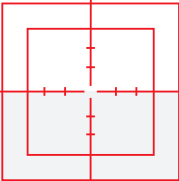


# ROTALIGN<sup>®</sup> touch

Precision Meets Connectivity





# A new way to align

## Laser alignment tool for the smart factory

ROTALIGN® touch is the first cloud-enabled touchscreen laser shaft alignment system with integrated mobile connectivity.

With ROTALIGN® touch, alignment trend is fully integrated into your asset management and condition-based maintenance programs.

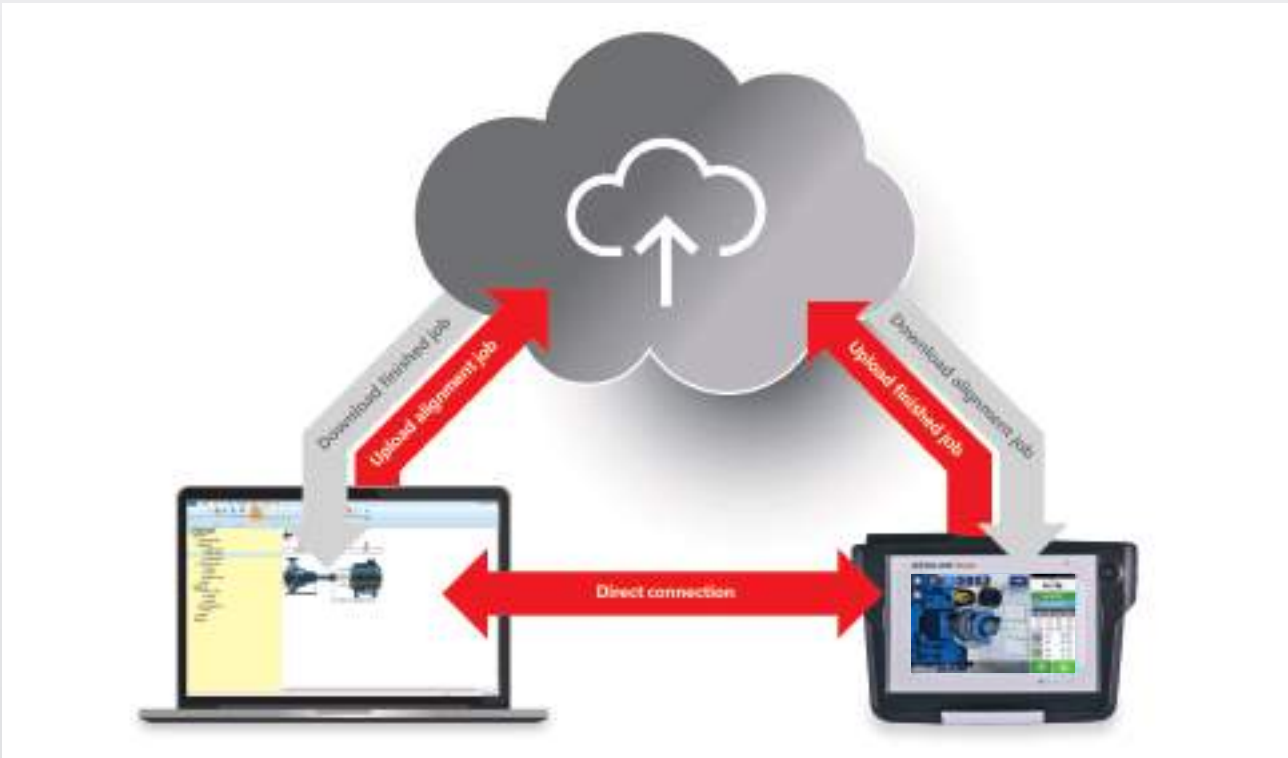
Maintenance and Reliability managers can remotely prepare alignment jobs in the alignment software and connect to the Cloud to transfer them to a ROTALIGN® touch device, anywhere in the world. Alignment technicians receive alignment jobs directly on their ROTALIGN® touch device. Once completed, the jobs can be uploaded wirelessly back to the Cloud.

A direct connection from the ROTALIGN® touch to the alignment software is also possible.

Built-in RFID machine identification and asset-specific jobs make it possible to track the alignment condition of individual assets over time. The alignment trend provides meaningful information and can be used as a condition monitoring parameter to diagnose machine condition even more accurately.













With the onboard camera alignment reports can easily be supplemented with pictures for easier knowledge transfer.

### Real-time communication



### Overview of the ROTALIGN® touch packages

Four different packages are available with various hardware configurations depending on your needs. All packages offer the same application level.

FULLY FEATURED	CONNECTIVITY	CAMERA	STANDARD
  	  	  	  
  	  	  	  

# Intelligent features for shaft alignment

100 % Precision – 0% Error

## sensALIGN® on-board intelligence



The unique IntelliSWEEP® sensor technology enables continuous measurements and real-time quality for precise, accurate and repeatable results. The IntelliSWEEP® HD measurement mode automatically detects and eliminates sources of measurement errors such as coupling play, rotational angle or environmental vibration.

As shaft rotates, hundreds of real measurement points are taken automatically. The results are far more accurate than those based on 3 measurement positions.



As shafts are rotated, measurement quality is clearly displayed – a green or blue sector indicates good measurement data.

## Key shaft features at a glance:

- ▶ Multi-coupling Shaft measurement & Multi-coupling live-move
- ▶ Intelligent measurement modes including uncoupled IntelliPASS and IntelliPOINT
- ▶ Cardan shaft alignment with cardan in place
- ▶ Vertical machine alignment with vertiSWEEP continuous measurement mode
- ▶ Softfoot diagnostics
- ▶ Multi-coupling Live Trend
- ▶ Horizontal and Vertical move simulator
- ▶ Measurement table including different alignment jobs
- ▶ Machine train with real 3D machines
- ▶ Real time Intelligent measurement quality
- ▶ Customized tolerances (even asymmetrical)

The latest package of ROTALIGN touch now features Multi-Coupling measurement (including Multi-Coupling live-move) and Multi-Coupling Live Trend. According to user specific aggregate requirements up to six coupling shafts can be simultaneously aligned in real-time. This can reduce the alignment-time up to 50 percent and more!

Use the Live Trend monitoring function to analyze thermal or process-related machine positional changes during run-up and coast-down phases, while recording machine vibration at the same time.



# Tablet-like usability

## Unparalleled user experience

### Capacitive touchscreen

Glove-enabled capacitive touchscreen for longer life and a tablet-like user experience.

### Interactive 3D machine view

Interactive 3D machine graphics throughout the alignment procedure for optimum visual guidance.

### Speech recognition

Voice control frees up both your hands when the alignment job gets hands-on. The functionality may even be operated with Bluetooth® headsets in noisy machine halls.

### RFID on board

Save, retrieve and track the alignment condition of individual assets over time, and easily identify the asset to be measured, without risk of error.

### One-Key alignment

Perform standard alignment from start to finish by pressing only one key.

### Durability

Tough industrial housing (IP65) and shockproof glass screen (above industry standard).





Bluetooth® Smart  
(3rd party sensor  
communication)

Onboard camera  
on the back side

Sensor for display  
brightness adjustment

Wi-Fi connection to cloud and  
alignment software for easy  
data exchange

Results table to check  
measurement repeatability  
without navigating away  
from your measurements

Large screen with animated  
3D view of machinery

Alignment wizard



# Technical data

ROTALIGN® touch computer	
CPU	Processor: 1.0 GHz quad core ARM®Cortex-A9 Memory: 2 GB RAM, 1 GB Internal Flash, 32 GB SD-Card Memory
Display	Technology: Projective capacitive multi-touch screen Type: Transmissive (sunlight-readable) backlit TFT color graphic display Optically bonded, protective industrial display, integrated light sensor for automated adjustment of the brightness to the display Resolution: 800 x 480 Pixel Dimensions: 178 mm (7") diagonal
LED indicators	3 LEDs for battery status, 1 LED for WiFi communication
Power supply	Operating time: 12 hours typical use (based upon an operating cycle of 25% measurement, 25% computation, 50% 'sleep' mode) Battery: Lithium-ion rechargeable battery 3.6 V / 80 Wh AC adapter/charger: 12 V / 36 W; standard barrel connector (5.5 x 2.1 x 11 mm)
External interface	USB host for memory stick USB slave for PC communication, charging (5 V DC / 1.5 A) RS-232 (serial) for sensor, RS-485 (serial) for sensor I-Data for sensor Integrated Bluetooth® wireless communication (covers direct line of sight distances of up to 30 m / 100 ft depending on the prevailing environmental conditions) Integrated Wireless LAN IEEE 802.11 b/g/n up to 72.2 Mbps (depending on configuration) Integrated RFID with read and write capabilities (depending on configuration)
Environmental protection	IP 65 (dustproof and water jets resistant) – as defined in regulation DIN EN 60529 (VDE 0470-1), shockproof Relative humidity: 10% to 90%
Drop test	1 m (3 1/4 ft)
Temperature range	Operation: 0°C to 40°C (32°F to 104°F) Charging: 0°C to 40°C (32°F to 104°F) Storage: -10°C to 50°C (14°F to 122°F)
Dimensions	Approx. 273 x 181 x 56 mm (10 3/4" x 7 1/8" x 2 3/16")
Weight	Approx. 1.88 kg (4.1 lbs)
Camera	5 MP built-in (depending on configuration) LEDs: Risk Group 1 according to IEC 62471:2006
CE conformity	Refer to the CE compliance certificate in <a href="http://www.pruftechnik.com">www.pruftechnik.com</a>
Carrying case	Standard: ABS, drop tested (2 m / 6 1/2 ft.) Dimensions: Approx. 470 x 388 x 195 mm (18 1/2" x 15 9/32" x 7 11/16") Weight: Including all standard parts – Approx. 8.5 kg [18.7 lb]
FCC compliance	Requirements fulfilled (refer to the provided document 'Safety and general information')



sensALIGN® sensor	
CPU	Type: ARM Cortex™ M3 Memory: 2 GB Flash Memory
LED indicators	4 LEDs for laser adjustment 1 LED for Bluetooth® communication 1 LED for battery status
Power supply	Operating time: 12 hours continuous use Battery: Lithium Polymer rechargeable battery 3.7 V / 1.6 Ah 6 Wh
Environmental protection	IP 65 (dustproof and water jets resistant) – as defined in regulation DIN EN 60529 (VDE 0470-1), shockproof Relative humidity: 10% to 90%
Ambient light protection	Optical and active electronic digital compensation
Temperature range	Operation: -10°C to 50°C (14°F to 122°F) Charging: 0°C to 40°C (32°F to 104°F) Storage: -20°C to 60°C (-4°F to 140°F)
Dimensions	Approx. 103 x 84 x 60 mm (4 1/16" x 3 5/16" x 2 3/8")
Weight	Approx. 310 g (10.9 oz)
Measurement range	Unlimited, dynamically extendible (US. Patent 6,040,903)
Measurement resolution	1 µm
Measurement error	< 1.0%
Inclinometer resolution	0.1°
Inclinometer error	± 0.25% full scale
Vibration measurement	mm/s, RMS, 10Hz to 1kHz, 0 mm/s – 5000/f • mm/s² (f in Hertz [1/s])
External interface	Integrated Bluetooth® Class 1 wireless communication, RS232, RS485, I-Data
CE conformity	Refer to the CE compliance certificate in <a href="http://www.pruftechnik.com">www.pruftechnik.com</a>

sensALIGN® laser	
Type	Semiconductor laser
LED indicators	1 LED for laser transmission 1 LED for battery status
Power supply	Operating time: 70 hours continuous use (Li-polymer battery) Battery: Lithium Polymer rechargeable battery 3.7 V / 1.6 Ah 6 Wh AC adapter/charger: 5 V / 3 A
Environmental protection	IP 65 (dustproof and water jets resistant) – as defined in regulation DIN EN 60529 (VDE 0470-1), shockproof Relative humidity: 10% to 90%
Temperature range	Operation: -10°C to 50°C (14°F to 122°F) Charging: 0°C to 40°C (32°F to 104°F) Storage: -20°C to 60°C (-4°F to 140°F)
Dimensions	Approx. 103 x 84 x 60 mm (4 1/16" x 3 5/16" x 2 3/8")
Weight	Approx. 330 g [11.6 oz]
Beam power	< 1mW
Beam divergence	0.3 mrad
Inclinometer resolution	0.1°
Inclinometer error	± 0.25% full scale
CE conformity	Refer to the CE compliance certificate in <a href="http://www.pruftechnik.com">www.pruftechnik.com</a>

# PRUFTECHNIK

## Proven technology for all industries

With our products, processes and services for alignment applications, condition monitoring and availability optimization, we help ensure that your machines run smoothly and generate an output of consistently high quality. This also

includes systems for automatic process control and quality assurance that are integrated directly in your production process.

### PRUFTECHNIK delivers maintenance solutions worldwide



Alignment Systems



Condition Monitoring



Nondestructive Testing



Service & Support

Laser measurement systems and services for optimum alignment of machines and systems.

Vibration measurement systems for machine condition monitoring – including services such as machinery fault diagnosis.

Systems and services for quality assurance and process control in production.

We offer professional services anywhere in the world to support our customers with alignment and condition monitoring.

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