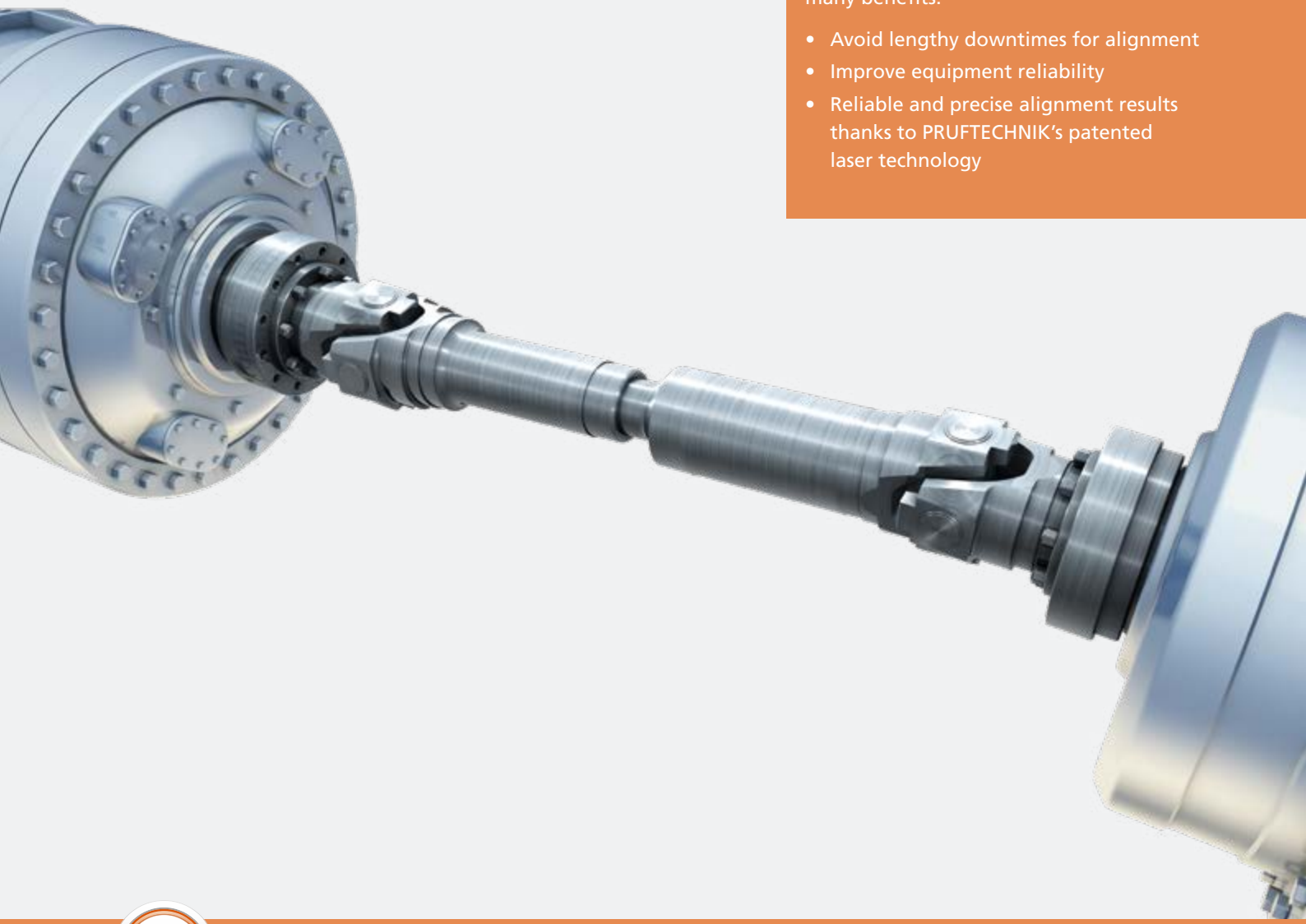
PRÜFTECHNIK

PRUFTECHNIK Service Center

Aligning cardan shafts – in place or removed

Laser alignment of cardan shafts offers many benefits:

- Avoid lengthy downtimes for alignment
- Improve equipment reliability
- Reliable and precise alignment results thanks to PRUFTECHNIK's patented laser technology



MEASURING AND ASSESSING GEOMETRIES AND ESTABLISHING GEOMETRICAL PRECISION

Cardan shafts must be aligned

Cardan shafts are used to bridge a horizontal or vertical offset. An angular error between input and output results in the driven shaft no longer rotating at a constant speed. Instead, it slows down and accelerates twice per revolution.
This is referred to as a cardan error and it can lead to damage of the surfaces of the shaft spline. Similarly, there is increased strain on the joints and bearings which can result in damage or catastrophic failure of the cardan shaft.
A well aligned cardan shaft with a clearance set correctly and an angular error between input and output of less than 1/8° will have vibration values within the permissible ISO range. This level of precision is difficult to obtain with traditional measuring methods but is easy to achieve with laser technology.

Cardan shaft alignment with cardan in place

In the past, alignment often necessitated removal of the cardan shaft bridging the offset with a cardan blade and the task was therefore to return to a simple coupling alignment. This results in lengthy down-times and high manpower consumption.

A special cardan bracket, developed and patented by PRUFTECHNIK now makes it possible for alignment to be easily performed with the cardan shaft in place.

Our range of services	
Consulting on corrections	Where does one make corrections and how can one achieve the best possible solution are questions which often arise. Our service experts are prepared to answer these questions.
Live Move monitoring of corrections	Corrections can be monitored with our Live Move Mode which minimizes the number of alignment steps.
Verifying corrections	A vibration measurement check makes it possible to verify that the alignment has reduced the machine vibration.
Determination of preset values	Many Cardan-driven shafts can be rotated hydraulically. This can cause the angle of the output to change. Backlash is automatically measured and accounted for in the alignment correction.
Root Cause Analysis	Cardan shafts are often under continuous strain and variations in production loads. Fractures and shaft distortions are often the result. Torque measurements make it possible to determine the exact cause of the symptoms.

ADDITIONAL SERVICE

Our service specialists have many years' experience. They know the typical fault patterns, which can be reduced or eliminated using our laser alignment equipment.

PRÜFTECHNIK
BEWÄHRTE QUALITÄT
- Made in Germany
- Weltweite Präsenz
- Kompetenter Kundendienst
- Hohe Servicequalität

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