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 950 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 / 950). Sizing of the equipment is then performed utilizing the corrected input multiplied by the full load efficiency.

Examples:

A) Benchmark 1000 Boiler applied at an altitude of 7,800 ft and the gas BTU content is 850 BTU/cu.ft.

\[
\begin{align*}
\text{ACF} \times (\text{Actual gas BTU content} / 950) \times 1,000,000 \text{ BTU/H input} \\
= .83 \times (850 / 950) \times 1,000,000 \text{ BTU/H input} = 742,631 \text{ BTU/H corrected input} \\
741,631 \text{ BTU/H} \times .87 \text{ (87% full load efficiency)} = 646,090 \text{ BTU/H corrected output}
\end{align*}
\]

B) Benchmark 1000 Boiler applied at an altitude of 10,000 ft and the gas BTU content is 850 BTU/cu.ft.

\[
\begin{align*}
.81 \times (850 / 950) \times 1,000,000 \text{ BTU/H input} = 724,737 \text{ BTU/H corrected input} \\
724,737 \text{ BTU/H} \times .87 \text{ (87% full load efficiency)} = 630,521 \text{ BTU/H corrected output}
\end{align*}
\]