

Form-Flex® Composite Floating Shaft Couplings With Composite End Flanges Type A5, B5, All Sizes, All Classes

Installation & Maintenance Instructions

P-5012-TBW
Form 1182

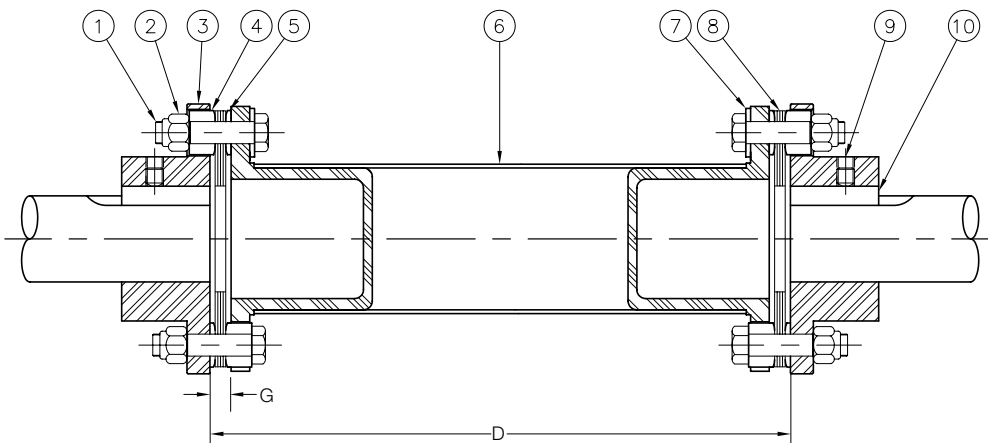


Figure 1

Parts List

1. Bolt (8) or (12)
2. Nylock Locking Nut (8) or (12)
3. Hub (2)
4. Thick Element Washer (8) or (12)
5. Thin Element Washer (8) or (12)
6. Spacer (1)
7. Spring Washer (4) or (6)
8. Flex Element (2)
9. Setscrew (4)
10. Key (not included)

Proper care in installing and aligning will permit couplings to operate to full capacity, compensate for angular misalignment, and provide very good service life.

Shafts may become misaligned as a result of many natural and unavoidable causes. Heat, vibration, bearing wear, settling of foundations, etc., all tend to alter initial misalignment. To ensure long life, re-check alignment after a short period of actual running.

In general, coupling life is increased when shafts are initially aligned carefully. The closer the alignment TIR is to zero, the better the service life of the coupling.

Installation

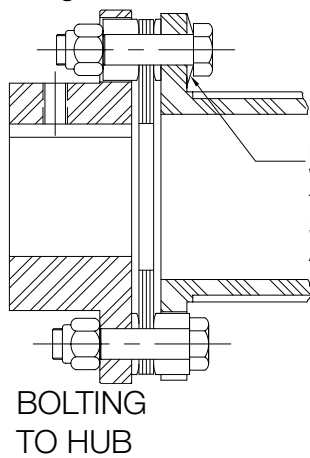
1. Inspect shafts and hubs and make sure they are free from burrs. Check for the proper fit of the keys to the shafts and hubs.
2. Fit the coupling hubs so that the shaft ends are flush with the face of the flange. If the hub is bored for an interference fit, the hubs should be heated in oil or induction heater @ 300°F and then quickly positioned on the shaft. DO NOT spot heat as it may cause distortion.
3. Move the equipment to be connected into position. Set the gap between the hub faces to the required distance between shaft ends, "D" dimension. Set the average gap between flanges, dimension "G" in Table 1, for the proper size coupling.
4. Assemble the disk packs to the spacer as shown in Figure 2. Tighten these nuts to the proper torques as indicated in Table 2. MAKE SURE the spring washer is between the bolt head and composite (nonmetallic) flange as shown in Figure 2. Do the same thing when bolting the disk pack to the hub except that no spring washer will be required. (Shown in Figure 2.)

Table 1 - Flange to Flange, Dimension "G" - Inches

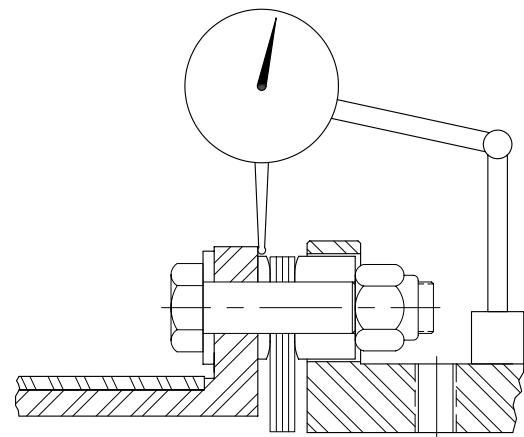
| Size | 20 | 25 | 30 | 35 | 40 | 58 |
|------|-------|-------|-------|-------|-------|-------|
| G | 0.34 | 0.45 | 0.47 | 0.55 | 0.60 | 0.56 |
| ± | 0.010 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 |

Table 2 - Nut Tightening Torque (Lightly Oiled Threads on Stainless Fasteners)

| Size | 20 | 25 | 30 | 35 | 40 | 58 |
|--------|----|----|----|----|-----|-----|
| FT-LBS | 17 | 40 | 58 | 58 | 115 | 115 |

Figure 2**BOLTING TO COMPOSITE FLANGE**

NOTE THE USE OF THE SPRING WASHER WHEN BOLTING TO THE COMPOSITE FLANGE. THE SPRING WASHER WILL FLATTEN AS THE NUT IS TIGHTENED.

BOLTING TO HUB**Figure 3****Alignment**

1. Bring the equipment into an approximate good alignment, by attaching one end of the spacer to the equipment. (Be sure the spacer assembly is fully supported at this time. If it is not, damage to the connected blade pack may result.)
2. With one end of the coupling attached, align the two pieces of equipment well enough to assemble the opposite end of the spacer to its hub.
3. Attach a dial indicator to each hub. Indicate a point on the nearest spacer flange face as shown. Any method may be used to attach the indicator to the hub, be sure it is firmly attached. See Figure 3.
4. Rotate the coupling 360° to locate the minimum reading on the dial, then rotate the body or face of the indicator so that the zero reading lines up with the pointer.
5. Rotate the coupling 360° while watching the indicator for misalignment readings. The driver and driven equipment will be aligned within the allowable limits as shown in Table 3. Adjust the equipment as necessary to comply with the limits.
6. Repeat this method for the other end of the coupling. Note: When the equipment is properly aligned, it is advisable to dowel a right angle gear box to its base. It has been found from experience that right angle gear boxes tend to creep in a counter rotational direction. Recheck alignment after doweling.
7. With equipment aligned and coupling assembled make sure all bolts and washers are in the proper orientation. The curved face of the washer must face the blade pack as shown in Figure 2. The spring washer must also be oriented as shown in Figure 2, with the small part of the cone towards the bolt.

IMPORTANT: To ensure long life re-check alignment after a short period of time (one to two hours) of actual running. At this time also re-torque bolts and nuts to values in table.

Table 3 - Total Indicator Reading, Maximum; Inches

| Size | 20 | 25 | 30 | 35 | 40 | 58 |
|--------|-------|-------|-------|-------|-------|-------|
| T.I.R. | 0.032 | 0.038 | 0.044 | 0.052 | 0.060 | 0.045 |

Lower T.I.R. readings will provide better alignment of shafts and longer service life.

REPLACEMENT PARTS

To order replacement parts it is necessary to furnish the complete part number(s) and the required part(s). Order must be placed with your distributor.

⚠ WARNING

ROTATING EQUIPMENT IS POTENTIALLY DANGEROUS AND MUST BE PROPERLY GUARDED. THE USER SHOULD COMPLY WITH APPLICABLE SAFETY CODES IN ACCORDANCE TO OSHA STANDARDS.



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