

# FIXTURELASER

## Wind Power Solutions



**acoem**  
CREATING ENVIRONMENTS OF POSSIBILITY

## Shaft Alignment In the Wind Power Industry

Fixturlaser shaft alignment instruments are custom made with firmware features that ensure high measurement accuracy and with mounting hardware that is ideally suited for optimal alignment of the gearbox and generator shafts in wind turbines. No matter the manufacturer, coupling or turbine type, Fixturlaser's shaft alignment instruments make generator-to-gearbox alignment inside any nacelle easy. This safeguards reliability and optimizes the energy efficiency of the wind turbine.



### Five Easy Steps to Rewarding Shaft Alignment !

1. Select machine from your list (Specific Turbine Models)
2. Measure
3. Adjust by using Vert-Zontal Moves
4. Remeasure
5. Save



#### ALIGNMENT INTELLIGENCE

- 30 MM CCD DETECTOR + LINE LASER = VIRTUALLY ELIMINATES ROUGH ALIGNMENT
- DIGITAL SIGNAL QUALITY CONTROL = EDGE DETECTION, SIDE SPOT REJECTION, AND AMBIENT LIGHT SUPPRESSION



#### GRAPHIQUE USER INTERFACE

- FINGERTIP GUIDANCE
- 3D ANIMATION
- COLOR CODED RESULTS
- ICON BASED



#### TRUE POSITION SENSING

- BOTH SHAFTS' POSITIONS MONITORED SIMULTANEOUSLY
- LIVE VALUES DURING ADJUSTMENT
- VERTIZONTAL MOVES = MEASURE ONCE, MOVE IN TWO DIRECTIONS



#### Fixturlaser Laser Alignment Tools Have:

- A short learning curve
- Precision measurement
- Many mounting options for different turbines
- Solutions for non-rotating shafts



#### Machine Defined Data:

- User defined machine configuration templates
- Opens window for adding a new machine with defined data
- Entered data, such as distances, target values and tolerances, will be saved



#### Specific Machines:

- Predefined machine configuration templates
- Safe and efficient application that simplifies the alignment process
- Preset data, such as distances, target values and tolerances, will be saved



#### VertiZontal Moves:

- Allows for the vertical and horizontal adjustments to be made together, saving valuable time and ensuring accuracy.

## Fixturlaser Wind Turbine Fixture Options

### GE Turbines

Magnetic fixtures mount easily on all 1.5x, 2.5x, and 3.0x GE turbines. Brake side fixture mounts on brake disc and allows the sensor to clear the brake.



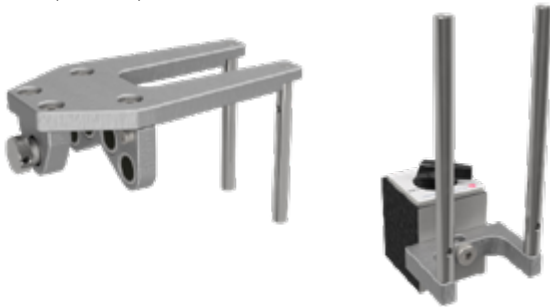
### Vestas Turbines

Fixtures mount easily to the gearbox and generator side for the alignment. Fixtures are available for all Vestas turbine models: V63, V80, V82, V90, V100, V110, V105, V112, V113, V117, V120, V126, V136, V150, V164.



### Siemens Gamesa Turbines

Fixtures mount easily to the gearbox and generator side for alignment. Fixtures are available for all Siemens and Gamesa turbine models: Siemens 2.3, 2.4, 3.6 and 4.0. Gamesa G80x, G90x, G114, G126, G132, and G145.



### Mitsubishi Turbines

Fixtures mount easily to the gearbox and generator side for alignment. Fixtures are available for MWT 1000/1000A and MWT 2.4 turbine models.



Additional OEM Turbine Fixtures available: • Suzlon • Acciona

## Our Most Efficient Shaft Alignment Tools



### Fixturlaser NXA Pro

- Intuitive interface
- Large touch screen
- Verti-Zontal Compound Moves
- Color coded results
- Built-in, customizable PDF reporting
- Improved 3D animations with video game quality graphics

- MEMS gyroscope built-in to both sensors and the display unit
- Large 30 millimeter 2nd generation scientific grade CCD sensors
- Wireless Bluetooth® II built-in to small compact sensor
- Lifetime warranty



### Fixturlaser EVO

Intuitive interface  
5-inch touch screen  
Verti-Zontal Compound Moves  
Color coded results  
Improved 3D animations with video game quality graphics  
MEMS gyroscope built-in to both sensors and the display unit

Large 30 millimeter 2nd generation scientific grade CCD sensors  
Wireless Bluetooth® II built-in to small compact sensor  
Lifetime warranty  
Winner of the 2014 Product of the Year Gold Award from Plant Engineering



### Fixturlaser ECO

Intuitive interface  
4-inch full-color screen  
Verti-Zontal Compound Moves  
Color coded results  
20mm CCD Sensor Technology  
Wireless Bluetooth® II built-in to small compact sensor  
Lifetime warranty



## About acoem

Creating environments of possibility

In today's fast-moving world, the environment is increasingly impacted. The Acoem Group is committed to sustainable development and help companies and public authorities limit their environmental impact by offering products and services that:

- Prevent and control air, noise and vibration pollution;
- Increase the productivity and reliability of industrial machinery;
- Contribute to the development of effective, robust & noiseless products;
- Protect soldiers, sites and vehicles in military theaters of operation.

The Acoem Group is based in Limonest, France, and has 17 subsidiaries and offices around the world. The Group generates an annual turnover over €100 million and currently employs 750+ people globally.

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