



Double Duty[®] 4 Steam Trap/Pump Combination



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

- Economical. non-electric operation
- Low-maintenance operation. No leaking seals, impeller or motor problems. No NPSH issues.
- Space-saving size. Low-profile body fits in tight spaces while allowing minimal fill head.
- Lower installation costs. Single trade installation.
- Peace of mind. Intrinsically safe.
- Ductile iron durability. Rugged construction material means long service life.
- Efficiency. A closed loop means no motive or flash steam is lost. All valuable Btu's are captured and returned to the system.
- Safety. The trap/pump can be used in pits or sumps without fear of electrocution or circuit breaker defaults.

Maximum Operating Conditions

Maximum allowable pressure

DD-4 72 psig @ 320°F (5 bar @ 160°C)

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Materials

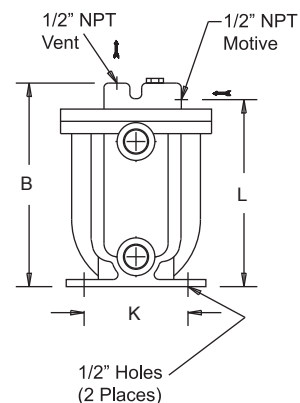
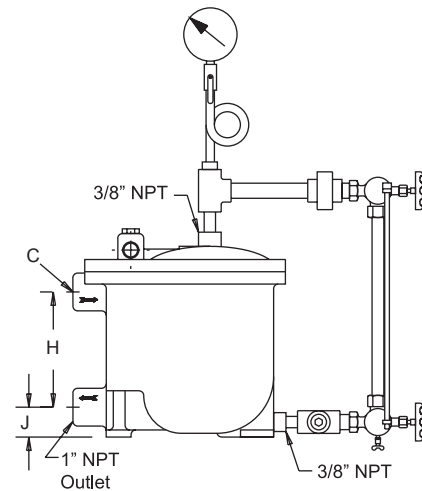
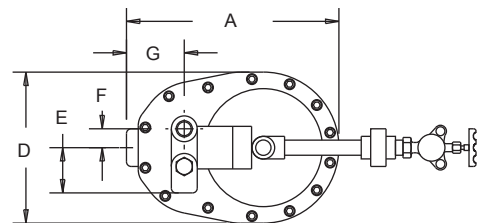
Body: Ductile iron
 Mechanism: All stainless steel
 Springs: 304 Stainless steel
 Float: All stainless steel

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)	



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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	1.5	220	100
50	3.5			325	147
70	4.5			348	158
50	3.5	40	2.75	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			
	0	2	6
in	0	2	6
mm	0	50	152
Double Duty DD-4	.65	1.0	1.10

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

