

## Fixturlaser Laser Kit Quick tips



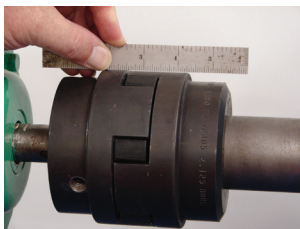
**Fixturlaser**

Brand of ACOEM



## 1. Rough Alignment

- Vertical: Place scale or straightedge on highest hub and raise or lower the movable shaft to within 0,5 mm of the stationary hub.
- Horizontal: Place scale or straightedge on hub nearest to you and adjust the movable shaft to within 0,5 mm of the stationary hub.

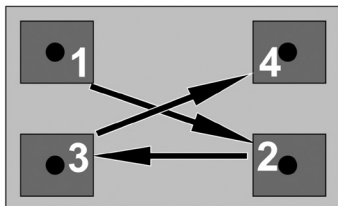


## 2. Correct Obvious Soft Foot

Loosen all the bolts and find any obviously loose shim packs. Add shims as needed to make a snug fit.

## 3. Follow Tightening Sequence

Follow the same sequence throughout the alignment process, and tighten in 3 passes: snug first, 50% on second pass, completely tight on the third pass (view sequence on next page).



*Bolt Tightening Sequence*

#### 4. Make a Final Soft Foot Correction

Loosen one bolt at a time and check for soft foot with a 0,05 mm shim or feeler gauge. Correct any foot with 0,05 mm or more of soft foot, then tighten the bolt before proceeding to the next foot.

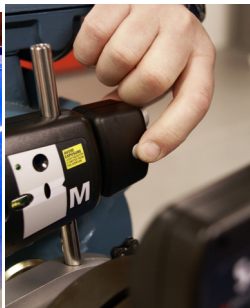


## Set Up

1. Mount the '**S**' sensor on the stationary shaft or **coupling hub** and hand tighten the nut, use the tightening tool and tighten further. Turn the sensor on by pressing the power button.
2. Mount the '**M**' sensor on the movable shaft or **coupling hub** and hand tighten the nut use the titing tool and tighten further. Turn the sensor on by pressing the power button.



*Tighten the nut*



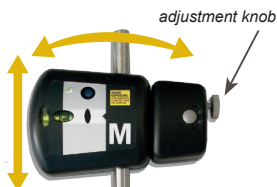
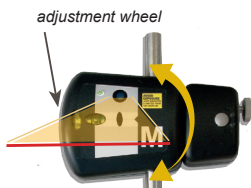
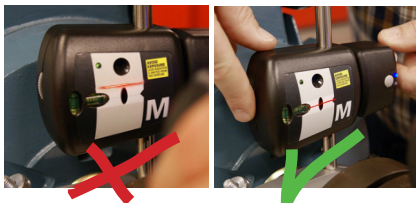
*Press the power button*

## Start the Laser Kit App

1. Click on the Fixturlaser Laser kit app on your device that starts the application.
2. The app will search for the sensor and connect to them via Bluetooth. This will take between 5 to 15 seconds.
3. The lasers will turn on.

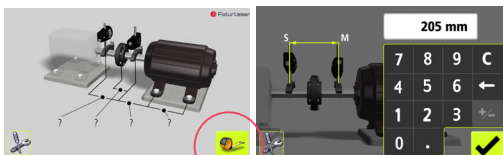
## Aim the Lasers

1. Loosen the adjustment knob of the sensor and slide the sensors up or down until the line laser beams hit the middle of the opposite sensor, fine tune the line laser beam with the adjustment wheel on the opposite side of the sensor. Be precise so that the beam hits the window as accurate as possible. Note that the sensors will be at different elevations.



## Enter Dimensions

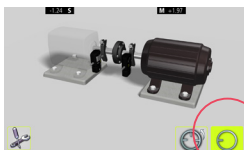
1. Press the yellow tape measure icon to open the keypad.
2. Measure the indicated dimension to the nearest 1 mm for coupling dimensions or 2 mm for foot dimensions and enter using the keypad. Continue and enter all dimensions.



*Tape measure icon*

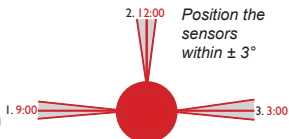
## Measure Misalignment

1. Press the measurement mode icon. Rotate the sensors to the 9:00 position and press the measurement icon.



*9:00 position*

*Measurement icon*

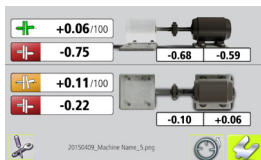


2. Rotate the sensors to the 12:00 position. Press the measurement icon again to take the second measurement.



*12:00 position*

3. Rotate the sensors to 3:00, measure. The results will be displayed on screen.





## Evaluating the Results

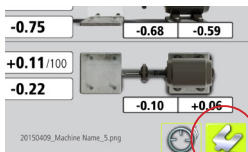
1. Vertical results are displayed at the top of the screen, horizontal results at the bottom.
2. Green coupling icons indicate values which are within tolerance. Angular tolerance 0,08 mm/ 100 mm offset tol. 0,1 mm
3. Orange values are within 2x tolerance.
4. Red values are more the 2x than out of the tolerance level.



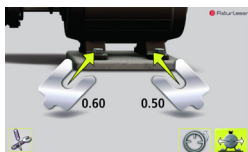
## Using the VertiZontal™ Process

### First Correct the Vertical Misalignment

1. Press the shim icon in the bottom right corner of the screen.
2. Loosen all the bolts on the movable machine.
3. Follow screen instructions for removing or inserting shims.

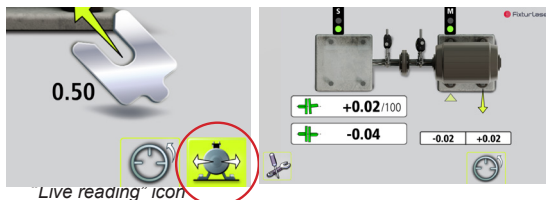


Shim icon



## Next Correct the Horizontal Misalignment

1. First press the 'live reading' icon in the bottom right corner of the screen.
2. To ensure the live readings are for the horizontal direction make sure the sensors are at 3:00.



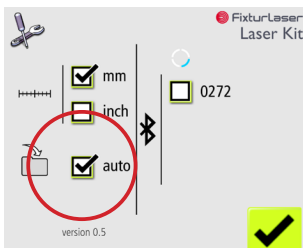
3. Make the largest adjustment first. The arrows indicate the direction of adjustment.
4. Continue to adjust the movable machine, watching the live readings, until both the angle and offset are within tolerance.
5. Tighten the bolts using the tightening sequence established in Pre-Alignment.
6. Some machines move laterally when tightening the bolts. Make sure that the displayed values remain in tolerance as you tighten the bolts.

## Re-Measure


1. Press the re-measure icon.
2. Re-measure to verify the results are within tolerance. If they are not, repeat the Verti-Zontal™ Correction Process.

## Results/Save

1. Results Images are saved in the folder of photos on your device automatically, when the auto save box is ticked in the settings menu.



*Auto save box*

|   |   |
|---|---|
| <b>Fixturlaser Laser Kit Complete system:</b> |   |
| Weight including all standard parts:          | 2,75 kg (6,06 lbs)  |
| Displayed resolution:                         | 0,01 mm (0,1 mil with "inch" settings.)   |
| <b>Case:</b>                                  |   |
| Dimension:                                    | 357 mm x 305 mm x 96 mm (14,1 in x 12 in x 3,8 in)  |
| <b>Sensors M5 1-0976/S5 1-0977</b>            |   |
| Wireless communication:                       | Class I Bluetooth transceiver with multi-drop capability. BLE Bluetooth Low Energy (BT 4.0)   |
| Operating time (Continuously measuring):      | 5 h   |
| Weight:                                       | 156 g (5,5 oz)  |
| Dimensions:                                   | 139 mm x 79 mm x 40 mm (5,5 in x 3,1 in x 1,6 in)   |
| Environmental protection:                     | IP 20   |
| Measurement distance:                         | 70 mm - 850 mm (2,7 in - 2,8 ft)  |
| Detector:                                     | PSD (Single axis)   |
| Detector area:                                | 8,5 x 0,9 mm (0,3 x 0,04 in)  |
| Measurement accuracy:                         | 3% ± 0,01 mm  |
| Inclinometer accuracy:                        | ±2°   |
| Shaft diameter:                               | Ø 30-150 mm (1,2 - 5,9 in)  |
| Rods:   | 2 pcs 150 mm (5,9 in)   |
| Laser safety:                                 | <div data-bbox="554 1255 774 1398">  <p><b>CAUTION</b><br/>LASER RADIATION<br/>DO NOT STARE INTO BEAM<br/>CLASS 2 LASER PRODUCT<br/>SS-EN-60825-1:2007<br/>MAX OUTPUT: 1 mW<br/>WAVELENGTH: 630-680 nm</p> </div> <p>COMPLIES WITH 21 CFR 1040.10 AND 1040.11<br/>EXCEPT FOR DEVIATIONS PURSUANT TO<br/>LASER NOTICE No. 50, DATED JUNE 24, 2007</p> |

## DECLARATION OF CONFORMITY

In accordance with the EMC Directive 2004/108/EC, the Low Voltage Directive 2006/95/EC, including amendments by the CE-marking Directive 93/68/EEC & EC directives RoHS 2011/65/EU.

Type of equipment: Alignment System

**Brand name or trade mark:** FIXTURLASER Laser Kit

Type designation(s)/Model no(s)

1-0976 FIXTURLASER M5

1-0977 FIXTURLASER S5

## **Manufacturer's name, address, telephone & fax no**

ACOEM AB - Box 7 - SE-431 21 Mölndal - Sweden

Tel: +46 31 7062800 - Fax: +46 31 7062850

**The following standards and/or technical specifications, which comply with good engineering practice in safety matters in force within the EEA, have been applied:**

Standard/Test report/Technical construction file/Normative document

Emission: EN 61000-6-3:2007.

Immunity: EN 61000-6-2:2005, EN 61000-4-2, -3, -4, -5, -6, -11.

EN 61010-1:2010

ISO9001:2008 Ref. No/ Issued by: DNV Certification AB Certification

No. 2009-SKM-AQ-2704/2009-SKM-AE-1419.

The laser is classified in accordance with the International Standard IEC-60825-1:2007,

USA FDA Standard 21 CFR, Ch 1, Part 1040.10 and 1040.11 except for deviations pursuant to laser notice No. 50, dated June 24, 2007.

Additional information

The product was CE-marked in 2014.

As manufacturer, we declare under our sole responsibility that the equipment follows the provisions of the Directives stated above.

Date and place of issue:

**Mölndal 2015-04-09**

Signature of authorized person



Hans Svensson, CEO

**The Fixturlaser Laser Kit was designed to be used with the Fixturlaser Laser Kit App.**



**View our following resources for more information.**



[www.alignmentknowledge.com](http://www.alignmentknowledge.com)



[www.youtube.com/user/FIXTURLASER](http://www.youtube.com/user/FIXTURLASER)

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## **Welcome to our world**

Since the very beginning in 1984, Fixturlaser, (Brand of ACOEM) has helped industries throughout the world to achieve more profitable and sustainable production. We have reached where we are today by having the courage to think beyond the norm and follow slightly unconventional paths. We have had the courage to make mistakes and find new directions. Through our resolve, ambition and knowledge we have become a global player and a leader in innovative, user-friendly shaft alignment.





# FixturLaser

Brand of ACOEM

[www.alignmentknowledge.com](http://www.alignmentknowledge.com)

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