

CENTRALIGN® Ultra

STANDARD – Bore alignment in combustion engines, compressors, pumps and gearboxes



Proficiency in bore alignment

CENTRALIGN® Ultra Standard

Proper repair and reconditioning of combustion engines, compressors and pumps requires exact measurement of the alignment of crankshaft and camshaft bores, cylinder bores and crosshead guides. This is usually accomplished by optical or wire-based methods.

CENTRALIGN® Ultra is a precision laser alignment system designed to replace those older and more time-consuming technologies. It is much faster, very precise, and provides a clear measurement protocol. Measurements are carried out using a laser beam and patented universal pointer brackets, and therefore eliminating mechanical and sag errors. In addition to the alignment of bores, bearing pedestals and other circular machine elements, CENTRALIGN® Ultra also includes a measurement procedure for the alignment of workpieces to boring heads. The system utilises the proven ROTALIGN® Ultra platform, and therefore extendable to shaft alignment, flatness and straightness applications.



Precise, fast and intuitive bore alignment



For demanding industrial applications



- Shipyards and marine services
- ▶ Stern tube alignment
 - ▶ Rudderstock alignment
 - ▶ Diesel engines



- Energy sector
- ▶ Turbine alignment and overhauling
 - ▶ Diesel engines



- Oil and gas
- ▶ Compressors
 - ▶ Engines
 - ▶ Pumps
 - ▶ Manufacturers and service companies

Advantages at a glance

- ▶ Relative bore centerline measurement, the eccentricity error is determined
- ▶ Universal pointer and customized brackets for bore diameters ranging from 45 mm to 4230 mm
- ▶ Measurement of both magnetic and nonmagnetic bores
- ▶ Ease of handling, lightweight components and laser technology make equipment set-up simple
- ▶ Precise user independent measurement and results
- ▶ View results through optimized or fixed point center lines and obtain minimum corrections required
- ▶ RF module for stable and wireless data transmission

Precision alignment in three steps

Quick and straightforward



Bore set-up

- ▶ Choice of different bore types including narrow, long and complex bores for evaluating bore position and angles
- ▶ Input of compensation values for thermal growth or shaft sag
- ▶ Add bores to new or existing set-ups



Measurement

- ▶ On-screen guidance with graphics for laser set-up and the measurement procedure
- ▶ Measurement table to review repeatability, and used with standard deviation to confirm accuracy and shape of bore
- ▶ Optional stable wireless data transmission



Results

- ▶ Results traceable to national standards
- ▶ Set the centerline relative to any fixed bores, or optimized
- ▶ Results displayed in colour graphics providing a clear understanding
- ▶ Monitor real time corrections

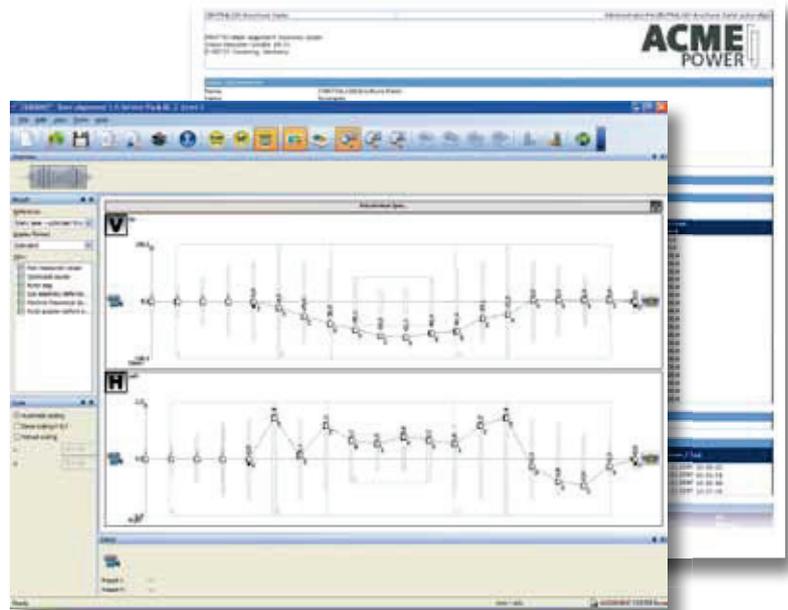


Complete solutions for bore laser alignment



One software for all PRÜFTECHNIK products and applications

ALIGNMENT CENTER is a Windows™ based software platform for all shaft and geometrical alignment applications. It is compatible with previous and current PRÜFTECHNIK products. Take advantage of exclusive features like measurement job preparation, advanced result analysis and professional customizable colour reports.



Patented brackets (U.S. Patent 5,171,491)

CENTRALIGN® Ultra system brackets are specifically designed for ease of use, flexibility and extremely high accuracy. A fixed base keeps the bracket frame in place within the bore while a rotating sensor holder enables the sensor to be quickly centred and freely rotated within the bore. This unique feature combined with the system's ability to measure more than 3 points at any position offers incredible flexibility and

reveals the potential bore out of roundness. Measurement readings may also be transmitted to the ROTALIGN® Ultra computer via the optional RF data transmission module. These universal pointer brackets can be used in measuring both magnetic and nonmagnetic bores. They can be inserted in bores from as small as 45 mm (1.77") in diameter to 4230 mm (166.5").



Further modular ROTALIGN® Ultra applications

Shaft alignment



The ultimate shaft alignment system for any kind of machine or coupling

Straightness measurement



Measurement of vertical and horizontal straightness in response to industry demands

Flatness measurement



Measurement of surface flatness and levelness to improve productivity

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