

TECHNICAL DATA

New SHAFTALIGN® Touch

Setting the benchmark for solving common alignment problems



ADAPTIVE ALIGNMENT

Adaptive Alignment is a combination of software and hardware evolutions, enabling maintenance and reliability teams to address the full variety of horizontal, angular, and vertical alignment challenges.

With Adaptive Alignment solutions, work is completed faster, results are superior, and team capabilities are better utilized compared to other market solutions.

The new ShaftAlign® Touch applies powerful Adaptive Alignment features to exceed the capabilities of conventional tools and deliver greater speed, accuracy, and elimination of human errors.

Introducing the new SHAFTALIGN® Touch

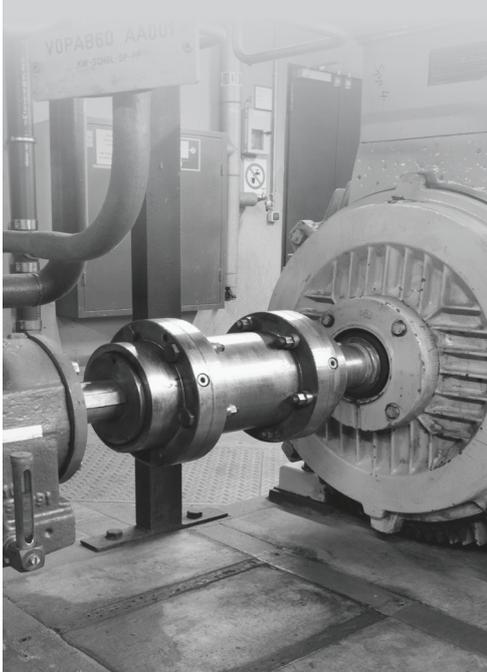
The new ShaftAlign® Touch laser alignment system provides digital, cloud, and other advancements over the widely used dial indicator and feeler gauge of past decades.

ShaftAlign® Touch masters virtually any alignment task on standard machines driven by rotating shafts. Its laser precision results improve on those of conventional measurement equipment. It also offers simple and quick setup, intuitive handling through a computer-based and guided user interface, and an insightful visualization of results on the bright-colored 3D rugged tablet-like display.

Due to its 3D rugged sensALIGN® 3 sensor and reflector, this new laser alignment system can handle almost any standard machine alignment challenge. With its problem-solving Adaptive Alignment features, the ShaftAlign® Touch offers an unbeatable price-performance ratio.

Key benefits at a glance

- **High performance and precise results**
The new ShaftAlign® Touch leverages single-laser technology to provide high-precision, high-performance alignment measurements.
- **Quick setup and intuitive user interface**
Its quickly mounted setup and tablet-like, intuitive guided user interface make the ShaftAlign® Touch more user-friendly than any of the conventional measurement methods.
- **Share data via the cloud**
You can leverage its integrated WiFi cloud solution to easily transfer measurement data from the ShaftAlign® Touch handheld device to the ARC 4.0 software.



ShaftAlign® Touch is user-friendly and easy to transport.



Why precision alignment is so crucial:

- Decreased power consumption
- Longer machine lifecycle
- Less vibration leading to less wear
- Lower temperatures on bearing, coupling and lubrication
- Reduced costs for spare parts storing

How Active Situational Intelligence (ASI) supports you

Active Situational Intelligence (ASI) is the core of Adaptive Alignment. It offers a range of problem-solving features based on intelligent software. ASI is a groundbreaking problem-solving technology that helps the user avoid mistakes while working quickly to measure and align machines.

Underestimated: Thermal growth

ShaftAlign® Touch features an integrated Thermal Growth Calculator. Industrial materials such as steel and alloy typically expand when heated up. Only a few degrees are enough to impact the machine's behavior when running compared to the usual cold condition when alignment measurements are taken. The ShaftAlign® Touch Thermal Growth Calculator automatically factors the expected deviation into the measurement result.

THERMAL GROWTH CALCULATOR mm

Thermal growth enabled:

Material: **Stainless steel**

Temperature difference: $10^{-6} / ^\circ\text{C}$

Ambient temperature: $^\circ\text{C}$

Material temperature: $^\circ\text{C}$

Length: mm

Results: **0.317** **0.159**

The thermal growth coefficient is calculated using the temperature difference and change in length of selected material.

Thermal growth calculator

Thermal growth is calculated from the material characteristics, expected temperature difference and height of the shaft centerline above the shim plane.





**Adaptive Alignment:
Adapt to the situation**

Measure over different types of couplings

ShaftAlign® Touch provides a wide range of coupling types, making it easier for the user to receive an optimal measuring result without deviating from the specific tolerances.

Choose the right coupling adapted to your onsite situation:

- short flex coupling
- spacer shaft
- single plane coupling
- uncoupled shafts
- further various default coupling formats



**Adaptive Alignment:
Adapt to the asset**

The best results for use on standard machines

How ShaftAlign® Touch improves on the performance of traditional alignment tools:

- Faster setup than any dial indicator
- Higher precision than any feeler gauge
- No sagging, even over large distances, due to having laser technology
- Quicker and easier to read results than through a manual matrix calculation
- Ability to operate the device independent from what may be occurring on the coupling/shaft surface



**Adaptive Alignment:
Adapt to the team**

Intuitive user interface to benefits all types of users

Prüftechnik, the inventor and pioneer of laser shaft alignment, offers years of experience in designing systems to serve technicians in the field. The new ShaftAlign® Touch offers a colored 3D user interface that is the key to executing alignment tasks quickly and easily without sacrificing accuracy.

Cloud-based transfer enables data sharing and trending

All Prüftechnik alignment systems now offer WiFi connectivity to remotely transfer data from and to the ARC 4.0 PC software, where one can store, share, evaluate, and trend all alignment data. Cloud-transfer capabilities enable entire maintenance teams to stay informed and alerted to potential issues that might interrupt production.

Want to learn more?

Contact us at PRUFTECHNIK.com



SHAFTALIGN® Touch rugged device

General specifications		
CPU	Processor:	Exynos 9810, 2.7GHz, 1.7GHz Octa-Core
	Memory:	4 GB RAM, 64 GB Flash memory
Display	Technology:	TFT
		Integrated light sensor for automated adjustment of the brightness to the display according to the lighting conditions hence extending battery life
	Resolution:	1920 x 1200 Pixel
	Size:	203.1 mm (8")
Connectivity	Wi-Fi:	802.11 a/b/g/n/ac/ax 2.4G+5GHz, HE80, MIMO, 1024-QAM
	Wireless:	5.0
	RFID:	NFC
Camera	Main Camera - Resolution:	13.0 MP, Auto Focus
	Front Camera - Resolution:	5.0 MP
Environmental protection	IP 68:	dustproof, submersible 1.5 m
Temperature range	Operation:	-20°C to 50°C (-4°F to 122°F)
Battery	Type:	Li-Ion rechargeable battery 3.8 V / 5050 mAh / 19.2 Wh
	Operating time:	Up to 11 hours
Dimensions (without hand straps)		Approx. 256 x 149 x 35 mm (10 5/64" x 5 55/64" x 1 3/8")
Weight (without hand straps)		Approx. 710 g (1.6 lbs)

Reflector (prism)

General specifications		
Type		90° roof prism
Accuracy (avg)		> 99%
Environmental protection		IP 67 (submersible, dustproof)
Temperature range	Operation:	-20°C to 60°C (-4°F to 140°F)
	Storage:	-20°C to 80°C (-4°F to 176°F)
Dimensions		Approx. 100 x 41 x 35 mm (4" x 1 5/8" x 1 3/8")
Weight		Approx. 65 g (2.3 oz)

sensALIGN® 3 sensor

General specifications		
Measurement principle		Coaxial, reflected laser beam
LED indicators		1 LED for laser beam status and battery status 1 LED for Wireless communication
Power supply	Battery:	Lithium-Ion rechargeable battery 3.7 V / 5 Wh
	Operating time:	10 hours (continuous use)
	Charging time:	Using charger – 2.5 h for up to 90% 3.5 h for up to 100% Using USB port – 3 h for up to 90% 4 h for up to 100%
Environmental protection	IP 65:	Dustproof and water jets resistant, shockproof
	Relative humidity:	10% to 90% (non-condensing)
Ambient light protection		Yes
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. 105 x 69 x 55 mm (4 9/64" x 2 23/32" x 2 11/64")
Weight		Approx. 210 g (7.4 oz) with dust cap
Detector	Measurement range:	Unlimited, dynamically extendible
	Resolution:	1 µm (0.04 mil) and angular 10 µRad
	Error (avg):	< 2%
Inclinometer	Measurement range:	0° to 360°
	Resolution:	0.1°
	Inclinometer error:	0.3% full scale
Laser	Type:	Semiconductor laser diode
	Wavelength:	630 - 680 nm (red, visible)
	Safety class:	Class 2 according to IEC 60825-1:2014 The laser complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.
Beam power:	Beam power:	< 1 mW
	Beam divergence:	< 0.3 mrad
	Safety precautions:	Do not look into laser beam
External interface		Wireless communication
Transmission distance		Up to 30 m (98 ft) direct line of sight
CE conformity		Refer to the CE compliance certificate in www.pruftechnik.com
Country radio certifications		Approvals granted for specific regions (refer to the provided 'Safety and general information' document)

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