Online Monitoring of Steam Quality
Steam turbines

To protect your steam turbine from potential damage from deposits and corrosion, MAN PrimeServ offers you an online analytical system constantly monitoring the steam quality.

Strict compliance with the specified steam quality by using a suitable water treatment and conditioning is fundamental for the avoidance of potential damage to the steam turbine and the steam-carrying plant components. Even short-term operation of the steam turbine unit outside the specified operating conditions can lead to significant impairment or damage due to deposits and corrosion.

Modernization Solution
To avoid damage to the steam turbine as a result of operation not in compliance with the respective chemical mode of operation, MAN PrimeServ offers an analytical system constantly monitoring the steam quality. Based on an industrial standard system, the monitoring system can be optimally adapted to the relevant plant and mode of operation due to its modular design. Depending on the specific configuration, the steam monitoring system enables the continuous monitoring of the steam parameters as:

- Direct conductivity*
- Acid conductivity*
- Degassed acid conductivity*
- pH value*
- Silicic acid content
- Sodium content
- Further parameters on request
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The measuring points can be integrated in the control system of the steam turbine to enable the direct display of the current measured values as well as the alarm notifications in the event of threshold value violations in the monitoring system of the steam turbine unit. In addition to this, the data can be transferred via the optional intelligent remote diagnostic system irds® to MAN PrimeServ and used together with the other machine parameters for condition analyses and maintenance planning support.

Benefits
The modernization solution facilitates continuous online monitoring of the specified steam quality:

- Protection from deposits of dissolved and undissolved substances in the steam
- Protection from corrosion due to electrolytic deposits, potential differences, pH value and gases dissolved in the steam
- Direct display of measuring data in steam turbine control system
- Alerting of operating personnel in the case of non-conformities
- Provision of data via optional intelligent remote diagnostic system irds® for condition monitoring and maintenance planning support

Comprehensive Modernization
MAN PrimeServ provides comprehensive modernization concepts to modernize your equipment – no matter if you want to optimize reliability, operating costs, environmental sustainability or anything else. Please contact us for further information.

* Basic configuration