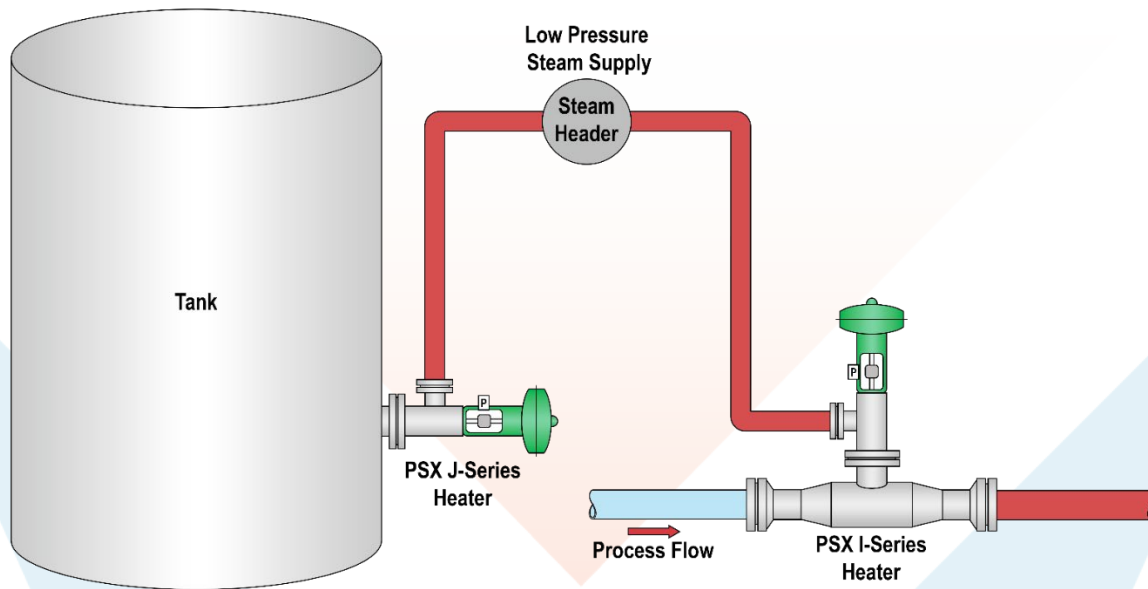


Application: Waste & Vent Steam Recovery



In many manufacturing facilities, valuable low-pressure steam is simply vented to atmosphere and wasted. While the pressure may be low, the energy content per pound of steam is almost identical to that of high-pressure steam. When released, this energy is lost—yet it can be captured and reused as an essentially *free* source of process or hot water heating.

The challenge lies in safely and reliably condensing vent steam into a usable process fluid. Vent steam is typically variable in both pressure and availability, conditions that make traditional shell-and-tube exchangers unstable, oversized, and vulnerable to live steam breakthrough or condensate flooding.

ProSonix Solution – Direct Steam Injection Heaters

ProSonix Direct Steam Injection (DSI) heaters provide a proven, efficient way to recover and use waste steam in either inline or tank heating applications. By injecting steam directly into the process liquid, our I-Series Inline Heaters and J-Series Jet Spargers condense the steam instantly—transforming wasted vent steam into reliable heat energy.

Unlike conventional exchangers, ProSonix heaters feature an **internally modulated design** that delivers precise steam control directly inside the heater. This eliminates the need for external control valves and complex instrumentation while ensuring smooth, stable operation under fluctuating steam pressures and intermittent availability. The result is complete, quiet condensation without water hammer or steam loss, even in demanding process environments.

Features & Advantages

- **Recover wasted energy** – Convert low-pressure vent steam into usable hot water or process heat
- **Stable, reliable operation** – Handles variable and intermittent steam supply without flooding or steam loss
- **Flexible design** – I-Series for inline process heating, J-Series for tank or vessel heating
- **Space-saving** – Eliminates oversized exchangers, condensate systems, and steam traps
- **Scalable** – Easily expanded with multiple units for large-volume or staged heating applications