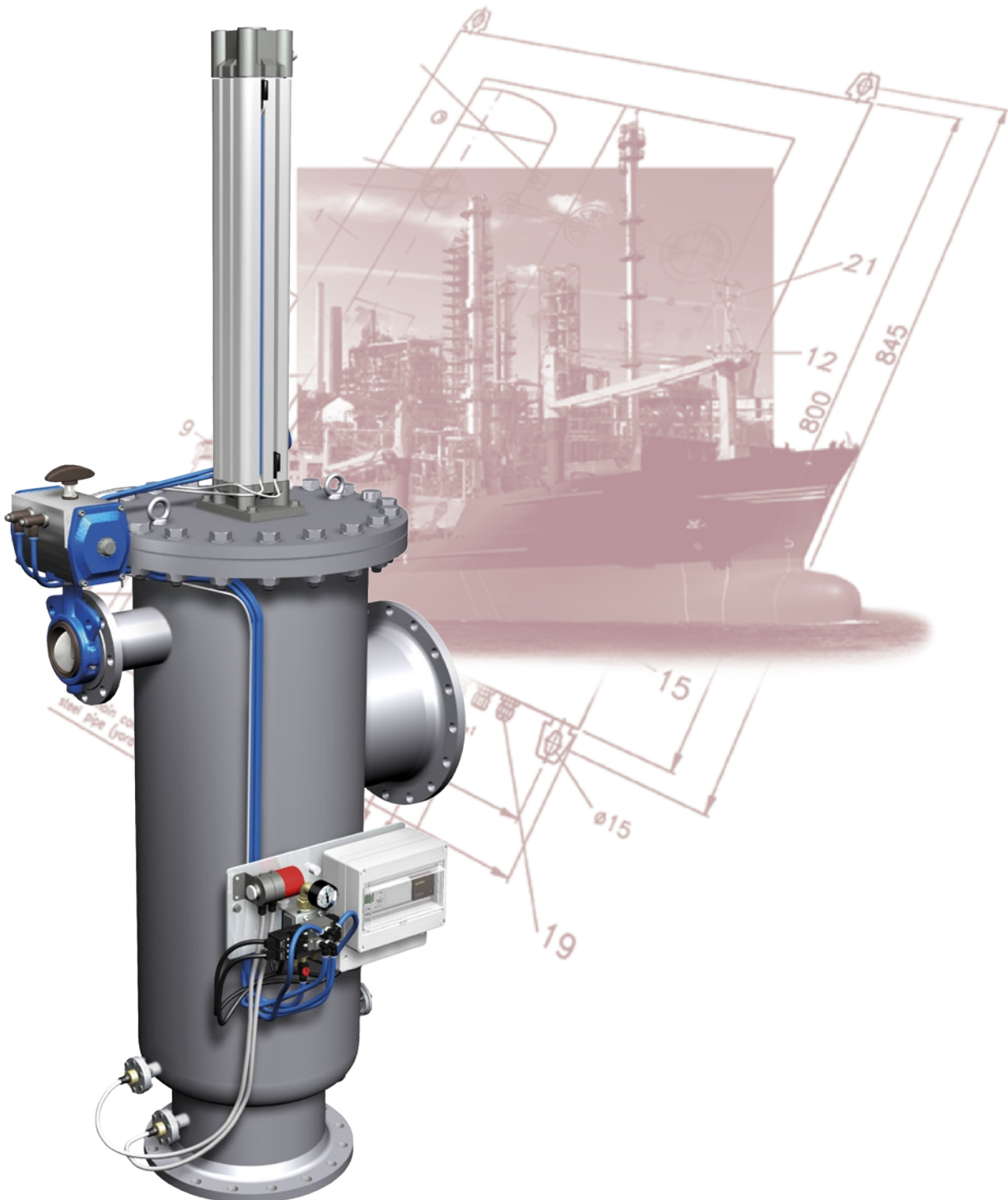
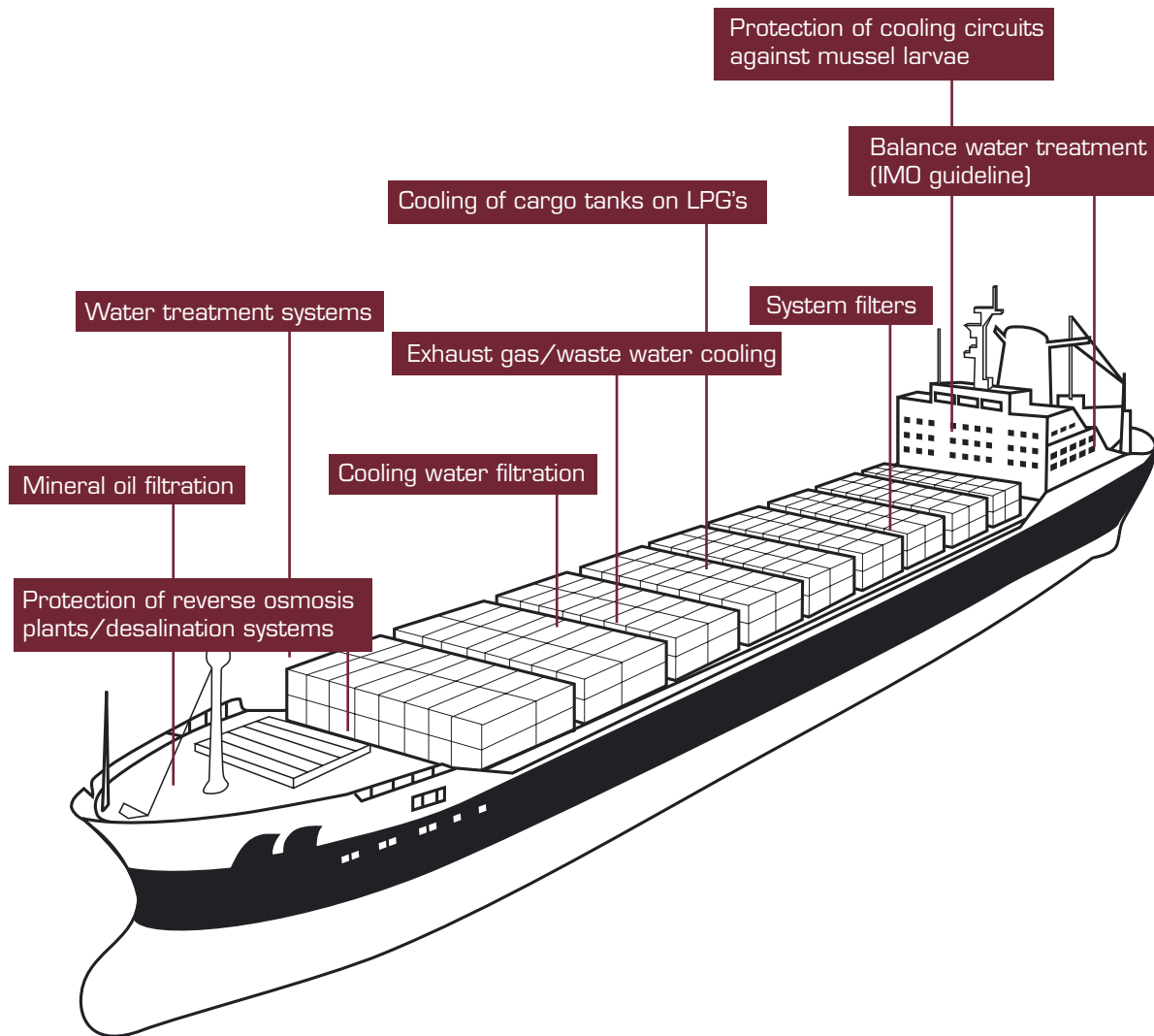


Self-Cleaning Automatic Filter AW 1200 DN 40 - DN 1000



Areas of Application/ Systems in Shipbuilding



Advantages for the user

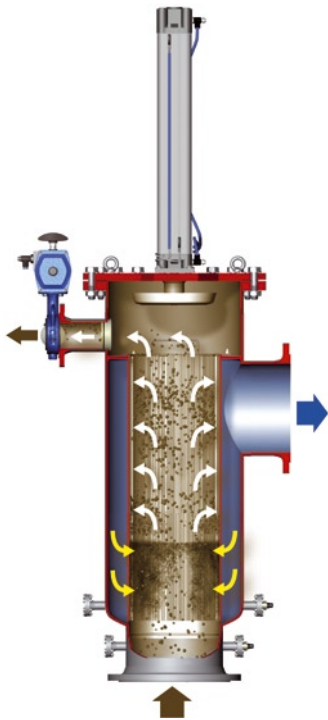
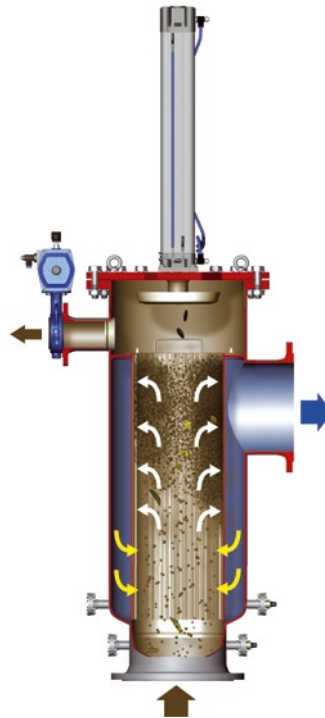
- Flow rates 8 - 7.500 m³/h
- min. 0,3 bars operating pressure
- function independent from orientation of installation
- minimum differential pressures in continuous operation (< 0,1 bars)
- short, optimizable flushing times and low pressure drop in the system during flushing process
- low maintenance costs for spare parts
- low flushing flows (adjustable)
- contact-less flushing
- continuous filtration, also during flushing process
- precipitation of micro-sized up to very big particles
- controlled by special multi-function unit or integration into existing control system

Cleaning Principle

Filtration

Because of fluidic principles, the particles get deposited in the strainer from top to bottom.

- Very low differential pressure during filtration
- High capacity for sediments retention of the strainer



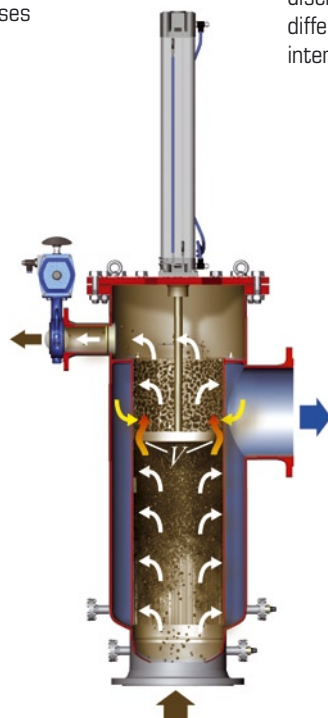
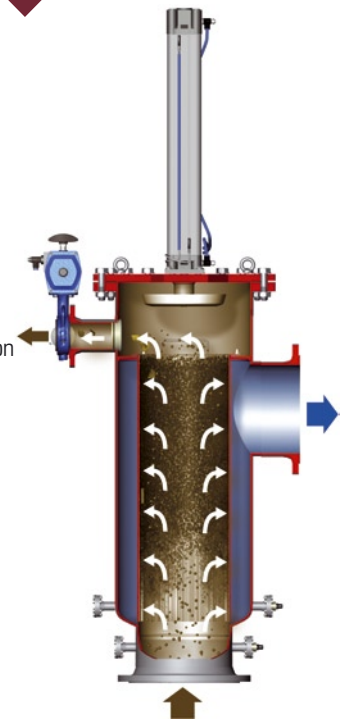
Filtration and final flushing phase

While the disc reaches its initial position, the flush valve remains open. This allows the remaining particles to exit the filtration device. Also, during the upward motion of the disc the lower section of the strainer element is rinsed, because of re-established conditions of flow as well as the corresponding Bernoulli laws.

- Flush valve closes

Filtration and continuous start of flushing

The flush valve opens and thereby generates a pressure gradient in relation to the medium pressure prevailing in the pipe system. Due to this pressure gradient, the coarsest and easily washable particles are discharged out of the strainer element. During this process, the filtration continuously carries on, the flushing flow is controlled by means of an orifice at the discharge outlet. Flush release through differential pressure monitoring or time interval controls.

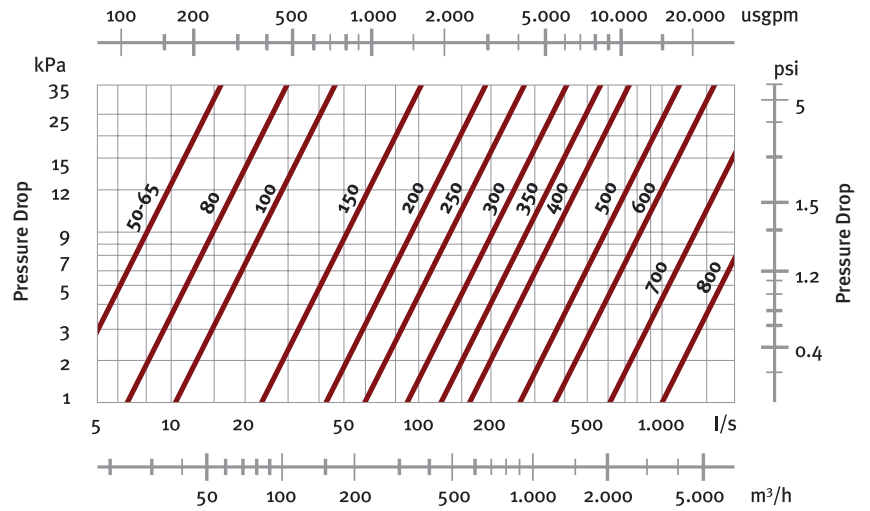
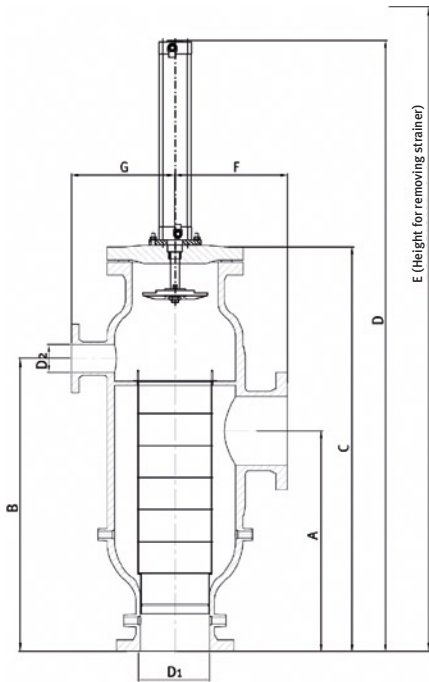


Filtration and flushing

The flush valve is in open position. The piston of the pneumatic drive with the flushing disc moves into the strainer (duration e.g. 5 sec). The strong local increase of speed in the gap between the disc and the strainer element causes a loss of static pressure (Bernoulli effect) on the filtration side of the strainer. In a locally defined area around the flushing disc, the external pressure on the strainer element is higher than in the area between the disc and the strainer element. In conjunction with the locally highly increased speed of medium flow, this causes a "suction" effect on the inside of the strainer. The pressure gradient generated by the open flush valve washes the filtrate out of the filter.

- Low, adjustable flushing flows

Technical Data



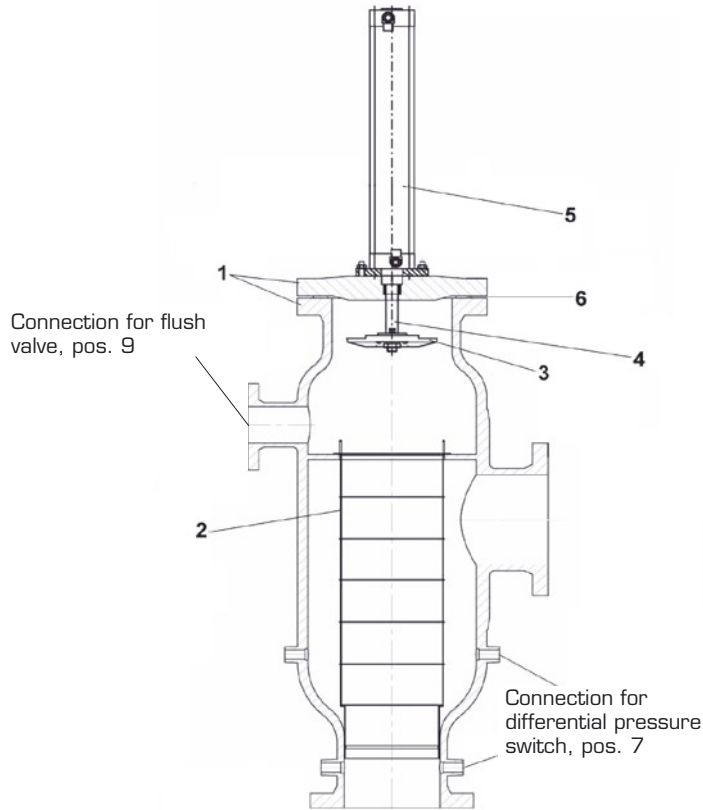
Material: Steel** / stainless steel

D ₁	D ₂	A	B	C	D	E	F	G	Weight kg*	Flow rate*** m ³ /h	Flush volume per flushing (adjustable) m ³
40/50	25	310	385	520	1.020	1.100	200	135	25	8-45	0,04
65	25	310	385	520	1.020	1.100	200	135	30	8-45	0,04
80	40	405	510	620	1.100	1.200	235	190	35	15-80	0,06
100	40	430	480	680	1.305	1.400	240	240	40	40-120	0,09
150	40	490	680	810	1.450	1.550	260	255	80	50-300	0,20
200	80	590	790	1.010	1.950	2.050	290	280	110	100-500	0,54
250	100	740	980	1.250	2.180	2.280	345	330	165	160-800	1,20
300	100	890	1.155	1.440	2.510	2.610	375	385	200	200-1.100	2,20
400	100	1.010	1.320	1.535	3.010	3.100	485	465	450	400-2.000	4,50
500	150	1.590	2.205	2.350	3.800	3.900	695	555	1.400	800-3.000	9,50
600	200	1.540	3.055	3.490	4.650	4.750	900	805	1.600	1.200-4.000	13,50
700	200	2.650	3.255	3.750	5.650	5.750	1.200	1.100	1.800	1.500-5.000	17,00

Material: GRP/FRP (glass fibre reinforced polyester/fibre reinforced polyester)

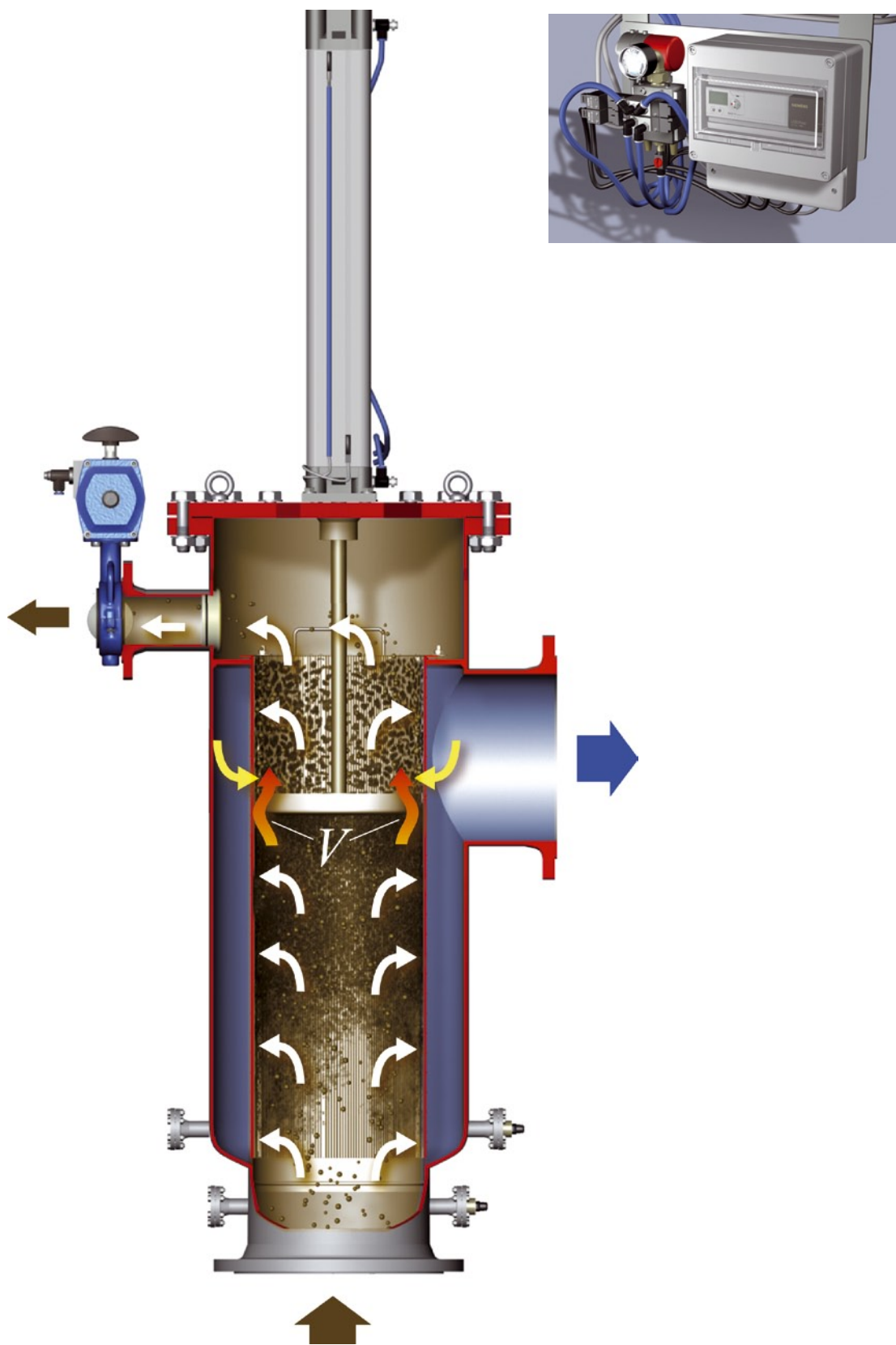
D ₁	D ₂	A	B	C	D	E	F	G	Weight kg*	Flow rate*** m ³ /h	Flush volume per flushing (adjustable) m ³
40/50	25	420	5,35	720	1.200	1.300	165	165	15	8-45	0,04
65	25	420	535	720	1.200	1.300	165	165	17	8-45	0,04
80	40	465	595	800	1.300	1.400	200	175	20	20-90	0,06
100	40	490	630	870	1.370	1.450	225	220	25	40-120	0,09
150	40	580	750	1.030	1.680	1.750	260	235	30	70-300	0,20
200	80	660	870	1.200	2.000	2.100	325	300	60	150-500	0,54
250	100	785	1.030	1.410	2.300	2.400	395	350	90	200-700	1,20
300	100	895	1.190	1.620	2.800	2.900	500	400	180	300-1.000	2,20
400	100	1.260	1.600	2.100	3.600	3.700	575	500	260	500-1.800	4,50
500	150	1.750	2.170	2.760	4.300	4.400	675	580	715	800-2.500	9,50
600	200	1.900	2.300	2.900	4.500	4.600	780	640	1.100	1.200-4.000	13,50
700	200	2.200	2.600	3.100	4.750	4.850	870	700	1.400	1.500-5.000	17,00

* depending on design pressure, ** with rubber lining, if required, *** depending on mesh size



Pos.	Description	Excution	Remarks
1	Body / cover	steel, inside: anti-corrosion oil / outside: RAL 5010 blue	temperature limits: acc. to PED or AD2000 regulations -20°C up to 95°C (special design: up to +120°C)
		steel, inside: rubber lining / outside: primer coating	
		steel, inside / outside: epoxy coating	
		stainless steel, inside / outside: glass bead blasted	temperature limits: -70°C up to 90°C (special design: up to +120°C)
		stainless steel, inside: etched + passivated / outside: glass bead blasted	
		GRP/FRP, inside: vinylester lining / outside: GRP outer colour	
		GRP/FRP: inside: PP or PVDF lining / outside: GRP outer colour	
2	Strainer element	Perforated plate, stainless steel 1.4571	mesh sizes: 0,2mm up to 10mm (other materials and mesh sizes on request)
		Perforated plate, stainless steel, epoxy coated	
		Perforated plate, CuNiFe	
		Gauze (mesh), stainless steel (with frame basket)	
		Slotted hole strainer, stainless steel 1.4401	
3	Flushing disc	POM	
4	Piston rod	stainless steel 1.4571	
		special brass	
		bronze	
5	Pneumatic cylinder	double-acting, control pressure 6 bars	option 1: control pressure 4 bars; option 2 (depending on DN): electric drive
6	Sealings	NBR	other materials on request
7	Diff. pressure switch	electric, 1 contact, protection class IP 65	option: EX protection (ATEX)
8	Control unit	multi-function unit, 230V / 50Hz, IP 65	option: EX protection (ATEX), other supply voltages on request
9	Flush valve	butterfly valve, pneumatically operated, control pressure 6 bars	option: ball valve

- Flanges acc. to DIN 2632/2633 or corresponding to customer specification (e.g. ANSI)
- Drain and vent device on request



ARMATUREN-WOLFF
Friedrich H. Wolff GmbH & Co. KG
Oehleckerring 29
D-22419 Hamburg

Telefon +49 40 532873-0
Telefax +49 40 532873-29
aw@armaturen-wolff.de
www.armaturen-wolff.de