

### 3 Tools that every Contractor Should Own

One of the worst feelings in the world for a certified heating professional is to be on a jobsite and to realize he/she doesn't have the tools necessary to complete the task. While experience in the field is the best education when it comes to identifying the essentials, a little guidance is always helpful. Here are our picks for the top 3 tools every Hydronic heating professional should have.

#### **Combustion Analyzer:**

The primary purpose behind a Combustion analyzer is to verify whether or not the boiler is performing at peak efficiency. By measuring the products of combustion through this preventive maintenance measure, a service professional is able to quickly identify appliance issues that could hinder product performance. Such problems include, but are not limited to, low fuel pressure, backdrafting, lack of make-up air, obstructed flue or a cracked heat exchanger.



#### **Manometer:**

A device used to test incoming gas pressure and how much the pressure drops on start up. If your incoming gas pressure is too low, the unit could experience delayed ignition, failure to ignite, and

reduced operating efficiency. These are all factors which contribute to increased callbacks and a decrease in customer satisfaction.



### **Multimeter:**

Essentially this tool helps contractors to identify whether power is going to the boiler or not. Typically, it has 3 units of measurement: Volts, Ohms, and/or Amps, which are used to verify that an electrical current is reaching all the intended components. The volts option is used to test voltage to the blower, gas valve, and pumps, while the Ohms setting checks fuses, sensors, and continuity. Something else worth considering is that most multimeters in the mid-range price point have numerous accessories built-in, allowing one tool to satisfy multiple demands. In many cases, your meter can also be a very accurate temperature tester, which is ideal in cases when the boiler display doesn't read the sensors value individually, when your water heater isn't working with your mixing valve or if you need to determine the rate of flow in an emitter loop.



What are your top “must have” tools for performing work on hydronic heating equipment? Is there an apparatus that you find yourself utilizing regularly for service calls or installations?