

LNO SERIES BURNER

CBLE 250 – 700 HP

CBEX ELITE 250 – 700 HP

Highest combustion efficiency at sub-5 ppm NO_x
of any burner in the industry

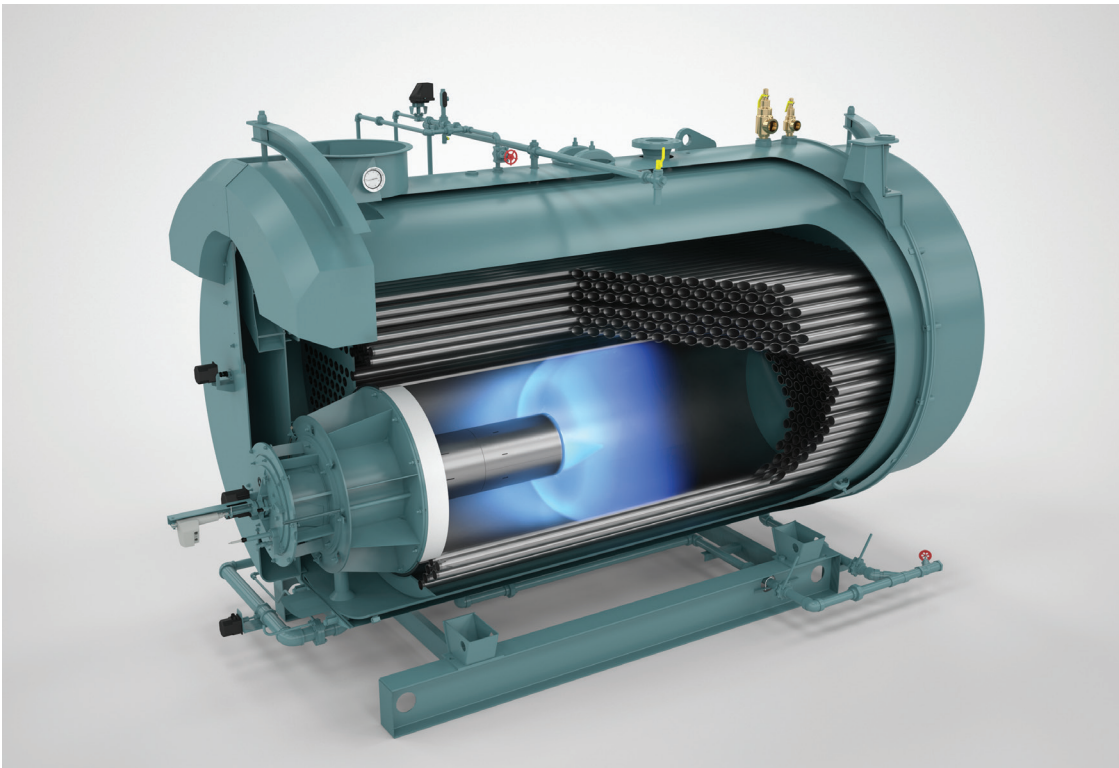
Maintaining Ideal Excess Air Level Yields Highest Efficiency

Designed for CBLE and CBEX Elite boilers, the LNO burner series is the first in the industry to achieve less than 5 ppm NO_x with 3% O₂ throughout the firing range. Models with mesh burners cannot meet 5 ppm NO_x, and a handful of other models can only meet sub-5 ppm NO_x with corrected O₂ levels, which negatively affects their operating efficiency.

Advanced technology highlighted by a unique flame pattern enables the LNO burner to operate with low emissions and low excess-air levels throughout the firing range. This engineering innovation is how the natural-gas firing LNO burner attains the highest combustion efficiency at sub-5 ppm NO_x of any burner in the industry.

Features and Benefits:

- ▶ Maintains constant 3% O₂ throughout the firing range
- ▶ Sub-5 ppm NO_x without selective catalytic reduction
- ▶ Up to 5:1 turndown
- ▶ Exceptionally low CO emissions
- ▶ Highest operating efficiency at sub-5 ppm of any burner in the industry
- ▶ Patent-pending burner eliminates ongoing maintenance and frequent replacement of mesh-type burners
- ▶ Hawk 4000 control ensures high accuracy, repeatability and reliability

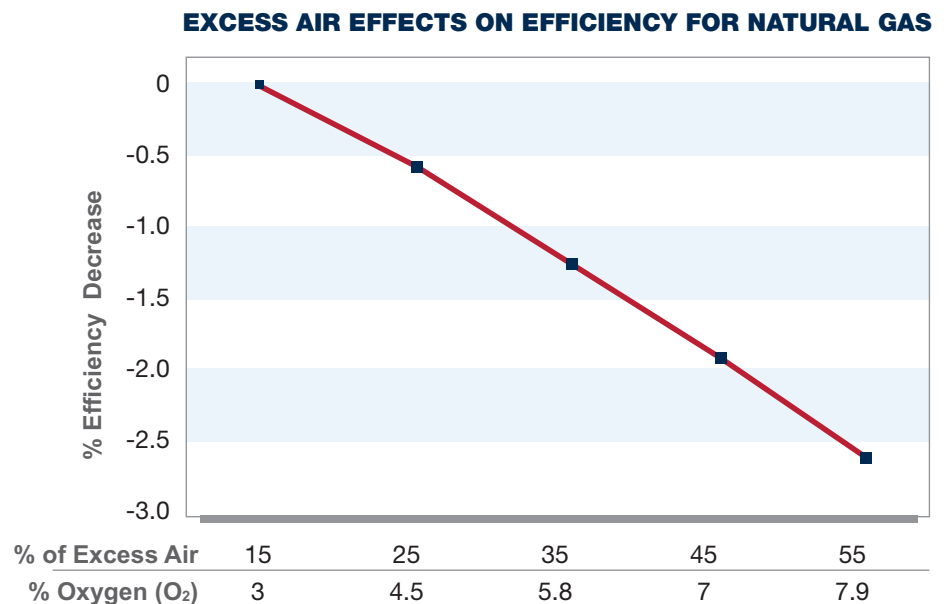




Designed to Meet the Most Stringent Emissions Requirements

Proprietary burner technology delivers sub-5 ppm NO_x and low CO emissions. The LNO burner is the first in the industry to achieve 3% O₂ and NO_x performance without selective catalytic reduction.

- ▶ The LNO burner can be retrofitted on existing CBLE and CBEX Elite boilers already in service.



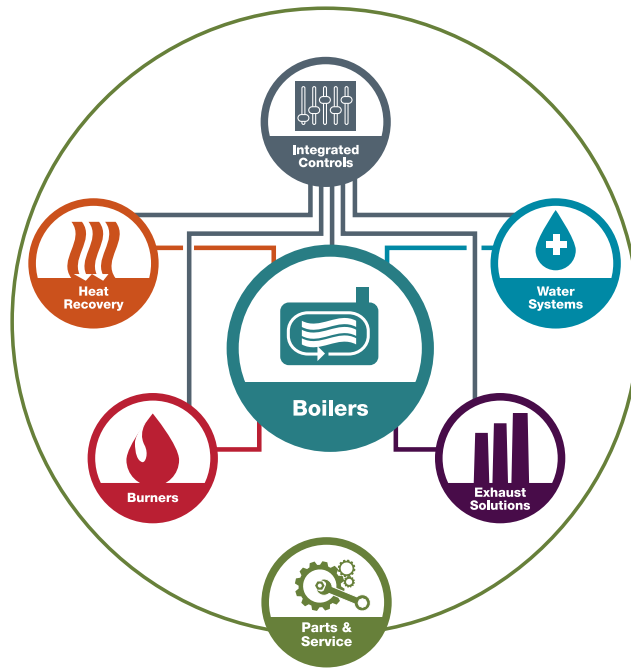
Burner Head Design

The LNO burner system premixes the fuel and air. This mixture is delivered to the combustion head where its velocity is actively controlled and discharged radially. The LNO's patent-pending, single-stage combustion eliminates the hot spots that produce NO_x emissions.

Hawk 4000 Control

Tailored for the LNO burner series, the Hawk 4000 integrated control ensures high accuracy and resolution with repeatable actuator positions for efficient operation. Through digital positioning feedback actuators deliver precise control, repeatability, reliability and independent ignition position for greater flexibility.





Providing energy-efficient, environmentally friendly boiler room solutions

Cleaver-Brooks is one of only a few boiler room solutions providers in the world to operate a dedicated research and development facility. Having pioneered several industry-leading technologies, we remain just as committed today to introducing technology and products that enable a more energy-efficient and environmentally friendly generation of steam and hot water.

We distribute our products through the Cleaver-Brooks Representatives Association, or CBRA, an alliance of independently owned and operated companies that provide boiler room products and service. CBRA companies can be counted on to provide Cleaver-Brooks products and parts, engineering support, customer training, technical service and system maintenance. To find a CBRA representative near you, please visit cleaverbrooks.com/ reps.



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