

HYDRO-THERMAL® TANK HEATING

Hydro-Thermal® manufactures direct steam injection heaters which replace inefficient steam heating methods such as steam spargers and heat exchangers. One very successful use of the Hydroheater® is tank heating.

Hydroheaters can heat the fluid going into the tank; re-circulate the tank to maintain a specific temperature, or leave the tank cold and heat the liquid exiting the tank, producing hot water on demand. Many customers see a return on investment (ROI) in less than three months.

Hydro-Thermal has installed tank heating applications in the following industries

- » Steel » Ethanol
- » Chemical » Food
- » Beverage » Pet food
- » Meat & poultry slaughter/rendering
- » Pharmaceutical/personal care



TYPICAL TANK HEATING	HYDROHEATER® TANK HEATING
Damage <p>With spargers and other less sophisticated direct steam heaters, bubbles form and collapse on tank walls; causing hammer and damage to the tank and peripheral piping.</p>	No Damage <p>The Hydroheater's patented technology produces steam velocity that mixes steam and water very effectively, eliminating steam hammer from uncondensed steam. This ensures a smooth and efficient heating process.</p>
Hot/Cold Spots <p>Spargers inject steam into one area of the tank, causing hot and cold spots.</p> <p>Both spargers and heat exchangers tend to over or under heat and accurate temperature control is difficult.</p>	Precise/Uniform Heating <p>Hydroheaters precisely modulate the steam - heating to exact temperatures and maintaining uniform heating throughout the tank.</p> <p>Hydroheaters can be used to fill or recirc/trim heat the tank to meet and maintain exact temperatures.</p> <p>Hydroheaters can also heat at discharge on demand, so you only heat the water you need.</p>

HYDRO-THERMAL[®] TANK HEATING

Energy Loss	Energy Efficiency
<p>Sparging causes uncondensed steam bubbles to evaporate to the atmosphere, wasting large amounts of energy.</p> <p>This lost heat/condensate can also corrode peripheral piping, ceilings and structure.</p> <p>This lost steam can cause hazardous mold and other allergens to build in an area.</p>	<p>Less steam used: Hydroheaters use less steam than heat exchanges because they don't have a barrier between liquids.</p> <p>Better heat transfer: Hydroheaters transfer 100% of the steam's energy directly to the process fluid.</p> <p>Faster start-up: Hydroheaters heat the tanks faster and more efficiently saving cycle or batch time.</p>
High Maintenance	Low Maintenance
<p>Spargers can cause severe hammering and vibration which produces tank and piping damage.</p> <p>Heat exchangers require costly hard water scale maintenance and unwanted down time.</p> <p>Less sophisticated direct steam injection devices often need acid baths and are often high in maintenance needs.</p>	<p>Patented technology to create sonic velocity of steam prevents hard water scale and unwanted down time.</p> <p>Proper sizing of the heaters and internal modulation ensures a smooth heating process so tanks and peripheral pipes are not damaged from hammer and vibration.</p> <p>The heater itself only needs a once a year preventative maintenance check and soft parts change.</p> <p>Wear parts should last up to 3 years with proper operating conditions</p>
Utilizing less steam, space, and time means faster cycle times and less costs associated with heating tanks.	

Need more information about Hydro-Thermal products?

Go to www.hydro-thermal.com or
contact us at info@hydro-thermal.com

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