## SCREW CONVEYOR DELIVERY SYSTEM DATA SHEET

- 1. GENERAL
  - 1.1. SUMMARY
    - 1.1.1. This Section includes packaged and factory-fabricated and –assembled screw conveyor, trough, hose, motor and accessories 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 screw conveyor, boiler and storage bag connections. Include plans, elevations, sections, details, and attachments to other work.
      - 1.3.1.1. Wiring Diagrams: Power 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. Auger parts 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 steel screw conveyor, trough, and electric AC drive motor.
    - 2.2.2. Screw Conveyor Design: [3.74], [5.84], [7.22], [8.53], [9.84], or [10.83] feet long steel screw conveyor with 2 cm diameter shaft and variable transverse pitch secured at both ends with pillow block roller bearings.
  - 2.3. TROUGH
    - 2.3.1. Steel circular 8 cm inside diameter trough
    - 2.3.2. Inlet: 15.5 cm inlet for clamped connection with storage bag extraction nozzle.
    - 2.3.3. Discharge: 5.5 cm discharge connected to plastic burnback prevention hose.
    - 2.3.4. Spiral Hose: Electrically grounded plastic hose with clamped connections between screw conveyor trough discharge and burner fuel inlet for burnback fire prevention.
    - 2.3.5. Steel support leg for long screw conveyor lengths.
    - 2.3.6. Install emergency slide gate mounted between trough inlet and storage extraction nozzle.

## 2.4. ELECTRICAL POWER

- 2.4.1. Field Power Wiring to Motor: 208 to 240 VAC 5 Amps
- 3. EXECUTION
  - 3.1. EXAMINATION
    - 3.1.1. Before screw conveyor installation examine boiler and storage locations to verify actual lengths, locations, and orientations affecting connection of the screw conveyor between the fuel storage and boiler.
    - 3.1.2. Screw conveyor can be installed on the font (when detachable ash box is not used), side or back of the burner and can be pivoted 20 to 35° from perpendicular.
    - 3.1.3. Insure correct direction of screw conveyor rotation.
    - 3.1.4. Insure the installation will allow for demounting.
  - 3.2. SCREW CONVEYOR 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 screw conveyor inlet and storage bag extraction nozzle, secure with clamp.
    - 3.3.2. Secure screw conveyor into position with support leg as near the boiler as possible.
    - 3.3.3. Install spiral hose between screw conveyor discharge and burner fuel inlet for burnback fire prevention, secure with clamps.
  - 3.4. FIELD QUALITY CONTROL
    - 3.4.1. Insure the spiral hose slope is > 45°
  - 3.5. DEMONSTRATION
    - 3.5.1. Engage a factory-trained installer to train Owner's maintenance personnel to adjust and maintain storage bags.