

Evaluation

With a minimum amount of information Steam Power llc can estimate the benefits of going green with steam.

- inlet pressure to turbine - psig
- inlet temperature to turbine - deg. F
- average amount of steam available
- outlet pressure from turbine

We can design a steam turbine generator that converts your steam into money saving green energy. Let us show you how to convert your steam into a useable environmentally friendly resource. Contact Steam Power llc today!

Contact Us STEAM POWER



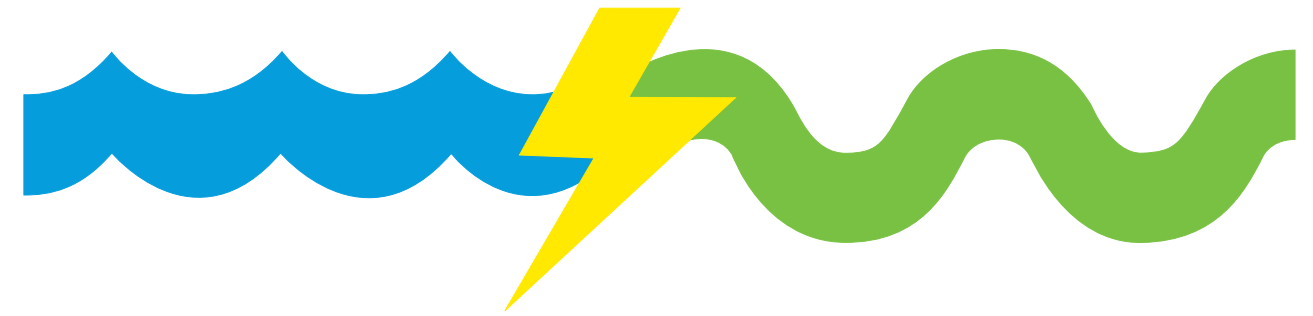
SteamPower llc.
4 Main Street, Milford, Ohio 45150
P 513 . 831 . 0996
F 513 . 965 . 9454

www.stmpwr.com

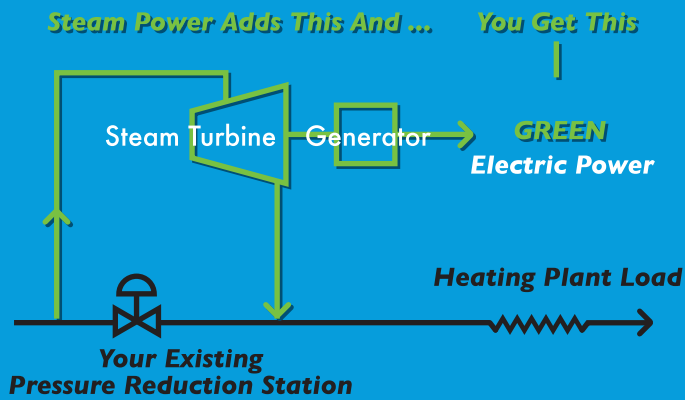
Mark Haglage
P 513 . 703 . 6990

Ed Stoermer
P 513 . 833 . 5800

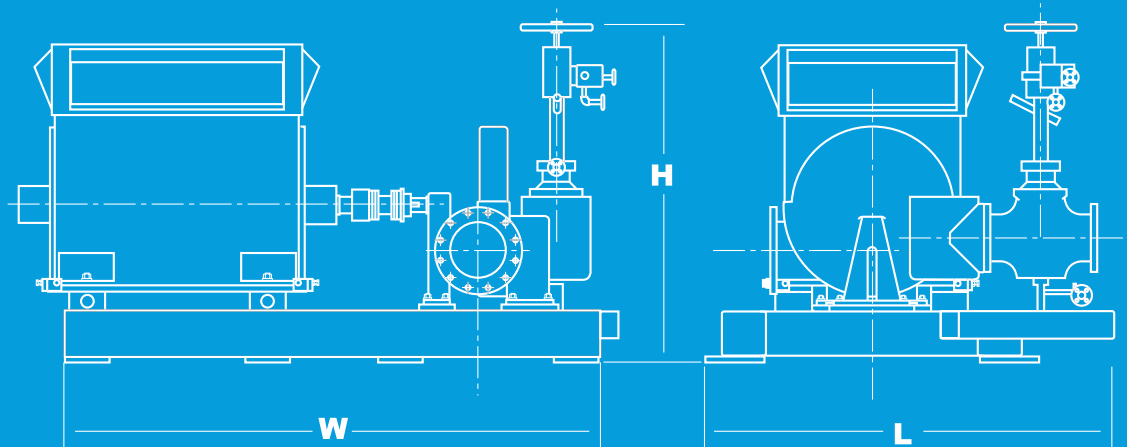
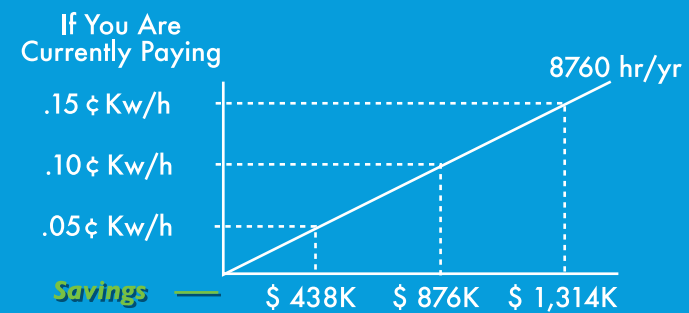
STEAM POWER



Steam Turbine Generator Sets



Potential Annual Savings Per 1000 Kw Year

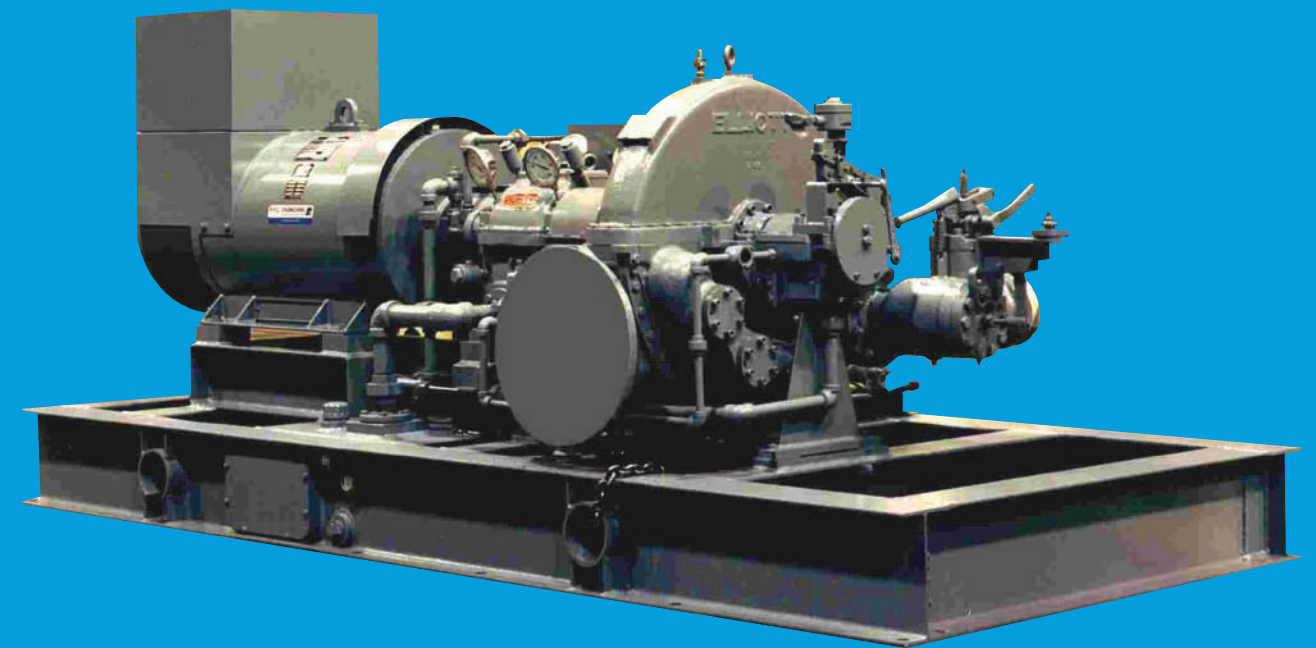


Power	L	W	H	Weight	Steam Flow
500 kWe	60"	108"	72"	7,500 lbs	30,000 lbs/hr
1000 kWe	72"	120"	72"	10,000 lbs	45,000 lbs/hr
1500 kWe	72"	120"	84"	12,500 lbs	65,000 lbs/hr
2000 kWe	84"	144"	96"	15,000 lbs	85,000 lbs/hr

Information based on 450 psig, saturated inlet steam to turbine exhausting to 35 psig back pressure.

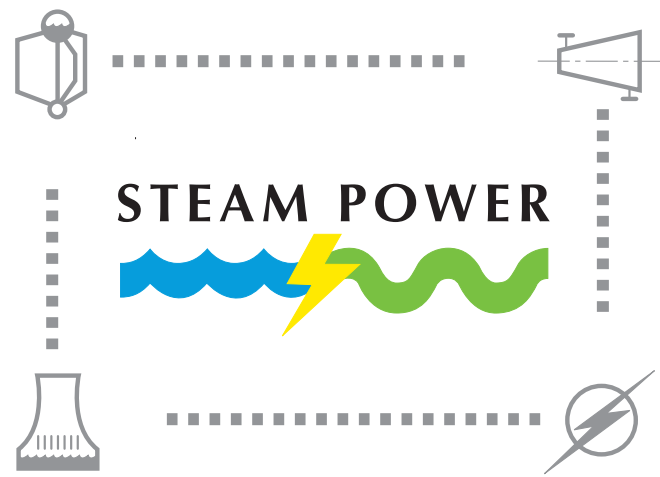
Contact us with specific design requirements including condensing applications.

Offering competitive, efficient STG packages...



that save time, money, and ENERGY!

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GO GREEN WITH STEAM!

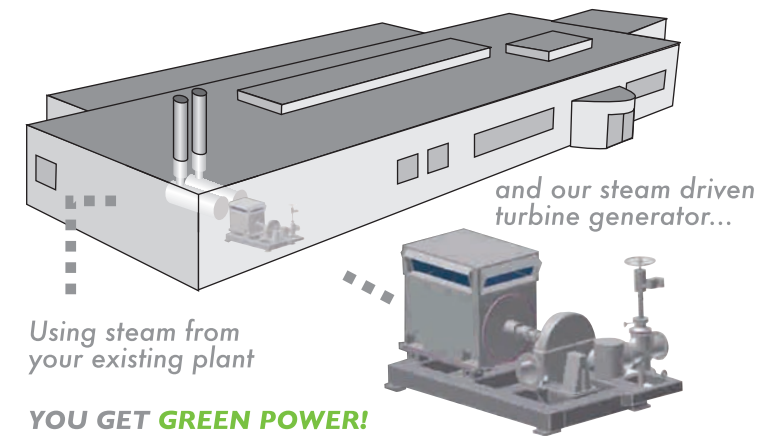
Complete Systems

Steam Power IIc can address all aspects of a steam turbine generator system. Our extensive background in boilers (both conventional and HRSG), rotating equipment (steam turbines, gears, generators & pumps), heat exchangers (cooling towers & condensers), as well as electronic controls (plc & microprocessors) make us uniquely qualified to discuss all aspects of a cogeneration system, and ensure that all components operate and interface with each other as necessary to maximize system efficiency and ROI on your specific project.

As a minimum, the Steam Power STG package will include the steam turbine, generator, speed reducer (if necessary), baseplate, lubrication system and control panel. Each component is selected to meet customer needs and optimize system performance.

Power Recovery

Your existing steam plant = 2/3 of a power plant



YOU GET GREEN POWER!

Steam Power IIc

Formed in 2008 as a joint venture, our corporation provides engineered solutions and equipment packages to the industrial cogeneration market. The two principals in Steam Power IIc, Ed Stoermer and Mark Haglage, have been active participants in the industrial power and process industries for over 50 years combined. They have wide-ranging experience with much of the equipment used in the steam cycle, including steam boiler systems, rotating equipment, heat transfer equipment and electronic controls.

Whether you are looking to replace an existing Pressure Reducing Valve with a small STG, or are considering an entire system to make more efficient use of your steam supply and demand, Steam Power has the experience and professional expertise to offer various solutions for you to consider.

Steam Turbines

The steam turbine is the heart of the STG package. Depending on the application Steam Power's STG packages use one of the following turbine designs:

Single Valve / Single Stage (SVSS) is used primarily for backpressure applications

Single Valve / Multi-Stage (SVMS) is used primarily for condensing applications

Elliott Company, long recognized as the leader in industrial steam turbine design and manufacturing, is the exclusive supplier of steam turbines on Steam Power STG skids. The Elliott Model YR (SVSS) and MYR (SVMS) turbines are in service in over 40,000 installations around the globe.

Generators

The generator is offered for two different designs and applications:

Induction generators are offered for small systems (usually less than 1000kWe). Because they are directly coupled to the steam turbine (no speed reducer), and the controls are simplified without the need for synchronization, the induction STG skids are usually less costly and easier to install and operate.

Synchronous generators are offered on larger systems (usually larger than 1000 kWe). Because the steam turbine operates at a higher speed on a synchronous STG skid, it is generally more efficient than its induction counterpart. A speed reduction gear is used between the high-speed turbine and the synchronous generator. A synchronous STG also has **black-start** capability, and can continue to generate power in case of loss of main power to a facility.

We Provide the Complete System



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Speed Reduction Gears

In order to maximize efficiency of an STG system, it is sometimes necessary to run the steam turbine at a faster speed than the generator. This is usually the case in a synchronous STG application. When a speed reduction gear is required, Steam Power uses Lufkin gears, known for their quality of manufacturing and rugged design, ensuring dependable service for the application.

Controls

Controls are a very important component of any cogeneration application, and could be considered the "brain and nervous system" of the STG system. To ensure that the entire system operates as desired Steam Power takes a whole-system approach integrating and interfacing with plantwide systems. We partner with Ewing Controls, a leading provider of Allen Bradley PLC-based control systems to the power generation market. Advanced solid-state components are used for flexibility and enhanced communication capability. We work with our clients to determine and define the control scheme best suited for their particular application and need. Start-up assistance and training on the system in general, and controls in particular, are always a part of the Steam Power STG package.

Comprehensive Solutions

Steam Power IIc can address all aspects of a steam turbine generator system. Our extensive background in boilers (both conventional and HRSG), rotating equipment (steam turbines, gears, generators & pumps), heat exchangers (cooling towers and condensers), as well as electronic controls (plc and microprocessors) make us uniquely qualified to discuss all components that may be required on a cogeneration system, and ensure that all components operate and interface with each other as necessary to maximize system efficiency and ROI on your specific project.