TEXTILE WOOD PELLET BAG STORAGE DATA SHEET

1. GENERAL
    - 1.1. SUMMARY
        - 1.1.1. This Section includes packaged and factory-fabricated wood pellet storage bags, frames, fill/extraction nozzles, and accessories.
    - 1.2. RELATED DOCUMENTS
        - 1.2.1. 56KW AutoPellet Wood Pellet Boilers Data Sheet
        - 1.2.2. Bag Capacities and Dimensions Sheet
        - 1.2.3. Screw Conveyor Delivery System Data Sheet
        - 1.2.4. Vacuum Delivery System Data Sheet
    - 1.3. SUBMITTALS
        - 1.3.1. Shop drawings: For frames, textile bags, and accessories. Include plans, elevations, sections, details, and attachments to other work.
            - 1.3.1.1. Wiring Diagrams: Power, signal, and control wiring.
        - 1.3.2. Quality control test reports.
        - 1.3.3. Operation and maintenance data: For frames, bags, and accessories to include in emergency, operation, and installation manuals.
        - 1.3.4. Warranty: Special warranty specified in this Section.
    - 1.4. SOURCE QUALITY ASSURANCE
        - 1.4.1. Dust fraction separation through textile bag filtration tested by analogy with VDI/DIN 3926.
    - 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. Storage units (Flexilos) 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 textile bags with electrically conducting thread for static discharge, wooden post and beam frame, metal supports and filling and emptying accessories.
        - 2.2.2. Bag Design: Polyester textile with electrically conductive copper thread.
        - 2.2.3. Load Cells: Steel, electric, strain measuring scales for under wooden posts to determine fuel level.
        - 2.2.4. Capacitive Sensor: low fuel level indicator.
    - 2.3. FRAME
        - 2.3.1. Laminated wooden stayer and beam frame.
        - 2.3.2. Struts: Steel or wooden struts.

2.3.3. Supports: Steel supports for beams.
2.3.4. Clamps: Steel clamps to secure beams.
2.3.5. Post Covers: Rubber coverings for stayer moisture protection.

2.4. STORED FUEL TRANSPORT

2.4.1. Vibration Plate: Steel bag base plate, vibrates pellet at low fuel level toward extraction unit.

2.4.1.1. Vibration Motor: Controlled by boiler.

2.4.1.2. Vibration Damper: Placed beneath stayers to dampen vibration.

2.4.2. Spring Raised Floor: Textile storage bag with horizontal floor screw conveyor and variable slope bottom, increases angle at low fuel levels as springs attached to bag bottom and frame struts compress under reduced tension.

2.4.2.1. Horizontal Screw Conveyor: [4.6], [5.9], [6.5], or [8.5] foot long steel screw conveyor housed in horizontal trough with 9.5 cm inside diameter, 2 cm shaft diameter and variable transverse pitch secured with pillow block roller bearings at both ends and mounted to the floor.

2.4.2.2. Conveyor Motor: Controlled by boiler.

2.4.3. Field Power Wiring to Storage Transport: 208 to 240 VAC 5 Amps

2.5. FUEL FILL AND EXTRACTION ACCESSORIES

2.5.1. Steel filling unit with securing beam clamp and 4-Inch fill tube.
2.5.2. Steel extraction unit bag clamping slide and sliding discharge gate.

2.6. CAPACITIES AND CHARACTERISTICS

2.6.1. Storage capacities and dimensional characteristics reported in Storage Capacities and Dimensional Characteristics document.
2.6.2. Dust Filtration Efficiency: 98.88% dust particles >0.3microns

2.7. SOURCE QUALITY CONTROL

2.7.1.

3. EXECUTION

3.1. EXAMINATION

3.1.1. The room used for storage must be at least 3-Inches larger in every dimension than the bag being used. For installation purposes the fill side of the bag must be located no less than 12-Inches from the nearest wall.
3.1.2. The room in which the bag is being installed must have an adequate breather opening (window or similar) with an area no less than 26.25 sq. in.
3.1.3. Install only on flat, horizontal surfaces.
3.1.4. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. BAG INSTALLATION AND ASSEMBLY

3.2.1. Consult all installation manuals prior to install.
3.2.2. When unpacking the textile bag place it on top of the assembly foil.
3.2.3. Assemble and Install the Storage Bag:

3.2.3.1. Thread the beams through the textile bag loops and assemble with stayers, struts, supports, and clamps.

3.2.3.2. Assemble and attach storage fuel transport system assemblies.
3.2.3.3. Assemble and attach filling and extraction system assemblies.
3.2.3.4. For outdoor installation the bag must be protected from UV, rain, and wind and be placed atop a concrete pad.

3.3. CONNECTIONS

3.3.1. Connect fuel filling system so that it is accessible from outdoors using modular 4-Inch elbows, pipes, and clamping rings.

3.3.2. Fuel filling system designed with ground connection, must be grounded.

3.3.3. Connect bag storage to fuel delivery system, consult Fuel Delivery System Data Sheet and installation manuals.

3.4. FIELD QUALITY CONTROL

3.4.1. Inspect Storage Bag:

3.4.1.1. Check to insure the fuel extraction nozzle is positioned in the middle of the textile bag.

3.4.1.2. Check to insure beams and stayers are level.

3.4.2. Check to insure fuel filling system ground connection is properly grounded.

3.5. DEMONSTRATION

3.5.1. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust and maintain storage bags.