# ENDURA+

Ultra-High Efficiency Condensing Boilers

2.5 Million – 12 Million BTU/HR



- Flame-by-Wire<sup>®</sup> Combustion
- ▶ Real-Time O<sub>2</sub> Compensation<sup>™</sup>





# UNCOMPROMISING PERFORMANCE

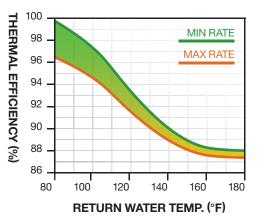
ENDURA+<sup>®</sup> condensing boilers provide quiet and reliable operation in a compact firetube design with efficiencies up to 99%. Our design is highly-engineered and built to last with thicker, stronger materials, and a premium fit and finish reflecting Fulton's premier quality.

#### Reliable Heating Peace of Mind

ENDURA+ features a long-lasting firetube heat exchanger that is built for unsurpassed durability in high-demand applications.

## Lower Cost of Ownership

Cut your energy bills and operating costs with up to 99% efficiency, variable primary flow piping, and simplified maintenance.



#### Better Controls Reduce Fuel Costs

Exclusive Flame-by-Wire<sup>®</sup> combustion controls with  $O_2$  Compensation<sup>TM</sup> are more reliable, easier to maintain, and will reduce burner emissions.

▼ Model EDR+6000





# **P<sup>®</sup>RE<sup>®</sup>CONTROL**

#### **Complexity Simplified**

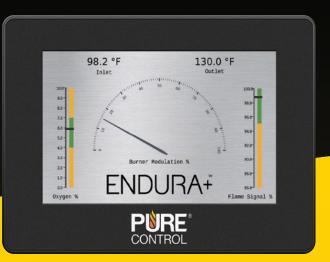
The powerful and intuitive PURE<sup>®</sup> Control maximizes energy savings and simplifies boiler operation. The touchscreen control provides rapid access to operating details and configuration including detailed diagnostics and trending history.

- Outdoor Reset with Setback Mode
- Motorized Isolation Valve Control
- Variable Speed Pump Control
- Reduced Cycling Saves Energy
- Modbus / BACnet Configurable

#### **Seamless Staging**

Sequences up to 10 boilers efficiently and eliminate the need for a master boiler or standalone panel.

When a boiler is powered off, the plant seamlessly transitions to the next available stage for heat you can rely on.



# <u>FL@MEBYWIRE</u>®

#### **Reliability & Lower Emissions**

Flame-by-Wire<sup>®</sup> combustion technology replaces the use of conventional "neg-reg" and mechanical linkages with a modern system of independent electronic air and gas valves. It is easier to service and tune by empowering technicians to dial in air-fuel ratios with surgical precision.

- Simple Start-Up & Maintenance
- Maintains Precise Combustion
- Configurable to Sub-7PPM NOx

#### **Real-Time O<sub>2</sub> Compensation<sup>™</sup>**

The air-fuel ratio is continuously tuned in real-time, optimizing the combustion mixture. Automatically adjusting for seasonality virtually eliminates the need for mid-season re-tunes and reduces fuel usage.

- Maintains Ideal Oxygen Levels
- Maximizes Condensing Potential
- Auto-Optimization for Seasonality

## HEAVY-DUTY ENGINEERING

ENDURA+ features a duplex stainless steel heat exchanger for higher strength, increased resistance to corrosion, and superior thermal strain management.

On the right, Finite Element Analysis (FEA) reveals the stark contrast in operating stresses between competing equipment (right side) and Fulton's significantly more durable design (left side).

- Compact, Durable, and Efficient
- 160% Greater Yield Strength\*
- 22% Less Thermal Expansion\*

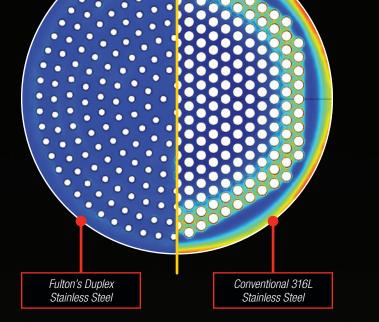
\* Compared to 316L stainless steel Heat Exchangers, ATI metals

Model EDR+3000

## **TRULY STRESS-FREE**

Fulton's exclusive **Tube Stress Reliever** eliminates thermal expansion stress by absorbing growth externally and allowing the heat exchanger to freely expand and contract. Conventional boiler designs sacrifice material integrity and lifespan by transferring the stresses of operation directly onto the tubesheet and heat exchanger tubes.

- Eliminates Longitudinal Expansion Stress
- Extends Boiler Life Significantly
- Stress Reliever is Maintenance-Free



## SIMPLIFIED PIPING ARRANGEMENTS

ENDURA+ boilers are designed for **variable primary flow**, a simplified piping method that enhances temperature control and reduces design complexity. Efficiency is maximized by delivering the lowest temperature water directly to the boiler, rather than blending with heated water in a primary-secondary manifold.

- Reduced Installation Costs
- No Dedicated Boiler Pumps

FLOW =

EXIT

HANICAL ROO O STORAGE FRMITTED

E

Smallest Boiler Plant Footprint

## EASY INSTALLATION AND OWNERSHIP

An ultra-compact footprint, automatic maintenance reminders, and trending data logs make the ENDURA+ easy to install and operate with design features to simplify service and maintenance.

- Access Panels Detach in Seconds
- Knockdown Capable for Retrofits
- Fits Through a Standard Doorway\*

\* Models up to 6 Million BTU/HR

....

E Z D

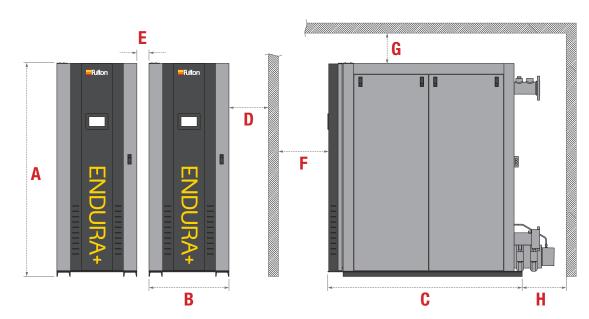
Futor

FLOW -

## **SPECIFICATIONS & DIMENSIONS**

	MODEL	EDR+2500	EDR+3000	EDR+4000	EDR+5000	EDR+6000	EDR+8000	EDR+10000	EDR+12000
SPECIFICATIONS									
Input Capacity	MBH	2,500	3,000	4,000	5,000	6,000	8,000	10,000	12,000
Water Content	GAL	80	80	180	180	180	360	360	360
Pressure Drop at 20°F $\Delta$ T	PSI	3.2	5.0	2.8	4.1	6.0	2.8	4.1	6.0
Operating Weight	LBS	3,267	3,267	6,540	6,588	6,593	14,502	14,502	14,502
AHRI Thermal Efficiency	%	96.8	96.3	94.6	94.5	95.9	94.6	94.5	95.9
Turndown Ratio		12.5:1	15:1	10:1	12.5:1	15:1	20:1	25:1	30:1
DIMENSIONS									
(A) Height	IN	80	80	79	79	79	79	79	79
(B) Width	IN	30	30	34	34	34	66	66	66
(C) Depth	IN	73	73	117	117	117	127	127	127
CLEARANCES									
(D) Sides	IN	24	24	24	24	24	24	24	24
(E) Between Pair	IN	1	1	1	1	1	24	24	24
(F) Front	IN	36	36	36	36	36	36	36	36
(G) Top	IN	18	18	18	18	18	18	18	18
(H) Rear	IN	24	24	36	36	36	36	36	36

NOTE: Specifications and dimensions are approximate and for reference only. Fulton practices continuous product improvement and reserves the right to change specifications and/or dimensions without notice.





#### Call: (315) 298-5121

972 Centerville Road Pulaski, NY 13142



E

Intertek



#### fulton.com/plus