



P-K SOLIS™

HIGH EFFICIENCY FIRETUBE BOILER



PATTERSON-KELLEY 

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Patterson-Kelley's First Firetube Boiler

The P-K SOLIS™ vertical firetube boiler leads Patterson-Kelley into the condensing firetube market. This top of the line, highly efficient condensing boiler is designed to maximize comfort without sacrificing savings. Each P-K SOLIS™ model features a unique geometric design that optimizes heat transfer, resulting in efficiencies up to 97%, 10:1 mechanical turndown, and ultra-low NOx emissions.



Advanced Design

The advanced design of the P-K SOLIS™ heat exchanger has the end user in mind when it comes to performance and longevity of a boiler. Every aspect of the P-K SOLIS™ design has been carefully formulated to achieve the best performance and efficiency possible.

10:1 Mechanical Turndown

10:1 mechanical turndown is the standard on all P-K SOLIS™ units. Patterson-Kelley has achieved higher turndown with a unique process that allows the gas valves to reliably turn down without adding excess air. This allows designers the ability to match input to building loads without sacrificing reliability or efficiency.

Features

- ✓ 725-3000 MBTU
- ✓ Up to 97% Thermal Efficiency
- ✓ Full Modulation Burner with 10:1 Mechanical Turndown
- ✓ Ultra-Low NOx Emissions
- ✓ 316 SS Tube and Tube Sheet with a 304 SS Heat Exchanger Shell
- ✓ Removable and Hinged Door Panels allow Quick Access to the Firetubes and Burner for Easy Boiler Maintenance
- ✓ Zero-Clearance Capable for Side-by-Side Installation or Close Boiler Room Application
- ✓ Compact Design Fits Through a Standard 36" Doorway
- ✓ Serviceable and Replaceable Integrated Condensate Tray

Compartmentalized Heat Exchanger Design

The stainless-steel heat exchanger in the P-K SOLIS™ is designed to maximize heat and overall efficiency. This 316 stainless steel tube and tube sheet provides extended corrosion resistance to the unit with a 304 SS heat exchanger shell for additional thermal resistance. The vertical firetube design provides single-pass, counter-flow water travel design for efficient heat transfer. Our precision weldments are generously spaced to guard against threats of thermal expansion and thermal shock failures.



Simplified Serviceability

The heat exchanger is designed to provide ease of access for simplified and quick maintenance. The heat exchanger door swings open for full access to the tubes and burner inside the unit. This makes maintenance, including cleaning, a quick and cost effective process.



The NURO® Touch-Screen Control System

Coming standard on all P-K SOLIS™ models, the NURO® Touch-Screen Control System with NURO® Connect provides the most intuitive interface in the industry. Designed to maximize efficiency, the NURO® monitors and modulates the combustion and ignition of the boiler to maintain the desired outlet temperature, extending the life of the boilers.



Easy to Use:
Simple touch-screen technology adjusts boiler controls with a swipe of the finger.



Easy to Set-up:
Setup Wizard provides guided setup for virtually all applications.



Easy to Connect:
NURO Connect® gives access to data anywhere with an internet connection.



BOILER RATINGS	SL-725	SL-850	SL-1000	SL-1500	SL-2000	SL-2500	SL-3000
EFFICIENCY	97.7%	97.5%	96%	96%	96%	96%	96%
MAX BTU/HR INPUT	725,000	850,000	1,000,000	1,500,000	2,000,000	2,500,000	3,000,000
MAX KW INPUT	212	249	293	400	586	733	879
MAX BTU/HR OUTPUT	708,000	829,000	960,000	1,440,000	1,920,000	2,400,000	2,880,000
MAX KW OUTPUT	203.98	239.15	281.35	422.0223	562.6965	703.3706	844.0447
MIN FLOW @ IGNITION (GPM)	17.4	20.4	24	33	43	46	46
MIN FLOW RATE (GPM)	1.102	1.292	10	20	20	25	25
MIN BTU/HR INPUT	72,500	85,000	100,000	150,000	200,000	250,000	300,000
MIN KW INPUT	21	25	29	44	59	73	88
MIN BTU/HR OUTPUT	69,600	81,600	96,000	144,000	192,000	240,000	300,000
MIN KW OUTPUT	20.40	23.91	28.13	42.2022	56.2696	70.3371	84.4045
MECHANICAL TURNDOWN	10:1	10:1	10:1	10:1	10:1	10:1	10:1
FUEL TYPE (NG, LP, DF)	NG	NG	NG	NG	NG	NG	NG
DIMENSIONS	SL-725	SL-850	SL-1000	SL-1500	SL-2000	SL-2500	SL-3000
DEPTH (IN)	38.2	38.2	57	77.3	77.3	80	80
WIDTH (IN)	24.9	24.9	30.2	35	35	35	35
HEIGHT (IN)	49.8	49.8	78.5	80	80	80	80
OPERATING PARAMETERS	SL-725	SL-850	SL-1000	SL-1500	SL-2000	SL-2500	SL-3000
BOILER HP	21.7	25.4	29.9	44.8	59.7	74.7	89.6
MAX INLET GAS PRESSURE	14	14	14	14	14	14	14
MIN INLET GAS PRESSURE	3.5	3.5	3.5	3.5	3.5	3.5	3.5
SHIPPING WEIGHT (LBS/KILOS)	635	635	1750/795	2445/1111	2445/1111	2650/1204	2650/1204
ELECTRICAL REQUIREMENTS	120V 1PH 60hz 10 amps	120V 1PH 60hz 10 amps	120V 1PH 60hz 10 amps	208/240V 1PH 60hz 15 amps	208/240V 1PH 60hz 10 amps	220/480V 3PH 60hz 30 amps	220/480V 3PH 60hz 30 amps
OPERATING WEIGHT (LBS/KILOS)	665	665	2150/977	3000/1363	3000/1363	3470/1577	3470/1577
FLOW RATE 20°F ΔT GPM	69.6	81.6	96	144	192	240	288
FLOW RATE 20°F ΔT LPS	4.408	5.168	6.08	9.12	12.16	15.2	18.24
ACCEPTABLE VENT MATERIALS	AL29-4C, 316L SS, CPVC, POLYPROPYLENE, CAT II, CAT IV						
NON-ACCEPTABLE VENT MATERIALS	PVC						



CONTROL ON THE GO:

WITH OUR NURO® CONTROL SYSTEM, YOU CAN VIEW AND MANAGE YOUR BOILER FROM ANYWHERE WITH AN INTERNET CONNECTION



SIMPLIFIED SERVICEABILITY:

THE SOLIS ALLOWS EASY ACCESS TO THE HEAT EXCHANGER AND INTERNAL COMPONENTS FOR SIMPLE MAINTENANCE



10:1 MECHANICAL TURNDOWN:

ALLOWS FLEXIBILITY TO MATCH INPUT TO BUILDING LOADS, AND DOES NOT INTRODUCE EXCESS AIR ALLOWING MAXIMUM THERMAL EFFICIENCY

The Patterson-Kelley Experience

Patterson-Kelley, a division of SPX Corporation, is the leading provider and producer of commercial hot water heating solutions. With over 140 years of experience and an innovative R&D pipeline, we provide a full line of condensing and non-condensing boilers, semi-instantaneous water heaters, and an array of commercial boiler and water heating products including gas fired, dual fuel, and outdoor boilers.

Because we are continuously evolving our products, descriptions and technical data are subject to change without notice. Contact your local Patterson-Kelley representative for the most up-to-date information and product application support.

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