



Boston Building Brought into Modern Age

Case Study



Summary

Customer

Building Owner

Location

Arlington, MA

Industry

Apartment Building

Laars Product Installed

1000 MBH Laars MagnaTherm FT

Sales Representative

Tower Hill Sales

Challenge

A circa 1964 apartment building in Arlington, MA still used its original on/off steam to cast-iron baseboard heating system that operated very inefficiently. During the shoulder seasons and milder winter days the system often cycled on and off for long periods of time. So much extra heat was delivered to each apartment that many residents opened their windows, wasting even more heat. The building owner decided it was time to reduce energy bills and deliver the correct amount of heat to each unit in the building. A goal was set to not only increase the heating system's operational efficiency but to do so with a return on investment (ROI) of less than 10 years.

Solution

After consulting with engineers, the building owner selected two 1000 MBH Laars MagnaTherm FT boilers with 95% thermal efficiency, 20:1 turndown, and TruTrac® oxygen trim for optimized combustion control. The two-boiler installation ensured operational redundancy, something the old system did not have, and by pairing them with variable speed pumping and individual zone management, overall system efficiencies were increased. For simplicity and the longest life expectancy, the domestic hot water load was separated from the heating system completely and given to a 400 MBH Laars Mighty Therm2® volume water heater and two 120-gallon Laars-Stor® indirect storage tanks.

When asked about the system, the owner commented that "our sights were set on dependability, longevity, operational efficiency and controls – and the MagnaTherm boilers have all of those attributes down pat". In fact, the MagnaTherm FT installation produced such a large reduction in annual fuel costs that the ROI will be realized in only 5 years, half the original goal. The tenants no longer need to open windows to let the waves of heat pass on warmer winter days. Instead, they simply sit back and enjoy a balanced, heated home. A win, for both the tenants and the building owner.

