



Double Duty™ 4 Steam Trap/Pump Combination

Bulletin 646

Description

Armstrong's Double Duty™ Series steam trap/pump combination offers a low profile solution to draining heat exchangers in various applications.

The Double Duty™ 4 is a low profile pump that offers you the versatility of combining a pump within a steam trap to aide in condensate drainage from a heat exchanger under all operating conditions.

Features

- Non-Electric
- Low profile for tight space requirements
- Ductile iron body

Maximum Operating Conditions

Maximum allowable pressure

DD-4 72 psig @ 320°F (5 bar @ 160°C)

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Materials

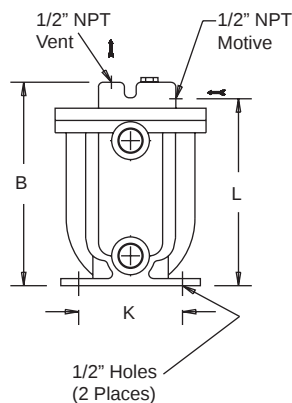
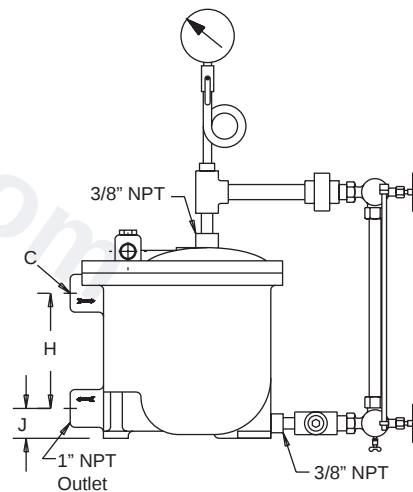
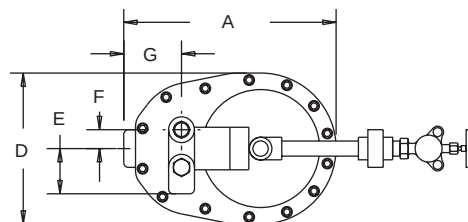
Body: Ductile iron
Mechanism: All stainless steel
Springs: 304 Stainless steel
Float: All stainless steel

For a fully detailed certified drawing, refer to CD-2030.

Double Duty™ 4 Physical Data		
	in	mm
"A"	11-3/16	284
"B"	10-13/16	274
"C"	1	25
"D"	8	203
"E"	2-7/16	61
"F"	1	25
"G"	3	76
"H"	6-1/8	155
"J"	1-5/8	41
"K"	5-1/2	140
"L"	9-15/16	251
Weight lb (kg)	37 (17)	



Double Duty™ 4



All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

Double Duty™ 4

Steam Trap/Pump Combination



Double Duty™ 4 Pump Capacities

Motive		Back Pressure		Capacity	
psi	bar	psi	bar	lb/hr	kg/hr
15	1	5	0.34	220	100
25	1.7			300	136
50	3.5			348	158
70	4.5			350	159
25	1.7	15	1	220	100
50	3.5			345	156
70	4.5			348	158
35	2.5	25	1.7	220	100
50	3.5			325	147
70	4.5			348	158
50	3.5	40	3	220	100
60	4			300	136
70	4.5			335	152
70	4.5	60	4	220	100

NOTE: Published capacities are based on the use of external check valves supplied by Armstrong. Fill head measured from drain point to top of pump case.

Double Duty™ 4 Trap Capacities

Differential Pressure		Capacity	
psi	bar	lb/hr	kg/hr
5	0.34	1,342	610
10	0.7	1,980	900
20	1.4	2,860	1300
30	2.1	3,410	1550
40	3	3,795	1725
50	3.4	4,070	1850
60	4.1	4,235	1925
70	4.8	4,400	2000

Capacity Conversion Factors for Other Filling Heads

Filling Head			
in	0	2	6
mm	0	150	305
Double Duty DD-4	.65	1.0	1.10

NOTE: Fill head measured from drain to top of cap.