



# 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 barg @ 204°C)

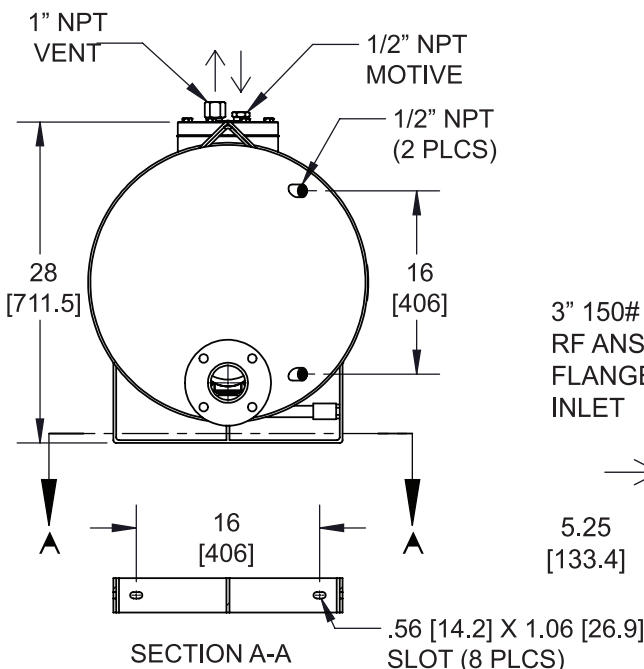
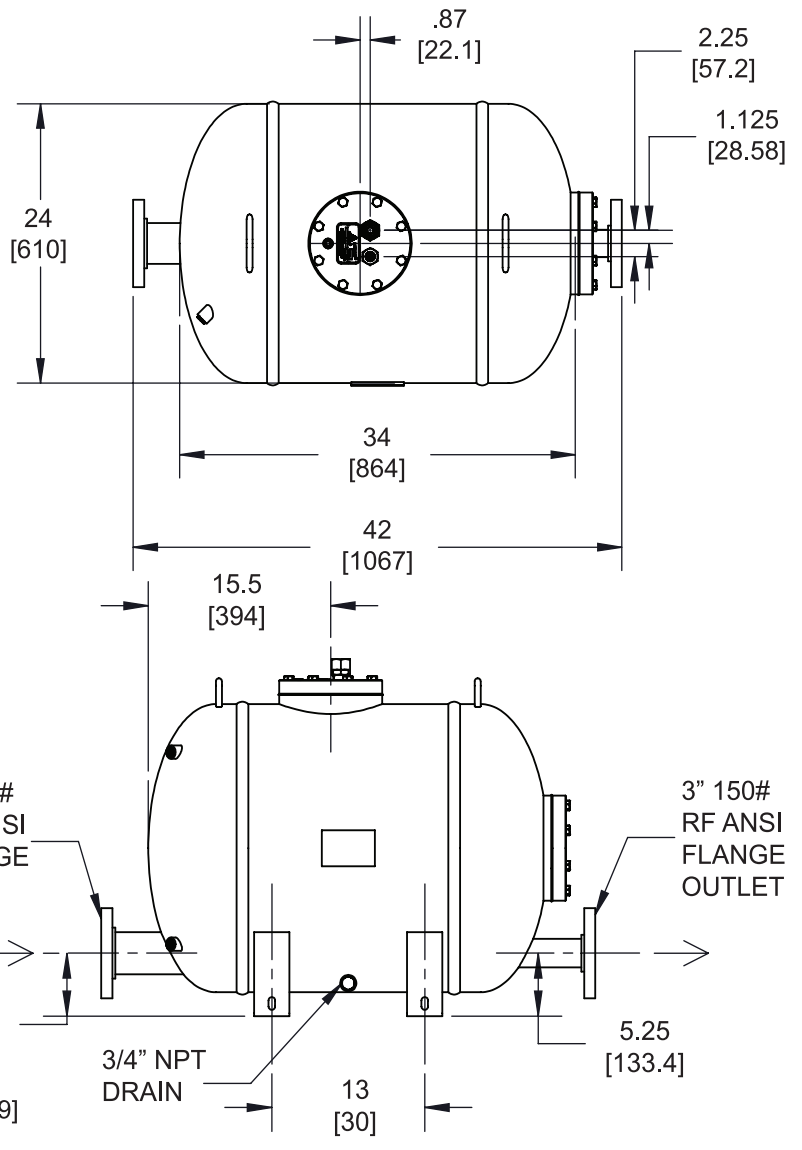
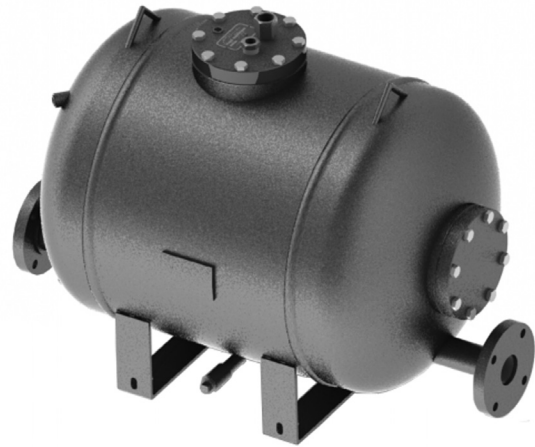
Maximum operating pressure: 200 psig @ 400°F (14 barg @ 204°C)

(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

# Double Duty® 12

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Double Duty® 12 Pump Capacities							
Motive		Back Pressure		Capacity			
psig	barg	psig	barg	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	8 400	3 810				
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	
psig	barg	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)

Condensate Recovery  
Equipment