



CERTEK™
HEATING SOLUTIONS



HOT PODS

SUBMERSIBLE WATER HEATER

PATENT 13/229,260



FEATURES AND BENEFITS

- 1 NO MOVING PARTS.** Certek's Hot Pods are, large submersible radiators. The patented configuration of the coils inside creates a strong convection current that allows for significant circulation.
- 2 LOW IMPACT ON LINER.** The Certek Hot Pods sit gently on the bottom of the AST (or C-Ring), thermally isolated from the ground. With no moving parts, there is no mechanical vibration or shifting to damage the membrane.
- 3 PONDS AND AST'S.** The Hot Pods can be used in both above ground storage tanks (AST or C-Ring) and in ponds or impoundments. With Ponds or impoundments, the Pods are floated using buoys. With AST's (or C-Ring) the Pods rest on the bottom.
- 4 HUGE VOLUME POTENTIAL** Depending on the number of heating units employed, there is almost no limit to the volume of water that can be heated.
- 5 SELF REGULATING.** Cold water is heated, forced up in a circular fashion. The process repeats itself automatically. This allows the body of water to be heated internally at a continuous rate, making the Hot Pod far more efficient than usual methods of pond heating.

PODS PER HEATER

- 1.8mm** **9 Hot Pods.** Comfortably heat a Max volume of **6,500 Cubes** with our 1.8mm.
- 1.2mm** **6 Hot Pods.** Comfortably heat a Max volume of **4,500 Cubes** with our 1.2mm.

A smarter way to heat.®

1-888-923-7835

www.certekheat.com



PARAMETERS:

Keep 24,000 bbl of water fluid in freezing weather.

Conventional practices boost water up to 21° using 30mm+ Btu heaters and leave until temperatures drop to freezing and then super-heat it again.

Raw Btu required to heat -0° water to 21° = 318,000,000 Btu

Certek uses our small 1.2mm Btu units to keep the water above freezing with no wild temperature fluctuations, and no on-site manpower required.

ONLY "HEAT" WHEN YOU NEED TO

Heat loss and Fluid loss add up extremely fast when temperatures reach 21°C.

1,600,000 - 4,800,000 Btu lost every hour.

38,400,000 - 115,200,000 Btu lost every day.

276 Gallons - 828 Gallons/Day of Diesel LOST

At \$3.75/gal up to \$21,000/ Week of un-needed cost

Keep fluids from freezing but don't "HEAT" until you are ready to use the water, or you will PAY THE PRICE.
Evaporative loss at 4°C is almost ZERO

HEAT LOSS @ 21°C

EVAPORATION: 738,000 Btu/Hr

RADIATION: 492,000 Btu/Hr

MULTIPLY X3 FOR 10 MPH WIND

WATER LOSS @ 21°C

EVAPORATION: 200 Gal/Hr

4,800 Gal/Day 33,600Gal/Week

MULTIPLY X3 FOR 10 MPH WIND

24,000 bbl - 1,080,000 gal

AST (Mid-Size)

*Based on standard fuel specs:

Diesel - 139,000 Btu/Gallon

Propane - 91,000 Btu/Gallon (LP)

Natural Gas - 1,001 Btu/Standard Ft³