

PRÜFTECHNIK ServiceCenter

Determining real cold alignment targets



GEO 5 – Determine alignment specifications for coupled machines and machine components

If the permissible working range of a coupling shaft is exceeded, increased return forces can occur, which lead to increased vibrations level, sealing and bearing wear and in extreme cases, even to shaft failure.

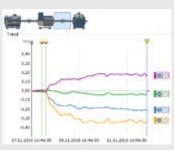
Which misalignment parallel, angular and axial can at least a coupling compensate, is determined by their design and also by their price. With large misalignments occur large reaction forces. Vibrations, temperatures and constraints between the coupled machines increase.

With the optimal alignment specifications, the constraint forces and their consequences can be reduced. The alignment specifications are simply entered into the laser alignment device and the perfect alignment between coupled machines can be achieved.

There are three different approaches to determine alignment goals. However, the selection should be application-specific and user-specific.

- 1) One knows that the machine is in the nominal operating state within a few hours, laser optical measurements are sufficient, e.g. with the Live Trend in ROTALIGN® touch. If only information about the axial extent is required, measurements with the VIBXPERT® and correspondingly mounted distance sensors are sufficient.
- 2) The interest is mainly on the temperature-related radial and axial housing displacements on e.g. a turbo set then are laser-optical measurements with a temporarily telediagnostic system like the VIBGUARD® sufficient, .
- 3) Most information is collected when the displacements and movements of housings and shafts with both laser-optical and proximity probes in the radial and in the axial direction, e.g. be measured temporarily under operating conditions for one week or more.





Alignment targets determined after few hours

- ► ROTALIGN®-Equipment
- ▶ VIBXPERT®-Equipment
- Short report (Task description, short measurement results presentation and recommendation for alignment specifications)

Alignment targets determined after several days

- ▶ VIBGUARD® with remote acess
- ▶ 2 RPM sensors and 4 process parameters
- ▶ 2 sensALIGN® Lasersets
- Measurement report (with measurement results presentation and optimized alignment specifications)

Housings and shafts displacements measured and evaluated

- ▶ VIBGUARD® with remote Access
- ▶ 2 RPM sensors und proximity probes and / or accelerometers.
- ▶ 2 sensALIGN® Lasersets
- Analysis report (with depth analysis and alignment guidelines)

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PRÜFTECHNIK
Condition Monitoring GmbH
Oskar-Messter-Str. 19-21
85737 Ismaning, Deutschland
Tel.: +49 89 99616-0
Fax: +49 89 99616-200
service@pruftechnik.com
www.pruftechnik.com

A member of PRUFTECHNIK Group