



TI-P105-05-US
Issue 1

Iron Liquid Drain Traps FA-30, FA-75, FA-150

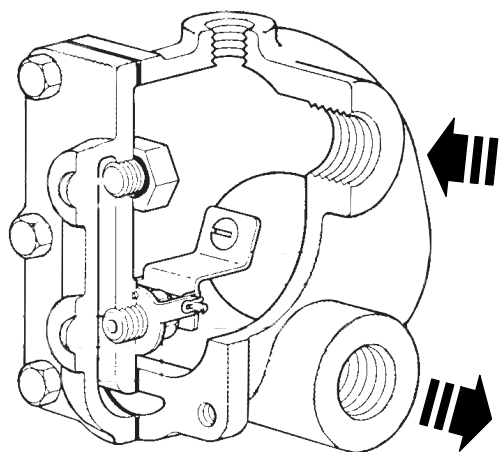
Description

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

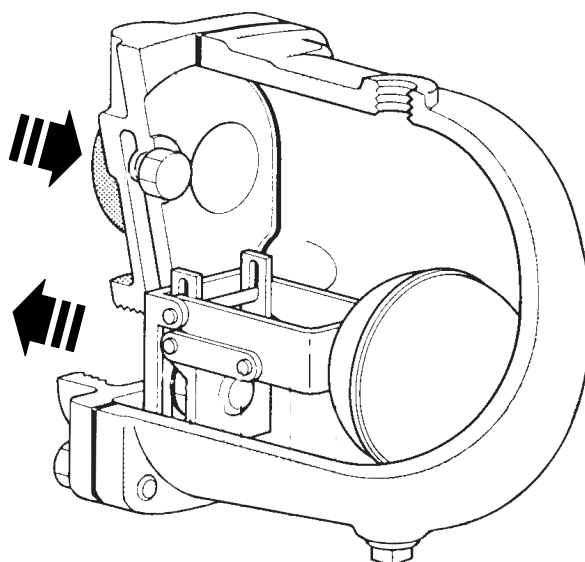
Typical applications

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

Model	FA-30	FA-75	FA-150
Sizes	$\frac{3}{4}$ ", 1", 1½", 2" (DN20, DN25, DN40, DN50)		
Connections	NPT		
Construction	Cast iron body, Stainless steel internals		



$\frac{3}{4}$ " and 1"
(DN20 and DN25)



1½" and 2"
(DN40 and DN 50)

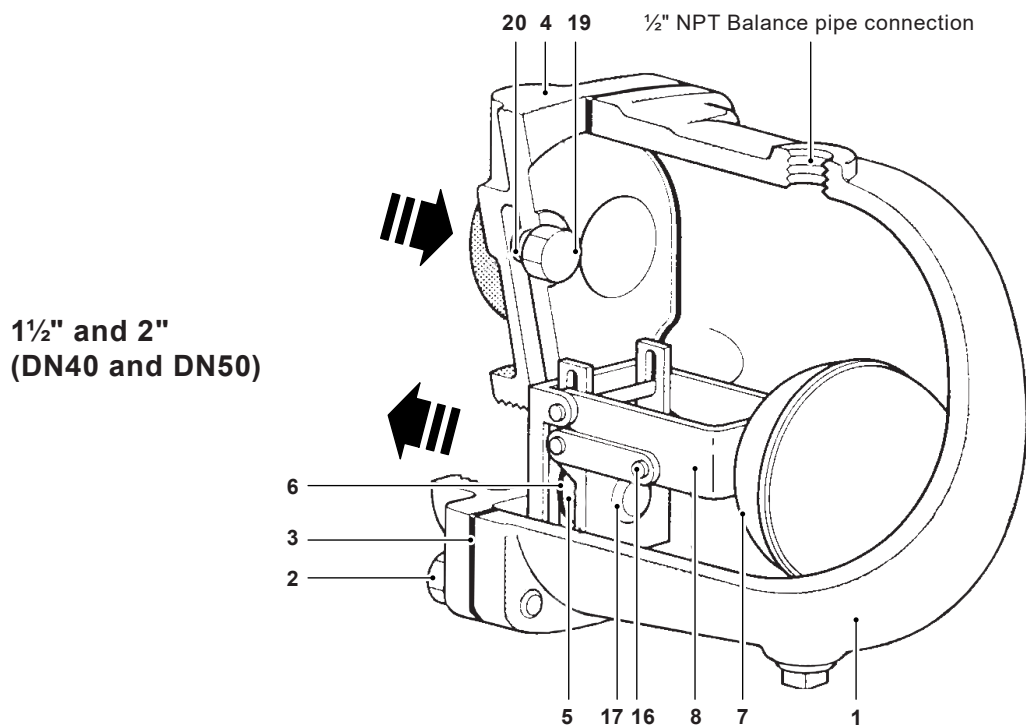
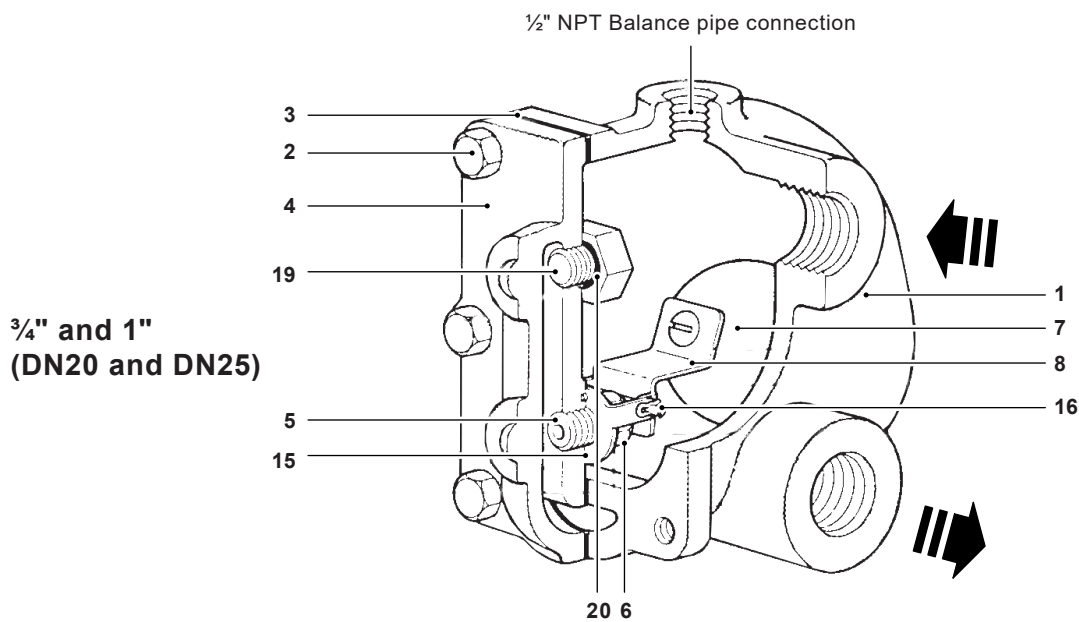
Limiting operating conditions

PMO	Maximum operating pressure	Up to 150 psi g (10.3 bar g)
		The PMO depends on the model selected and the specific gravity of the liquid being drained. See TI-P102-04-US
Maximum operating temperature	FA-30, 75	450 °F (232 °C)
	FA-150	200 °F (93 °C)

Pressure shell design conditions

PMA	Maximum allowable pressure	FA-30,75:	125 psi g/0-450 °F (9 bar g/0-232 °C)
		FA-150:	150 psi g/0-200 °F (10 bar g/0-93 °C)
TMA	Maximum allowable temperature	FA-30,75:	450 °F/0-125 psi g (232 °C/0-9 bar g)
		FA-150:	200 °F/0-150 psi g (93 °C/0-10 bar g)

Materials

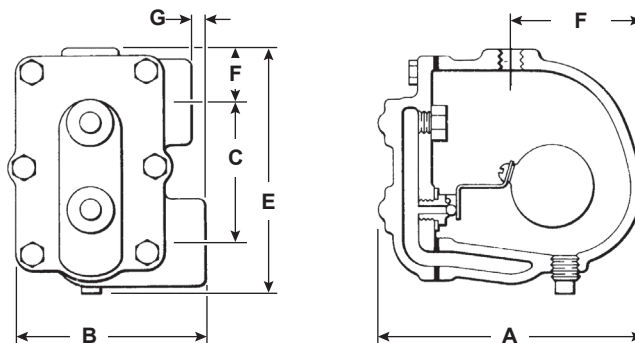


No.	Part	Material
1	Body	Cast Iron ASTM A126 CL B
2	Cover Screws	Steel ASTM A449
3	Cover Gasket	Graphite
4	Cover	Cast Iron ASTM A126 CL B
5	Valve Seat	Stainless Steel AISI 420F
6	Valve Seat Gasket	Stainless Steel AISI 302
7	Float	Stainless Steel AISI 304

No.	Part	Material
8	Lever	Stainless Steel AISI 301/304
15	Seat Bracket	Stainless Steel AISI 301/304
16	Pivot Pin	Stainless Steel AISI 302/303
17	Valve Head and Bracket assembly	Stainless Steel AISI 300/440
19	Plug	Brass ASTM B16
20	Plug Gasket	Stainless Steel ASTM A240

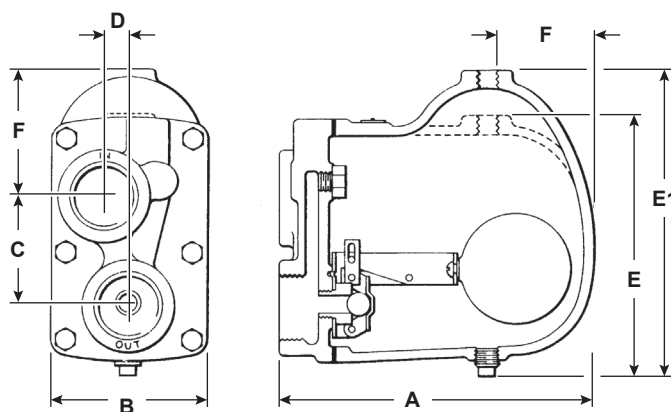
Dimensions/weights (approximate) in inches (mm) and lbs (kg)

**¾" and 1"
(DN20 and DN25)**



Balance Pipe connection (all models) ½" NPT

**1½" and 2"
(DN40 and DN50)**



Size	A	B	C	D	E	E1	F	G	Weight
¾", 1"	6.2	4.6	3.3		5.75		3.0	0.3	9
	(157)	(117)	(84)		(146)		(76)	(79)	(4.1)
1½"	8.5	4.25	3	0.7		8.4	2.9		18
	(216)	(108)	(76)	(18)		(213)	(74)		(8.2)
2"	9.8	4.9	4.9	0.12	9.1		3.4		26
	(249)	(124)	(124)	(3)	(231)		(86)		(11.8)

Capacity

The discharge capacity depends on the differential pressure (inlet pressure minus outlet pressure) and the specific gravity of the liquid being drained. See TI-P102-04-US.

Sample Specification

The liquid drain trap shall be of the float type with screwed NPT connections. Valve mechanism and float shall be stainless steel with hardened working surfaces, designed to retain a water seal at all times. A ½" 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 ½" 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.

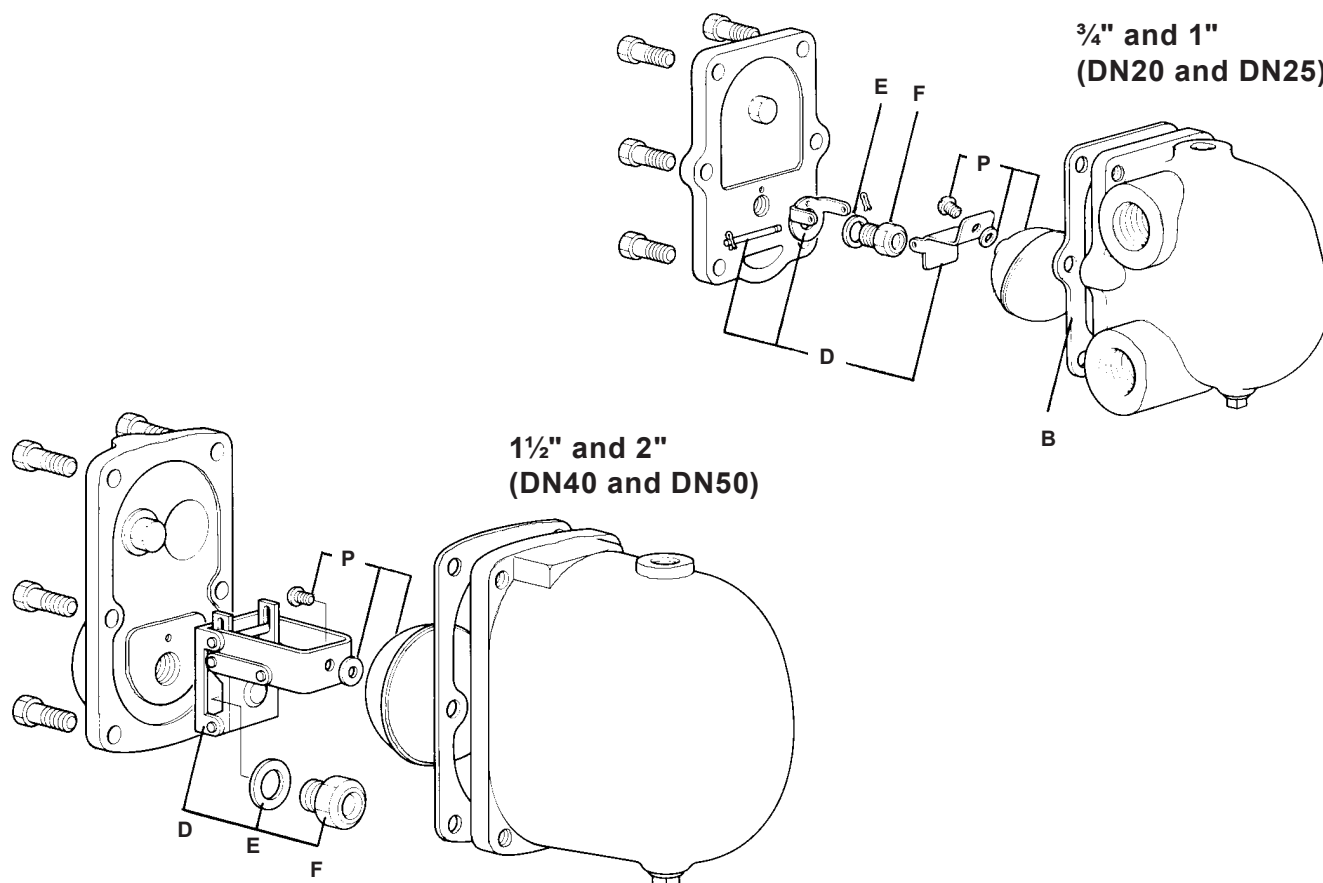
Worn or damaged parts should be replaced using a complete repair kit.

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

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



Replacement Module Kit (1/2", 3/4", 1" only)- Consists of: Valve Mechanism (with Float) attached to a Cover and supplied with a Cover Gasket, Nameplate and a set of Cover Bolts.

Gasket Kit (Set of 3 cover and mechanism gaskets)	B, E
Valve mechanism kit (less float)	D, E, F
Float Kit	P