



The Armstrong PT-200 Series Low Profile Pump Trap is a 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 well above the 200°F (93°C) limit of conventional electric condensate 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 #1000.

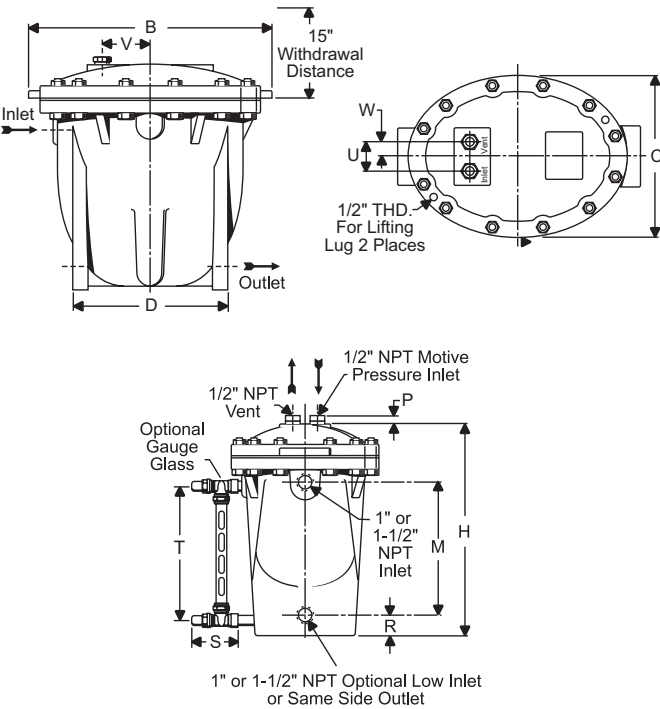


| PT-200 Pumping Trap Materials | |
|-------------------------------|------------------------------|
| Name of Part | Series PT-200 |
| Body and Cap | Cast iron ASTM A48 Cl. 30 |
| Cap Gasket | Graphoil |
| Bolts | SA-449 Steel |
| Nuts | Alloy steel ASTM A194 Gr. 2H |
| Inlet Valve Assembly | Stainless steel |
| Vent Valve Assembly | Stainless steel |
| Valve Assembly Washers | Zinc plated steel |
| Plug | Steel |
| Mechanism Assembly | Stainless steel |
| Springs | Inconel X-750 |

| PT-200 Pumping Trap Connection Sizes | | | | |
|---|-----------|----|--------|----|
| Model | Cast Iron | | | |
| | PT-204 | | PT-206 | |
| | in | mm | in | mm |
| Inlet Connection | 1 | 25 | 1-1/2 | 40 |
| Outlet Connection | 1 | 25 | 1-1/2 | 40 |
| Optional Low Inlet or Same Side Outlet Connection | 1 | 25 | 1-1/2 | 40 |
| Motive Pressure Connection | 1/2 | 15 | 1/2 | 15 |
| Vent Connection | 1/2 | 15 | 1/2 | 15 |
| Gauge Glass Connection | 1/2 | 15 | 1/2 | 15 |

Condensate Recovery Equipment

PT-200 Series Low Profile Cast Iron Pump Trap



| PT-200 Pumping Trap Physical Data | | |
|--------------------------------------|------------------|------------|
| | PT-204 PT-206 | |
| | in | mm |
| "B" | 20-7/16 | 519 |
| "C" | 13-1/2 | 342 |
| "D" | 12-15/16 | 328 |
| "H" | 19 | 482 |
| "M" | 11-35/64 | 293 |
| "P" | 23/32 | 18 |
| "R" | 2-1/32 | 51 |
| "S" | 4-3/8 | 111 |
| "T" | 12 | 305 |
| "U" | 2-1/4 | 57 |
| "V" | 4-1/8 | 104 |
| "W" | 1-1/8 | 28 |
| Weight lb (kg) | 210 (96) | |
| Number of Body/Cap Bolts | 12 | |
| Check Valve Conn. in (mm) | 1 (25) | 1-1/2 (40) |
| Bronze Check Valves lb (kg) | 4 (2) | 9 (4) |
| Stainless Steel Check Valves lb (kg) | 4 (2) | 9 (4) |

Maximum Allowable Pressure (Vessel Design) 150 psig @ 450°F (10 bar @ 232°C)
 Maximum Operating Pressure 125 psig (9 bar)

| PT-200 Capacity Conversion Factors for Other Fill Heads | | | | | | | | | | |
|---|--------|---|-----|-----|----|-----|-----|-----|-----|-----|
| Fill Head | in | | mm | | in | | mm | | in | |
| | 0 | 0 | 6 | 152 | 12 | 305 | 24 | 610 | 36 | 914 |
| Model | PT-204 | | 0.7 | | 1 | | 1.1 | | 1.3 | |
| | PT-206 | | 0.7 | | 1 | | 1.1 | | 1.3 | |

NOTE: Fill head is measured from drain point to top of cap. See figures on page 234.

Condensate Recovery Equipment

| PT-200 Pumping Trap Capacities | | | | | | | | | | | |
|--------------------------------|-----|-----------------------------|-------|-------------------------------|-------|------------|-------|---------------------------------------|-------|------------|-------|
| Motive Pressure | | Total Lift or Back Pressure | | PT-204 (6" Fill Head) 1" x 1" | | | | PT-206 (6" Fill Head) 1-1/2" x 1-1/2" | | | |
| | | | | Steam Motive | | Air Motive | | Steam Motive | | Air Motive | |
| psig | bar | psig | bar | lb/hr | kg/hr | lb/hr | kg/hr | lb/hr | kg/hr | lb/hr | kg/hr |
| 15 | 1.0 | 5 | 0.34 | 1,800 | 816 | 2,100 | 953 | 2,700 | 1,225 | 3,000 | 1,361 |
| 25 | 1.7 | | | 2,025 | 919 | 2,300 | 1,043 | 3,200 | 1,451 | 3,500 | 1,588 |
| 50 | 3.5 | | | 2,100 | 953 | 2,500 | 1,134 | 3,400 | 1,542 | 3,600 | 1,633 |
| 75 | 5 | | | 2,200 | 998 | 2,700 | 1,225 | 3,500 | 1,588 | 3,700 | 1,678 |
| 100 | 7 | | | 2,300 | 1,043 | * | * | 3,600 | 1,633 | * | * |
| 125 | 8.5 | 2,400 | 1,089 | * | * | 3,700 | 1,678 | * | * | | |
| 25 | 1.7 | 15 | 1 | 1,500 | 680 | 2,000 | 907 | 2,400 | 1,088 | 2,700 | 1,225 |
| 50 | 3.5 | | | 2,000 | 907 | 2,250 | 1,021 | 3,200 | 1,451 | 3,400 | 1,542 |
| 75 | 5 | | | 2,100 | 953 | 2,500 | 1,134 | 3,300 | 1,497 | 3,500 | 1,588 |
| 100 | 7 | | | 2,110 | 957 | * | * | 3,350 | 1,520 | * | * |
| 125 | 8.5 | | | 2,125 | 964 | * | * | 3,400 | 1,542 | * | * |
| 35 | 2.5 | 25 | 1.5 | 1,500 | 680 | 1,700 | 771 | 2,100 | 953 | 2,300 | 1,043 |
| 50 | 3.5 | | | 1,700 | 771 | 2,000 | 907 | 2,400 | 1,089 | 2,600 | 1,179 |
| 75 | 5 | | | 1,900 | 862 | 2,300 | 1,043 | 2,700 | 1,225 | 2,900 | 1,315 |
| 100 | 7 | | | 2,000 | 907 | * | * | 2,800 | 1,270 | * | * |
| 125 | 8.5 | | | 2,100 | 953 | * | * | 2,900 | 1,315 | * | * |
| 50 | 3.5 | 40 | 2.75 | 1,400 | 635 | 1,700 | 771 | 1,500 | 680 | 2,000 | 907 |
| 60 | 4 | | | 1,500 | 680 | 2,000 | 907 | 2,000 | 907 | 2,300 | 1,043 |
| 75 | 5 | | | 1,700 | 771 | 2,200 | 998 | 2,300 | 1,043 | 2,500 | 1,134 |
| 100 | 7 | | | 1,800 | 816 | * | * | 2,400 | 1,089 | * | * |
| 125 | 8.5 | | | 1,920 | 871 | * | * | 2,500 | 1,134 | * | * |
| 70 | 4.5 | 60 | 4 | 1,100 | 499 | 2,000 | 907 | 1,150 | 522 | 2,000 | 907 |
| 75 | 5 | | | 1,300 | 590 | 2,300 | 1,043 | 1,325 | 601 | 2,300 | 1,043 |
| 100 | 7 | | | 1,600 | 726 | * | * | 1,900 | 862 | * | * |
| 125 | 8.5 | | | 1,720 | 780 | * | * | 2,000 | 907 | * | * |

NOTES: Published capacities are based on the use of external check valves supplied by Armstrong. Fill head measured from drain point to top of pump cap. See figures on page 234. Although motive pressures are shown at high pressure differentials (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 (bronze) check valves and reduces both venting time and temperature differential (on steam). If a higher differential is used, stainless steel check valves are recommended.

*Consult factory.

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