



Keltech® Electric Tankless Water Heaters

HL SERIES

Fluid heating for commercial applications



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PRECISE. RELIABLE. DURABLE. TANKLESS.

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KELTECH ELECTRIC TANKLESS WATER HEATERS

Efficient. Precise. Fast.

Keltech is the recognized leader in commercial electric tankless water heating systems. Whether your application is industrial, hotels, stadiums, food processing, or safety, there is a Keltech tankless water heating solution. With unmatched quality and durability, Keltech manufactures the fastest, most reliable, and most efficient tankless water heaters in the industry.

Keltech tankless heaters are offered in a full line of products for an extensive range of applications as well as custom designs for unique environments. Keltech tankless water heaters have been on the market for over 25 years and are now an integral part of Bradley Corporation's water heating solutions. For 95 years, Bradley has manufactured commercial safety, water tempering and washroom products. Today, Bradley is the industry's most comprehensive source of commercial and industrial plumbing fixtures, tankless water heaters, washroom accessories, partitions, emergency fixtures and plastic lockers.

- **Save Energy**

Inefficient boiler systems have to generate heat and maintain temperature 24 hours per day, 7 days per week. Keltech tankless heaters only heat water when needed. And, Keltech's innovative controller is fully modulating so you only use the actual kW needed, not full power or stages.

- **Save Space**

A large commercial tank water heater requires a large space. Keltech tankless water heaters only require 3 square feet (0.3 square meters) of space to generate up to 491,000 BTUs.

- **Simple Installation**

Requires only one electrical connection and water. No pumps, no external fusing, and no design needs to be considered externally – it's all built into the heater.

- **Simple to Maintain**

No tank to maintain, no anodes, no softeners.

- **Simply the Best**

Built to the toughest standards with the highest quality materials and engineered to meet the world's most demanding applications.

HL SERIES COMMERCIAL APPLICATIONS



HL Series

Designed to accommodate most commercial fluid heating applications where demand is ≤ 18 kW and total flow is ≤ 7 GPM (26.5 L-Min). For environments where lower activation flows are required, standard units are 0.5 GPM (1.9 L-Min) with options as low as 0.15 GPM (0.6 L-Min). Heaters are also suited to applications with single phase service or 3-Phase 208V, 240V and 480V. Standard units include a NEMA 1 enclosure, with NEMA 4 and 4X options available.

Whether you need intermittent hot water, low flow control, booster heating or deionized water in schools, hospitals, or commercial kitchens, Keltech has an energy efficient commercial process heater that provides precise temperature control.

Key markets & applications

Keltech electric tankless water heaters fit in virtually any commercial market you can think of including commercial buildings, schools, hospitals, restaurants, science labs, sports facilities, lodging, parks and recreation, marine and transportation.

Applications include handwashing, mop sinks, kitchen booster, hydronics, remote locations, pre-heating for stationary applications or mobile trailers, recirculation, sanitization and potable water distribution.

Whatever your specific application is, Keltech has a tankless heating solution.



kW Range
5 - 18 kW



Flow Range
0.5 - 7 GPM (1.9 - 26.5 L-Min)



Standard Voltages
208V, 240V, 277V, 480V Single Phase
208V, 240V, 480V 3-Phase Delta

Code Compliance & Certifications



Certified to
NSF/ANSI 372



Intertek

- **Lead-Free**

Brass/Copper heat exchangers certified to NSF/ANSI 372

- **Third-Party Certified**

ETL listed to UL499



STANDARD FEATURES

PID Temperature Controller

More energy efficient and reliable than traditional microprocessors, Keltech heaters hold temperature as demand changes regardless of incoming ground water temperature. Power is infinitely variable, with no fixed inputs. The PID controller makes it possible to modulate the amount of power applied to the elements while also dispersing the required power evenly across all elements. This unique feature increases the product's life cycle.

Simple Touch Operation

Digital LED screen with touch pad for easy operation shows set point and output temperature.



Precise Temperature Range & Flow

The electronic power modulation system can control outlet water temperature to within +/- 1°F (+/-0.56°C) over a wide range of flow rates. Precision temperature controls make Keltech tankless water heaters the preferred choice for process heating applications or an alternative to high energy consuming boiler use.

Incoloy 800 Elements

Recognized for extending the life of the metal components.



Provides protection, durability and resistance to scaling from hard water. Water is only heated when flowing; this means sediment will not collect in the heat exchanger.

Low Watt Density Element

Extremely low wattage is applied per square inch of the element for improved heat transfer and reduced scaling which results in a longer lasting element.

Electrical Design

Requires only one service feed per unit. Includes internal fusing as standard, which provides superior protection. Units have a delta wiring system and do not require a neutral.



Liquid-Cooled Triac Switches

The liquid-cooled, triac switches provide silent switching and a faster response than mechanical relays to assist in maintaining an accurate temperature.



Bi-metal Manual Resets

Every heater that Keltech engineers includes a separate set of circuits that monitor over temperature conditions. Should overheating occur, each sector of the heat exchanger has a dedicated thermal switch that breaks power. Normal operation cannot be resumed until the safety switch is manually reset.



NEMA 1 Enclosures

Standard wall cabinet enclosure is NEMA 1 rated and made from 18 gauge electrogalvanized, powder coated steel. Designed to protect the unit from falling dirt and incidental personnel contact with enclosed equipment. For indoor applications.

STANDARD FEATURES

Minimal Pressure Drop

Keltech's best in industry low pressure drop reduces or eliminates the need and expense associated with adding pressure booster pumps.

Durable Plumbing Assembly

All units consist of brazed joints, brass and copper heat exchanger, industrial-grade flow switch & brass castings/fittings at all directional changes.

Premium Materials

All waterways consist of high-quality copper & brass construction tested to 300 PSI (20.7 bar).



Robust lead-free brass castings and flanges are CNC cut from solid brass blanks for precision fit. High-quality copper & brass construction extend the life of the heat exchanger.

Recirculation Capable

Keltech heaters can be installed within a recirculation system, saving money and energy while providing desired temperature on demand.

Activation Requirements

On-demand heaters require a minimum flow rate for activation. Water heaters come standard with 0.5 GPM (1.9 L-Min) activation set point & can provide flow up to 7 GPM (26.5 L-Min). Minimum flow requirements provide maximum efficiency.



Reliable Performance & Minimal Maintenance

The heater maintenance schedule falls within the normal facilities maintenance program requirements. LED indicators, test buttons, and reset buttons on the front cover dramatically reduce the need to open the enclosure making maintenance or troubleshooting even easier.

Easy to Install

Heaters can be wall-mounted almost anywhere. Without a traditional tank the HL Series saves space in any installation location.



OPTIONAL FEATURES

NEMA 4 Enclosures

NEMA 4 enclosures are constructed for either indoor or outdoor use. The enclosure protects the components of the commercial heater from dust and water. Enclosures are made from 18 gauge electrogalvanized and powder coated steel with ANSI 61 gray, corrosive resistant paint.

NEMA 4X Enclosures

For harsh environments, NEMA 4X watertight enclosures are available for an additional level of protection. Enclosures are made from 304 or 316 stainless steel.

Building Management Systems Integration

Transfers control of the heater to a Building Management System (BMS). The heater is no longer adjusted or controlled at the heater location, a computer interface integrates with the BMS.

Low Flow Activation

Activate the heater at a lower flow rate than the standard 0.5 GPM (1.9 L-Min). The HL Series also has low flow options of 0.15 GPM (0.6 L-Min) and 0.25 GPM (0.9 GPM).

High Temperature Package

Standard temperature range is 40-160°F (4-71°C). With the high temperature package, heaters can reach and maintain settings as high as 160-190°F (71-88°C).

Temperature Lock Out

This option locks in a specified set point and removes adjustment from the controller to prevent tampering.

TE2 Protection System: Deionized Water Solutions & Corrosive Fluid Protection

Exclusive TE2 Protection protects the heat exchanger from corrosive fluids including deionized water, chlorides, saltwater solutions, reverse osmosis water & caustic alkalis. Keltech uses bright annealed, passivated stainless

steel elements; all stainless steel plugs and fittings are also used.

The TE2 Protection is recommended when fluid purity is critical (e.g. to heat de-ionized water). To conform to FDA regulations governing direct food contact applications, this option includes a single layer of Xylan® Fluoropolymeric coating on all surfaces & internal passageways that come in contact with the heated media.

Choose the TE2 protective coating option for:

- Media Purity: no contamination of heated fluids.
- Non-stick: very low adhesion properties for best possible flow characteristics
- Virtually inert: resists change or destruction due to chemicals or corrosion
- Thermal Stability: resists change due to temperature fluctuations
- Washing solid-state devices, printed circuit boards, parts and aluminum products and/or equipment
- Heating corrosive and/or non-flammable liquids
- Desalination systems

Design on Demand™ Custom Solutions

HL Series heaters are engineered for durability and performance in any commercial application. And, when unique environments require innovative solutions, Bradley Engineers design custom systems for any heating need:

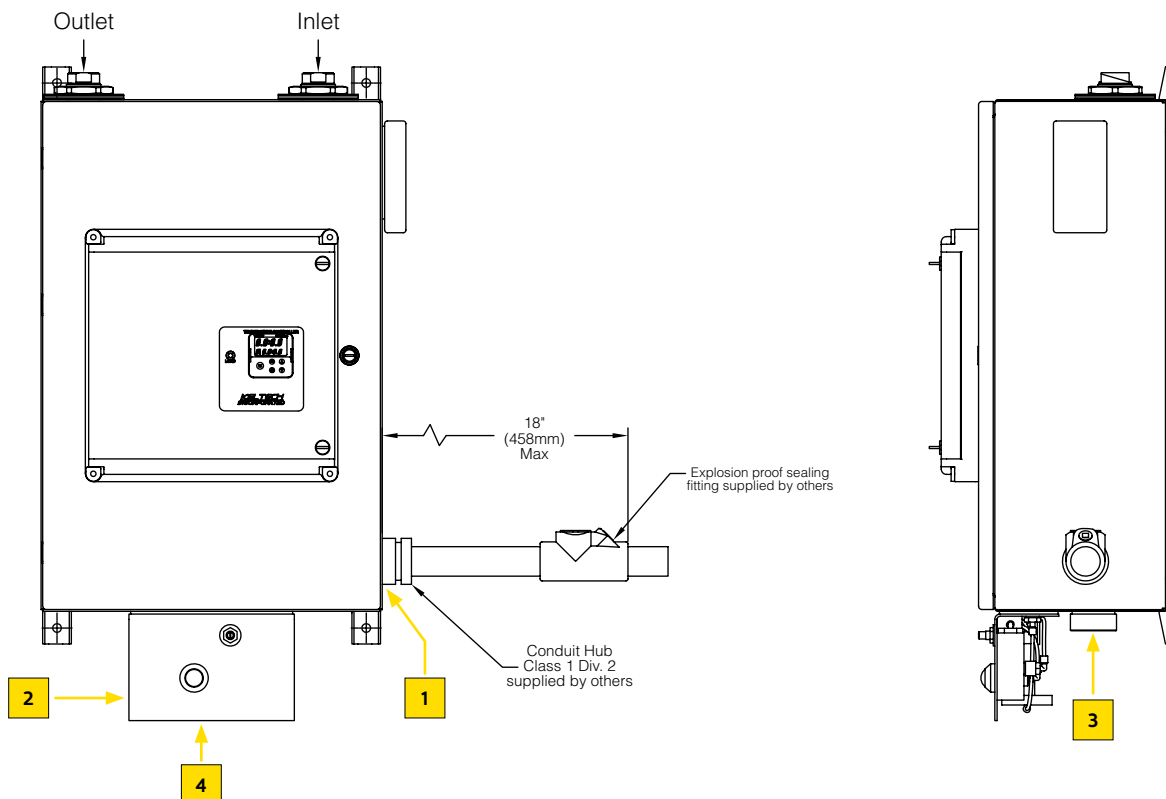
- When recirculation or a booster heater is needed, Keltech fully-modulating liquid-cooled heaters are the perfect solution.
- Custom solutions available for your unique application requirements.
- When the run is too long or pressure is too low, Keltech booster systems are pre-piped and ready to be installed in Series or in parallel.
- Work directly with a Keltech System Design Consultant.

OPTIONAL FEATURES

Explosion-Proof Purge System

HL Series water heaters in NEMA 4/4X enclosures can be equipped with an explosion-proof purge system. The type of purge system determines the classification or division the enclosure will meet; HL Series use a system that conforms to Class 1, Division 2 hazardous area standards. Electrical components installed in NEMA 4/4X enclosures allow the system to be pressurized by clean instrument air or inert gas. Heat, moisture, dust and corrosion are eliminated by providing the enclosure with a slow but continuous flow of inert gas or dry compressed air. This process removes flammable gases and/or prevents the accumulation of ignitable dusts within the protected enclosure. The purge system:

- Conforms to Class 1, Division 2 hazardous area standards; other class and division ratings may be available
- Reduces heat build-up in the enclosure
- Inhibits metal corrosion and reduces moisture buildup
- Provides continuous monitoring capabilities
- Eliminates large, heavy explosion-proof enclosures
- A constant supply of inert gas or clean air required



1 Suggested region for power entrance at right/bottom of enclosure. Entrance hole and components to be provided by installer.

2 Purge control panel Class 1 Division 2.

3 Spark arrestor with calibration orifice is located in the bottom of the enclosure.

4 Purge gas/compressed air inlet fitting is located behind the purge control unit and through the bottom of enclosure.

Explosion-proof (EXP2) option only available with a NEMA 4 or NEMA 4X Enclosure.

All installation egress from panel must be sealed (electrical conduit) for proper explosion-proof installation.



BIM-REVIT models available on bradleycorp.com



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