

# 85% Efficient!



## Burnham®

# ESC™



## Gas Fired, Direct Vent or Induced Draft, Cast Iron Water Boiler

- 85% AFUE, ENERGY STAR® certified
- Electronic ignition
- Equipped with IQ Control System™
- 60 – 243 MBH (7 sizes)
- Ideal for installations where chimney venting is not possible, industry standard tapping locations permit ease of replacement for thousands of existing boiler installations
- Rear jacket panel of boiler is flat with no protrusions, simplifies transport and enables flush installations
- Solid, reliable, American-made cast iron heat exchanger can accept return water temps as low as 110°F
- Lifetime limited warranty

### **IQ** control system

- Consists of the Intelligent Hydronic Control and IQ Option Panel

#### Intelligent Hydronic Control

- 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
- Energy saving “thermal purge”, which works by circulating residual warm water (140° or above) in the heating system before firing the boiler

#### 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



**Burnham®**  
by  
**U.S. Boiler Company**



# ESC: Technical Information



## Standard Equipment

- Insulated sleek, modern jacket
- Heavy gauge 1" 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 or manual auxilliary high limit
- Step-opening redundant gas valve
- Stainless steel burner tubes
- Stainless steel flue gas baffles
- 110°F minimum return temperature rating
- Spark ignition with continuous retry
- User-friendly wiring with 120V J-box
- Taco 007 circulator with piping with wiring harness
- Cast iron section assembly
- Differential vent pressure switch
- Boiler drain valve
- Cast iron supply manifold with safety relief valve tapping

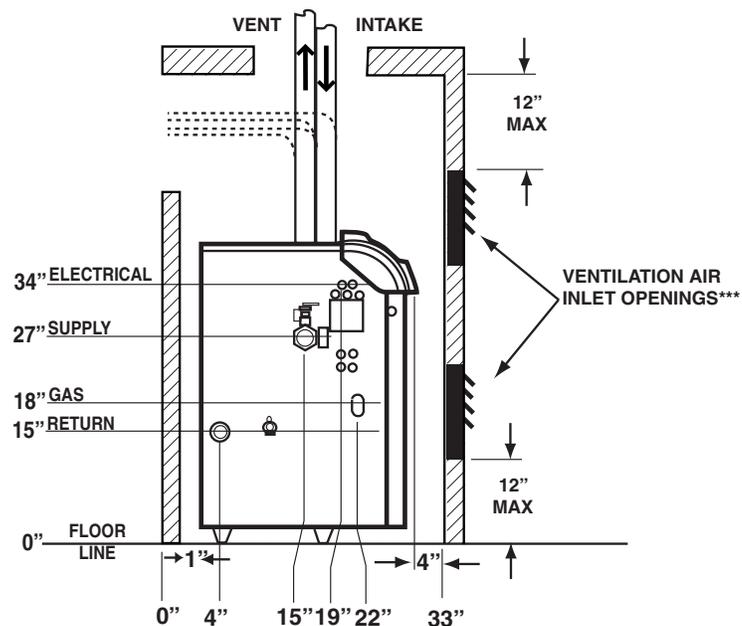
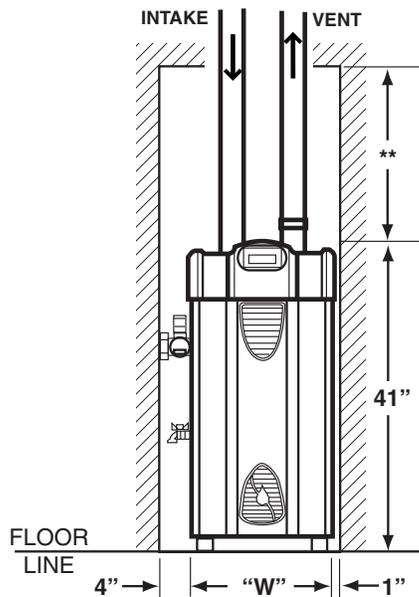
## ESC Ratings & Specifications

Model	ENERGY STAR AFUE%*	Input (MBH)	DOE Heating Capacity (MBH)	Net AHRI (MBH)	Vent Size (Inches)	Approx. Shipping Weight. (lbs.)
ESC-3*	85.5	60.8	52	45	3	250
ESC-4*	85.4	91.2	78	68	3	300
ESC-5*	85.3	121.6	104	90	3	350
ESC-6*	85.2	152.0	130	113	3	410
ESC-7*	85.0	182.4	156	136	3	460
ESC-8	84.5	212.8	180	157	4	510
ESC-9	84.0	243.2	206	179	4	560

\* ENERGY STAR® rated  
NOTE: An "N" in suffix is for natural gas, an "L" is for LP gas

## ESC Dimensions & Connections

Model	Dimensions (inches)			Connections (inches)				Water Content (gal.)
	Width	Height	Depth	Supply	Return	Gas Valve	Relief Valve	
ESC-3	12-3/4	41	33	1-1/4	1-1/4	1/2	3/4	2
ESC-4	15-1/2	41	33	1-1/4	1-1/4	1/2	3/4	3
ESC-5	18-1/2	41	33	1-1/4	1-1/4	1/2	3/4	4
ESC-6	21-1/2	41	33	1-1/4	1-1/4	1/2	3/4	5
ESC-7	24-3/4	41	33	1-1/4	1-1/4	3/4	3/4	6
ESC-8	24-3/4	41	33	1-1/4	1-1/4	3/4	3/4	7
ESC-9	30-3/4	41	33	1-1/4	1-1/4	3/4	3/4	8



- NOTES:
- \* Vent pipe minimum clearance to combustible material is (4) inches when vent is installed in a fully enclosed chased application, or (3) inches when vent is installed with at least one side open, similar to a joist bay application
  - \*\* Add height required to maintain 6" clearance from all breeching components
  - \*\*\* Area of each opening 1 sq. inch for each 1,000 BTUH input - with minimum of 100 sq. Inches. Height of opening should be half the width.