Clark·Reliance®
QUALITY STEAM SPECIALTIES SINCE 1922

INVERTED BUCKET STEAM TRAPS

Section:	C100
Bulletin:	C100.15
Date:	4/1/95
Supersedes:	230.1&2

FABRICATED STEEL BODIES WITH VERTICAL CONNECTIONS

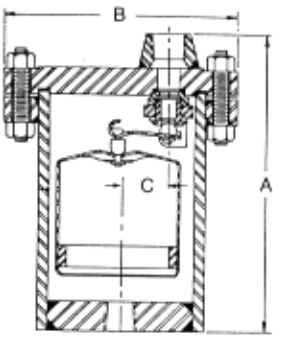
- REPLACEABLE STAINLESS STEEL INTERNAL TRAP COMPONENTS
- REPLACEABLE SEAT & DISC
- DUO-STEP LEVERAGE TO ALLOW GREATER TRAP CAPACITY WITHOUT INCREASED TRAP SIZE
- MODELS TO MEET STEAM PRESSURES OF 1500 PSIG AT A TEMPERATURE OF 1000°F
- ANTI-BOIL TUBE ON HIGH PRESSURE MODELS

Applications

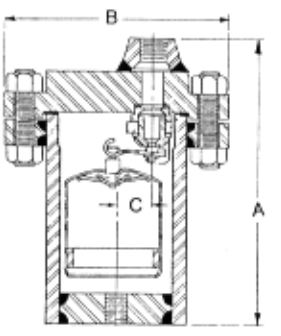
Inverted bucket traps are commonly used whenever complete and rapid removal of condensation is essential. The higher pressure/temperature models are designed for use in systems serving steam mains and desuperheaters. Other models service a wide variety of processing and heating equipment operating at pressures in excess of 500 PSIG and temperatures over 450°F.

MAXIMUM OPERATING TEMPERATURES AND PRESSURES

C190 Series: 750°F @ 600 PSI
C180 Series: 850°F @ 1000 PSI
C180X Series: 1000°F @ 1500 PSI



SERIES C190



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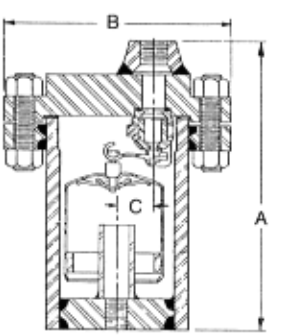

SERIES C180X

Fabricated Steel Inverted Bucket Steam Trap

Description

Clark-Reliance Inverted Bucket Steam Trap bodies are fabricated from steel tubing or pipe. Cover materials vary depending on maximum pressure and temperature capabilities. Internal components of all models are stainless steel construction whcih can be replaced with new Clark-Reliance parts to extend trap service life. Model sizes from 1/2 to 2 with NPT pipe thread, socket weld, and flange connections available in many combinations.

Dup-Step Leverage, an exclusive Clark-Reliance feature employing two trap level fulcrums, produces added force to "crack" trap valves and allow the extended travel required to open orifices fully. This allows larger discharge orifices without increasing trap size.

Dimensions & Weights

Model No.	Connection Size	Height="A"		Diameter="B"		Offest="C"		Weight	
		inches	mm	inches	mm	inches	mm	lbs	Kgs
C190	½, ¾, 1	8 5/8	219	6 1/4	159	1 1/8	29	21	9.5
C191	¾, 1, 1¼	10	254	7 3/4	197	1 5/8	41	40	18.2
C192	1, 1¼, 1½	11 3/8	289	9 1/8	232	2	51	65	29.5
C194	1½, 2	14 1/4	362	11 5/8	295	2 7/16	62	130	59.1
C180, C180X	½, ¾	9	229	7 1/4	184	1 1/8	29	33	15
C181, C181X	¾, 1	9 3/4	248	9	229	1 9/16	40	61	27.7
C182, C182X	1, 1¼	11 5/8	295	10 1/2	267	2	51	102	46.4
C184, C184X	1, 1½, 2	14 1/2	368	13 3/4	349	2 7/16	62	215	97.7

COMPONENTS AND MATERIALS

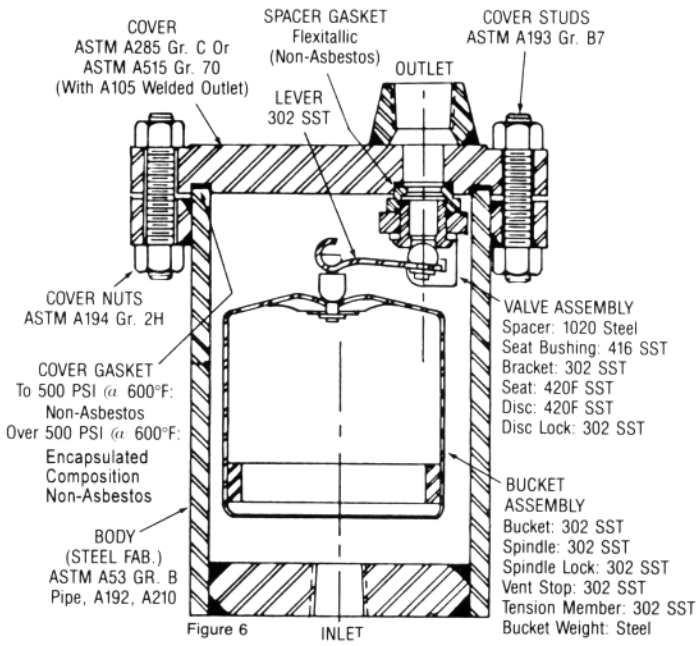

Figure 6

SERIES C190

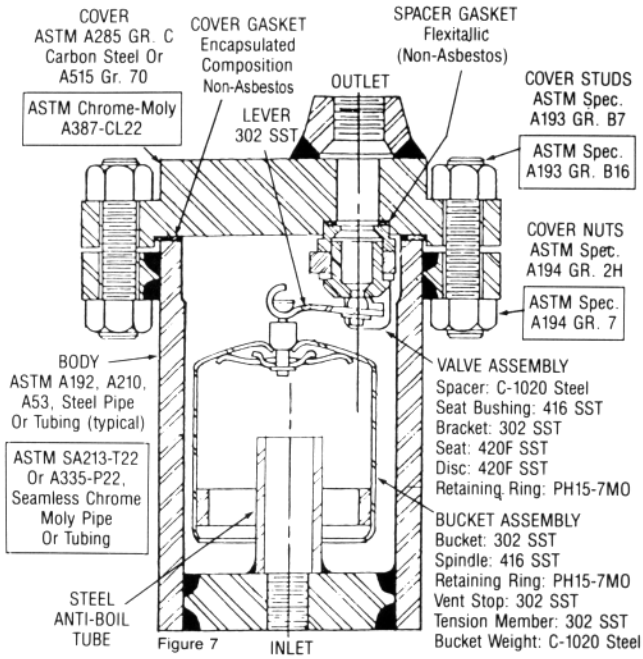

Figure 7

SERIES C180

SERIES C180X

Upgraded Materials For C180X" Modles Are Described Inside Boxed Areas

DISCHARGE CAPACITIES

Trap No.	Nominal Pipe Connection	Orifice diameters are shown at the maximum operating pressure for each trap. Continuous discharge capacities in lbs. per hr. at indicated differential pressure (PSI).															
		125	180	250	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
C190	½, ¾, 1	9/32" 5450	7/32" 3900	13/64" 4000	3/16" 3750	11/64" 3510	5/32" 3350	9/64" 3100									
C191	¾, 1, 1¼	23/64" 10400	21/64" 9550	9/32" 8200	1/4" 6950	1/4" 8000	7/32" 6500	13/64" 6500									
C192	1, 1¼, 1½	7/16" 15100	25/64" 16000	25/64" 18750	25/64 20000	21/64" 14000	19/64" 13500	1/4" 1025									
C194	1½, 2	45/64" 31000	9/16" 25600	15/32" 22000	7/16 22250	3/8 20000	21/64 16400	5/16" 17100									
C180	½, ¾	9/32" 5450	7/32" 3900	13/64" 4000	3/16" 3750	11/64" 3510	5/32" 3350	9/64" 3100	1/8" 2625	1/8" 2750	7/64" 2250	7/64" 2375					
C181	¾, 1	23/64" 10400	21/64" 9550	9/32" 8200	1/4" 6950	1/4" 8000	7/32" 6500	13/64" 6500	3/16" 5950	11/64" 5250	5/32" 4700	5/32" 4900					
C182	1, 1¼	7/16" 15100	25/64" 6000	25/64" 18750	25/64" 20000	21/64" 14000	19/64" 13500	1/4" 10250	1/4" 11250	7/32" 9100	7/32" 9600	13/64" 8800					
C184	1½, 2	45/64" 31000	9/16" 25600	15/32" 22000	7/16" 22250	3/8" 20000	21/64" 16400	5/16" 17100	9/32" 15500	1/4" 12200	1/4" 12900	15/64" 11700					
C180X	½, ¾	9/32" 5450	7/32" 3900	13/64" 4000	3/16" 3750	11/64" 3510	5/32" 3350	9/64" 3100	1/8" 2625	1/8" 2750	7/64" 2250	7/64" 2375	3/32" 1750	3/32" 1850	5/64" 1300	5/64" 1350	5/64" 1375
C181X	¾, 1	23/64" 10400	21/64" 9550	9/32" 8200	1/4" 6950	1/4" 8000	7/32" 6500	13/64 6500	3/16" 5950	11/64" 5250	5/32" 4700	5/32" 4900	1/8" 3150	1/8" 3250	1/8" 3400	7/64" 2750	7/64" 2800
C182X	1, 1¼	7/16" 15100	25/64" 16000	25/64" 18750	25/64" 20000	21/64" 14000	19/64" 13500	1/4 10250	1/4" 11250	7/32" 9100	7/32" 9600	13/64" 8800	3/16" 7300	5/32" 5300	5/32" 5600	1/8" 3500	1/8" 3600
C184X	1½, 2	45/64" 31000	9/16" 25600	15/32" 22000	7/16" 22250	3/8" 20000	21/64" 16400	5/16 17100	9/32" 15500	1/4" 12200	1/4" 12900	15/64" 11700	13/64" 9100	3/16" 7700	3/16" 8000	5/32" 5800	5/32" 5900

Other sizes are avialble upon request. Flange and socket weld connections are available on all sizes.

HOW TO ORDER

C [ ] [ ] [ ] [ ] — [ ] [ ] [ ] [ ] [ ] [ ] — [ ] [ ] [ ] [ ]

Clark Model Number

Connection Size
02=½"
03=¾"
04=1"
05=1-¼"
06=1-½"
08=2"

Connection Type
NPT = Nominal Pipe Thread
SW = Socket Weld
FLG = Flange (Choose 1,2, or 3)
1=150# RF, Flange
2=300# RF, Flange
3=600# RF, Flange

Maximum Operating Pressure (PSI)

ISO-9001 CERTIFIED

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