



Certificate No. FM163

## Fig 33 Cast Iron Strainer

### Description

The Fig 33 is a cast iron integrally flanged Y-type strainer. The standard stainless steel screen in the DN15 to DN80 size range has 0.8 mm perforations, in the DN100 to DN200 size range it has 1.6 mm perforations. Optional mesh sizes are available as well as monel screens. The strainer cap can be drilled and tapped for blowdown and drain valves if required.

### Sizes and pipe connections

DN 15, 20, 25, 32, 40, 50, 65, 80, 100, 125, 150 and 200  
Standard flange: BS 4504 and DIN PN16, AS 2129 table F.  
ANSI 150 (DN15 and DN20) ANSI 125 (DN25 to DN200).

### Optional extras

Stainless steel screen	Perforations	1.6 mm (DN15 to DN80)
		3 mm (DN15 to DN200)
	Mesh	40, 100, 200
Monel screen	Perforations	0.8 mm (DN15 to DN80)
		1.6 mm (DN100 to DN200)
		3 mm (DN15 to DN200)
	Mesh	100

### Blowdown or drain valve connections

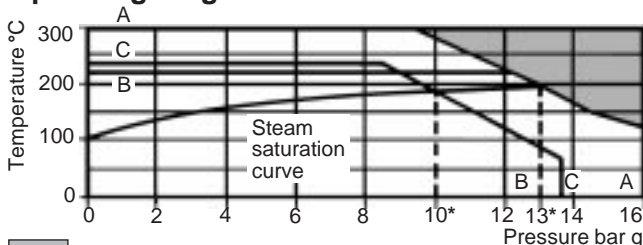
The cap can be drilled to the following sizes to enable a blowdown or drain valve to be fitted.

Strainer size	Blowdown valve	Drain valve
DN15	1/4"	1/4"
DN20 and DN25	1/2"	1/2"
DN32 and DN40	1"	3/4"
DN50, DN65, DN80, DN100 and DN125	1 1/4"	3/4"
DN150 and DN200	2"	3/4"

### Limiting conditions

Body design conditions	PN16
Maximum design temperature	300°C
Maximum cold hydraulic test	24 bar g
Minimum recommended temperature	DN15 to DN50 -10°C DN65 to DN200 0°C

### Operating range



The product must not be used in this region.

\*PMO - Maximum operating pressure for saturated steam

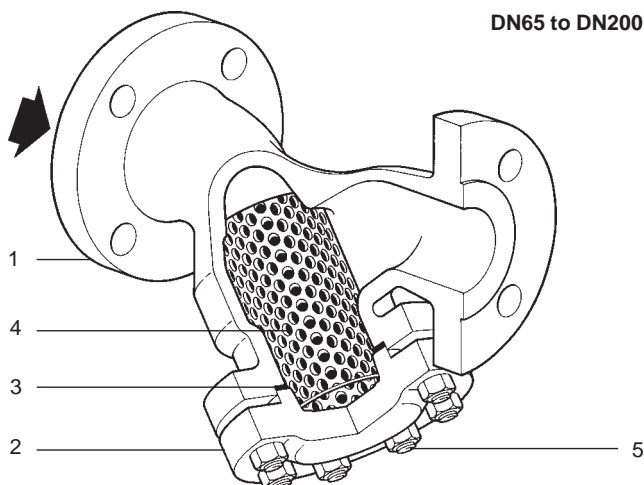
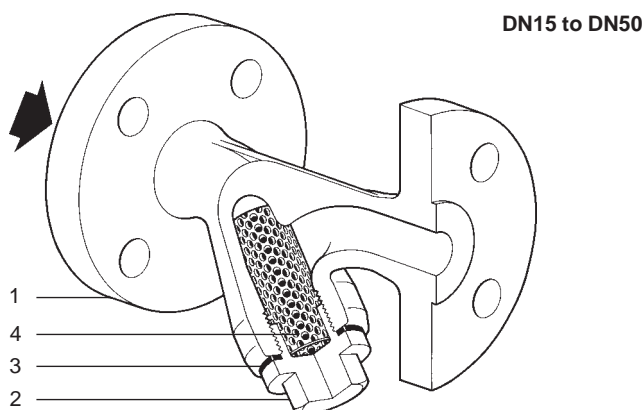
A - A Flanged BS 4504 PN16

B - B Flanged AS 2129 Table F

C - C Flanged ANSI 125 (including DN15, 20 flanged ANSI 150)

### K<sub>v</sub> values

Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Perforations 0.8, 1.6 and 3 mm	5	8	13	22	29	46	72	103	155	237	340	588
Mesh 40 and 100	5	8	13	22	29	46	72	103	155	237	340	588
Mesh 200	4	6	10	17	23	37	58	83	124	186	268	464



### Materials

No Part	Material
1 Body	Cast iron DIN 1691 GG 20
2 Cap DN15 to DN50	SG iron DIN 1693 GGG 40
Cover DN65 to DN200	Cast iron DIN 1691 GG 20
3 Cap gasket	Reinforced exfoliated graphite
4 Strainer screen	Austenitic stainless steel ASTM A240 316L
Cap studs	Carbon steel BS 4439 Gr 8.8
Cap nuts	Carbon steel BS 3692 Gr 8

### Certification

The product is available with certification to EN 10204 2.2 for body and cap as standard.

### How to specify

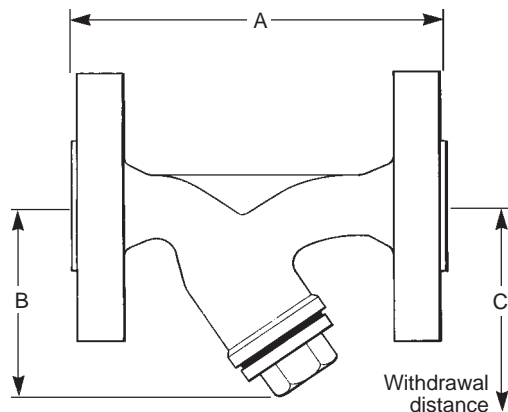
DN25 Spirax Sarco Fig 33 strainer, flanged BS 4504 PN16 with stainless steel screen 0.8 mm perforations.

For conversion  $C_V (UK) = K_V \times 0.97$   $C_V (US) = K_V \times 1.17$

## Dimensions (approximate) in millimetres

Size	PN16 AS2129 ANSI*					Screening area cm <sup>2</sup>	Weight
	A	A	A	B	C		
DN15	130	130	130	70	110	27	1.8 kg
DN20	150	147	150	80	130	43	2.7 kg
DN25	160	157	154	95	150	73	3.4 kg
DN32	180	176	176	135	225	135	6.0 kg
DN40	200	194	194	145	240	164	7.2 kg
DN50	230	224	224	175	300	251	10.9 kg
DN65	290	288	228	200	335	327	21.7 kg
DN80	310	304	304	210	340	361	25.9 kg
DN100	350	350	350	255	415	545	38.5 kg
DN125	400	400	400	300	510	843	63.0 kg
DN150	480	480	480	345	575	1117	87.0 kg
DN200	600	598	598	435	730	1909	153.0 kg

\* DN15 and DN20 ANSI 150 and, DN25 to DN200 ANSI 125



## Installation

The strainer should be installed in the direction of flow as indicated on the body, in a vertically downwards or horizontal pipeline. In a horizontal line on steam and gases the pocket should be in the horizontal plane. On liquid systems the pocket should point downwards.

**Note:** Because cast iron has very limited ductility it is important not to overtighten flanged joints particularly where raised faces are provided on the flanges. Therefore it is recommended that bolting having a yield strength not exceeding 240 N/mm<sup>2</sup> should be used.

## Maintenance

### Pressure

Before attempting any maintenance of the strainer, consider what is or may have been in the pipeline. Ensure that any pressure is isolated and safely vented to atmospheric pressure before attempting to maintain the strainer. This is easily achieved by fitting Spirax Sarco depressurisation valves type DV (see separate literature for details). Do not assume that the system is depressurised even when a pressure gauge indicates zero.

### Temperature

Allow time for temperature to normalise after isolation to avoid the danger of burns and consider whether protective clothing (including safety glasses) is required.

## Disposal

The product is recyclable. No ecological hazard is anticipated with disposal of this product providing due care is taken.

## Spare parts

The spare parts available are shown in heavy outline. Parts drawn in broken line are not supplied as spares.

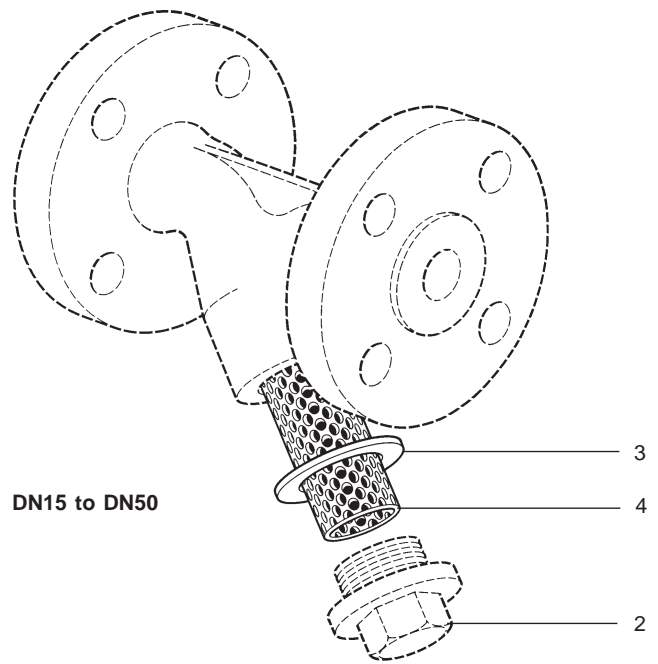
### Available spare

Strainer screen (state material, size of perforation or mesh and size of strainer)	4
Cap gasket (packet of 3)	3

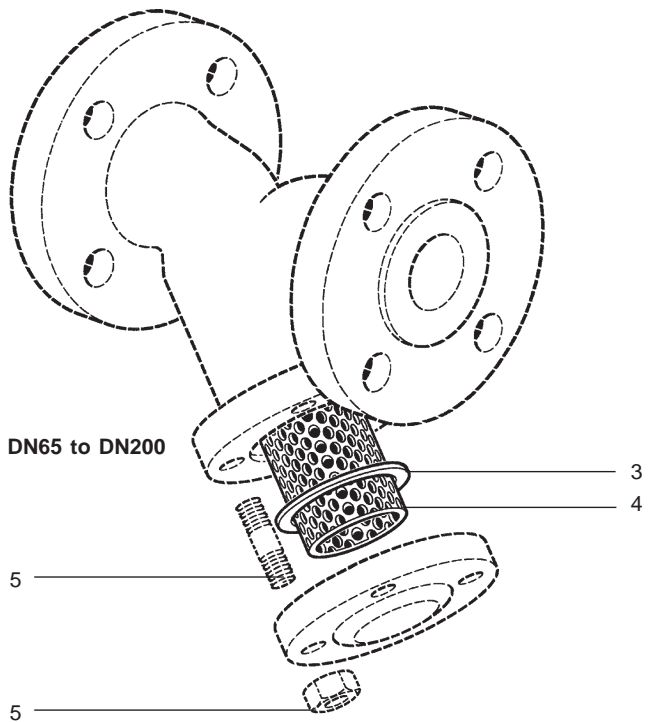
### How to order spares

Always order spares by using the description given in the column headed Available Spare and stating the size and type of strainer and perforations or mesh required.

**Example:** 1 - Strainer screen, stainless steel with 0.8 mm perforations for DN65 Spirax Sarco Fig 33 strainer.





DN15 to DN50



DN65 to DN200

## Recommended tightening torques

Item	Qty	Size	or		N m
				mm 	
2	1	DN15	22	M28	50 - 55
	1	DN20	27	M32	60 - 66
	1	DN25	27	M42	100 - 110
	1	DN32	41	M56	150 - 165
	1	DN40	41	M60	170 - 185
	1	DN50	55	M72	190 - 210
5	8	DN65	19	M12 x 40	20 - 24
	8	DN80	19	M12 x 40	30 - 35
	8	DN100	24	M16 x 50	70 - 77
	8	DN125	24	M16 x 50	80 - 88
	8	DN150	30	M20 x 60	100 - 110
	12	DN200	30	M20 x 70	90 - 100