



## **GENUINE PARTS, UPGRADES AND MAINTENANCE**

Get the most out of your boiler system.

## TRUST CLEAVER-BROOKS FOR ALL YOUR BOILER SYSTEM NEEDS.

Cleaver-Brooks offers the highestquality genuine parts, service and upgrades, backed by unparalleled expertise, helping you maximize savings, performance and efficiency. Whether for a Cleaver-Brooks boiler or a boiler from another manufacturer. we have the parts and maintenance solutions to keep your boiler system operating safely and reliably at peak efficiency. We offer expertly engineered upgrade solutions to lower fuel usage and lower emissions for all boiler systems. And with the largest, most experienced representative distribution in the boiler industry, no



one provides better service and support in more locations.

#### CLEAVER-BROOKS IS HERE FOR YOU BEFORE, DURING AND AFTER THE SALE.

#### **Industry-Leading Support**



The Cleaver-Brooks Representatives Association (CBRA) is the first and only dedicated alliance of boiler room sales and service representatives in the industry. More than 1,500 CBRA representatives across the globe provide unparalleled, ongoing support

from commissioning your system, to providing genuine parts and turnkey after-sale solutions, to extensive product training and knowledge sharing.



Cleaver-Brooks is the only boiler manufacturer with worldwide representation. **Visit cleaverbrooks.com to find your nearest representative.** 



## **Genuine Parts**

No matter the ancillary equipment in your boiler/burner system, every part you need is available through Cleaver-Brooks Genuine Parts. Each part we offer is engineered and manufactured specifically to your equipment's original specs. In addition, each part is backed by the highest-quality standards of Cleaver-Brooks.

#### **Replacement Parts**

With one of the most extensive networks in the world, we have the parts you need when you need them. We have over 4,000 items immediately available for next-day shipment from our authorized representatives or distribution center. **Contact your local Cleaver-Brooks Representative for any part you need.** 

#### Examples of stocked parts include:

Controls, electrical components, fuel components, gaskets, gauges, impellers, motors, pumps, refractory, tubes, valves, kits, accessories, hardware and maintenance equipment.



#### **Specialty Parts**

We offer a complete line of boiler parts and components, whether you need OEM materials, boiler tubes, maintenance or upgrade kits. Cleaver-Brooks provides an extensive offering of specialty parts to help keep your boiler room up and running. Each Cleaver-Brooks part is manufactured to meet exacting industry standards.



#### **Drum Fabrication**

Let our Cleaver-Brooks manufacturing facilities assist you in the fabrication of your OEM materials.



#### Complete Tube Line Offering

Our complete line of boiler tubes is designed and manufactured to your exact product specifications.



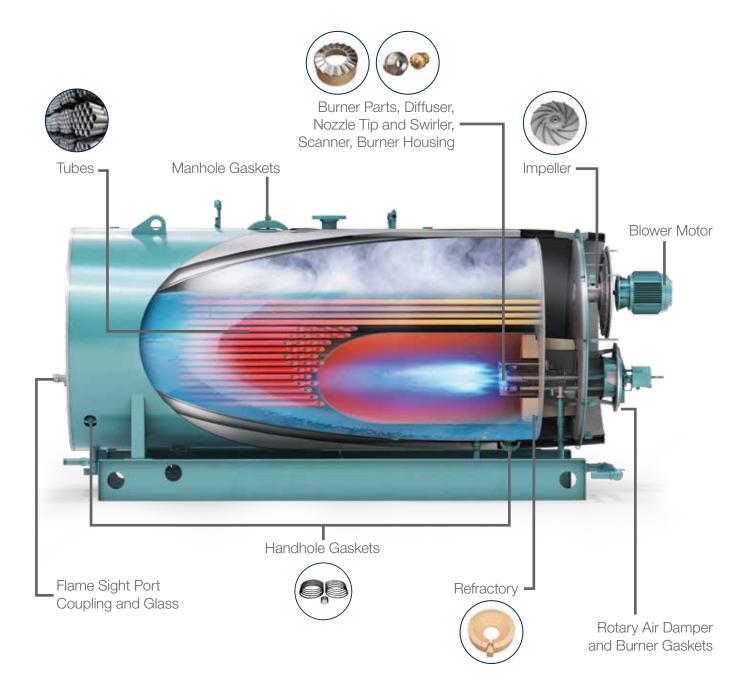
#### **Maintenance Kits**

Cleaver-Brooks maintenance kits feature components designed and engineered specifically for the original equipment.

## **Maximize Uptime with Critical Spare Parts**

Properly maintaining your boiler ensures that it will continue to operate at peak efficiency and keep operating costs to a minimum. Downtime can cost facilities thousands of dollars in lost productivity. Stocking critical parts for wearable components and proper maintenance is one of the easiest ways to keep your boiler online. Only Cleaver-Brooks can offer a customized spare parts list for genuine Cleaver-Brooks parts to care for your specific boiler system: gasket kits, burner parts, valves, gauges, impellers, motors, tubes, pumps, refractory, controls and more.

Contact your local Cleaver-Brooks Representative for your customized list at cleaverbrooks.com/reps.





### **Service and Maintenance**



Nothing is stronger than our commitment to our customers long after the sale. We have a dedicated network of 1,500 CBRA Representatives throughout the world whose goal is to provide the

best products and service before, during and after the sale.

Cleaver-Brooks offers the most experienced service and maintenance network in the industry. Our local service technicians are trained to handle all service or maintenance issues on any boiler system. When a Cleaver-Brooks boiler is installed, our job is far from over. Our global network is available 24/7/365 with over 4,000 stocked parts and 1,500 service vehicles ready to dispatch. Whether you're preparing for an inspection, tune-up or regular maintenance, Cleaver-Brooks level of industry expertise and tech support gives you peace of mind when servicing your boiler.



#### **Routine Service and Maintenance**

When a boiler goes down, business can be crippled. Downtime is often attributed to incomplete maintenance. We understand you are concerned about routine maintenance to keep your boiler operating optimally.

You can always count on Cleaver-Brooks to help you find the parts, training and maintenance plans needed to keep your boiler room running smoothly. Check the following areas annually, or more often as needed. You can add years to your boiler's life and save thousands of dollars through reliable, efficient operation. **Contact your local authorized Cleaver-Brooks Representative to discuss a customized maintenance plan.** 

**Fireside** – Check for soot that can reduce the efficiency of your boiler tubes and furnace area. Be sure to check for water leakage and wear and tear that may require repair and indicate a larger problem.

**Waterside** – Check out any detectable scale that can reduce the efficiency of your boiler tubes and furnace area. Be sure to check gasket-sealing surfaces for wear and tear.

**Refractory –** Check for cracking. Even minor cracks can reduce boiler efficiency and allow damage to metal parts. Use a high-quality patching compound to repair, if needed.

**Burners** – Check dampers, nozzles, electrodes, scanners, hoses and diffusers for blockage, erosion or other damage. Replace worn or damaged parts for optimal combustion performance.

**Controls** – Proper water levels and operational safety and combustion devices are critical to your boiler's performance. Carefully check gauge glass for cracks or erosion, and inspect equipment regularly.

## **Upgrades and Retrofits**

We live in a world where technology is always advancing. Your current boiler system may benefit from a burner retrofit, controls upgrade, supplemental heat recovery equipment or a fuel conversion. All can increase efficiency or reduce emissions. Your local Cleaver-Brooks Representative can evaluate your current boiler room and recommend the right upgrade or retrofit for your system.

#### **Reduce Emissions and Increase Efficiency**



#### **Burner Retrofit**

An older burner can drive up fuel use and costs in a boiler. After about 10 years of service, burners should be professionally evaluated for emissions and efficiency upgrades.



#### **Heat Recovery Retrofits**

Incorporate an economizer or blowdown heat recovery to reclaim energy back into your system, saving fuel and reducing energy cost.



#### **Hawk Controls**

The Hawk is a state-of-the-art, integrated boiler room management system. It is designed to achieve the most efficient and economical performance from your boiler room. Ideal for retrofit applications, it delivers reliability, safety and efficiency with a seamless, easy-to-use, human-to-machine interface.

- parallel positioning
- ► O<sub>2</sub> trim
- integrated variable speed drive (VSD) programming
- Iinkageless connections
- fully metered options
- multiple communication protocols

#### **Fuel Conversions**

Have you considered if you are using the most cost-effective fuel source and if a fuel conversion would be beneficial to your boiler system? With these advantages in mind, Cleaver-Brooks takes great care in designing and engineering our fuel equipment upgrades. Our fuel conversion kits are built to work seamlessly with your existing system, allowing you to reap the benefits sooner. Our complete, factory-designed fuel conversion kits contain everything you need.



## Training

Cleaver-Brooks is the only boiler manufacturer with a dedicated training department. Our in-depth training focuses on how to operate and maintain boiler systems at maximum safety and performance. Cleaver-Brooks is committed to helping you maximize the safety and performance of your boiler room. We offer comprehensive, in-depth training programs at the Cleaver-Brooks Boiler House in Milwaukee, WI, and can also orchestrate custom on-site programs at your facility. For your convenience, we also offer online, selfpaced courses. **Visit cleaverbrooks.com/training to find an upcoming training program that's right for you.** 



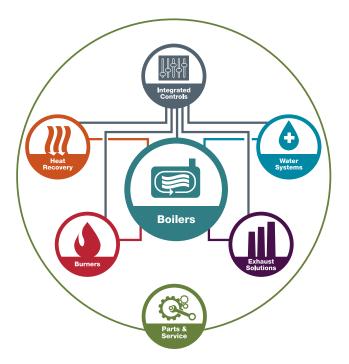
#### Hard Facts and Provable Metrics with BOOST<sup>™</sup>

To help our customers get the most out of their boilers, we developed our BOOST Program (Boiler Operation Optimization Savings Test). This proprietary analysis evaluates the current state of your boiler system using key operating metrics. It then provides an evaluation showing both the costs of needed improvements and the ROI. This valuable tool can show you what improvements you can make to improve both your bottom line and the efficiency of your boiler system. BOOST offers solutions that will lower costs and raise efficiency for every boiler room and application. It determines needed upgrades to increase efficiency and decrease emissions. It generates a customized financial report for your boiler room that details savings and ROI. **Ask your Representative about our exclusive BOOST program, and discover solutions to lower your fuel costs**.

#### Total Annual Savings: \$88,447

Payback: 28.0 Months NPV: \$216,838 IRR: 40.7%

PROJECT SUMMARY CASH FLOW												
Year	0	1	2	3	4	5	6	7	8	9	10	11
Total Implementation Cost	(\$143,780)											
Annual Incremental Pre-Tax Savings		\$88,447	\$88,447	\$88,447	\$88,447	\$88,447	\$88,447	\$88,447	\$88,447	\$88,447	\$88,447	\$88,447
Less Depreciation from Boiler 1		(\$14,378)	(\$25,880)	(\$20,704)	(\$16,563)	(\$13,257)	(\$10,597)	(\$9,418)	(\$9,418)	(\$9,432)	(\$9,418)	(\$4,716)
Before Tax Savings		\$74,069	\$62,567	\$67,743	\$71,884	\$75,191	\$77,851	\$79,030	\$79,030	\$79,015	\$79,030	\$83,731
Less Tax		(\$29,628)	(\$25,027)	(\$27,097)	(\$28,753)	(\$30,076)	(\$31,140)	(\$31,612)	(\$31,612)	(\$31,606)	(\$31,612)	(\$33,492)
After Tax Savings		\$44,441	\$37,540	\$40,646	\$43,130	\$45,114	\$46,710	\$47,418	\$47,418	\$47,409	\$47,418	\$50,239
Add Back Depreciations		\$14,378	\$25,880	\$20,704	\$16,563	\$13,257	\$10,597	\$9,418	\$9,418	\$9,432	\$9,418	\$4,716
Net After Tax Cash Flow	(\$143,780)	\$58,819	\$63,420	\$61,350	\$59,694	\$58,371	\$57,307	\$56,835	\$56,835	\$56,841	\$56,835	\$54,955
Cumulative Net After Tax Cash Flow		\$58,819	\$122,240	\$183,590	\$243,284	\$301,654	\$358,961	\$415,797	\$472,632	\$529,473	\$586,308	\$641,263



# The Power of Total Integration continues after the sale.

For more than 80 years, Cleaver-Brooks has built a reputation for innovation in the boiler solutions industry. We remain committed to introducing technology and products that enable a more energy-efficient and environmentally friendly generation of steam and hot water.

When you come to us for a fully integrated boiler system solution, you can know that each element is created to the highest standards, and all will work together seamlessly to give you a highly efficient and reliable solution for protecting your boiler system. To learn more, please call or visit us online at cleaverbrooks.com.



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