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Technical Fact Sheet

Multifamily Facility Management Services

TUNE-UP FOR PACKAGED BOILER WITH GAS POWER BURNER

Description:

In a boiler with a gas power burner, the “power” refers to the fact that the air for combustion is supplied to the combustion chamber at a pressure higher than atmospheric pressure. In general, tune-ups on such boilers are not warranted since the fuel/air ratio in a power burner can be more closely controlled and is more easily maintained. However, inefficiencies can result because of improper burner adjustments and worn nozzles at orifices for metering the gas. This is especially true for gas power burners which have not been maintained regularly by qualified personnel.

How to Implement:

All modifications must be made by a qualified, licensed and bonded contractor, and must be made within local code restrictions. Before a tune-up is begun, a basic inspection and maintenance service should be completed, including inspection and repair as needed of the burner, combustion chamber, combustion blower, heat exchanger, all flues and vents and all safety controls.

In general, the goal of the gas power burner tune-up is to reduce excess air to a minimum while maintaining safety margins. The tune-up may include adjustments to the burner and fan, or possibly the replacement of some burner parts.

The contractor performing the tune-up should use an electric flue gas analyzer and should provide pre- and post- tune-up results. Final steady state efficiencies for most gas power burners are typically in the range of 80% to 83%