



Energy Environment Solutions for Sustainable Growth

Pump Trap



STEAM ENGINEERING

INTRODUCTION

In Process Industry, Stalling condition is observed most frequently. Stall condition is defined as condition wherein, heat transfer equipment is unable to drain condensate and becomes flooded due to insufficient system pressure. It happens for a variety of reasons, but it always comes back the fact that there is not always enough system pressure to return the condensate.

Frequent issues created due to Stall conditions -

- Adverse effect on maintaining uniform process temperature
- Increased chances of water hammering effect
- Corrosion / erosion of material of Heat exchanging equipment
- Manual interventions by operators to open bypass –leading to system losses.

Conventional condensate traps have proven to be ineffective address these issues.

Thermax Pump Trap removes condensate instantly in stall condition improving process effectiveness with the help of operating pressure of process.

FEATURES

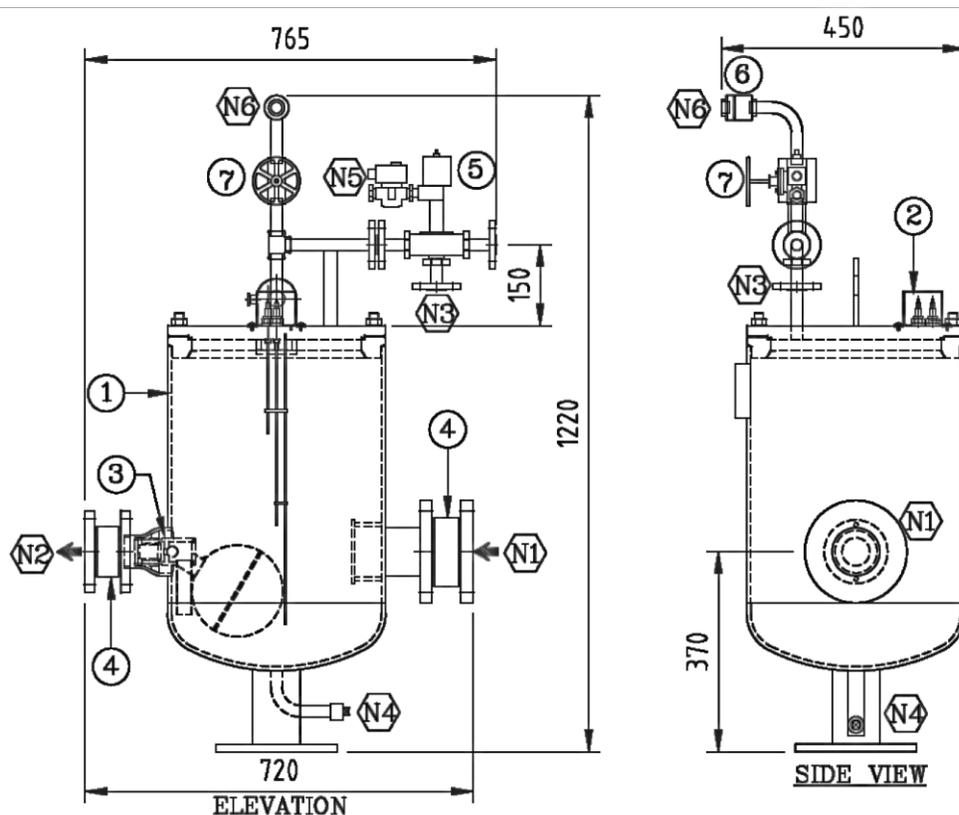
- Compact unit with inbuilt pumping & trapping.
- Improved modulating condensate discharge through unique patented rotary slide valve design
- Operates at minimum differential pressure
- Higher condensate discharge capacities during pumping & trapping mode.
- High reliability due non-moving parts/ mechanical linkages for pumping mechanism.
- Negligible operating cost
- Effective temperature control - improves performance
- Longer equipment life
- Reduced maintenance

DESIGN SPECIFICATIONS

Design Pressure	8 kg/cm ² (g)
Design Temperature	200 °C
Hydro test Pressure	12 kg/cm ² (g)

MATERIAL SPECIFICATION

Sr No	Item Description	Material of Construction	Sr No	Item Description	Material of Construction
1	Pump Trap Body & Inner Ring	IS 2062	5	3/2 Control Valve Assembly	SS-304
2	Sensor Cover Plate Assembly	IS 2062	6	Thermostatic Trap (Air Vent)	SS-304
3	Rotary slide Control Unit	SS 304	7	Isolation Valve - Air vent / Thermodynamic	A105
4	Non Return Valve	SS 304	8	Control Panel Assembly (Loose)	-



NOZZLE CONNECTIONS

Nozzle Connections	Pump Trap-300i	Pump Trap-400i	Pump Trap-500i
Condensate Inlet (N1)	40 NB FL#150	50 NB FL#150	80 NB FL#150
Condensate Outlet (N2)	50 NB FL#150	50 NB FL#150	50 NB FL#150
Motive Steam inlet (N3)	15 NB FL#150	15 NB FL#150	15 NB FL#150
Condensate drain (N4)	½" Plugged	½" Plugged	½" Plugged
Instrument Air (N5)	¼" BSP (F)	¼" BSP (F)	¼" BSP (F)
Air vent (N6)	½" NPT (F)	½" NPT (F)	½" NPT (F)



THERMAX

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Thermax Business Portfolio

- Heating
- Cooling
- Power Generation
- Steam Engineering
- Air Pollution Control
- Chemicals
- Water and Wastewater Solutions
- Solar

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