



Repair Services

Valve Repair



Reliability/Availability

As a steam turbine OEM with experience on many types of valve, GE is well qualified to carry out repairs on valves and actuators of any original manufacture.

Background

The routine inspection of steam chests, valves, actuators and pipework often reveals damage such as excessive wear, erosion, deposits, cracking and distortion. Any such findings must be reviewed and corrected to ensure safe, efficient and reliable operation of the steam turbine, as well as compliance with statutory requirements.

Inadequate repair of valves and actuators can lead to further wear and leakage, resulting in increased hysteresis, sticking, and sometimes the failure to seal. This not only affects the control of the unit, but also compromises its safety. In the worst case, complete seizure or failure may occur, with consequential damage to downstream components.

Solution

As an original manufacturer with broad experience, GE is qualified to carry out repairs on all types of valve, actuator and associated equipment. Our reverse engineering capabilities allow us to successfully carry out maintenance and repair activities on steam turbines of any original manufacture.

GE has established analysis and repair techniques for both temporary and long-term repair solutions. This work can be integrated with a long-term replacement or upgrade strategy.



Valve parts awaiting maintenance

Current repair techniques include:

- Removal and re-application of cracked hard-facing material
- Chrome carbide coating of components to improve wear and reduce the likelihood of scaling
- Spindle straightening and sleeving to recover worn running diameters

GE has a number of well-equipped factories capable of carrying out a multitude of machining and welding operations, as well as servo testing, analysis and overhaul. This experience is particularly useful for addressing problems during an outage and enabling preventive maintenance.

GE's mobile workshops allow for many repairs to be carried out on site, thereby offering cost and time-saving benefits. We also offer upgrade and retrofit solutions, based on the best of current technology and new equipment design.

Benefits

- **Reliability & availability improvement**

GE's valve repairs return components to their original condition and are proven to last.

- **Reduced O&M costs**

Repair is usually less expensive than replacement.

- **Outage time reduction**

Repair does not incur the delay of waiting for new parts.

Applicability

Our valve repairs can be applied to all types of steam turbine, whether of GE or non-GE manufacture.

References

GE has an extensive list of valve repair references from around the world.



Cracking on the contact surface of a valve head



Cracking on the contact surface of a valve seat

To learn more about this offering, contact your GE sales representative or visit powergen.gepower.com.