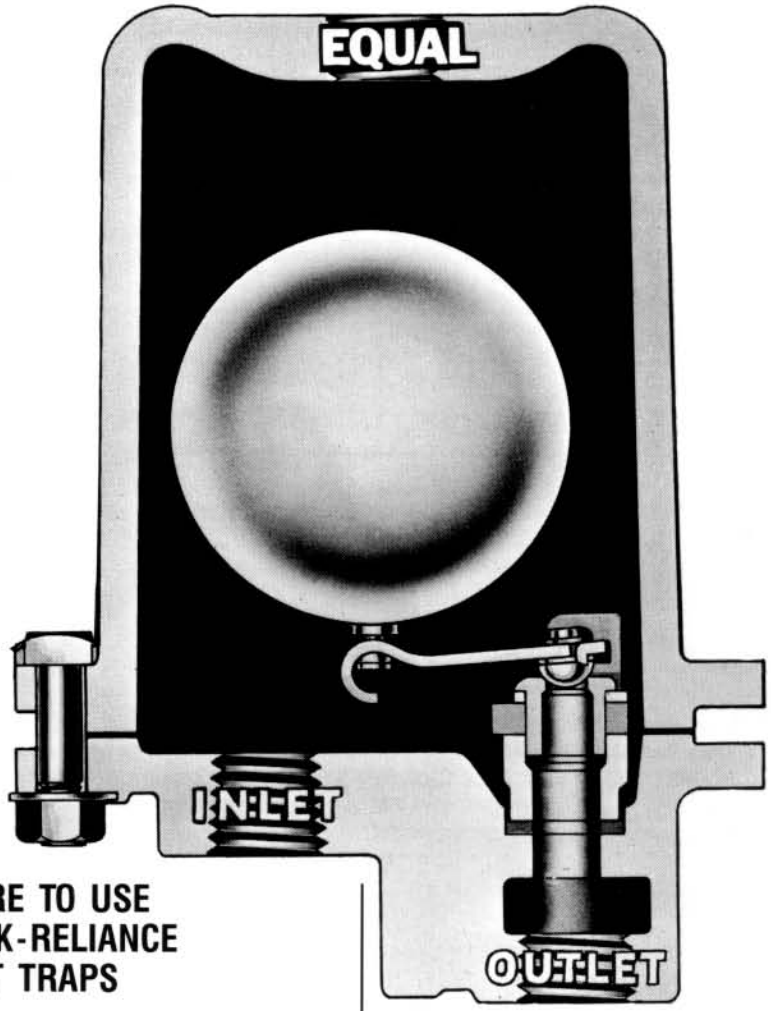
Section: C100
Bulletin: C100.30
Date: 8/97
Supersedes: 204 (94)

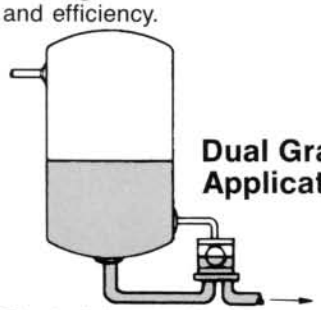
Clark·Reliance

FLOAT OPERATED TRAPS



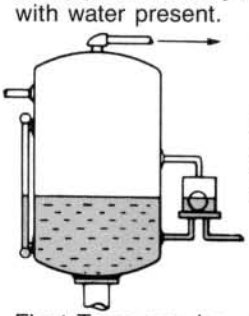
WHERE TO USE CLARK-RELIANCE FLOAT TRAPS

Clark-Reliance float operated traps give maximum capacity drainage of accumulated liquids from steam, air or gas lines. They are specially designed to drain variable condensate loads. This is important for superheated steam systems, where light-load or no-load conditions exist, without affecting their performance. Here are specific applications showing Clark-Reliance versatility and efficiency.



Dual Gravity Applications

The ball float in Clark-Reliance dual-gravity drainers is weighted to sink in the lighter of two liquids. It will float in the heavier liquid. When the heavy liquid enters the drainer, the float becomes buoyant and opens the discharge valve. This allows the heavy liquid to be discharged from the unit. Typical installations include: water removal from gasoline accumulators, settling tanks, evaporators and pipe lines carrying light liquids with water present.



Maintaining Constant Levels

Float Traps may be used to maintain constant levels in tanks and reservoirs. As liquid level rises, the float buoyancy increases. When the buoyancy is sufficient to overcome the force exerted by the fluid pressure against the valve, the float mechanism will open the discharge valve. Pressure then forces the liquid out of the trap, lowering the liquid level. As the level drops, the float loses buoyancy and sinks to close the discharge valve.

Continuous Drainage

When the float trap is placed below the level of a tank or fluid line, liquid flows continuously into and from the trap at an equal rate which holds the float at a point of equilibrium.

HIGHER CAPACITY LOWER COST

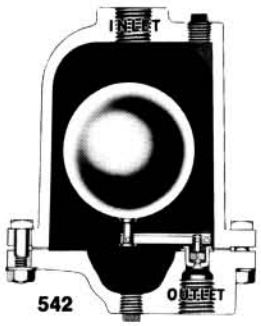
Clark-Reliance float operated traps incorporate the Duo-Step principle, using two fulcrum points to develop maximum power and valve travel.

Because of Duo-Step leverage, these traps handle greater capacities than simple leverage-type float traps. And their size and weight are **much less** than either simple leverage or compound leverage float traps. This means larger capacities for less money!

All stainless steel floats and levers, heat-treated stainless steel seats and discs assure low maintenance and long service life. Choose from two Clark-Reliance series:

- Cast iron (ASTM Class 30) for steam pressures to 250 PSIG at 450° F., and 300 PSIG at 150° F.
- Fabricated steel for steam pressures to 600 PSIG at 750° F., and 1000 PSIG at 150° F.

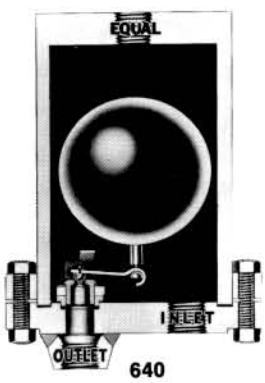
Performance proven for every application!



542

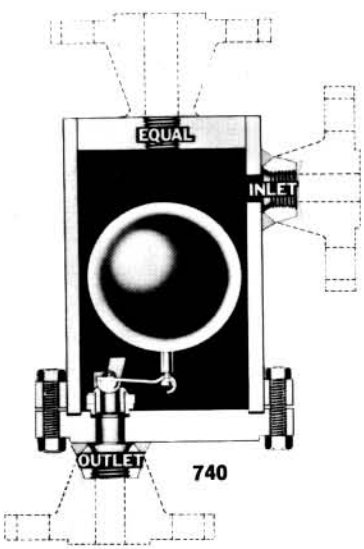
Trap No. 542 — Constructed of high pressure cast iron (ASTM Class 30) for pressures to 250 PSIG at 450° F. and 300 PSIG at 150° F.

Trap No.	In and Out Conn.	Equal Conn.	Dimensions			Continuous discharge capacities in G.P.M. at indicated pressures. Orifice diameters are shown at the maximum operating pressure for each trap.										
			HT.	DIA.	WT.	15	30	50	75	80	100	125	150	200	250	300
542	½" or ¾"		6 11/16"	5 5/8"	11	9/64 1.2	9/64 1.6	9/64 2.0	9/64 2.5	9/64 2.5	7/64 1.7	7/64 1.9	7/64 2.0	5/64 1.2	5/64 1.2	1/16 .9



640

Trap Series 640 and 740 — Constructed of fabricated steel for pressures to 600 PSIG at 750° F. or 1000 PSIG at 150° F. All internal parts are of stainless steel. Series 640 and 740 are provided with Duo-step leverage for greater capacities at lower cost.



740

	640 740	641 741	642 742	643 743	644 744
Pipe Size	½", ¾", 1"	¾", 1", 1¼"	1", 1¼", 1½"	1¼", 1½"	1½", 2"
Equalizer Connection	½"	½"	¾"	1"	1"
Height	8⅜"	11¼"	12 11/16"	14"	15 11/16"
Diameter	6¼"	7¾"	9⅛"	10⅛"	11⅝"
Weight	23	46	75	106	147

Note: Above traps can be furnished with socketweld connection. 740 series can be furnished with flanged connection.

DISCHARGE CAPACITIES
CLARK 640 AND 740 SERIES FLOAT TRAPS
Orifice Size and Continuous Flow Capacity (G.P.M.)

640 & 740

PSI	SPECIFIC GRAVITY									
	1.0	.90	.85	.80	.75	.70	.65	.60	.55	.50
5	7/16	7/16	7/16	7/16	7/16	7/16	7/16	7/16	7/16	25/64
	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	5.2
10	7/16	7/16	7/16	7/16	7/16	25/64	25/64	23/64	21/64	19/64
	9.8	9.8	9.8	9.8	9.8	7.7	7.7	6.5	5.5	4.6
30	23/64	21/64	21/64	19/64	9/32	1/4	1/4	7/32	3/16	11/64
	11	9.6	9.6	7.6	6.6	5.2	5.2	4.1	2.9	2.5
50	19/64	9/32	1/4	1/4	7/32	7/32	13/64	11/64	11/64	5/32
	9.4	8.2	6.6	6.6	5.2	5.2	4.4	3.2	3.2	2.7
75	1/4	7/32	7/32	7/32	13/64	3/16	11/64	11/64	5/32	9/64
	8.0	6.0	6.0	6.0	5.3	4.4	3.8	3.8	3.1	2.5
100	7/32	13/64	13/64	3/16	11/64	11/64	11/64	5/32	9/64	1/8
	6.9	6.0	6.0	5.0	4.3	4.3	4.3	3.5	2.9	2.2
125	13/64	3/16	11/64	11/64	11/64	11/64	5/32	9/64	1/8	7/64
	6.6	5.5	4.7	4.7	4.7	4.7	4.0	3.1	2.4	1.9
150	3/16	11/64	11/64	11/64	5/32	5/32	9/64	1/8	7/64	3/32
	5.8	5.1	5.1	5.1	4.3	4.3	3.3	2.6	2.0	1.4
200	11/64	11/64	5/32	9/64	9/64	1/8	7/64	3/32	3/32	5/64
	5.7	5.7	4.8	3.8	3.8	2.9	2.2	1.7	1.7	1.1
250	5/32	9/64	9/64	1/8	1/8	7/64	3/32	5/64	5/64	1/16
	5.3	4.1	4.1	3.2	3.2	2.5	1.8	1.2	1.2	.8
300	9/64	1/8	1/8	7/64	7/64	3/32	3/32	5/64	1/16	1/16
	4.4	3.4	3.4	2.6	2.6	1.9	1.9	1.3	.8	.8
400	3/32	5/64	1/16	1/16						
	2.1	1.4	.9	9						
500	5/64	1/16	1/16							
	1.6	1.0	1.0							
600	5/64	1/16								
	1.7	1.1								
700	1/16	1/16								
	1.2	1.2								
800	1/16									
	1.3									
900										
1000										

641 & 741

PSI	SPECIFIC GRAVITY									
	1.0	.90	.85	.80	.75	.70	.65	.60	.55	.50
5	21/32	21/32	21/32	21/32	21/32	21/32	21/32	21/32	19/32	7/16
	15	15	15	15	15	15	15	15	13	6.6
10	21/32	21/32	21/32	21/32	21/32	19/32	33/64	33/64	7/16	21/64
	21	21	21	21	21	18	14	14	9.8	5.5
30	33/64	7/16	7/16	23/64	23/64	23/64	21/64	21/64	9/32	7/32
	23	16	16	11	11	11	9.6	9.6	6.6	4.1
50	7/16	23/64	23/64	23/64	21/64	21/64	19/64	19/64	7/32	5/32
	20	13	13	13	11	11	9.4	9.4	5.2	2.7
75	23/64	23/64	21/64	21/64	19/64	19/64	1/4	7/32	3/16	9/64
	16	16	13	13	11	11	8.0	6.0	4.4	2.5
100	23/64	21/64	19/64	19/64	9/32	1/4	7/32	13/64	3/16	9/64
	18	15	12	12	11	9.0	6.9	6.0	5.0	2.9
125	21/64	19/64	9/32	1/4	1/4	7/32	13/64	3/16	11/64	1/8
	17	14	12	9.8	9.8	7.6	6.6	5.5	4.7	2.4
150	19/64	9/32	1/4	7/32	7/32	13/64	3/16	3/16	5/32	7/64
	15	13	10	8.2	8.2	6.9	5.8	5.8	4.3	2.0
200	1/4	7/32	7/32	13/64	3/16	3/16	5/32	5/32	1/8	3/32
	11	9.2	9.2	8.0	6.6	6.6	4.8	4.8	2.9	1.7
250	7/32	13/64	3/16	3/16	11/64	11/64	5/32	9/64	7/64	5/64
	10	9.0	7.4	7.4	6.2	6.2	5.3	4.1	2.5	1.2
300	13/64	3/16	3/16	11/64	11/64	5/32	9/64	1/8	3/32	5/64
	9.4	7.8	7.8	6.8	6.8	5.6	4.4	3.4	1.9	1.3
400	3/16	3/16	11/64	5/32	5/32	9/64	1/8	7/64	3/32	1/16
	8.4	8.4	7.4	6.2	6.2	4.9	3.8	3.0	2.1	.9
500	11/64	5/32	5/32	9/64	1/8	1/8	7/64	5/32	5/64	
	8.0	6.8	6.8	5.3	4.1	4.1	3.2	2.3	1.6	
600	5/32	9/64	9/64	1/8	7/64	7/64	3/32	5/64	1/16	
	7.2	5.6	5.6	4.4	3.4	3.4	2.4	1.7	1.1	
700	9/64	7/64	7/64	3/32	5/64	5/64	1/16			
	6.1	3.7	3.7	2.6	1.8	1.8	1.2			
800	1/8	7/64	3/32	3/32	5/64	1/16				
	5.1	4.0	2.8	2.8	1.9	1.3				
900	7/64	3/32	3/32	5/64	5/64	1/16				
	4.1	2.9	2.9	2.0	2.0	1.3				
1000	7/64	3/32	5/64	5/64	1/16	1/16				
	4.3	3.0	2.1	2.1	1.4	1.4				

CAPACITY (LB PER HR.) = CAPACITY (GPM) × SPEC. GRAV. × 500

$$\text{CAPACITY (GPM)} = \frac{\text{CAPACITY (LB PER HR.)}}{\text{SPEC. GRAV.} \times 500}$$

NOTE:
IF THE SPEC. GRAV. OF THE LIQUID IS BETWEEN VALUES GIVEN IN CHART, REFER TO THE NEXT LIGHTER LIQUID

SERIES 640, 740, 4100 & 4200

SERVICE PRESSURE RATING	
PRESSURE	MAX. TEMP
600 P.S.I.	750° F
700 P.S.I.	600° F
800 P.S.I.	350° F
900 P.S.I.	200° F
1000 P.S.I.	150° F

642 & 742

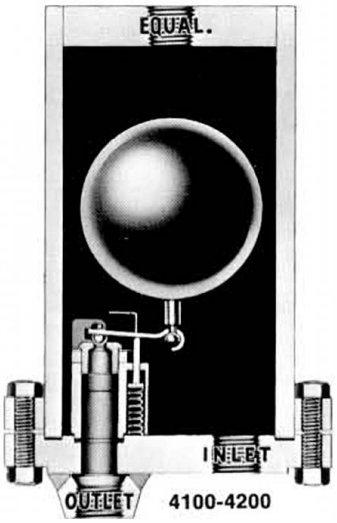
PSI	SPECIFIC GRAVITY									
	1.0	.90	.85	.80	.75	.70	.65	.60	.55	.50
5	21/32	21/32	21/32	21/32	21/32	21/32	21/32	21/32	21/32	21/32
	15	15	15	15	15	15	15	15	15	15
10	21/32	21/32	21/32	21/32	21/32	21/32	21/32	21/32	19/32	33/64
	21	21	21	21	21	21	21	21	18	14
30	21/32	21/32	19/32	33/64	33/64	7/16	7/16	7/16	7/16	23/64
	36	36	32	23	23	16	16	16	16	11
50	19/32	33/64	7/16	7/16	7/16	7/16	25/64	25/64	23/64	9/32
	38	29	20	20	20	20	16	16	13	8.2
75	33/64	7/16	7/16	7/16	7/16	25/64	23/64	21/64	19/64	1/4
	34	24	24	24	24	19	16	13	11	8.0
100	7/16	7/16	7/16	25/64	23/64	23/64	21/64	9/32	1/4	7/32
	28	28	28	22	18	18	15	11	9.0	6.9
125	7/16	25/64	25/64	23/64	21/64	21/64	9/32	1/4	1/4	13/64
	30	24	24	20	17	17	12	9.8	9.8	6.6
150	25/64	23/64	21/64	21/64	19/64	9/32	1/4	1/4	7/32	3/16
	25	22	18	18	15	13	10	10	8.2	5.8
200	23/64	21/64	19/64	9/32	1/4	1/4	1/4	7/32	13/64	5/32
	24	19	17	15	11	11	11	9.2	8.0	4.8
250	21/64	9/32	1/4	1/4	1/4	1/4	7/32	13/64	11/64	9/64
	24	16	13	13	13	13	10	9.0	6.2	4.1
300	19/64	1/4	1/4	1/4	7/32	7/32	13/64	11/64	5/32	1/8
	20	13	13	13	11	11	9.4	6.8	5.6	3.4
400	1/4	1/4	7/32	7/32	13/64	3/16	11/64	5/32	1/8	7/64
	15	15	12	12	10	8.4	7.4	6.2	3.8	3.0
500	7/32	7/32	13/64	3/16	11/64	5/32	9/64	1/8	7/64	3/32
	12	12	11	9.2	8.0	6.8	5.3	4.1	3.2	2.3
600	13/64	11/64	5/32	9/64	1/8	7/64	3/32	5/64		
	11	8.4	7.2	5.6	4.4	3.4	2.4	1.7		
700	3/16	5/32	9/64	9/64	1/8	7/64	3/32	1/16		
	10	7.8	6.1	6.1	4.8	3.7	2.6	1.2		
800	11/64	9/64	9/64	1/8	7/64	3/32	5/64	1/16		
	9.8	6.6	6.6	5.1	4.0	2.8	2.0	1.3		
900	5/32	9/64	1/8	7/64	7/64	3/32	5/64	1/16		
	8.5	6.8	5.3	4.1	4.1	3.0	2.1	1.3		
1000	9/64	1/8	1/8	7/64	3/32	5/64	1/16	1/16		
	7.0	5.5	5.5	4.3	3.0	2.1	1.4	1.4		

643 & 743

PSI	SPECIFIC GRAVITY									
	1.0	.90	.85	.80	.75	.70	.65	.60	.55	.50
5	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64
	30	30	30	30	30	30	30	30	30	30
10	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64	3/4
	43	43	43	43	43	43	43	43	43	28
30	59/64	3/4	3/4	3/4	23/32	5/8	5/8	9/16	17/32	15/32
	71	47	47	47	42	34	34	27	25	18
50	45/64	5/8	5/8	9/16	9/16	17/32	15/32	15/32	7/16	3/8
	50	40	40	34	34	31	23	23	20	15
75	5/8	9/16	17/32	17/32	17/32	15/32	15/32	7/16	25/64	21/64
	50	40	37	37	37	28	28	24	19	13
100	9/16	17/32	17/32	15/32	15/32	7/16	25/64	25/64	21/64	5/16
	46	42	42	32	32	28	22	22	15	14
125	17/32	15/32	15/32	7/16	7/16	25/64	3/8	21/64	9/16	9/32
	45	34	34	30	30	24	22	17	16	12
150	15/32	15/32	7/16	25/64	25/64	3/8	21/64	5/16	9/32	1/4
	37	37	32	25	25	23	18	17	13	10
200	7/16	25/64	3/8	21/64	21/64	5/16	9/32	9/32	1/4	15/64
	36	29	26	21	21	19	15	15	11	10
250	3/8	21/64	21/64	5/16	9/32	9/32	9/32	1/4	15/64	13/64
	29	24	24	22	16	16	16	13	11	9.0
300	21/64	5/16	5/16	9/32	9/32	1/4	1/4	15/64	13/64	3/16
	26	24	24	17	17	13	13	12	9.4	7.8
400	9/32	1/4	15/64	13/64	13/64	3/16	5/32	1/8	1/8	5/32
	19	15	13	10	10	8.4	6.2	3.8	3.8	2.1
500	1/4	15/64	13/64	13/64	3/16	5/32	1/8	1/8	3/32	5/64
	16	14	11	11	9.2	6.8	4.1	4.1	2.3	1.6
600	15/64	13/64	3/16	3/16	5/32	5/32	1/8	3/32	3/32	1/16
	15	11	9.8	9.8	7.2	7.2	4.4	2.4	2.4	1.1
700	13/64	3/16	5/32	5/32	5/32	1/8	1/8	3/32	5/64	1/16
	12	10	7.8	7.8	7.8	4.8	4.8	2.6	1.8	1.2
800	3/16	5/32	5/32	5/32	1/8	1/8	3/32	5/64	5/64	1/16
	11	8.4	8.4	8.4	5.1	5.1	2.8	1.9	1.9	1.3
900	5/32	1/8	1/8	3/32	3/32	3/32	1/16			
	9.0	5.2	5.2	2.9	2.9	2.9	1.3			
1000	1/8	1/8	1/8	3/32	3/32	5/64	1/16			
	5.5	5.5	5.5	3.0	3.0	2.1	1.4			

644 & 744

PSI	SPECIFIC GRAVITY									
	1.0	.90	.85	.80	.75	.70	.65	.60	.55	.50
5	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64
	30	30	30	30	30	30	30	30	30	30
10	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64	59/64
	43	43	43	43	43	43	43	43	43	43
30	59/64	59/64	59/64	59/64	59/64	3/4	3/4	3/4	23/32	5/8
	71	71	71	71	71	47	47	47	42	34
50	59/64	3/4	3/4	3/4	3/4	45/64	5/8	9/16	17/32	17/32
	91	59	59	59	59	50	40	34	31	31
75	59/64	3/4	23/32	5/8	5/8	9/16	9/16	17/32	17/32	15/32
	109	70	62	50	50	40	40	37	37	28
100	3/4	45/64	5/8	5/8	9/16	9/16	17/32	17/32	15/32	7/16
	80	68	55	55	46	46	42	42	32	28
125	45/64	5/8	9/16	9/16	17/32	17/32	17/32	15/32	7/16	25/64
	76	64	49	49	45	45	45	34	30	24
150	5/8	9/16	17/32	17/32	17/32	15/32	15/32	7/16	25/64	3/8
	69	53	49	49	49	37	37	32	25	23
200	17/32	17/32	17/32	15/32	15/32	7/16	25/64	3/8	21/64	5/16
	56	56	56	42	42	36	29	26	21	19
250	17/32	15/32	15/32	7/16	7/16	25/64	3/8	21/64	5/16	9/32
	62	46	46	40	40	31	29	24	22	16
300	15/32	7/16	7/16	25/64	3/8	21/64	21/64	5/16	9/32	1/4
	49	43	43	32	30	26	26	24	17	13
400	25/64	25/64	3/8	21/64	21/64	5/16	5/16	9/32	1/4	15/64
	37	37	34	28	28	26	26	19	15	13
500	3/8	21/64	21/64	5/16	5/16	9/32	9/32	1/4	15/64	13/64
	37	31	31	29	29	21	21	16	14	11
600	21/64	5/16	9/32	9/32	9/32	1/4	1/4	15/64	13/64	3/16
	33	30	22	22	22	17	17	15	11	9.8
700	9/32	1/4	15/64	13/64	3/16	3/16	5/32	1/8	3/32	5/64
	24	18	17	12	10	10	7.8	4.8	2.6	1.8
800	1/4	15/64	13/64	13/64	3/16	3/16	5/32	1/8	3/32	1/16
	20	18	15	13	11	11	8.4	5.1	2.8	1.3
900	15/64	13/64	13/64	3/16	3/16	5/32	1/8	1/8	3/32	1/16
	19	14	14	11	11	9.0	5.2	5.2	2.9	1.3
1000	15/64	13/64	3/16	3/16	5/32	5/32	1/8	3/32	5/64	1/16
	20	14	12	12	9.0	9.0	5.5	3.0	2.1	1.3



4100-4200

Trap Series 4100 and 4200 — Constructed of fabricated steel for pressures to 600 PSIG at 750° F. or 1000 PSIG at 150° F. All internal parts are of stainless steel. Series 4100-4200 operating mechanisms include spring assist for greater capacities at higher pressures and lower specific gravities. The 4101 and 4201 are equipped with a side inlet similar to the 740 series.

	4100 4101	4200 4201
Pipe Size	¾", 1", 1¼"	1", 1¼", 1½"
Equalizer Connection	½"	¾"
Height	12¾"	13 3/16"
Diameter	7¾"	9⅛"
Weight	48	76

Note: Above traps can be furnished with socketweld connection. 4101 and 4201 can be furnished with flanged connection.

Orifice Sizes and Continuous Flow Capacities (G.P.M.)

Safety factor: A safety factor of 1½ to 2 times the maximum load is recommended for the normal operation. Greater safety factors may be desirable to get the benefits of oversized orifices. Oversizing float traps does not affect their operation as it does in other types of traps.

4100 AND 4200 SERIES

4100 & 4101

PSI	SPECIFIC GRAVITY									
	1.0	.90	.85	.80	.75	.70	.65	.60	.55	.50
5	21/32 15	21/32 15	21/32 15	21/32 15	21/32 15	21/32 15	21/32 15	21/32 13	19/32 13	33/64 10
10	21/32 21	21/32 21	21/32 21	21/32 21	21/32 21	17/32 18	33/64 14	33/64 14	7/16 9.8	7/16 9.8
30	33/64 23	7/16 16	7/16 16	23/64 13	23/64 11	23/64 11	23/64 11	21/64 9.6	19/64 7.6	19/64 7.6
50	7/16 20	23/64 13	23/64 13	23/64 13	21/64 11	21/64 11	21/64 11	19/64 9.4	9/32 8.2	9/32 8.2
75	23/64 16	21/64 13	21/64 13	21/64 13	19/64 11	19/64 11	19/64 11	9/32 10	1/4 8	1/4 8
100	21/64 15	19/64 12	19/64 12	9/32 11	9/32 11	9/32 11	1/4 9.0	1/4 9.0	7/32 6.9	7/32 6.9
125	19/64 14	9/32 12	9/32 12	1/4 9.8	1/4 9.8	1/4 9.8	1/4 9.8	7/32 7.6	13/64 6.6	13/64 6.6
150	19/64 13	1/4 10	1/4 10	1/4 10	7/32 8.2	7/32 8.2	13/64 6.9	13/64 6.9	3/16 5.8	3/16 5.8
200	1/4 11	7/32 9.2	7/32 9.2	7/32 9.2	13/64 8.0	13/64 8.0	3/16 6.6	3/16 6.6	5/32 4.8	5/32 4.8
250	7/32 10	13/64 9.0	13/64 9.0	13/64 9.0	3/16 7.4	5/32 7.4	5/32 5.3	5/32 5.3	5/32 5.3	5/32 5.3
300	13/64 9.4	3/16 7.8	3/16 7.8	3/16 7.8	5/32 5.6	5/32 5.6	5/32 5.6	9/64 4.4	9/64 4.4	9/64 4.4
400	3/16 8.4	5/32 6.2	5/32 6.2	5/32 6.2	5/32 6.2	5/32 6.2	9/64 4.9	9/64 4.9	9/64 4.9	1/8 3.8
500	3/16 9.2	5/32 6.8	5/32 6.8	5/32 6.8	9/64 5.3	9/64 5.3	9/64 5.3	9/64 5.3	1/8 4.1	1/8 4.1
600	5/32 7.2	5/32 7.2	5/32 7.2	9/64 5.6	9/64 5.6	9/64 5.6	9/64 5.6	1/8 4.4	1/8 4.4	7/64 3.4
700	5/32 7.8	9/64 6.1	9/64 6.1	9/64 6.1	9/64 6.1	9/64 6.1	1/8 4.8	1/8 4.8	7/64 3.7	7/64 3.7
800	9/64 6.6	9/64 6.6	9/64 6.6	9/64 6.6	1/8 5.1	1/8 5.1	1/8 5.1	7/64 4.0	7/64 4.0	3/32 2.8
900	9/64 6.8	9/64 6.8	9/64 6.8	1/8 5.3	1/8 5.3	7/64 4.1	7/64 4.1	7/64 4.1	3/32 3.0	3/32 3.0
1000	9/64 7.0	1/8 5.5	1/8 5.5	1/8 5.5	7/64 4.3	7/64 4.3	7/64 4.3	3/32 3.0	3/32 3.0	3/32 3.0

4200 & 4201

PSI	SPECIFIC GRAVITY									
	1.0	.90	.85	.80	.75	.70	.65	.60	.55	.50
5	23/64 4.6	23/64 4.6	23/64 4.6	23/64 4.6	23/64 4.6	23/64 4.6	23/64 4.6	23/64 4.6	23/64 4.6	23/64 4.6
10	23/64 6.5	23/64 6.5	23/64 6.5	23/64 6.5	23/64 6.5	23/64 6.5	23/64 6.5	23/64 6.5	23/64 6.5	23/64 6.5
30	23/64 11	23/64 11	23/64 11	23/64 11	23/64 11	23/64 11	23/64 11	23/64 11	21/64 9.8	21/64 9.6
50	23/64 13	23/64 13	23/64 13	23/64 13	23/64 13	23/64 13	21/64 11	21/64 11	19/64 9.4	9/32 8.2
75	23/64 16	23/64 16	23/64 16	23/64 16	23/64 16	21/64 13	21/64 13	19/64 11	9/32 10	1/4 8.0
100	23/64 18	23/64 18	21/64 15	21/64 15	21/64 15	19/64 12	19/64 12	9/32 12	1/4 9.0	7/32 6.9
125	23/64 20	21/64 17	21/64 17	19/64 14	9/32 12	9/32 12	9/32 12	1/4 9.8	7/32 7.6	7/32 7.6
150	19/64 15	19/64 15	19/64 15	9/32 13	1/4 10	1/4 10	1/4 10	7/32 8.2	7/32 8.2	13/64 6.9
200	9/32 15	1/4 11	1/4 11	1/4 11	7/32 9.2	7/32 9.2	13/64 8.0	13/64 8.0	3/16 6.6	3/16 6.6
250	1/4 13	7/32 10	7/32 10	7/32 10	13/64 9.0	13/64 9.0	3/16 7.4	3/16 7.4	3/16 7.4	3/16 7.4
300	7/32 11	13/64 9.4	13/64 9.4	13/64 9.4	3/16 7.8	3/16 7.8	3/16 7.8	11/64 6.6	5/32 5.6	5/32 5.6
400	13/64 10	3/16 8.4	3/16 8.4	3/16 8.4	3/16 8.4	3/16 8.4	11/64 7.4	11/64 7.4	5/32 6.2	9/64 4.9
500	13/64 11	3/16 9.2	3/16 9.2	3/16 9.2	11/64 8.0	11/64 8.0	5/32 6.8	5/32 6.8	9/64 5.3	9/64 5.3
600	3/16 9.8	3/16 9.8	3/16 9.8	11/64 8.4	11/64 8.4	5/32 7.2	5/32 7.2	9/64 5.6	9/64 5.6	1/8 4.4
700	3/16 10	11/64 9.2	11/64 9.2	11/64 9.2	5/32 7.8	5/32 7.8	9/64 6.1	9/64 6.1	1/8 4.8	1/8 4.8
800	11/64 9.8	11/64 9.8	5/32 8.4	5/32 8.4	5/64 6.6	9/64 6.6	9/64 6.6	1/8 5.1	7/64 5.1	7/64 4.0
900	11/64 10.2	5/32 9.0	5/32 9.0	9/64 6.8	9/64 6.8	1/8 5.2	1/8 5.2	1/8 5.2	7/64 4.1	7/64 4.1
1000	5/32 9.0	9/64 7.0	9/64 7.0	9/64 7.0	1/8 5.5	1/8 5.5	1/8 5.5	7/64 4.3	7/64 4.3	7/64 4.3

FOR ADDITIONAL INFORMATION, CONTACT YOUR LOCAL CLARK-RELIANCE REPRESENTATIVE

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