

Model K29i Immersion Cooler For Water Triple Point Cells

Pond Engineering's heat pipe immersion cooler makes realizing the Triple Point of Water quicker and simpler than ever. In just 10 minutes, users can configure the immersion to form an even, long-lasting mantle in any standard TPW cell.

Liquid nitrogen or dry ice in the integrated vacuum insulated storage dewar cools the condenser of a heat pipe which uniformly removes heat from the central well of a TPW cell. Vacuum insulation around the cooling medium (liquid nitrogen or dry ice/alcohol mixture) minimizes thermal losses and condensation build up on the outside of the container. The vacuum insulation also improves repeatability, as the amount of heat removed from a cell, and thus the amount of ice formed, is relatively unaffected by ambient conditions.

The vacuum jacket surrounding the heat pipe to a point below the liquid line in the cell, a Pond Engineering exclusive, reduces the danger of ice bridges forming at the top of the cell.

The standard unit comes compatible with commercially available cells. Users may order custom units to work with almost any Water Triple Point Cell.

Removable contact tips, attached to a treaded stud at the tip of the heat pipe, fit various TPW cell central bore sizes to form a properly shaped mantle, with additional thickness around the bottom of the thermowell to extend mantle life.

The K29i water triple point cell immersion cooler will form uniform mantles more safely and repeatably and with considerably less operator attention than conventional methods. In addition, users can form mantles over a long period of time, virtually unattended. Slow freezing creates a uniform mantle with significantly fewer destabilizing stresses. The Immersion Cooler also allows users to rebuild mantles quickly and easily so, when used in conjunction with a Pond Engineering maintenance system, mantles can be sustained almost indefinitely.



Specifications

Typical Mantle Formation Time:

With LN2:

< 2 Hours

With Dry

*Ice/Alcohol:
 =4 to 8 Hours*

Heat Pipe:

304

Stainless Steel

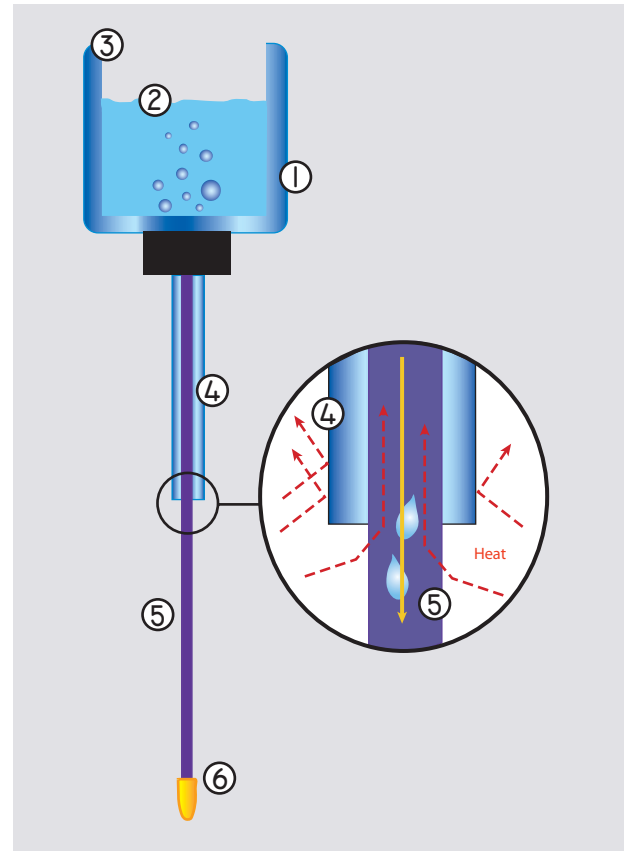
To Order or For More Information:

Call Pond Engineering at (303)651-1678
 or FAX (303)651-1668
 or E-mail stanpond@pondengineering.com

All Specifications subject to change without notice.

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- ① Stainless Steel external construction provides long life and durability.
- ② Dry Ice or Liquid Nitrogen can be used as effective cooling mediums in the Immersion Cooler.
- ③ A vacuum-insulated dewar minimizes condensation and improves repeatability of mantle thickness.
- ④ The unique Vacuum Jacket surrounding the heat pipe above water level in the cell protects against ice bridges which could break the cell.
- ⑤ Specially constructed heat pipe produces a uniform ice mantle thickness.
- ⑥ Interchangeable contact-enhancing tips provide additional ice formation at the bottom of the center well, lengthening mantle life.



Point of Application ▼

