



AgriPower

INCORPORATED

PRODUCT AND TECHNICAL DESCRIPTION BOOKLET

Our Products. AgriPower™, Inc. is a Delaware (U.S.) corporation established in 2004. We custom design, manufacture, install, maintain and service a wide range of unique, proprietary, modular and transportable, Waste-to-Energy “Heat Only” and “Combined Heat & Power” systems (the “**Systems**”). AgriPower also manufactures a broad line of grinders and provides consulting and project development services. The Systems contain numerous *advanced technology* features and space age materials and are designed and engineered to be fueled by a wide variety of wet and dry (or mixed) customer waste materials including “**Biomass**” (all types of wood, cardboard, paper, agricultural by-products, forest residuals and manure), with up to a 50% moisture content, and certain types of plastic (see list on page 3). Using this waste as fuel, the Systems can cleanly produce low-cost, on-site, base load, hot water, heated air and steam and, with the addition of the add-on units described below, electricity and air conditioning and refrigeration (without the need for electric power). The Systems can also provide a variety of “**Co-Generation**” applications including water purification, making ice and low-grade heat for heating buildings and pre-heating cold water and can satisfy numerous high- and low-temperature heating (and cooling) needs including producing ultra-hot air for drying various materials such as paint, lumber and excessively wet fuel or bonding numerous materials. The Systems can process from 1 to 60 tons of waste per day in an environmentally-friendly manner and produce from 500,000 to 25 million BTUs/hour (net) of heat energy. With the addition of a state-of-the-art, waste heat screw expander generator (the “**Screw Expander Generator**”), the Combined Heat & Power Systems, in addition to their heat outputs, can also generate from 125 kW to 1.2 MW (gross) and 110 kW and 1.1 MW (net) of continuous and low cost “behind the fence” electric power. By using these high output, lower cost Screw Expander Generators instead of steam turbines or Organic Rankine Cycle (“ORC”) units to generate electricity, we are able to offer our Systems at extremely attractive prices.

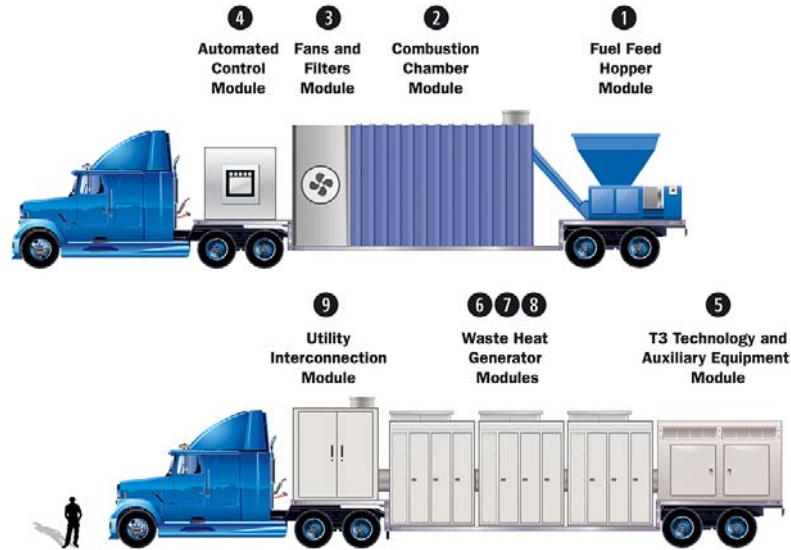
The Systems have a long history of reliable, robust and low-maintenance performance. More than 60 Systems are currently in commercial operation, some for more than 10 years, primarily at schools, hospitals, factories and correctional facilities, where heat, hot water and steam are in great demand and expensive to produce and where there is a continuous supply of waste that can be used as fuel instead of its being trucked to a landfill at a cost.

System Benefits. The Systems enable commercial, industrial, agricultural, governmental, charitable and other organizations to productively and responsibly dispose of the waste they generate, or can obtain, by cleanly converting it to low-cost heat energy, electricity and/or Co-Generation, thus ensuring their own “energy independence”, “sustainability” and “resilience”. The Systems solve several significant problems many enterprises face on a daily basis including disposing of their waste materials in an economic and environmentally responsible manner, obtaining low-cost heat energy, electricity and/or Co-Generation, reducing the amount and cost of diesel fuel purchases and ensuring on-site heat and power reliability. The Systems provide significant savings and attractive payback periods of 2½ to 4 years from reduced fees for waste disposal, transport and taxes, from reduced diesel fuel costs of producing heat energy, electricity and Co-Generation. They enable our customers to resolve these problems while improving their operating efficiency and bottom line performance and enhancing their environmental credentials. Some customers generate extra cash flow from tipping fees by accepting waste from their neighbors and using it as fuel in their Systems.

AGRIPOWER’S TRANSPORTABLE SYSTEM

As shown in the below graphic, the Systems are prefabricated, modular, skid mounted and contain quick-connect fittings, making them easy to handle, ship and transport to the fuel source. Their transportable design enables them to be used at a wide variety of on-grid and remote off-grid sites and for numerous applications (see list on page 4). They can be placed on trailers (not included) or barges and transported to where they are needed, removed from the trailers, rapidly placed into service and utilized on-site for as long as necessary. If they need to be moved, they can be easily and quickly dismantled, re-mounted on trailers and re-deployed to other sites. The Systems are not designed to be operated while on a trailer bed; they should be installed and operated inside of a suitable enclosure on an inexpensive cement or gravel lay-down pad. AgriPower’s modular, skid mounted and

waste heat Screw Expander Generator and air conditioning and refrigeration units (see photos on page 3) can also be easily transported as shown. **Prefabrication, modularity, skid mounting, ease of transport and rapid set-up, installation, dismantling and redeployment times are significant benefits of the System.**






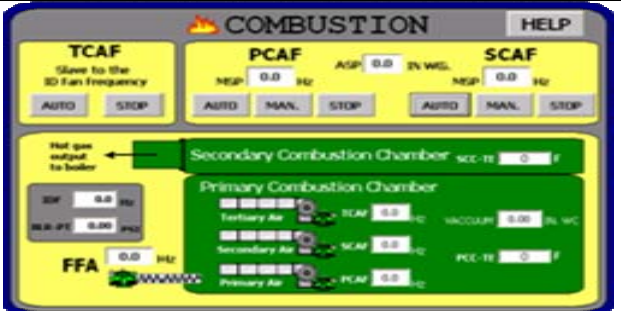


Ease of Permitting. Unlike other combustion units, AgriPower’s Systems use a dual combustion chamber, clean technology design. During the combustion process, all of the combustion gasses and volatile chemicals on or in the waste are directed from the lower combustion chamber into the upper (extended) combustion chamber where they have the additional dwell time necessary to be completely combusted. This unique design means that troublesome emissions are not released into the atmosphere so that the Systems will comply with applicable air permit requirements. As a result, they can operate without the need for expensive emission control equipment and are frequently exempt from applicable air permitting requirements and their associated delays and costs.

Small Footprint; Attractive Payback Periods. The Systems’ compact design, with typical footprints of 50’ by 50’, enables them to be located where the waste is produced and where the heat energy and electric power are needed. This results in a highly efficient conversion of waste streams into usable heat and power and eliminates the cost of waste disposal and the carbon footprint from trucking the waste to a landfill. Our use of high efficiency, lower cost Screw Expander Generators means a lesser capital outlay and a typical net payback period of about 2½ to 4 years. A 50 ton per day AgriPower Combined Heat and Power System can convert two tons (costing \$40.00 per ton) of inexpensive scrap wood (costing about \$80) into 1 MW/hour (net) of electricity, compared to the 71 gallons (costing about \$3.00 per gallon) of expensive diesel fuel (costing about \$213) and containing the same usable energy that would be required to produce the same amount of electricity. This represents a saving in diesel fuel costs of about \$1,100,000 per year (not including reduced waste disposal costs, the value of free heat energy and the possible generation of carbon credits and Renewable Energy Certificates). As a result, the Combined Heat and Power Systems are expected to save at least \$30 million from avoided diesel fuel purchases compared to similarly sized diesel generators over their expected 30+ year useful lives.

Proven Software; Low Repair and Maintenance Costs; Superior Technology; World Class Manufacturers.

The Systems are computer controlled and fully-automated and use customized and proven software and Programmable Logic Controllers. Their operations are constantly monitored and they function with minimal operator input. Their remote monitoring capability enables our customers (and/or AgriPower) to continuously monitor and control their operation from distant locations. There is no need for expensive on-site technical or safety personnel, as they require only unskilled and inexpensive labor to prepare the fuel. The Systems are affordable to acquire, inexpensive and quiet to operate and come in a wide range of heat and power outputs that can be configured for each customer’s specific requirements. They are designed to operate continuously (i.e., 24/350) and safely, to achieve an uptime rate of greater than 95%, to require minimal and inexpensive maintenance, and to provide a low total cost of ownership. Their unique extended, dual combustion chambers, use of over-, under- and mid-fire air distribution systems and screw augers for fuel handling ensure a consistent and an extremely thorough and “clean” combustion process with minimal (1% - 3%) residual ash. Their variable temperature technology (they can operate from 2,200°F down to 1,000°F) enables our customers to use problematic waste materials, such as plywood (with glue), painted and creosote-treated wood, high alkali palm waste and high silica rice waste, as fuel by operating below their chemical reaction points. The integrated Screw Expander Generator and the air conditioning and refrigeration units are produced for AgriPower by world-class manufacturers such as Carrier, Johnson Controls and a major Chinese manufacturer.

Complete Turn-Key Solutions and Numerous Financing Options. AgriPower can provide a complete turn-key solution for each project and uses several well-known international, environmental services, engineering, procurement and construction management companies (“EPCMs”) to handle permitting, installation, start-up, maintenance and servicing of the Systems on a worldwide basis. Multiple purchase, lease and other financing options are available including AgriPower’s **no-risk, no-capital outlay**, “Shared Savings Program” for qualified customers. Under this Program, AgriPower provides its customers with substantial annual savings of waste disposal and diesel fuel costs without the customers having to use their own capital or assume any operating risks. AgriPower uses its own funds to install and operate the System at the Customer’s site and shares the savings obtained from the System’s operation, and from any carbon credits generated, with the customer.

	
<p align="center">AgriPower In-Line Hot Water System</p>	<p align="center">Fully Automated Control Unit</p>
	
<p align="center">Example of a User Friendly Screen Shot</p>	<p align="center">Example of a User Friendly Screen Shot</p>
	
<p align="center">Screw Expander Generator</p>	<p align="center">Air Conditioning and Refrigeration Units</p>

OUR SYSTEMS CAN USE A WIDE VARIETY OF WASTE MATERIALS AS FUEL

The Systems can use most types of Biomass and many other waste materials as fuel, including:

Commercial Waste

- wood, woodchips, pellets, sawdust and sanding dust
- cardboard and paper
- construction, demolition and other wood debris (even if it contains nails and screws) including plywood (with glue) and painted and creosote treated wood (if permitted), rig mats and pipeline skids
- other wood waste including pallets, crates and boxes (even if they contain nails and screws)

- discarded fruits and vegetables and other food waste (with up to 50% moisture content)
- forest residuals (stumpage and slash) including bark and brush
- bark beetle-infected and fire damaged trees
- “Green Waste” including grass clippings, vines, brush and tree trimmings (twigs, branches and leaflets) even if they contain high amounts of bark
- rapidly growing renewable fuel crops including jatropha, poplars, willows, bamboo and switchgrass
- nuisance plant materials such as invader and thorn bush
- many types of plastic waste including bottles, containers and pallets (if permitted)

Agricultural Waste

- crop residuals such as corn stover (stalks, cobs), shells, husks, pits, bagasse and oil palm and rice waste
- most types of animal manure (poultry, cows, cattle and horses)

Municipal and Utility Waste

- wood, tree waste and discarded furniture and carpeting
- highway department and local utility tree trimming waste
- gardening and lawn waste
- sorted municipal solid waste and sludge from municipal waste water facilities

OUR SYSTEMS HAVE A WIDE VARIETY OF APPLICATIONS

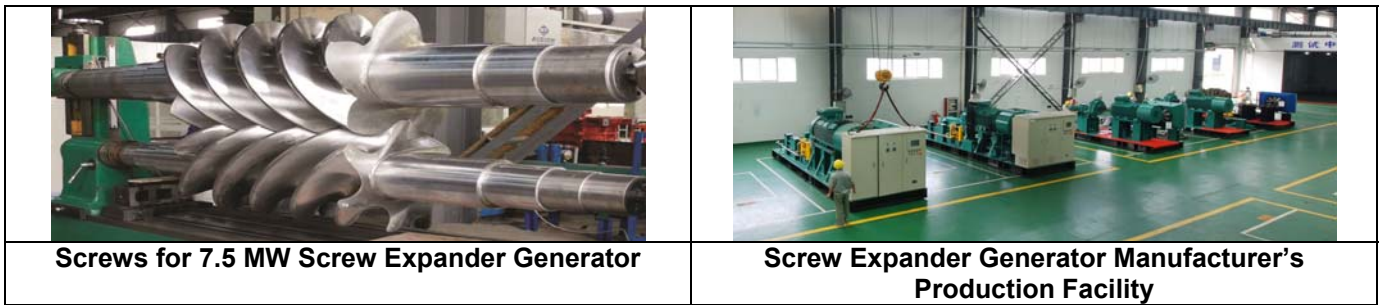
The Systems can be used at **on-grid and off-grid** sites. They are of special interest when diesel generators are being used. They have a wide variety of applications including:

- factories, warehouses, cold storage units, supermarkets, “Big Box” stores, malls and shopping centers
- hospitals, hotels, casinos, colleges and universities (especially those with dormitories)
- municipal buildings such as correctional facilities, shelters, libraries, schools, garages and town halls
- workforce camps and mining sites (especially those that operate diesel generators for heat and power)
- Indigenous and other remote communities, and small and mid-size villages and towns (especially those that operate diesel generators)
- food processors (especially those that need hot water and refrigeration) and greenhouses
- lumber mills, paper and pulp companies, corrugated cardboard producers and furniture manufacturers
- industrial parks (especially those that have unreliable or “dirty” power)
- farms, ranches, plantations, military bases and disaster sites (especially those that operate diesel generators)
- utility company facilities and municipal and landfill sites
- resort hotels, especially those that operate their air conditioners and food storage refrigerators 24/7
- electrification projects by governmental and charitable organizations

OUR SCREW EXPANDER GENERATORS HAVE MANY ADVANTAGES WHEN COMPARED TO STEAM TURBINES OR ORGANIC RANKINE CYCLE UNITS

Over the past several years, screw expander generators have demonstrated themselves to be a well proven industrial technology for application in small, decentralized biomass-fueled Combined Heat and Power plants (up to 7.5 MW). The main advantages resulting from using AgriPower's Systems and their integrated Screw Expander Generators are:

- Inexpensive Waste is the Fuel. Biomass and many other types of waste are used as fuel and cleanly combusted in our Combustor Unit to produce steam which is directed into the Screw Expander Generator which then utilizes the steam to cleanly generate electricity.
- Effective in High Temperature Environments. The steam is used as a highly efficient heat transfer medium that is not materially affected by ambient air conditions. As a result, unlike some ORC units that only operate at 60% of their rated capacity when they are operated in high ambient temperature locations (up to 100°F), AgriPower's Screw Expander Generators' net output is about 95% of its gross rated output in the same conditions = greater customer value.
- No Need for Expensive Safety or Operating Personnel and Ease Of Use. The Screw Expander Generator can use low-, medium- or high-pressure steam to produce electricity. As a result, in many jurisdictions it is permitted to operate without the need for an on-site safety engineer. In addition, other than the unskilled and inexpensive labor responsible for preparing and loading the fuel, their fully automated and user friendly software enables them to operate without the need for any full time operating, technical or maintenance personnel.
- Smaller, Lighter and Less Expensive. We use the latest Screw Expander Generators that are smaller, lighter and less expensive to acquire and maintain and operate than steam turbines and Organic Rankine Cycle ("**ORC**") units in the same size range. Their size, weight and footprint are about 20% of an ORC unit with comparable electrical output. As a result, our Systems can be purchased at a substantially lower price than comparable steam turbines and ORC units.
- More Efficient Operation. Our Screw Expander Generators provide Isentropic Efficiency rates of up to 70% compared to 55% efficiency for turbines and about 20% for ORCs, with ours generating up to 30% more power which translates into greater customer value.
- Scalable. The Screw Expander Generators' flexible design enables them to be operated in parallel which means we can offer our customers customized Systems in increments of 50 kW from 125 kW to 7.5 MW gross and 100 kW and 7 MW net.
- Reliability and Long Operational Life. Our Screw Expander Generators use rotating screws to generate electricity instead of high speed turbine blades that are constantly subjected to "Water Impact" damage when water droplets hit them. This feature substantially reduces normal wear and tear, lowers repair and maintenance costs, enables a 98% average functioning time and a longer useful life. They are specifically designed for long duration operation, with over-sized components and safe design margins.
- Manufacturing Capacity and Rapid Production and Delivery. The Screw Expander Generator's manufacturer is a major international company with more than 800,000 square feet of manufacturing capacity. As a result, our Screw Expander Generators can usually be manufactured in 3 to 4 months, compared to approximately 1 year for an ORC unit with comparable electrical output.
- Financial Strength, Experience and References. The Screw Expander Generator's manufacturer is a publicly traded company with more than \$230 million in annual revenue. They have been in business since 1956, have an excellent reputation, and enjoy widespread customer satisfaction with their products. They have more than 50 Screw Expander Generators in current operation.
- Cutting-Edge Technology and High-Quality Products. The Screw Expander Generator manufacturer's Research and Development center in the U.S. conducts continuing research and has been issued more than 100 patents. Their products' consistent high quality results from careful production methods and constant testing at their production facility.
- After-Sales Service. The Screw Expander Generator's manufacturer and AgriPower both offer remote monitoring, extendable warranties and flexible maintenance programs.



OUR SYSTEMS PROVIDE MANY ENVIRONMENTAL (“GOOD NEIGHBOR”) BENEFITS

Using our System **on-site** means the Beneficial Use of Waste that:

- reduces truck traffic, road wear, emissions and accidents
- reduces driver and truck expenses (salaries, fuel, oil, repairs, fees, insurance)
- reduces waste going to landfills and allows the landfills to have a longer operating life
- reduces outdoor burning (or decomposing) of Biomass waste, and resulting air pollution and methane gas
- reduces the use and expense of diesel and other hydrocarbon-based fuels to produce heat, hot water, steam, electricity, air conditioning and/or refrigeration
- uses waste in a productive, environmentally-friendly and sustainable manner
- enhances environmental credentials with customers, stakeholders, the public and regulatory authorities
- facilitates local job creation and community development
- enables funds previously used for fuel purchases to remain in the local community for local business development
- creates an attractive “Clean Energy” Demonstration Site that enables continuing favorable publicity from site visits by school children, the public, customers, stakeholders, public officials, etc.
- can create valuable Carbon Credits and Renewable Energy Certificates

FOR FURTHER INFORMATION, PLEASE CONTACT:

AGRIPOWER, INC.™
BARRY J. BERMAN, CHIEF EXECUTIVE OFFICER
46 DEEPDALE DRIVE, GREAT NECK, NEW YORK 11021 USA
OFFICE: (516) 829-2000 • MOBILE: (516) 384-2100
E-MAIL: BBERMAN@AGRIPOWER.COM

OR VISIT OUR WEB SITE: WWW.AGRIPOWER.COM

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