Marley Dial Indicator Kit for Driveshaft Alignment

Marley Driveshaft Series 6Q – Series 175 – Series 250

1. Screw adapter bushing into one of the balancing holes on the tube flange. If necessary, remove any balance hardware. Reinstall balance hardware in original location before running the drive shaft.

2. Insert the dial indicator into the adapter until indicator point contacts the face of the yoke.

3. The indicator point must remain in contact with the yoke face during one complete revolution, it must not at any time be pushed in so far that it “bottoms out”, reaching the limit of the stem movement. The total travel of the indicator point is 0.100”.

4. When the dial indicator has been positioned, tighten the knurled screw in the adapter enough to hold the indicator stem in contact with yoke face.

5. Check alignment at each end of the driveshaft by rotating the shaft 360° noting the total change in the reading on the dial indicator. Total indicator reading must not exceed .005”. Move the motor and/or Geareducer vertically by shimming, or horizontally by shifting on support. Align driveshaft until the total indicator reading at each end is within .005”. Tighten all mounting bolts on the motor and Geareducer, and recheck alignment.

Marley Comp-DS Driveshaft

Use a firm and secure means of attaching a dial indicator base to the hub and align the indicator point to contact the center of a flex-element cap screw head (connection point between flex-element and flange). If using a Marley “Driveshaft Alignment Indicator Kit”, fasten the base of the kit into the tapped hole, located 90° from the keyway, with the supplied thumbscrew (refer to Fig. 8). Rotate the driveshaft, by hand, to ensure the dial indicator remains in contact with the cap screw and that its travel doesn’t “bottom out.”

Check alignment at each end of the driveshaft by rotating the shaft through 360° noting the total change in the dial indicator reading. The total indicator reading should not exceed 0.012” (0.3 mm).

Note: Total indicator reading is the absolute value sum (e.g. +5 and -7 mils readout through one revolution equals 12 mils TIR).
Eliminate any large-scale misalignment before proceeding. A preliminary alignment check can be made by measuring between the driveshaft and yoke flanges. The distance should be approximately \(1\frac{1}{8}\) (17.5 mm) measured at four points, see Figure 2. The final adjustment must yield a distance between adjacent points on the tube assembly flanges and coupling on each end that does not vary more than .005" (.13 mm) through one complete revolution. A Marley "Driveshaft Alignment Indicator Kit" is available and can be purchased.

The following is a suggested procedure for using the Marley Dial Indicator Kit to check driveshaft alignment.

1. Screw adapter bushing into one of the unused balancing holes on the tube assembly flange.

2. Insert dial indicator into adapter until indicator point contacts the face of the yoke flange.

3. The indicator point must remain in contact with the yoke during one complete revolution, but it must not at any time be pushed in so far that it "bottoms out."

4. When the dial indicator has been positioned, tighten the set screw in the adapter enough to hold the indicator.

5. Check alignment at each end of driveshaft by rotating the shaft through 360° noting the total change in reading on the dial indicator. Total indicator reading must not exceed .005" (.13 mm). Move motor and/or Geareducer vertically by shimming, or horizontally by shifting on support, to align driveshaft until the total indicator reading at each end is within .005" (.13 mm).

Note: Do not move the Geareducer or motor axially (closer together or farther apart) after driveshaft hardware is tight. The loads imposed on the driveshaft by these movements may reduce service life.

6. Tighten all mounting bolts on motor and Geareducer, and recheck. Maintain gap between face of flange and face of yoke as shown in Figure 2. Remove dial indicator.

7. Lock all jacking bolts at Geareducer support to assure permanent alignment. If jacking bolts are not provided, drill through the Geareducer feet and base plate and install dowel pins.