



SINCE 1934  
A HERITAGE OF STEAM INNOVATION

# BEER COLUMN HEATING

Many ethanol producers have difficulty maintaining mash temperature at the beer column throughout the year, but the problem can be especially challenging in the winter months.

Hydro-Thermal's patented direct steam injection technology has been a staple in the ethanol industry for over 30 years. Our technology has grown beyond liquefaction/slurry mash heating to include a variety of other temperature critical applications including beer column heating.

Our heaters excel at precise and accurate temperature control. Ethanol producers can be assured that they will achieve and maintain their ideal mash temperature of 155°F-160°F along with other process improvements including:

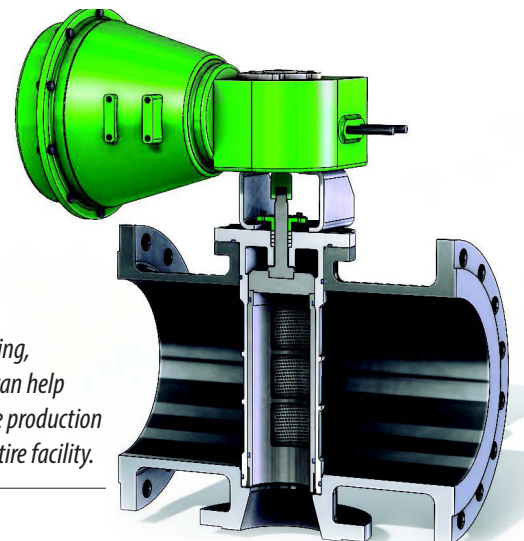
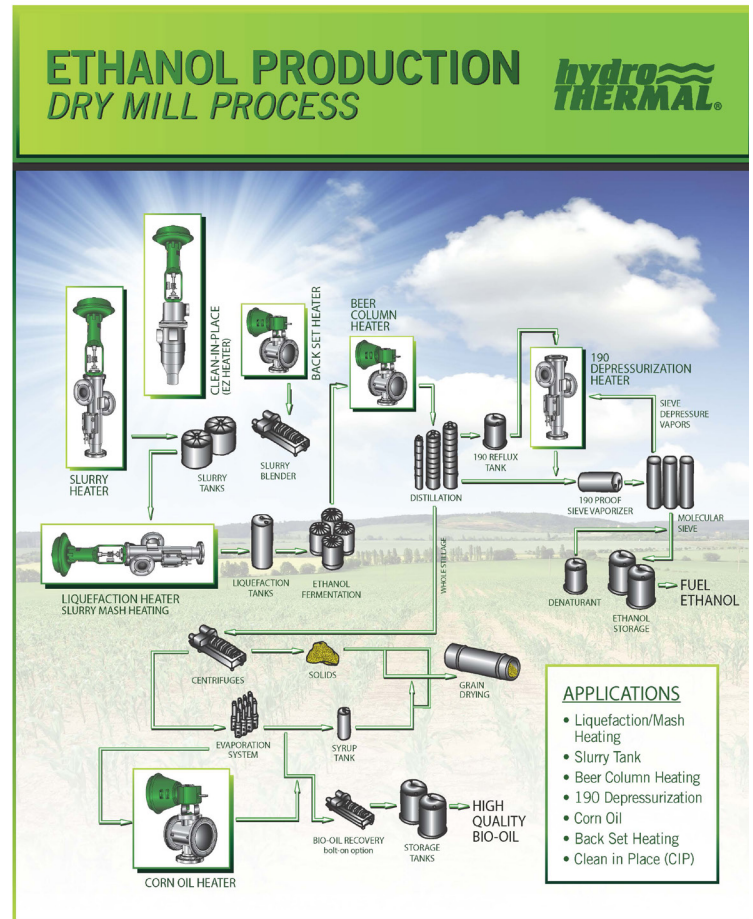
- Improved efficiency in distillation
- Reduction in steam usage through evaporation and the sieve vaporizer
- The ability to run longer on the beer mash exchangers before needing to CIP that results in a reduction in chemical usage

Hydro-Thermal's non-shear Solaris heater is strategically placed after the beer well and beer mash exchangers but before the beer column to maximize the heating benefits. Each Solaris is custom designed and built based on the plant's specifications. As part of our design, we utilize a steam leg with a low point drain. We tie into this low point drain and the plant's steam condensate discharge off the first effect evaps. This allows for any condensate that is generated from our heater to be removed from the process. It is then sent back to the DA tank as part of the boiler makeup supply stream. A dedicated team of steam and industry experts will work through the entire process to ensure that the plant's steam is optimized to perform to the producer's requirements.

To learn more about Hydro-Thermal and its ethanol applications, [www.jet-cooker.com](http://www.jet-cooker.com) or email [info@hydro-thermal.com](mailto:info@hydro-thermal.com)

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Beyond beer column heating, Hydro-Thermal products can help ethanol producers achieve production goals throughout their entire facility.