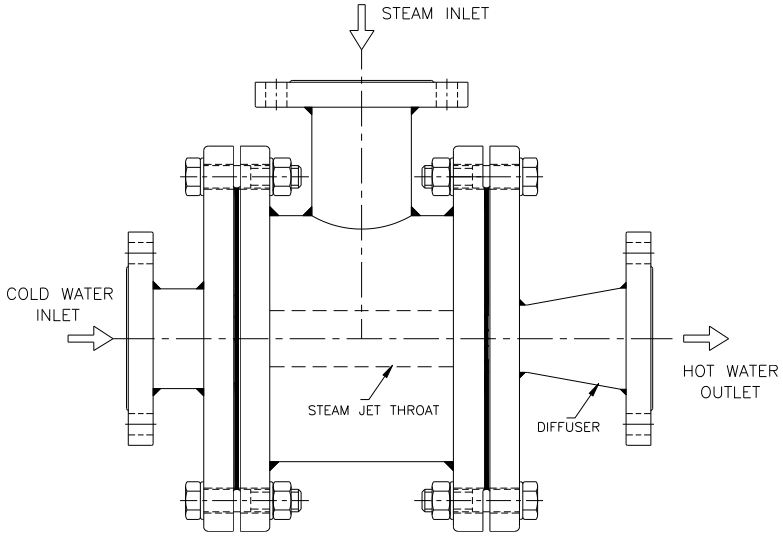
STEAM JET HEATER

E1100 SERIES

PRIMETECH

Steam jet heaters are employed for heating liquids by injecting heating steam into the liquid. The heating steam condenses and mixes with the liquid being heated. It can be used to obtain heated brine and hot water for dyeing and greasing. The mixing takes place at the throat of the mixer as the liquid velocity and turbulence is highest there. After mixing, the diffuser reduces the velocity and the pressure. There are almost nil rattling and condensation shocks and the operation is almost noiseless.

STEAM JET HEATER – MODEL PI-1100 SERIES



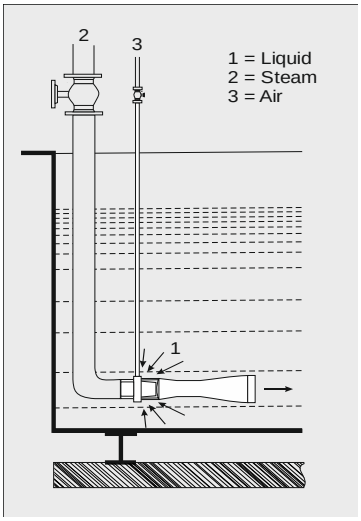
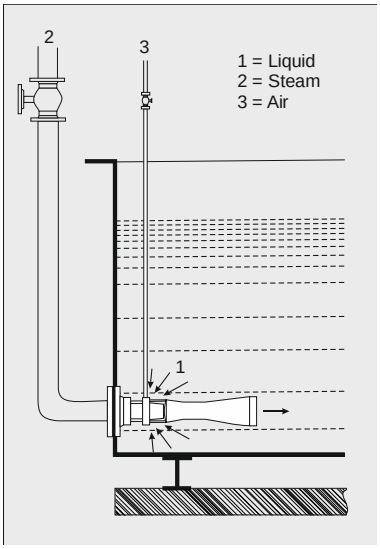
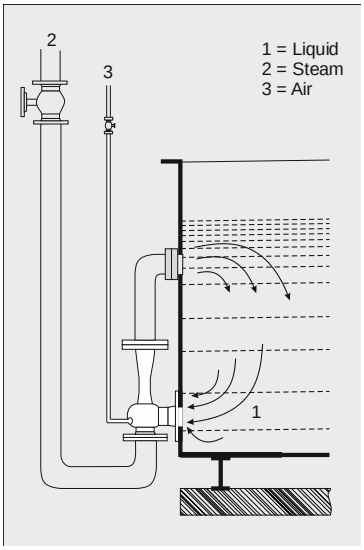
Steam Jet Heater-PI- Complete range is being offered by primetech. Steam jet heater is employed for process liquid heating application using steam as heat source. Steam jet heater employs a unique multi–port throat specially designed to admit the design steam flow rate for process heating.

Principle of Operation:

- The process liquid to be heated is pumped at a pressure through motive nozzle of steam jet heater. The pressure energy is converted into kinetic energy there by increasing the velocity of liquid flow substantially.
- This high speed liquid when passed through the downstream multiport throat region, creates a favorable condition at entire throat length to easily admit the steam.
- Steam passes into the condensation nozzle and throat assembly which is a multiport design to admit steam into the flowing process liquid for instant and smooth condensation
- The steam thus admitted in the flow stream of process liquid condenses readily. This also helps in condensing steam noise reduction. Steam jet heater works in a noiseless manner effectively rising temperature of process fluid up to 90^{o}C in a single pass.
- Steam shall be admitted at higher pressure than the motive liquid pressure there by achieving a pressure boost at the liquid outlet.
- This steam jet heater Model-PI can be installed in any position in the pipeline. The pipeline connecting to the heater must be almost the same cross section of the heater.

STEAM JET HEATER – MODEL VI-1100 SERIES

- Steam jet heater is immersed in the process tank liquid steam existing, the motive nozzle creates vacuum, which accelerates the liquid in the vicinity into the mixing nozzle into the mixing nozzle. This controlled flow eradicates rattling and condensation shocks.
- The liquid is constantly in motion and is heated uniformly through convection in the liquid.
- An air-pipe can be optionally connected; as shown in the drawing it increases the turbulence this aides in through mixing.

PT-E1100-VI-A	PT-E1100-VI-B	PT-E1100-VI-C
		
The steam jet heater is suspended in water with an inside thread connecting the steam pipe	The steam jet heater is mounted on the inside wall of the vessel and steam pipe assembly is outside the vessel.	The steam jet heater is mounted on the outside wall of the vessel with two openings on the vessel one each for the inlet and outlet.

Model Number PTSJH-E1100 series PI/VI	Motive liquid inlet size (NB)	Steam inlet size (NB)	Outlet size (NB)	Inlet liquid flow rate range (m^3/hr)	Steam pressure range min(bar)max	Liquid temperature rise (®C) min range max
PTSJH-E1101	25	40	25	1.5-4.5	1-7	1-90
PTSJH-E1101.5	40	50	40	4-8	1-7	10-90
PTSJH-E1102	50	65	50	7-13	1-7	10-90
PTSJH-E1102.5	65	100	65	10-25	1-7	10-90
PTSJH-E1103	80	125	80	22-45	1-7	10-90
PTSJH-E1104	100	150	100	35-65	1-7	10-90
PTSJH-E1105	125	200	125	45-90	1-7	10-90
PTSJH-E1106	150	250	150	70-200	1-7	10-90

Material of Construction

Body: Cast iron/stainless steel/carbon steel/ PE or PTTE lined steel.

Nozzle: Bronze/SS 304/ SS 316.

Special construction: Titanium / Haste alloy-c.

Flange end Standard: ANSI- B16.150#/300#/DIN-PN10.

PRIMETECH
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