



Double Duty® 12

Steam Trap/Pump Combination

Description

Armstrong's Double Duty-12 steam trap/pump combination offers a unique solution for draining condensate from heat exchangers and coils in various applications.

The Double Duty-12 is an ASME code stamped carbon steel vessel which offers you the versatility of combining a pump mechanism within a steam trap to assist in condensate drainage under all operating conditions.

Features

- ASME Section VIII "U" stamped vessel
- Inconel X-750 springs for long service life
- All stainless steel internals
- Easy access to the steam trap mechanism without removing cap assembly
- Externally removable vent and motive seats
- Separate pump and trap mechanisms

Maximum Operating Conditions

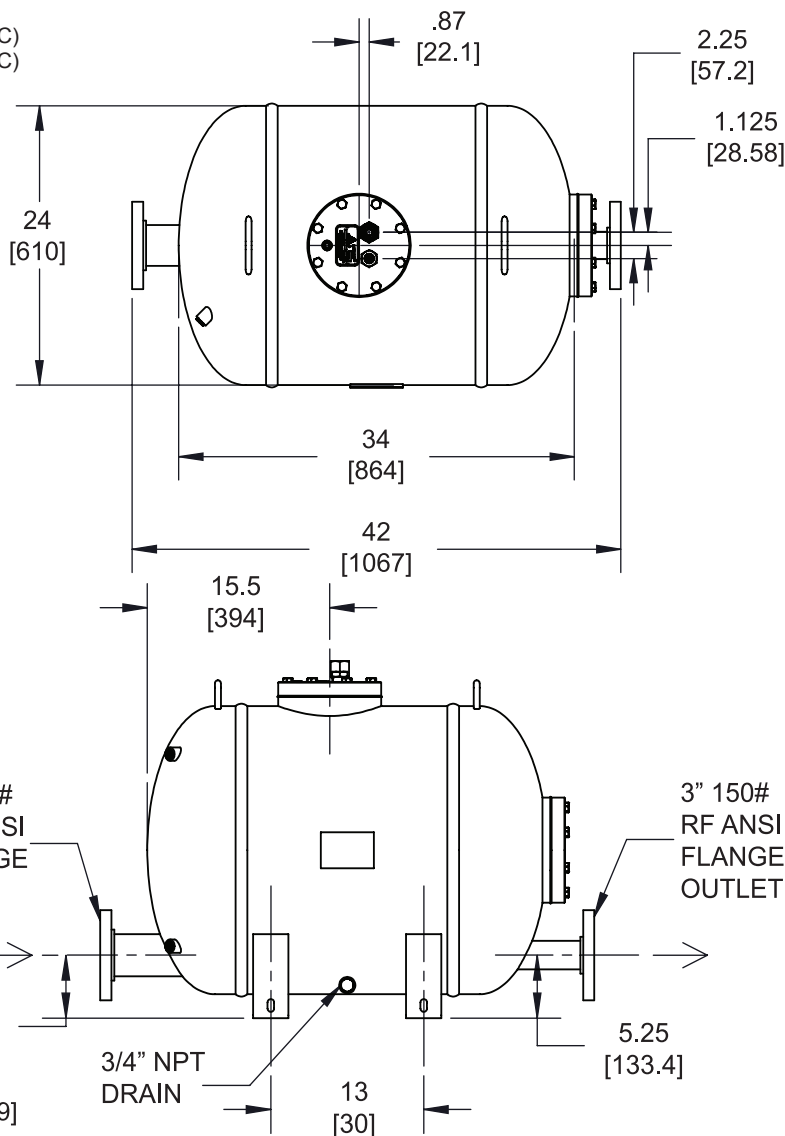
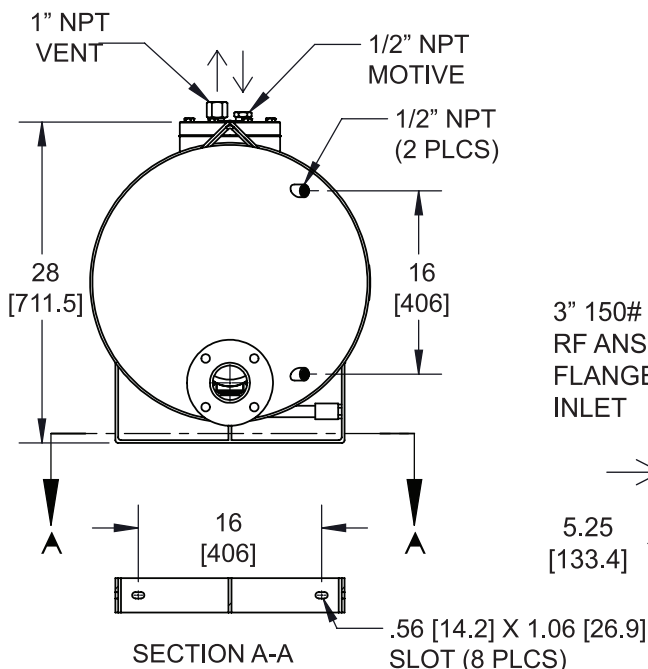
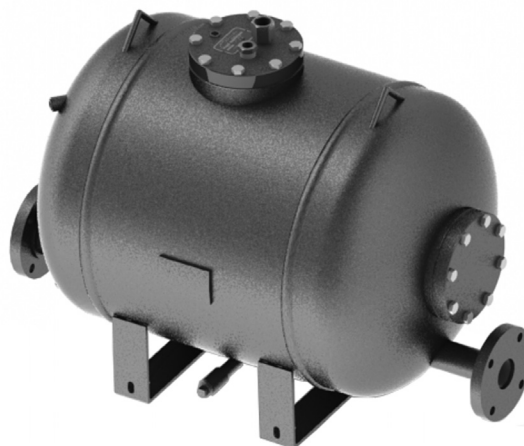
Maximum allowable pressure: 200 psig @ 400°F (14 bar @ 204°C)
 Maximum operating pressure: 200 psig @ 400°F (14 bar @ 204°C)

(Consult factory for different pressure/temperature ratings)

Materials

Body: ASME code carbon steel
 Springs: Inconel X-750
 Internals: Stainless steel

For a fully detailed certified drawing, refer to CD-2472.



Condensate Recovery Equipment

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Double Duty® 12 Pump Capacities					
Motive		Back Pressure		Capacity	
psi	bar	psi	bar	lb/hr	kg/hr
15	1	5	0.34	9,800	4,445
25	1.7			12,900	5,581
50	3.5			16,500	7,484
75	5			18,200	8,255
100	7			18,900	8,573
125	8.5			19,300	8,754
150	10.34			19,800	8,981
175	12			19,900	9,026
200	14	19,900	9,026		
25	1.7	15	1	8,500	3,856
50	3.5			12,900	5,851
75	5			14,800	6,713
100	7			16,000	7,257
125	8.5			16,400	7,439
150	10.34			17,200	7,802
175	12			17,300	7,847
200	14			17,300	7,847
35	2.5	25	1.5	7,200	3,266
50	3.5			10,300	4,672
75	5			12,300	5,579
100	7			13,700	6,214
125	8.5			13,700	6,214
150	10.34			14,700	6,668
175	12			14,800	6,713
200	14			15,000	6,804
50	3.5	40	2.75	6,700	3,039
75	5			9,500	4,309
100	7			10,600	4,808
125	8.5			10,900	4,944
150	10.34			11,300	5,126
175	12			11,300	5,126
175	12			11,300	5,126
200	14			11,400	5,171
75	5	60	4	6,900	3,130
100	7			8,300	3,765
125	8.5			8,300	3,765
150	10.34			8,400	3,810
175	12			8,400	3,810
200	14			8,600	3,901
100	7	80	5.5	6,400	2,903
125	8.5			6,400	2,903
150	10.34			7,200	3,266
175	12			7,200	3,266
200	14			7,300	3,311

NOTE: Published capacities are based on the use of external check valves supplied by Armstrong.

Capacity Conversion Factors for Other Filling Heads					
Filling Head					
in	0	6	12	24	* 24 or greater
mm	0	150	305	610	* 620 or greater
Double Duty DD-12	.7	.85	1	1.08	* Consult Factory

Double Duty® 12 Trap Capacities			
Differential Pressure		Capacity	
psi	bar	lb/hr	kg/hr
2	.14	21,500	9,752
5	.34	28,700	13,018
10	.7	35,900	16,284
25	1.5	52,100	23,632
50	3.5	59,600	27,034
75	5.2	72,000	32,659
100	6.9	81,000	36,741
150	10.3	93,000	42,184

NOTE: Fill head measured from drain to top of cap.
Weight in lb/kg: 348 (158)

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