Turbomachinery Service

We keep you up to speed
Did you know that HOERBIGER turbo-machinery engineers and supervisors have a long track record of experience?

You can turn to HOERBIGER for the maintenance and upgrade of steam turbines and centrifugal compressors:

- Multistage steam turbines in gen set applications
- Multistage steam turbines as prime mover (e.g. for pumps)
- Centrifugal compressors
- Boiler feed pumps in combination with single stage back-up turbines

Our service experience in turbomachinery covers industries of all kinds including:

- Refining, chemical and petro-chemical
- Power plants, biomass plants, incineration plants
- Steel, paper, saw and sugar mills
- Utility plants

Across a wide spectrum of turbomachinery types and applications, HOERBIGER set Standards for reliable operation.

For many years, HOERBIGER has supported its customers with engineering, surveillance and maintenance of reciprocating compressors. In 2006, we extended our offering to cover turbomachinery services through acquisitions and by hiring experts.

Today HOERBIGER through its know-how and its expertise in control and engineering provides proven engineered solutions and maintenance services for turbomachinery.

The HTS team is continuously developing its high level of technical competence, familiarity with different industries and compliance with industrial standards such as API, ISO and CE...
HOERBIGER Turbomachinery Service (HTS) offers full solutions, from the main steam shutoff valve to the generator breaker, as turnkey services.

The team has a proven track record in servicing and steam turbines and auxiliary equipment.

Highly skilled field service and repair shop engineers ensure the necessary knowledge and flexibility to overhaul most brands of centrifugal compressors and steam turbines.

Our services offering include:
- Documented lifetime assessment
- Failure analyses
- Annual service inspections
- Minor overhauls
- Intermediate overhauls and repairs
- Major overhauls
- Spare parts supply
- Engineering Solutions
- Upgrades and retrofits
- Troubleshooting
- Lifetime extensions

Reliability improvement
- Control solutions
- Long term service agreements

Quality, availability and efficient planning are three of our performance bound.

Overhaul, including re-blading, of a 6.5 MW CEM backpressure turbine dating from 1970

Reblading CEM rotor
HTS Control, protection and diagnostic systems

Because turbines operate beyond their design conditions:

HTS offers turbine speed / load and generator control systems for all industrial size steam turbines.

HTS Control is a tailor-made solution which includes automatic start/stop, a speed/load control, inlet-backstage control, island mode operation or other specific operating mode requirement. Through hardwired and redundant instruments or SIL approved equipment, HTS Control offers optimal protection for each turbine generator.

HTS experts cover most types of control systems including
- Steam turbine controls
- Generator controls
- Auxiliary controls
- Compressor antisurge controls
- Light industrial gas turbine controls

Stal turbine steambox reblading
Protection parameters:

- Speed and behavior patterns
- Thermodynamic/expansion path
- Vibration (mm/s, spectrum, orbit)
- Temperature of lubrication path
- Generator-related
- Plant-related
- Auxiliary-related

HTS experts assist customers with maintenance recommendation or diagnostic:

- Data recording
- Remote Monitoring and support
- Remote Diagnostic

HTS protection systems increase availability and protect your assets through redundant measurements and trip functions up to the latest SIL3.

HOERBIGER Hydraulic Trip Blocks (HTB) here fitted to a Siemens steam turbine are a proven way to protect turbomachinery.
Reliability and lifetime extension

An upgrade may be required to meet today’s industrial standards. Our experts first carry out an audit of the existing equipment. They then communicate their findings and recommendations as a written report with what is achievable post any upgrade in terms of reliability, efficiency and environmental soundness.

HOERBIGER provides fully engineered solutions, including:

- Replacement of obsolete control systems
- Protection systems upgrade
- Control and regulating valves and actuators upgrade
- Bearing solutions
- Steam path optimization
- Replacement of auxiliary systems
- Turbine governor replacements
- Modernization of hydraulic systems

HTS brings equipment up to date so that it operates reliably, efficiently and in an environment-friendly manner.
Spare parts solutions

Engineering and designing of parts is an alternative to original parts from the manufacturer or which are no longer produced.

- Fast response parts delivery
- Conformity to quality standards
- Reduction of downtime during overhauls
- Sale of only the required parts
- Reduction of inventory
- Redesign of spare parts

HTS workshops are equipped to design parts with latest software and 3D measurement tools.

This allows many old and outdated turbines to be kept running and even brought to better performance. Re-design of manufacturer parts plus upgrades of control systems is an ideal combination to cure design problems or to improve reliability, efficiency and environmental soundness.

*New designed nozzle ring for a Alstom 10 MW condense turbine*

Workshop: steam path optimisation, renewal of seal strips
HOERBIGER Turbomachinery Service
The full service solution for you

HTS offers comprehensive services and products for turbomachinery. This guarantees complete, timely and reliable project execution.

- Complete turbine overhaul
- Repair of auxiliaries, cooling systems and hydraulics
- Control and Protection systems

**With HOERBIGER HTS you benefit from:**

- A single service supplier for all brands of turbomachinery
- Fully equipped workshops staffed by highly trained technicians
- True responsiveness, flexibility and speed of service

www.hoerbiger.com

HOERBIGER is active throughout the world as a leading player in the fields of compression technology, drive technology and automation technology. In 2013, its 6,400 employees achieved sales of 1.05 billion euros. The HOERBIGER brand is synonymous with performance-defining components in compressors, industrial engines and turbines, automobile transmissions, and multifaceted mechanical engineering applications. Innovations in attractive technological market niches are the basis for components, systems and services that offer unique selling propositions and long-term benefits for the customer. We set standards.

This product brochure contains product specifications based on research and development on the one hand and on manufacturing on the other. Dependent on place of installation, operating conditions and specifications, several parameters of the described product may change. Thus, HOERBIGER assumes no liability or warranty for the accuracy and completeness of the information covered in this brochure.