



REPAIRABLE 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 116

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.

Repairable Model (TSBT-R & USBT-R) — Removable cover allows pressure change or repair with existing Dura-Flo PCA kits.

MODELS

NPT CONNECTION, REPAIRABLE

- **TSBT-LR** – Low Capacity, 200 PSIG
- **TSBT-MR** – Medium Capacity, 400 PSIG
- **TSBT-HR** – High Capacity, 650 PSIG

UMT CONNECTION, REPAIRABLE

- **USBT-LR** – Low Capacity, 200 PSIG
- **USBT-MR** – Medium Capacity, 400 PSIG
- **USBT-HR** – High Capacity, 650 PSIG

UMT CONNECTOR BLOCKS

- **UMTC**—Standard connector (1/2" & 3/4" only)
- **UMTCY-RH**—Right Hand Connector w/Y strainer*
- **UMTCY-LH**—Left Hand Connector w/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.

REPAIRABLE 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 also have a universal mount connection option. The repairable traps shall have a removable cover to allow repair or orifice change.

MAXIMUM OPERATING CONDITIONS

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

PMA: Max. Allowable Pressure -
LR 200 psig (13.8 barg) at 450°F (232°C)
MR 420 psig (29.0 barg) at 450°F (232°C)
HR 650 psig (44.8 barg) at 497°F (258°C)

TMA: Max. Allowable Temperature 800°F (425°C)

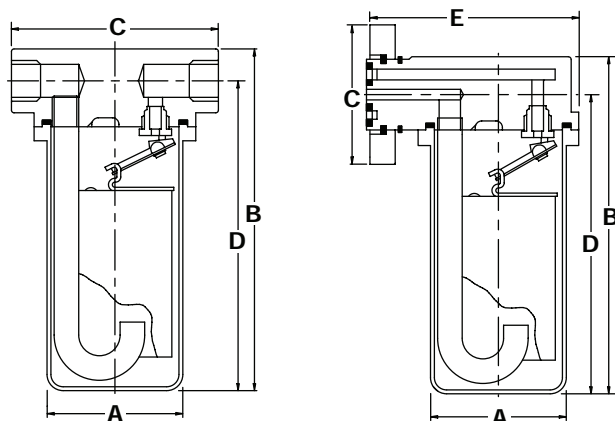
MATERIALS OF CONSTRUCTION

BodyASTM A351 CF8
CoverASTM A351 CF8
Bucket.....AISI 304 SS
Bucket Clip.....AISI 304 SS
LeverAISI 304 SS
Inlet TubeAISI 304 SS
ValveHardened Chrome Steel AISI D3
Valve SeatHardened Chrome Steel AISI D3
Swivel ConnectorAISI 304 SS
Cover GasketSpiral Wound 304 SS with Grafoil

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-LR, USBT-LR	3/32	200	85	120	145	200	230	300	325	400	500				
TSBT-MR, USBT-MR	1/4	15	800	920	1040										
	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			
TSBT - HR USBT-HR	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



TSBT REPAIRABLE SERIES

USBT REPAIRABLE SERIES

Connections: 3/8" – 1" NPT

DIMENSIONS inches (mm)
AND WEIGHTS pounds (kg)

Model	Inches (mm)				Weight lbs(kg)
	A	B	C	D	
TSBT-LR	2 1/8 (73)	6 1/4 (159)	4 5/8 (110)	5 5/8 (141)	6.6 (3.0)
TSBT-MR	2 1/8 (73)	7 1/4 (184)	4 5/8 (110)	6 5/8 (166)	7.2 (3.2)
TSBT-HR	4 1/8 (104.8)	9 1/8 (241.3)	5 (127)	8 1/8 (215.9)	22 (10)

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-LR	2 1/8 (73)	6 1/8 (161)	2 1/8 (70)	5 1/8 (143)	4 1/8 (108)	7.25 (3.3)
USBT-MR	2 1/8 (73)	7 1/8 (186)	2 1/8 (70)	6 1/8 (168)	4 1/8 (108)	8 (3.6)
USBT-HR	4 1/8 (104.8)	9 1/8 (247.7)	2 1/8 (70)	8 1/8 (222.3)	6 1/8 (158.8)	25 (11.33)