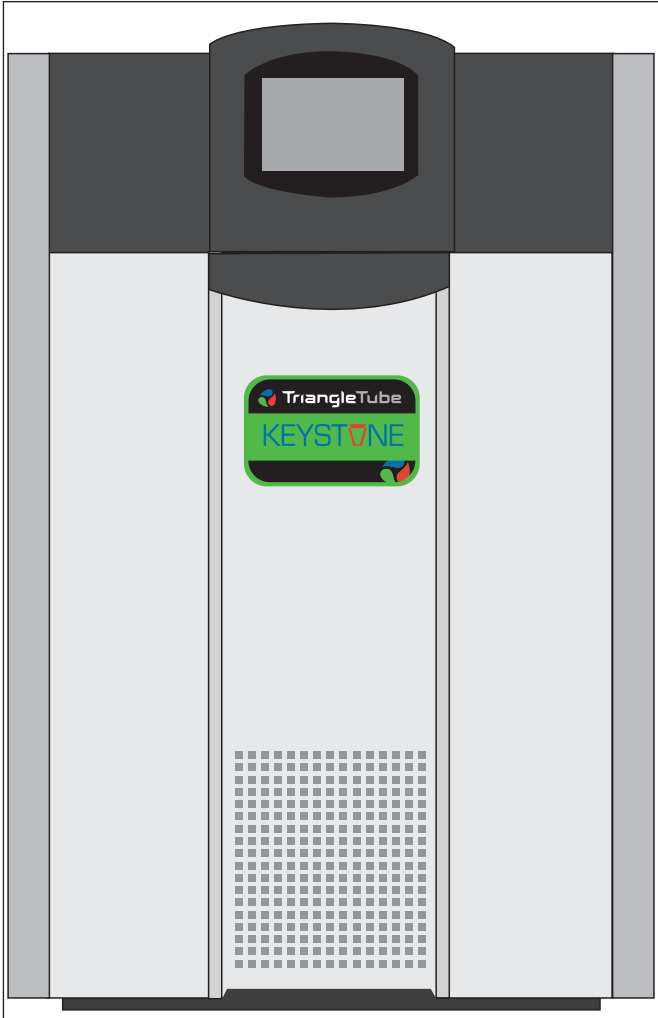


Engineering Submittal

Keystone Boiler KS 1000 - 1200

Engineering Submittal Data



- High efficiency condensing boiler
- Electronic PID modulating control with large color touchscreen display
- Displays holds, alerts, and errors in clear text
- Complete diagnostics for analog and digital inputs
- Accepts external analog modulation signal
- Built-in cascade function for up to four Keystone boilers
- Multiple circulator control of boiler, system, and domestic circulators, with delay
- Outdoor reset with customizable reset curves, domestic hot water priority and warm weather shutdown
- Modulation down to 10% of full fire (10:1 turndown)
- Sealed combustion chamber
- Pre-mix stainless steel burner
- Low NOx - 2012 SCAQMD certified
- Horizontal or vertical direct vent
- Vent and combustion air pipe lengths of up to 100'
- Built-in condensate trap
- Vent temperature cutoff feature
- Direct spark ignition system
- 160 psi maximum working pressure
- Stainless steel heat exchanger with welded construction (no gaskets)
- ASME "H" stamp
- 75 psi (517 kPa) ASME Rated pressure relief valve
- Water flow switch
- Temperature & pressure gauge
- Alarm output
- Outdoor temperature sensor
- On/off service switch
- Manual reset temperature high limit
- Burner site glass
- 10 year limited warranty on heat exchanger



Project / Location _____	Date _____
Consulting Engineer/ Architect _____	
Mechanical Contractor _____	
Notes _____	

Sizing Data

Model	Input MBH [kW]	Output MBH [kW]	Thermal Efficiency %	Combustion Efficiency %	Gas Conn. Size Inches	Water Conn. Sizes Inches	Shipping Weight Lbs [Kg]
KS 1000	999 [293]	942 [276]	94.2%	94.2%	1 1/2 NPT	2 NPT	620 [281]
KS 1200	1200 [351]	1120 [328]	94.8%	95.1%	1 1/2 NPT	2 NPT	640 [290]

Vent System Data

Model	Intake (Air) Pipe	Exhaust (Vent) Pipe	Maximum Allowable Equivalent Length* Ft [m]
KS 1000	6"	6"	100 [30]
KS 1200	6"	6"	100 [30]

Installations in the U.S. require exhaust vent pipe that is a combination of PVC & CPVC complying with ANSI/ASTM D1785 F441, polypropylene pipe that complies with ULC S636, or stainless steel complying with UL1738. Installations in Canada require exhaust vent pipe that is certified to ULC S636.

Note: The first 12" (30cm) of vent must be CPVC if using a PVC vent system

Intake (air) pipe may be ABS, PVC, CPVC or galvanized material.

Closet and alcove installations do not allow the use of PVC under any circumstances

* To calculate max equivalent length, measure the linear feet of the pipe, and add 5 feet (1.5m) for each elbow used.

Water Flow Requirements

Model	Temperature Rise in °F [°C]											
	20°F [11°C]		25°F [14°C]		30°F [17°C]		35°F [19°C]		40°F [22°C]		45°F [25°C]	
	Flow gpm [lpm]	H/L feet [m]	Flow gpm [lpm]	H/L feet [m]	Flow gpm [lpm]	H/L feet [m]	Flow gpm [lpm]	H/L feet [m]	Flow gpm [lpm]	H/L feet [m]	Flow gpm [lpm]	H/L feet [m]
KS 1000	95 [359]	30 [9]	75 [283]	20 [6]	62 [234]	15 [4.5]	54 [204]	11 [3.3]	48 [182]	9 [2.7]	42 [159]	7 [2.1]
KS 1200	114 [432]	37 [11.3]	91 [344]	26 [7.9]	76 [288]	18 [5.5]	65 [246]	13 [4]	57 [216]	10 [3]	51 [193]	8 [2.4]

Clearance and Electrical Data

Appliance Surface	Suggested Service Access Clearance inches [cm]	Clearance to Combustibles inches [cm]	Model	Volts	Phase	Amps	Pump Connections Ratings
Left Side	12 [30]	0 [0]	KS 1000	120	Single	10	Max 7.4A FLA
Right Side	18 [46]	0 [0]					
Top	24 [61]	8 [20]	KS 1200	120	Single	12	Max 7.4A FLA
Back	24 [61]	0 [0]					
Front	24 [61]	2 [5.1]					
Vent	N/A	1 [2.5]					

Dimensional Data

