

# 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 [68°C - 70°C]

Hydro-Thermal's non-shear heater is strategically placed after the beer well and beer mash exchangers but before the beer column to maximize the heating benefits. Each heater is custom designed and built based on the plant's specifications.

## Non-Shear Direct Steam Injection (DSI) Heaters

Hydro-Thermal's Non-Obstructing Heater (NOH), and Solaris are non-shear heaters that provide accurate and consistent temperature control. Steam legs utilizing a low point drain can be tied into the plants steam condensate discharge off first effect evaps, sent to the DA tank and ultimately become part of the boiler makeup supply steam.



Solaris



NOH

## Summary

Using Hydro-Thermal's non-shear DSI Heaters are ideal for beer column heating because it can:

- Improve efficiency in distillation
- Reduce 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.

**Need more information about Hydro-Thermal products?**

Go to [www.hydro-thermal.com](http://www.hydro-thermal.com) or  
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