

PT-3500 Series Low Profile Pump Trap





The Armstrong PT-3500 Series Low Profile Pump Trap is the low maintenance, non-electric solution to move condensate or other liquids from low points, low pressures or vacuum spaces to an area of higher elevation or pressure. Condensate can be returned at temperatures well above the 200°F (93°C) limit of conventional electric pumps without the headaches of leaking seals or cavitation problems.

Features

- Economical non-electric operation. Uses inexpensive steam, air or inert gas.
- Low-maintenance operation. No leaking seals, impeller or motor problems means lower maintenance. No NPSH issues.
- Space-saving size. Low-profile body fits in tight spaces while allowing minimal fill head.
- Lower installation costs. Single trade required for installation and maintenance.
- · Peace of mind. Standard unit is intrinsically safe.
- Cast iron durability. Rugged construction material means long service life.
- Corrosion resistance. Internals are all stainless steel for corrosion resistance and long life.
- Heavy-duty springs. Springs are made from long-lasting Inconel X-750.
- 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 pump can be used in flooded pits without fear of electrocution or circuit breaker defaults.
- Externally removable/replaceable seats. Seats can be replaced or cleaned without removing the mechanism assembly.

Options

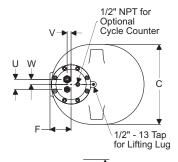
Use of external check valves required for operation of pumping trap.

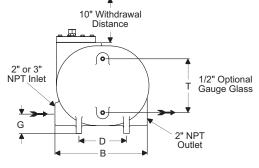
- Inlet Swing Check Valve NPT Bronze ASTM B 62 Teflon® Disc Class 150 (Minimum)
- Outlet

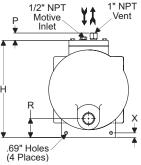
Stainless Steel Check Valve Class 150 (Minimum)

- In-line Check Valves
 Stainless Steel Non-Slam Check Valves
- Bronze Gauge Glass Assembly
- · Steel Gauge Glass Assembly
- Removable Insulation Jacket
- Digital Cycle Counter

For a fully detailed certified drawing, refer to CDF #1041.







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PT-3500 Series Pump Trap Physical Data									
		PT-3508 a	nd PT-3512						
		in	mm						
"B"	20-1/4	514							
"C"		17-3/4	451						
"D"		10-9/16	268						
"F"		4-3/4	120						
"G"		4-5/16	110						
"H"		21-11/16	550						
"P"		1-5/8	41						
"R"		4-5/16	110						
"T"		12	305						
"U"		2-1/4	27						
"V"		7/8	22						
"W"	"W"								
"Х"	1-1/16	27							
Weight	PT-3508	PT-3512							
Pump Trap Weight		244 (111)	243 (110)						
Bronze Check Valve	lb (kg)	16 (7)	29 (13)						
Stainless Check Valve		15 (7)	38 (17)						

Maximum Operating Pressure: 125 psig (9 bar)

Maximum Allowable Pressure: Cast iron 150 psig @ 450°F (10 bar @ 232°C)

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit www.armstronginternational.com for up-to-date information.





PT-3500 Series Low Profile Pump Trap Capacities													
			Filling Head 12" (305 mm)										
Operati	ng Inlet	Total Lift or			DT		iid Specific (iravity 0.09 -	ravity 0.09 - 1.0 PT-3512				
Pressure		Back Pressure		PT-3508 2" x 2"				3" x 2"					
				Steam		А	Air		Steam		ir		
psig	bar	psig	bar	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr		
15	1.0			6,100	2,767	8,100	3,674	8,300	3,765	10,300	4,627		
25	1.7			8,700	3,946	9,300	4,818	12,100	5,489	12,950	5,874		
50	3.5	5	0.34	8,900	4,037	9,675	4,389	13,400	6,078	14,000	6,350		
75	5	5	0.34	9,200	4,173	9,800	4,452	13,700	6,214	14,300	6,486		
100	7			9,400	4,264	*	*	14,000	6,350	*	*		
125	8.5			9,900	4,491	*	*	14,400	6,532	*	*		
25	1.7			6,300	2,858	8,200	3,719	8,100	3,674	9,800	4,445		
50	3.5		1	8,200	3,719	10,400	4,717	11,600	5,262	12,600	5,715		
75	5	15		9,200	4,173	11,100	5,035	12,500	5,670	13,300	6,033		
100	7			9,600	4,354	*	*	12,600	5,715	*	*		
125	8.5			9,800	4,445	*	*	13,400	6,078	*	*		
35	2.5			6,100	2,767	7,900	3,583	7,600	3,447	9,900	4,491		
50	3.5			7,100	3,221	9,600	4,355	10,000	4,536	10,650	4,831		
75	5	25	15	8,600	3,901	10,800	4,899	11,200	5,080	12,200	5,534		
100	7			8,700	3,946	*	*	11,450	5,194	*	*		
125	8.5			9,100	4,128	*	*	11,600	5,262	*	*		
50	3.5			5,000	2,268	6,500	2,948	6,200	2,812	8,500	3,856		
60	4			5,900	2,676	7,400	3,357	7,700	3,493	9,400	4,264		
75	5	40	3	6,650	3,016	8,300	3,765	8,700	3,946	10,600	4,800		
100	7			7,200	3,266	*	*	9,100	4,128	*	*		
125	8.5			7,800	3,538	*	*	9,400	4,264	*	*		
75	5			4,500	2,042	6,300	2,858	5,900	2,676	8,700	3,946		
100	7	60	4	5,500	2,495	*	*	6,500	2,948	*	*		
125	8.5			5,700	2,586	*	*	6,900	3,130	*	*		

NOTES: Published capacities based on use of external check valves supplied by Armstrong. Although motive pressures are shown at high pressure differential (difference between motive inlet pressure and total lift or back pressure), it is preferable to use a motive pressure of 10 - 15 psig (0.65 - 1.0 bar) above discharge (outlet) pressure. This ensures longevity of economical (brass) check valves and reduces both venting time and temperature differential (on steam). Shading indicates sizing example shown on page 214.

*Consult factory.

	PT-3500 Capacity Conversion Factors for Other Fill Heads													
	Fill Head		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
			0	0	6	152	12	305	18	457	24	610	36	914
	Model	PT-3508 0.7 0.85		1	.0	1	.1	1	.2	1.3	35			
	Model	PT-3512	0.7		0.85		1.0		1.04		1.08		1.2	

NOTE: Fill head measured from drain point to top of cap. See figures on page 228.

PT-3500 Series Low Profile Pump Trap Materials						
Name of Part	Material					
Body	Cast iron - ASTM A48 class 30					
Cap	Carbon steel SA-516-70					
Cap Gasket	Graphoil					
Inlet Valve Assembly	Stainless steel					
Vent Valve Assembly	Stainless steel					
Valve Assembly Washers	Zinc-plated steel					
Plug	Steel					
Mechanism Assembly and Float	Stainless steel					
Springs	Inconel X-750					

PT-3500 Series Low Profile Pump Trap Connection Sizes								
Model Number	PT-3	508	PT-3512					
Model Nulliber	in	mm	in	mm				
Inlet Connection	2	50	3	75				
Outlet Connection	2	50	2	50				
Motive Pressure Connection	1/2	15	1/2	15				
Vent Connection	1	25	1	25				
Gauge Glass Connection	1/2	15	1/2	15				

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