

Bio-Inactivation System

Features and Benefits:

- ◆ *Accurate Temperature Control*
- ◆ *Easy Cleaning*
- ◆ *Instant Response to Heating Requirements*
- ◆ *Compact Design*

Chemical & Pharmaceutical Industry Case History

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

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.

