

**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, [density 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, the float falls down and the 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: 15 NB, 20 NB and 25 NB

UFT 20 Model: 15 NB, 20 NB and 25 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/Vertical position.

**OPTIONAL:-**

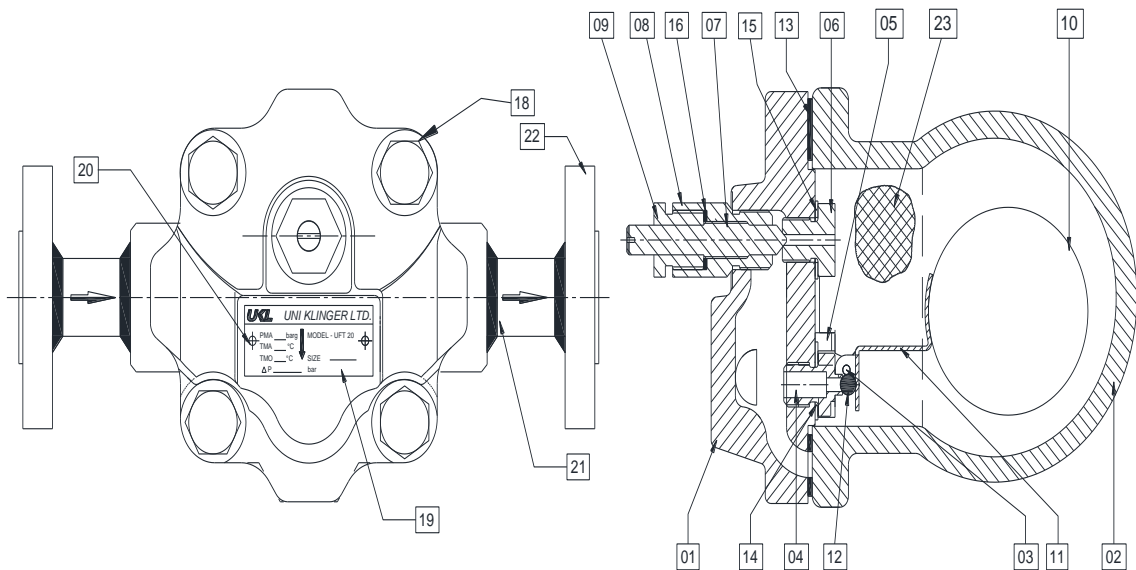
IBR/Non-IBR

With Thermostatic Air vent

Inbuilt Strainer

# Ball Float Steam Trap

## UFT-14/20 Size 15, 20 & 25 NB

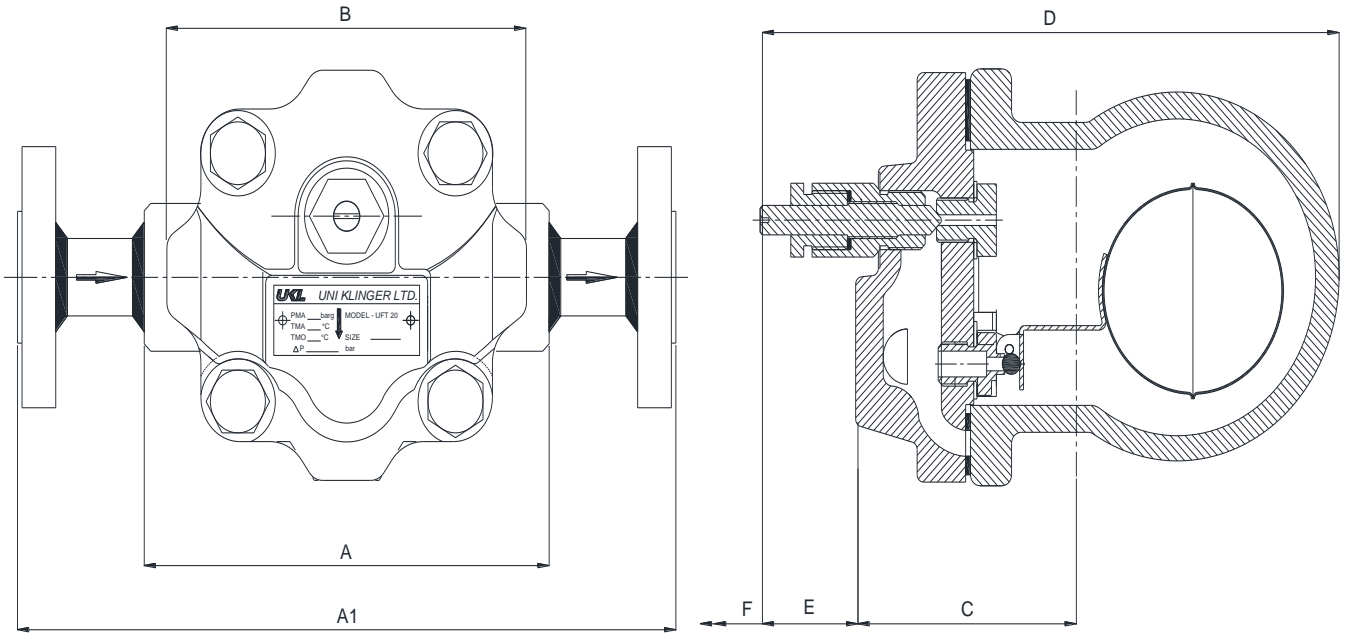


No.	PART NAME	UFT 20 Cast Steel Model		UFT 14 Cast Iron Model	
		MATERIAL	MATERIAL CODE	MATERIAL	MATERIAL CODE
01	Body	Cast Steel	ASTM A 216 Gr WCB	Cast Iron	IS 210 FG 260
02	Cover	Cast Steel	ASTM A 216 Gr WCB	Cast Iron	IS 210 FG 260
03	Pivot Pin	Stainless Steel	AISI 304	Stainless Steel	AISI 304
04	Valve Seat	Stainless Steel	AISI 304	Stainless Steel	AISI 304
05	Pivot Bracket	Stainless Steel	AISI 304	Stainless Steel	AISI 304
06	SLR Valve Seat	Stainless Steel	AISI 304	Stainless Steel	AISI 304
07	Stem	Stainless Steel	AISI 304	Stainless Steel	AISI 304
08	Stem Guide	Stainless Steel	AISI 304	Stainless Steel	AISI 304
09	Stem Guide Lock Nut	Stainless Steel	AISI 304	Stainless Steel	AISI 304
10#	Float	Stainless Steel	AISI 304	Stainless Steel	AISI 304
11	Lever	Stainless Steel	AISI 304	Stainless Steel	AISI 304
12	Steel Ball	Stainless Steel	SS 440C	Stainless Steel	SS 440C
13#	Cover Gasket	CAF/ Non CAF	CAF	CAF	CAF
14	Valve Seat Gasket	Stainless Steel	AISI 304	Stainless Steel	AISI 304
15#	SLR Valve Seat Gasket	Stainless Steel	AISI 304	Stainless Steel	AISI 304
16	SLR Stem Gasket	Graphite	Graphite	Graphite	Graphite
17	Screws	Stainless Steel	AISI 304	Stainless Steel	AISI 304
18	Cover Bolt (M10)	Carbon Steel	Gr. 8.8	Carbon Steel	Gr. 8.8
19	Name Plate	Stainless Steel	AISI 304	Stainless Steel	AISI 304
20	Rivets	Alluminium	---	Alluminium	---
21	Pipe	Carbon Steel	ASTM A 106 Gr B	Carbon Steel	ASTM A 106 Gr B
22	Flanges- SWRF	Carbon Steel	ASTM A 105	Carbon Steel	ASTM A 105
*23	Strainer (Optional)	Stainless Steel	AISI 304	Stainless Steel	AISI 304
#	AVAILABLE AS SPARES				

UKL/UFT-14/20/A/APRIL.2019



## Ball Float Steam Trap UFT-14/20 Size 15, 20 & 25 NB



### Screwed / Socket Weld End Connections

Size	Diff Pressure	A	B	C	D	E	F	Weight (kg)
15 NB	4.5/10/14/ 21/32 bar	128	111	68	179	30	110	3.8
20 NB		128	111	68	179	30	110	3.8
25 NB		153	111	75	202	30	130	5.3

### Flanged End Connections

Size	#150		#300	
	A1	Weight(kg)	A1	Weight(kg)
15 NB	278	4.5	278	5.1
20 NB	278	5.1	278	6.1
25 NB	303	7.0	303	8.0

### 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 left to right outlet (L-R) & horizontal connections with flow R-L (rotating cover 180° w.r.t L-R ) or vertical connections with top inlet and bottom outlet (rotating cover 90° w.r.t L-R) if specified.

The connection orientation can be changed from L-R and R-L in horizontal connections on site itself only by undoing 4 bolts and rotating the cover to required direction and then assembling.

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-14/20 Size 15, 20 & 25 NB

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 20-14	14 Bar	32	237
UFT 20-21	21 Bar	32	237
UFT 20-32	32 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.

#### MOST IMPORTANT:-

Before doing any maintenance on the trap it is necessary to isolate both supply and return lines and any pressure to normalize to atmosphere pressure by opening SLR. Allow the trap to cool before doing any maintenance and clean all sealing faces before assembling it.

#### How to order and Specify:

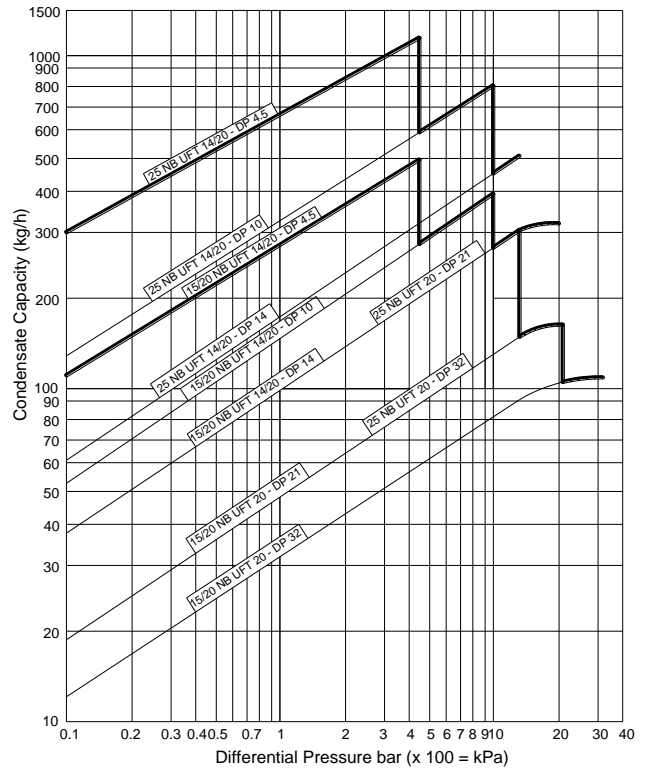
15 NB UKL UFT 14- 4.5 Bar, TV, Float Trap, Threaded BSP

Always order spares by stating the type and differential pressure, specify-

EXAMPLE :-

**Controller Assembly- valve seat for 15 NB UFT14-4.5 Bar**

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



#### SPARES AVAILABLE:

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

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.

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.



**HARSH ENGINEERING SALES & SERVICE PVT. LTD**

Only Authorized Dealers for UNI KLINGER products, Telangana

Add: 2-3-692/22/13 Lal Bagh, Zinda Tillismath Road, Ganga Nagar, Amberpet, Hyderabad - 500013  
Tel: +91-40-2740 3329 | Website: harsh-engineering.com | E-mail: sales@harsh-engineering.com

**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:-**

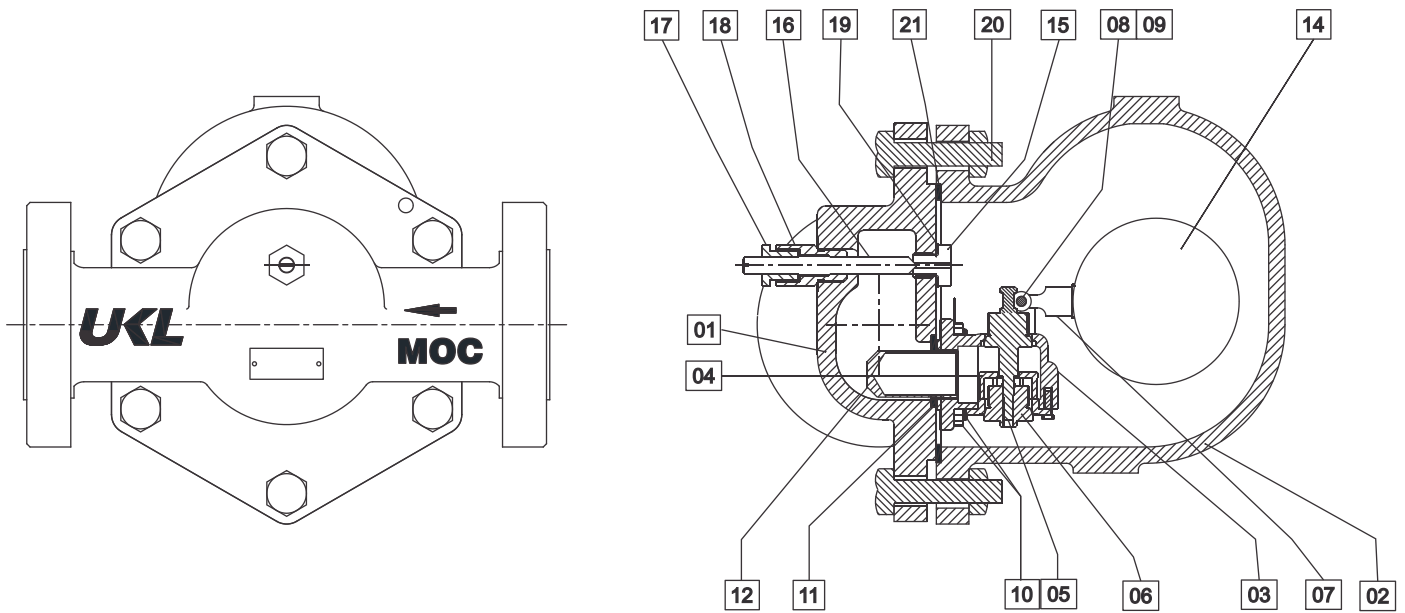
UFT-14 Available in Non-IBR

UFT-20 Available in IBR/Non-IBR

Thermostatic Air vent

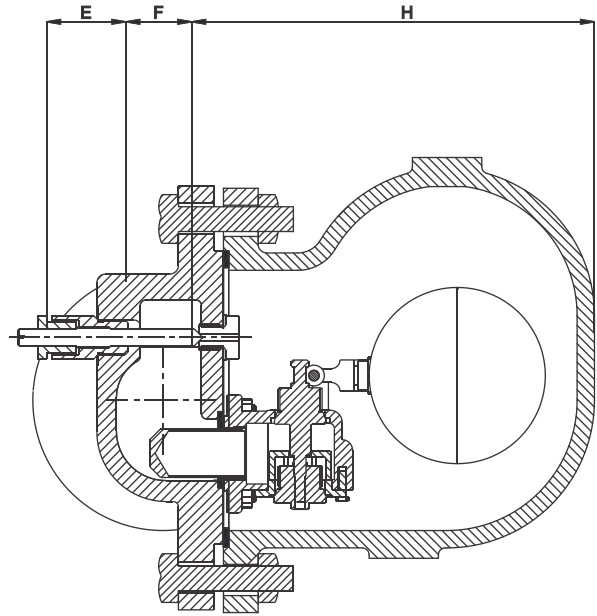
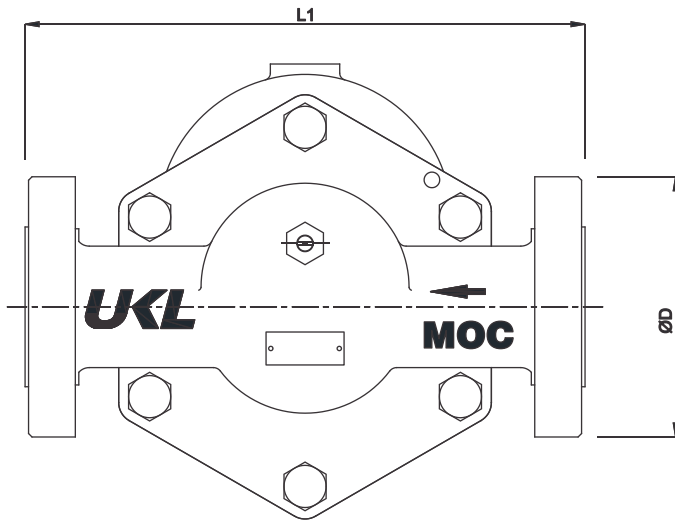
# Ball Float Steam Trap

## 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)

<b>SOCKET WELD / Screwed End Connections:</b>						
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

<b>Flanged End Connections #150</b>						
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

<b>Flanged End Connections #300</b>						
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:

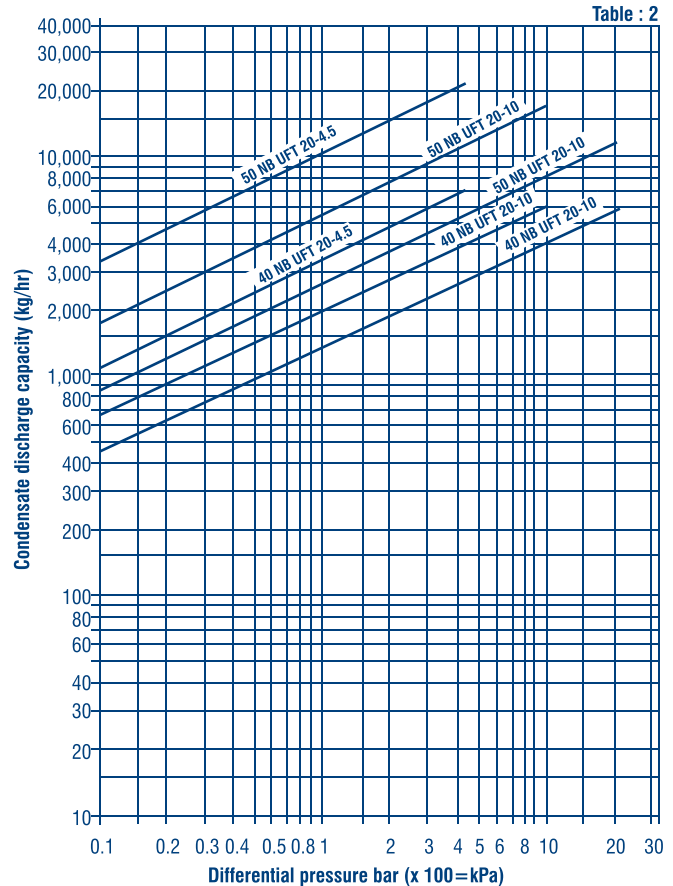
- Select the model of UFT based on P/T range and MOC
- Select flow capacity on Y axis of the chart for selected model.
- Work out actual differential pressure across the UFT.
- Consider all possible pressure losses in the lines.
- Select differential pressure on X axis.
- Move horizontally on Y axis & 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 Sheetting / 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.



## HARSH ENGINEERING SALES & SERVICE PVT. LTD

Only Authorized Dealers for UNI KLINGER products, Telangana

Add: 2-3-692/22/13 Lal Bagh, Zinda Tillismath Road, Ganga Nagar, Amberpet, Hyderabad - 500013  
Tel: +91-40-2740 3329 | Website: harsh-engineering.com | E-mail: sales@harsh-engineering.com



**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, the float falls down and the 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.

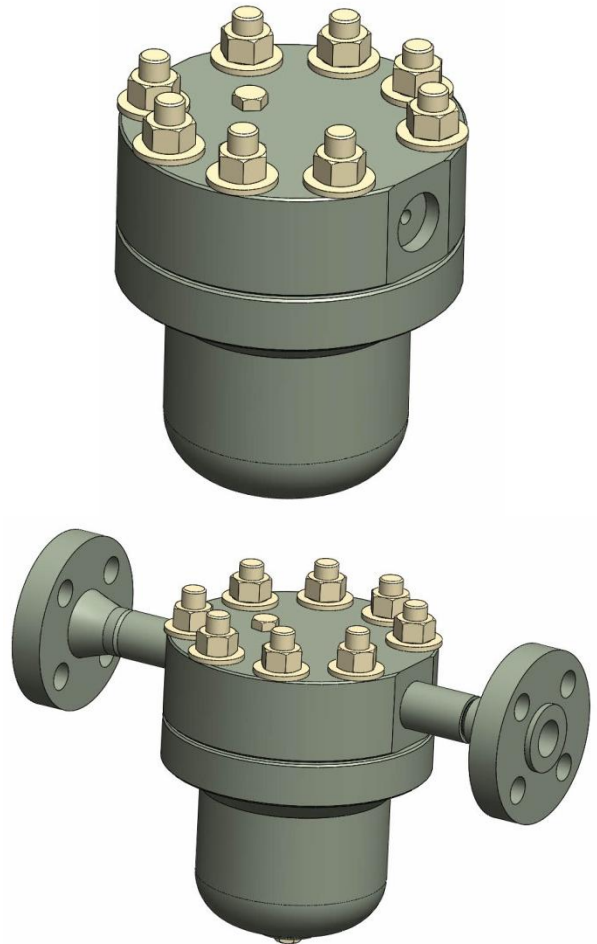
This trap is provided with Bimetallic Vent (TV). The TV will ensure that air and such un dissolved gases will be automatically vented out when present in condensate.

**MATERIAL OF CONSTRUCTION:**

ASTM A105

**SIZES AVAILABLE:-**

15 NB , 20 NB, 25 NB, 40 NB SOCKET WELD END / FLANGED END #600 / #900



**END CONNECTIONS:**

Socket Weld to ASME B 16.11

Flanged End - #600 / #900 to ASME B 16.5

**INSTALLATION :-**

Horizontal Position

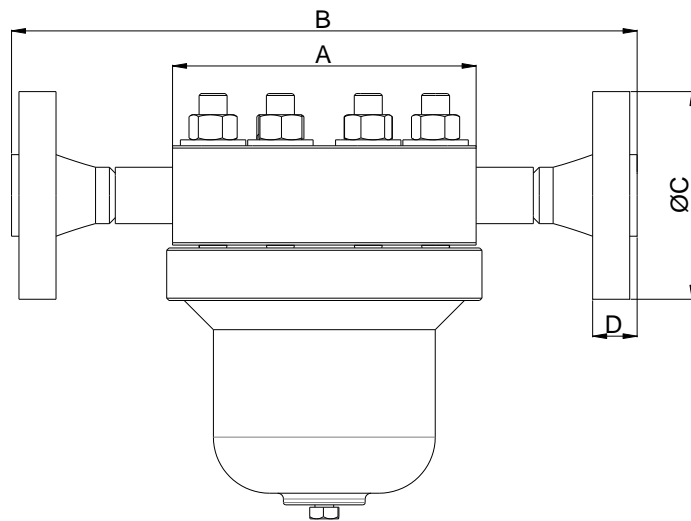
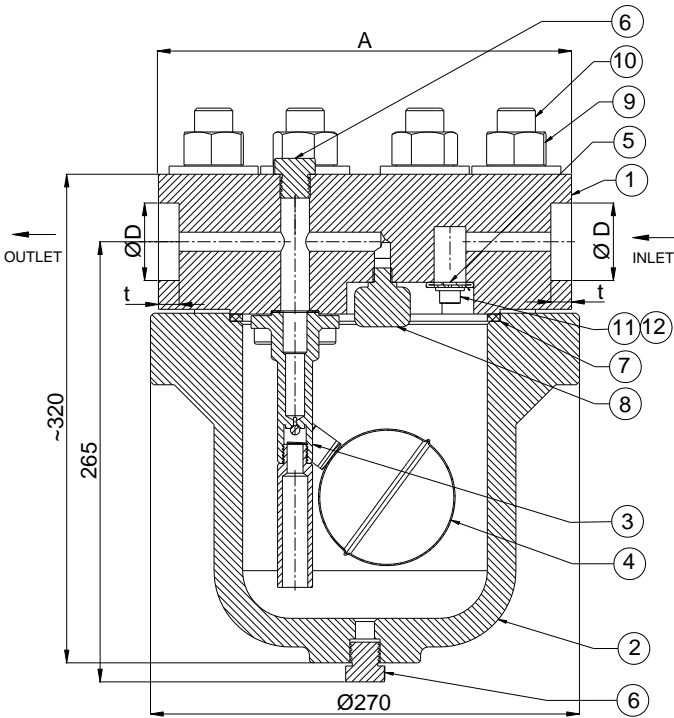
**OPTIONAL:-**

IBR/Non-IBR

With Bimetallic Air vent

Inbuilt Strainer

**GENERAL ARRANGMENT:**



RECOMMENDED TIGHTENING TORQUES		
Sr.	PART NAME	TORQUE Nm
2	STUD	80-100
4	NUT	210-240

BILL OF MATERIAL OF UFT-100		
No.	PART NAME	MATERIAL CODE
01	Body	ASTM A 105
02	Cover	ASTM A 105
03	Controller Assembly	AISI 316
04	Float Assembly	AISI 316
05	Strainer	AISI 304
06	NPT End Plug	ASTM A 105
07	Cover Gasket	CAF/ NON CAF/SPW
08	Bimetallic Air Vent	---
09	Hex Nut	ASTM A194 Gr 2H
10	Stud	ASTM A193 Gr. B7
11	Washer	AISI 304
12	Hex Bolt	Gr. 8.8/10.9/ Equivalent or higher grade

GENERAL DIMENSIONS			
SOCKET END (ASME B16.11 #9000)			
SIZE	ØD (mm)	t (mm)	A (mm)
15 NB	21.8	10.0	260
20 NB	27.2	13.0	260
25 NB	33.9	13.0	260
40 NB	48.8	13.0	260
FLANGED END (ASME B16.5 #900 )			
SIZE	B	ØC	D
15 NB	505	120	29.3
20 NB	525	130	32.4
25 NB	530	150	35.6
40 NB	550	180	38.8
FLANGED END (ASME B16.5 #600 )			
15 NB	490	95	21.3
20 NB	500	115	22.9
25 NB	505	125	24.5
40 NB	525	155	29.3

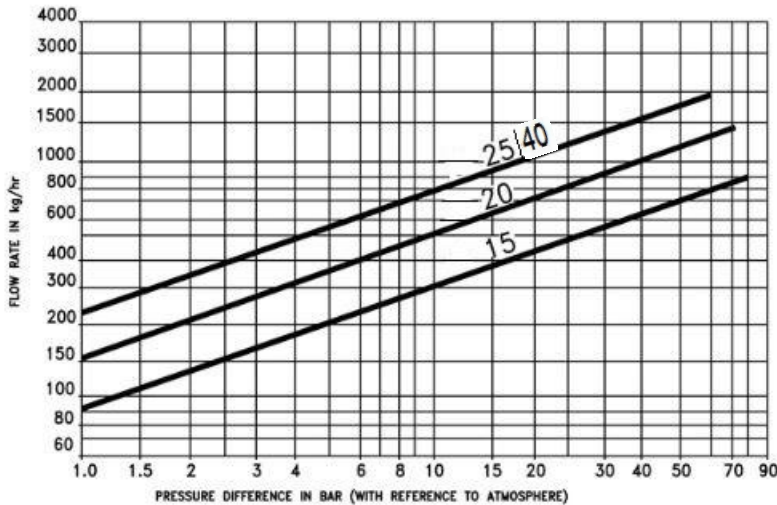
UKL-DS-UFT 100-R00-AUG 2019



## OPERATING CONDITIONS :-

DESIGN CONDITIONS		
1	Max Allowable Pressure	153.2 Bar (g) [ 156.3 Kg/cm <sup>2</sup> (g) ] @ 38 °C
2	Max Allowable Temperature	425 °C @ 86.3 Bar (g) [ 88.0 Kg/cm <sup>2</sup> (g) ]
OPERATING CONDITIONS FOR SW & FE #900		
1	Max Working Pressure	100 Bar (g) [ 102.0 Kg/cm <sup>2</sup> ] @ 312 °C
2	Max Working Temperature	425 °C @ 86.3 Bar (g) [ 88.0 Kg/cm <sup>2</sup> (g) ]
3	<b>COLD HYDRO TEST PRESSURE</b>	
	150 Bar (g) [ 153 Kg/cm <sup>2</sup> (g) ] Without Internals	
OPERATING CONDITIONS FOR FE #600		
1	Max Working Pressure	80 Bar (g) [ 81.6 Kg/cm <sup>2</sup> ] @ 295 °C
2	Max Working Temperature	425 °C @ 57.5 Bar (g) [ 58.6 Kg/cm <sup>2</sup> (g) ]
3	<b>COLD HYDRO TEST PRESSURE</b>	
	120 Bar (g) [ 123 Kg/cm <sup>2</sup> (g) ] Without Internals	

## CAPACITY CHART :-



## Installation :-


The trap must be fitted with horizontal plane so that it rises and falls vertically and condensate flow corresponds with arrows on the name plate  
If necessary, give support to float trap in the pipeline  
Use M12 of tapping given on outer body for lifting the product.

## 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.

## SPARES AVAILABLE:

Controller Assembly  
Float  
Bimetallic Air Vent  
Cover Gasket  
Strainer

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.

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.



**HARSH ENGINEERING SALES & SERVICE PVT. LTD**

Only Authorized Dealers for UNI KLINGER products, Telangana

Add: 2-3-692/22/13 Lal Bagh, Zinda Tillismath Road, Ganga Nagar, Amberpet, Hyderabad - 500013  
Tel: +91-40-2740 3329 | Website: harsh-engineering.com | E-mail: sales@harsh-engineering.com

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.

Trap is provided with a Automatic Thermostatic Vent (ATV) by default. This Thermostatic vent will ensure that air and other non-condensable gases will be automatically vented out when present in condensate. This phenomenon helps for the free movement of the float on water level and smooth operation of the Ball Float Trap.



**MATERIAL OF CONSTRUCTION:**

Cast Carbon Steel:- ASTMA216 GR. WCB

Sizes Available:- 80 NB and 100 NB

**END CONNECTION:**

Flanged - #150 and #300 As per ASME B16.5

**INSTALLATION:- Horizontal position.**

**OPERATING CONDITIONS:-**

Max Operating Pressure :- 32 Kg/cm<sup>2</sup>  
 Max Operating Temperature :- 425 °C

**OPTIONAL:-**

IBR/Non-IBR  
 Flanged End #150/#300  
 Butt Weld end (On request)  
 Available Diff. Pressure (Kg/cm<sup>2</sup>)  
 4.5 / 10 / 14 / 21 / 32

**INSTALLATION:- Horizontal position.**

**OPERATING CONDITIONS:-**

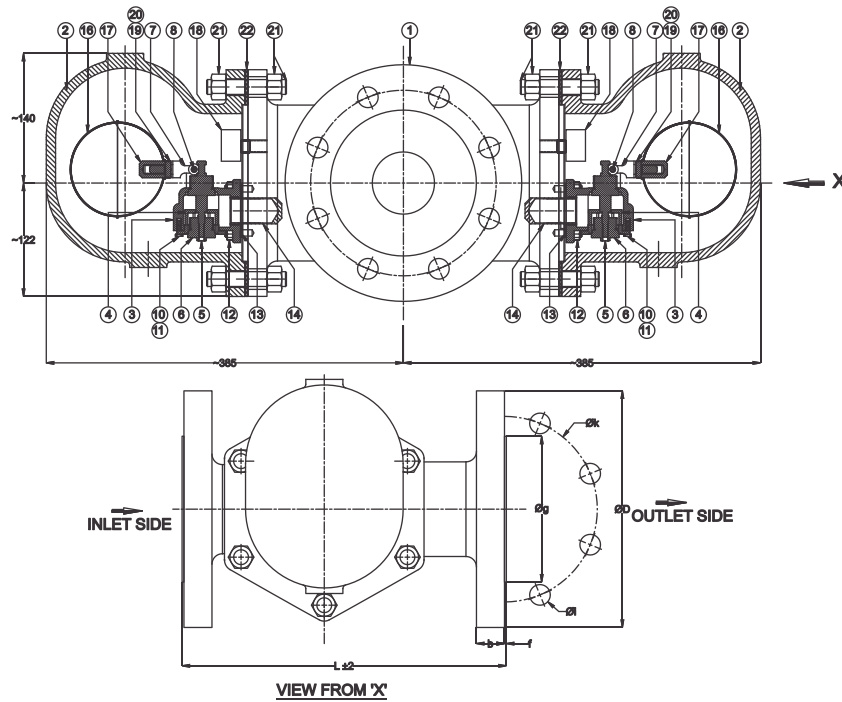
Max Operating Pressure :- 32 Kg/cm<sup>2</sup>  
 Max Operating Temperature :- 425 °C

**OPTIONAL:-**

IBR/Non-IBR  
 Flanged End #150/#300  
 Butt Weld end (On request)  
 Available Diff. Pressure (Kg/cm<sup>2</sup>)  
 4.5 / 10 / 14 / 21 / 32

# Ball Float Steam Trap [ High Capacity ]

## UFT-20 80 NB & 100 NB



Sr. No.	Size	Class	L <sup>o</sup> 2	ØD	b	Øg	f	Øk	Øi	Holes, N
1	80	#150	334.00	190.00	22.30	127.00	2.00	152.40	19.05	4
2	100	#150	334.00	230.00	22.30	157.20	2.00	190.50	19.05	8
3	80	#300	343.00	210.00	27.00	127.00	2.00	168.30	22.22	8
4	100	#300	350.00	255.00	30.20	157.20	2.00	200.00	22.22	8

### BILL OF MATERIAL:

PART NO.	PART NAME	MATERIAL	MATERIAL CODE
1	BODY	CAST STEEL	ASTM A 216 Gr. WCB
2	COVER	CAST STEEL	ASTM A 216 Gr. WCB
3	CONTROLLER HOUSING	STAINLESS STEEL	ASTM A 743 Gr CA 40
4	VALVE SEAT	STAINLESS STEEL	ASTM A 743 Gr CA 40
5	STEM	STAINLESS STEEL	ASTM A 743 Gr CA 40
6	LOWER VALVE	STAINLESS STEEL	ASTM A 743 Gr CA 40
7	LEVER	STAINLESS STEEL	ASTM A 743 Gr CA 40
8	PIVOT PIN	STAINLESS STEEL	AISI 304
9 *	SPLIT PIN	STAINLESS STEEL	AISI 304
10	HEX BOLT	STAINLESS STEEL	AISI 304
11	WASHER	STAINLESS STEEL	AISI 304
12	STUD & NUT	CARBON STEEL	Gr. 8.8 / 8
13	CONTROLLER HOUSING GASKET	GRAPHITE	GRAPHITE
14	ERROSSION DEFLECTOR	STAINLESS STEEL	AISI 304
15 *	BAFFLE PLATE	STAINLESS STEEL	AISI 304
16	FLOAT	STAINLESS STEEL	AISI 304
17	SOCKET	STAINLESS STEEL	AISI 304
18	THERMOSTATIC VENT	STAINLESS STEEL	AISI 304
19	HEX BOLT	STAINLESS STEEL	AISI 304
20	SPRING WASHER	STAINLESS STEEL	AISI 304
21	STUD / BOLT & NUT	CARBON STEEL	Gr. 8.8 / 8
22	COVER GASKET	NON CAF	NON CAF
23 *	NAME PLATE	STAINLESS STEEL	AISI 304

## **Ball Float Steam Trap [ High Capacity ]** **UFT-20 80 NB & 100 NB**

### **Flow Capacities:-**

TRAP D.P. (BAR)	FLOW CAPACITY AT OPERATING D.P. (Kg/hr.)							
	0.5	1	2	3	4.5	7	10	13
4.5	15000	20000	30000	35000	43000	- - -	- - -	- - -
10	8000	12000	18000	20000	25000	30000	38000	- - -
14	4500	6000	8500	10000	13000	17000	18500	22000

Note : For Intermediate value of flow rate use linear interpolation.

### **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.

### **STORAGE**

UNI KLINGER High Capacity Trap 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.

### **How to order and Specify:**

80 NB UKL UFT 20- 4.5 Bar, Float Trap, #150

Always order spares by stating the type and differential pressure, specify-

Controller Assembly- Valve Seat for 80 NB UFT 20-4.5 Bar

### **SPARES AVAILABLE:**

Float

Main controller assembly

Cover Gasket

## Product Range

### **UTD-55 | UTD-62 | UTD-120**

Thermodynamic steam trap

### **UTST | UCT-10**

Thermostatic steam trap & Sanitary steam trap

### **UFT-15 to 100 | UCA**

Ball Float Trap for Steam and air application

### **UG 25/45 | UP64Ti | UP215Ti**

Bi-metallic Steam Trap

### **UITVS**

Compact Trap Valve Station

### **UIBT-28US**

Inverted bucket Steam Trap in complete stainless steel construction

### **UIBT 1701 to 7004**

Inverted bucket steam trap in cast/forged steel construction

### **UDCV**

Wafer type disc check valve / NRV

### **UMS**

Moisture separator for Steam & Air

### **UAV**

Thermostatic air vent for steam with air bottle for proper venting

### **UAE**

Air eliminator for liquid application

### **UBSV**

Bellow seal gate/globe valve

### **UPHV**

High pressure (#1500/#2500) gate/globe valve

### **USTR**

Y & T type strainers in cast carbon steel and stainless steel

### **USG**

Double window sight glass

### **USI**

Steam injector for boiler feed water tank

### **UFV**

Condensate flash vessel

### **UPPPU**

Condensate pressure powered pump unit

### **UDH**

Atmospheric de-aerator head for boiler feedwater tank

### **UAPT**

Automatic pumping trap – Combination of a conventional trap & pump for proper condensate discharge for varied applications

### **UCCDS**

Online (24x7) condensate contamination detection system

### **UBBHRS**

Boiler blowdown heat recovery system

### **UHWGS**

Instant Hot water generator system

### **UPRS / UPRDS**

Pressure reducing system & de-superheating system

### **UCCM / USDM**

Steam / Condensate manifolds

### 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.



## HARSH ENGINEERING SALES & SERVICE PVT. LTD

Only Authorized Dealers for UNI KLINGER products, Telangana

Add: 2-3-692/22/13 Lal Bagh, Zinda Tilismath Road, Ganga Nagar, Amberpet, Hyderabad - 500013  
Tel: +91-40-2740 3329 | Website: harsh-engineering.com | E-mail: sales@harsh-engineering.com