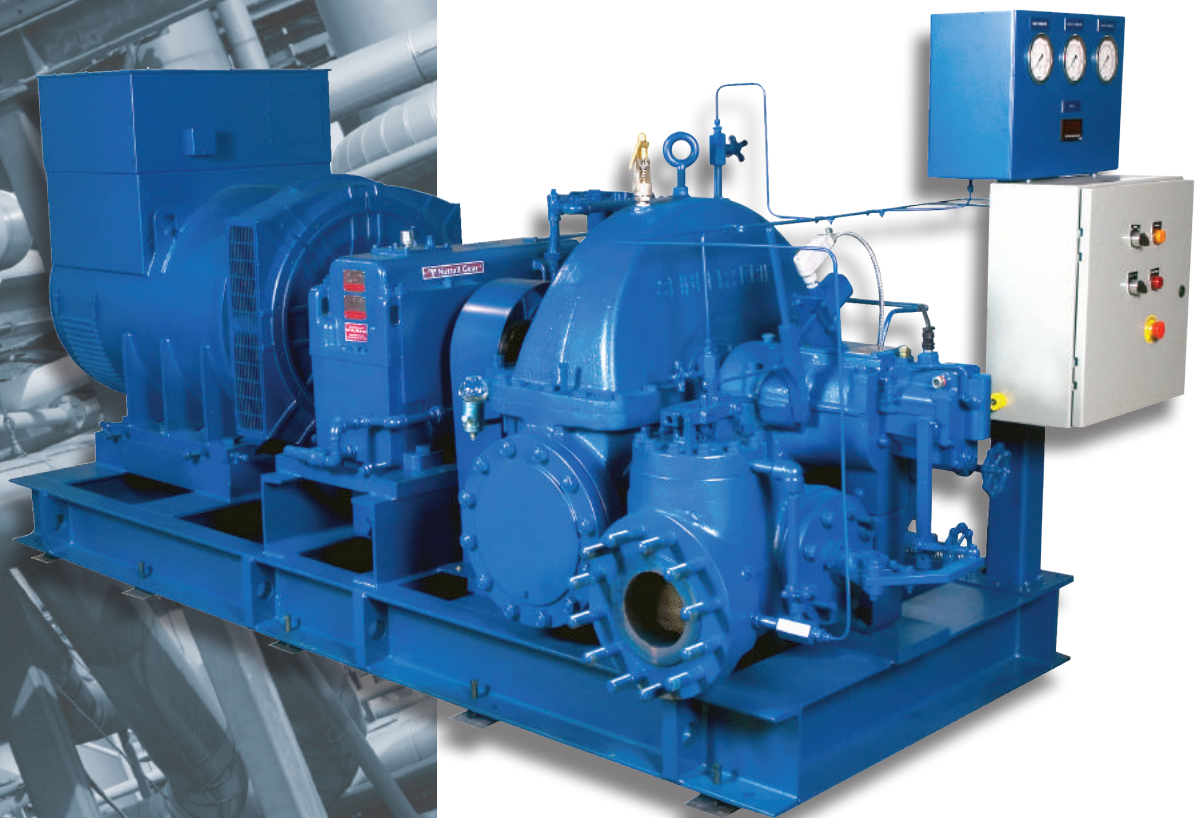


POWER YOUR PLANT

*with a Skinner
Custom Built
Steam Turbine
Generator Package*



**SKINNER
POWER SYSTEMS LLC**

■ Skinner Experience

With a heritage in steam dating back to 1868, Skinner has earned a solid reputation in building small to mid-size steam turbine generator packages for clients around the world. We have helped hundreds of customers obtain reliable power solutions for their unique operations within an affordable budget and with prompt delivery schedules. We can do the same for you.



We work closely with you throughout the whole process. We hear your requirements, develop system parameters, specify compatible equipment, and then build the right package for your application. Because of our experience, you end up with the best steam turbine generator package that will provide reliable and cost-effective operation throughout its life-span.

Here is a partial list of the many worldwide applications where you can find Skinner steam turbine generator packages – either the condensing type or non-condensing:

- *Refineries*
- *Pulp & Paper Mills*
- *Sugar Mills*
- *Palm Oil*
- *Food Processing*
- *Educational Facilities*
- *Hospitals*
- *Biomass Operations*
- *Waste-to-Energy Plants*
- *Combined Cycle Plants*
- *Distilleries*

■ The Skinner Turbine Generator Package (4 kW to 2 MW)

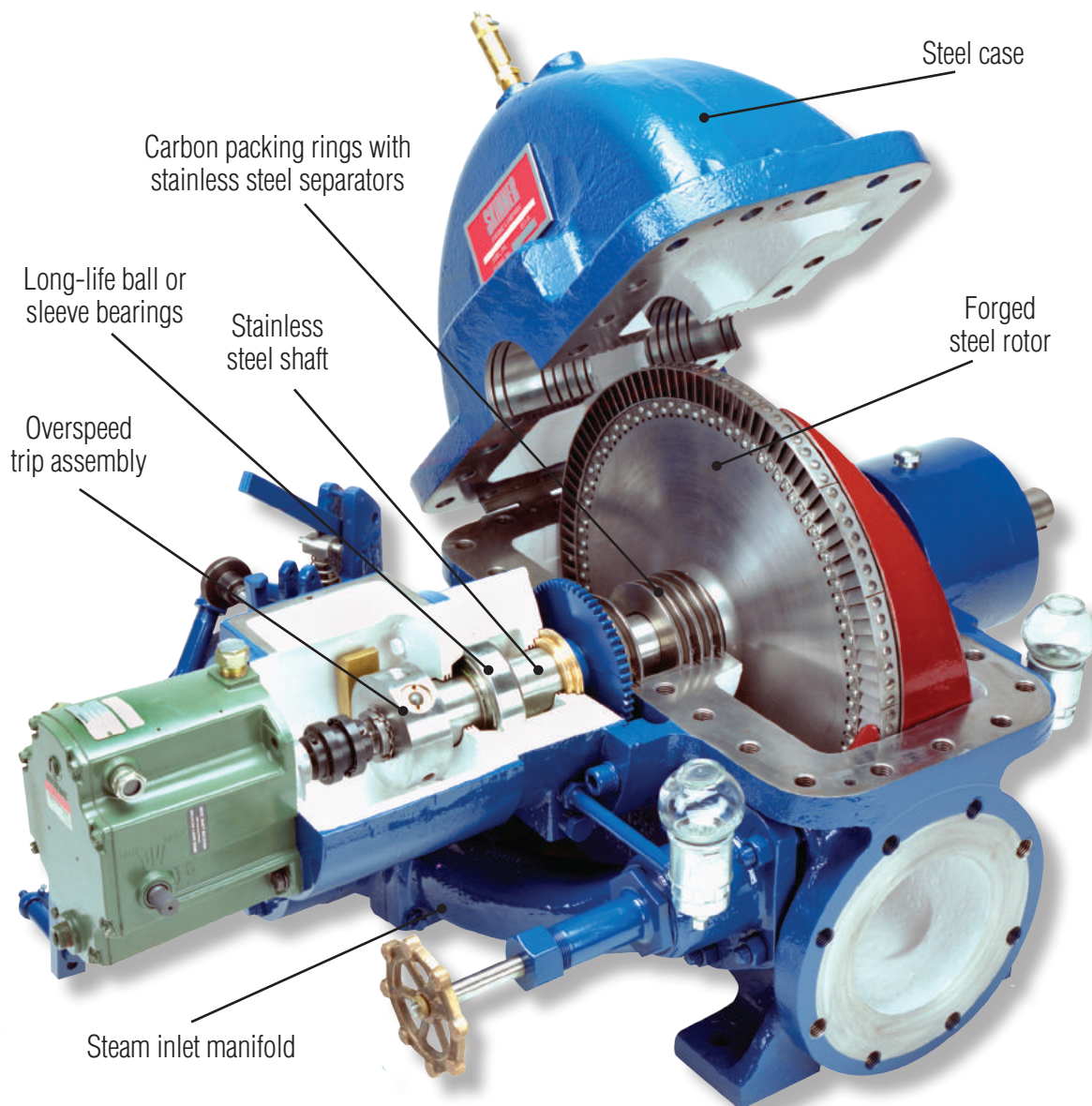
Each Skinner steam turbine generator package is designed as an integrated system. We select the turbine, generator, gear (where required), couplings, baseplate, oil system, controls and instrumentation for compatibility to meet your specific needs. Auxiliary control panels, synchronizing and generator protection equipment and other accessories can also be added to your system.

The Skinner Package Includes:

- **Turbine** – The turbine is the first step in converting steam energy to electric power. We select a turbine based on the steam you have available. The selected turbine model will provide you optimum power based on your steam conditions.
- **Generator** – The generator takes the turbine's mechanical energy and converts it into electric power. Both two-pole and four-pole generator designs are available in induction or synchronous types. Because Skinner is not committed to one particular generator manufacturer, we have flexibility to furnish the most suitable generator for you from manufacturers worldwide. This may lower your costs and/or improve the delivery time of your package.
- **Gear** – When appropriate, a gear reducer enables the turbine—which is more efficient at high speed—to drive a standard 4-pole generator at a lower speed. This results in dramatically improved efficiency and cost savings in the form of greater electrical output and/or less steam usage.
- **Oil system** – The oil system, if required because of temperature or for the gear, is sized for ample capacity.
- **User-friendly controls** – The control system features a user-configurable digital governor which provides the versatility required for speed or pressure control.
- **Protective systems** – The safety and availability of the equipment depend on the protection devices built into the system. Every package has a mechanical overspeed trip. If the rotating speed becomes excessive, the trip closes the main stop valve on the turbine to shut it down. Other protection devices available include temperature monitoring to indicate changes in turbine performance, vibration monitoring to sense problems such as misalignment or worn bearings, and oil system monitoring for heat and lubrication of bearings.



*Skinner direct coupled induction steam turbine generator package.
(The Skinner synchronous gear package is shown on the front cover.)*



■ Skinner Capabilities

Design

In designing your steam turbine generator package, Skinner applies state-of-the-art control and monitoring components (governors/monitors/relays) to proven hardware designs (turbine/gear/generator). We create a package that does the job you want it to do, performs reliably, and is user friendly to operate.

Manufacturing

The Skinner factory is located at our headquarters facility in Erie, Pennsylvania, U.S.A., where we have access to an international airport and rail, highway and water transportation. Your steam turbine generator package is built here by skilled workers using modern equipment and tooling for machining, heat treating, assembly and inspections. The turbine and other components of each steam turbine generator package are then assembled in our plant as a drive train mounted on a baseplate.

Service/Support

Producing quality original equipment is only half of the Skinner story. Skinner packages are backed by our commitment to prompt service and support. In addition, our experienced and dedicated professionals are available to assist with turbine trouble shooting, maintenance and, if necessary, repair.

Quality

Skinner personnel take pride in their skills and craftsmanship. They have maintained the highest standards since 1868 for building quality equipment to satisfy the most demanding customer expectations for reliable and cost-effective performance. We back our commitment to quality with a one-year limited warranty on each package.

*Customers prefer Skinner because we are a low-cost supplier with fast delivery.
Simply put, "We save you time and money!"*



Contact Skinner for smaller-scale steam turbine generator packages with a price tag to match.



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