

**For Steam Main Drips and Process Applications**



**SEALED  
 STAINLESS STEEL  
 DURA-FLO  
 INVERTED BUCKET STEAM TRAPS**

Pressures to 650 PSIG (45 barg)  
 Temperatures to 497°F (258°C)

**APPLICATIONS**

- Steam Lines
- Process Equipment
- Steam Cookers
- Steam Heated Vats
- Pressing Machinery
- Unit Heaters
- Oil Preheaters
- Converters
- Coils
- Rotating Drum

Canadian Registration #: OE10389.52

For information on Big Block UMTVS-BB Connector  
 SEE PAGE 115

**Easy Trap Replacement** — Universal two bolt swivel mounting option simplifies removal from system.

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

**Hardened Chrome Steel Valve and Seat** — Long life and maximum corrosion resistance.

**Stainless Steel Bucket** — Long lasting, rugged and naturally resistant to water hammer.

**Inexpensive** — Low maintenance and initial cost.

**Stainless Steel Body** — Durable heavy wall construction provides years of reliable service and resists corrosion and freezing.

**Suitable for Wide Variety of Loads/Applications** — Horizontal models in three body sizes.

**Resists Dirt and Scale** — Valve and seats positioned at top of traps ensure long service.

**Maintenance Free (TSBT- S and USBT- S)** — Sealed design prevents unnecessary tampering. Trap can be inspected and replaced without breaking pipe.

**Freeze Resistant** — Extruded SS Body helps prevent problems associated with freezing conditions.

**MODELS**

**NPT CONNECTION**

- TSBT-LS - Low Capacity, 200 PSIG
- TSBT-MS - Medium Capacity, 340 PSIG
- TSBT-HS - High Capacity, 650 PSIG

**UMT CONNECTION**

- USBT-LS - Low Capacity, 200 PSIG
- USBT-MS - Medium Capacity, 340 PSIG
- USBT-HS - High Capacity, 650 PSIG

**UMT CONNECTOR BLOCKS**

- UMTC-Standard connector (1/2" & 3/4" only)
- UMCY-RH-Right Hand Connector with Y Strainer
- UMCY-LH-Left Hand connector with Y Strainer
- UMTVS-BB-Connector with Isolation Valves, Strainer, Blowdown Valve and Test Port

**OPERATION**

After trap is installed and primed, steam entering the trap collects in the top of the bucket, floating the bucket and forcing the valve into its seat. As condensate begins to flow into the trap, steam and air are forced from the bucket. This causes the bucket to begin losing buoyancy, tending to pull the valve from its seat. When

enough condensate has entered the trap, displacing the steam and air, the bucket drops, pulling the valve from the seat and allowing condensate and air to discharge. As the flow of condensate stops, steam enters the trap and re-floats the bucket, forcing the valve into its seat. The cycle then repeats as more condensate reaches the trap.

# SEALED STAINLESS STEEL DURA-FLO INVERTED BUCKET STEAM TRAPS

## SPECIFICATION

Furnish and install as shown on the plans, inverted bucket traps capable of discharging condensate, air and other non-condensable gases without loss of steam. These traps shall have a stainless steel sealed body, hardened chrome steel valve and seat and an all stainless steel linkage and bucket. It shall have a universal mount connector option.

## MAXIMUM OPERATING CONDITIONS

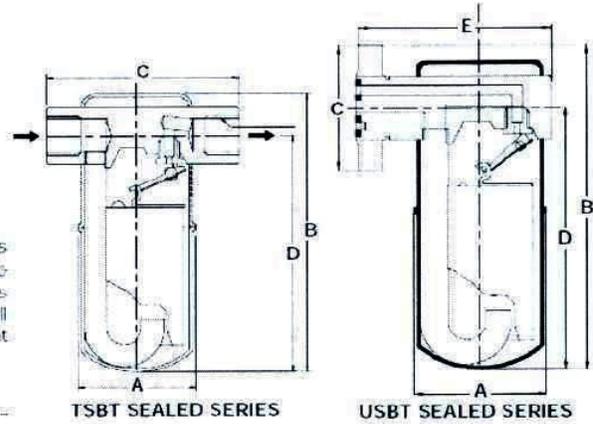
PMO: Max. Operating Pressure See Orifice Selection  
TMO: Max. Operating Temperature Saturated at PMO

PMA: Max. Allowable Pressure -  
LS 200 psig (13.8 barg) at 450°F (232°C)  
MS 307 psig (21.2 barg) at 450°F (232°C)  
HS 650 psig (44.8 barg) at 497°F (258°C)

TMA: Max. Allowable Temperature -  
MS, LS & HS - 800°F (425°C)

## MATERIALS OF CONSTRUCTION

Body ..... AISI 304 SS  
Bucket ..... AISI 304 SS  
Bucket Clip ..... AISI 304 SS  
Lever ..... AISI 304 SS  
Inlet Tube ..... AISI 304 SS  
Valve ..... Hardened Chrome Steel AISI D3  
Valve Seat ..... Hardened Chrome Steel AISI D3  
Connector ..... AISI 304 SS



TSBT SEALED SERIES

USBT SEALED SERIES

Connections: 3/8" - 1" NPT

## DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

Model	Inches (mm)				Weight lbs/(kg)
	A	B	C	D	
TSBT-LS	2 1/4 (61)	5 3/4 (145)	4 1/4 (110)	4 1/4 (110)	2.25 (1)
TSBT-MS	2 1/4 (61)	6 1/4 (162)	4 1/4 (110)	5 1/4 (137)	2.5 (1.1)
TSBT-HS	3 1/4 (86)	8 1/4 (210)	5 (127)	7 1/4 (185)	7 (3.2)

Connections:  
Universal Mount Two Bolt Swivel Connection

## DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

Model	Inches (mm)					Weight lbs/(kg)
	A	B	C	D	E	
USBT-LS	2 1/4 (61)	6 (152)	2 1/4 (60)	4 1/4 (110)	4 (102)	4.25 (1.9)
USBT-MS	2 1/4 (61)	7 1/4 (185)	2 1/4 (60)	5 1/4 (137)	4 (102)	4.75 (2.1)
USBT-HS	3 1/4 (86)	8 1/4 (210)	2 1/4 (60)	7 1/4 (185)	5 (127)	7 (3.2)

## Maximum Capacity—(lbs/hr)

Trap	Orifice		Differential Pressure													
			5	10	15	30	40	70	80	125	200	250	300	400	650	
	Size	MOP	(0.34)	(0.69)	(1.03)	(2.07)	(2.76)	(4.83)	(5.52)	(8.62)	(13.79)	(17.24)	(20.69)	(27.59)	(44.83)	
TSBT-LS & TSBT-LS	3/32	200	85	120	145	200	230	300	325	400	500					
	1/4	15	800	920	1040											
USBT-MS & TSBT-MS	3/16	30	540	690	800	1000										
	5/32	70	390	490	560	700	790	940								
	1/8	125	260	325	400	530	600	750	800	970						
	7/64	200	200	265	315	410	470	580	610	720	900					
	3/32	250	155	200	240	315	360	440	480	560	690	750				
USBT-HS & TSBT-HS	5/64	400	100	130	155	210	235	280	310	360	440	460	510	580*		
	1/4	40	1040	1350	1580	2000	2350									
	3/16	80	680	930	1120	1550	1775	2400	2300							
	1/8	250	320	42	510	700	790	1020	1090	1300	1650	1800				
	7/64	300	220	280	325	430	500	630	685	800	1000	1100	1200			
3/32	650	175	225	270	370	400	510	540	650	800	870	930	1050	1300		

For Kg/Hr Multiply by .454

\* CRN not available.

**Illinois**  
PRODUCTS

**WATTS**  
REGULATOR

Watts and its specifications are registered trademarks of Watts Regulator Company. All other trademarks are the property of their respective owners. Watts Regulator Company is not responsible for any errors or omissions in this document. © 2010 Watts Regulator Company. All rights reserved. Watts Regulator Company is an Equal Opportunity Employer. Minorities and women are encouraged to apply.

This document was created with Win2PDF available at <http://www.win2pdf.com>.  
The unregistered version of Win2PDF is for evaluation or non-commercial use only.  
This page will not be added after purchasing Win2PDF.