

# Fixturlaser ECO

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QUICK TIPS

VIBRALIGN

## PRE-ALIGNMENT

### 1. Rough Alignment

- Vertical: Place scale or straightedge on highest hub and raise or lower the movable shaft to within 20 mils (0.020") of the stationary hub.
- Horizontal: Place scale or straightedge on hub nearest to you and adjust the movable shaft to within 20 mils (0.020") of the stationary hub.



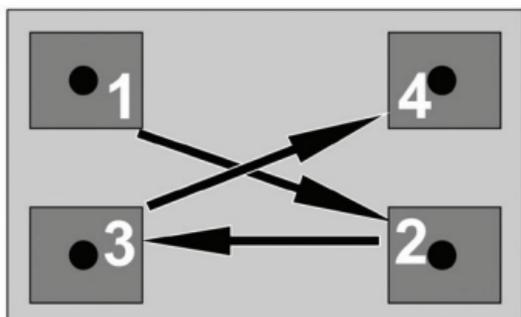
### 2. Correct Obvious Soft Foot

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)

## PRE - ALIGNMENT



Bolt Tightening Sequence

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

Loosen one bolt at a time and check for soft foot with a 2 mil (0.002") shim or feeler gauge. Correct any foot with 2 mils or more of soft foot, then tighten the bolt before proceeding to the next foot.



## SET UP

### Set Up



1. Turn on the ECO Display Unit.
2. Mount the 'S' sensor on the stationary shaft or coupling hub and hand tighten the nut. Turn the sensor on by pressing the power button on the Bluetooth module.
3. Mount the 'M' sensor on the movable shaft or coupling hub and hand tighten the nut. Turn the sensor on by pressing the power button on the Bluetooth module.

### Start the Horizontal Alignment Program

1. From the main menu use the arrows to highlight the horizontal alignment icon  and press OK.
2. Select the RPMs of the equipment to set the alignment tolerances, then press OK.
3. The lasers will turn on and the screen graphic will show the orientation of the sensors.

### Aim the Lasers

1. Loosen the green clips and slide the sensors up or down until the line laser beams hit the middle of the opposite sensor. Note that the sensors will be at different elevations.
2. Make sure the laser line appears equally on both sides of the opening.
3. Using the wrench, tighten the nuts another half turn.

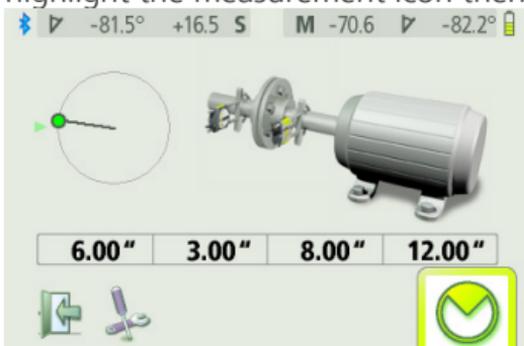
## MEASURE

### Enter Dimensions

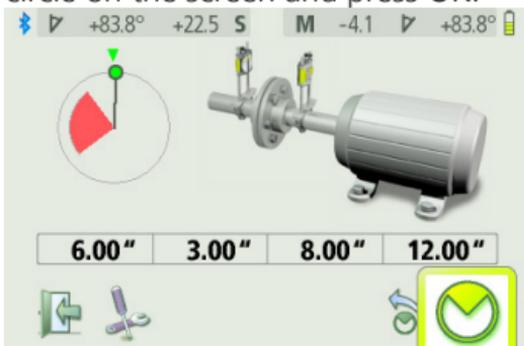
1. The first dimension will be highlighted.
2. Measure the indicated dimension to the nearest 1/8" then press OK to move the next dimension.
3. Enter the remaining dimensions.

### Measure Misalignment

1. Rotate the sensors to the 9:00 position and highlight the measurement icon then press OK.



2. Rotate the sensors to the 12:00 position, being sure they move outside the red portion of the circle on the screen and press OK.

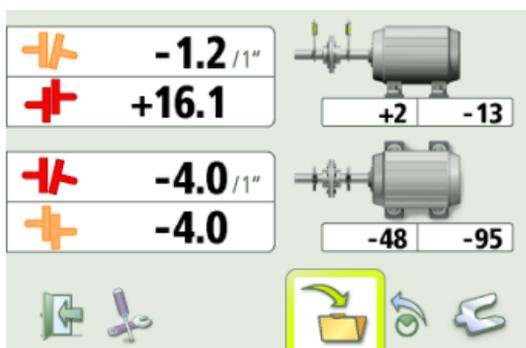


## MEASURE

3. Rotate the sensors out of the red portion of the circle to 3:00 and press OK.

### 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 in tolerance.
3. Orange values are within 2x tolerance.
4. Red values are more the 2x the tolerance level.

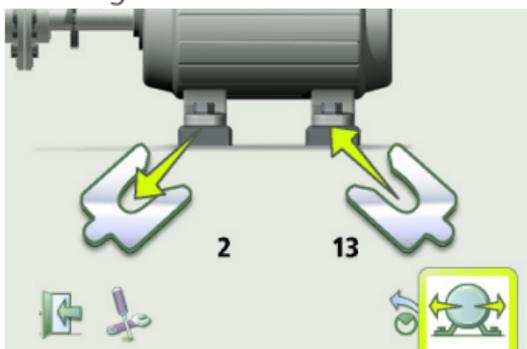


## CORRECTION

### *Using the Verti-Zontal™ Process*

#### **First Correct the Vertical Misalignment**

1. Highlight the shim icon and press OK. 
2. Loosen all the bolts on the movable machine.
3. Follow screen instructions for removing or inserting shims.



\* Do not retighten the bolts.

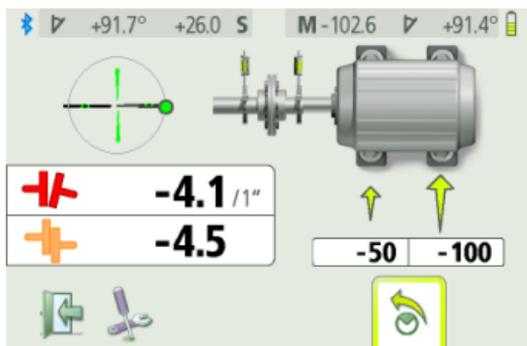
#### **Next Correct the Horizontal Misalignment**

1. Highlight the live icon and press OK. 
2. To ensure the live readings are for the horizontal direction make sure the sensors are at either 3:00 or 9:00.



## CORRECTION

3. Make the largest adjustment first. Positive values indicate the movable machine is away from you; Negative values indicate the machine is towards you.



4. Continue to adjust the movable machine until the coupling icons turn green.
5. Tighten the bolts using the tightening sequence established in Pre-Alignment.

### Finally, Re-Measure

1. Highlight the re-measure icon, then press OK.
2. Follow the measurement steps detailed above and verify the results are within tolerance. If not, perform a second Verti-Zontal correction.



### Document the Results

1. Highlight the file save icon then press OK.
2. Enter the filename of the saved alignment and press OK.



**VibrAlign is committed to helping you perform precise alignments.**

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**View our following resources:**

- **Training**  
[vibralign.com/training](http://vibralign.com/training)
- **The VibrAlign Blog**  
[vibralign.com/blog](http://vibralign.com/blog)
- **The Alignment Store and Resource Center**  
[shaftalignment.net](http://shaftalignment.net)
- **Videos**  
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