ACOEM AT-300

Technical Datasheet



Next-generation digital line laser system, engineered for exceptional performance.

- Extensive software functionality that offers advanced features and functionalities, boosting productivity and efficiency across multiple applications.
- Streamlined and user-friendly interface, meticulously designed to simplify navigation and elevate the overall user experience.
- Incorporation of intelligent sensor technology ensures swift and accurate results, enhancing performance and precision.

Software functions

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 **VertiZontal™** feature and save time

Pre-set **target values** used in your alignment work when you have to compensate for the machine's thermal expansion.

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

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

Hot Check™
Target values obtained by measuring in cold condition and then in hot condition to determine the machine's thermal expansion.

Offset provides you with shaft alignment of horizontally and vertically mounted machines with offset drive shaft.

TD10

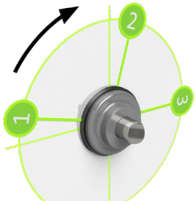
The M10/S10 sensors is a 3rd gen line laser sensor with a long measurement range of 15 meters for accurate distance detection.

TD10

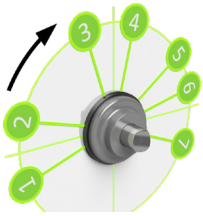
The M10/S10 sensors now feature extensive software capabilities and reduced power consumption, offering improved performance.

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Measuring methods.



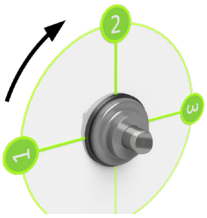
Tripoint™ method
In the Tripoint method, the alignment condition can be calculated by taking three points while rotating the shaft at least 60°. In this method, all points are taken manually.



Multipoint method
This function enables measurement initiation from any position on the rotation, allowing recording of multiple points for optimized calculations. Ideal for turbine and sliding bearing applications.

TRIPOINT Express™ method
This method seamlessly incorporates the Tripoint approach, offering the added advantage of fully automated measurements throughout the process.

Multipoint Express method
Our method follows the classic Multipoint method approach, but with the advantage of automated measurements for greater convenience.



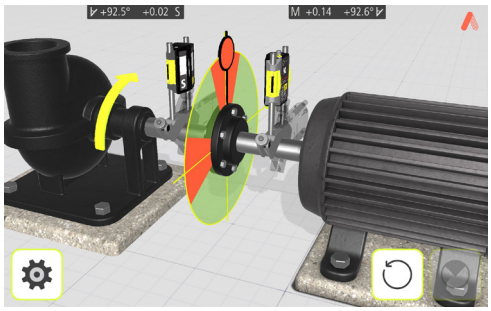
Clock™ method
In the Clock method, machinery positions are calculated by taking three points with 180° of rotation.

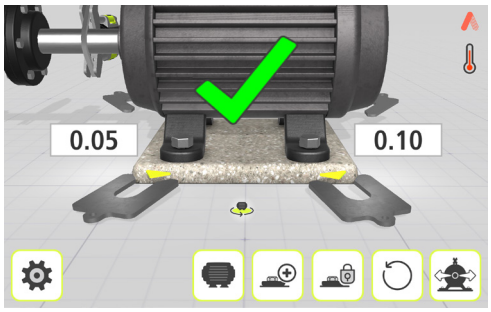


Loaded with features such as PDF report, GuideU™ for comprehensive assistance, and Truelive™ for real-time interaction and support.

Effortlessly navigate through our user-friendly interface, **GuideU™,** designed to make it a breeze to follow and understand.

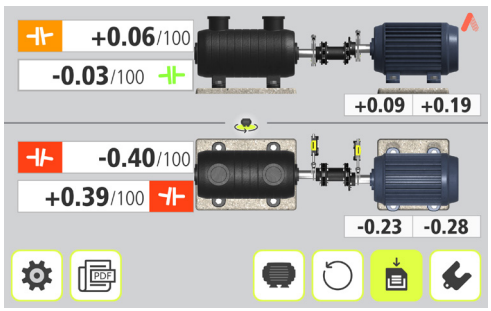
Get the position of both the shafts in real time with Acoem **True Live™** feature





Once the measurement is finished, you can generate a comprehensive PDF report that includes graphs and measurement data, providing detailed documentation of the measurement object.

Take pictures of your machines and setup to illustrate automatically in the report



Centralize and share your reports with your team, consolidate your plant's alignment status, and assign alignment workorders to team members.

Sensor Specifications

Hardware Type	M10 1-1216, S10 1-1217
Physical	
Housing Material	Anodized Aluminum frame and high impact ABS plastic overmolded with TPE rubber
Weight	M10 212 g (7,5 oz) S10 188 g (6,6 oz)
Dimensions	M: 92mm x 77mm x 33mm (3,6 in x 3,0 in x 1,3 in) S: 88mm x 77mm x 33mm (3,5 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 watere jets)
Sensing Technology	
Laser	650 nm class II diode laser
Laser power	< 1 mW
Measurement distance	Up to 15m
Detector	3rd gen. digital sensor
Detector angular subtense	30mrad/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
Ambient light protection	Optical filtering and ambient light signal rejection.
Inclinometer	Dual High Performance MEMS inclinometers
Inclinometer resolution	0,01 °
Inclinometer accuracy	±0,2 °
Gyroscope	6-Axis MEMS Inertial Motion Sensor with drift compensation and automatic field calibration
Gyroscope accuracy	±1 °
Battery	
Type	High performance Li Ion rechargeable battery or external power
Operating time	20 hours continuous use (measuring)
Charging	8 h
LED indicators	Unit state, laser transmission and 5 battery status indicators with instant battery check
Communication	
Wireless communication	Bluetooth low energy (Bluetooth 5)
Communication range	1o m (33 ft)
Connectors	1 USB Mini port (IP67)
ACOEM Alignment Display	
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 fullywaterproof and dust-tight performance.	
Wide operating temperatures of -20°C to 60°C (-4°F to 140°F).	

Packaging & Deliverables

Each Acoem **AT-300 D** is delivered with the following package:

- **Acoem Alignment Display**
- **Acoem M10**
- **Acoem S10**
- **Magnetic base ON-OFF**
- **Extension fixture 49mm**
- **Rod kit**
- **Chain 8 mm 60 links (L=970 mm)**
- **Magnetic v-bracket**
- **Tape measure 5 m with label**
- **V-bracket complete**
- **Angled universal tool**
- **Acoem USB**
- **Spacer magnet v-brackets**
- **USB-cable A-mini B 2m**
- **Power supply 4 USB-ports 5 VDC**
- **Quick Guide AT**



Select Your Package

ACOEM AT-300 D - Acoem Alignment Display with Acoem Home included
ACOEM Home is an offline software on ACOEM DU, transferring data via USB, providing secure functions and apps.

ACOEM AT-300 T - Tablet Display included
Our system features a Wi-Fi enabled tablet capable of sharing reports and receiving app updates seamlessly.

ACOEM AT-300 - Tablet Display unit not included.

Freely Download the Horizontal andVertical Shaft alignment apps!

Available on the App Store Google Play

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