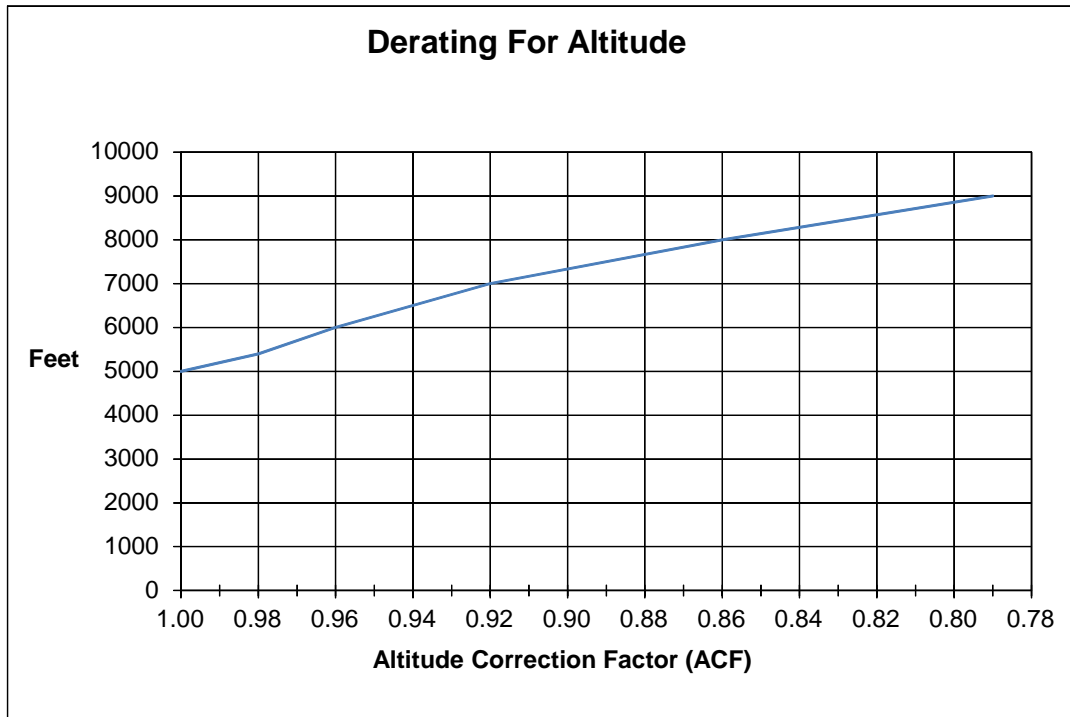


Due to the reduced density of air at higher altitudes, the output of the Benchmark Boilers must be de-rated at elevations 5000 feet and above. Please contact your local AERCO Sales Representative for details.

The following illustration determines the Altitude Correction Factor (ACF) to be applied to de-rate the Benchmark Boilers. The ACF values are based on 1000 BTU/cu.ft. gas BTU content. The ACF should be multiplied by the BTU/H input at sea level to determine the corrected input. For installations with lower gas BTU content, multiply the ACF by (Actual gas BTU content / 1000). Sizing of the equipment is then performed utilizing the corrected input multiplied by the full load efficiency.



Examples:

- A) Benchmark 3000 Boiler applied at an altitude of 5,400 ft. and the gas BTU content is 850 BTU/cu.ft.

$$\begin{aligned} & \text{ACF} * (\text{Actual gas BTU content} / 950) * 3,000,000 \text{ BTU/H input} \\ & = .98 * (850 / 1000) * 3,000,000 \text{ BTU/H input} = \underline{2,499,000 \text{ BTU/H corrected input}} \\ & 2,499,000 \text{ BTU/H} * .87 \text{ (87\% full load efficiency)} = \underline{2,174,130 \text{ BTU/H corrected output}} \end{aligned}$$

- B) Benchmark 3000 Boiler applied at an altitude of 7,000 ft. and the gas BTU content is 850 BTU/cu.ft.

$$\begin{aligned} & .92 \text{ ACF} * (850 / 1000) * 3,000,000 \text{ BTU/H input} = \underline{2,346,000 \text{ BTU/H corrected input}} \\ & 2,346,000 \text{ BTU/H} * .87 \text{ (87\% full load efficiency)} = \underline{2,041,020 \text{ BTU/H corrected output}} \end{aligned}$$