Liberty Series
High Efficiency Boiler

Liberty Series™ boilers perform dependably and quietly, offering the most cost effective solutions for space heating and domestic hot water. Modular design, low emissions , advanced controls, and easy start-up make the Liberty Series™ the clear choice for all your high efficiency needs.

The Liberty Series™ boiler combines solid engineering and innovative design with all the quality and safety features you would expect from Ace. With efficiencies over 94%, fully modulating up to 5:1 turndown, and a solid stainless steel heat exchanger the Liberty Boilers is ideal choice for you.

Certified to:

ANSI Z21.13
ANSI Z21.10.3
CSA 4.9
CSA 4.3
ASME SECTION IV

Control Specifications

- Flame safe guard 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 occured
- 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 sensor for: inlet & 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

Standard Features

- 94%+ thermal efficiency
- Honeywell SOLA control standard
- Modulating pre-mix combustion system
- Up to 5.3:1 turndown
- Low NOx, high efficiency knit metal fiber burner
- 316L Stainless Steel Heat Exchanger
- Smart Control ready
- Built-in lead-lag capability (8 Units Max.)
- Range of available sizes
- ASME Section IV H-Stamped rated to 160psig, 250ºF
- Available in natural or LP gas*
- Factory warranty: (2yr. Parts/ 5 yr. Burner/ 10yr. HX.)
- Full carton packaging

SPECIFICATIONS	US-400	US-500	US-600	US-700	US-800
Input (BTU/hr)	399,000	500,000	600,000	700,000	800,000
Output (BTU/hr)	375,000	470,000	540,000	658,000	752,000
Dimension (W x D x H)	22.7"x24.5"x39.8"	25.5"x32.1"x43.2"	25.8"x47.3"x37"	25.7"x63.6"x37"	25.7"x63.6"x37"
Approximate Weight (lbs)	275	320	380	425	475
Turndown	5.3 : 1	5 : 1	5 : 1	4.4 : 1	5 : 1
Combustion Efficiency	95%	95%	95%	95%	95%

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