

Filtrine Manufacturing Keene, NH



110,000 square foot office, production and warehouse building

Project Goal: Sustainability, energy cost savings, carbon reduction, & locally sourced fuel



This biomass boiler features automatic ash extraction, a touch screen control panel, and a cyclone that keeps particulate emissions within NHDES limits.

- Filtrine is a 117 year-old high tech manufacturer of liquid chillers and architectural drinking fountains.
- Proactively addressing climate change Filtrine has installed LED lighting, PV and Solar Hot Water, additional foam roof insulation and now a biomass boiler system.
- Their new Viessmann Vitoflex RF boiler has a net output of 1 million BTU/hour. It will offset 95% of the building's prior average use of 25,300 gallons of fuel oil using 256 tons of screened dry wood chips.
- Filtrine expects to generate 770 NH Thermal RECs each year which when sold will reduce their fuel costs to be the same as paying just 80 cents per gallon of oil.



The first blower truck delivery of PDCs into Filtrine's silo.

The new boiler burns PDCs—Semi-Dry Wood Chips

- The 42 ton capacity galvanized steel storage silo is filled with PDCs through a 5" hose from a pneumatic delivery truck.
- Each 15 ton truckload offsets 1400 gallons of #2 fuel oil so they expect to need about 18 deliveries a year to offset 24,000 gallons of oil with "New England Crude" (WoodChips)



The 42 ton silo sits just a few feet from the new boiler room. PDCs are automatically augered directly into the boiler.