

**UKL COMPRESSED AIR TRAP :-**

UKL Compressed Air trap removes the moisture from compressed air lines, which works on the principle of Buoyancy, [densities difference of Water and Air].The rising moisture level elevates the Float and open the valve and discharges the moisture. When the level of moisture drops, the float falls down and the valve close the trap.

It is commonly used for compressed air lines and can also be used in various gases lines to drain moisture or liquid. It is a continuous discharge type trap. This trap can handle very high as well as fluctuating loads.



**MATERIAL OF CONSTRUCTION:**

**UCA-14 CAST IRON MODEL**

UCA-14 Model– IS 210 FG260

**UCA-20 CAST CARBON STEEL MODEL**

UCA-20 Model- ASTM A216 Gr. WCB

**SIZES AVAILABLE:-**

UCA-14 Model: ½”, ¾”, and 1”

UCA-20 Model: ½”, ¾”, and 1”

**END CONNECTIONS:**

**UCA-14 MODEL**

Threaded to NPT , BSP and BSPT.

**UCA-20 MODEL :-**

Threaded to NPT , BSP and BSPT.

Socket Weld to ASME B 16.11

Flanged End #150/#300 (On Request)

**OPERATING CONDITIONS:-**

**UCA-14 MODEL**

Max Operating Pressure :- 188.6 psi

Max Operating Temperature :- 428 °F

**UCA-20 MODEL**

Max Operating Pressure :- 455.2 psi

Max Operating Temperature :- 797°F

**OPTIONAL:-**

IBR/Non-IBR

Inbuilt Strainer

Flanged End #150/#30

Available Diff. Pressure (psi)

UAET-14 Model :- 65/145/203

UAET-20 Model :- 65/145/203/304/464

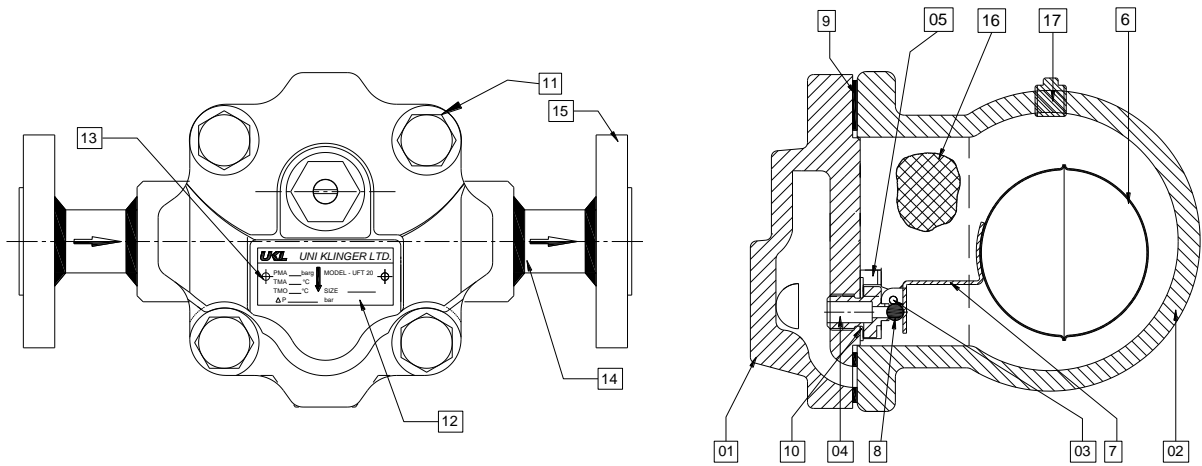
**INSTALLATION :-**

Horizontal/Vertical position.

**BILL OF MATERIAL:**

**UCA-14 / UCA-20**

**Size- ½”, ¾”, and 1”**



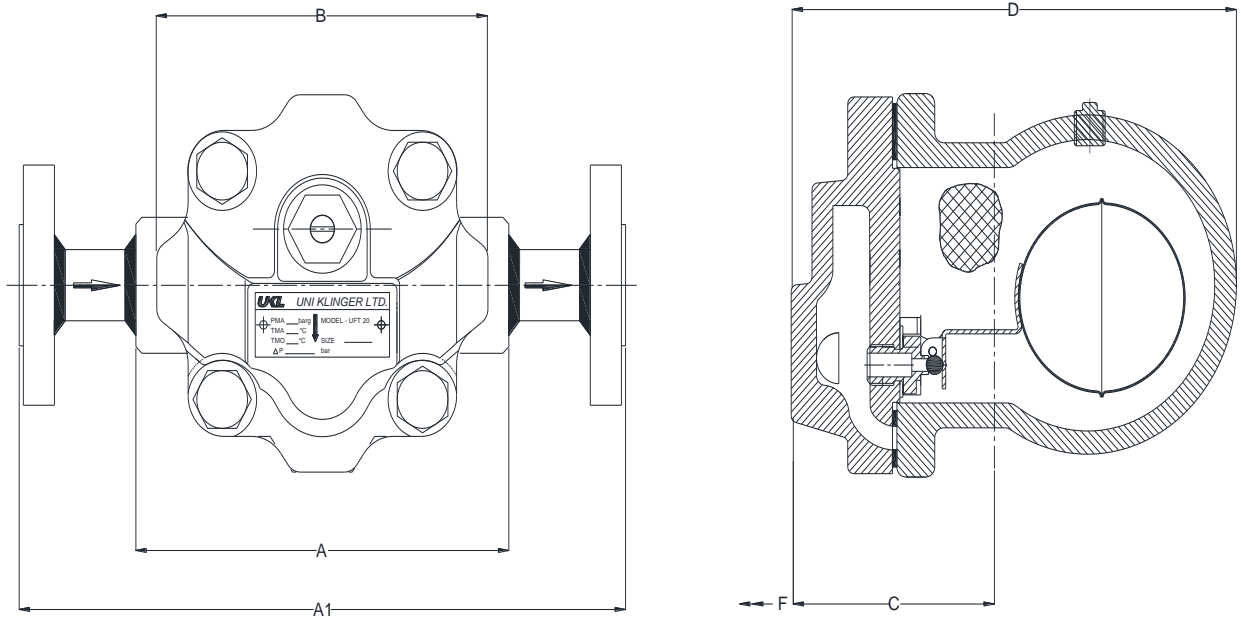
No.	PART NAME	UCA -20 Model		UCA-14 Model	
		MATERIAL	MATERIAL CODE	MATERIAL	MATERIAL CODE
01	Body	Cast Steel	ASTM A 216 Gr WCB	Cast Iron	IS 210 FG 260
02	Cover	Cast Steel	ASTM A 216 Gr WCB	Cast Iron	IS 210 FG 260
03	Pivot Pin	Stainless Steel	AISI 304	Stainless Steel	AISI 304
04	Valve Seat	Stainless Steel	AISI 304	Stainless Steel	AISI 304
05	Pivot Bracket	Stainless Steel	AISI 304	Stainless Steel	AISI 304
06 #	Float	Stainless Steel	AISI 304	Stainless Steel	AISI 304
07#	Lever	Stainless Steel	AISI 304	Stainless Steel	AISI 304
08#	Steel Ball	Stainless Steel	SS 440C	Stainless Steel	SS 440C
09#	Cover Gasket	CAF	CAF	CAF	CAF
10#	Valve Seat Gasket	Stainless Steel	AISI 304	Stainless Steel	AISI 304
11	Cover Bolt (M10)	Carbon Steel	Gr. 8.8	Carbon Steel	Gr. 8.8
12	Name Plate	Stainless Steel	AISI 304	Stainless Steel	AISI 304
13#	Rivets	Alluminium	---	Alluminium	---
14	Pipe	Carbon Steel	ASTM A 106 Gr B	Carbon Steel	ASTM A 106 Gr B
15#	Flanges- SWRF	Carbon Steel	ASTM A 105	Carbon Steel	ASTM A 105
16	Strainer	Stainless Steel	AISI 304	Stainless steel	AISI 304
17#	End Plug	Carbon Steel	ASTM A 105	Carbon Steel	ASTM A 105

# - AVAILABLE AS SPARES

UKL-DS-IU-UCA-R00-MAY 2017



**DIMENSIONS (inches) :-**



Screwed / Socket Weld End Connections								
Size	Diff Pressure	A	B	C	D	E	F	Weight (lb)
1/2"	65/145/200 psi	5.04	4.37	2.68	7.05	1.18	4.33	8.5
3/4"		5.04	4.37	2.68	7.05	1.18	4.33	8.5
1"		6.02	4.37	2.95	7.95	1.18	5.12	11.9

Flanged End Connections				
Size	#150		#300	
	A1	Weight(lb)	A1	Weight(lb)
1/2"	10.94	10.08	10.94	11.42
3/4"	10.94	11.42	10.94	13.66
1"	11.93	15.68	11.93	17.92

**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.

**STORAGE**

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



## OPERATING CONDITIONS

Model	Max Diff. Pressure	PMO psi	Sat. Temp °F
UCA 14 -4.5	65.25 psi	203	379.4
UCA 14 -10	145 psi	203	379.4
UCA 14 -14	203 psi	203	379.4
UCA 20 -4.5	65.25 psi	464	458.6
UCA 20 -10	145 psi	464	458.6
UCA 20 -14	203 psi	464	458.6
UCA 20 -21	304.5 psi	464	458.6
UCA 20 -32	464 psi	464	458.6

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

- Select the model of UCA 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:

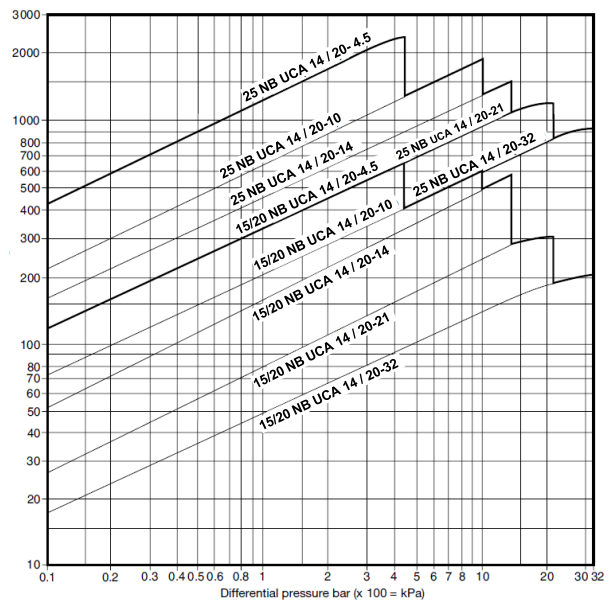
1" UKL UCA -20 - 4.5 TV, Compressed Air Trap, Threaded BSP

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

EXAMPLE :-

**Controller Assembly- valve seat for 1" UCA-20 -4.5**

## CAPACITY CHART



### SPARES AVAILABLE:

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



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 design and dimensions are subjected to change without notice.*



**UNI KLINGER LIMITED**

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

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