

Buderus Gas Condensing Boiler for Moody's Diner

Case Study



BOSCH

Invented for life

“Order Up!” Buderus Boiler Serves Up Savings in Moody’s Diner, Waldoboro, ME

Project Goals:

- ▶ Improved Energy Efficiency
- ▶ Reliability With No Disruption In Service
- ▶ Comfortable Heat and Abundant Domestic Hot Water

Background

Opened in 1927, family-owned and managed Moody’s has served over a million travelers in its seasonal vacation cabins, tourist gift shop and year-round diner located along a busy stretch of U.S. Coastal Route 1 in Waldoboro, Maine. The retro-style 104-seat diner is recognized as a national icon, featured in magazines and television.

After completing a state-sponsored energy audit at the diner, Dan Beck, one of the family owners, did some research and found that by replacing the existing oil-fired boiler with a high-efficiency gas condensing boiler, he could save a significant amount on annual fuel costs.

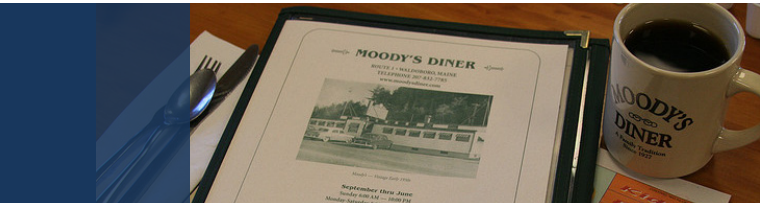
Installation Summary

Dustin Oliver, owner of Integrity Services in Jefferson, Maine, had replaced an old oil-fired boiler with a Bosch Greenstar high-efficiency condensing boiler in his friend’s home. This friend happened to be the maintenance supervisor at Moody’s Diner. When Dan Beck, one of the family co-owners, considered upgrading the diner’s boiler, he contacted Integrity Services on his maintenance supervisor’s referral.

After consulting with Dustin, Dan chose to purchase a Buderus GB162/100 gas condensing boiler with net IBR at 244 MBH for LP gas, incorporating EM10 modulation control, connected with ST200 indirect water storage tank.



Buderus GB162 gas condensing boiler (foreground, left) and ST200 indirect water storage tank (blue, at right). Existing direct-fired water heater (white, in background) delivers high-temperature hot water to the kitchen dishwasher.



According to Dustin, “One of the installation challenges was to pipe and install the new boiler and indirect water tank without any disruption during the diner’s busy daytime hours. We often worked late at night, after the cleaning staff left at midnight to the time the nighttime baker arrived at 3am.”

The GB162 is lightweight, can be wall-mounted, and vents with PVC pipe through the wall or roof. Thanks to patented aluminum silicate ALU-Plus heat exchanger, and an advanced Energy Management System that encourages the GB162 to remain in condensing mode for optimal heating efficiency, the GB162 is capable of achieving efficiencies of up to 96%. The boiler incorporates a closed loop which transfers heat to the water storage tank at 160F. The storage tank’s water is tempered to 135F and delivered to kitchen prep and pastry sinks and the diner’s two lavatories, supplying ample hot water to a total of six sinks.

Benefits and Conclusion

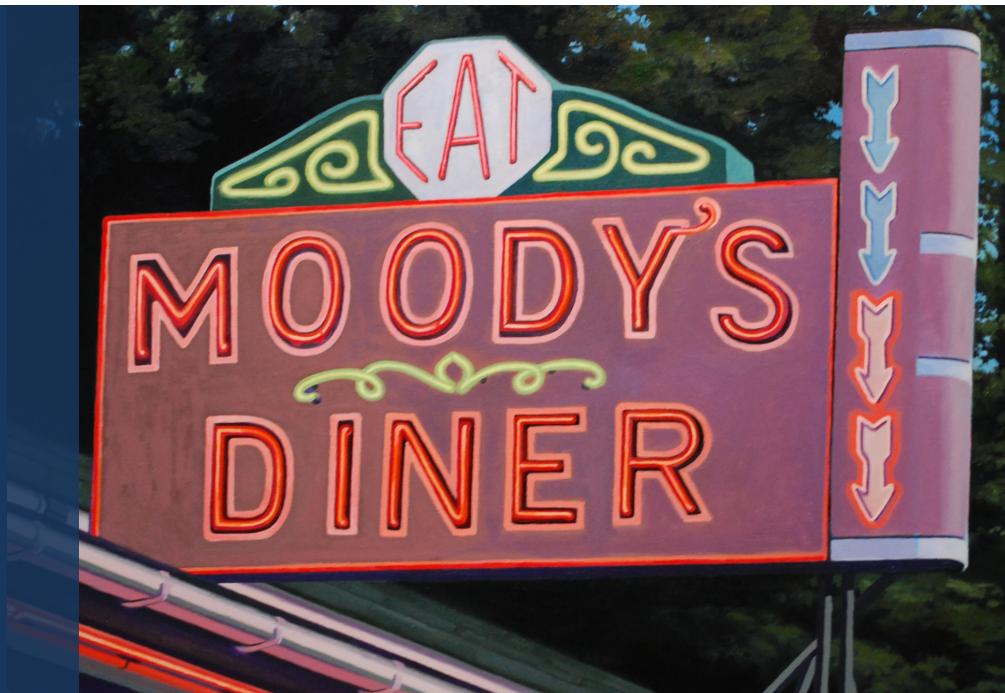
Dan projected the diner’s annual fuel savings up to \$9,000 based on his current oil cost versus negotiated price for LP gas, supplemented with the Buderus condensing boiler’s higher efficiency, providing system payback in just 2-1/2 years. In addition, there is less required maintenance than with the old oil boiler, the GB162 heating system is quieter thanks to acoustic insulation and low water flow resistance, and the utility room is much neater and more orderly following a “plumbing makeover” by Integrity Services.

“We are extremely pleased with the service, follow-up and professional installation provided by Integrity, as well as the quiet, efficient, comfortable heat and hot water delivered by our new Buderus system,” noted Dan. “We are anticipating significant fuel savings in the coming years, thanks to Buderus and Integrity Services.”



Buderus GB162 gas condensing boiler vents outdoors with PVC pipe.

Buderus



Project Name:

- ▶ Buderus Gas Condensing Boiler for Moody's Diner, Waldoboro, ME

Wholesaler:

- ▶ FW Webb, Augusta, ME

Buderus sales representative:

- ▶ Reggie Rodgeron

Equipment Installed:

- ▶ Buderus GB162/100, EM10 Modulation Control, ST200 Indirect Water Tank

Installation Location:

- ▶ Moody's Diner, Waldoboro, Maine

Completion Date:

- ▶ April 2013