

NEW

db® PRÜFTECHNIK

OPTALIGN® PLUS *Series*

Laser shaft alignment that meets your needs



**From the Inventors of
Laser Shaft Alignment**



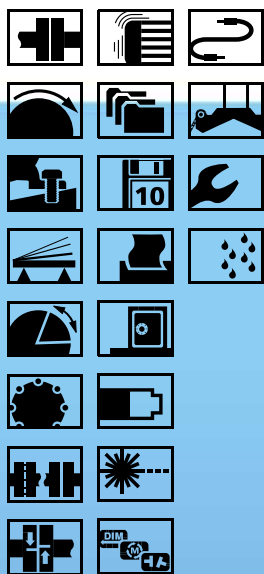
Match your requirements with OPTALIGN® PLUS Series

Precise shaft alignment pays. Well aligned couplings reduce bearing and seal damage, minimize energy loss, and reduce production downtime. OPTALIGN® PLUS Series offers both precision alignment and timesaving convenience of laser-based systems. It gives you the benefits of a dynamic laser shaft alignment system without stretching the budget.

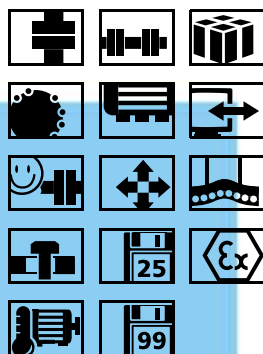
What is "Series"?

OPTALIGN® PLUS Series is a concept that allows you to design your own device by acquiring the exact features you need. The default entry level has the features necessary for standard horizontal shaft alignment. As job demands grow, additional user benefits can be purchased, enhancing capabilities at any time.

default features



increased benefits

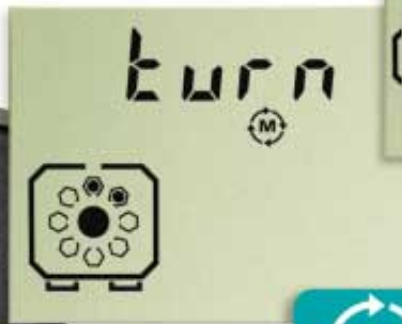


What's in it for you?

- ⊙ Configure system as you require
- ⊙ Budget for only what you need
- ⊙ Easy to upgrade with new features
- ⊙ Based on the proven OPTALIGN® PLUS
- ⊙ Intrinsically safe version available
- ⊙ 20 years laser alignment expertise



Alignment condition determined with only three keys



2. Measure

The auto start / stop capability allows continuous shaft rotation to start at any position – in any direction.

1. Dimensions

Enter machine dimensions as prompted on the display using the robust keyboard.



3. Results

The alignment condition is displayed with a smiley, foot correction values, coupling gap and offset.

A case full of confidence

Like the components inside it, this lockable, purpose designed case is rugged and shock proof. Just the ideal case for industrial environments.



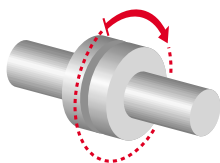


Measurement flexibility

Master alignment challenges

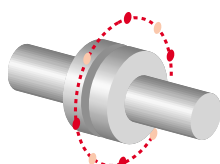
OPTALIGN® PLUS Series uses the patented EZ-Sweep® which allows minimum and continuous shaft rotation, and eliminates coupling play effects. Measurement starts automatically as the shaft is rotated, eliminating any possibility of user error.

OPTALIGN® PLUS Series has the features required for standard alignment. These features translate into customer benefits by helping saving time and drastically reducing unplanned machinery breakdown.



Continuous sweep mode

This quick and straightforward measurement mode is ideal for standard machines and requires a shaft rotation of as little as 60°.



Static mode

This measurement mode is used for nonrotatable and uncoupled shafts. Measurement requires 3 or more of the 8 available measurement positions.

Loaded features



Aligns horizontal machines



Automatic continuous sweep mode



Measures soft foot and stores the results



Horizontal & vertical 'Live Move' at any 45° position



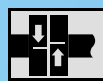
Overcomes shaft rotation restrictions



Static measure mode



For coupled and uncoupled shafts



Unaffected by backlash



Variable averaging and deviation band



Measurement files are reusable and can be edited



Save up to 10 measurement files



Print reports directly or use the printing software



Resume recalls the last file if it was not saved



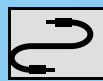
Main and reserve battery



UniBeam® enables quick laser beam adjustment



Simple 3-key operation



Only one cable to connect! Eliminates tangling!



Pre-assembled brackets for quick mounting



Rugged and robust control unit resists shock



Industrial-strength water-resistant housings

Powerful capabilities



Vertical machine alignment



Multipoint mode for shafts on all bearings



TolChek® determines alignment condition



Static feet handles movement restrictions



Ability to enter targets and thermal growth



Ability to select spacer shaft improving accuracy



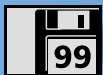
Determine alignment condition of 6-foot machines



InfiniRange® extends measurement range



Save up to 25 measurement files



Save up to 99 measurement files



Acquire all the above features in one go



OPTALIGN® PLUS Explorer for full editing capabilities



Optional brackets for any application

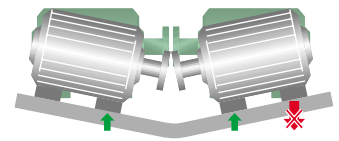


Intrinsically safe version for explosive environments

Make OPTALIGN® PLUS Series a most versatile laser shaft alignment system by configuring it with useful features that handle thermal growth, 6-foot machines and vertical machines among others.

Movement restrictions

Problems arising from base-bound or bolt-bound feet are resolved by redefining fixed feet.



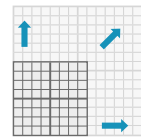
Choose coupling type

Accuracy of results is ensured as the type of coupling used is taken into account and the true offsets are calculated at the real coupling planes.



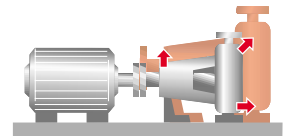
InfiniRange®

The detector measurement area is automatically extended to allow alignment of grossly misaligned machines and for long spans.



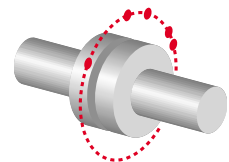
Thermal growth

Thermal growth at the feet and at the coupling can be input for both machines to take into account thermal and dynamic load growth.



Multipoint mode

For shafts that are mounted on all types of bearings. Measurement requires 3 points or more at any position over 60° rotation.



A most versatile bracket

The compact magnetic bracket ALI 2.112 SET mounts quickly and is straightforward to use. Its powerful magnets fit onto nearly any flat coupling surface enabling rigid mounting in a matter of seconds. It's ideal for machines with large coupling flanges.

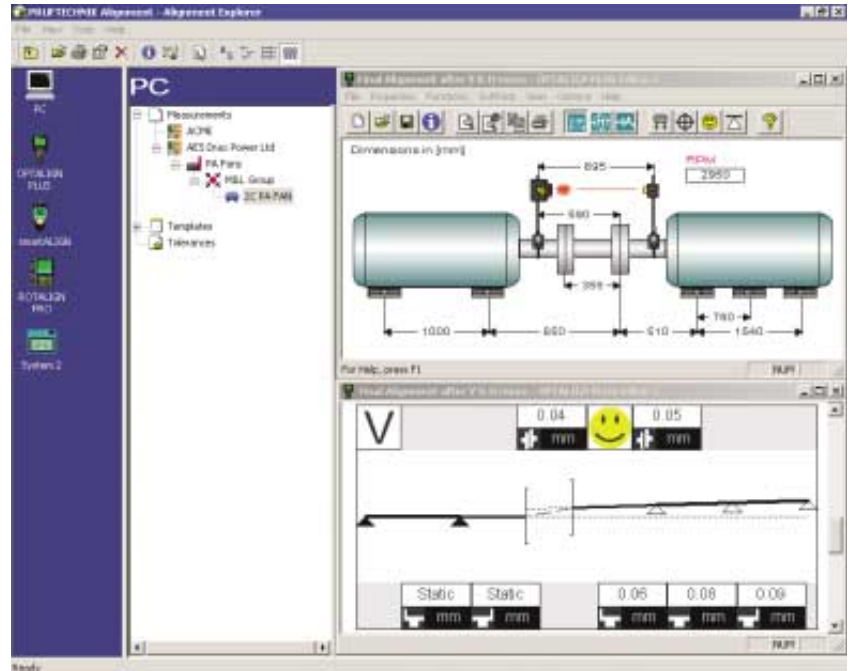


It turns when shafts can't

When one or both shafts cannot be rotated for measurement, the sliding magnetic bracket ALI 2.230 comes to the rescue. It glides around the outside of the coupling or shaft end from one measurement position to the next, providing an elegantly simple solution.

PC software for advance job setup, archival, reporting

- Supports two-way communication between device and a PC
- Set up alignment jobs in advance
- View alignment results
- Optimise alignment corrections
- Copy measurement files into an archive
- Print out customised alignment reports with company logo
- Long names in a tree structure for company, plant, section and machine
- Drag and drop files to other documents, e.g. eMail, MS Word
- Measurement reports in HTML format can be sent using email and opened using any browser



OPTALIGN® PLUS Series technical data

Transducer

Measurement principle	Coaxial, reflected laser beam
Environmental protection	IP 67 (submersible, dustproof)
Ambient light protection	yes
Temperature storage	-20°C to 80°C / -4°F to 176°F
operating	0°C to 55°C / 32°F to 131°F
Dimensions	approx. 107 x 70 x 49 mm 4 1/4" x 2 3/4" x 2"
Weight:	only about 177g / 6 1/2 oz.
Laser	
Laser	Ga-Al-As semiconductor laser
Wavelength (typical)	675 nm (red, visible)
Safety class	Class 2; FDA 21CFR 1000 and 1040
Beam power	< 1 mW
Safety precautions	Do not look into laser beam
Detector	
Measurement area	unlimited, dynamically extendible (U.S. Patent 6,040,903)
Resolution	1 µm
Accuracy (av.)	≥ 98%
Inclinometer	
Measurement range	0° to 360°
Resolution	≤ 1°

Reflector

Type	90° roof prism
Accuracy (av.)	≥ 99%
Environmental protection	IP 67 (submersible, dustproof)
Temperature:	
storage	-20°C to 80°C / -4°F to 176°F
operating	-20°C to 60°C / -4°F to 140°F
Dimensions:	approx. 100 x 41 x 35 mm 4" x 1 5/8" x 1 3/8"
Weight:	approx. 65g / 2 1/2 oz.

Control Unit

Display	fixed-segment LCD display
Display dimensions	approx. 94 x 73 mm / 3 3/4" x 2 7/8"
Keyboard	robust, flat, greaseproof keyboard
Environmental protection	IP 65 (water spray resistant, dustproof - except for sealed battery compartment); fully electrically insulated
Operating temp.	0°C to 55°C / 32°F to 131°F
Main power supply	6 x 1.5V IEC LR6 ("AA") batteries (even rechargables)
Backup power supply	1 x 9V IEC 6LR61 battery
Battery life (alkaline)	25 hours on main batteries plus 3 hours on reserve battery
Interfaces	1 x sensor; 1 x printer/PC (serial)
Dimensions	approx. 145 x 290 x 67 mm 5 3/4" x 11 1/2" x 2 3/4"
Weight w/o batteries	approx. 1.1 kg / 2.4 lb.

Carrying case

Standard	ABS, drop tested (2 m / 6 1/2ft.)
Case dimensions	approx. 470 x 400 x 195 mm 18 1/2" x 15 3/4" x 7 3/4"
Weight, including all standard parts	only about 6.8 kg / 15.2 lb.

Options

Intrinsic safety	EEx ib IIC T4
Certificate number	TÜV 01 ATEX 1730

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TÜV 01 ATEX 1730



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