THE WORLD’S EFFICIENCY AND EMISSIONS STANDARD

CBEX DRYBACK ELITE FIRETUBE

250 – 800 HP
DESIGNED WITH CLEAVER-BROOKS EXTENDED-SURFACE “EX” TECHNOLOGY

- Improved tube heat transfer through computational fluid dynamics (CFD) modeling for 85% greater heat transfer
- Simplified vessel with low rate of furnace heat release for reduced stress
- Superior combustion featuring high turndown with constant stack oxygen
- High efficiency with legendary durability for the lowest cost of ownership

Most Efficient Firetube System Ever Built
The CBEX Elite is the only firetube to achieve 3% stack O₂ across the entire 10:1 turndown range. This reduces stack losses thereby increasing efficiency at the low- and intermediate-firing rates, where a boiler typically operates. Competitors often promote boiler efficiencies only for the maximum firing rate, where the oxygen content is always the lowest.

Every core component of the CBEX Elite has been designed and built by Cleaver-Brooks. The unit features the Cleaver-Brooks exclusive integral burner with air-cooled front head.

CBEX Dryback Elite
- Steam and hot water
- 30 ppm NOx standard
- 10 ppm CO emissions
- 82% nominal efficiency

Superior to traditional firetube boilers
- 20% smaller
- Weighs less
- Generates steam quicker

Efficiency Comparison
Typical Boiler vs. CBEX Dryback Elite

<table>
<thead>
<tr>
<th>% Efficiency</th>
<th>% Firing Rate</th>
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<tbody>
<tr>
<td>80.0</td>
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<tr>
<td>84.0</td>
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Optimized excess air (3% O₂)
Fuel savings
Typical excess air
Typical operating range
**Hawk Control**

A boiler’s performance is based on the ability of the boiler, burner and controls to work together seamlessly. The Cleaver-Brooks Hawk control system offers precise boiler/burner management and safety with logic-based ancillary devices and functions.

The linkageless Hawk offers options for O₂ trim and variable-speed drive control and can be customized and optimized for any system. It is compatible with building automation systems and is NFPA and UL compliant.

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**Ideal for Steam Back-up or Mobile Field Processes**

The CBEX Dryback Elite is specifically designed to fit inside a shipping container. Cleaver-Brooks offers a complete operable boiler room shippable worldwide up to 1000 HP. All components are supplied by Cleaver-Brooks for single-source responsibility.
Providing energy-efficient, environmentally friendly boiler room solutions

Cleaver-Brooks is one of only a few boiler room solution 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.