

# 85% Efficient!



**U.S. Boiler Company**

# ES2™

## Gas Fired, Chimney Vented, Cast Iron Water Boiler

- 85% AFUE
- Electronic ignition
- Easy, intelligent IQ Control System™
- Outdoor reset available – increases efficiency by 15-20%
- 70 – 280 MBH (7 sizes)
- Industry standard tapping locations fit thousands of existing boiler installations
- Reliable, American-made cast iron heat exchanger
- Lifetime limited warranty

**IQ control system**

- Consists of the Intelligent Hydronic Control and IQ Option Panel



### Intelligent Hydronic Control

- Provides fast and easy “out of the box” installation.
- Simple codes convey boiler status and eliminate guesswork
- Combines aquastat, relay, and ignition functions into a single module
- Two customizable integrated switching relays for easy addition of additional heating zone or indirect water heater

### IQ Option Panel

- Enables the easy plug & play installation of optional features such as outdoor reset, LWCO, and high limit



### Optional Touchscreen

- LCD displays all boiler settings, diagnostics, and troubleshooting in sentences, not codes



# ES2: Technical Information



## Standard Equipment

- Insulated sleek, modern jacket
- Integrated draft diverter, damper and connector included
- Heavy gauge 1" and 1-1/2" base insulation
- Intelligent Hydronic Control – Simple self-diagnostic control system with 3-digit readout for status settings and errors
- IQ Option Panel, accepts plug & play IQ Option Cards for
  - Outdoor reset with DHW priority
  - Auto or manual reset low water cutoff
  - Auto auxiliary high limit
- Step-opening redundant gas valve
- Stainless steel flue baffles
- Spark ignition with retry
- User-friendly wiring with 120V J-box
- Circulator
- Cast iron section assembly
- Resettable blocked vent switch
- Boiler drain valve
- Cast iron supply manifold with safety relief valve tapping

## ES2 Ratings & Specifications

| Model | AFUE% | Input <sup>1</sup> (MBH) | DOE Heating Capacity <sup>1</sup> (MBH) | Net AHRI Water Rating <sup>1,2</sup> (MBH) | Vent Size (Inches) | Approx. Shipping Weight. (lbs.) |
|-------|-------|--------------------------|-----------------------------------------|--------------------------------------------|--------------------|---------------------------------|
| ES23  | 85.0  | 70                       | 59                                      | 51                                         | 4                  | 254                             |
| ES24  | 85.0  | 105                      | 89                                      | 77                                         | 5                  | 301                             |
| ES25  | 85.0  | 140                      | 119                                     | 103                                        | 6                  | 353                             |
| ES26  | 85.0  | 175                      | 149                                     | 130                                        | 6                  | 405                             |
| ES27  | 85.0  | 210                      | 178                                     | 155                                        | 7                  | 464                             |
| ES28  | 85.0  | 245                      | 208                                     | 181                                        | 7                  | 514                             |
| ES29  | 85.0  | 280                      | 238                                     | 207                                        | 8                  | 564                             |

Available for natural or LP gas

1. Ratings shown are based on certification up to 2,000 ft. Above 2,000 ft. ratings decrease by 3% per 1,000 ft. above sea level. Altitude kits required above 5,400 ft. See altitude conversion kits below.
2. Net AHRI Water Ratings shown based on a piping and pickup allowance of 1.15. Consult manufacturer before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.
3. All ES2 boilers shipped with 30 psi relief valve. MAWP is 50 psi.

## ES2 Dimensions & Connections

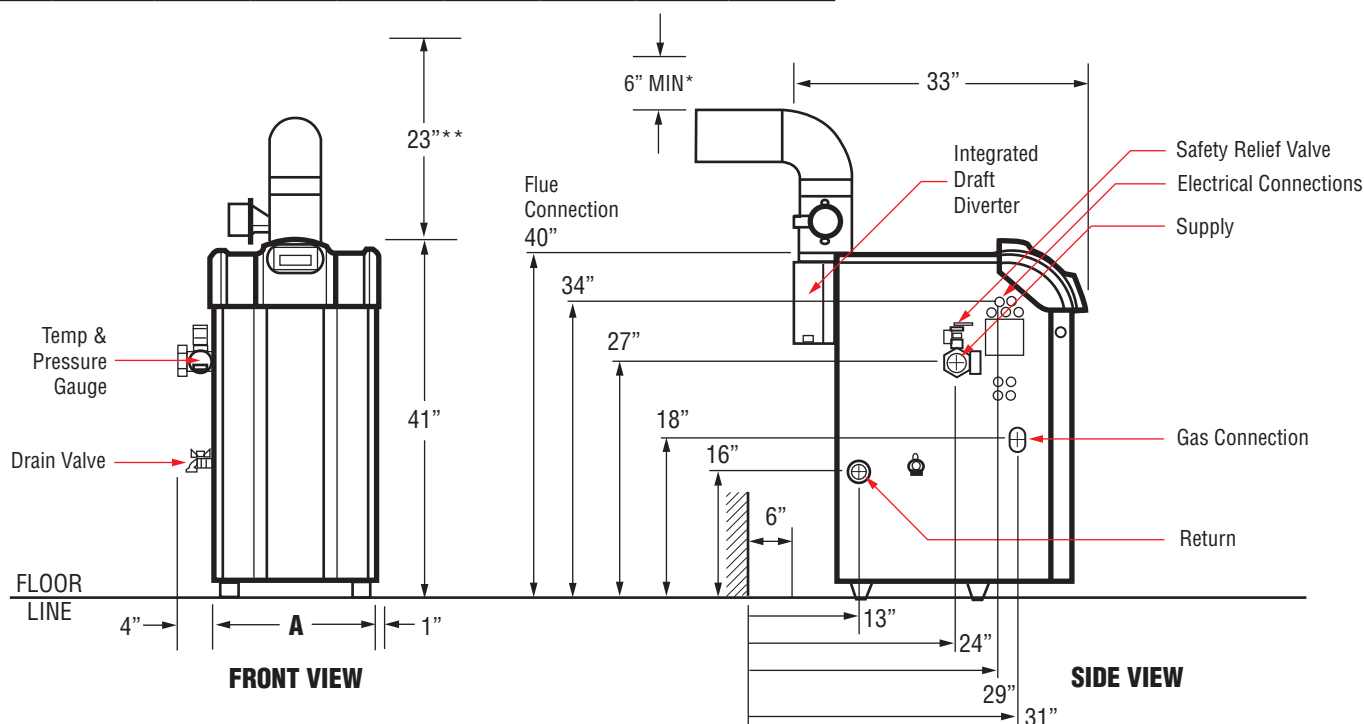
| Model | Dimensions (inches) |        |       | Connections (inches) |        |           |              | Water Content (gal.) |
|-------|---------------------|--------|-------|----------------------|--------|-----------|--------------|----------------------|
|       | "A"                 | Height | Depth | Supply               | Return | Gas Valve | Relief Valve |                      |
| ES23  | 12-3/4              | 41     | 33    | 1-1/4                | 1-1/4  | 1/2       | 3/4          | 2                    |
| ES24  | 15-1/2              | 41     | 33    | 1-1/4                | 1-1/4  | 1/2       | 3/4          | 3                    |
| ES25  | 18-1/2              | 41     | 33    | 1-1/4                | 1-1/4  | 1/2       | 3/4          | 4                    |
| ES26  | 21-1/2              | 41     | 33    | 1-1/4                | 1-1/4  | 1/2       | 3/4          | 5                    |
| ES27  | 24-3/4              | 41     | 33    | 1-1/4                | 1-1/4  | 3/4       | 3/4          | 6                    |
| ES28  | 27-3/4              | 41     | 33    | 1-1/4                | 1-1/4  | 3/4       | 3/4          | 7                    |
| ES29  | 30-3/4              | 41     | 33    | 1-1/4                | 1-1/4  | 3/4       | 3/4          | 8                    |

## Accessories

- Altitude conversion kit - natural gas (P/N: 112461-01)
- Altitude conversion kit - LP gas-converted (P/N: 112464-01)

### NOTES:

Required above 5,400 ft., kits do not convert gas type



### NOTES:

**Caution:** chimney, liner, and vent connector must meet requirements specified by manufacturer's installation instructions

\* Minimal radial distance around vent pipe and breaching

\*\* Add height required to maintain 6" clearance from all breaching components

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