

MODU-FIRE FD[®]

ENHANCED COMBUSTION EFFICIENCY WITH SUPERIOR SERVICEABILITY



Patterson-Kelley's Modu-Fire FD series boiler is built using an advanced premix combustion system. With this method gas and air are mixed before ignition using a process that automatically compensates for changes in combustion air temperature and pressure. The result is improved combustion efficiency and stability – and greater fuel savings! – even in sealed combustion, high altitude or low NO_x applications.

This is a true “forced draft” process. The combustion chamber is pressurized using a variable speed blower, and there is sufficient pressure to pressurize the breeching and chimney as well. In fact, the blower is capable of producing vent outlet pressures of up to 2” w.c. Higher pressure means smaller chimney size which reduces installation costs to increase your savings.

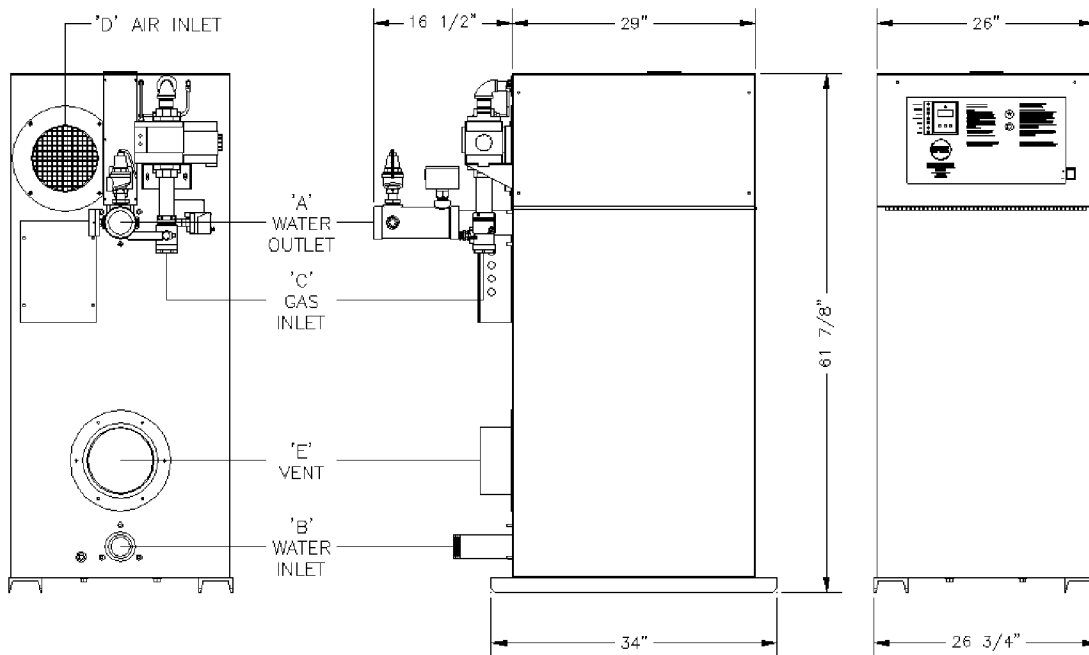
This is all accomplished without sacrificing Patterson-Kelley's famous Easy Service Design. The outer cabinet is built with removable panels held in place with quick fasteners. The pressurized inner cabinet takes the form of a wrapper that surrounds the heat exchanger and is attached to the tubesheet. The front face of this wrapper is easily removed for inspection and cleaning. Insulation and refractory materials are simply not required. The heat exchanger's top head can even be removed without removing the heat exchanger from the boiler casing. The result is a boiler with the industry's best, fastest and easiest service access.

All of this – together with its small footprint, light weight, industry-leading warranty and enhanced control functionality as standard equipment – makes the Modu-Fire FD the most user-friendly hot water boiler on the market today. Easy to install and easy to own, Modu-Fire FD is an easy choice.



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CAPACITIES AND DIMENSIONS



SERIES Number	BTU Input	BTU Output	Boiler HP	A FTP	B MPT	C FTP	D	E OPTION A	E OPTION B	OPERATING WEIGHT
N1500-MFD	1,500,000	1,275,000	38	2 1/2"	2 1/2"	1 1/2"	8"	6"	8"	975 lbs.
N2000-MFD	2,000,000	1,700,000	50.8	2 1/2"	2 1/2"	1 1/2"	8"	6"	8"	990 lbs.

The descriptions and technical data included in this brochure are subject to change without notice. Always contact your local Patterson-Kelley representative for the most up-to-date information and product application support.

CAPABILITIES AND FEATURES

CSA certified at 85% efficiency
 Maximum efficiency 88%
 Built to CSA & ASME CSD-1
 Complies with GE-GAP (formerly IRI)
 Pre-certified to SCAQMD 1146.2 (2006)
 PK "5-10-5" Extended Warranty

Pre-mix combustion with variable speed blower
 Inverter with integral PLC
 Dynamic Air Density Compensation
 Direct spark ignition
 High durability radial-fired, mesh type burner
 Flow Equalizer cast iron heat exchanger heads

Factory set for 1" w.c. exhaust pressure (2" max.)
 Two exhaust outlet options: 6" or 8"
 High chimney backpressure switch (blocked flue)
 Suitable for all common Category IV venting applications

Ventless integrated gas train
 Dual independent gas valves with gas pressure regulator
 High and low gas pressure switches
 Test ports and test valves
 4" w.c. min. gas pressure at 1" w.c. exhaust pressure
 5" w.c. min. gas pressure at 2" w.c. exhaust pressure
 208-240V, 1 Phase, 4 wire electrical connection
 Low electrical consumption: 12A max., 6A operating

Microprocessor based flame control with UV scanner
 Digital temperature controller
 Optional header bulb for remote control point
 Outdoor temperature reset control

Analog firing rate output signal (0-10Vdc), or
 Analog pump speed output signal (0-10Vdc)
 Boiler circulator control interlock with off-delay

Local-remote and enable-disable selector switches
 Manual firing rate switch (high, low, auto)
 All limit points alarm contacts
 10 light diagnostics



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