

# VibrAlign Laser Alignment Tips

## Determining the Center of Rotation with the Combi-Laser

1. Mount the TD-S unit on the shaft or device whose center is to be found. Use the magnetic base or the shaft alignment V brackets.
2. Make the cable connection to the display unit, and turn the unit on in the shaft alignment program (Program #1).
3. The beam should now be projected to a wall or surface, roughly perpendicular to the rotational center.
4. Make a simple target by marking a cross on a piece of paper. Position this target so the beam is at the center of the cross.
5. Rotate the shaft 180 . The beam will depart from the center.
6. Use the thumb wheels on the TD to make the beam move half way back to the "center" where it started (half the displacement in the horizontal & vertical).
7. Now, move the target so the beam is again at the center of the cross.
8. Rotate the shaft 180 . The beam will again depart from the center. This time however, it should stay closer to the center than the last time.
9. Use the thumb wheels on the TD to make the beam move half way back to the center where it started (half the displacement in the horizontal & vertical).

Repeat steps 7 - 9 until the beam is observed to remain at the center of the target when the shaft is rotated.

If a more precise determination of the rotational center is required, the TD-M



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can now be mounted so that it is at the same position as the target.

- a. Go into the straightness program on the Combi-Laser.
- b. Open the cover to the detector and press A to zero the detector.
- c. Rotate the shaft 180 and read the total travel of the beam in the display.
- d. Adjust the thumb wheel to half this value. This beam adjustment should only be done in one axis at a time (see note below).
- e. Restart the straightness program (by pressing the asterisk \*).
- f. Repeat steps b - e until the value read is within the desired tolerance when the shaft is rotated.
- g. Now, position the TD-M so the primary axis is horizontal (see note below). Repeat steps b - e until the value read is within the desired tolerance when the shaft is rotated.

## **NOTE:**

Take note that the TD- M is a single axis detector, therefore the beam position should only be adjusted in the sensitive axis (up and down if the TD-M is positioned so the label which reads "UP" is facing up, or the lettering on the back of the TD is right side up).

