

Whelen Engineering – Charlestown NH

Dry Wood Chip & Pellet Boiler System



Project Description:

- Goal: To reduce cost of heating this new 250,000 square foot manufacturing facility.
- This new manufacturing building was built to the highest energy efficiency standards
- With their goal to minimize fuel costs, infrastructure was built adjacent to the boiler room for the handling and storage of dry wood chips—as well as pellets. This redundancy gives them fuel source security. Existing oil boilers are tied in as an additional back-up



A Combined Dry Wood Chip and Wood Pellet System:

- 4 - Froling TX Model 150 Biomass Boilers with 4000 gallon buffer tank, in new boiler room
- Total net output of all boilers = 2 Million BTU/Hour
- Interior storage bins have 144 ton pellet capacity or a total of 250 tons of dry wood chips.
- Tied into extensive new forced hot water distribution system by Froling Energy crews
- Provides space heating for production facility and warehouse

Projected Oil Displaced by Biomass: 58,000 Gallons of per year

New Fuel Use: 562 Tons of Dry Chips or 450 Tons of Pellets

Projected Annual Savings: \$90,000 to \$132,000



Commissioning Date: November 2013

Pellet boilers Installed by: Froling Energy

Project Manager: Mark Froling