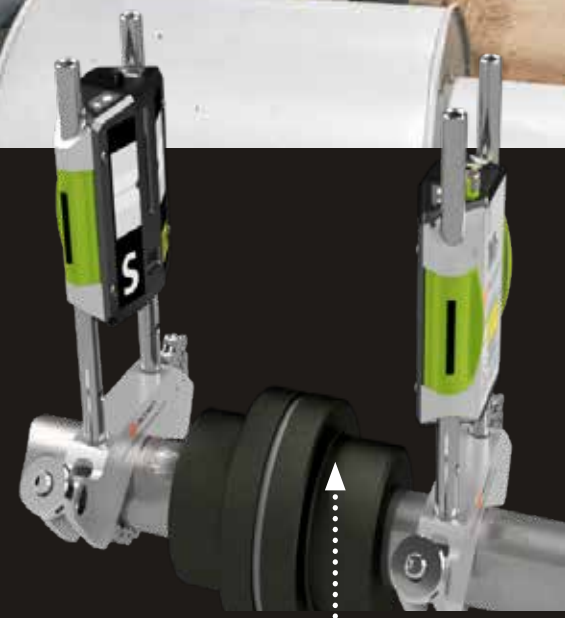
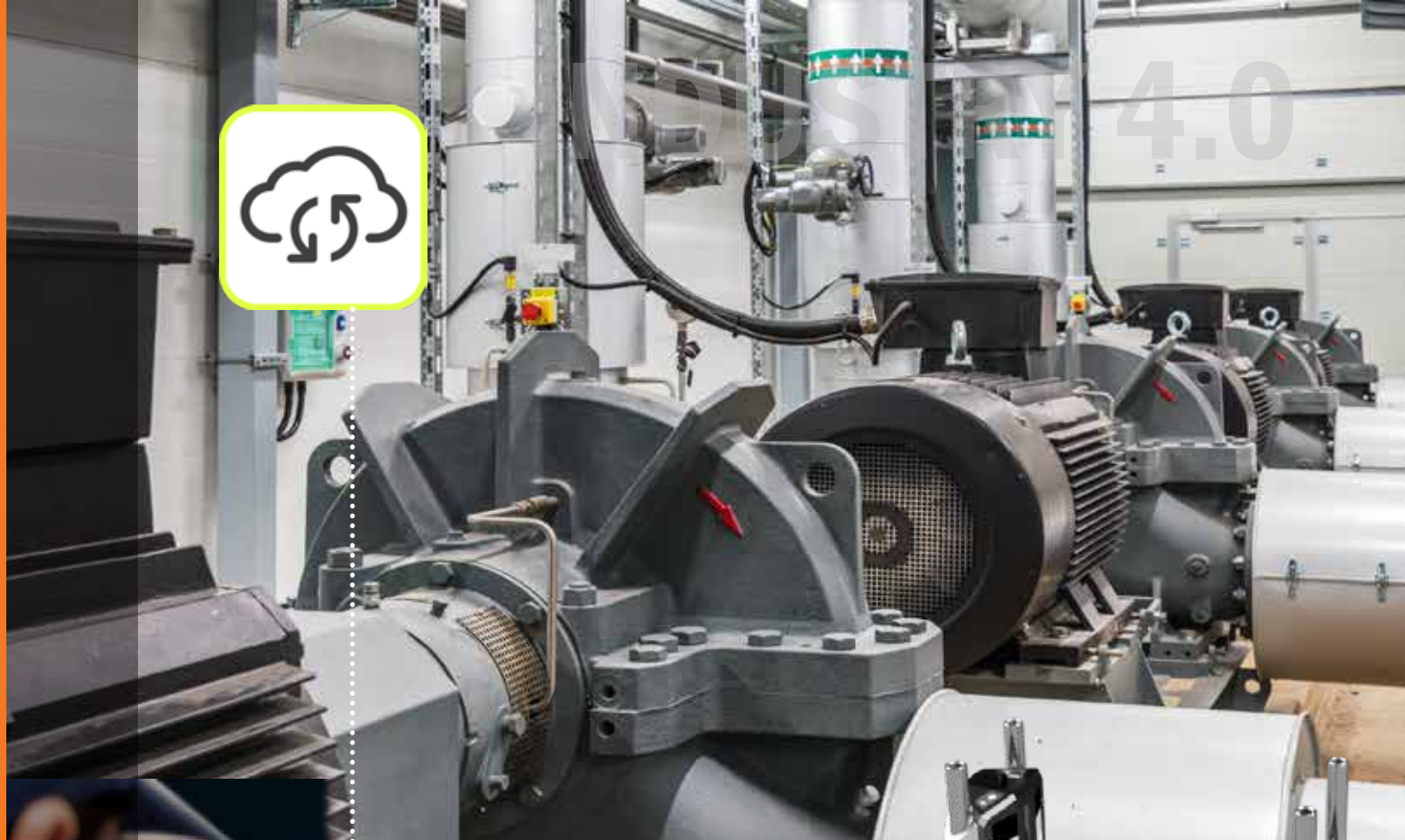


4.0



RT-300

Express Machine Check

- Machine Defender
- True PreAlignment
- Vertical Alignment
- Horizontal Alignment



Our Graphical User Interface, Your Measurement Guide

Our patented icon-based and color-coded user interface makes it easy to measure, align, and document each job. In order to minimize the risk of operator errors, we developed an icon-driven, adaptive user interface for the RT-300 system.

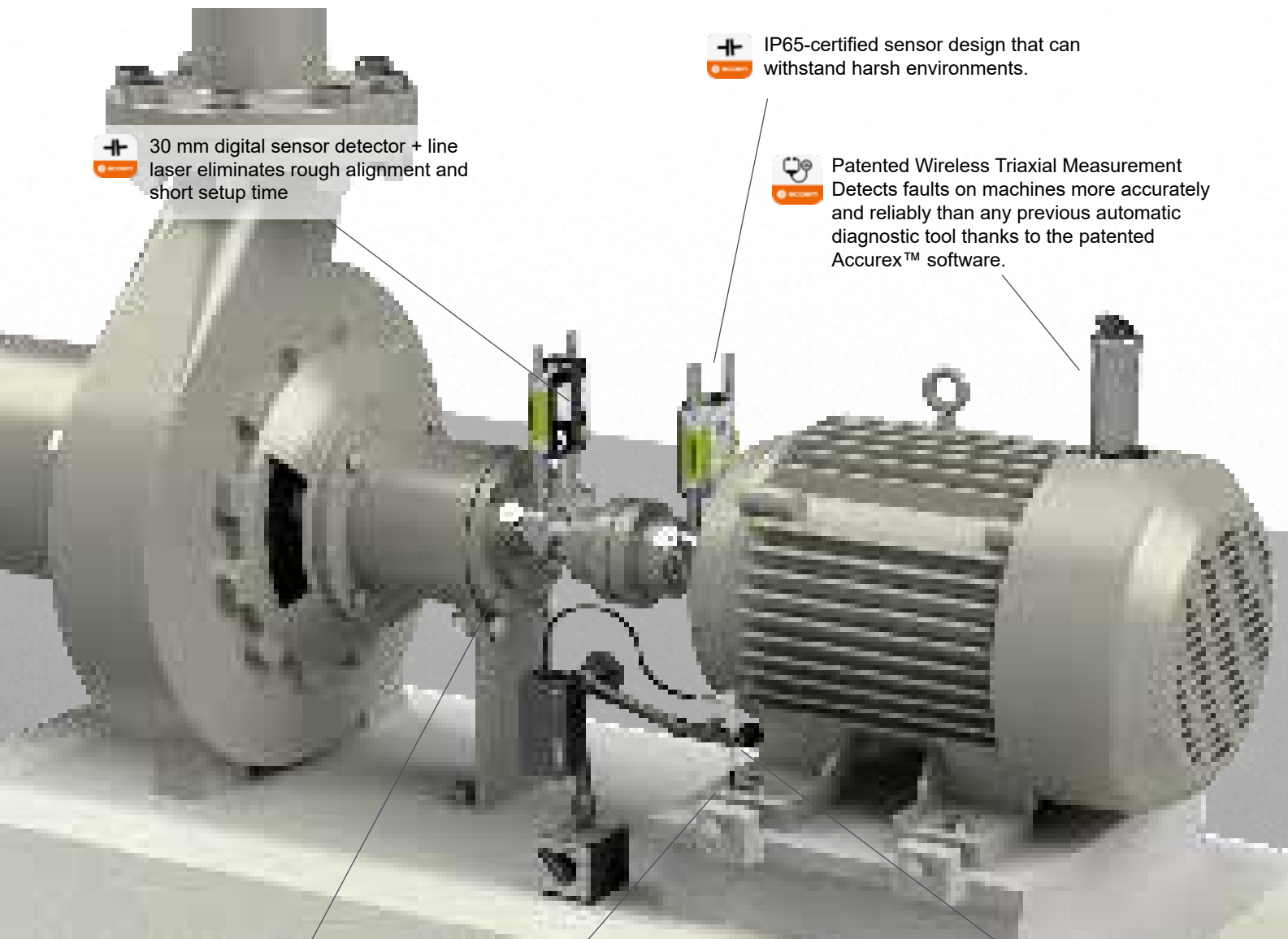
This *adaptive user interface* guides the user throughout the job in logical and easy to follow steps. It will deliver measurement and correction values based on what the system finds during the measurement process. This eliminates confusion for less-experienced users and provides ease of access throughout a measurement with the RT-300 system. To add to the enhanced user experience, we have given the interface a game-like 3D graphic look facilitating unmistakable interpretation of any error.

Augmented Mechanic Solution

Empowering the mechanic

On-the-spot machine diagnostics with a complete precision shaft alignment tool and a cloud connection to save reports and look up historical data, combined into one tool makes the RT-300 a truly unique maintenance product.

With a detailed report of the machine's health, the road to action and correction for the mechanic is shorter than ever, guaranteeing both production and product quality.



+ 30 mm digital sensor detector + line laser eliminates rough alignment and short setup time

+ IP65-certified sensor design that can withstand harsh environments.

+ Patented Wireless Triaxial Measurement Detects faults on machines more accurately and reliably than any previous automatic diagnostic tool thanks to the patented Accurex™ software.

+ Premounted fixtures and small sensors provides quick setup also on machines with limited space.

- High Precision & Wireless probe. Measures directly on the machine foot.

- LVDT sensor with ± 2,5 mm measurement range and high precision (within 0.005 mm).



Edge Technology for Innovative Shaft Alignment

ACOEM realized an industry-first with the introduction of touch screens in 1996, and we have maintained this edge by continuing to introduce game-changing technologies that include being first to the market with:

- 3D graphics
- Dual digital sensor with visible line lasers
- Wireless communication between display unit and smart sensors
- Inclinometers in both smart sensors



ACOEM Cloud – ACOEM makes the industry smarter by taking advantage of the opportunities that digitalization and mobility create for traditional industry. Data describing the status of machines must be collected. For this purpose, measurement results and other information supplied by RT 300 need to be linked to a central collection point, ACOEM Cloud.

Connection, collection and correlation allow a new type of collaboration between people and between people and machines.



Machine Defender – Machine Defenders unique automatic machine diagnostic Accurex™ is built into the system. The patented machine diagnostics feature provides unbeatable fast, relevant and reliable results for a wide range of machine problems such as unbalance, alignment errors, cavitation, structural resonances, bearing problems, and more. Machine Defenders machine diagnostic function differs from all other systems.



Pre-Alignment – the smart displacement probe for safe and reliable measurement of axial and radial runout. The Pre-alignment probe performs a multitude of applications that will improve your machines' health and life time, e.g:

- Axial and radial runout checks on flanges and shafts through measuring eccentric or skewed mounting of coupling hubs, and/or checking for bent shafts – RunOut
- Checking movements directly on machine feet, i.e. soft foot – True SoftCheck, an industry-first function
- Checking bearing clearances – LiftCheck
- Checking movements due to pipe strain
- Thermal growth measurements on machine casings



Shaft Alignment – No doubts, no guessing games, thanks to the industry-first use of technologies of two smart sensors with visible laser beams and inclinometers monitoring both shaft positions simultaneously. Did you interrupt the laser beam? Or move the machine's position out of detector range? Not a problem, our smart sensors will resume with an updated machine position and always deliver live values to you.



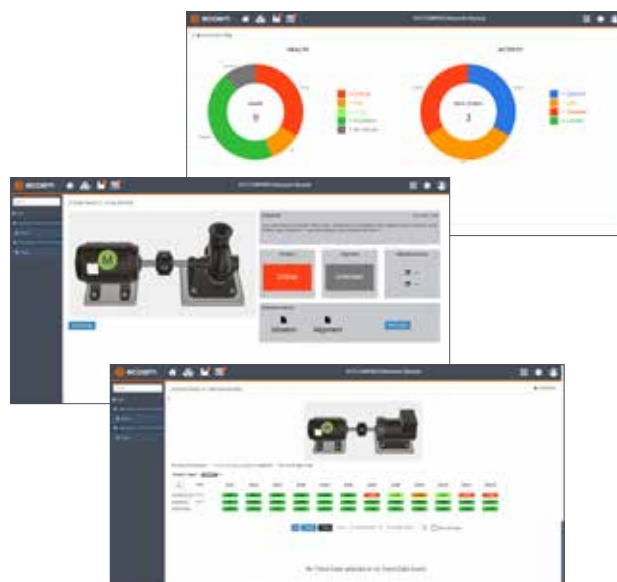
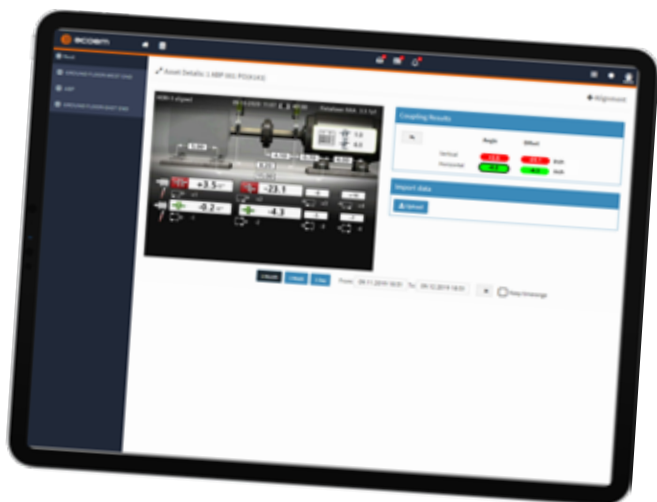
Patented software to detect:

- Unbalance
- Misalignment
- Bearing defects – wear, lubrication
- Shock/modulation (mounting, clearance, friction)
- Structural resonance
- Gear wear
- Shock/modulation (gear)
- Pump cavitation



Connected – ACOEM Cloud

Stay connected to co-workers and customers! Thanks to the ACOEM cloud instant reporting and instant sharing is easy. The ACOEM dashboard gives you an oversight of your machine park's health status and the possibility to create work orders based on machine health data.



Ease Of Use – Thanks to our patented, color-coded and icon-based user interface, the operation of the RT-300 is intuitive and adaptive minimizing the risk of operator errors and wrong interpretations of the result.

ComboTool – Combining Accurex™ machine diagnostics with several pre-alignment tools, and precision shaft alignment, the RT-300 provides the mechanic with the power of the machines' health, shortening time from fault diagnostics to corrective actions. Mechanics know what to do and when to do it!



True Live – Wireless alignment sensors with high tolerances for detrimental external factors, such as vibrations and ambient light, and delivers the most accurate and precise measurement values compared to any other system. Measurement values are automatically registered throughout the entire measurement process. Line laser with 30 mm sensor virtually eliminates rough alignment, a huge time saver. Very compact, only 33,5 mm in width, the sensor units will fit in the tightest spots. The sensor units contain gyroscopes and supports the Vertical™ method, i.e. vertical and horizontal adjustments in one shot.



You Always Know Your Machine's Position with a ACOEM system. The RT-300 will always show you the exact machine position. No doubts, no guessing games, thanks to another of our industry-first technologies, the use of two smart sensors with laser beams and inclinometers monitoring both shaft positions simultaneously.

Did you interrupt the laser beam? Or move the machine's position out of detector range? Not a problem, our smart sensors will resume with an updated machine position and always deliver live values to you.

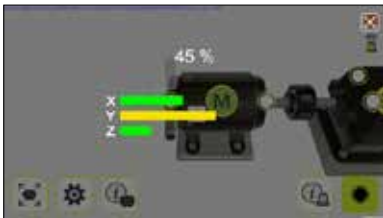
Adaptive User Interface Working with Smart Sensors

The RT-300 comes with an adaptive user interface that guides you throughout the measurement of your machines. The smart sensors we have developed include the latest technology on the market, enhancing the measurement performance to an industry-first level.

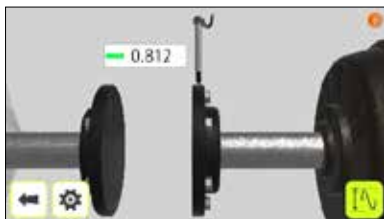
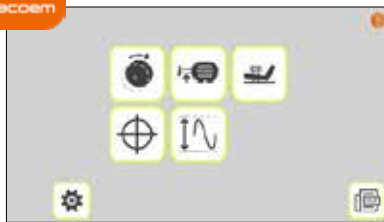
Machine Defender



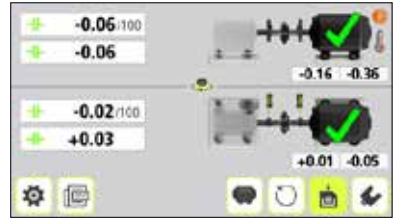
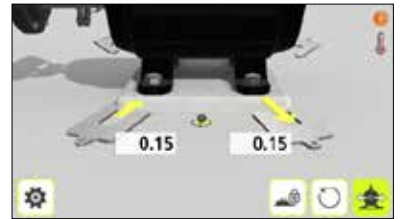
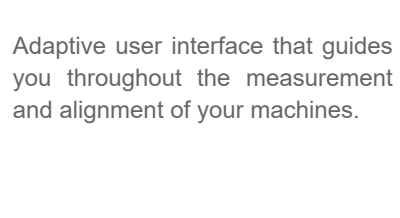
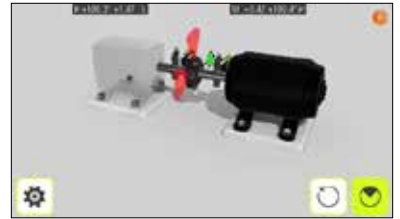
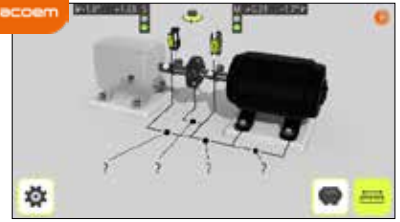
Fast, accurate machinery diagnostics in few simple steps.



Pre Alignment



Shaft Alignment

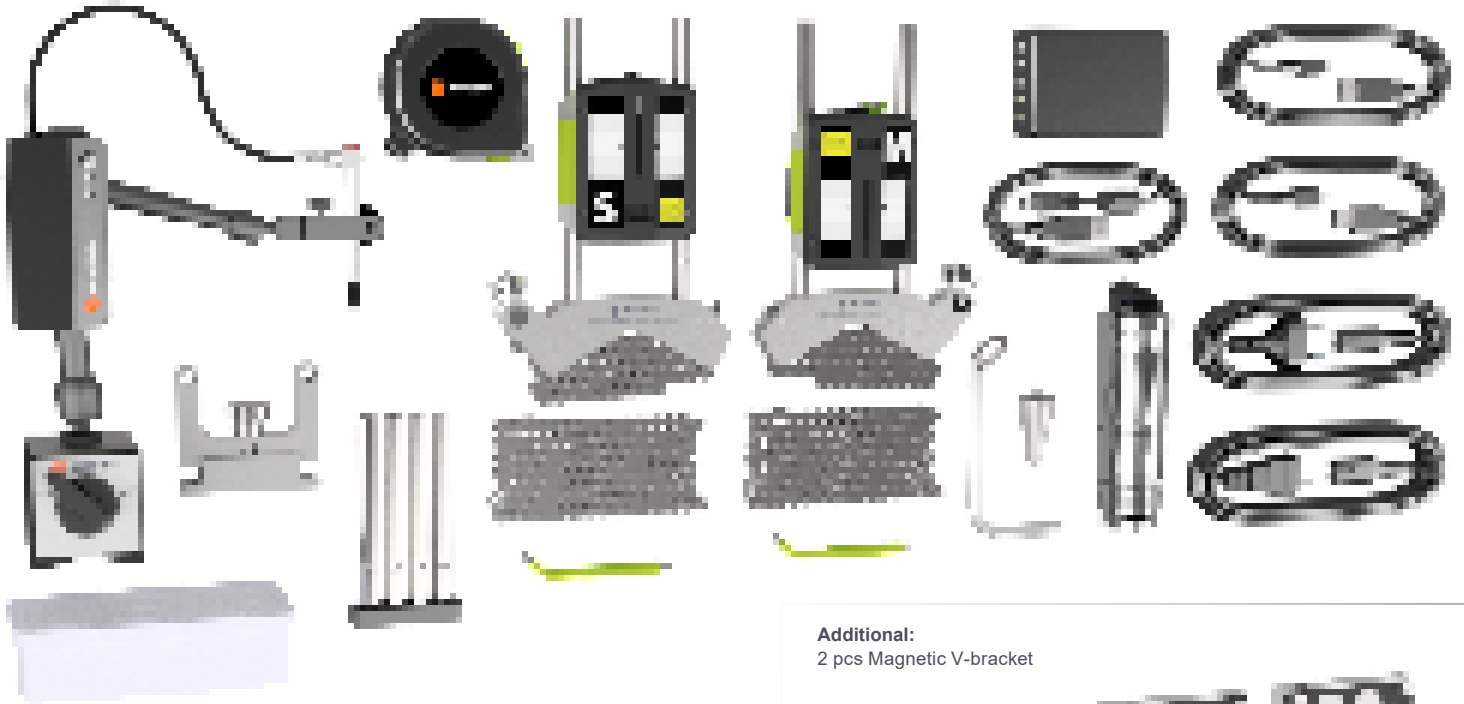


Adaptive user interface that guides you throughout the measurement and alignment of your machines.

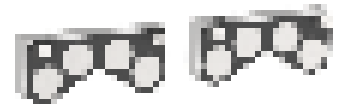


The PDF report function provides a fast on site reporting available for converting saved measurement reports into PDF files.

RT-300 In the case



Additional:
2 pcs Magnetic V-bracket



Magnetic base ON/OFF - P1 (Run-Out Probe) - WLS - Sensor, M7/S7 - Rod kit NXA - 2 pcs. Chain 8 mm 60 links (L=970 mm)
Tape measure 5 m - 2 pcs. V-bracket complete - 2 pcs. Angled universal tool - 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 - Sensor stand (without magnetic base) -
Power supply 5 USB-ports 5 VDC - Adjustable probe tip



Feet lock function

This function allows you to select which feet are locked and which feet are adjustable. Feet Lock is available both in shimming and alignment.



Target Values

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



VertiZontal™ Moves

Measure Once, Move in Two Directions
The VertiZontal™ Moves feature displays exactly how much a misaligned machine needs to be adjusted, by adding or removing shims to the machine's feet.



PDF REPORT

The PDF report function provides a fast on site reporting available for converting saved measurement reports into PDF files.



Softcheck™

Possible to measure directly on the foot and obtain exact shim values to eliminate the softfoot condition.



Bearing Clearance

Measure loosen flanges, and check for pipe strain influence at the shafts



Run-Out

Check run-out of the coupling and on a piston rod, crank, or other components on a reciprocating machine.



Accurex™

Automatic machine diagnosis - unbalance, misalignment, cavitation, structural resonances, bearing defects, gear defects, and more cavitation, structural resonances, bearing defects, gear defects, and more.



acoem



S7/ M7

Housing Material:	Anodized Aluminum frame and high impact ABS plastic overmolded with TPE rubber
Operating Temp:	-10 to 50°C (14 to 122°F)
Storage Temp:	-20 to 70°C (-4 to 158°F)
Battery Charging Temp:	0 to 40°C (32 to 104°F)
Relative humidity:	10 – 90%
Weight:	M7: 212 g (7,5 oz) S7: 188 g (6,6 oz)
Dimensions:	92mm x 77mm x 33mm (3,6 in x 3,0 in x 1,3 in)
Environmental protection:	IP 65 (Dust tight and protected against water jets)
Laser:	650 nm class II diode laser
Laser line fan angle:	6°
Laser line divergence (full angle):	0.25 mrad
Laser power:	< 1 mW
Measurement distance:	Up to 10m
Detector:	2nd gen. digital sensor
Detector length:	30mm (1,2 in)
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
Inclinometer:	Dual High Performance MEMS inclinometers
Inclinometer resolution:	0,01°
Inclinometer accuracy:	±0,2°
Wireless communication:	Class I Bluetooth transmitter
Communication range:	10 m (33 ft)
Charging:	5V, 0,5A
Power supply:	High performance Li Ion battery or external power.
Operating time:	17 hours continuous use (measuring)
Battery Charging time (system off, room temperature):	8 h

WLS

Three axial measurements:	Synchronous acquisition in X, Y and Z directions
Sampling frequency:	51.2 kHz on all axes (Fmax 20kHz)
Full bandwidth:	20 kHz on all axes
Accuracy:	+/- 5% @ 120 Hz, 1g
Dimensions:	Ø42 x H116 mm
Weight:	373 g
Mounting:	M6 threaded hole
Housing material:	Stainless steel
Operating temperature range:	-20°C to 60°C
Resistance to shocks:	5,000 g peak
Protection:	IP65
Battery Type:	Li-Ion
Operating lifetime:	8 hours
Rechargeable:	By USB (power supply adapter in standard delivery)
Charging time:	~8 hours with the standard 500 mA charge current.
Wireless protocol:	Wi-Fi Point to point 2.4GHz
Wireless range:	Up to 25 meters line of sight depending on the environment.

ACOEM PATENT:

US Pat. No. 9,921,136
 US Pat. No. 10,533,920
 SE 537833
 US 10060719
 EP 2920547
 US 7460977



acoem



acoem

ACOEM France – Lyon
Headquarters
200 chemin des Ormeaux
69578 Limonest Cedex France
Tél : +33 4 72 52 48 00
Tél : +1 804 379 2250
www.acoem.com

ACOEM SWEDEN
P.O. Box 7, SE - 431 21 Mölndal, SWEDEN
Tel: +46 31 706 28 00, E-mail: info@acoem.com
www.acoem.com

