

TECHNICAL BULLETIN

Boiler Room Savings

With the rising costs of construction, building space is at a premium. One option to save space and reduce costs can be determined by examining the boiler room size and boiler selection in more detail. The following is taken from the International Mechanical Code (Section 303.5):

Fuel-fired furnaces and boilers installed in closets and alcoves shall be listed for such installation. For purpose of this section, a closet or alcove shall be defined as a room or space having a volume less than 12 times the total volume of fuel-fired appliances other than boilers and less than 16 times the total volume of boilers. Room volume shall be computed using the gross floor area and the actual ceiling height up to a maximum computation height of 8 feet (2438mm).

Since boilers are not listed for closet or alcove installation, the boiler room must be at least 16 times the total volume of boilers using a maximum computation height of 8 feet. This can be very significant when comparing different styles of boilers. Below is a volume comparison of Standard Firetube Boilers vs. Bryan Flexible Watertube Boilers.

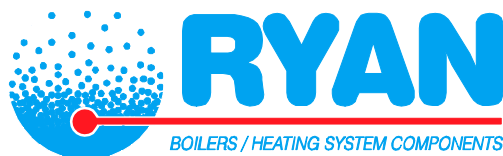
The Bryan Boilers are smaller in volume and therefore require less boiler room space. This equates to cost savings up to \$70,000 for a single boiler installation!

HP	Typical Firetube Boiler						Bryan Boiler						Area Difference (ft ²)	Estimated Cost Savings	
	L (in)	W (in)	H (in)	Boiler Volume (ft ³)	Required Room Volume (ft ³)*	Required Room Area (ft ²)**	Model	L (in)	W (in)	H (in)	Boiler Volume (ft ³)	Required Room Volume (ft ³)*			Required Room Area (ft ²)**
80	149.5	69.25	73.25	438.86	7021.74	877.72	EB-75-W (75HP)	108.3	50	90	281.90	4510.42	563.80	313.92	\$31,392
							RV350-W (84HP)	130.5	50	90	339.84	5437.50	679.69	198.03	\$19,803
100	171.8	69.25	74.38	511.92	8190.68	1023.83	EB-100-W	143.5	50	90	373.70	5979.17	747.40	276.44	\$27,644
							RV450-W (108HP)	153.3	50	90	399.09	6385.42	798.18	225.66	\$22,566
125	199.6	69.25	76.63	613.00	9808.02	1226.00	EB-125-W	143.5	50	90	373.70	5979.17	747.40	478.61	\$47,861
							RV500-W (120HP)	163	50	90	424.48	6791.67	848.96	377.04	\$37,704
							RV550-W (131HP)	175.8	50	90	457.68	7322.92	915.36	310.64	\$31,064
150	167.8	81.25	88.75	700.02	11200.32	1400.04	EB-150-W	143.5	50	90	373.70	5979.17	747.40	652.64	\$65,264
							RV600-W (143HP)	185.3	50	90	482.42	7718.75	964.84	435.20	\$43,520
175	183.9	81.25	88.75	767.31	12276.95	1534.62	EB-175-W	185.3	50	90	482.42	7718.75	964.84	569.78	\$56,978
							RV700-W (167HP)	214.5	50	90	558.59	8937.50	1117.19	417.43	\$41,743
200	200	81.25	88.75	834.60	13353.59	1669.20	EB-200-W	185.3	50	90	482.42	7718.75	964.84	704.35	\$70,435
							RV800-W (191HP)	237.3	50	90	617.84	9885.42	1235.68	433.52	\$43,352

*Required Room Volume is based on International Mechanical Code: Section 303.5 (16 times Boiler Volume)

**Required Room Area is based on International Mechanical Code: Section 303.5 (Maximum Computation Height = 8 ft)

If you would like to know more about Bryan Boilers or would like to know about other possible boiler savings, please feel free to contact us.



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