Fixturlaser XA

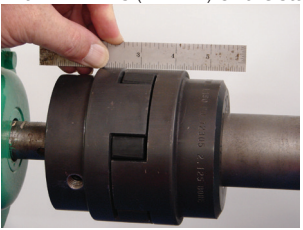
QUICK TIPS

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.

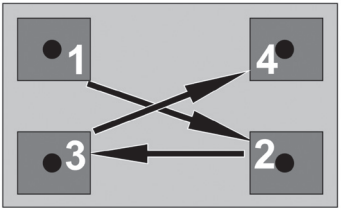


2. Correct Obvious Soft Foot

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

3. Follow Tightening Sequence

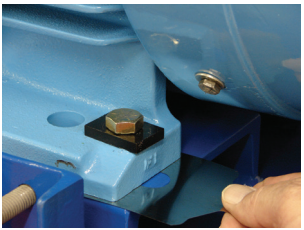
Follow the same sequence throughout the alignment process, and tighten in 3 passes: snug first, 50% on second pass, completely tight on the third pass. (View sequence on next page)



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

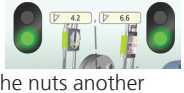
1. Turn on the XA Display Unit.
2. Mount the 'S' sensor on the stationary shaft or coupling hub and hand tighten the nut. Turn the sensor on by pressing the power button on the Bluetooth module.
3. Mount the 'M' sensor on the movable shaft or coupling hub and hand tighten the nut. Turn the sensor on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

Start the Horizontal Alignment Program

1. From the main menu on the display unit touch the horizontal alignment icon.
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. The display unit screen will show green lights next to each sensor to confirm that the lasers have been acquired by the sensors.



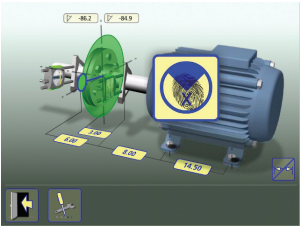
3. Using the wrench, tighten the nuts another half turn.

Enter Dimensions

1. Touch the "?" in the yellow dimension box.
2. Measure the indicated dimension to the nearest 1/8" and enter using the keypad. Then press OK to move the next dimension.

Measure Misalignment

1. Rotate the sensors to the 9:00 position and press the flashing measurement button.



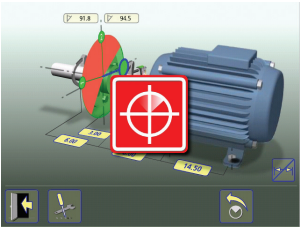
Note:
There are 2 preferred measurement methods:

Express (used here) & Tripoint

Select a measurement method by touching  to go to the toolbox.

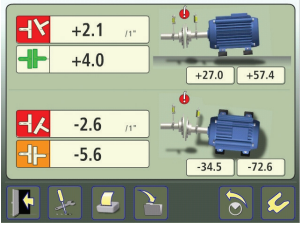
2. Rotate the sensors to the 12:00 position, being sure they move outside the red portion of the circle on the screen. The second reading will automatically begin after the sensors have been steady for 2 seconds.

3. Rotate the sensors out of the red portion of the circle towards 3:00. When the sensors have been steady for 2 seconds the third and final reading will be taken and results will be displayed.



Evaluating the Results

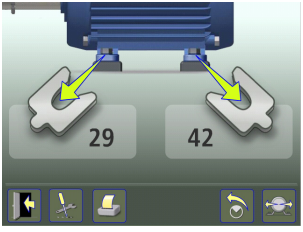
1. Vertical results are displayed at the top of the screen, horizontal results at the bottom.
2. Green coupling icons indicate values which are in tolerance.
3. Orange values are within 2x tolerance.
4. Red values are more the 2x the tolerance level.



Using the Verti-Zontal™ 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.



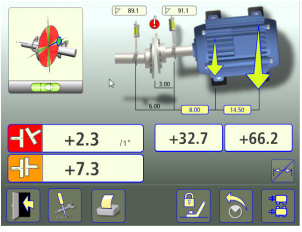
Do not retighten the bolts.

Next Correct the Horizontal Misalignment

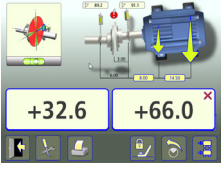
1. First press the 'live reading' icon in the bottom right corner of the screen. 
2. To ensure the live readings are for the horizontal direction make sure the sensors are at either 3:00 or 9:00.

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.



To change the display to show either set of values larger on-screen for better viewing, just touch any of the four numbers.



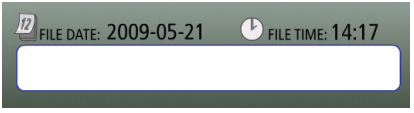
4. Continue to adjust the movable machine until both the angle and offset are within tolerance.
5. Tighten the bolts using the tightening sequence established in Pre-Alignment.

Finally, Re-Measure

1. Press the re-measure button, then press it again on the confirmation pop-up screen.
2. Follow the measurement steps detailed above and verify the results are within tolerance.

Document the Results

1. Press the file save icon.
2. Press the white file name box to open the key-pad. Enter a filename and then press ‘OK’.



3. Press ‘OK’ again to save the file in My Measurements folder.

VibrAlign is committed to helping you perform precise alignments.

View our following resources:

- **Training**
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- **The Alignment Blog**
  thealignmentblog.com
- **The Alignment Resource Center**
  shaftalignment.net
- **Videos**
  youtube.com/vibralign
- **T-mail Training Newsletters**
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