

A photograph of a factory interior. In the foreground, a laptop displays a 3D measurement software interface. To the right, a FARO laser tracker is mounted on a stand. The background shows industrial machinery and yellow safety railings.

3D measurements

Innovative, precise and versatile

For worldwide 3D measurements Berndorf Band Group offers precision measurements conducted by our most experienced specialists. Demanding, both precision-critical and time-critical machine alignment measurements can be performed swiftly and with stupendous precision. Therefore conventional measuring procedures, which often take several days are things of the past.

The application of FARO® lasertracker allows specialists from Berndorf to scan objects up to a distance of 80 meters. With a measuring accuracy of up to 15 μm , precise machine measurements can be carried out on-site easily. Therefore production downtimes can be kept to a minimum.

Range of application

- Check of subsystems parallelisms and positions in 3D
- Check of subsystem alignments in 3D
- Support by realignment of the machine
- Reverse Engineering: high precision determination of natural dimensions
- Control of dimensional accuracy during machine construction tables, drums, rolls and cylinders



Range of services

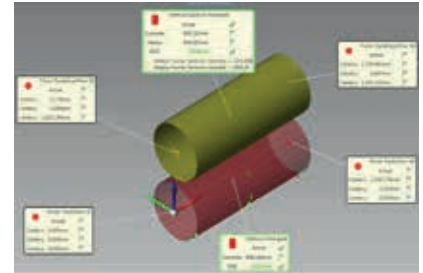
- Survey of current machine alignment status
- Machine measurements incl. final report
- Measurement and alignment of the objects to be measured incl. detailed report
- Process analysis (e. g. thermal expansion)



Measurement



Evaluation



Result

Requirements for undisturbed measurements

- Machines and to-be-measured units have to be offline
- Objects to be measured must be visible
- Clean measuring surfaces and measuring areas
- Height above sea level: -700 m to 2,450 m [-2,297 ft to 8,038 ft]
- Humidity: 0% - 95% not-condensing
- Vibrations and succussions of any kind will render precision measurements impossible
- Operating temperature: 10 °C to 35 °C [50 °F to 95 °F]
- Min. measuring distance: 0 m
- Max. measuring distance: 80 m [262 ft] with selected reflectors
60 m [197 ft] with standard 1,5" SMR
30 m [98 ft] with standard 1/2" SMR

