## VACUUM DELIVERY SYSTEM DATA SHEET

- 1. GENERAL
  - 1.1. SUMMARY
    - 1.1.1. This Section includes packaged and factory-fabricated turbine, day fuel storage bin, spiral hose and fuel storage extraction system for wood pellet delivery from storage to an automated boiler.
  - 1.2. RELATED DOCUMENTS
    - 1.2.1. 56KW AutoPellet Wood Pellet Boilers Data Sheet
    - 1.2.2. Textile Wood Pellet Bag Storage Data Sheet
  - 1.3. SUBMITTALS
    - 1.3.1. Shop drawings: For vacuum hose, boiler and storage bag connections. Include plans, elevations, sections, details, and attachments to other work.
      - 1.3.1.1. Wiring Diagrams: Power, signal, and control wiring.
    - 1.3.2. Warranty: Special warranty specified in this Section.
  - 1.4. SOURCE QUALITY ASSURANCE
    - 1.4.1. UL listed electrical components.
  - 1.5. WARRANTY
    - 1.5.1. Manufacturer's standard form in which manufacturer agrees to repair or replace frames, bags, or accessories that fail in materials or workmanship within the specified warranty period.
      - 1.5.1.1. Vacuum delivery system 2 years or 6000 hours, whichever comes first, from date of startup by factory-authorized personnel.
- 2. PRODUCTS
  - 2.1. ACCEPTABLE MANUFACTURER
    - 2.1.1. Maine Eco Pellet Heating
    - 2.1.2. Maine Energy Systems
  - 2.2. MANUFACTURED UNITS
    - 2.2.1. Description: Factory-fabricated electric vacuum trubine, steel day storage bin, spiral hose, and fuel storage extraction system.
    - 2.2.2. Vacuum Turbine electronically controlled to fill day bin when it after a programmed number of burner hours.
  - 2.3. DAY BIN
    - 2.3.1. Steel fuel day storage bin
    - 2.3.2. Extraction auger controlled by burner.
    - 2.3.3. Full Fuel Level Capacitive Sensor: Control day bin vacuum, prevents over fill.
    - 2.3.4. Air-tight spring loaded valve between burner and day bin for burnback fire prevention controlled by boiler to automatically close before vacuum fills day bin or during power loss.
  - 2.4. HOSE
    - 2.4.1. Plastic spiral hose with integrated copper grounding wire.
  - 2.5. FUEL EXTRACTION METERING SWITCH
    - 2.5.1. Steel housing with vacuum inlet, outlet, extraction auger and motor.
    - 2.5.2. Steel Emergency slide gate

## 2.6. ELECTRICAL POWER

- 2.6.1. Field Power Wiring to Boiler: 208 to 240 VAC 20 Amps
- 3. EXECUTION
  - 3.1. EXAMINATION
    - 3.1.1. Before vacuum delivery system installation examine boiler and storage locations to verify actual lengths, locations, and orientations affecting connection of the vacuum delivery system.
    - 3.1.2. The vacuum delivery system allows for the boiler to be up to 66 feet from the fuel store.
  - 3.2. VACUUM DELIVERY SYSTEM INSTALLATION AND ASSEMBLY
    - 3.2.1. Consult all installation manuals and factory training prior to install.
  - 3.3. CONNECTIONS
    - 3.3.1. Install emergency slide gate between fuel extraction metering switch and fuel extraction nozzle on fuel storage, secure with clamp.
    - 3.3.2. Run spiral hose from fuel extraction system to vacuum turbine atop the day bin, secure at both ends with clamps.
      - 3.3.2.1. Bending radius of spiral hose may not be smaller than 12 Inches.
      - 3.3.2.2. Maximum height difference between fuel extraction system and boiler is 118 Inches.
    - 3.3.3. Wire fuel extraction system to boiler.
  - **3.4. DEMONSTRATION** 
    - 3.4.1. Engage a factory-trained installer to train Owner's maintenance personnel to adjust and maintain storage bags.