P-K SONIC®

Breaking Barriers in Design and Reliability

PATTERSON-KELLEY

Satisfies Comfort Heat and Domestic Hot Water Applications

The P-K SONIC® stainless steel condensing boiler surpasses all expectations in efficiency, size and material design. This unique design allows the P-K SONIC® to operate up to certified 97% efficiency with up to 7:1 turndown and ultra-low emissions.

Big output in a small footprint

Whether it's the basement or the penthouse, the P-K SONIC® condensing boiler can be placed in any room of your building. All P-K SONIC® boilers fit through a standard 36-inch doorway or standard elevator and the larger models (SC1500 - SC4000) come equipped with wheels. The SONIC®'s narrow design allows it to navigate corners and hallways with ease.

Worry free maintenance

The P-K SONIC®'s clean, compact design allows internal components to be accessed with ease, saving time and money associated with repair and maintenance. Front maintenance accessibility encourages annual servicing to increase boiler life and performance.

FEATURES

- Unique stainless alloys resist corrosive condensation
- Compact design fits through a standard 36" doorway
- Full modulation burner with up to 7:1 turndown, thus improving cycle efficiency
- Available in a domestic hot water option (650 to 1,000 MBTU only)
- NURO® Touch-Screen Control System allows for easy control anytime, anywhere
- Front accessibility reduces repair and maintenance costs
- Low electrical energy consumption increases savings
- Utilizes the patented DUET™ technology to maintain high efficiency (1,500 to 4,000 MBTU Only)

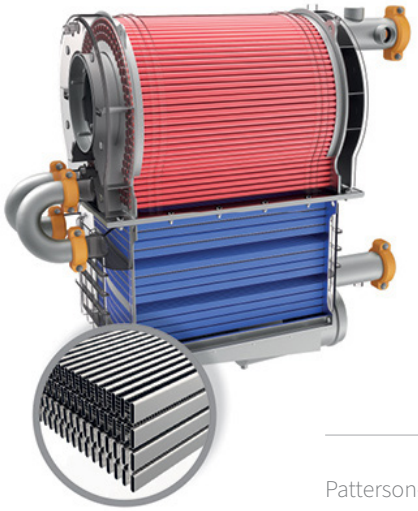
Advantages

- Smarter stainless steel design for a longer life and greater reliability
- Integrates seamlessly with your existing hydronic system
- Perfect for new installation and retrofit projects
- 60% smaller than the leading competition
- Front accessibility reduces repair and maintenance costs
- Barely audible, even at high fire

Efficiency and harmony in design

Models SC1500 - SC4000

Equipped with DUET™ technology, the P-K SONIC® is the first practical stainless steel design for condensing applications in the industry. The innovative zones were engineered separately using different composite stainless materials that, when used together, deliver better heat transfer and higher reliability throughout the condensing process.



Radiant Zone

Radiant zone is designed with durable, long lasting **304L stainless steel** for resounding performance in demanding **high stress environments**.

Convective Zone

Convective zone is designed with super resistant **316L stainless steel tubes** and 316L stainless steel ribbon channels for increased surface volume in **corrosive environments**.

Patterson-Kelley's advanced manufacturing technology allows production of a complex network of channels individually and precisely fabricated for unmatched heat transfer and efficiency.

Models SC650 - SC1000 / SCD650 - SCD1000

The Mid-Size SONIC® exceeds expectations in a petite but powerful package. Whether set up as a standalone boiler in a commercial space or as a hot water supply boiler to meet a domestic hot water demand, the 97% AHRI Certified Efficient Mid-Size SONIC® saves precious floor space in mechanical rooms while providing a maximum return on your investment.

NURO® Touch-screen control system

The NURO® Touch-Screen Control System with NURO® Connect provides the most intuitive interface in the industry. Designed to maximize efficency, the NURO® monitors and modulates the combustion and ignition of the boiler to maintain the desired outlet temperature. The lead/lag setup and boiler start rotation ensures run times are equally distributed across each unit in the system, extending the life of the boilers. Whether using a desktop or mobile device, NURO® Connect allows for quick, easy modification of system parameters of optimal efficiency.

BOILER RATINGS	SC-650 SCD-650	SC-750 SCD-750	SC-850 SCD-850	SC-1000 SCD-1000	SC-1500	SC-2000	SC-3000	SC-4000
EFFICIENCY	94.1%	94.1%	94.1%	92.3%	97.1%	96.4%	96.9%	96.0%
MAX BTU/HR INPUT	650,000	750,000	850,000	1,000,000	1,500,000	2,000,000	3,000,000	4,000,000
MAX KW INPUT	190.5	219.8	249.1	293.1	439.6	586.1	879.2	1172.3
MAX BTU/HR OUTPUT	611,650	705,750	799,850	923,000	1,456,500	1,928,000	2,907,000	3,840,000
MAX KW OUTPUT	179.3	206.8	234.4	270.5	426.9	565.0	852.0	1125.4
MIN FLOW @ IGNITION (GPM)	25	25	30	30	48	48	93	96
MIN FLOW @ IGNITION (L/SEC)	1.6	1.6	1.9	1.9	3.0	3.0	4.6	6.1
MIN BTU/HR INPUT	125,000	125,000	141,000	143,000	300,000	400,000	600,000	800,000
MIN KW INPUT	36.6	36.6	41.3	41.9	87.9	117.2	175.8	234.5
MIN BTU/HR OUTPUT	122,300	117,600	131,850	133,300	288,000	384,000	576,000	768,000
MIN KW OUTPUT	35.8	34.5	38.6	39.1	84.4	112.5	168.8	225.1
INDOOR/OUTDOOR	INDOOR	INDOOR	INDOOR	INDOOR	INDOOR	INDOOR	INDOOR	INDOOR
TURNDOWN	5:1	6:1	6:1	7:1	5:1	5:1	5:1	5:1
FUEL- NG = NATURAL GAS, LP = PROPANE, DF = DUAL FUEL	NG, LP, DF	NG, LP, DF	NG, LP, DF	NG, LP, DF	NG, LP, DF	NG, LP, DF	NG, LP, DF	NG, LP, DF
Dimensions	**SC-650 SCD-650**	**SC-750 SCD-750**	**SC-850 SCD-850**	**SC-1000 SCD-1000**	**SC-1500**	**SC-2000**	**SC-3000**	**SC-4000**
DEPTH (IN / MM)	54 / 1372	54 / 1372	54 / 1372	54 / 1372	65 / 1651	65 / 1651	66 / 1674	66 / 1674
WIDTH (IN / MM)	25 /641	25 /641	25 /641	25 /641	31 / 787	31 / 787	32 / 808	32 / 808
HEIGHT (IN / MM)	51 / 1295	51 / 1295	51 / 1295	51 / 1295	69 / 1743	69 / 1743	69 / 1743	69 / 1743
Operating Parameters	**SC-650 SCD-650**	**SC-750 SCD-750**	**SC-850 SCD-850**	**SC-1000 SCD-1000**	**SC-1500**	**SC-2000**	**SC-3000**	**SC-4000**
BOILER HP	18	21	24	28	43	57	86	115
MAX INLET GAS PRESSURE NG/LP (INCHES / WC)	14 / 14	14 / 14	14 / 14	14 / 14	14 / 14	14 / 14	14 / 14	14 / 14
MIN INLET GAS PRESSURE NG/LP (INCHES / WC)	3.5 / 7	3.5 / 7	3.5 / 7	3.5 / 7	4.0 / 7	4.0 / 7	4.0 / 7	4.0 / 7
SHIPPING WEIGHT (LBS / KILOS)	780 / 354	780 / 354	800 / 363	810 / 367	1400 / 635	1400 / 635	1900 / 862	1900 / 862
ELECTRICAL REQUIREMENTS	120V 1ph 60hz 10 amps	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 15 amps	208/240V 3ph 440/480V 3ph 60hz 20 amps	208/240V 3ph 440/480V 3ph 60hz 20 amps
OPERATING WEIGHT (LBS / KILOS)	780 / 354	780 / 354	800 / 363	810 / 367	1650 / 748	1650 / 748	2141 / 971	2191 / 994
FLOW RATE 20°F ΔT GPM (L/SEC)	61/ 3.9	71 / 4.5	80 / 5.0	92 / 5.9	146/ 9.2	193 / 12.2	291 / 18.4	384 / 24.3
Accetable Vent Materials	**SC-650 SCD-650**	**SC-750 SCD-750**	**SC-850 SCD-850**	**SC-1000 SCD-1000**	**SC-1500**	**SC-2000**	**SC-3000**	**SC-4000**
AL29-4C	✓	✓	✓	✓	✓	✓	✓	✓
316L SS	✓	✓	✓	✓	✓	✓	✓	✓
PVC	–	–	–	–	–	–	–	–
CPVC	✓	✓	✓	✓	✓	✓	✓	✓
POLYPROPYLENE NEW	*/**	*/**	*/**	*/**	✓	✓	✓	✓
CAT II	✓	✓	✓	✓	✓	✓	✓	✓
CAT IV	✓	✓	✓	✓	✓	✓	✓	✓

**Canada: When this material is used for venting , it must be listed ULC-S6236* ***USA: When this material is used for venting , it must be listed UL-1738*

The Patterson-Kelley Experience

Patterson-Kelley, a division of SPX Technologies, 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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