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Combustion Efficiency on Condensing Boilers & Furnaces

OVERVIEW

Combustion efficiency is a measurement of how well any given fuel is being burned and converted into energy. **3 factors must be considered when calculating the efficiency**:

1. Chemistry of the burned Fuel (natural gas, LPG, oil, etc.)
2. The CO2 percentage by volume
3. The **NET ΔT** between the Stack Gas & the Primary Combustion Air being used

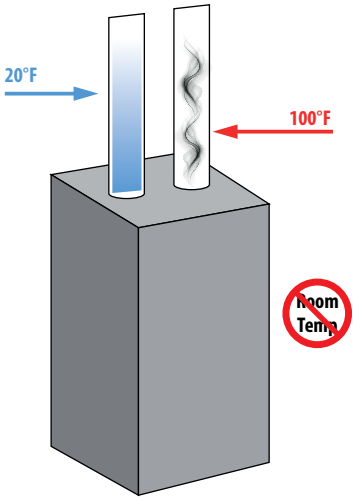
CONCERN

Condensing furnaces, boilers, and tankless water heaters use **outdoor air** as the Primary temperature, for this reason they need a **different method** of measuring the temperature.

Furthermore, the **Stack Temperatures** of these systems are **much lower** than atmospheric systems, so when calculating the Combustion Efficiency with your combustion analyzer **properly measuring the correct temperature** is of primary importance.

SOLUTION

High Efficiency Condensing furnaces/boilers/water heaters need to be tested properly by drilling a hole in the incoming air plastic/ PVC vent pipe (most manufacturer's have dual testing ports already for both incoming air and exhaust, please refer to their specifications of where to test).



In order to obtain an accurate Combustion Efficiency reading, we offer an **Air Temperature Probe (AASA08)**, that can be inserted in the **combustion air intake** (while simultaneously the standard 12" probe is inserted into the Flue Exhaust Stack). This allows the analyzer to perform the proper calculation using a **True NET Stack Temperature**.

INSTRUMENTATION SOLUTION

We offer a complete range of HVAC Combustion Analyzers, that suits basically all your analyzer needs.

All our analyzers are compatible to measure properly on condensing, high efficiency stems.