

PREFERRED API

ADVANCED PERFORMANCE INJECT-AIRE 4 mmBtu/hr – 120 mmBtu/hr consult factory for higher heat inputs





API-RF

- Allows for the fan to be placed remotely
- Custom engineered sizing solutions
- Larger horsepower sizes available

"Lance style" gas-electric igniter is removable without opening the burner.

Fuel oil atomizer coupling block with integral shutoff valves for ease of operator use and safety.

Custom windbox sizes available to suit watertube boiler applications.

The Low NOx Combustion System

produces an exceptionally stable flame at all firing rates, while achieving low NOx emissions.

High Efficiency

The API incorporates VFD control of forced draft fan speed, for significant electrical reductions, regardless of the type of fuel burned.

Advanced Design

Engineered to:

- Eliminate field errors
- Reduce space requirements
- Simplify maintenance

API-AF Compact design - Easy maintenance Hinged fan design allows for easier burner maintenance and Standard sizes available inspection from the boiler front. Gas injectors are tailored to each application to ensure the best possible performance for your fired unit. **Proprietary Y-jet air atomized** nozzle provides fine oil droplets with reduced atomizing air. Direct drive **External flame scanners** (UV or IR) parallel positioning servos. Positioning rod withdraws the atomizing nozzle, extending the atomizer's life.

REMOTE FAN

The Preferred API burner is designed for maximum energy efficiency and minimal electricity consumption for quick payback. Coupled with Preferred's BurnerMate Universal flame safeguard and combustion controller, the API burner qualifies for most local energy rebate programs.



DISTINCT QUALITIES

Sizes: 4–120 mmBtuh

Custom Built: Configurable to meet job specific requirements (high altitude, obstructions at the boiler front, hazardous locations, pre-heated air).

Maintenance: Removable oil gun for easy maintenance and includes a coupling block design.

Design: Air plenum can be welded to the boiler front wall. Burner design is suitable for watertube applications.

Safety: Multiple scanner locations. Integral shutoff valves in oil gun design for operator safety.

AXIAL FAN

The Advanced Performance Inject-Aire Low NOX Burner (API) produces an exceptionally stable flame at all firing rates. Our engineers specifically designed this burner to accelerate installation, reduce space requirements, and facilitate maintenance when needed.



DISTINCT QUALITIES

Sizes: 100 HP to 600 HP

Standard Built: Pre-engineered sizes and configurations for faster deliveries

Maintenance: Hinged fan design allows for easier burner maintenance and inspection from the boiler front.

Compact Design: Axial fan provides a compact burner. Packaged design allows for reduced installation time.

Controls: Burner mounted control panel is available.

SPECIFICATION

Applications:	Configurable to meet job specific requirements (high altitude, obstructions at the boiler front, hazardous locations, pre-heated air).
Fuel:	No. 2 through No. 6 fuel oil, and/or natural gas; alternate fuels available
NOx Emissions:	Natural gas: as low as 30 ppmc without FGR. 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.
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.
Supply Pressure:	The API burner accommodates a wide variety of combustion applications and fuels. Specific information relating to fuels intended to be used, as well as pressures and temperatures, must be provided.
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, and self-checking UV scanner available Other controls available
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, and dual igniters.
N h a	lote: NOx performance is furnace geometry and eat release rate dependent. Lower NOx emissions re attainable by introducing FGR.





Brochure: API-041119



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