-600

Nominal width DN	Nominal pressure PN				Special
	16	16	10	16	
25	16	16	-	-	
50	16	16	16	-	PN 64
80	16	-	10	16	PN 40
100	16	-	10	16	PN 40
150	16	-	-	16	
Type of filter lock	Through bolts and nuts	Clip-lock	Quick acting lever lock V150	Quick release cross lock V140	

Our quality assurance system
conforms to ISO 9001:2008

