

VibrAlign Laser Alignment Tips

"Broken Coupling" Alignment

Alignment is always easier when the coupling is in place. There are situations, however, when the coupling is "broken", that is, the coupling is not in place. The SHAFT HOG laser alignment system can still perform precision alignments of shafts when the coupling is broken. This is achieved by the following process that ensures the laser heads are rotated in phase. By following these simple steps one can ensure that the laser units are always rotated in phase even when there is no coupling in place.

1. Set up the SHAFT HOG, aim the lasers and enter the required A, B and C dimensions as with any alignment. Upon pushing the right arrow button a clockface appears on screen with a blinking dot at the 9:00 position.
2. Rotate both laser units to the 9:00 position, close the targets and ensure that the laser beams are at the center of the cross hairs on the target covers. You can adjust the heads on the mounting rods as well as use the fine adjustment thumb wheel.
3. Open the targets and take the initial reading (by pressing the right arrow button). The clockface on screen will now show a dot blinking at the 3:00 position.
4. Rotate the M (moveable machine) laser unit 180 degrees to the 3 o'clock position. The level can be used to determine the exact position.
5. Close the target cover on the S (stationary machine) laser unit, and start to rotate it towards 3:00. Rotate it until the visible beam from the M laser unit hits the center (side-to-side) of the target cover on the S laser unit. At that point, the two laser units are in phase. (Do not readjust the lasers.)



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6. Now open the target cover on the S laser unit and proceed to take that measurement by pressing the right arrow key again. The clockface on screen will now show a dot blinking at the 12:00 position.
7. Rotate the M laser unit to the vertical (12:00) position. Again, the level can be used to check to be sure that the laser unit is in a true vertical position.
8. Close the S laser unit detector cover and rotate it up until the visible beam from the M laser is at the center (side-to-side) of the detector cover on the S laser unit. (Again, do not readjust the lasers.)
9. You now open the S unit detector cover and take the vertical measurement by pressing the right arrow key.
10. Now you can proceed with the alignment procedures followed with coupled shafts. When rotating between the 12:00 and 3:00 positions, simply use the procedure outlined above to ensure the laser heads are in phase.

