



Process Heating Solutions Worldwide

Since 1945 Pick Heaters has been the leader in Direct Steam Injection. **Pick Direct Steam Injection Systems** heat any water-miscible liquid or aqueous slurry instantly on a continuous straight-through basis. Plus, they hold the outflow temperature to extremely close tolerances, regardless of fluctuations in steam, water pressures and outflow demand.

The Pick system injects into the liquid through hundreds of small orifices for instant and uniform blending. A unique spring-loaded piston maintains steam pressure in excess of water pressure to eliminate steam/water hammer.

Pick heaters cut fuel costs as much as 28 percent compared to indirect shell-and-tube or plate heat exchangers because 100 percent of the heat energy in the steam is absorbed by the liquid.

With a continuous flow of refinement and innovations Pick Heaters also developed other products to provide solutions to customers for their application needs. Pick developed custom **fabricated heaters** which allow for flow rates and pressures far above the norm. **Pick Custom Design (PCD)** a division of Pick Heaters was formed to combine Pick's experience in heat transfer and packaging to meet all process heating needs - direct or indirect heat transfer systems. The **Pick Desuperheater DS Series** was launched in 2009 to offer customers a simple, cost effective method of cooling steam to within 10°F of saturation.

Pick Constant Flow Heater

The Pick Constant Flow Liquid Heater is designed to deliver a constant flow of heated liquid at precisely controlled temperatures. Where a continuous flow of hot liquid is required, this close temperature control can cut energy costs substantially.

Consider the Constant Flow Heater for: sterilization, tank car heating, continuous spraying, in-line cooking and anywhere a constant flow is required at a precisely controlled temperature.



Pick Variable Flow Heater

The Pick Variable Flow Liquid Heater is ideal where an instant supply of hot water at a precise temperature is needed under variable-flow or frequent start-stop situations. It features a minimum turndown of 14:1, with turndowns as high as 100:1 obtainable with dual steam control valves.

This heater heats water at precisely-controlled temperatures. It is used to heat water for multiple wash stations, employee shower rooms, laundries, plant clean-up, can topping, can washing, and wherever else demand



Pick Sanitary Heater/Cooker - 3A Certified

The Pick Sanitary Heater not only heats water, it also heats and/or cooks water-miscible slurry-type products by direct steam injection on a continuous straight-through basis. This eliminates batch processing in jacketed vessels or retorts.

Steam is injected directly into the aqueous slurry product as it is pumped through the heating chamber. Helical flights within the chamber thoroughly mix the product with injected steam for almost instant transfer of heat energy to attain any predetermined product temperature.



Custom Fabricated Heaters

Pick Heaters offers customized fabricated heater designs for applications that go beyond our standard model offerings.

The Pick fabricated design offers the same features and benefits of our standard models, regardless of size and flow rates. The unique fabricated heaters can accommodate up to 25,000 gallons per minute, and will conform to existing piping.

Applications include wastewater treatment, reactor heating/cooling, pellet water heating, alumina slurry, condensate mixing, white water heating, and more.



Desuperheater DS Series

The Pick desuperheater is water spray type with single nozzle. The nozzle is positioned at the center of the desuperheater. Water is sprayed axially, in the direction of steam flow. Conical insert with thermal sleeve increases velocity to promote rapid absorption of water, while isolating the housing from thermal stress.

This design provides a simple, cost effective method of cooling steam to within 10°C of saturation temperature. Spray type desuperheaters are appropriate for applications having relatively stable steam and cooling water throughput (up to 3:1 turndown).



Pick Custom Design (PCD)

PCD systems incorporate various methods of heat transfer, including ancillary components for a complete skid or frame package, ready for customer final installation and start-up.

This eliminates the chore for customers to piece-meal required piping, valves, traps and instrumentation with the added install costs. The customer relies on Pick to stand behind the complete scope of supply.

Customers can rely on over 60 years of Pick's DSI packaged system design experience and know-how. Each system is "custom designed" to satisfy specific customer requirements in a compact skid or module.

Why PCD?

- Save time and cut costs through PCD single source responsibility.
- Competitive pricing over large cookie-cutter fabricating houses.
- Responsiveness to customer's specific needs, adhering closely to rigid customer specifications.
- Creative solutions to challenging applications.
- Total package responsibility and total performance guarantee.



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