

UKL BALL FLOAT TYPE STEAM TRAP

The enthalpy in the steam basically has two components : The Latent heat and the Sensible heat. Whereas condensate has only sensible heat. This condensate has to be removed as soon as it is formed, because it hinders to efficient heat transfer as well as leads to water hammer phenomenon as it is hot water (having more Specific Gravity) that moves with high velocity of steam (8 to 10 times higher than water), carrying enough momentum to rupture pipes and which is damaging to the plant pipelines as well as piping equipments. Hence, need to remove condensate from steam main and trap steam. This is done by steam trap.

UKL Ball Float Trap discharge condensate near to steam saturation temperature, which works on the principle of Buoyancy, [densities difference of Water and Steam]. The rising condensate level elevates the Float open the valve and discharges the condensate. When the level of condensate drops, valve close the trap.

It is commonly used for most process heating applications. Wherever steam is used for indirect heating application, the trap to be used must be of mechanical design. It is a continuous discharge type steam trap. This trap can handle very high condensate loads and the discharge will be proportional to the differential pressure across the trap. There may be other similar process applications where the heat load is small and a mechanical trap can handle small as well as fluctuating loads.

This trap is provided with two optional features called Steam Lock release (SLR) and Thermostatic Vent (TV). The SLR is a manual operation to release steam that may hamper free movement of the float on water level. The TV will ensure that air and such un dissolved gases will be automatically vented out when present in condensate.

MATERIAL OF CONSTRUCTION:**CAST IRON MODEL**

UFT 14- CI – IS 210 FG260

CAST CARBON STEEL MODEL

UFT 20- CS- ASTM A216 Gr. WCB

SIZES AVAILABLE:-

UFT 14 Model: 40 NB and 50 NB

UFT 20 Model: 40 NB and 50 NB

**END CONNECTIONS:**

UFT-14 CAST IRON MODEL

Threaded to NPT , BSP and BSPT.

UFT-20 CAST CARBON STEEL MODEL :-

Threaded to NPT , BSP and BSPT.

Socket Weld to ASME B 16.11

Flanged - #150/#300/#600

INSTALLATION:-

Horizontal position.

OPTIONAL:-

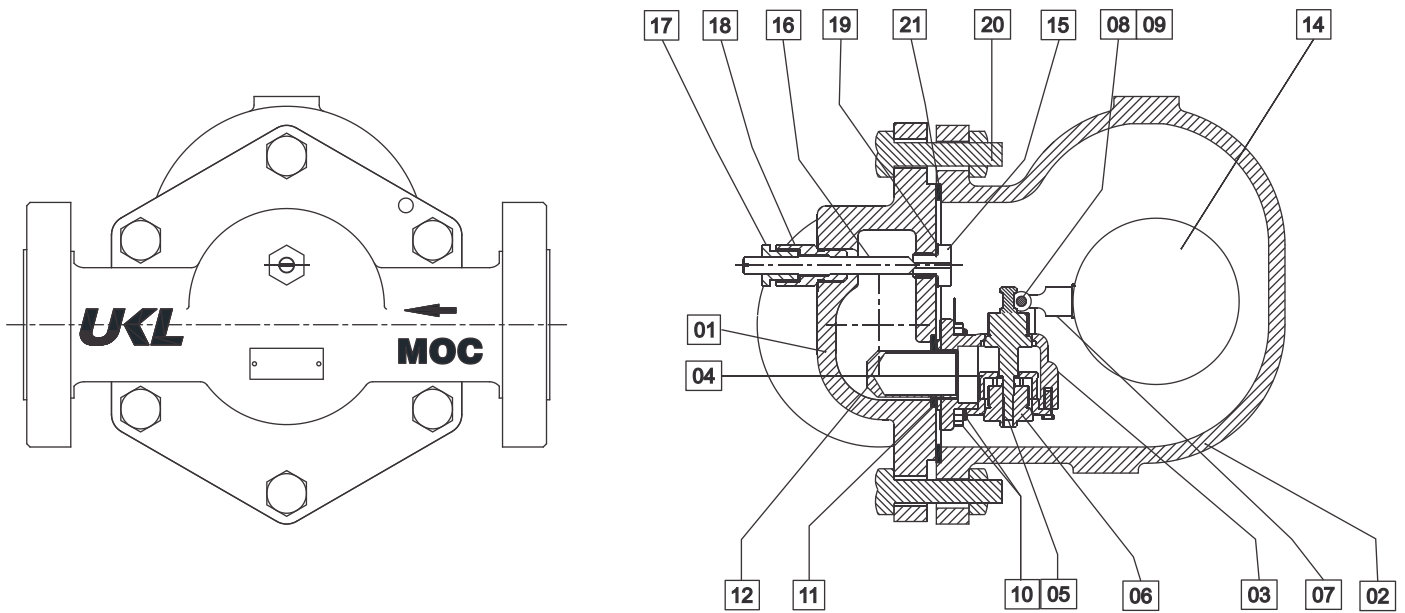
UFT-14 Available in Non-IBR

UFT-20 Available in IBR/Non-IBR

Thermostatic Air vent

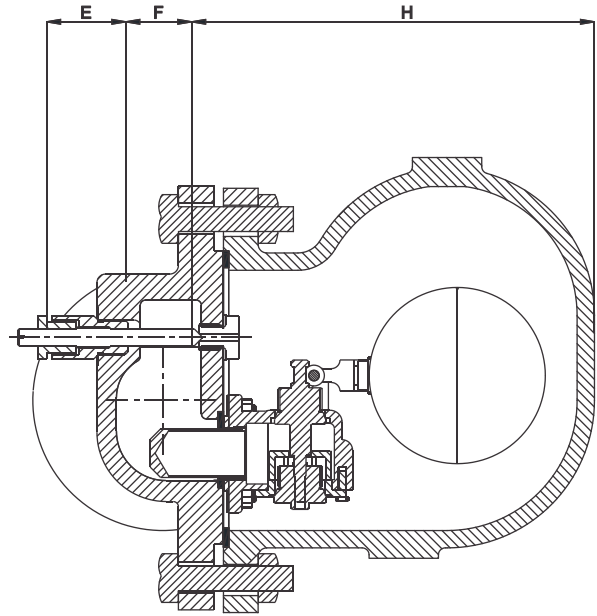
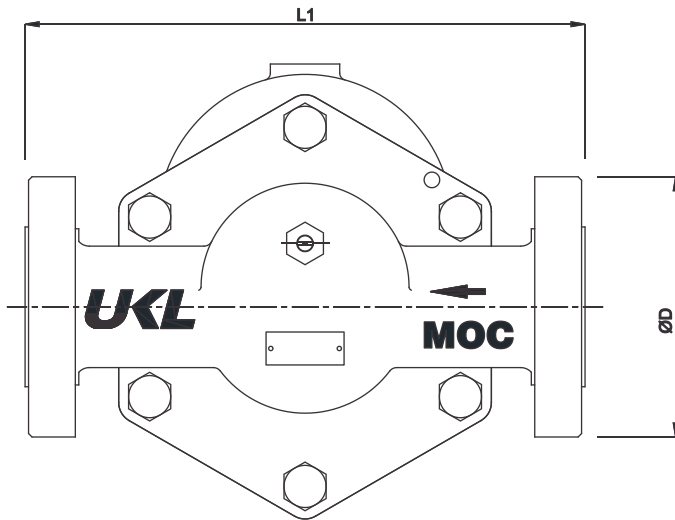
Ball Float Steam Trap

UFT 40 & 50 NB



| No. | PART NAME | UFT 14 Cast Iron Model | | UFT 20 Cast Steel Model | |
|-----|-----------------------|------------------------|---------------------|-------------------------|---------------------|
| | | MATERIAL | MATERIAL CODE | MATERIAL | MATERIAL CODE |
| 1 | Body | Cast Iron | IS 210 FG 260 | Cast Steel | ASTM A 216 Gr WCB |
| 2 | Cover | Cast Iron | IS 210 FG 260 | Cast Steel | ASTM A 216 Gr WCB |
| 3 | Controller Housing | Stainless Steel | ASTM A 743 Gr CA 40 | Stainless Steel | ASTM A 743 Gr CA 40 |
| 4 | Valve Seat | Stainless Steel | ASTM A 743 Gr CA 40 | Stainless Steel | ASTM A 743 Gr CA 40 |
| 5 | Stem | Stainless Steel | ASTM A 743 Gr CA 40 | Stainless Steel | ASTM A 743 Gr CA 40 |
| 6 | Lower Valve | Stainless Steel | ASTM A 743 Gr CA 40 | Stainless Steel | ASTM A 743 Gr CA 40 |
| 7 | Lever | Stainless Steel | ASTM A 743 Gr CA 40 | Stainless Steel | ASTM A 743 Gr CA 40 |
| 8 | Pivot Pin | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 9 | Split Pin | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 10 | Stud & Nut | Carbon Steel | Gr 8.8 / 8 | Carbon Steel | Gr 8.8 / 8 |
| 11 | C. H. Gasket | Graphite | Graphite | Graphite | Graphite |
| 12 | Errosion Deflector | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 13 | Baffle Plate | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 14 | Float | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 15 | SLR Valve Seat | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 16 | SLR Stem | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 17 | Stem Guide | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 18 | Stem Guide Lock Nut | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 19 | SLR Valve Seat Gasket | Stainless Steel | AISI 304 | Stainless Steel | AISI 304 |
| 20 | Bolts & Nut | Carbon Steel | Gr 8.8 / 8 | Carbon Steel | Gr 8.8 / 8 |
| 21 | Cover Gasket | CAF | CAF | CAF | CAF |

Ball Float Steam Trap UFT 40 & 50 NB



DIMENSIONS (mm)

| SOCKET WELD / Screwed End Connections: | | | | | | |
|---|----------------|--------|-------|-------|-------|-------------|
| Size | Overall Length | H | E | F | ØD | Weight (kg) |
| 40 NB | 299.00 | 255.00 | 45.00 | 34.00 | 48.80 | 22.000 |
| 50 NB | 321.00 | 255.00 | 45.00 | 36.00 | 61.70 | 27.400 |

| Flanged End Connections #150 | | | | | | |
|-------------------------------------|--------|--------|-------|-------|--------|------------|
| Size | L1 | H | E | F | ØD | Weight(kg) |
| 40 NB | 299.00 | 255.00 | 45.00 | 34.00 | 125.00 | 26.0 |
| 50 NB | 321.00 | 255.00 | 45.00 | 36.00 | 150.00 | 33.0 |

| Flanged End Connections #300 | | | | | | |
|-------------------------------------|--------|--------|-------|-------|--------|------------|
| Size | L1 | H | E | F | ØD | Weight(kg) |
| 40 NB | 299.00 | 255.00 | 45.00 | 34.00 | 125.00 | 28.0 |
| 50 NB | 321.00 | 255.00 | 45.00 | 36.00 | 150.00 | 35.0 |

INSTALLATION:-

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

Traps will be generally supplied in horizontal connections with flow from right to left outlet (R-L) horizontal connections.

The SLR has to be opened at the time of start up to avoid steam locking of the trap.

STORAGE

UNI KLINGER UFT and the respective spares should be stored only in enclosed dry rooms in a non-aggressive atmosphere. Fully assembled Ball Float Traps must be stored as supplied by UNI KLINGER. Spare parts must be handled with care and should be stored in their original packing

Ball Float Steam Trap

UFT 40 & 50 NB

OPERATING CONDITIONS

| Model | Max Diff. Pressure | PMO (Bar) | Sat. Temp °C |
|------------|--------------------|-----------|--------------|
| UFT 14-4.5 | 4.5 Bar | 14 | 193 |
| UFT 14-10 | 10 Bar | 14 | 193 |
| UFT-14-14 | 14 Bar | 14 | 193 |
| UFT 20-4.5 | 4.5 Bar | 32 | 237 |
| UFT 20-10 | 10 Bar | 32 | 237 |
| UFT 20-21 | 21 Bar | 32 | 237 |
| UFT 20-32 | 32 Bar | 32 | 237 |
| UFT 20-14 | 14 Bar | 32 | 237 |

For referring the capacity charts, please note following:

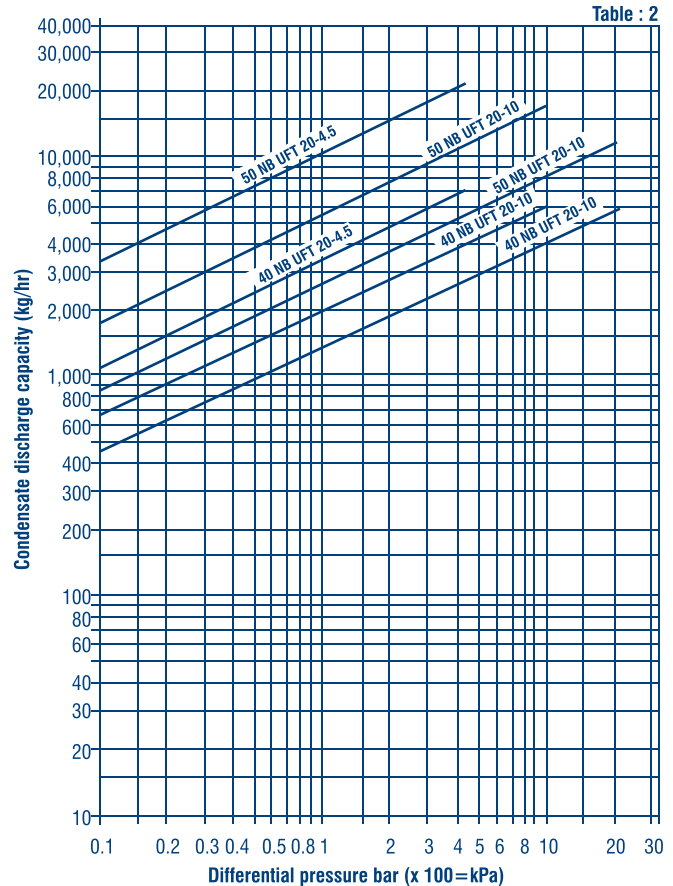
- Select the model of UFT based on P/T range and MOC
- Select flow capacity on Y axis of the chart for selected model.
- Work out actual differential pressure across the UFT.
- Consider all possible pressure losses in the lines.
- Select differential pressure on X axis.
- Move horizontally on Y axis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

How to order and Specify:

40 NB UKL UFT 14- 4.5 Bar, TV, Float Trap, SW End

Always order spares by stating the type and differential pressure, specify-
Controller Assembly- valve seat for 40 NB UFT14-4.5 Bar

Capacity Chart: For UFT 40 & 50 NB UFT CI/CS Traps



SPARES AVAILABLE:

- SLR Assembly
- Float
- Main controller assembly
- Cover Gasket

Other Products :



Cast / Forged Steel Piston Valves, Bellow seal valves, High Pressure valves (Gate/Globe), Strainers – “Y” Type, ITVS Steam Traps (Thermodynamic, Thermostatic, Ball Float Traps and IBT), Pressure Reducing Station, Condensate Recovery Products, Level Gauges (Reflex, Transparent, Bicolor), Sight Glass, Hot Water Generation System, Safety and Relief Valves.

FSD Products : Compressed Asbestos / Non Asbestos Fiber Sheeting / Cut Gaskets, Spiral Wound Gaskets / Gland Packing

In view of technical progress designs and dimensions are subject to change without notice.



UNI KLINGER LIMITED

A joint venture of the Neterwala group of companies and KLINGER AG, Switzerland.

Central Sales Office & Pune Branch : SC1, 5th Fl., Kohinoor Est. Mumbai-Pune Highway, Khadki, Pune-411 003.

Tel.: +91-20-4102 3000 Fax.: (020) 4102 3001

e-mail : salescso@uniklinger.com, salespune@uniklinger.com, Website : www.uniklinger.com

Factory :

C-37, M.I.D.C., Ahmednagar – 414 111, Maharashtra, Tel. : 0241 – 2777223 / 2777512

Fax: 0241 – 2777294, E-mail : fcdworks@uniklinger.com

Branch Offices :

Baroda : 102, Oftel Towers-II 1st Floor, R.C. Dutt Rd, Baroda-390 005, Tel.: 91-0265-2312343 / 2340660, Fax.: 91-265-2341419. E-mail : salesbar@uniklinger.com

Chennai : East Coast Centre, 5th Floor, 553, Mount Rd, Teyanampet, Chennai - 600 018, Tel.: 91 - 44 - 24345707. Fax.: 91 - 44 - 24343960. E-mail : saleschen@uniklinger.com

Kolkata : 9, Chitrakoot, 8th Floor, 230 A, AJC Bose Rd, Kolkatta-700 020, Tel.: 91-33-22872510, Fax.: 91-33-22876494. E-mail : salescal@uniklinger.com

Mumbai : 714, Ecstasy, City of Joy Complex, J.S.D. Rd, Mulund (W) Mumbai - 400080, Tel.: 91-22-25440463, Fax.: 91-22-25440463. E-mail : salesmum@uniklinger.com

New Delhi : 1003, 10th Flr., Indra Prakash Bldg. 21, Barakhamba Rd, Connaught Place New Delhi-110001, Tel.: 91-11-41658767, Fax.: 91-11-41658768. E-mail : salesdel@uniklinger.com

