



Cert. No. LRQ 0963008

ISO 9001

spirax sarco

TI-P077-01

ST Issue 4

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

S series In-line connections and integral strainer

SF series Integral flanged connections and integral strainer

Standards

This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC.

Certification

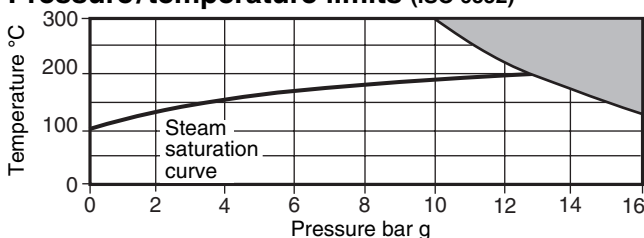
This product is available with certification to EN 10204 3.1.B

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, ISO 7/1 Rp
DN15 - SFA, DN20 - SFB, DN25 - SFC, DN40 - SFD
Standard flange EN 1092 PN16 (UNI 2237 / 2229)

Pressure/temperature limits (ISO 6552)



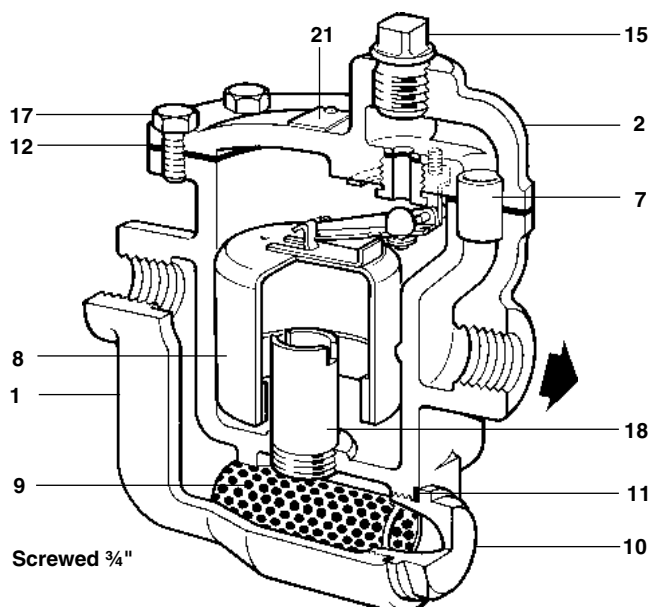
The product **must not** be used in this region.

Body design conditions								PN16
PMA	Maximum allowable pressure @ 120°C							16 bar g
TMA	Maximum allowable temperature @ 10 bar g							300°C
Minimum allowable temperature								-10°C
PMO	Maximum operating pressure for saturated steam service							13 bar g
TMO	Maximum operating temperature							300°C
Minimum operating temperature								0°C
ΔPMX	Maximum differential pressure							
Screwed	4 bar	8 bar	12 bar	Flanged	4 bar	8 bar	12 bar	
½"	SA4	SA8	SA12	DN15	SFA4	SFA8	SFA12	
¾"	SB4	SB8	SB12	DN20	SFB4	SFB8	SFB12	
1"	SC4	SC8	SC12	DN25	SFC4	SFC8	SFC12	
1½"	SD4	SD8	SD12	DN40	SFD4	SFD8	SFD12	

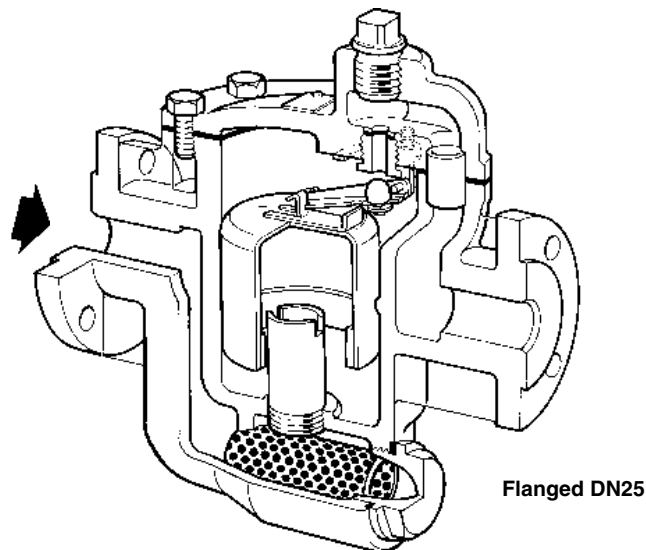
Designed for a maximum cold hydraulic test pressure of 24 bar g

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



Screwed ¾"



Flanged DN25

No.	Part	Material
10	Strainer cap	Brass BS EN CW617N
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 ¾", 1", 1½"	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.

Local regulations may restrict the use of this product to below the conditions quoted.

In the interests of development and improvement of the product, we reserve the right to change the specification.

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Capacities

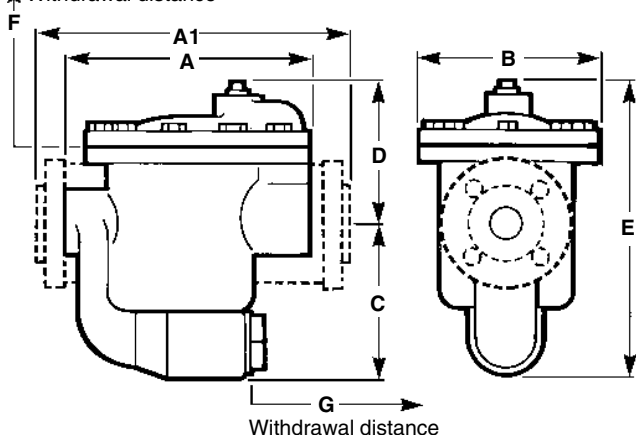
See TI-P077-03 for full details of capacities.

Dimensions / weights (approximate) in mm and kg

Screwed connections

Size	A	B	C	D	E	F	G	Weight
½"	130	105	75	95	170	70	66	3.4
¾"	175	145	110	105	215	90	80	7.3
1"	205	155	130	120	250	105	90	10.5
1½"	245	180	195	150	345	165	105	19.0

↑ Withdrawal distance



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.

How to order

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

Spare parts

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

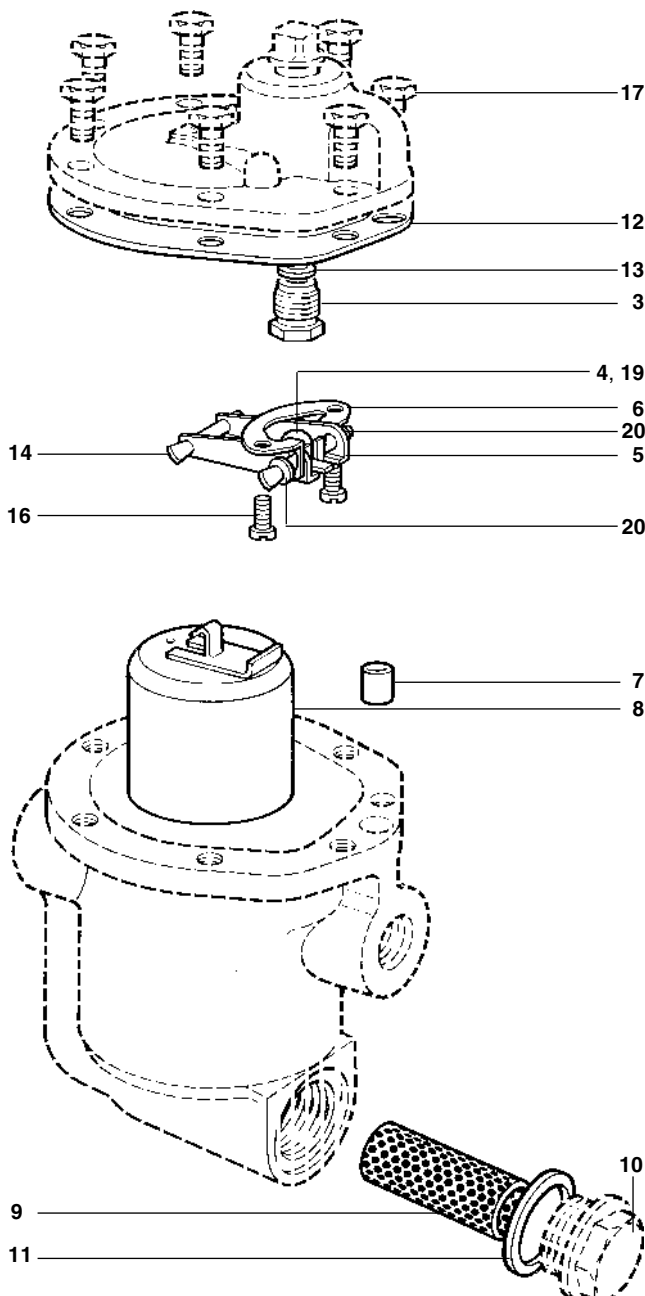
Available spares

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
3	½" - DN15	15	25 - 30
	¾" - DN20	17	25 - 40
	1" - DN25	22	50 - 60
	1½" - DN40	30	80 - 90
10	½" - DN15	30	50 - 60
	¾" - DN20	36	50 - 60
	1" - DN25	46	70 - 80
	1½" - DN40	50	90 - 110
16	½" - DN15	M4 x 8	2.5 - 3
	¾" - DN20	M5 x 10	3 - 4
	1" - DN25	M5 x 10	3 - 4
	1½" - DN40	M6 x 10	5 - 6
17	½" - DN15	M8 x 20	20 - 25
	¾" - DN20	M12 x 25	60 - 70
	1" - DN25	M10 x 30	40 - 45
	1½" - DN40	M12 x 35	60 - 70