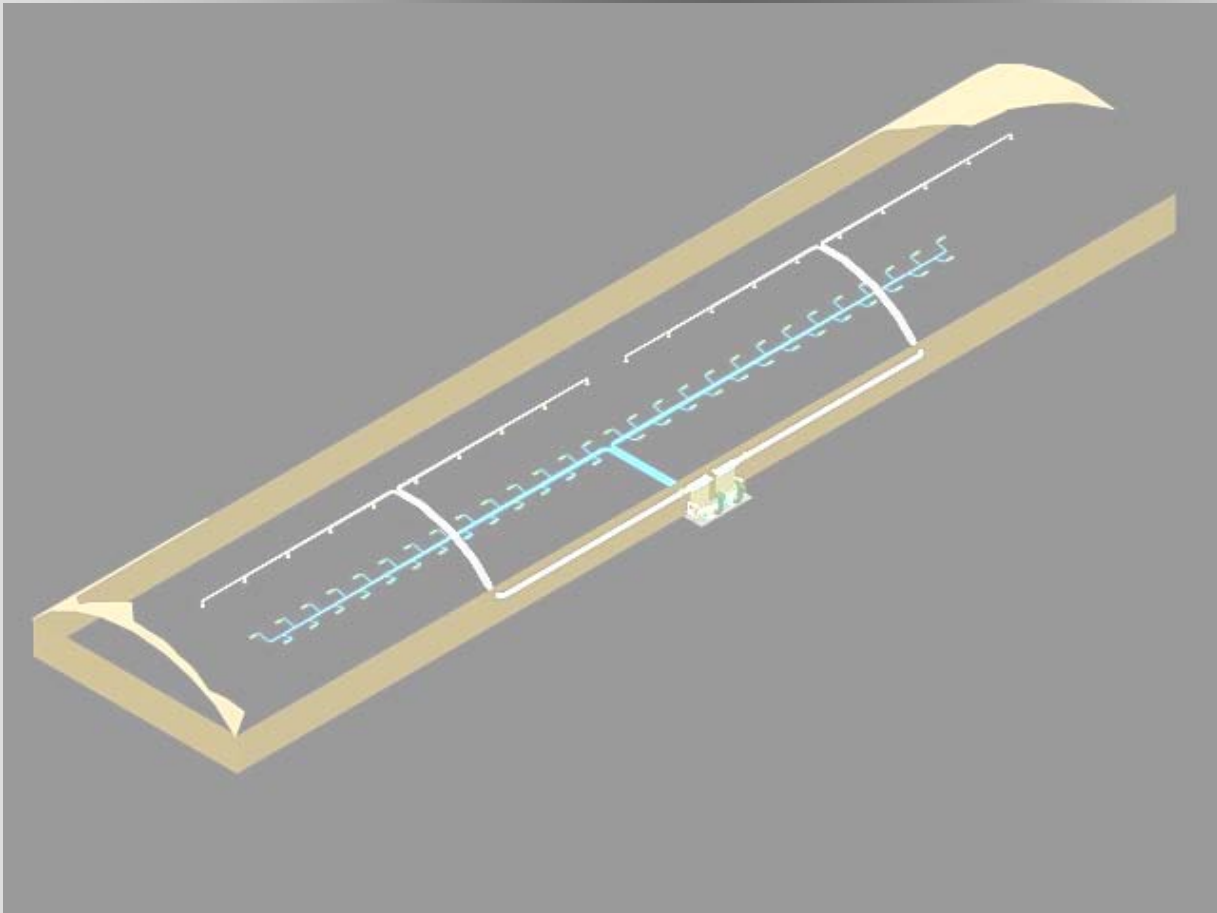




Associates, Inc.

Pelletaire™ Aeration System



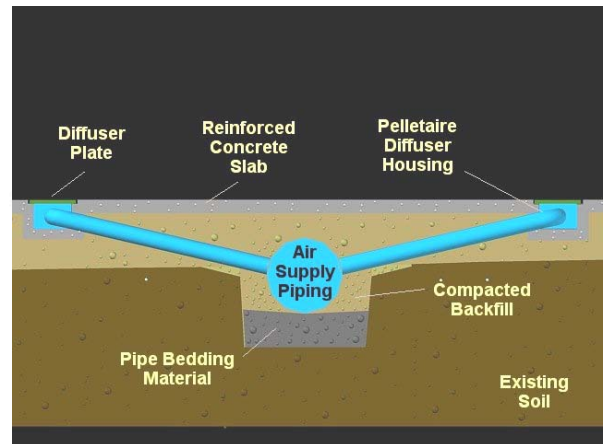
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Pelletaire™ is a complete engineered system designed to prevent rapid temperature rise and unsafe CO (carbon monoxide) and VOC (volatile organic compounds) in wood/biomass pellets during storage.

Major components are:

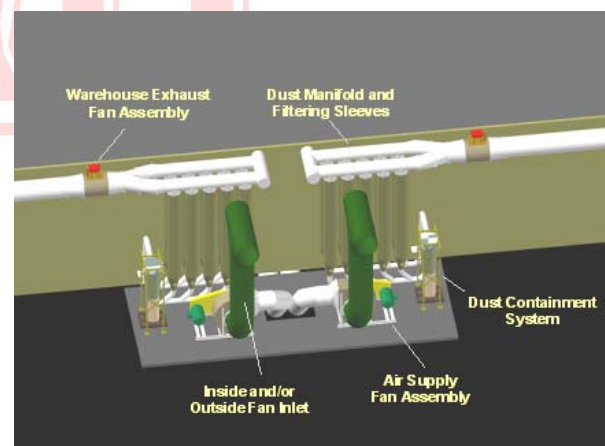
Pelletaire™ Diffuser In-floor System:

- Air is forced into the pellet stockpile via strategically located in-floor diffusers. Diffuser pit trench is provided with embedded angles for a secure and durable seat. Each diffuser includes a fiberglass high load capacity bar grate designed to support the weight of heavy duty equipment common to the warehouse. Formed galvanized perforated cover plates minimize fines entering the diffuser housing. The bar grate and cover plate are lightweight to allow easy and quick access for inspection and cleaning.
- All underground piping is constructed of HDPE piping and fusion welded during installation to ensure water proof connections. Piping is flexible to compensate for settling due to “soft soil” conditions.



Air Supply/Exhaust Balance and Filtering:

- Pelletaire™ provides the air handling capability for the supply and warehouse's exhaust air. Supply and exhaust fans are sized to provide system balance while filtering the contaminated air and minimizing warehouse condensation.
- Exhaust air is forced into large polyester filtering sleeves to filter and contain the airborne fines. Contaminates are collected in disposable polyethylene bags.
- Supply air can be any combination of filtered and outside air depending on weather conditions.
- In addition, several suspension mount elevated industrial duty fans are located to prevent dead zones and minimize dust build-up on building steel, cable trays, and fixed duct.



Major components - Continued

Temperature, CO Monitoring and Recording System:

The programmable system monitors and logs data at various measuring points during the pellet receiving, storage, and shipping process. Warning sirens and strobes are activated if CO or other VOCs reach unsafe levels.

The operator interface unit (OIU) is a desktop PC with graphic user interface and touch screen monitor. The OIU will display all sensing points on several graphic screens with overview layout of the entire warehouse. All temperature and CO measurements are recorded in pre-set time intervals and logged to the PC hard drive for trending and generating reports.

Fire Detection and Extinguishing System:

Multi-zone flame, glow detection, and extinguishing system are included. Control unit include IR detector inputs, water nozzle solenoid valve outputs, and battery backup.

Zones include Receiving, Conveying, Warehouse, and separate Pelletaire Air Supply and Filtering Structure.

Engineering and Start-up Package:

Package includes electronic copy Approval and Certified Drawings, Operation/Maintenance Manuals, recommended Spare Parts, Start-up/Training and After Sell Support.

Available Services:

Pre-engineered Warehouse and Pelletaire Structures:

Furnish and install pre-engineered warehouse and Pelletaire building structures.

Warehouse Foundation and Trenching Design:

Warehouse floor, trench design, Pelletaire building floor, and foundation including piling and pile caps based on geotechnical report.

“Turn-key” Package:

Material and labor for complete “Turn-key” installation to include all Pelletaire materials and labor including building foundation, floor, and hardware,