# SUPERIOR PERFORMANCE BY CUSTOM DESIGN



PICK CUSTOM DESIGN, A DIVISION OF PICK HEATERS, INC.

OFFERS INNOVATIVE PROCESS SOLUTIONS FOR

HEAT TRANSFER APPLICATIONS.

# PICK CUSTOM DESIGN

## Why PCD?

- SAVE TIME AND CUT COSTS THROUGH PCD SINGLE SOURCE RESPONSIBILITY.
- COMPETITIVE PRICING OVER LARGE COOKIE-CUTTER FABRICATING HOUSES. ALL SYSTEMS ARE DESIGNED & BUILT AT PICK'S FACTORY.
- RESPONSIVENESS TO CUSTOMER'S SPECIFIC NEEDS, ADHERING CLOSELY TO RIGID CUSTOMER SPECIFICATIONS.
- CREATIVE SOLUTIONS TO CHALLENGING APPLICATIONS.
- TOTAL PACKAGE RESPONSIBILITY AND TOTAL PERFORMANCE GUARANTEE.

PCD systems incorporate various methods of heat transfer, including ancillary components for a complete skid mount package, ready for customer final installation and start-up. This eliminates the chore for customers to self-source required piping, valves, traps and instrumentation along with added install costs. The customer relies on PCD to stand behind the complete scope of supply.

## Over 60 Years of Packaging Experience

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



## **Basic Shell-and-Tube Package**

Single source supply of a simple shell-and-tube heater, including the required trap, steam control valve and temperature control instrumentation. PCD assured proper sizing and installation of all components. The system arrived assembled and ready for quick customer hook-up.

## **Closed Loop System**

Shell-and-tube exchanger for temperature control of a closed system, including expansion tank and safety relief valve. Package is completed with process temperature controller, circulation pump, and portable cart.



# CUSTOMIZED SOLUTIONS



## **Closed Loop Emulsion Cooling System**

Process involved cooling of emulsion product using a plate exchanger. The cooling water supply was pumped in a closed-loop through a remote fan cooled exchanger. The PCD package included an expansion tank and circulation pump for the water loop, and motor starters for both pump and cooling fan were mounted in a single panel.

#### **Heat and Cool Reactor Vessel**

System designed to circulate heat transfer fluid through a jacketed reactor and heat or cool to meet process load. Major components include 30 KW electric heater, plate exchanger, 3-way flow control valve, magnetic drive pump, and expansion tank. Motor starter and temperature control instrumentation furnished in NEMA 7 panels.





#### Water to Water

PCD adhered to strict customer piping specification in providing a dual plate exchanger module. Plate exchangers were designed to heat a process water supply using a hot water source from a separate line. The system includes base mount circulation pump and air actuated process valves.

### **Tank Heating Skid**

Designed to heat a propylene glycol solution, circulated through multiple tank coils for temperature maintenance. System provided with steam pressure reducing station and dual flow control valves to accommodate wide range in heat load. It also has a pump trap and electronic temperature controller in an air purged enclosure for use in Class 1, Div. 2 area.



## **PICK HEATERS**



#### **Domestic Hot Water**

This package replaced a leaking coil-type heat exchanger used for domestic hot water (employee showers and plant cafeteria). Direct steam injection was not permitted and local code called for a double wall heat exchanger. The plant also opted to specify a second heat exchanger with by-pass valving as back-up. Copper pipe and fittings were used to match customer's plant piping.

### **Cooling Oil with Water**

The customer makes equipment for testing transformer efficiency for the power generation industry. The custom skid is used to cool transformer di-electric oil from 176°F to 113°F.





#### **Chiller Skid**

The system was designed to cool 23 GPM process fluid stream from 70°F to 41°F by circulation of 23°F ethylene glycol solution through a brazed plate exchanger. PCD supplied 20 ton air cooled chiller, glycol storage tank with pump, plate exchanger, 3-way FCV, and glycol circuit piping, fully assembled on a channel steel base. Customer specified instrumentation provided to interface with plant DCS.

### **Pick's Product Offerings**

- DIRECT STEAM INJECTION HEATERS FOR INSTANTANEOUS AND PRECISELY CONTROLLED SUPPLY OF HOT WATER.
- SANITARY HEATERS AND COOKING SYSTEMS FOR THE FOOD PROCESSING INDUSTRY.
- PACKAGED SYSTEMS FOR JACKETED HEAT-COOL PROCESSES, CIP SYSTEMS, BIO-KILL.
- HEAT TRANSFER PACKAGES USING INDIRECT METHODS OF HEAT EXCHANGE, CUSTOM DESIGNED TO CUSTOMER REQUIREMENTS - PCD.

Contact us to request an application data sheet or to discuss your application



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