



## S and SF Series Cast Iron Inverted Bucket Steam Traps

### Description

The S and SF series are a range of inverted bucket steam traps. The body and cover are constructed from cast iron and the complete unit is readily maintainable.

### Available options

<b>S series</b>	In-line connections and integral strainer
<b>SF series</b>	Integral flanged connections and integral strainer

### Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

### Certification

This product is available with certification to EN 10204 3.1.

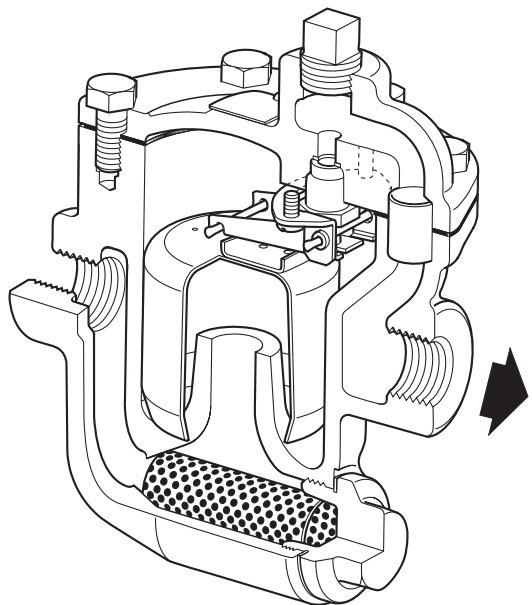
**Note:** All certification/inspection requirements must be stated at the time of order placement.

### Sizes and pipe connections

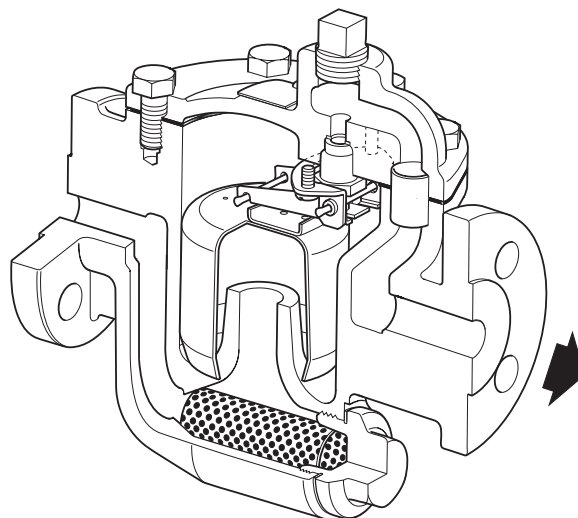
½" - SA, ¾" - SB, 1" - SC, 1½" - SD screwed BSP, BS EN 10226

DN15 - SFA, DN20 - SFB, DN25 - SFC, DN40 - SFD

Standard flange EN 1092 PN16 (UNI 2237/2229)

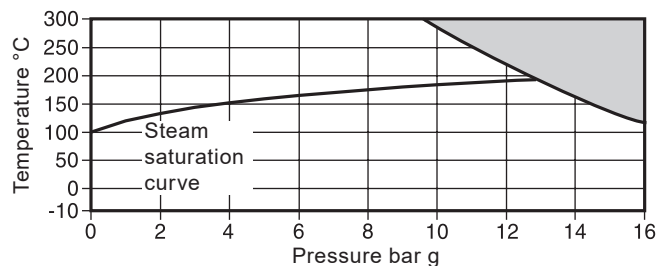


Screwed ½"



Flanged DN15

## Pressure/temperature limits (ISO 6552)



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

Body design conditions PN16

PMA Maximum allowable pressure 16 bar g @ 120 °C

TMA Maximum allowable temperature 300 °C @ 9.6 bar g

Minimum allowable temperature -10 °C

PMO Maximum operating pressure for saturated steam service 13 bar g @ 195 °C

TMO Maximum operating temperature 300 °C @ 9.6 bar g

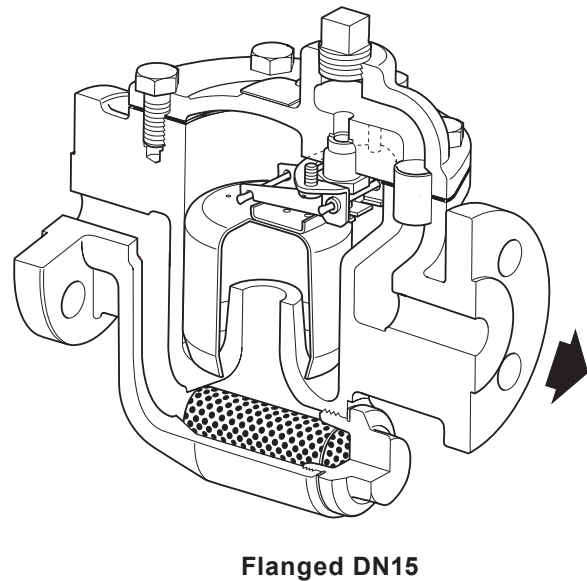
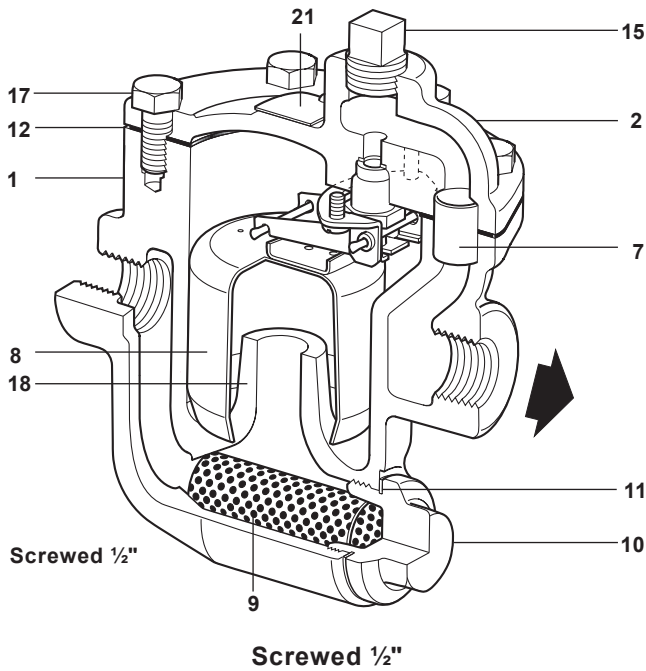
Minimum operating temperature 0 °C

ΔPMX Maximum differential pressure

	<b>Screwed</b>			<b>Flanged</b>			
	4 bar	8 bar	12 bar	4 bar	8 bar	12 bar	
<b>½"</b>	SA4	SA8	SA12	<b>DN15</b>	SFA4	SFA8	SFA12
<b>¾"</b>	SB4	SB8	SB12	<b>DN20</b>	SFB4	SFB8	SFB12
<b>1"</b>	SC4	SC8	SC12	<b>DN25</b>	SFC4	SFC8	SFC12
<b>1½"</b>	SD4	SD8	SD12	<b>DN40</b>	SFD4	SFD8	SFD12

Designed for a maximum cold hydraulic test pressure of 24 bar g

## Materials

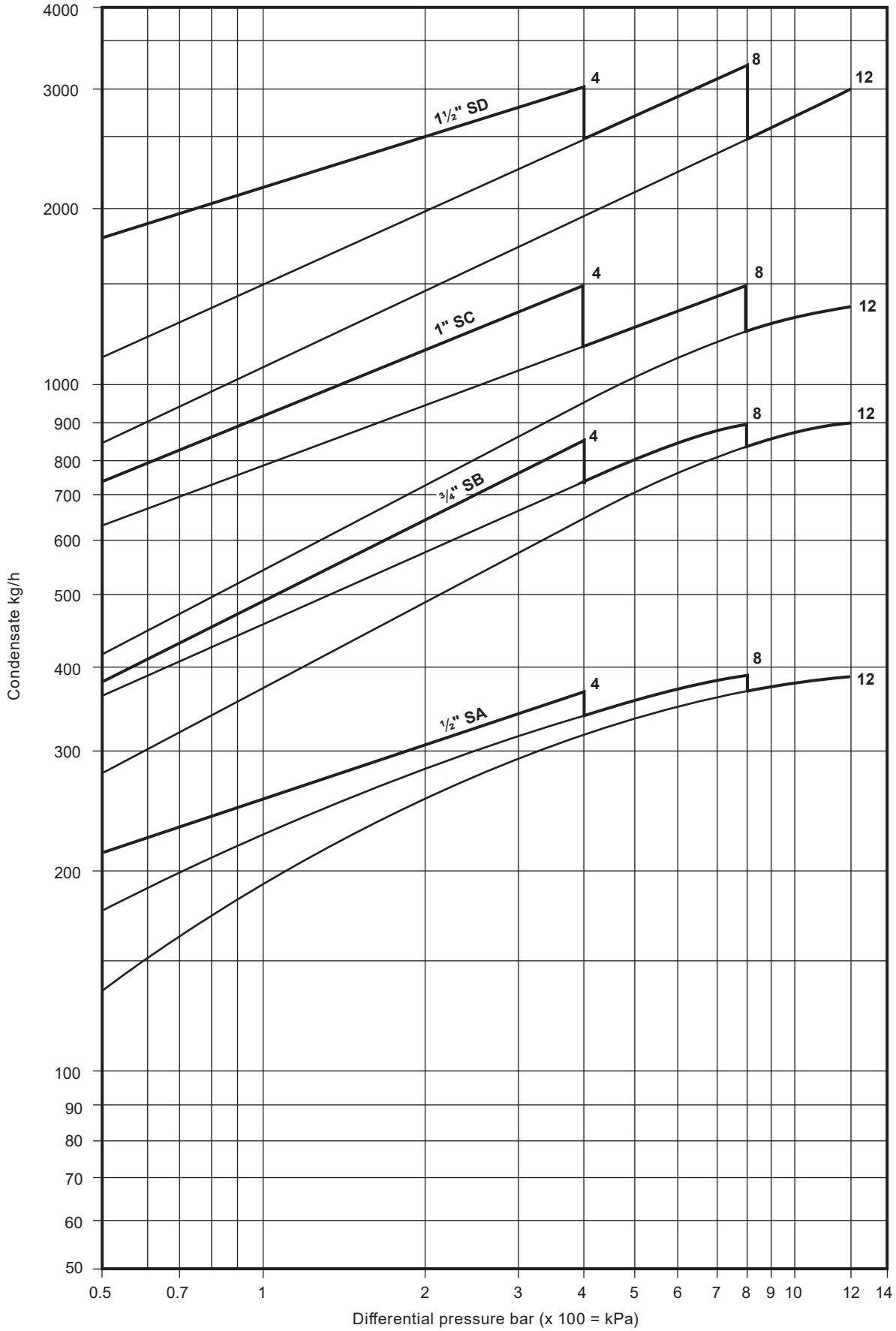


No.	Part	Material	
1	Body	Cast iron	DIN 1691 GG25
2	Cover	Cast iron	DIN 1691 GG25
3 *	Valve seat	Stainless steel	X30 Cr 13
4 *	Valve head	Stainless steel	X30 Cr 13
5 *	Valve lever	Stainless steel	BS 1449 304
6 *	Lever pivot	Stainless steel	BS 1449 304
7	Ferrule	Stainless steel	BS 3605 CF5 304 S14
8	Bucket	Stainless steel	BS 1449 304
9	Strainer screen	Stainless steel	ASTM A240 316L
10	Strainer cap	Cast iron	DIN 1691 GG25
11	Strainer gasket	Reinforced exfoliated graphite	
12	Cover gasket	Reinforced exfoliated graphite	
13 *	Valve seat gasket	Stainless steel	BS 1449 304
14 *	Pivot pin	Stainless steel	BS 970 304 S15
15	Top plug	Malleable iron	
16 *	Valve screw	Stainless steel	BS 6105 CI A2 70
17	Cover bolts	Steel	BS 3692 Gr. 8.8
18	Inlet tube 3/4", 1", 1 1/2"	Steel	BS 1387
19 *	Starlock washer	Stainless steel	
20 *	Washer	Stainless steel	
21	Name-plate	Stainless steel	BS 1449 304

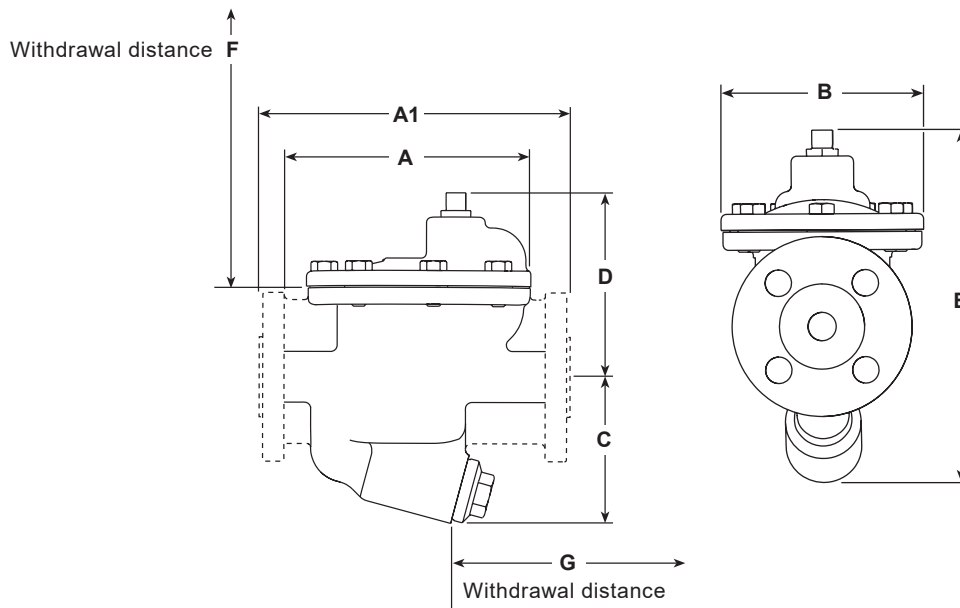
\* Parts 3, 4, 5, 6, 13, 14, 16, 19 and 20 have been shown overleaf.

# Capacities

**Note:** Traps should be selected for the most appropriate working pressure differential and not on the basis of load.



## Dimensions/weights (approximate) in mm and kg



### Screwed connections

Size	A	B	C	D	E	F	G	Weight
1/2"	130	105	75	95	170	70	66	3.4
3/4"	175	145	110	105	215	90	80	7.3
1"	205	155	130	120	250	105	90	10.5
1 1/2"	245	180	195	150	345	165	105	19.0

### Flanged connections

Size	A1	B	C	D	E	F	G	Weight
DN15	175	105	85	95	180	70	66	4.7
DN20	225	145	110	105	215	90	80	9.3
DN25	255	155	135	120	255	105	90	12.8
DN40	295	180	195	155	350	165	105	22.3

## Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P077-02) supplied with the product.

### Installation note

The trap must be installed with the body upright with the strainer cap at the bottom so that the internal bucket is rising and falling vertically.

### Disposal

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

## Spare parts

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

### Available spares



Valve and seat assembly *(2 off) (supplied pre-assembled)	3, 4, 5, 6, 7, 12, 13, 14*, 16*, 19, 20*
Bucket assembly	8
Strainer screen	9, 11
Packet of all gaskets	7, 11, 12, 13

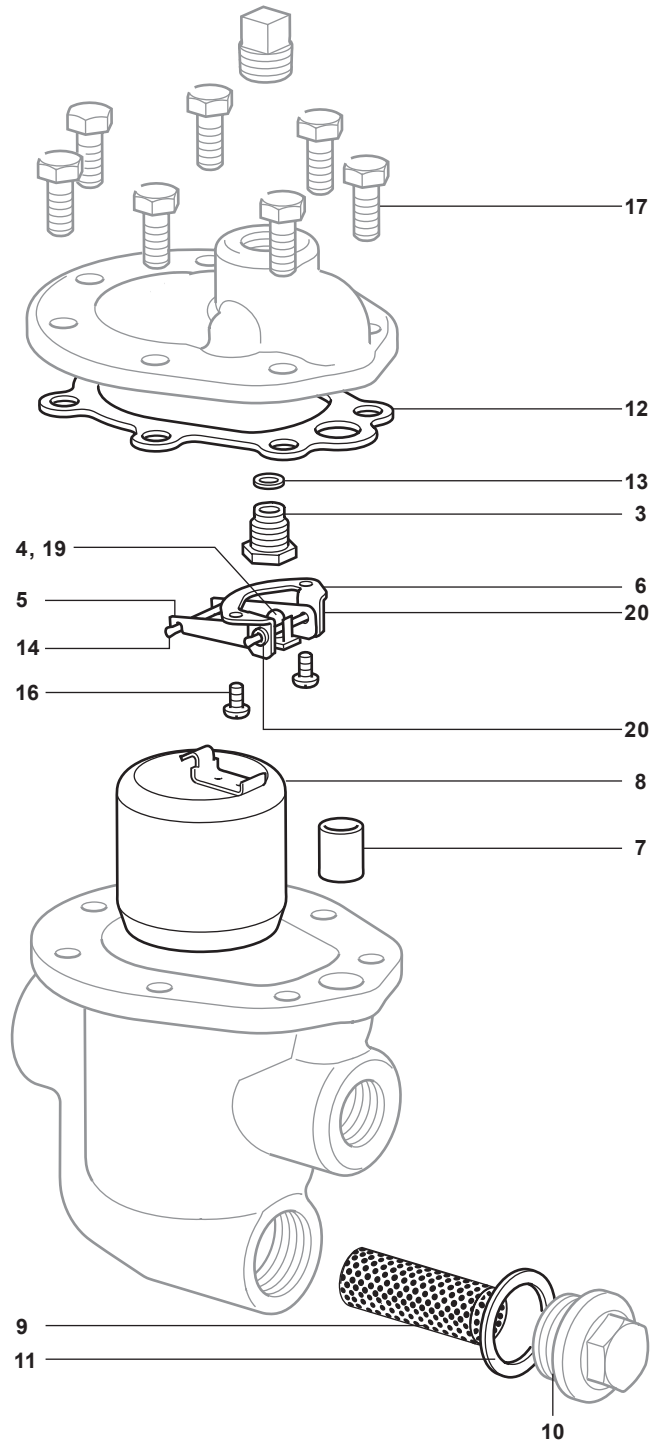
### How to order spares

Always order spare parts by using the description given in the column headed 'Available spares' and state the size, Model No. and pressure rating of the trap.

**Example:** 1 off Valve and seat assembly for a Spirax Sarco DN20 SFB8 inverted bucket steam trap for differential pressures up to 8 bar.

### Recommended tightening torques

Item No.	Trap size	 or mm		N m
<b>3</b>	1/2" - DN15	15	-	25 - 30
	3/4" - DN20	17	-	25 - 40
	1" - DN25	22	-	50 - 60
	1 1/2" - DN40	30	-	80 - 90
<b>10</b>	1/2" - DN15	-	M28 x 30	50 - 60
	3/4" - DN20	-	M32 x 36	50 - 60
	1" - DN25	-	M42 x 46	70 - 80
	1 1/2" - DN40	-	M42 x 50	90 - 110
<b>16</b>	1/2" - DN15	-	M4 x 8	2.5 - 3
	3/4" - DN20	-	M5 x 10	3 - 4
	1" - DN25	-	M5 x 10	3 - 4
	1 1/2" - DN40	-	M6 x 10	5 - 6
<b>17</b>	1/2" - DN15	-	M8 x 20	20 - 25
	3/4" - DN20	-	M12 x 25	60 - 70
	1" - DN25	-	M10 x 30	40 - 45
	1 1/2" - DN40	-	M12 x 35	60 - 70



### How to order

**Example:** 1 off Spirax Sarco DN20 SFB4 inverted bucket steam trap having flanged EN 1092 PN16 connections.