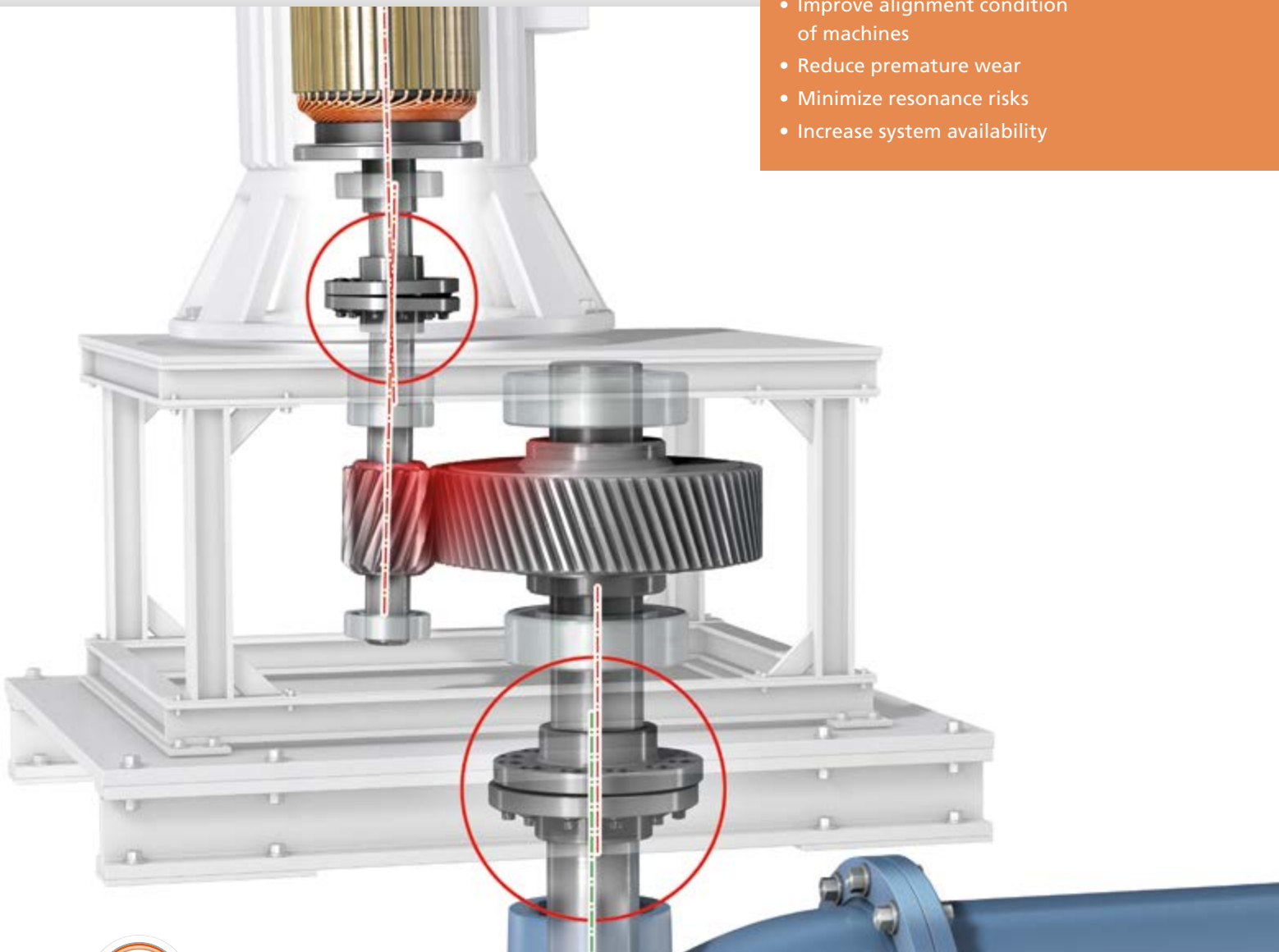


PRUFTECHNIK Service Center

# Professional Alignment of machines with vertical shafts

- Improve alignment condition of machines
- Reduce premature wear
- Minimize resonance risks
- Increase system availability

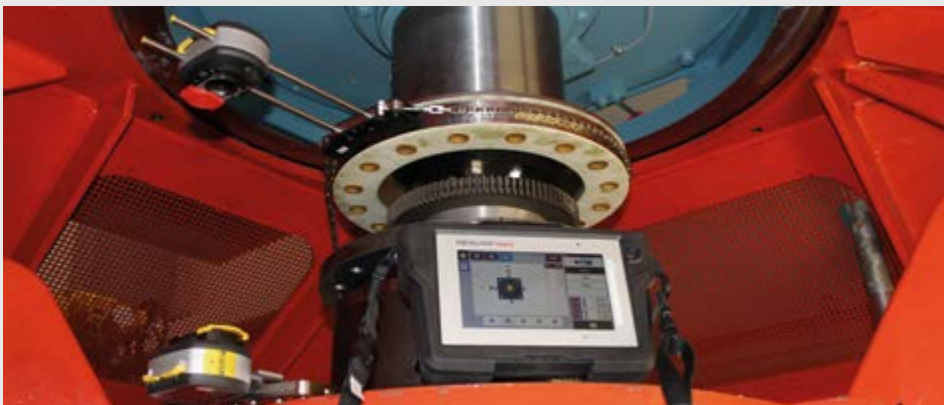


## The task

When using laser optical measurement, the alignment condition of vertically mounted machines can be established with speed and accuracy as in horizontal machines. The alignment condition of vertically mounted machines should therefore be determined before commissioning, using laser optical methods irrespective of whether the machines have flanged shafts or centerings on the housings.

Misalignment in vertical machines results in:

- Premature wear of bearings, seals and couplings
- High bearing temperatures
- Increased vibrations and impermissible resonant vibrations for natural frequencies
- Breaking or tearing of shafts at or near the internal bearing



ROALIGN\*touch in use on a 2.4 MW vertically mounted system

## Important information

The same alignment tolerances apply as for horizontal machines. Rigidly coupled machines are to be aligned with particular precision but are to be uncoupled for measurement. Two measurement modes are available for vertically mounted machines. There is the traditional static measurement mode with a maximum of eight measurement locations in eight clock positions, and the new vertiSWEEP continuous measurement mode. PRUFTECHNIK service employees are happy to assist and ensure optimum alignment quality.



With certain machines, it is advisable to use both laser optical and dial gage methods then combine the results of these two methods.

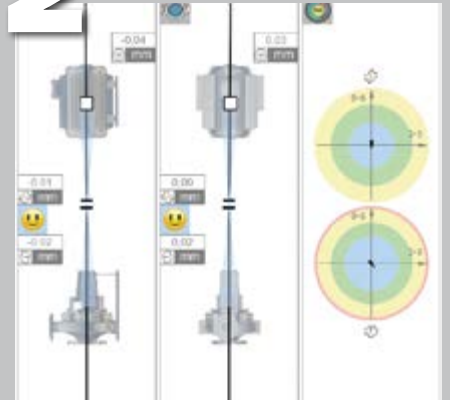
## Procedure

### Steps of the alignment measurement

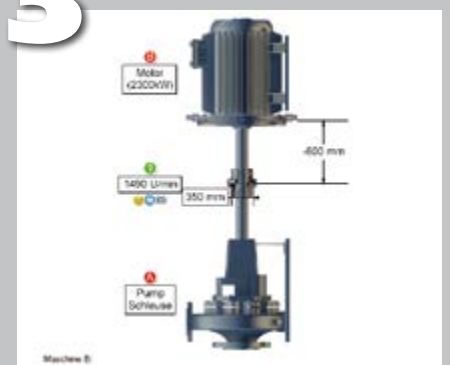
#### 1 Selection and documentation of a reference direction



#### 2 Measurement and correction of angularity and offset



#### 3 Independent measurement report



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