

SolaGen Incorporated Process Engineering and Equipment



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SolaGen Incorporated Capabilities

- **Process Design Engineering**
 - Energy
 - Material Handling
 - Bulk Materials Dehydration
 - Densification

- **Equipment Manufacturing – Our Main Products**
 - Enertek Suspension Burners
 - SolaGen Rotary Dryers
 - Cyclones, Air Handling Systems, and Emission Controls
 - Fuel and process Feed Bins and Transport Fans
 - SolaGen Stokers
 - UL Rated PLC based Control Systems

- **Field Services**
 - Equipment Commissioning, Training, and Operations
 - System Tune-ups and Optimization
 - Preventative Maintenance and Warranty Repairs

Process Design Engineering

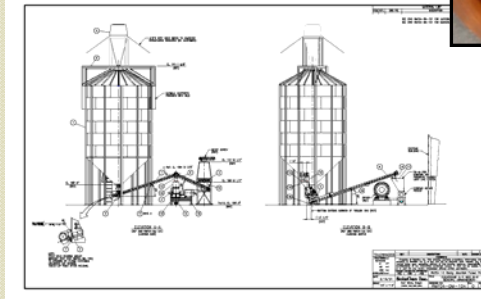
- Energy

We provide complete design for energy production utilizing both solid and fossil based fuels. These systems can be integrated in or as process heat sources for drying systems, boilers, thermal oil, and electrical power production.



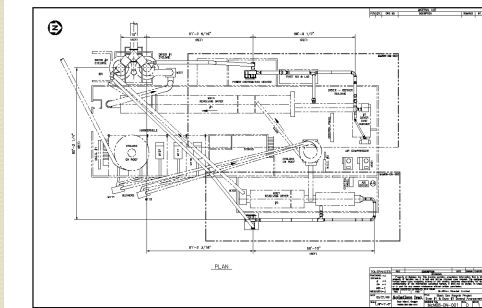
- Material Handling

SolaGen Incorporated designs complete process flow systems for handling solid materials. The systems combine the use of pneumatic and mechanical conveyance means for bulk handling.



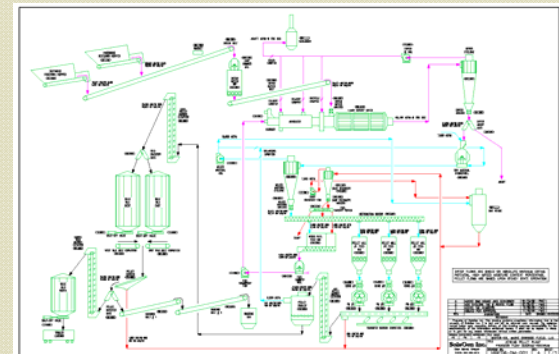
- Bulk Materials Dehydration

The key to a good drying system starts with proper applications engineering and custom design for each specific raw material. We recognize a system that maximizes control and turn down will yield higher profits for the end user. Our dryer and flighting designs are the result of over 30 years of experience we have provided to our customers. Our product line of burners or existing waste heat sources will yield high evaporation levels with the greatest efficiency and lowest emissions.



- Densification

SolaGen's experience in densification includes all or significant contribution to 20 completed pelletizing facilities and over 35 rebuild or modifications to existing facilities. We provide design and engineering for the complete process facility from infeed to packaging. Our designs feature many concepts important to ideal profit levels. Our personnel have over 60 years of combined experience in operating pelletizing facilities, which is reflected in our designs.



Our Main Product Lines

- EnerTek Suspension Burners

Range in size from 5 to 150 MM BTU/hr. Designed with the latest technology and controls utilizing almost any solid biomass and fossil fuel as backup. EnerTek burners have proven to have an extremely clean burn with high turndown ratios.

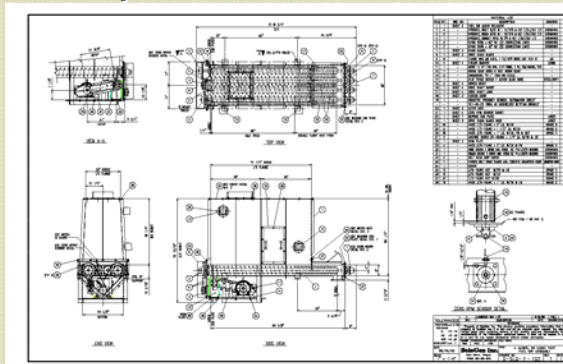
- SolaGen Rotary Dryers

SolaGen Inc. designs and fabricates rotary dryers that are customized for your specific raw material. Our dryer systems are renowned for their low maintenance, high efficiency and evaporation levels, and low stack emissions. Standard sizes range from 3' diameter to 20' diameter with lengths up to 80' long. Manufactured out of carbon and stainless steel.



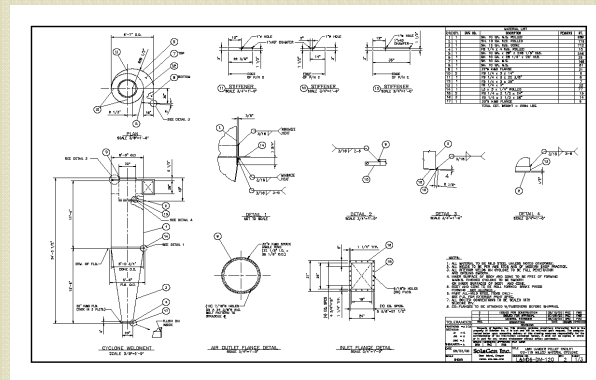
- Fuel Feed Bins and Transport Fans

We manufacture fuel and process feed bins specific to the customer's application. We also manufacture our own fuel transport fans for the EnerTek suspension burner line to ensure proper sizing, durability, and controllability.



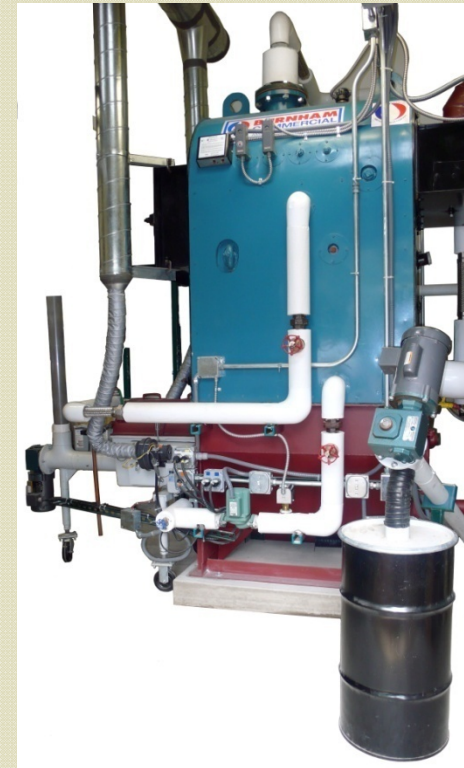
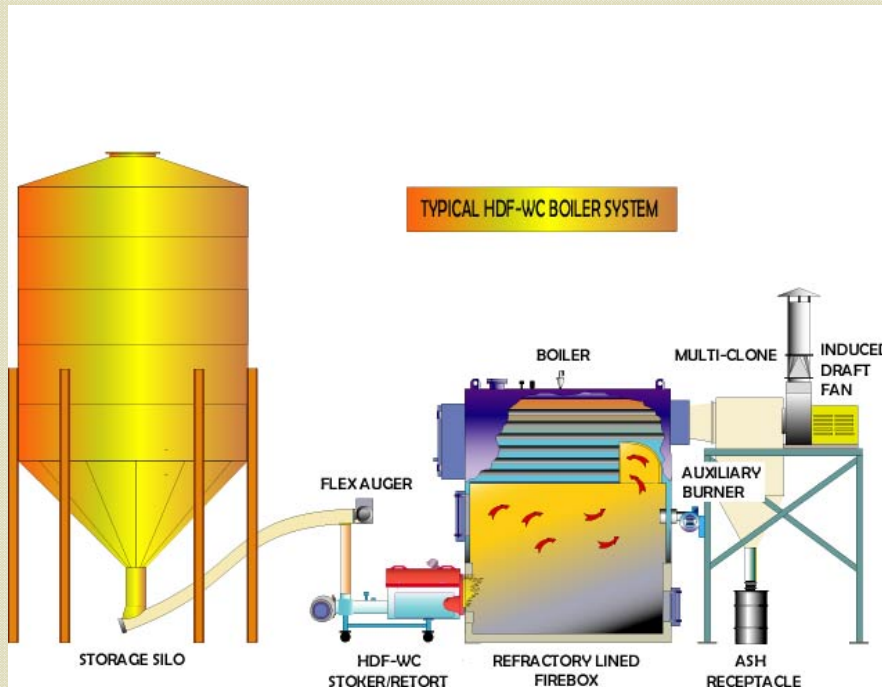
- Cyclones and Air Handling Systems

High efficiency designs that insure good separation and proper airflow.



Our Main Product Lines

- SolaGen Stokers

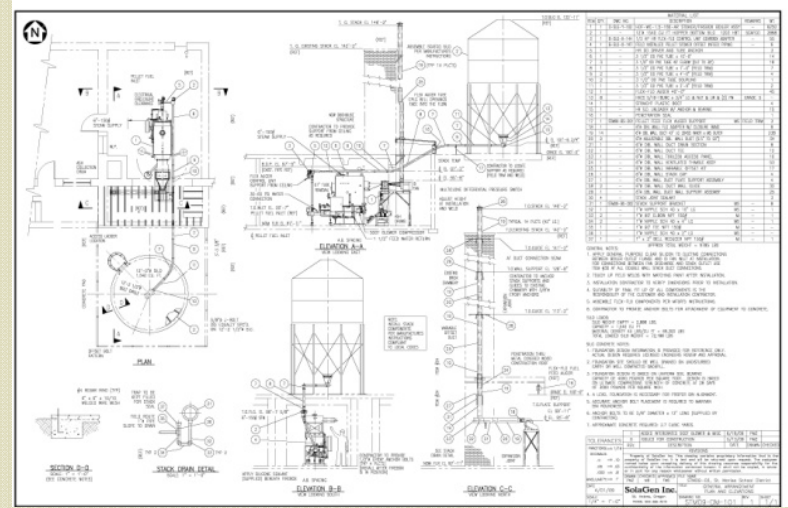


Our stokers range in size from ½ MM BTU/hr to 10 MM BTU/hr and will utilize wood pellets, sawdust, bark, and wood chips. These can be ordered as a hot water, low or high pressure steam, or a forced air system. Complete systems are available which include: Fuel silos with access ladder, auger, firebox, hot water (or steam) boiler, cyclone ID fan, stack, microprocessor with automated controls, motor starters. In many cases stokers can be ordered to replace existing fossil fuel and cord wood burners.

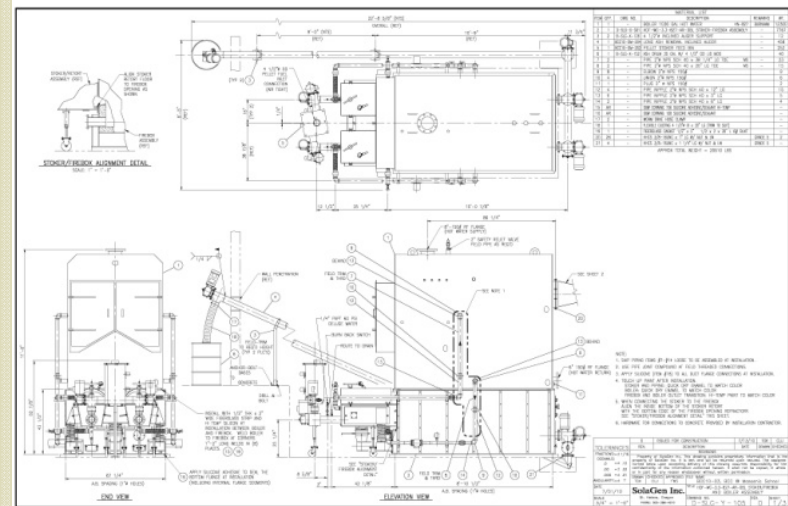
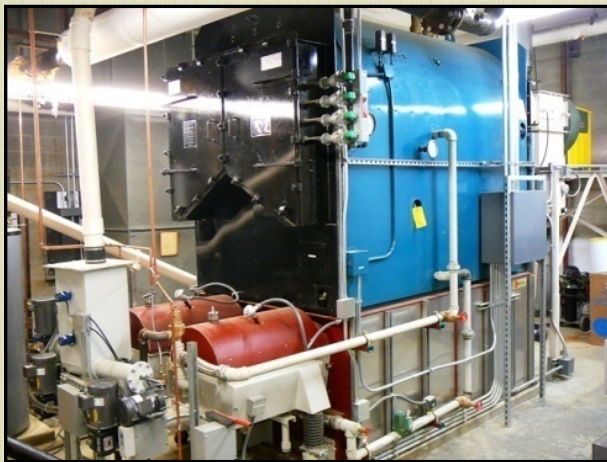
Our Main Product Lines

- SolaGen Stokers – System Retrofits

St. Maries School, St. Maries ID: Steam Boiler – 600K BTU/Hr



Mascenic School, New Ipswich, NH: Hot Water – 3MM BTU/Hr



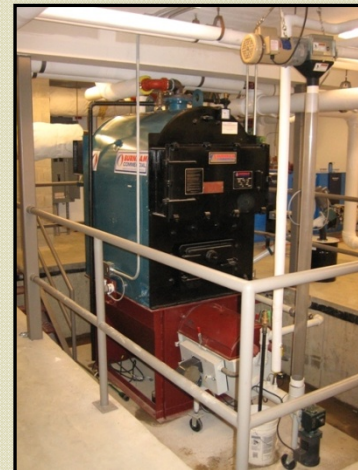
Our Main Product Lines

- SolaGen Stokers – New Installations

Dartmouth College, Hanover NH: Hot Water – 2MM BTU/Hr



West River Valley Assisted Living Center, Townshend, VT: Steam – 1MM BTU/Hr



Our Main Product Lines

- SolaGen Stokers – Prefabricated

South Park Recreation Center, Fairplay, CO: Hot Water – 650K BTU/Hr



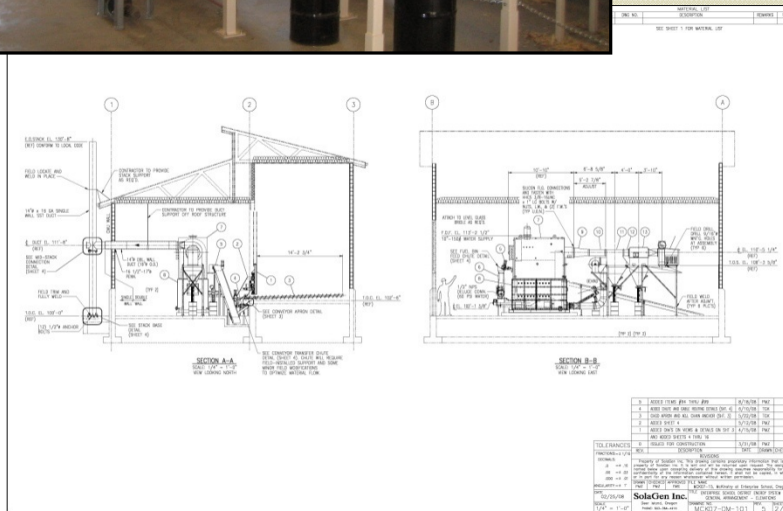
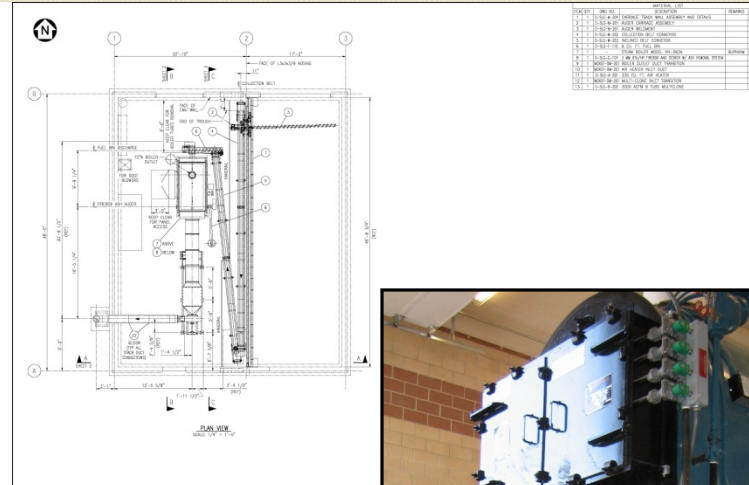
Sisters High School, Sisters, OR: Hot Water – 1.27MM BTU/Hr



Our Main Product Lines

- SolaGen Stokers – Wood Chip

Enterprise School, Enterprise, OR: Steam – 2.7MM BTU/Hr



Field Services

- Audit Energy and Dryer Systems
- Audit Boilers, Steam Plants, Thermal Oil Systems
- Review Controls and Implement Improvements
- Provide Revised or New Control Programming
- Startup and Training Systems
- Troubleshoot Operational Problems
- Stack Gas Analysis