Strainer for pipelines, straight-through style up to 200 °C

Technical Data

Connection	DN 25 - 400	
Nominal Pressure	PN 6 - 25	: DN 200 - 400
	PN 16	: DN 50 - 150
	PN 40	: DN 25 - 150

Description

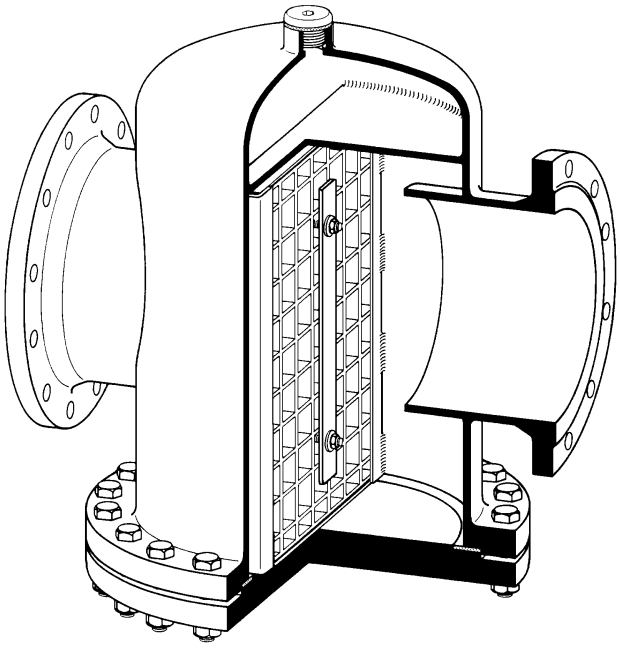
Strainers protect plant and equipment such as regulators, valves, measuring equipment against damage or operational failure caused by contamination. They are essential for start-up as well as continuous operation.

SF 2.00 is a welded steel construction and has a drain plug in its cover and in the bottom of the body. The flat strainer mesh which is positioned perpendicular to the flow, and the straight-through flow result in a minimum pressure drop and a large sludge collecting chamber.

Cleaning is extremely simple and quick. Only the cover has to be removed for dismantling.

It is recommended that the larger strainer sizes (from DN 200) should be installed with the cover at the top.

The SF 2.00 strainer may be fitted with pressure gauges upstream and downstream of the strainer.



STANDARD EQUIPMENT

- Stainless steel mesh
  DN 25 - 150 mesh size 0.5 mm
  DN 200 - 600 mesh size 1 mm
- Drain plug in cover and body bottom

OPTIONS

- Strainer sizes DN 500 – 1000
  see Data sheet SF 2.00K/2.1.041.1
- Strainer mesh sizes 0.25 mm, 1 mm or 2.5 mm
- Pressure gauges upstream and downstream of the strainer
- Various seal materials suitable for your medium
- Special connections: Aseptic, ANSI or DIN flanges, welding spigots; other connections on request
- Special versions on request

Operating instructions, Know How and Safety instructions must be observed.
The pressure has always been indicated as overpressure.
We reserve the right to alter technical specifications without notice.

Screen Netting

screen-no.	light screen aperture mm	open screnn area %	standard
3	0.25	41	
4	0.5	51	DN 25 - 150
5	1.0	67	DN 200 - 400
7	2.5	69	

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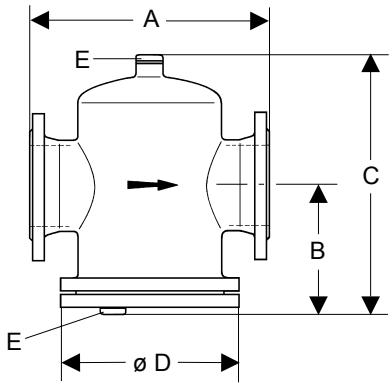
Strainer for pipelines, straight-through style up to 200 °C

Materials			
Nominal Diameter	DN 25 - 80	DN 100 - 150	DN 200 - 600
Temperature	200 °C	200 °C	200 °C
Body	St 37-2	St 37-2	St 37-2
Seal	Nova Universal	Nova Universal	Nova Universal
Screen	CrNiMo-steel	CrNiMo-steel	CrNiMo-steel
Screen Frame	CrNiMo-steel	grey cast iron	steel zinced



Dimensions [mm]										
		nominal diameter DN								
size	PN	25	32	40	50	65	80	100	125	150
A	up to PN 40	160	180	200	230	290	310	350	400	480
B*		140	140	160	190	200	200	230	260	300
		250	250	310	350	360	360	430	490	600
C		200	200	240	320	340	340	400	470	560
ø D		185	185	200	235	270	270	300	375	450
E		G 1/4	G 1/4	G 1/4	G 1/4	G 1/2	G 1/2	G 3/4	G 3/4	G 1

* size C with screen pulled out

Dimensions [mm]								
		nominal diameter DN						
size	PN	200	250	300	350	400	500	600
A	6 - 16	500	600	700	800	900	1100	1300
A	25	550	650	750	900	950	1150	1350
B	up to PN 25	310	360	420	480	550	680	790
*		750	900	1050	1150	1350	1600	1900
C		600	700	820	930	1050	1300	1500
ø D		450	530	580	710	750	940	1100
E		G 1	G 1 1/4	G 1 1/4	G 1 1/2	G 1 1/2	G 2	G 2

* size C with screen pulled out

Weights [kg]									
nominal	nominal diameter DN								
pressure	25	32	40	50	65	80	100	125	150
PN 16	-	-	-	-	25	35	45	55	75
PN 40	12	15	19	28	35	45	70	90	125

Weights [kg]							
nominal	nominal diameter DN						
pressure	200	250	300	350	400	500	600
PN 6, 10	85	145	205	310	430	660	1150
PN 16	120	160	215	340	510	920	1500
PN 25	170	250	320	460	650	1170	1900

Special designs on request.
The pressure has always been indicated as overpressure.
Mankenberg reserves the right, to alter or improve the designs or specifications of the products described herein without notice.

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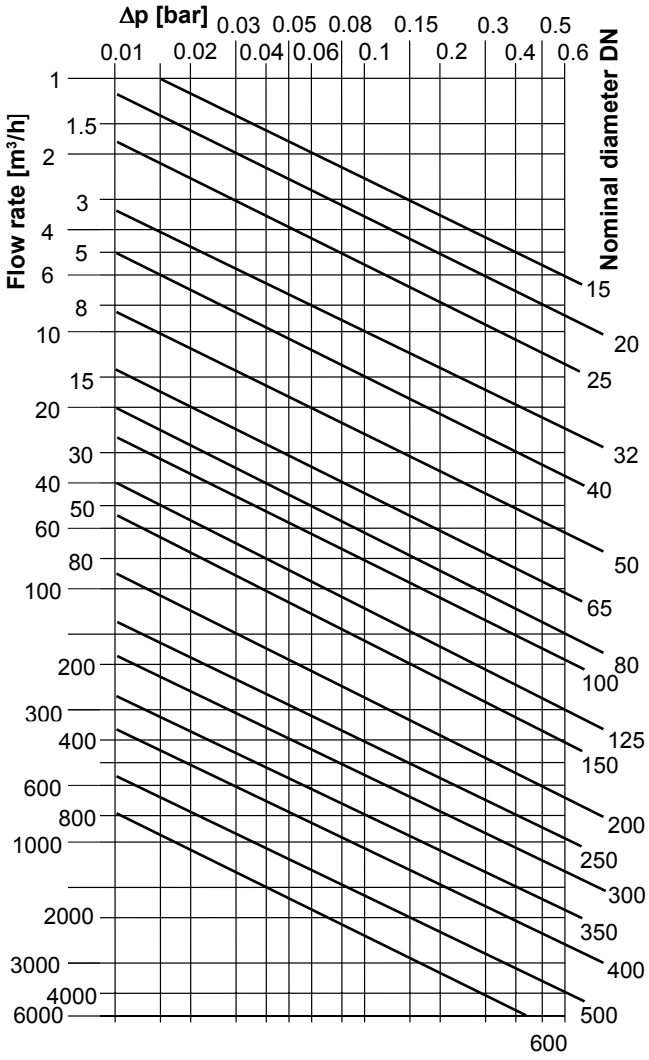
Strainer flow resistance Δp in bar for water, screen no. 4, clean
calculation of flow resistance, and correction factor for strainer SF 1.00 and SF 2.00

Flow resistance Δp [bar] for water, screen no. 4, clean



Calculation of flow resistance

$\Lambda p = \zeta \cdot w^2/2 \cdot \rho \cdot 10^{-5}$ [bar]

ζ : Coeffizient of flow resistance (see table below). The values are based on a cleane screen no. 4

w [m/s] : Flow velocity in cross-section of connection (nominal diameter). Please refer to our flow data charts.

ρ = [kg/m³] : Density of medium

Coeffizient of flow resistance for clean screen no. 4										
Flange connection	DN	15	20	25	32	40	50	65	80	100	125
Mesh size	cm²	16	26	30	40	52	68	86	106	160	220
Coefficient	ζ	1.2	1.9	2.0	1.6	1.8	1.4	1.5	1.7	2.4	2.7

Coeffizient of flow resistance for clean screen no. 4									
Flange connection	DN	150	200	250	300	350	400	500	600
Mesh size	cm²	330	480*	760*	1500	2100	2500	4400	6500
Coefficient	ζ	2.9	3.3	3.5	3.6	3.6	3.5	3.5	3.6

* for SF 2.00 the mesh size is
for DN 200: 650 cm²
for DN 250: 1050 cm²

Coeffizient of flow resistance for clean screen no. 4						
Screwed connection	G	3/4	1	1 1/4	1 1/2	2
Mesh size	cm²	26	30	40	52	68
Coefficient	ζ	1.9	2.0	1.6	1.8	1.4

For screens other than no. 4 the resistance value is given in the tables above should be multiplied by a correction factor.

Mesh size [mm]				
Screen no.	3	4	5	7
Mesh size	0.25	0.5	1	2.5

Correction factor for other mesh sizes			
Screen no.	3	5	7
Correction factor	1.15	0.9	0.85

Special designs on request.
The pressure has always been indicated as overpressure.
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Sheet no. SF 1/2.1.061.2 - issue 12.06.2006

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