Bio-Inactivation System

Application
Large pharmaceutical facility wanted to convert their batch processing method for bio-waste treatment to a continuous flow system. Temperature of 130°C had to be reached and held for 5 minutes to effectively “kill” and neutralize living cells. The waste stream is then cooled prior to discharge to sewer. A 304L stainless steel shell and tube heat exchanger was also considered. Waste treatment time would be significantly reduced from the normal 30-45 minute batch.

Process Conditions
Temperature Rise: 70°C  
Discharge Temperature: 140°C (285°F)  
Steam Supply Pressure: 100 PSIG  
Liquid Supply Pressure: 53 PSIG  
Steam Flow: 830-2,054 lbs/hr

Solution
Pick SC25-3 Sanitary Heater with 1-1/2” tri-clamp liquid connections. Heater was installed prior to holding vessel and flash chamber.

The cast stainless steel Pick Heater can be used where sanitary finish and design are not required.

Learn more at www.pickheaters.com
Pick Heaters, Inc. — 730 S. Indiana Ave. — West Bend, WI 53095 USA  
Phone: (262) 338-1191 — Email: info1@pickheaters.com