

### UKL INTEGRAL TRAP VALVE STATION :

This unit offers a compact one piece solution, with inbuilt Piston Valves and Universal Connection for Steam Traps, replacing the conventional complex & elaborate Trap Modules.

A compact combination of valves and trap performing all the functions of a steam Trap Module, permitting discharge of condensate as well as maintenance of the Traps as and when required.

Based of the function desired, the Trap Valve Station can be fitted with a Thermodynamic, Thermostatic or a Inverted Bucket Steam Trap, by means of Universal Connector, for highly efficient performance.

### MATERIAL OF CONSTRUCTION:

ASTMA 105 N

### AVAILABLE SIZES :-

15 NB & 20 NB

25 NB (on request)

### END CONNECTION:-

#### MAIN INLET & OUTLET

Threaded to BSP, BSPT and NPT

Socket weld to ASME B 16.11

Flanged #150/#300/#600

#### BY-PASS & TRAP TEST

3/8" NPT

Notations	Dimensions (mm)	
	15 NB	20 NB
L	122	122
A (Open)	280	280
B (Open)	240	240
ØD	21.8	27.2
t	10	10
Weight(kg) *	5.5 Kg	5.5 Kg

\*Note: Weight without trap assembly

### AVAILABLE UITVS CONFIGURATIONS:

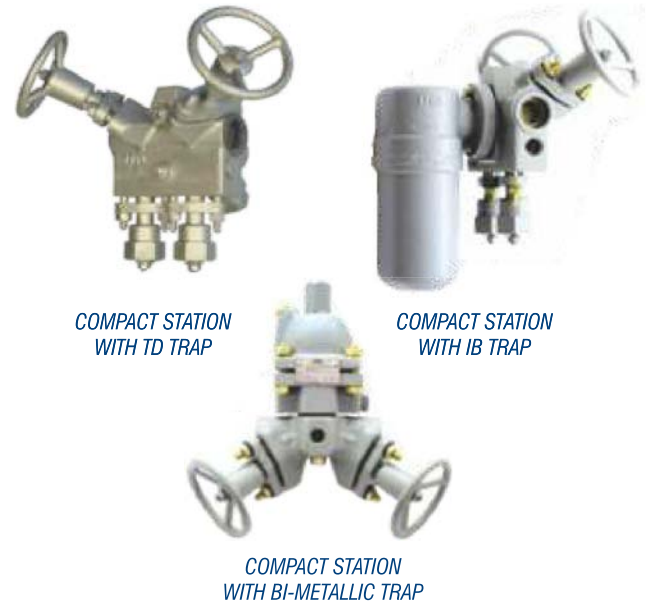
Integral trap Valve Station are available in various configurations (as shown in schematic drawings below) as per customers requirement.

UITVS-PPV : With five Piston Valves

UITVS-PPIV : With four Piston Valve

UITVS-DM : With one Isolation / BP One Valve

UITVS-DP : With Two Pv's and Two Straight through valves

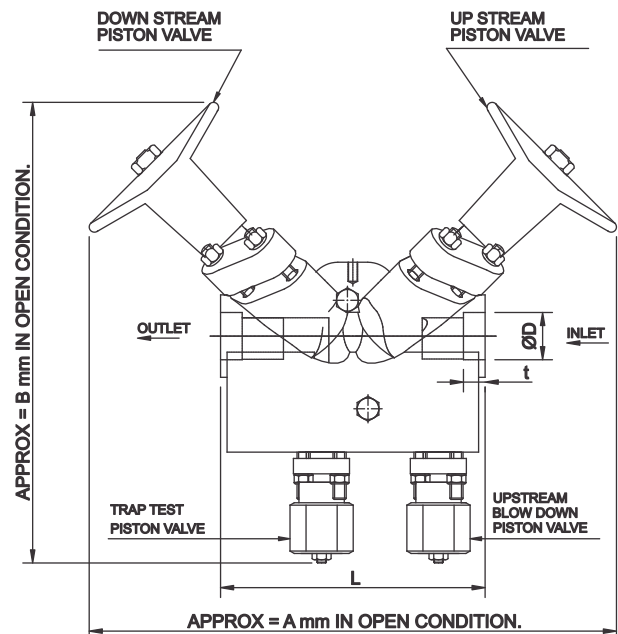


### BODY DESIGN CONDITIONS

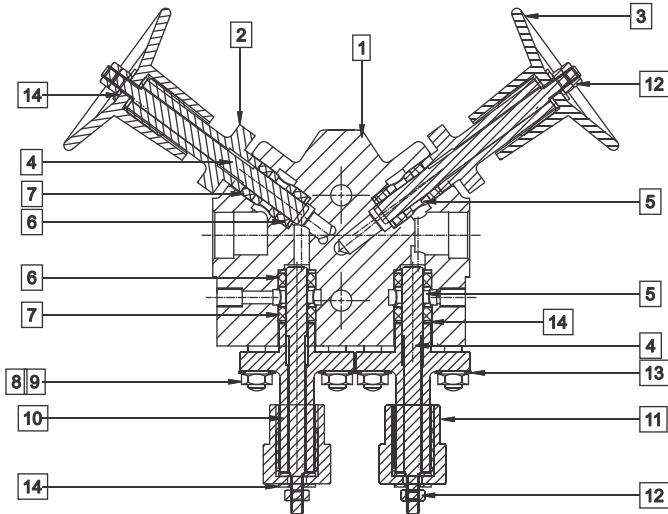
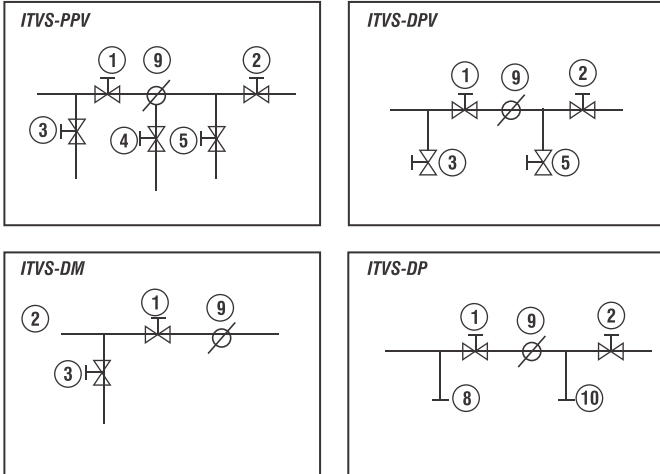
CLASS	End Conn. →	SW or Screwed NPT
#300	Press. Kg/cm <sup>2</sup> (g)	52
	Temp °C	425

Hydro Test Pressure with in built piston valve shall be at 75 Kg/cm<sup>2</sup> (g) with all valves in open condition

### GENERAL ARRANGMENT OF UITVS



# UKL Integral Trap Valve Station UITVS

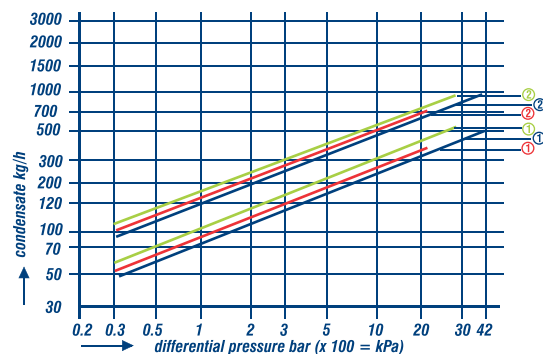


Item No	Description
1	INLET PISTON VALVE
2	OUTLET PISTON VALVE
3	BYPASS PISTON VALVE
4	DE- PRESSURISING PISTON VALVE
5	TRAP TEST CUM VENT PISTON VALVE
6	TRAP TEST PISTON VALVE
7	PISTON VALVE DRAIN PLUG
8	STRAIGHT THROUGH BY PASS VALVE
9	STEAM TRAP
10	STRAIGHT THROUGH TRAP TEST CUM VENT VALVE

## BILL OF MATERIAL

14	PLAIN WASHER	STAINLESS STEEL	AISI 304
13	BELLEVILLE WASHER	SPRING STEEL	50 Cr. V4
12	HANDWHEEL NUT	STAINLESS STEEL	AISI 316
11	BOTTOM HAND WHEEL	FORGED STEEL	ASTM A 105
10	BOTTOM BONNET	FORGED STEEL	ASTM A 105
9	STUD	CARBON STEEL	ASTM A 193 Gr. B7
8	BONNET NUT M8	ALLOY STEEL	ASTM A 194 Gr. 2H
7	UPPER VALVE RING	KLINGER STD.	KLINGER STD.
6	LOWER VALVE RING	KLINGER STD.	KLINGER STD.
5	LANTERN BUSH	STAINLESS STEEL	ASTM A 276 Gr. TP 410
4	SPINDLE (INTEGRAL PISTON)	STAINLESS STEEL	ASTM A 276 Gr. TP 410
3	HAND WHEEL	CAST STEEL	ASTM A 216 Gr. WCB
2	BONNET	FORGED STEEL	ASTM A 105
1	BODY	FORGED STEEL	ASTM A 105

## Discharge Capacities



## LEGEND:

[1] 15 mm [2] 20mm

Blue Line- Discharge capacities of ITVS with Thermodynamic Trap

Green Line- Discharge capacities of ITVS with Inverted Bucket Trap

Red Line- Discharge capacities of ITVS Thermostatic Trap at 20 degrees sub cooled temperature.

## INSTALLATION:-

UKL make Integral Trap Valve Station (UITVS) will provide you long, trouble-free service if they are correctly installed and maintained.

Before installing UITVS, the inlet piping should be carefully blown down to remove any existing pipe debris.

An arrow mark is punched on every trap body showing the flow direction. Install the UITVS by fixing the inlet & outlet ports accordingly.

Isolation / Bypass / Test piston valves are to be hot tightened when put in operation.

The trap connected must be properly installed with respect to direction provided on trap.

The Universal Connector Gasket must be properly placed.

For full details refer the user manual supplied with the product.

## Conventional Trap Module Vs Intelligent Trap Valve Station

Comparison of Features	Conventional Steam Trapping Assembly	UKL ITVS
For Mains' Drain or Tracer Line Trapping Application		
	<i>Lengthy &amp; cumbersome fabrication assembly of different types of valves &amp; traps</i>	<i>Compact Trapping Station with integral Piston Valve Isolation &amp; Control</i>
Approximate Length/Height	750 L X 500 H	280 L X 212 H
No. of component parts	20 nos.	2 nos.
Valve Leakage	5 Potential Leaks	Zero Leakage
No of Joints	21 nos.	2 nos.
Heat Loss (Typical)	400 Kcal/hr	100 Kcal/hr
Time for installation	Close to four hours	Less than one hour
Time for trap replacement	Approximately two hours	Less than ten minutes
Overall Weight	13 Kg.	5.5 Kg.

### SALIENT FEATURES OF UITVS:-

- Individual Piston Valves for Isolation. All Piston Valve Rings are easily accessible. Additional Vent is not required as Steam locking possibility is eliminated
- All Piston Valves are with non-rotating Pistons
- Self-cleaning action of pistons removes the dirt.
- Rings are graphited with SS impregnation
- Compact : As against the lengthy assembly
- Efficient : Eliminating Pipe joints that can leak
- Easy Maintenance : Friendly removal and Refitting of Universal steam Trap in few seconds.
- Convenient : Integral Piston Valves for upstream isolation, downstream isolation, bypass and trap test / vent

## 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 Sheetting / Cut Gaskets, Spiral Wound Gaskets / Gland Packing



## UNI KLINGER LIMITED

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

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