Boilers

A boiler is an appliance that heats water for distribution to a hydronic heating system. They run on propane, natural gas, oil, electricity or other source. In a fuel-powered system, a pump pressurizes fuel, then a nozzle sprays and atomizes the fuel where it mixes with air. Electrodes ignite the fuel. The resulting flame passes over a heat exchanger and heats water that flows through the boiler.

Boilers come in a wide variety with many different designs, functions and ease to clean. The efficiency of boilers has improved, from around the 65-70% range in the 1970s, to the 80% range today. A boiler is one of the most, if not the most, common heating appliance in the world's arctic regions. Heat and hot water are vital for living in the cold, making proper boiler size, maintenance and function essential. The arctic climate can take its toll on boilers, which can suffer from frost buildup on vents for example, and other factors not typical of warmer regions.