



UMT-TD SERIES TRAP AND UMTC CONNECTOR

### APPLICATIONS

- Steam Tracing
- Drips
- Light Process

### OPTIONS

- SW - Socketweld Connections
- B - Blowdown Valve

For information on Big Block UMTVS-BB Connector  
See Page 344



# LIQUIDATOR UMT-TD UNIVERSAL MOUNT THERMODYNAMIC STEAM TRAPS

Pressures To 450 PSIG (31 barg)  
Temperatures to 750°F (400°C)

**Easily Maintained** — Universal two bolt swivel mounting simplifies removal from system. Kits allow flexibility to replace or rebuild.

**Simple Installation** — Stainless mounting block mounts permanently into system. Trap installs via two bolt universal connection.

**Improved Energy Savings** — Lowers steam waste due to steam jacketing. Trap cycle is unaffected by ambient temperatures or precipitation.

**Extended Trap Life** — Integral strainer keeps disc and seat clean. Non-violent discharge reduces wear. Heavy disc prevents warpage and improves performance.

**Easily Maintained** — Completely renewable without disturbing piping connections by removing cover, unscrewing and replacing Celtron® cartridge. Celtron® replacement cartridges are packaged individually with cover and gaskets in a protective bag.

**Freeze Proof** — When mounted vertically or on its side horizontally.

**Multi-functional** — Integral check valve eliminates need for additional fittings.

**Economical** — First cost and maintenance cost are low.

### MODELS

- UMT-TD10L—Low Capacity Trap
- UMT-TD10—Standard Capacity Trap
- UMTC—Standard connector (1/2" & 3/4" only)
- UMTCY—Connector w/Y strainer
- UMTCYR—Right Hand Connector w/Y strainer
- UMTCYL—Left Hand Connector w/Y strainer
- UMTVS-BB—Connector with Isolation Valves, Strainer, Blowdown Valve and Test Port

For complete unit, order trap and connector as separate items.

### OPERATION

Incoming air and condensate flow through the trap body and into the Celtron® cartridge. Line pressure raises the disc off the seat allowing complete discharge. When flashing condensate enters the cartridge, flow velocity increases, creating low pressure underneath the disc. Flashing condensate at high velocity strikes the inside wall of the disc chamber and is

deflected to the top of the disc causing a pressure buildup. The disc is forced down onto the seat by this pressure imbalance. The trap remains closed as steam in the jacket prevents exposure of the Celtron® cartridge to ambient temperatures. Pressure inside the cap is not lowered until the trapped flash vapor condenses. Condensing steam lowers the pressure above the disc. Disc is then lifted and the cycle repeated.

# LIQUIDATOR UMT-TD UNIVERSAL MOUNT THERMODYNAMIC STEAM TRAPS

## SPECIFICATION

Steam trap shall be of a thermodynamic capsule design. The body shall be of a 304 stainless steel 2 bolt universal swivel construction with a stainless steel in line renewable Celtron capsule. Celtron capsule shall contain all working components. Capsule shall be hardened throughout. Seat shall be stress relieved to eliminate warping. Trap shall seal to body with spiral wound graphite gaskets. Trap shall be suitable for pressures through 450 psi and available in 1/2" through 1" NPT or socketweld connections.

## MAXIMUM OPERATING CONDITIONS

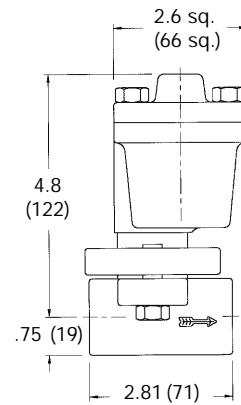
PMO: Max. Operating Pressure	450 psig	(31 barg)
TMO Max. Operating Temperature	750°F	(400°C)
PMA: Max. Allowable Pressure	450 psig	(31 barg)
TMA: Max. Allowable Temperature	750°F	(400°C)

## MATERIALS OF CONSTRUCTION

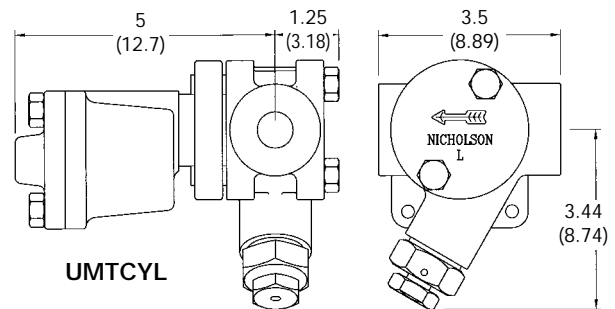
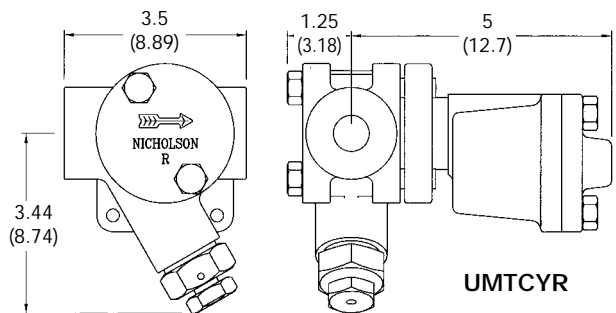
Body & Cover: . . . . . ASTM A351 Grade CF8 (304)  
 Cover Gasket: . . . . . 304 stainless spiral wound  
 w/graphite fill  
 Celtron® Cartridge: . . . . . 416 Stainless Steel w/hardened  
 disc & seat  
 Strainer: . . . . . 0033 perf. 304 Stainless Steel  
 Mounting Block: . . . . . ASTM A351 Grade CF8 (304)

LIQUIDATOR UMT-TD  
THERMODYNAMIC TRAP

UMT-TD  
SERIES TRAP  
AND UMTC  
CONNECTOR



Connections:  
1/2", 3/4" or 1" NPT or socketweld



DIMENSIONS - INCHES (MM)

WEIGHT

TRAP - 3.2 LBS. (1.4 KG)

STD. MOUNTING BLOCK - 1.1 LBS. (0.5 KG)

Y STRAINER MOUNTING BLOCK - 2.3 LBS. (1.0 KG)

Maximum Capacity—lbs/hr 10°F Below Saturation										
Trap	Differential - PSIG (barg)									
	5 (0.34)	10 (0.7)	25 (1.7)	50 (3.4)	75 (5.2)	100 (6.9)	200 (13.8)	300 (20.7)	400 (27.6)	450 (31)
UMT-TD10L	105	150	235	330	395	435	550	630	690	715
UMT-TD10	240	265	420	590	700	770	980	1120	1240	1280

For Kg/Hr Multiply by .454

The UMT-TD Series trap works efficiently at all line pressures between 5 and 450 psi and back pressures to 80% of line pressure.