



# Double Duty<sup>®</sup> 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 alloperating 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

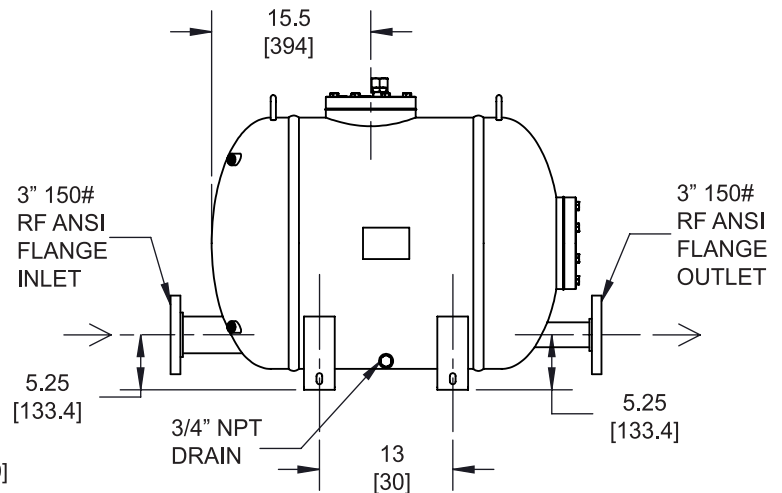
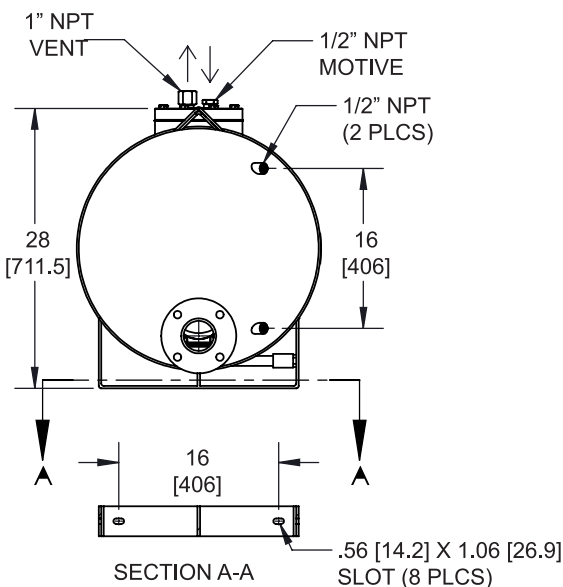
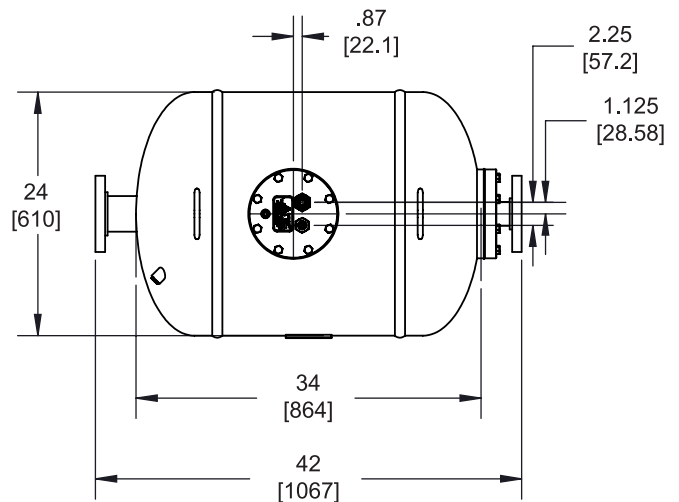
Maximum allowable pressure: 200 psig @ 400°F (14 bar @ 204°C)  
 Maximum operating pressure: 200 psig @ 400°F (14 bar @ 204°C)

(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.





# Double Duty<sup>®</sup> 12

All Stainless Steel for Horizontal Installation



### Double Duty<sup>®</sup> 6 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		
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.

### Double Duty<sup>®</sup> 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

### 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	0.7	0.85	1	1.08	* Consult factory	

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

