

STRAINERS FOR HEATING SYSTEMS TYPE FS-1

APPLICATION AREA:

The strainers are to be installed upstream the control appliance to purify fluids that flow through the circuits. They may be applied to heating systems as well as other industrial sectors.

DESIGN:

Strainers incorporate the following major components (Fig. 1): body (1), strainer insert (of mesh type) (2) and strainer cover (3). The upper part of the cylindrically wound insert, is introduced into the strainer body whereas its lower part rests on the strainer cover that acts simultaneously as a dirt trap. Both bodies and covers of the strainers are made of grey or spheroidal iron. The inserts (of mesh type) represent a unit that is composed of an enclosure, made of stainless steel and a mesh, weaved of stainless steel wires.

TECHNICAL PARAMETERS:

Flow coefficient K_{vs} vs. nominal diameter of the unit:

DN	[mm]	15	20	25	32	40	50	65	80	100	125	150	200
K_{vs}	[m³/h]	7	11	12,5	20	32	50	82	125	190	320	500	800

Note: The flow coefficient does not depend on the strainer, as the free-flow are is constants (mesh wires with various diameters are used) .

Marking of nominal pressure:

PN16 - grey iron
PN 16; 25- spheroidal iron,
600; 400; 300; 230; 100
Mesh size $\varnothing$ [mm]:
0,25; 0,32; 0,36; 0,40; 0,63

DIMENSIONS:

DN	A	B	D _z		D		n x d ₀		L	Weight
			PN16	PN25	PN16	PN25	PN16	PN25		
[mm]										kg
15	85	130	95		65		4x14		130 ± 1	3
20	113	155	105		75		4x14		150 ± 1	4
25	113	155	115		85		4x14		160 ± 1	5
32	115	183	140		100		4x18		180 ± 1	6
40	134	216	150		110		4x18		200 ± 1.5	7
50	147	246	165		125		4x18		230 ± 1.5	10
65	228	328	185		145		4x18	8x18	290 ± 1.5	17
80	240	400	200		160		8x18		310 ± 1.5	22
100	280	480	220	235	180	190	8x18	8x22	350 ± 1.5	33
125	310	550	250	270	210	220	8x18	8x26	400 ± 1.5	40
150	350	600	285	300	240	250	8x22	8x26	480 ± 1.5	62
200	420	680	340	360	295	310	12x22	12x26	600 ± 1.5	140

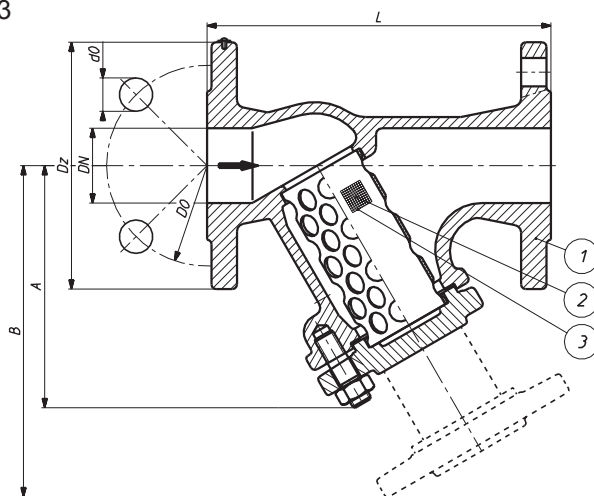


Fig. 1 Design and dimensions of the strainer

INSTALLATION

The strainers should be installed on a horizontal section of pipeline, flow direction must match the arrow on the strainer body. Installation on a vertical pipeline is allowed, when the handled fluid flows downwards.

Table 1. Material options

Body, cover	PN10...16	EN-GJL 250
	PN10...25	EN-GJS 400-15
Strainer mesh	-	X5CrNiMo17-12-2; (1.4401)
Insert enclosure	-	X5CrNi18-10; (1.4301)
Body gasket	to 250°C	graphite + KEVLAR (NOVATEC PREMIUM)
	to 350°C	graphite + steel sheet (1.4571) (SIGRAFLEX HOCHDRUCK)
Protective paint coating	to 150°C	blue paint
	to 350°C	silver paint

Table 2 and 3. Allowable working pressures

Table 2. Material: EN-GJL 250 as per PN-EN 1092-2							
PN	Temperature [°C]						
	-10...120	150	180	200	230	250	300
	Allowable working pressure [bar]						
PN10	10	9	8,4	8	7,4	7	6
PN16	16	14,4	13,4	12,8	11,8	11,2	9,6

Table 3. Material: EN-GJS 400-15 as per PN-EN 1092-2							
PN	Temperature [°C]						
	-10...120	150	200	250	300	350	
	Allowable working pressure [bar]						
PN10	10	9,7	9,2	8,7	8	7	
PN16	16	15,5	14,7	13,9	12,8	11,2	
PN25	25	24,3	23	21,8	20	17,5	

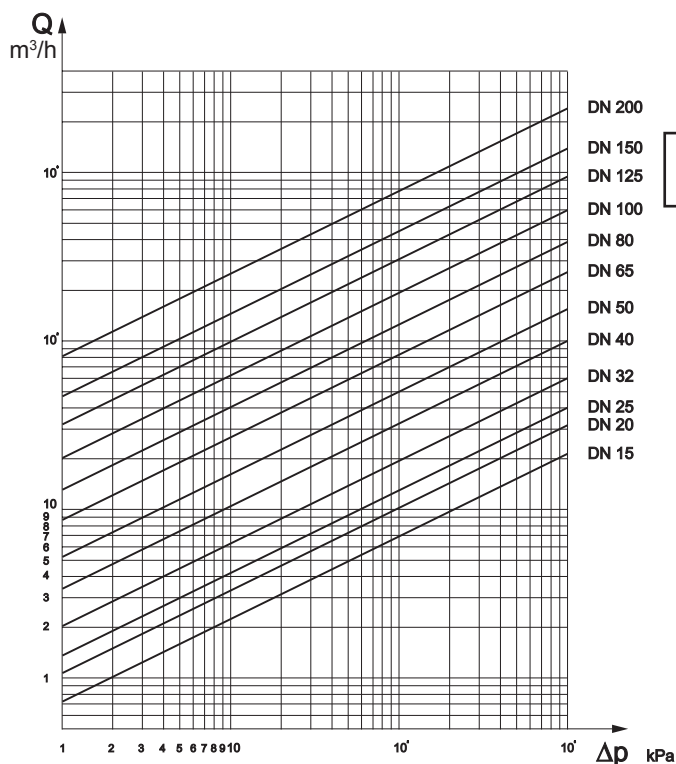


Fig. 2 Characteristic curves for flow

PRODUCT CODE:

	-		-		-		-		-	
Strainer type: mesh strainer FS-1 with a draining plug in the strainer cover FS-1K with a draining valve in the strainer cover FS-1S										
Nominal diameter DN: 15; 20; 25; 32; 40; 50; 65; 80; 100; 125; 150; 200										
Nominal pressure PN: 10; 16; 25										
Body material: - grey iron 1 - spheroidal iron 2										
Strainer mesh: 100; 230; 300; 400; 600										
Working temperature: up to 150°C 1 over 150°C 2										

Example:

Strainer with a draining valve in the strainer cover, DN50, strainer mesh: 300 meshes/cm², material: spheroidal iron, working temperature below 150°C

FS-1S-DN50-300-2-1

ORDER PLACEMENT:

Orders must contain complete information that is necessary to select the strainer in accordance with the technical data questionnaire. To find out the most suitable strainer please refer to the staff of the Marketing and Sales Departments and Technical Department for assistance.