Triton Series™
High Efficiency Boiler

High Efficiency Near Condensing Boilers

- 6 models ranging from .8MM to 2MM BTU
- Up to 86% thermal efficiency
- Up to 5:1 turndown
- Quadruple pass, double row, high finned copper finned heat exchanger
- Air cooled interrupted pilot w/ UV scanner
- Full modulation, consistent emissions with <9 ppm NOx and clean light off
- Small footprint
- Heavy 18 gauge steel cabinet with highest quality UV-rated powdercoated finish
- Flexible venting options
Advanced Premix Burner

Triton Series™ burners utilize exclusive metal fiber burners that are custom designed for each model, optimizing the heat exchanger configuration and maximizing operational efficiency. The three-dimensional burner surface is composed of a special knitted iron-chromium alloy which optimizes heat transfer while maintaining a low surface temperature. This composition is highly elastic and flexible, which reduces stress and increases resistance to thermal expansion. The material structure is also exceptionally porous which prevents it from becoming clogged by contaminants. The result is an extremely reliable and robust, long lasting burner.

Communication Gateway

Ace Heaters IIC also offers our multi-protocol communication gateway designed to support effortless integration between all our products and the end-user Building Controller / Energy Management Systems.

All three protocols are preloaded into the gateway from the factory. A dip switch is used to select the desired protocol by the end user. The protocol mapping program was designed to provide necessary control points for remote monitoring and control of all Ace products. A custom program option, to support customer selected control points is also available.
**Advanced Controls**

Triton Series™ near condensing boilers feature Honeywell's advanced SOLA controls. SOLA provides the user with complete boiler status, configuration, history and diagnostics from a single, user-friendly interface. By integrating numerous functions into a single compact device, SOLA offers an increased range of programming functionality and at the same time reduces the need for excessive hardware and wiring, and minimizes installation time. Among the many programmable features are flame safeguard, pump control, hot water high limits, PID load control and operating controls, as well as lead-lag programming of up to 8 individual boilers. SOLA’s advanced capabilities and numerous programming options allow you to increase efficiency, lower your costs and emissions, and reduce your environmental impact.

To further enhance user control, functionality and ease of operation, the Triton Series™ comes standard with the enhanced SOLA D’finity® Operator Interface display. This latest 7”, high-resolution color LCD touch screen provides the user clear, quick and easy access to all of the system’s features and capabilities, putting all of the SOLA controller’s functions within easy reach of the operator.

**Convenient Installation, Operation & Access**

The Triton Series™ boiler’s compact footprint provides easy access through standard doorways, and each model includes a pallet jack base for ease of movement and installation. This efficient, modular design also allows for simple and compact multi-unit lead-lag installations.

**Standard Features**

- 4 - pass, double row high finned copper tube heat exchanger
- Up to 86% thermal efficiency
- Honeywell SOLA control and enhanced display
- Modulating pre-mix combustion system
- Up to 5:1 turndown
- < 9 ppm NOx
- Knit metal fiber high efficiency burner
- Custom cast iron, 1-pc. gasketless headers
- Heavy gauge steel cabinet with uv rated, powder coat finish
- Standard replaceable combustion air filter
- High efficiency, variable speed, spark proof blower motor
- Sealed combustion chamber
- Smart Boiler Control System™ ready
- Built-in lead-lag capability (8 units max.)
- Certified seismic design
- Range of available sizes
- ASME section IV H-stamped
- Factory warranty: (2 yr. parts/ 5 yr. burner/ 12 yr. HX.)
- Full carton packaging

**Available Options**

- Control safety package includes: boiler status relay, SPDT fault relay, alarm bell with silencing circuit, remote enable/ disable relay
- Communication gateway package
- Outdoor models
- High/ low gas pressure switch
- Extended warranty (7 yr. Burner/ 15 yr. Hx.)
- Quick ship program

**Venting Options**

- Single-wall: Vertical Only
- Double-wall direct vent: Vertical or Horizontal
- Common: Per National Fuel Gas Code Regulations

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- Single-wall: Vertical Only
- Double-wall direct vent: Vertical or Horizontal
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Control Specifications

- Flame safeguard controller with integrated operating, modulating & high limit safety controls
- Touchscreen operator interface panel to monitor boiler status, lockouts, alerts, flame signal, and control temperatures as well as configure boiler settings
- 4-20mA signal input for remote modulation
- Digital input for remote reset and time of day setback
- Modbus RS485 communication allows access to operating, safety and burner data
- Lockout and safety alerts history record contains up to 15 detailed snapshots of the system when lockout occurred
- PID load control system for central heat loop
- Interrupted pilot with spark ignition & air cooled UV scanner for monitoring pilot & main flame
- Two single element temperature sensors for inlet water and outdoor temperature
- Dual element safety limit (UL 353) temperature sensor for outlet water temperature
- Outdoor reset control with programmable heating curve
- Algorithm prioritization for burner demand (central heating and frost protection) and firing rate limit
- Programmable safety and boiler protection features for frost protection, slow start, delta-T limit, stack-T limit and boiler-T limit
- Pump control contacts for central heat & system pumps with purge
- Time control and frost protection (pump included as additional option)
- Three levels of password protection for end-user, installer/service engineer and manufacturer
- Additional interlock terminals for pre-ignition, recycle and lockout interlocks

### Specifications

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th>T-80</th>
<th>T-100</th>
<th>T-150</th>
<th>T-200</th>
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<tbody>
<tr>
<td>Input (BTU/hr.)</td>
<td>800,000</td>
<td>1,000,000</td>
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<td>Output (BTU/hr.)</td>
<td>688,000</td>
<td>860,000</td>
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<td>Dimensions in inches (W x D x H)</td>
<td>31.5 x 32.5 x 60</td>
<td>31.5 x 32.5 x 60</td>
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<td>Recommended Flow Rate (gpm)</td>
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<td>43-85</td>
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<td>Pressure Drop</td>
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<td>NOx Emissions @ 3% O₂</td>
<td>&lt; 9 ppm</td>
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<td>Sealed Combustion Chamber</td>
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<td>1,370</td>
<td>1,480</td>
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1 Based on 86% thermal efficiency. Actual efficiency may vary with operating conditions.
2 Based on 20°F to 40°F delta T.
All dimensions are in inches, are approximate and subject to change. For weight critical application, consult factory.

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Made With Pride In The USA.