CLEAVER-BROOKS™
BURNER RETROFIT
CLEAVER-BROOKS™  BURNER
RETROFIT SPECIFICATIONS

Applications: Single burner: firetube, Cleaver-Brooks™ package boiler

Fuel: No. 2 through No. 6 fuel oil, and/or natural gas (consult factory for Bio Residual Oil (BRO), Renewable Fuel Oil (RFO), or waste fuels).

NOₓ Emissions: Natural gas: less than 30 ppmc.
No. 2 fuel oil: less than 90 ppmc (maximum 0.01% FBN) without FGR.
No. 6 fuel oil: less than 250 ppmc (maximum 0.30% FBN) without FGR.
BRO & RFO: consult factory

Burner Efficiency: Any fuel: 1.5 - 2.5% excess oxygen 50 - 100% firing rate (exclusive of “tramp” air) VFD motor control for maximum electrical efficiency of combustion air.

Turndown: 10:1 on gas firing; 8:1 on oil firing.

Burner Control & Monitoring: Firing Rate Control: Burnermate Universal Parallel Positioning/Fully metered controller.
Oxygen sensor: Model “ZP” In-Situ sensor, reliable zirconium oxide detector
Monitoring: SCADA/Flex remote monitoring and control system.
Instruments: UV & IR Flame Scanner

Additional Options: Draft control, drum level control, low fire fuel changeover, dual/redundant flame scanning, smoke opacity monitoring and alarm, atomizer post purge capability, flue gas temperature indication alarm, emergency boiler shutdown.

Note: Furnace geometry and heat release rate affect NOₓ performance. Lower NOₓ emissions are attainable with more FGR.
**CLEAVER-BROOKS™ BURNER RETROFIT**

An innovative, low cost combustion solution to meet sustainability goals, emission reduction requirements, and extreme efficiency improvements.

**UPGRADE FOR A FRACTION OF THE COST**

Upgrading your burner to our Cleaver-Brooks™ Retrofit will **not** require the removal of the front or rear doors, but acts as a direct replacement insert for the existing burner. Preferred Utilitiles will reuse the existing combustion fan, making no cuts or modifications in the original front door. This specialized API-Ranger burner and controls upgrade will give you the ability to burn RFO, BRO, natural gas, or #2 oil.

“A direct replacement insert for the existing CB™ Burner.”