

spirax sarco®

Iron Liquid Drain Trap CA10S

The **float-operated liquid drain trap** discharges continuously in direct response to variations in liquid flow rate, assuring thorough drainage of the system.

Model ⇄	CA10S-4.5	CA10S-10	CA10S-14
Sizes	1", 1-1/2", 2"		
Connections	NPT		
Construction	1": Ductile (SG) Iron Body 1-1/2", 2": Cast Iron Body Stainless Steel Internals		

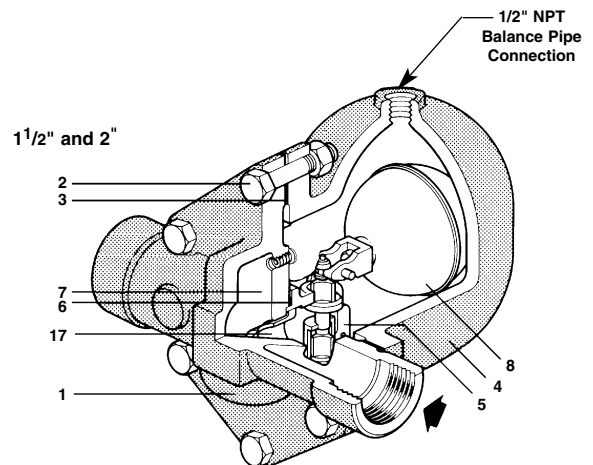
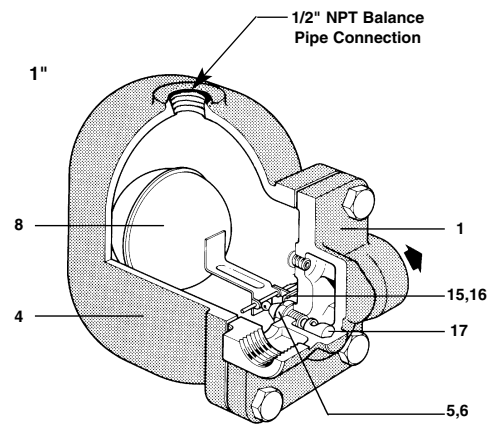
Note: 1-1/2" and 2" valves are double-seated, and may not shut tight under no-load conditions. Normally, the liquid load will always be greater than the small residual leakage.

CONSTRUCTION MATERIALS

No.	Part	Material	
1	Body 1"	Ductile (SG) Iron	DIN 1693 GGG 40
	1-1/2", 2"	Cast Iron	DIN 1691 GG 25
2	Cover Bolting	Steel	BS 3692 Gr. 8.8
3	Cover Gasket	Nickel Reinforced Exfoliated Graphite	
4	Cover 1"	Ductile (SG) Iron	DIN 1693 GGG 40
	1-1/2", 2"	Cast Iron	DIN 1691 GG 25
5	Valve Seat 1"	Stainless Steel	ASTM A276 Type 431
	Main Valve Assy 1-1/2", 2"	Stainless Steel	AISI 431
6	Valve Seat Gasket 1"	Stainless Steel	AISI 304
	Main Valve Assy Gasket 1-1/2", 2"	Compressed Asbestos Fibre Graphited	F104
7	Pivot Frame Assy	Stainless Steel	ANSI B 18.6.3
	Set Screws 1"	M5 x 20 mm	
	Main Valve Assy Bolts 1-1/2"	M6 x 20 mm	BS 970 304 S16
	Studs & Nuts 2"	M8 x 20 mm	BS 6105 A4-80
8	Ball Float & Lever	Stainless Steel	AISI 304
15	Support Frame	Stainless Steel	AISI 304
16	Pivot Frame	Stainless Steel	AISI 304
17	Erosion Deflector	Stainless Steel	ASTM A276 Type 431

TYPICAL APPLICATIONS

Receiver and air line drainage, draining a liquid from its vapor phase.



LIMITING OPERATING CONDITIONS

Max. Operating Pressure (PMO) Up to 200 psig *14 barg*. The PMO depends on the model selected and the specific gravity of the liquid being drained. See TIS 7.318.

Max. Operating Temperature 450°F (232°C)

PRESSURE SHELL DESIGN CONDITIONS

	1"	1-1/2", 2"
PMA	362 psig/0-248°F	25 barg/0-120°C
Max. allowable pressure	309 psig/424°F	21 barg/218°C
	160 psig/572°F	11 barg/300°C
TMA	572°F/0-160 psig	300°C/0-11 barg
Max. allowable temperature		450°F/0-232 psig 232°C/0-16 barg

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.

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

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CAPACITY

The discharge capacity depends on the differential pressure (inlet pressure minus outlet pressure) and the specific gravity of the liquid being drained. See TIS 7.318.

SAMPLE SPECIFICATION

Steam traps shall be of the mechanical ball float type having iron bodies, horizontal line connections, and all stainless steel internals. A 1/2" NPT tapping shall be provided for a balance pipe. All internals are to be renewable and field serviceable.

INSTALLATION

The trap must be fitted in a horizontal pipe line with direction of flow as indicated and so that the float mechanism is free to rise and fall in a vertical plane. Full-flow isolating valves should be placed to permit servicing. The high point of the body is provided with a 1/2" NPT tapping for a balance pipe, which is essential for satisfactory operation of this unit. The balance pipe must be connected with a continuous rise between the tapping provided on the body of the trap and the vessel being drained. The trap discharge should be piped to a safe place.

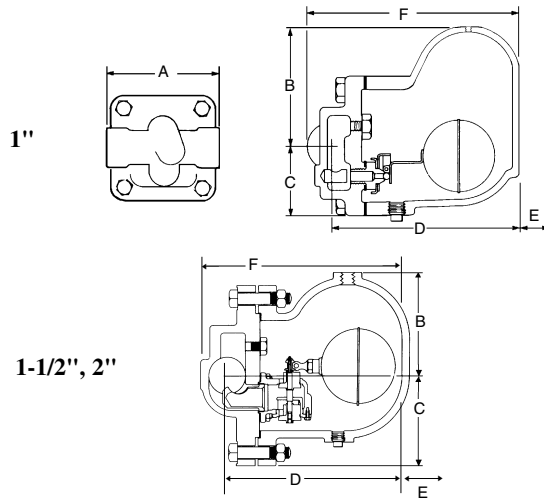
MAINTENANCE

This product can be maintained without disturbing the piping connections. Complete isolation of the trap from both supply and return line is required before any servicing is performed.

The trap should be disassembled periodically for inspection and cleaning of the valve head and seat.

Worn or damaged parts should be replaced using a complete repair kit.

Complete installation and maintenance instructions are given in IMI 7.306 which accompanies the product.

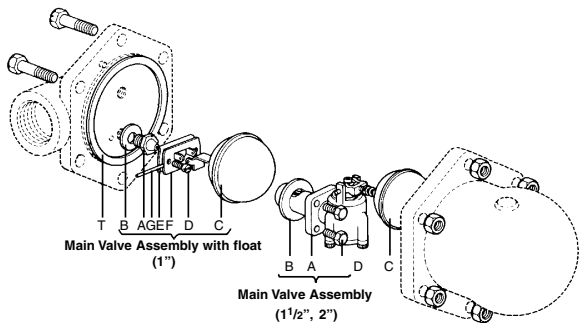


DIMENSIONS (NOMINAL) IN INCHES AND MILLIMETERS							
Size	A	B	C	D	E	F	Weight
1"	4.7 120	4.3 110	3.2 80	7.7 195	6.3 160	8.6 220	15.0 lb 6.8 kg
1-1/2"	10.6 270	5.1 130	4.3 108	9.4 238	7.9 200	10.6 270	38.5 lb 17.5 kg
2"	11.9 300	5.4 138	4.9 125	9.8 250	7.8 200	11.3 288	49 lb 22 kg

Liquid drain traps can be used to drain most liquids from most gases. However, some applications, particularly those involving hazardous or unusual fluids, may be subject to regulation or may otherwise require special consideration.

Spirax Sarco will endeavor to provide whatever data is necessary to assist in product selection.

SPARE PARTS



Main Valve Assy w/ Float (1")	A,B,C,D,E,F,G
Main Valve Assy w/ Erosion Deflector (1-1/2", 2")	A,B,D
Three Complete sets of Gaskets	B,T
Ball Float (1-1/2", 2")	C

The erosion deflector on the 1" is pressed into the body during manufacture and not available as a spare.

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