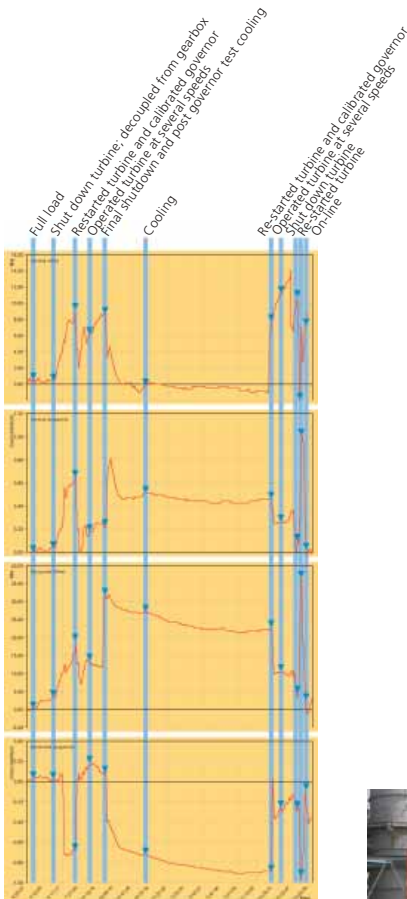


displacement monitoring



Continuous displacement measurement

Dynamic machine movement created by thermal growth, foundation settling, piping forces and overloading are the most common causes of machine displacement - which can in-turn lead to decreased efficiency due to increased loading or even to machine breakdown.

With the PRÜFTECHNIK laser based PERMALIGN® Service it is possible to monitor and document both the relative and absolute machine movements from initial start-up to full operating conditions to determine and resolve machine issues.

Typical applications for the PERMALIGN® monitoring Service are:

- Steam & Gas turbines
- Compressors
- Gearboxes
- Pump Sets

The service is not limited to monitoring the positions of shaft-coupled machines, the measurement also allows precise monitoring of an extremely wide variety of structures, such as those encountered in steel mills, machine tool fabrication, or building construction.

Graphical reporting software produces clear alignment data/results and lists the complete details of current or stored alignment conditions, even over extended periods of time.

Testimonial:

Experience with the PERMALIGN® system on a high speed turbo-machine highlighted the following:

- 1) Conventional 'hot checks' do not provide an accurate measure of the actual 'running' alignment condition for steam turbine applications.
- 2) Loads from the piping, etc. can contribute significantly to the running alignment condition. In summary the PERMALIGN® system provides an economical way to accurately measure the 'thermal growth signature' of critical rotating machinery.