



DURA-FLO INVERTED BUCKET STEAM TRAPS

Pressures To 250 PSIG (17.2 barg)
Temperatures to 450°F (232°C)

Hardened Stainless 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.

Repairable in-line — All working parts lift out of top of trap.

Cast Iron Body — Durable heavy wall construction provides years of reliable service.

Suitable for Wide Variety of Loads/Applications — Horizontal and vertical models in thirteen body sizes.

Resists Dirt and Scale — Valve and seats positioned at top of traps and internal stainless strainer available on most horizontal models ensure long service.

APPLICATIONS

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

OPTIONS *See page 329*

- Repair Kits

Canadian Registration # OE 0591.1C

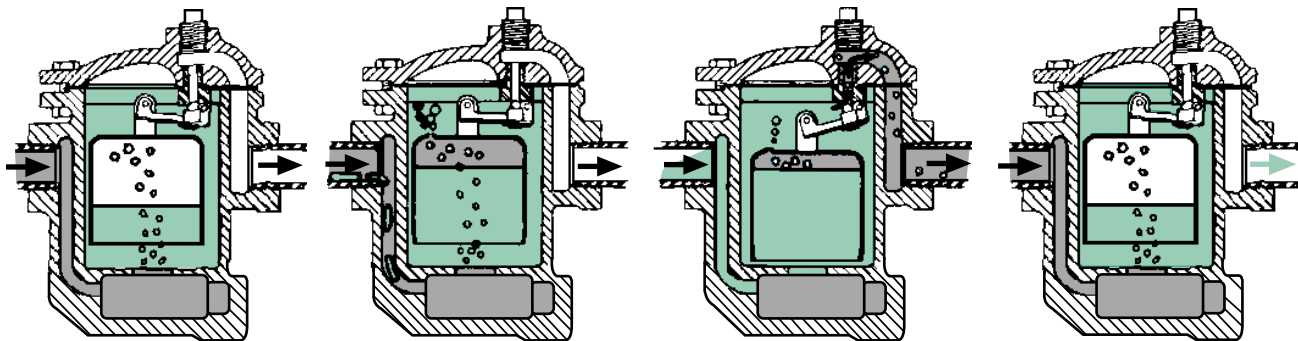
Installation Tip: Always install STV Test & Block Valve as part of trap station – SEE PAGE 354

Installation Tip: Add Uniflex Pipe Coupling for ease of maintenance – SEE PAGE 374

MODELS

- 80S—Low capacity horizontal w/integral strainer
- 81S—Medium low capacity horizontal w/integral strainer
- 82S—Medium capacity horizontal w/integral strainer
- 83S—Medium high capacity horizontal w/integral strainer
- 84—High capacity horizontal
- 85—Super high capacity horizontal
- 86—Ultra high capacity horizontal
- 21—Medium low capacity vertical
- 22—Medium capacity vertical
- 23—Medium high capacity vertical
- 24—High capacity vertical
- 25—Super high capacity vertical
- 26—Ultra high capacity vertical

OPERATION



Trap Closed – 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.

Trap Begins to Open – 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.

Trap Discharges – 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.

Trap Closes – As the flow of condensate stops, steam enters the trap and refloats the bucket, forcing the valve into its seat. The cycle then repeats as more condensate reaches the trap.

DURA-FLO INVERTED BUCKET STEAM TRAPS

SPECIFICATION

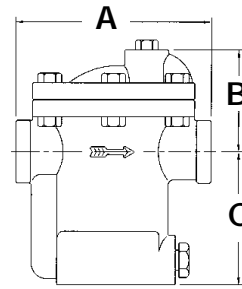
Furnish and install as shown on the plans, inverted bucket traps capable of discharging condensate, air and other non-condensable gases without loss of steam. These traps shall have a heavy cast iron body, hardened stainless steel valve and seat, all stainless steel linkage and bucket, and an asbestos free fiber cover gasket.

MAXIMUM OPERATING CONDITIONS

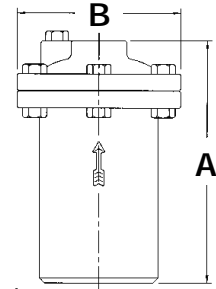
PMO: Max. Operating Pressure see orifice selection
TMO: Max. Operating Temperature saturated at pressure
PMA: Max. Allowable Pressure 250 psig (17.2 barg)
TMA: Max. Allowable Temperature 450°F (232°C)

MATERIALS OF CONSTRUCTION

Body & CoverCast Iron ASTM-A-126/A48
Bucket & LinkageStainless Steel
Valve & SeatHardened Chrome Steel
StandpipeSteel Pipe
Cover GasketAsbestos Free Fiber



80 SERIES,
HORIZONTAL



20 SERIES,
VERTICAL

Connections: 1/2" - 2 1/2" NPT

| DURA-FLO Dimension Table | | | | | |
|--------------------------|-----------------|-----------------|-----------------|-----------------|--------------------|
| Trap | End Connections | Inches (mm) | | | Weight Lbs (kg) |
| | | A | B | C | |
| 80S | 1/2, 3/4 | 5 1/6 (129) | 2 1/6 (69) | 3 1/2 (89) | 7 (3.2) |
| 81S | 1/2, 3/4, 1 | 5 1/6 (129) | 2 1/6 (69) | 4 7/6 (113) | 8 (3.6) |
| 82S | 1/2, 3/4 | 7 (178) | 3 3/8 (98) | 5 7/6 (138) | 22 (10.0) |
| 83S | 3/4, 1 | 8 5/8 (206) | 5 (127) | 7 5/6 (194) | 32 (14.5) |
| 84 | 1, 1 1/4 | 9 (229) | 5 3/4 (146) | 7 13/6 (199) | 47 (21.3) |
| 85 | 1 1/2, 2 | 10 1/4 (260) | 8 (203) | 8 3/8 (213) | 74 (33.6) |
| 86 | 2, 2 1/2 | 13 (330) | 9 3/4 (248) | 11 (279) | 140 (63.5) |
| 21 | 1/2 | 6 3/8 (162) | 4 1/4 (108) | — | 6.5 (2.9) |
| 22 | 1/2, 3/4 | 8 (203) | 5 5/8 (143) | — | 16 (7.3) |
| 23 | 3/4, 1 | 10 1/2 (267) | 6 7/8 (175) | — | 28 (12.7) |
| 24 | 1, 1 1/4 | 12 1/2 (318) | 7 1/2 (190) | — | 35 (15.9) |
| 25 | 1, 1 1/2 | 14 3/8 (365) | 9 1/6 (230) | — | 60 (27.2) |
| 26 | 1 1/2, 2 | 16 1/6 (424) | 10 1/4 (260) | — | 90 (40.8) |

DURA-FLO INVERTED
BUCKET TRAP

DURA-FLO CAPACITY TABLES

| Trap | Orifice | | 0.50 (.034) | 1 (.069) | 5 (.345) | 10 (.690) | 15 (1.03) | 20 (1.38) | 25 (1.72) | 30 (2.07) | 40 (2.76) | 60 (4.14) | 70 (4.83) | 80 (5.52) | 100 (6.90) | 125 (8.62) | 130 (8.97) | 150 (10.3) | 180 (12.4) | 200 (13.8) | 225 (15.5) | 250 (17.2) |
|----------------|---------|--------|----------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Size | Max ΔP | | | | | | | | | | | | | | | | | | | | |
| 80S | 3/16 | 20 | 200 | 270 | 450 | 560 | 640 | 690 | | | | | | | | | | | | | | |
| | 1/8 | 80 | 80 | 110 | 200 | 300 | 360 | 420 | 460 | 500 | 540 | 620 | 660 | 690 | | | | | | | | |
| | 7/64 | 125 | - | 55 | 90 | 145 | 195 | 260 | 305 | 345 | 400 | 485 | 525 | 565 | 640 | 680 | | | | | | |
| | 3/32 | 150 | - | - | 70 | 110 | 150 | 200 | 240 | 270 | 310 | 380 | 410 | 440 | 480 | 540 | 545 | 570 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| 81S & 21 | 1/4 | 15 | 300 | 450 | 830 | 950 | 1060 | | | | | | | | | | | | | | | |
| | 3/16 | 30 | 190 | 300 | 540 | 670 | 770 | 880 | 950 | 1000 | | | | | | | | | | | | |
| | 5/32 | 70 | 100 | 165 | 180 | 430 | 495 | 585 | 655 | 710 | 770 | 900 | 950 | | | | | | | | | |
| | 1/8 | 125 | 70 | 130 | 220 | 340 | 390 | 460 | 515 | 560 | 610 | 710 | 760 | 800 | 860 | 950 | | | | | | |
| | 7/64 | 200 | - | 65 | 150 | 230 | 275 | 335 | 375 | 405 | 455 | 545 | 580 | 610 | 665 | 735 | 780 | 810 | 850 | 860 | | |
| 3/32 | 250 | - | - | 100 | 150 | 190 | 240 | 270 | 290 | 340 | 420 | 450 | 470 | 520 | 575 | 585 | 620 | 670 | 700 | 730 | 760 | |
| 82S & 22 | 5/16 | 15 | 570 | 850 | 1600 | 1900 | 2100 | | | | | | | | | | | | | | | |
| | 1/4 | 30 | 350 | 500 | 950 | 1380 | 1630 | 1800 | 1900 | 2050 | | | | | | | | | | | | |
| | 3/16 | 70 | 250 | 420 | 785 | 950 | 1120 | 1260 | 1395 | 1500 | 1700 | 2000 | 2200 | | | | | | | | | |
| | 5/32 | 125 | 180 | 300 | 560 | 680 | 800 | 900 | 995 | 1070 | 1220 | 1440 | 1550 | 1650 | 1800 | 2000 | | | | | | |
| | 1/8 | 200 | 100 | 180 | 325 | 465 | 505 | 575 | 650 | 710 | 805 | 980 | 1050 | 1105 | 1225 | 1375 | 1410 | 1500 | 1560 | 1600 | | |
| 7/64 | 250 | 75 | 130 | 240 | 340 | 370 | 420 | 480 | 520 | 590 | 720 | 770 | 810 | 900 | 1010 | 1020 | 1100 | 1170 | 1230 | 1280 | 1300 | |
| 83S & 23 | 1/2 | 15 | 1410 | 1880 | 2900 | 3500 | 3900 | | | | | | | | | | | | | | | |
| | 3/8 | 30 | 990 | 1400 | 2300 | 2700 | 3300 | 3500 | 3800 | 4000 | | | | | | | | | | | | |
| | 5/16 | 60 | 600 | 940 | 1730 | 2045 | 2510 | 2825 | 2995 | 3135 | 3800 | 4400 | | | | | | | | | | |
| | 9/32 | 80 | 510 | 735 | 1350 | 1595 | 1960 | 2205 | 2340 | 2450 | 2880 | 3490 | 3800 | 4000 | | | | | | | | |
| | 1/4 | 125 | 385 | 600 | 1100 | 1300 | 1600 | 1800 | 1910 | 2000 | 2350 | 2850 | 3100 | 3300 | 3600 | 3900 | | | | | | |
| 7/32 | 180 | 300 | 490 | 860 | 1165 | 1350 | 1595 | 1865 | 2085 | 2205 | 2510 | 2695 | 2820 | 3065 | 3185 | 3300 | 3500 | 3700 | | | | |
| 3/16 | 250 | 255 | 400 | 700 | 950 | 1100 | 1300 | 1520 | 1700 | 1800 | 2050 | 2200 | 2300 | 2500 | 2600 | 2700 | 2800 | 3020 | 3200 | 3400 | 3500 | |
| 84 & 24 | 5/8 | 15 | 2160 | 2900 | 4800 | 5800 | 6500 | | | | | | | | | | | | | | | |
| | 1/2 | 30 | 1450 | 2250 | 3700 | 4750 | 5200 | 6000 | 6500 | 6800 | | | | | | | | | | | | |
| | 3/8 | 60 | 1050 | 1750 | 2950 | 3550 | 4000 | 4700 | 5000 | 5400 | 5800 | 6800 | | | | | | | | | | |
| | 11/32 | 80 | 800 | 1560 | 2500 | 2900 | 3200 | 3500 | 4000 | 4400 | 4850 | 5750 | 6000 | 6400 | | | | | | | | |
| | 5/16 | 125 | 660 | 1200 | 1950 | 2450 | 2750 | 3100 | 3250 | 3500 | 4000 | 4800 | 5250 | 5600 | 6200 | 6700 | | | | | | |
| 9/32 | 180 | 550 | 950 | 1500 | 1900 | 2200 | 2350 | 2700 | 2900 | 3250 | 3800 | 4250 | 4500 | 4800 | 5500 | 5600 | 5700 | 6000 | | | | |
| 1/4 | 250 | 350 | 580 | 1000 | 1250 | 1450 | 1800 | 2000 | 2200 | 2600 | 3150 | 3350 | 3500 | 3800 | 4300 | 4450 | 4700 | 5000 | 5300 | 5500 | 5700 | |
| 85 & 25 | 3/4 | 15 | 3100 | 4160 | 7600 | 9000 | 10000 | | | | | | | | | | | | | | | |
| | 9/16 | 30 | 1800 | 2900 | 5200 | 6400 | 7700 | 8500 | 9200 | 9800 | | | | | | | | | | | | |
| | 7/16 | 60 | 1400 | 2200 | 3800 | 5000 | 6000 | 6600 | 7100 | 7600 | 8300 | 9500 | | | | | | | | | | |
| | 3/8 | 100 | 1100 | 1700 | 3000 | 3600 | 4500 | 5200 | 5800 | 6100 | 7000 | 8500 | 9200 | 9700 | 10400 | | | | | | | |
| | 11/32 | 130 | 900 | 1500 | 2600 | 3200 | 3900 | 4500 | 5000 | 5400 | 6200 | 7500 | 8050 | 8500 | 9600 | 10900 | 11000 | | | | | |
| 5/16 | 180 | 750 | 1200 | 2100 | 2600 | 3200 | 3700 | 4100 | 4500 | 5400 | 6600 | 7000 | 7257 | 8118 | 8979 | 9040.5 | 9500 | 10000 | | | | |
| 9/32 | 225 | 600 | 970 | 1700 | 2100 | 2600 | 2950 | 3300 | 3600 | 4500 | 5400 | 5700 | 5900 | 6600 | 7300 | 7350 | 7850 | 8400 | 9200 | 9800 | | |
| 1/4 | 250 | 400 | 700 | 1200 | 1500 | 1900 | 2100 | 2400 | 2600 | 3200 | 3800 | 4000 | 4150 | 4600 | 5100 | 5150 | 5500 | 5950 | 6350 | 6650 | 7000 | |
| 86 & 26 | 1-1/16 | 15 | 6240 | 8400 | 14500 | 17300 | 19200 | | | | | | | | | | | | | | | |
| | 7/8 | 25 | 4100 | 5490 | 10000 | 12930 | 15620 | 18500 | 20000 | | | | | | | | | | | | | |
| | 3/4 | 40 | 2900 | 4500 | 8200 | 10600 | 12800 | 15000 | 16700 | 18000 | 20000 | | | | | | | | | | | |
| | 5/8 | 60 | 2100 | 3500 | 6900 | 8700 | 10600 | 12100 | 13300 | 14250 | 16300 | 19800 | | | | | | | | | | |
| | 9/16 | 80 | 1900 | 3095 | 6000 | 7600 | 9300 | 10600 | 11700 | 12500 | 14300 | 17300 | 18300 | 19000 | | | | | | | | |
| 1/2 | 125 | 1600 | 2600 | 5000 | 6400 | 7800 | 8900 | 9800 | 10500 | 12000 | 14500 | 15400 | 16300 | 18000 | 20000 | | | | | | | |
| 7/16 | 180 | 1400 | 2210 | 4180 | 5530 | 6640 | 7500 | 8490 | 9230 | 10450 | 12420 | 13300 | 14150 | 15750 | 17400 | 17900 | 18500 | 20000 | | | | |
| 3/8 | 250 | 1000 | 1800 | 3400 | 4500 | 5400 | 6100 | 6900 | 7500 | 8500 | 10100 | 10800 | 11500 | 12800 | 14200 | 14300 | 15600 | 16900 | 17500 | 18500 | 19000 | |

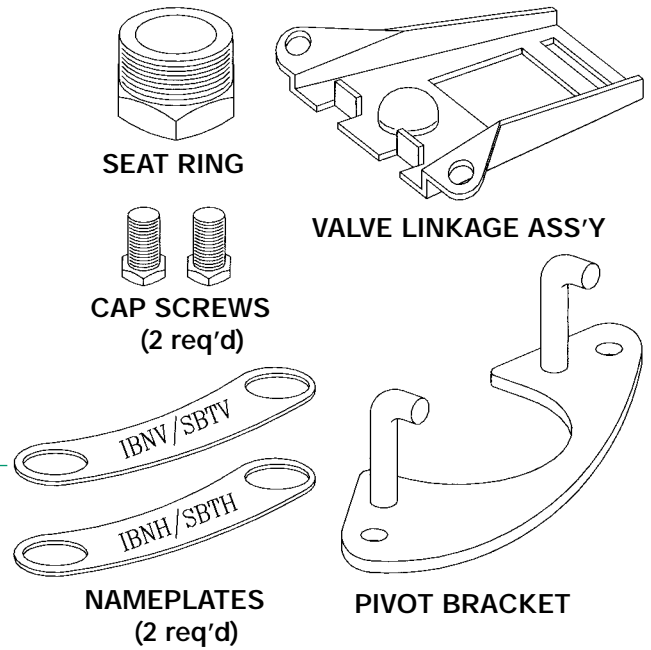
For Kg/Hr Multiply by .454

DURA-FLO INVERTED BUCKET STEAM TRAPS PCA REPAIR KITS

Quick, easy and economical
Simplifies and standardizes inventory
All stainless steel corrosion resistant internal parts
Hardened stainless steel condensate valves and seats
for extra long life

MODELS

- 80S—Orifice ratings 20, 80, 125, 150
- 81S & 21—Orifice ratings 15, 30, 70, 125, 200, 250
- 82S & 22—Orifice ratings 15, 30, 70, 125, 200, 250
- 83S & 23—Orifice ratings 15, 30, 60, 80, 125, 180, 250
- 84 & 24—Orifice ratings 15, 30, 60, 80, 125, 180, 250
- 85 & 25—Orifice ratings 15, 30, 60, 100, 130, 180, 225, 250
- 86 & 26—Orifice ratings 15, 25, 40, 60, 80, 125, 180, 250



Supplied in a labeled, clear plastic bag.

DURA-FLO/FTN
REPAIR KITS

FTN SERIES FLOAT & THERMOSTATIC STEAM TRAPS REPAIR KITS

High quality replacement kits
Rebuild existing F & T Traps far more economically than
replacement
Quick, easy and economical
Simplifies and standardizes inventory
All stainless steel corrosion resistant internal parts
Hardened stainless steel condensate valves and seats
for extra long life
Repairs other leading manufacturers' F & T Traps

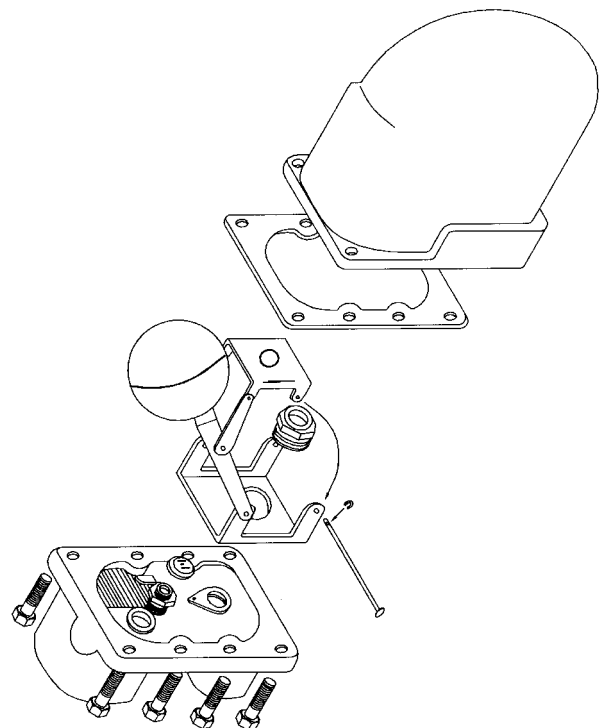
MODELS

- FTN-15 available in ¾", 1", 1¼", 1½" and 2"
- FTN-30 available in ¾", 1", 1¼", 1½" and 2"
- FTN-75 available in ¾", 1", 1¼", 1½" and 2"
- FTN-125 available in ¾", 1", 1¼", 1½" and 2"

All ¾" and 1" kits as well as 1¼" FTN-15 and FTN-30 kits
supplied with cover assembly.

All 1¼" FTN-75 and FTN-125 kits as well as all 1½" and 2"
kits supplied as mechanism complete.

See page 323 for Capacity Charts



Consult factory for latest crossover fitments.



THREADED STAINLESS STEEL DURA-FLO INVERTED BUCKET STEAM TRAPS

Pressures to 650 PSIG (45 barg)
Temperatures to 800°F (425°C)

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) — Sealed design prevents unnecessary tampering.

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

APPLICATIONS

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

MODELS

NPT CONNECTION

- **TSBT-LS** – Low Capacity, 400 PSIG
- **TSBT-MS** – Medium Capacity, 400 PSIG
- **TSBT-HS** – High Capacity, 650 PSIG

NPT CONNECTION, REPAIRABLE

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

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.

THREADED STAINLESS STEEL DURA-FLO INVERTED BUCKET STEAM TRAPS

SPECIFICATION

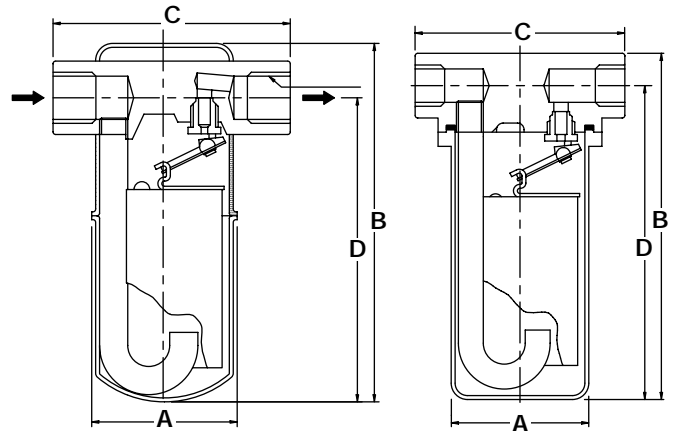
Furnish and install as shown on the plans, inverted bucket traps capable of discharging condensate, air and other non-condensable gases without loss of steam. These traps shall have a stainless steel sealed body, hardened chrome steel valve and seat and an all stainless steel linkage and bucket. The repairable model traps shall have a removable cover to allow repair or pressure change.

MAXIMUM OPERATING CONDITIONS

PMO: Max. Operating Pressure See Orifice Selection
 TMO: Max. Operating Temperature Saturated at PMO
 PMA: Max. Allowable Pressure 400 psig (28 barg)
 or 650 psig (45 barg)
 TMA: Max. Allowable Temperature 800°F (425°C)

MATERIALS OF CONSTRUCTION

BodyAISI 304 SS
 Cover (Repairable only).....AISI 304 SS
 BucketAISI 304 SS
 Bucket Clip.....AISI 304 SS
 LeverAISI 304 SS
 Inlet TubeAISI 304 SS
 Valve.....Hardened Chrome Steel AISI D3
 Valve SeatHardened Chrome Steel AISI D3
 ConnectorAISI 304 SS
 Cover Gasket (Repairable only) Spiral Wound 304 SS w/Grafoil



TSBT SEALED SERIES

TSBT REPAIRABLE SERIES

THREADED DURA-FLO
STEAM TRAP

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 ³ / ₄ (70) | 5 ⁵ / ₁₆ (142) | 4 ⁵ / ₁₆ (110) | 4 ¹ / ₁₆ (116) | 2.25 (1) |
| TSBT-MS | 2 ³ / ₄ (70) | 6 ⁵ / ₁₆ (167) | 4 ⁵ / ₁₆ (110) | 5 ⁵ / ₁₆ (141) | 2.5 (1.1) |
| TSBT-HS | 3 ³ / ₈ (99) | 8 ⁵ / ₁₆ (218) | 5 (127) | 7 ⁵ / ₁₆ (187) | 7 (3.2) |

DIMENSIONS inches (mm)
AND WEIGHTS pounds (kg)

| Model | Inches (mm) | | | | Weight lbs(kg) |
|---------|--|--|---|--|----------------|
| | A | B | C | D | |
| TSBT-LR | 2 ⁵ / ₈ (73) | 6 ¹ / ₄ (159) | 4 ⁵ / ₁₆ (110) | 5 ⁵ / ₁₆ (141) | 6.6 (3.0) |
| TSBT-MR | 2 ⁵ / ₈ (73) | 7 ¹ / ₄ (184) | 4 ⁵ / ₁₆ (110) | 6 ⁵ / ₁₆ (166) | 7.2 (3.2) |
| TSBT-HR | 4 ¹ / ₈ (104.8) | 9 ¹ / ₂ (241.3) | 5 (127) | 8 ¹ / ₂ (215.9) | 22 (10) |

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 & LR | 3/32 | 200 | 85 | 120 | 145 | 200 | 230 | 300 | 325 | 400 | 500 | | | | |
| TSBT-MS & 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-HS & 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



UNIVERSAL MOUNT STAINLESS STEEL DURA-FLO INVERTED BUCKET STEAM TRAPS

Pressures to 650 PSIG (45 barg)
Temperatures to 800°F (425°C)

APPLICATIONS

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

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

Easy Trap Replacement — Universal two bolt swivel mounting 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 (USBT_S) — Sealed design prevents unnecessary tampering. Trap can be inspected and replaced without breaking pipe.

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

MODELS

UMT CONNECTION

- **USBT-LS** – Low Capacity, 400 PSIG
- **USBT-MS** – Medium Capacity, 400 PSIG
- **USBT-HS** – High Capacity, 650 PSIG

UMT CONNECTION, REPAIRABLE

- **USBT-LR** – Low Capacity, 400 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.

UNIVERSAL MOUNT STAINLESS STEEL DURA-FLO INVERTED BUCKET STEAM TRAPS

SPECIFICATION

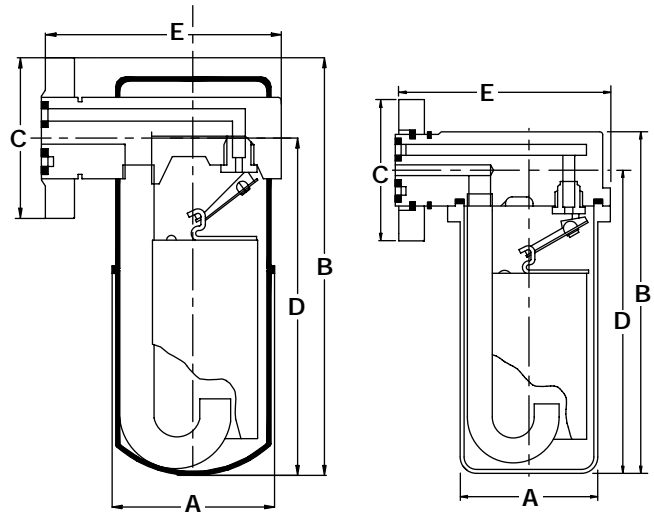
Furnish and install as shown on the plans, inverted bucket traps capable of discharging condensate, air and other non-condensable gases without loss of steam. These traps shall have a stainless steel sealed body, hardened chrome steel valve and seat and an all stainless steel linkage and bucket. It shall also have a universal mount connection. The optional repairable traps shall have a removable cover to allow repair or pressure change.

MAXIMUM OPERATING CONDITIONS

PMO: Max. Operating Pressure See Orifice Selection
 TMO: Max. Operating Temperature Saturated at PMO
 PMA: Max. Allowable Pressure 400 psig (28 barg)
 or 650 psig (45 barg)
 TMA: Max. Allowable Temperature 800°F (425°C)

MATERIALS OF CONSTRUCTION

Body AISI 304 SS
 Shaft (Sealed only)..... 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
 Swivel Connector AISI 304 SS
 Cover Gasket (Repairable only) Spiral Wound 304 SS w/Grafoil



USBT SEALED SERIES

USBT REPAIRABLE SERIES

UNIVERSAL MOUNT
DURA-FLO TRAP

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 (70) | 6 (152) | 2 1/4 (70) | 4 1/2 (117) | 4 (101.6) | 4.25 (2) |
| USBT-MS | 2 1/4 (70) | 7 1/6 (183) | 2 1/4 (70) | 5 1/6 (148) | 4 (101.6) | 4.75 (2.2) |
| USBT-HS | 3 1/8 (99) | 8 1/4 (222) | 2 1/4 (70) | 7 1/2 (187) | 5 (127) | 7 (3.2) |

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

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) |
| USBT-LS & LR | 3/32 | 200 | 85 | 120 | 145 | 200 | 230 | 300 | 325 | 400 | 500 | | | | |
| USBT-MS & 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 | | | |
| USBT-HS & 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