



TI-S60-03  
CMGT Issue 9

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.

Standards

This product fully complies with the requirements of the EU Pressure Equipment Directive/UK Pressure Equipment (Safety) Regulations.

Certification

This product is available with a manufacturer's Typical Test Report.

**Note:** All certification/inspection requirements must be stated at the time of order placement.

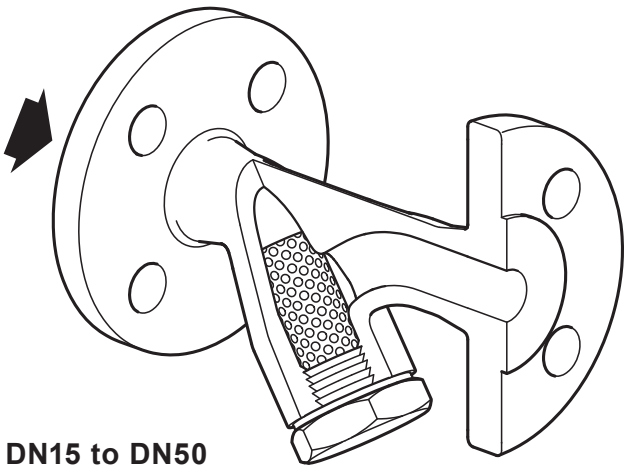
Optional extras

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

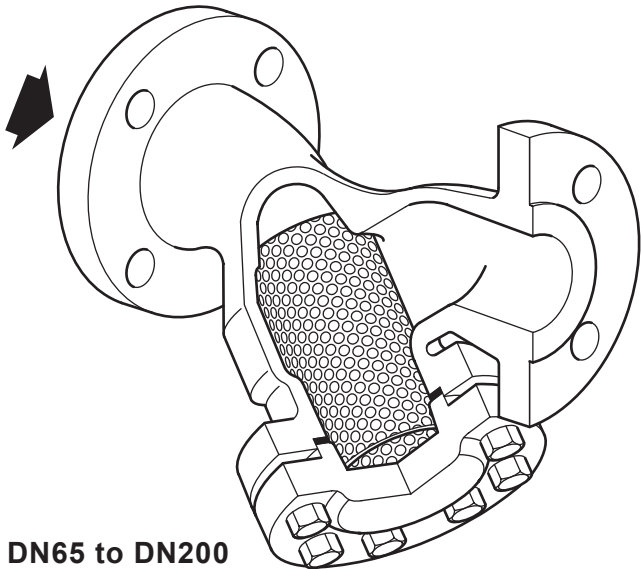
Blowdown or drain valve connections

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	¼"	¼"
DN20 and DN25	½"	½"
DN32 and DN40	1"	¾"
DN50, DN65, DN80, DN100 and DN125	1¼"	¾"
DN150 and DN200	2"	¾"



DN15 to DN50



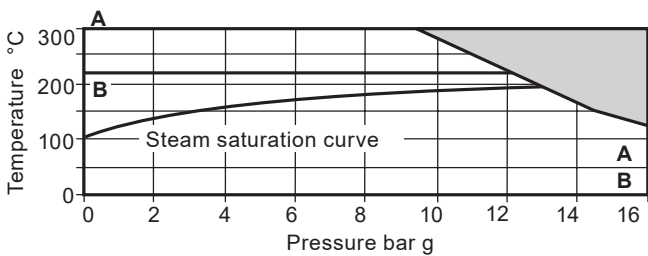
DN65 to DN200

Sizes and pipe connections

DN15, DN20, DN25, DN32, DN40, DN50, DN65, DN80, DN100, DN125, DN150 and DN200  
Standard available flanges: EN 1092 PN16, AS 2129 table F

Note: Fig 37 ASME 150 is available to replace Fig 33 ASME connection

Pressure/temperature limits



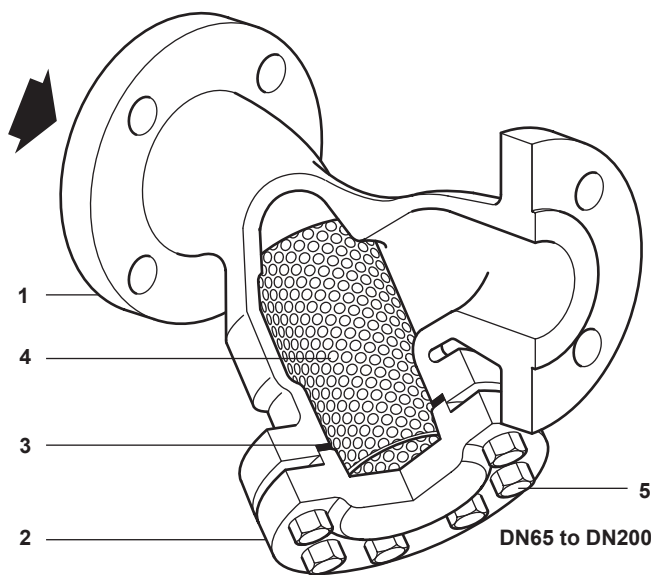
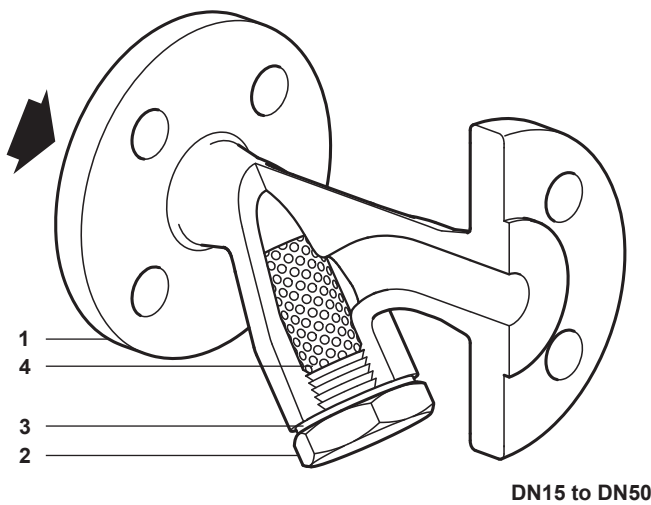
The product **must not** be used in this region.

A - A Flanged EN 1092 PN16

B - B Flanged AS 2129 Table F

Body design conditions		PN16
PMA	Maximum allowable pressure	16 bar g
TMA	Maximum allowable temperature	300 °C
Minimum allowable temperature	DN15 to DN50	-10 °C
	DN65 to DN200	0 °C
PMO	Maximum operating pressure for saturated steam service	EN 1092 PN16 13 bar g
		AS 2129 Table F 13 bar g
TMO	Maximum operating temperature	300 °C
Minimum operating temperature		0 °C
Designed for a maximum cold hydraulic test pressure of		24 bar g

Materials



No.	Part		Material	
1	Body		Cast iron	DIN 1691 GG 20
2	Cap	DN15 to DN50	SG iron	DIN 1693 GG 25
	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
5	Bolts		Carbon steel	BS 4169 Gr. 8.8

Fig 33 Cast Iron Strainer

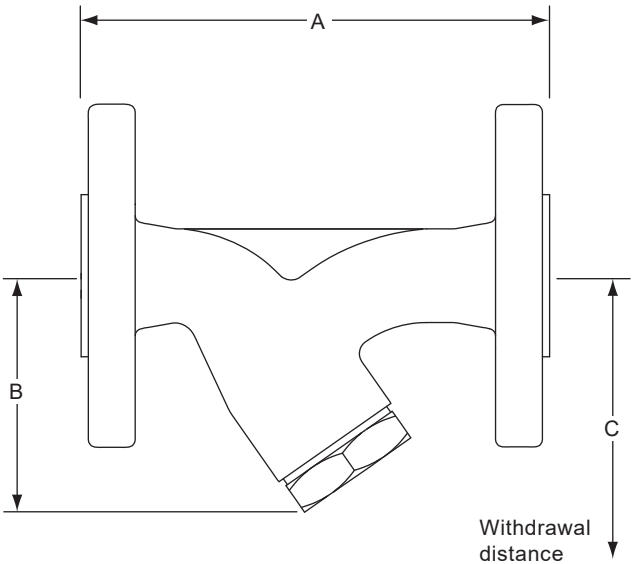
K<sub>v</sub> values

Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Perforations 0.8, 1.6 and 3.0 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

For conversion:  
C<sub>v</sub> (UK) = K<sub>v</sub> x 0.963  
C<sub>v</sub> (US) = K<sub>v</sub> x 1.156

Dimensions/weights (approximate) in mm and kg

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



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-S60-18) supplied with the product.

Installation note

The strainer should be installed in the direction of flow, as indicated on the body. On applications involving steam or gases the pocket should be in the horizontal plane. On liquid systems the pocket should point downwards. Suitable isolation valves must be installed to allow for safe maintenance and trap replacement.

Maintenance note

Maintenance can be completed with the strainer in the pipeline.

Disposal

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

How to order

**Example:** 1 off DN25 Spirax Sarco Fig 33 strainer having EN 1092 PN16 flanged connections. The strainer must be supplied with a stainless steel screen having 0.8 mm perforations.

Pipeline ancillaries  
Strainers and filters

Spare parts

The spare parts available are shown in solid outline. Parts drawn in a grey line are not supplied as spares.

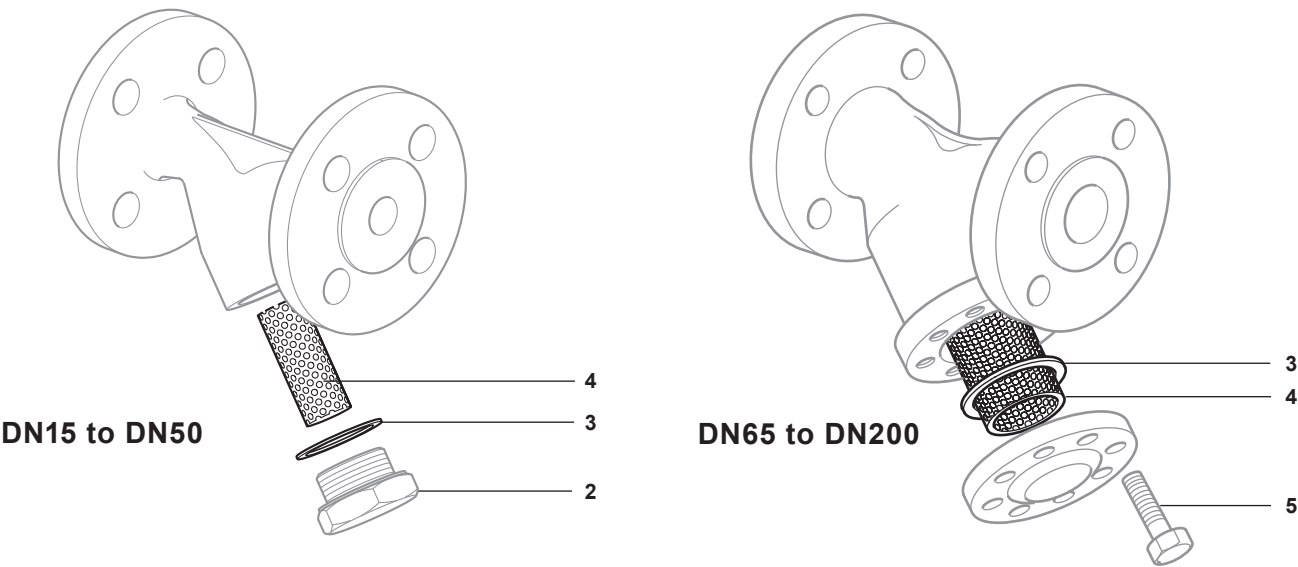
Available spares

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 spares' and state the size and type of strainer and perforations or mesh required.

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



Recommended tightening torques

Item	Qty	Size		or mm		N m
2	1	DN15	36		M28	50 - 55
	1	DN20	38		M32	60 - 66
	1	DN25	50		M42	100 - 110
	1	DN32	46		M56	150 - 165
	1	DN40	50		M60	170 - 185
	1	DN50	60		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

10.6  
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