

Condensate Pump/Trap Combination Package (Steam Pressure-Powered)

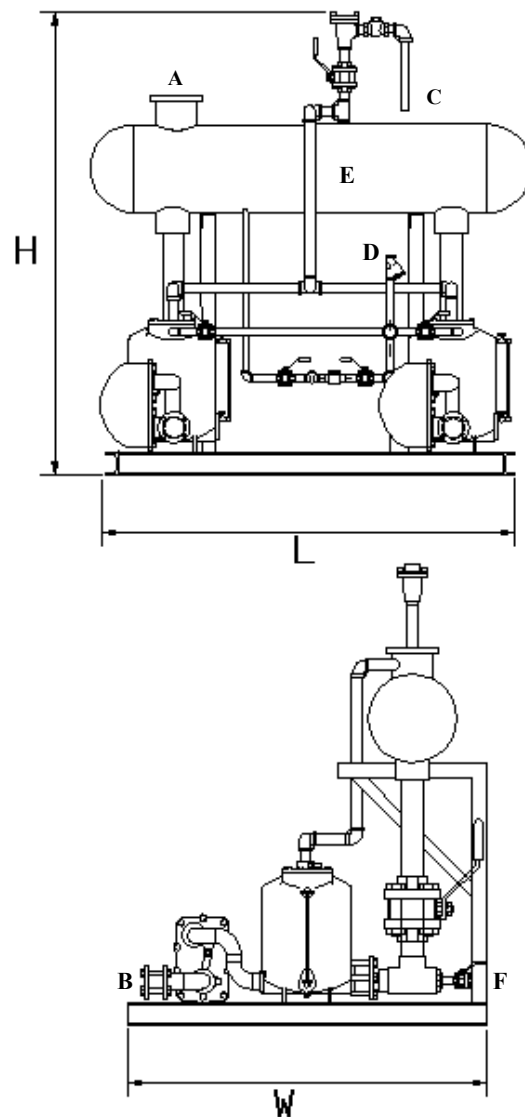
The Model CPT-3D, Condensate Pump/Trap Combination Package, is a manufactured, ready-to-install system designed for installation on single heat transfer sources. The Condensate Pump/Trap Combination Package allows the heat transfer source to operate in a vacuum condition, increasing the heat transfer efficiency. The result is substantial savings in energy costs at attractive pay-back periods. Designed for efficient pumping of condensate, CPT-3D is not vented to atmosphere, therefore there is no additional piping needed for a large vent. The CPT-3D utilizes steam power in lieu of electric motors, eliminating the need for wiring motors, starters, and controls. The steam-powered pump package is capable of operation in flammable environments. Operating by steam pressure versus electric power, reduces pumping costs. The pump employs a float operated snap-acting mechanism with no external seals or packing, which eliminates seal maintenance, which is required on conventional pumps. All internal pump components and mechanism are constructed of Stainless Steel

MODEL CPT-3D SAVINGS

System Steam Pressure (psig)	Energy Savings (MM Btu/yr.)	Potential Savings (\$ /yr.)
125	35,694.76	178,473.79
100	30,343.15	151,715.76
80	26,540.32	132,701.59
60	21,673.68	108,368.40
40	16,346.19	81,730.96
30	13,579.46	67,897.28
20	9,661.90	48,309.49
15	7,463.57	37,317.84
10	5,103.91	25,519.54
5	1,579.08	7,895.41

NOTES:

- Savings are based on max. potential savings at max. pump capacity on 8400 hr./yr. of continuous operation
- Steam costs at \$5.00/MM Btu
- Savings based on approx. calculations.



Legend:

Approximate Dimensions: 80"H x 68"L x 48"W

- A. Condensate Inlet 4" FLG
- B. Condensate Discharge (2) 2" NPT
- C. Air Outlet
- D. Steam Inlet 1/2" NPT
- E. Receiver Tank 12" x 48"
- F. Drain 1/2" NPT

EnviroSep • Fluid & Heat Recovery Systems

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CONDITIONS OF OPERATION

Max. Allowable Pressure / Temperature:	125 psig / 450 °F
Discharge rate per cycle:	14.2 gal.
Max. instantaneous discharge rate:	180 gpm
Min. Motive Pressure:	5 psig
Steam Consumption (per pump):	3 lbs. per 1000 lbs. of liquid pumped
Compressed Air Consumption (per pump):	100 SCF per 1000 lbs. of liquid pumped

MODEL CPT-3D CAPACITIES

Steam Pressure (psig)	Discharge Head (psig)	Flow Rate (lbs. / hr.)
125	15	29,600
125	40	24,400
125	60	20,800
125	80	16,000
125	100	12,600
125	115	10,200
100	15	28,000
100	40	21,800
100	60	16,400
100	80	13,400
75	15	27,800
75	40	19,200
75	60	12,400
50	10	25,800
50	25	19,600
50	40	11,000
25	5	25,600
25	10	20,800
25	15	16,000
10	2	21,600
10	5	14,000
5	2	11,400

STANDARD CONSTRUCTION

- Fabricated Angle Iron Frame
- Fabricated Steel Tank
- Bronze Ball or Gate Valves
- Thermodynamic Steam Trap
- Cast Iron Pump with Gauge Glass, and Stainless Steel internal components and Check Valves
- Hydrostatically Tested
- High Temperature Industrial Enamel Paint

PACKAGE OPTIONS

- Additional / Oversized Condensate Inlet connection(s)
- Oversized Condensate Receiver
- Carbon Steel 3-piece Ball Valves (motive steam)
- Forged Steel Gate Valves (motive steam)
- Cast Iron Gate Valves (pump isolation)
- Low-profile design for height restricted applications
- All Welded piping
- Fabricated Square Tubing Frame
- Flash Steam Heat Recovery System only without condensate Inlet for Flash Recovery from existing Atmospheric Tanks.

Regardless of system size, temperature, pressure, fluid medium, or available floor space, **EnviroSep** can service all specialized needs.

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