



# Ball Float Steam Trap

**Description :**

The Ball Float Steam Trap is a float operated steam trap available with an integral steam lock release facility. It is available with horizontal connections or with vertical connections with flow downwards. As an option, automatic air vent can be added and used as a steam lock release.

For venting air in batch operations.

**Available Sizes & Pipe Connections**

15, 20 & 25 NB Screwed BSPT/NPT in CI.

15, 20, 25, 40 & 50 NB Screwed BSPT/NPT/Socket weldable to ANSI B 1611/ & Flanged ANSI B 16.5 class 150, 300, 600. BS Table H, J, K, R; in CS

**Available Types & Limiting Conditions**

UFT 10- CI / UFT 20 - CS TV with Thermostatic air vent

UFT 10- CI C Combined TV & SLR.

UFT CI / UFT 20 - CS S with SLR only.

**Maximum Operating Conditions :**

Type	PMO	TMO
UFT 10 - 4.5 Bar	4.5 Bar	156°C
UFT 10 - 10 Bar	10 Bar	184°C
UFT 10 - 14 Bar	14 Bar	189°C

**Optional set of internals for UFT Traps:**

Type	Max. Diff. Pressure
UFT 10-4.5	4.5 Barg
UFT 10-10	10 Barg
UFT 10-14	14 Barg
UFT 20-4.5	4.5 Barg
UFT 20-10	10 Barg
UFT 20-14	14 Barg
UFT 20-21	21 Barg
UFT 20-32	32 Barg

**Main features**

These traps are available in Cast Iron, Graphite Iron or Steel bodies with SS internals. They can be supplied with IBR certificate in steel body design on request.

UKL BFTs are made in all standard sizes and with different sets of internals to suit a variety of operating conditions.

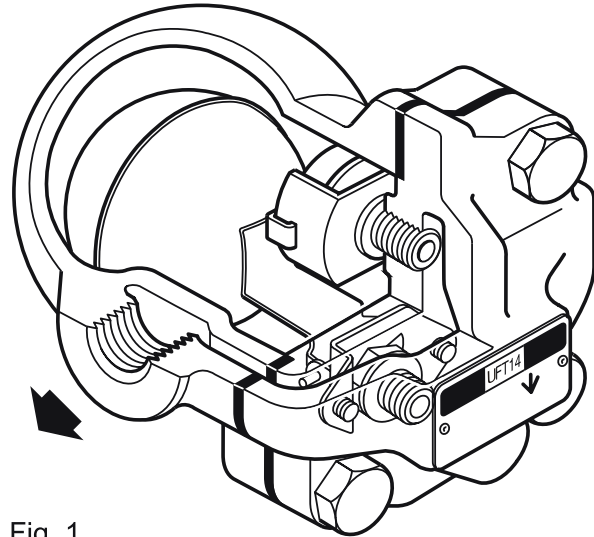


Fig. 1

UFT 14 Screwed



These traps are designed to eliminate float damage caused by impingement of condensate on the float.

Steam Lock Release facility is available as a standard feature with BFTs to take care of processes operating on batch cycle.

For traps likely to face air binding problem we have thermostatic air vent as an add-on option.

**Installation :**

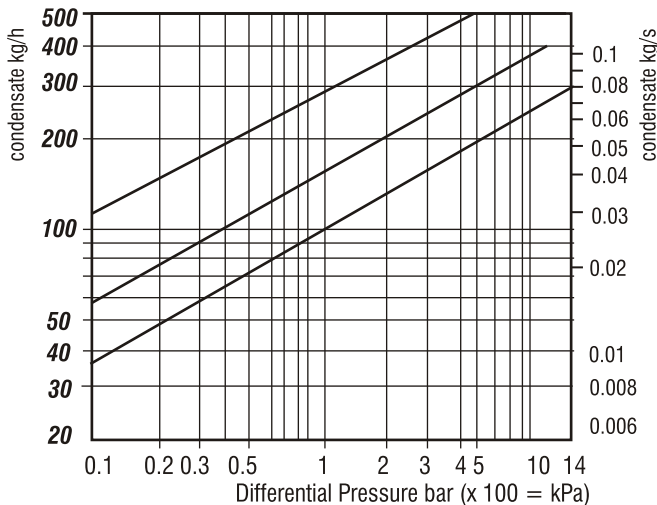
The trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically. Therefore the arrow on the nameplate must point downwards.

The UFT - 10/20 C is supplied with the steam lock release (SLR) set in the bleed position. The unit should be screwed clockwise to close. Traps can be supplied with vertical connections with flow from top inlet to bottom outlet or horizontal connections.

The UFT -10/20 S has to be opened at the time of start up to avoid steam locking of the trap.

**For referring the capacity charts, please note following:**

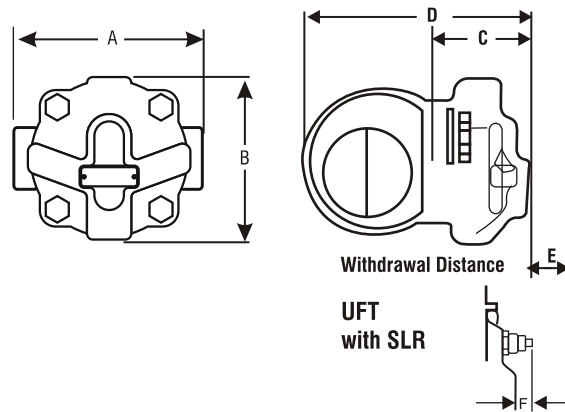
- Select the model of UFT based on P/T range and MOC
- Select flow capacity on Y axis of the chart for selected model.
- Work out actual differential pressure across the UFT
- Consider all possible pressure losses in the lines.
- Select diff. pressure on X axis.
- Move horizontally on Y axis and vertically on X axis.
- The point of cross section will give you the trap size required.



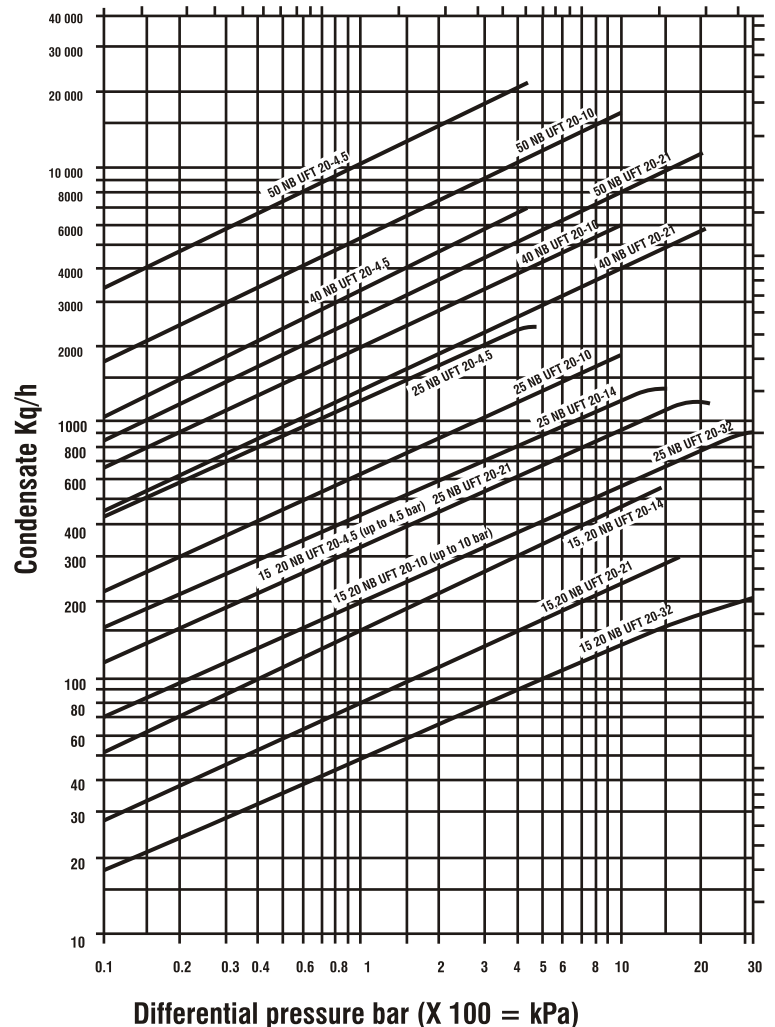
Dimensions (approximate) in millimeters

Size	A	B	C	D	E	F
15/20	190	170	67	204	180	34
25 IBR/NIBR	218	165	72	237	209	30

General Tol ± 3



**Capacity Chart : For UFT 15,20,25, 40 & 50NB UFT CI/CS Traps**





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**Available sizes and Pipe Connections :**

<b>Sr No.</b>	<b>Part</b>	<b>Material</b>	<b>Standard</b>
1.	Cover	Cast Iron	IS 210 FG 260
2.	Cover bolts	Carbon Steel	H.T.IS1367, Gr8
3.	Cover Gasket	Asbestos free synthetic fibre	
4.	Base	Cast Iron	IS210FG260
5.	Main Valve Seat	Stainless Steel	ASTMA - 743 Gr. CA 40
7.	Main Valve Seat Gasket	Stainless Steel Type 304	
9.	Main Valve Assembly Screws	Stainless Steel Type 304	IS - 1364
10.	Bal Float & Lever	Stainless Steel Type 304	ASTM A -240
11.	Air Vent Element	Stainless Steel Type 316	ASTM A - 276
12.	SLR Unit	Stainless Steel Type 410	ASTM A - 276
13.	SLR Unit Gasket Gasket	Stainless Steel Type 304	ASTM A-240

<b>No</b>	<b>Part</b>	<b>Material</b>	<b>Standard</b>	
1	Body	Cast Steel	ASTM A - 216 Gr:WCB	
2B	Cover Bolts	Carbon Steel	HT IS 2389	
2b	Cover Nuts	Carbon Steel	HT IS 2389	
3	Cover Gasket	Klinger		
4	Cover	Cast Steel	ASTM A - 216 Gr:WCB	
5	Valve Sheet	Stainless Steel	AISI 431	
6	Valve Sheet Gasket	Stainless Steel	AISI 304	
7	Pivot Frame Assy.	Stainless Steel	AISI 304	
8	Ball Float & Lever	Stainless Steel	AISI 304	
9	Air Vent Assy.	Stainless Steel	AISI 304	Optional
10	Air Vent Sheet Gasket	Stainless Steel	AISI 304	Optional
11 & 12	SLR Unit	Stainless Steel	AISI 431	
13	SLR Sheet	Stainless Steel	AISI 431	
14	SLR Sheet Gasket	Stainless Steel	AISI 304	
15	Support Frame	Stainless Steel	AISI 304	
16	Pivot Frame	Stainless Steel	AISI 304	



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### Trap Operation

The Ball Float Trap has a stainless steel float that rises on liquid level modulating on the rate of condensate in-flow. The float movement is transferred to the lever mechanism to draw away or push towards valve seat for opening and closing of the valve respectively. A separate port is provided for SLR and TV to let out steam or air when the locking occurs.

The set of float and lever assembly is designed with different options to choose from, depending on the differential pressure available across the trap. This assembly is interchangeable for each size of the trap.

UKL BFTs are designed to prevent direct impingement of the condensate on ball float which may cause extensive damage to the float and may eventually lead to trap failure.

These traps are meant for horizontal installation to ensure that the float movement is in vertical plane.

A separate adequately sized strainer is recommended to be installed with these traps. This will ensure that the dirt particles, so commonly found in plant condensate, will not clog the critical orifices dictating the flow of fluids,

### Available Spares :

The part available as spares are shown in heavy outline.

Parts drawn in dotted line are not available as spares

Main valve assembly

with Float \_\_\_\_\_ A,B,C,D, (2 OFF) E,F

Air Vent Assembly \_\_\_\_\_ H,J,L,M,N

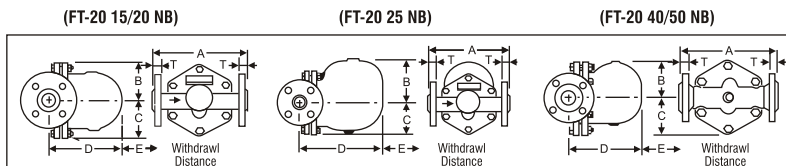
Steam Lock Release Unit \_\_\_\_\_ OP

Cover Gasket (packed of 5) \_\_\_\_\_ T

Float \_\_\_\_\_ C

Screen (Packet of 5) \_\_\_\_\_

Flanged -



### Flanged (Except ASA 600)

Size(MM)	A	B	C	D	E	T(150)	T(300)
15/20	313	84	84	204	180	11.6	14.7
25	209	112	82	237	219	14.7	17.9
40	292	130	111	297	270	17.9	21.1
50	314	130	111	284	270	19.5	22.7

### Flanged (ASA 600)

Size(MM)	A	B	C	D	E	T
15/20	230	84	84	172	120	23
25	240	119	88	225	160	24
40	350	131	124	265	200	29
50	335	143	130	265	200	32

### How to Fit Main Valve Assembly

Undo cover bolts U and lift off cover.

Remove complete float assembly by undoing the two screws D.

Remove main valve seat A and replace with a new one supplied with a new gasket B Fit complete new float assembly by tightening the assembly set screws D. Refit the cover using new gasket.

### How to Fit Air Vent Assembly

Remove spring clip L, element H and spacer plate M. Unscrew seat, frame N assemble spacer plate, fit element and dip Align complete air vent horizontally so that the frame clears the cover

### How to order

#### How to specify :

15 NB UKL UFT 14 CI - 4.5 Bar, TV, Float Trap  
screwed BSPT

Always order spares by using the description given:  
in the column above and stating the size of the trap.

Example : Main Valve  
Assembly for  
15 NB UFT 10 4.5

### Other Products

Cast / Forged Steel Piston Valves, Strainers - 'Y' Type

Steam Traps - Thermodynamic, Thermostatic, Ball Float Traps, Pressure Reducing Station, Condensate Recovery Products  
Manual & Actuated Ball & Butterfly Valves / Bellow Sealed Valve / Level Gauges - Reflex, Transparent. Bicolor,  
FSD Products: Full range of Comp. Asbestos/Non Asbestos fibre Sheeting / Cut gaskets, Spiral Wound Gaskets