

Horizontal Shaft Alignment
Vertical Shaft Alignment

AT-200

Technical Datasheet

The new generation of smart shaft alignment solutions

- Fast and accurate results powered by intelligent sensor technology
- Ease of use on industry standard tablets
- One system - multiple users with their personal devices
- Integration and connectivity providing easy data sharing capabilities



Providing faster and more accurate shaft alignment results



Easily verify the presence of soft foot with the SoftCheck™ feature to make a reliable alignment



Get better automatic guidance for a base-bound or bolt-bound situation with the FeetLock™ function



Align machines in horizontal and vertical direction in only one move with Acoem VertiZonal™ feature and save time



Automatic alignment quality assessment according to Tolerances based on industry standards



Some machines have more than two pairs of feet. To perform proper alignment in these cases, the Multiple Feet function comes handy



Easily align your rotating assets following the highly visual Acoem GuideU™ interface.



Easily Manage thermal growth with Cold and Hot alignment with Target values



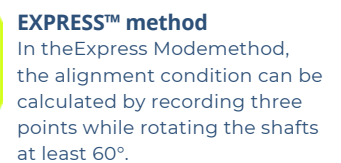
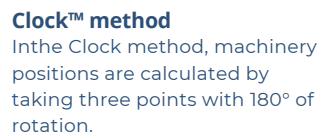
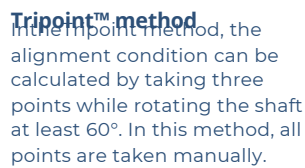
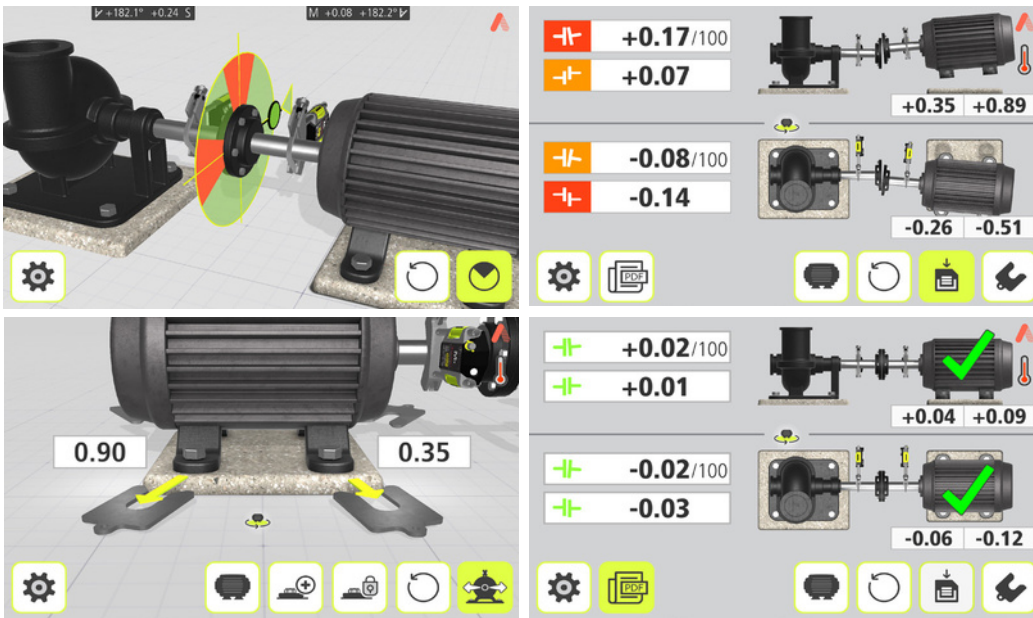
Get the position of both the shafts in real time with Acoem True Live™ feature



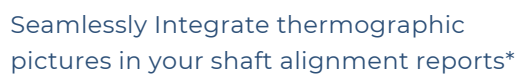
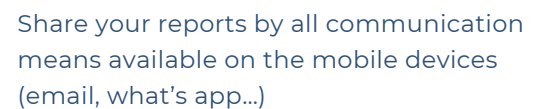
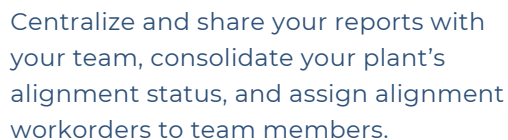
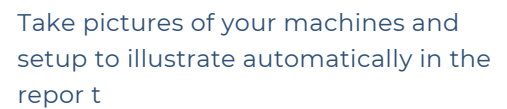
Remove industrial environment disturbance (light, vibration) with the smart digital filtering provided with our sensor technology



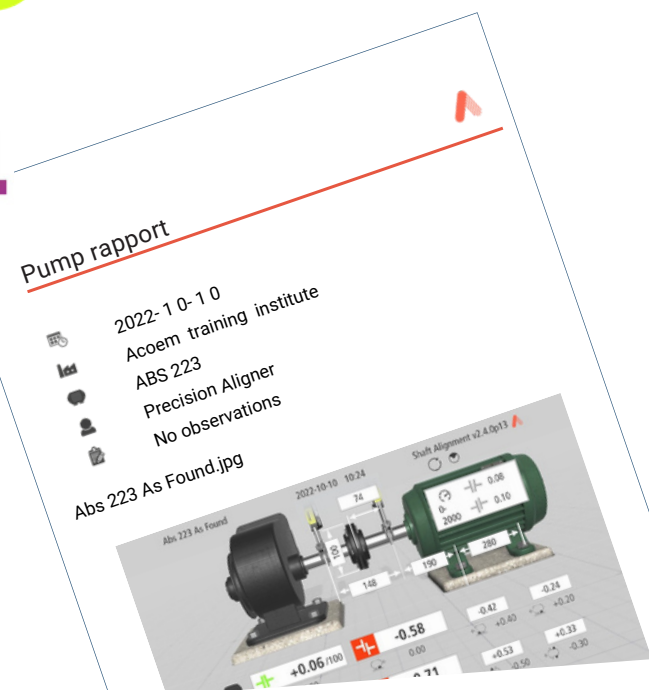
The spacer shaft function is used when the alignment is performed on machinery using membrane coupling.



Instantly generate an automatic pdf report from the field on the mobile device, and add logo



11



Sensor Specifications



Hardware Type	M7 1-1216, S7 1-1217
Physical	
Housing Material	Anodized Aluminum frame and high impact ABS plastic over molded with TPE rubber
Weight	M7: 212 g (7,5 oz), S7: 186 g (6,6 oz)
Dimensions	92 mm x 77 mm x 33 mm (3,6 in x 3,0 in x 1,3 in)
Environment	
Operating Temp	-10 to 50 °C (14 to 122 °F)
Storage Temp	-20 to 70 °C (-4 to 158 °F)
Long term storage Temp Room Temp	18 to 28 °C (64 to 82 °F)
Battery Charging Temp	0 to 40 °C (32 to 104 °F)
Relative humidity	10 – 90 %
Environmental protection	IP65 (Dust tight and protected against water jets)
Sensing Technology	
Laser	650 nm class II diode laser
Laser line fan angle	6 °
Laser line width (1/e ²)	1,6 mm
Laser line divergence (full angle)	0,25 mrad
Laser power	< 1 mW
Measurement distance	Up to 10 m
Detector	2nd gen. scientific grade CCD
Detector length	30 mm (1,2 in)
Detector angular subtense	30 mrad/m (3mm/100mm per meter)
Detector resolution	1 µm
Measurement accuracy	0,3 % ± 7 µm
Signal processing	Digital signal processing with sidespot rejection, edge detection, ambient light elimination and anti-vibration mode Optical filtering and digital ambient light signal elimination
Ambient light protection	Dual High Performance MEMS inclinometers
Inclinometer	0,01 °
Inclinometer resolution	±0,2 °
Inclinometer accuracy	6-Axis MEMS Inertial Motion Sensor with drift compensation and automatic field calibration
Gyro scope	±1 °
Gyroscope accuracy	
Battery	
Type	High performance Li Ion rechargeable battery or external power
Operating time	11 hours continuous use (measuring)
Charging	8 h
LED indicators	Unit state, laser transmission and 5 battery status indicators with instant battery check
Wireless communication	
Communication range	Class I Bluetooth transmitter
Connectors	10 m (33 ft) 1 USB Mini port (IP67)

A sunlight-readable, 8-inch capacitive multi-touch display with super-hardened Gorilla Glass, plus rain and glove mode.

IP67 ruggedness rating (including the ports) for fully waterproof and dust-tight performance.

Wide operating temperatures of -20°C to 60°C (-4°F to 140°F).



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Packaging & Deliverables

Each AT-200 is delivered with the following package:

- Sensors, M7/S7
- Magnetic base ON/OFF
- Rod kit
- Chain 8 mm 60 links (L=970 mm)
- Tape measure 5 m
- V-bracket complete
- Angled universal tool - 2 pcs
- Ext power cable EUR 2m
- Extension fixture 49mm
- Ext power cable US 2m
- USB-cable A-mini B 2m
- USB-cable A-micro B 1,5m
- Power supply 5 USB-ports 5 VDC



Part of the Augmented Mechanics Ecosystem

Build your own Augmented Mechanics solution and complete your shaft alignment tool with complementary component and applications on the same mobile device



Acoem Prealignment app, with our AT-10 measuring probe designed to remove the complexity of your laser alignment process, making it faster and more reliable



Acoem Bearing Defender app, with our 3-axis wireless sensor, providing quick first-level information on bearing health based on vibration readings in just few a matter of seconds



Acoem Machine Defender app, with our 3-axis wireless sensor, AI-powered vibration diagnostics instantly in the field for most rotating equipments in industrial environment



FLIR One Pro app, helping you to better understand your machines and providing seamless report illustration to attest of the correct alignment

Freely Download the Horizontal and Vertical Shaft alignment apps!



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