

# Instruction Manual for Moisture Separator

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## 1.Product Overview:-

Condensate formed due to steam condensing in the pipeline may cause problems of varied nature in a steam circuit. It is also possible that the source of condensate could be the boiler supplying wet steam to plant. It is absolutely essential to remove this condensate from the line for supply of dry steam with minimum pressure drop to this equipment.

The UKL Moisture separator is designed to remove entrained water particles from the steam so that they can be drained away as condensate. The water particles settle on the cooler baffle plates and are drained away by the unique design of the body.

This can also be used on compressed air lines.

UKL Moisture separators are well proven multi baffle designed to remove condensate with high level of efficiency and reliability.

The multi baffle design will cause total removal of condensate from steam lines that are fed by boilers generating wetness as high as 20%.

Typically contoured body design allows large flow areas to ensure low pressure drops.

## LIMITING CONDITIONS:-

Class	Temperature	100.4 °F	392 °F	572 °F	617 °F	680 °F	707 °F	752 °F	797 °F
#150	Pressure (psi)	278.81	196.30	145.09	132.29	113.80	105.26	92.46	78.24
#300		726.88	623.04	566.15	550.50	527.74	517.78	493.60	409.67



## AVAILABLE SIZES:

1", 1½", 2", 2½", 3", 4", 5", 6" and 8"

## MATERIAL OF CONSTRUCTION:

ASTM A 216 Gr WCB

## END CONNECTIONS:

Flanged End ANSI Class 150/300

## **2. Installation and Commissioning Instructions:**

Your UKL make TD steam traps will provide you with long, trouble-free service if they are correctly installed and maintained.

A few minutes of your time spend reading these instructions now may save hours of trouble and downtime later.

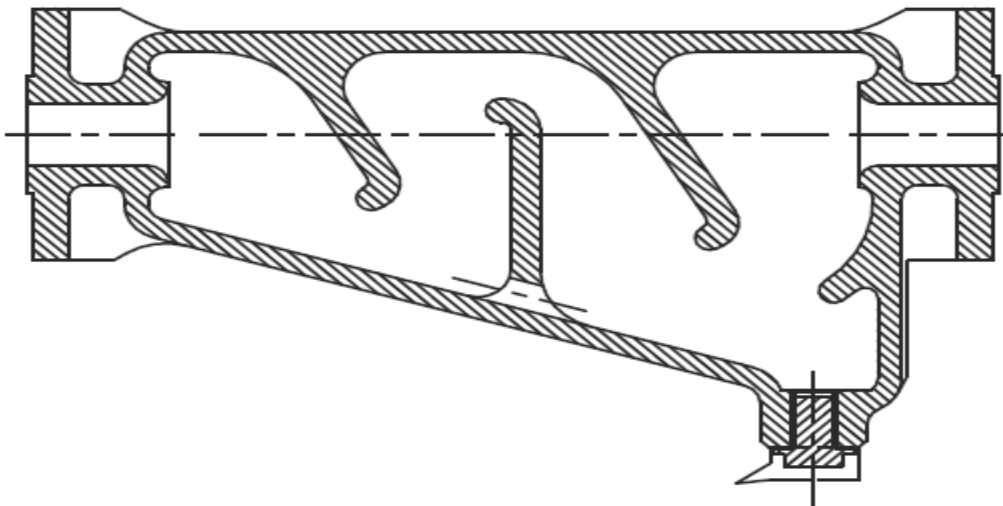
Line Flushing: Before connecting the moisture separator to the system, please blow down the line at full pressure to clear the pipes from dirt, pipe cuttings and welding beads.

### **Startup procedure**

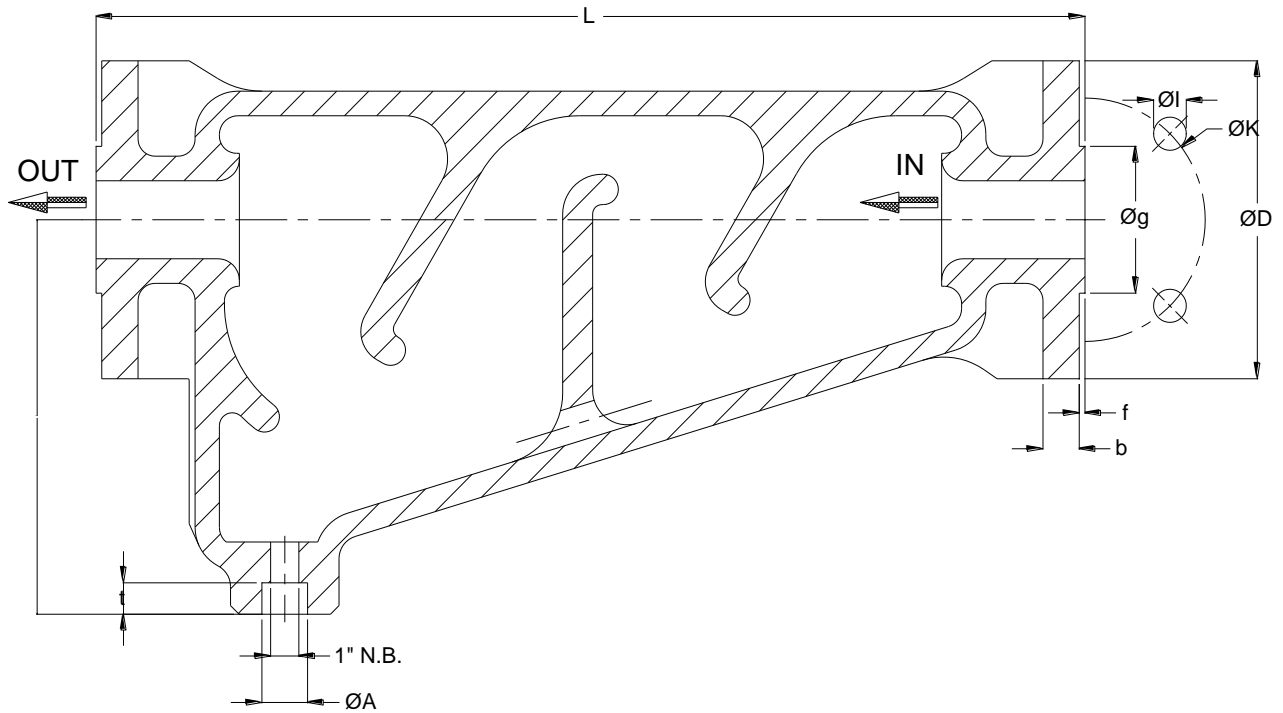
- Ensure that the assembly is done as required.
- Moisture separator must be installed in horizontal direction.
- An arrow mark is punched on every trap body showing the flow direction. Install the moisture separator by fixing the inlet & outlet ports accordingly.
- Open the inlet isolation Valve
- Open the bottom Hex Hd Bolt or the by pass valve if steam trap is connected.
- Let the fluids get flushed through this port to ensure that dirt and such foreign impurities are removed from line. Close Hex Hd Bolt or the bypass valve and proceed.
- Now the moisture separator assembly is ready for use.

## **3. OPERATIONS**

The installation of moisture separator recommended is:-



**BILL OF MATERIAL:-**



**UMS FLANGED END #150 Dimensions (in)**

Sr.	Size	L	H	ØD	Øg	ØK	ØI	b	f	No. Of Holes; N	ØA
											NPT
1	1"	13.66	5.30	4.33	2.00	3.13	0.63	0.50	0.08	4	¾
2	1½"	14.13	4.96	4.92	2.87	3.87	0.63	0.63	0.08	4	¾
3	2"	18.03	5.67	5.91	3.63	4.75	0.75	0.69	0.08	4	1
4	2½"	18.31	5.67	7.09	4.13	5.50	0.75	0.81	0.08	4	1
5	3"	19.17	6.81	7.48	5.00	6.00	0.75	0.88	0.08	4	1
6	4"	27.40	9.29	9.06	6.19	7.50	0.75	0.88	0.08	8	1
7	5"	27.40	9.29	10.04	7.31	8.50	0.87	0.88	0.08	8	1
8	6"	27.83	9.92	11.02	8.50	9.50	0.87	0.94	0.08	8	1
9	8"	30.00	12.20	13.58	10.63	11.75	0.87	1.06	0.08	8	1

**UMS FLANGED END #300 Dimensions(in)**

Sr.	Size	L	H	ØD	Øg	ØK	b	f	No. Of Holes, N	ØA
1	1"	13.90	3.94	4.92	2.00	3.50	0.63	0.08	4	¾
2	1½"	14.41	4.92	6.10	2.87	4.50	0.75	0.08	4	¾
3	2"	18.31	5.31	6.50	3.63	5.00	0.80	0.08	4	1
4	2½"	18.54	5.67	7.48	4.13	5.87	0.94	0.08	8	1
5	3"	19.53	6.81	8.27	5.00	6.63	1.06	0.08	8	1
6	4"	28.03	9.29	10.04	6.19	7.87	1.19	0.08	8	1
7	5"	28.35	9.29	11.02	7.31	9.25	1.31	0.08	8	1
8	6"	28.70	9.92	12.60	8.50	10.63	1.38	0.08	12	1
9	8"	31.02	12.20	14.96	10.63	13.00	1.56	0.08	12	1

## 4. Maintenance and Troubleshooting:

- It is very much necessary to depressurize the moisture separator before doing any maintenance procedure. For de-pressurizing follow the steps given
- Please wear all necessary safety equipment before approaching the moisture separator.
- Make sure that everyone around is warned of possible discharge of hot fluids from the valve and trap openings. All should be careful to avoid any exposure of unprotected skin and limbs to hot condensate and steam jets/sprays.
- Ensure that the inlet isolation piston valve on the Moisture separator inlet is closed.
- Ensure that the outlet valve is closed.
- Now the moisture separator is isolated from the rest of the system.
- Open the Hex Hd. Bolt bypass valve to flush out moisture separator..
- Once you are sure that all the pressure has been relieved, allow the metal parts to cool down before starting any activity of inspection, repairs or replacements.
- For shutting down the moisture separator assembly where no inspection, repair or replacement work is to be carried out, please follow the sequence of start up to shut down the assembly.
- Please note that this equipment is under pressure & operating temperature is normally > 212 Deg. F
- Make sure assembly is cold enough before handling.

## 5. Storage:

- Moisture Separator and the respective spares should be stored only in enclosed dry rooms in a non-aggressive atmosphere. Fully assembled UMS must be stored as supplied by UNI KLINGER. Spare parts must be handled with care and should be stored in their original packing.
- It is recommended to take protective measures if parts are stored in dusty conditions.
- The ambient temperature in store room must be between -4 Deg. F and +122 Deg. F.
- Any damage due to inappropriate storage shall release UNI KLINGER of any obligations derived from warranty, guarantee, and product liability.



Other Products : Cast / Forged Steel Piston Valves, Bellow Seal Valves, High Pressure valves (Gate/Globe) , Strainers – “Y” Type, Flash Vessel., ITVS Steam Traps (Thermodynamic, Thermostatic, Ball Float Traps, Inverted Bucket), 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.

Central Sales Office & Pune Branch : SC1, 5<sup>th</sup> Fl., Kohinoor Est. Mumbai-Pune Highway, Kadaki, Pune-411 003. Tel.: +91-20-4102 3000 Fax.: (020) 4102 3001  
e-mail : [salesco@uniklinger.com](mailto:salesco@uniklinger.com), [salespune@uniklinger.com](mailto:salespune@uniklinger.com), Website : [www.uniklinger.com](http://www.uniklinger.com)

Factory : C-37, M.I.D.C., Ahmednagar – 414 111, Maharashtra, Tel. : 0241 – 2777223 / 2777512 Fax : 0241 – 2777294, E-mail : [fdworks@uniklinger.com](mailto:fdworks@uniklinger.com)

### Branch Offices :

Baroda : 102, 1st Floor, Otel Towers-II R.C. Dutt Road, Baroda-390 005, Tel.: 91-0265-2312343 / 2340660, Fax.: 91-265-2341419. E-mail : [salesbar@uniklinger.com](mailto:salesbar@uniklinger.com)  
Chennai : East Coast Centre, 5<sup>th</sup> Floor, 553, Mount road, Teyanampet, Chennai - 600 018, Tel.: 91 - 44 - 24345707. Fax.: 91 - 44 - 24343960. E-mail : [saleschen@uniklinger.com](mailto:saleschen@uniklinger.com)  
Kolkata : 9, Chittrakoot, 8th Floor, 230 A, AJC Bose road, Kolkata-700 020, Tel.: 91-33-22872510, Fax.: 91-33-22876494. E-mail : [salescal@uniklinger.com](mailto:salescal@uniklinger.com)  
Mumbai : 22, 2nd Flr, Shreeji Arcade CHS, Almeda road, Thane-400 602, Tel.: 91-22-25421140 / 91-22-25440461, Fax.: 91-22-25440463. E-mail : [salesmum@uniklinger.com](mailto:salesmum@uniklinger.com)  
Delhi : 321, Ansal Chamber-II, 6, Bhikaji Cama Place, New Delhi-110 066, Tel.: 91-11-41658767 / 91-11-26193847, Fax.: 91-11-41658768. E-mail : [salesdel@uniklinger.com](mailto:salesdel@uniklinger.com)