



**QJET** DSI INC.  
DIRECT STEAM INJECTION TANK HEATERS

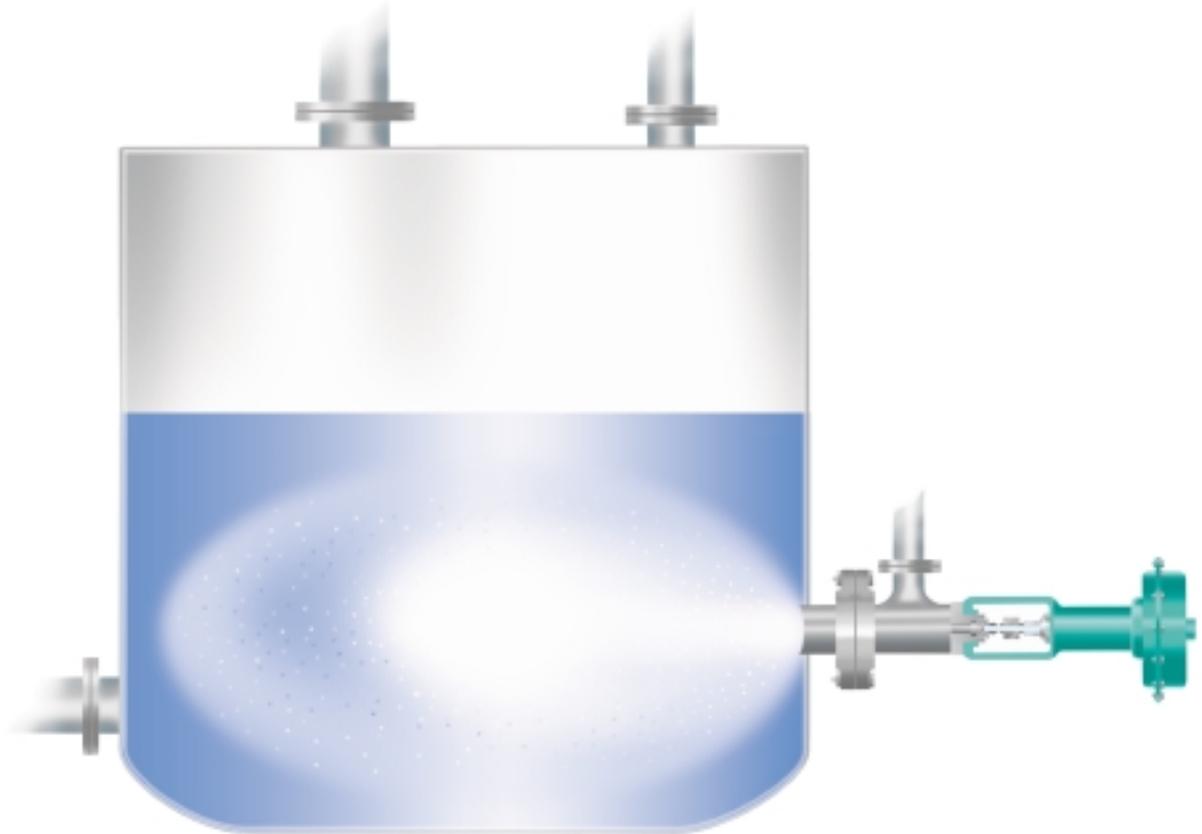
*Q-JET Heaters:*

Low Maintenance

Lower Installed Cost

Standard Heaters  
to 16 Inch Diameter

Custom Sizes  
Available



### **Is Your Operation In Hot Water Over Hot Water?**

You know you are spending way too much money for tank heating. Add up all the totals - the all too frequent repairs to equipment that is subject to the constant vibration inherent with using spargers. Factor in the capital cost for replacing the equipment once it is beyond repair. Consider the higher energy costs due to poor heat transfer. And worse, the high cost of downtime and lost production. Add them all up and you have a real problem on your hands.

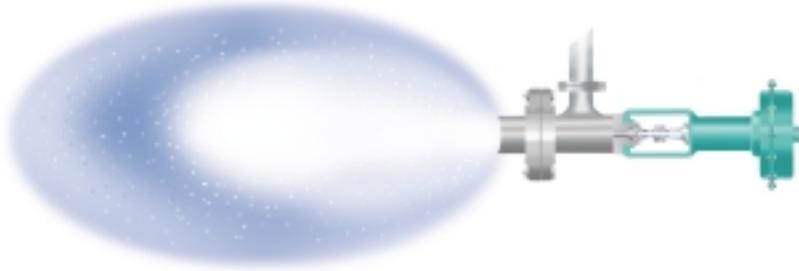
### ***The Quiet Alternative To Your Sparger...***

You've considered the other technologies. Indirect heating with conventional heat exchangers would work but are more expensive to purchase, not very energy efficient, require more complex piping and are subject to fouling. The solution - the Q-JET Direct Steam Injection Tank Heater. Representing state-of-the-art refinement in design, the tank heater is the first really new option available in over a decade. Featuring the unique Micro-Jet Array, the unit offers considerable benefits over all other tank heaters. Ideally suited for a wide range of applications - white water silo heating, shower wash heating - any application where the process fluid can accept the injected condensate - the Q-JET Tank Heater can be the answer to your problems.

Turn the page and get the details on the Q-JET advantage.



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*Also available:*

Inline Heaters

Mixing Jet Cookers

Gas Injection Valves

Starch Cooking Systems

Heating Systems

### Q-JET Direct Steam Injection Tank Heaters

The key to the success of the Q-JET Direct Steam Injection Tank Heater is the unique design of the Micro-Jet Array system. Steam is injected in to the process fluid through an array of small jets. These small jets transfer heat energy in to a larger exposed surface area of lower temperature process fluid than could be attained using a single large jet of equal cross section. The injected steam condenses immediately upon contacting the process fluid in the tank. Q-JET Tank Heaters are individually sized to achieve the specified heating objective for the application. The Q-JET advantages include...

**Rapid, Controlled Steam Condensation** "Steam hammer" is avoided, along with the inherent noise and vibrations in the system. The system runs quiet and vibration free - something not possible with sparge systems.

**Lower Maintenance** With the elimination of vibrations and rumblings, associated piping and surrounding equipment are not subject to the constant stressing and flexing that can lead to premature failure. Tank life and the life of insulation and protective coatings is prolonged.

**Lowered Installed Cost** No need for the additional process piping or recirculation pump required with using externally mounted direct steam injection heating devices.

**Control** The heaters offer a high degree of process control and have high turndown ratios. Steam can be added much more rapidly than with a sparger, resulting in shorter heat up time and increased productivity.

**Compact Design** The Q-JET tank heaters mount directly in to the side of the vessel, freeing up floor space. The penetration into the tank is minimal, so interference with mixers is eliminated.

**Easily Removed** The heater can be removed from outside the vessel, eliminating the need to enter the vessel for routine inspection and servicing. This eliminates the need for "confined space entry".

**Quality** Quality is built into every step - from fabrication using close tolerance machined parts - through to final testing under the provisions of our ISO 9001 Certified Quality Program.

#### **Q-JET DSI Inc. Experience...The most important advantage of all.**

Our years of experience in the design, fabrication and testing of process heating and cooking devices for the pulp, paper and chemical process industries insures the perfect "match" between the heating system and your process requirements. Call one of our application engineers today to see how we can help save you money in all your direct steam injection heating applications.

**QJET** DSI INC.

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ISO 9001 Certified



TUV Rheinland  
of North America



RvC  
Accreditation