

Pasteurizing with DSI

Features and Benefits:

- ◆ *Accurate Temperature Control*
- ◆ *Compact*
- ◆ *No Product Burn-On*
- ◆ *100% Heat Transfer*
- ◆ *No Expansion Tanks Needed*

Food Processing Industry Case History

Application:

Plate and frame heat exchangers used in pasteurizing operations are better heated by hot water sets using direct steam injection. Although many dairy and fruit juice processors have traditionally used indirect heating systems, many cost-conscious, quality oriented companies are turning to Pick Direct Steam Injection Heaters for more accurate, energy efficient heating for pasteurizing.

Indirect heating systems face many challenges. They require steam traps and expansion tanks, along with the added maintenance. They often result in fluctuations in temperature that can result in hot spots and burn on, or off flavored product. The inability to hold precise temperature control can result in costly product loss. Additionally, the indirect heating systems do not offer the 100% heat transfer provided by direct steam injection.

Solution:

When used as a hot water set in a closed loop pasteurizing system, the Pick DSI heater injects steam directly into the circulating water, raising the temperature instantly. Precise temperature control is maintained regardless of variations in product flow rate or incoming temperature.

Within the Pick Heater, steam is injected into the cold water flow through hundreds of small orifices in an injection tube assembly. By breaking the steam flow into small “bubbles”, the steam condenses instantly and quietly.

