

# Form-Flex® Full Floating Shaft Coupling Type AA, AK, AP, A5, All Sizes, All Classes

## Installation & Maintenance Instructions

P-5006-TBW  
Form 1176

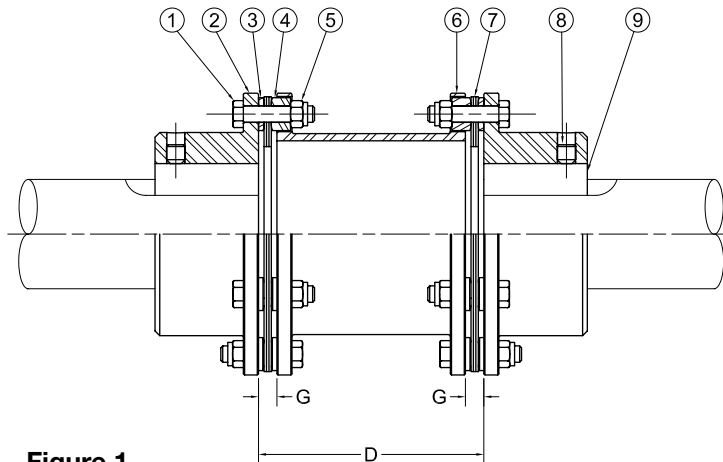


Figure 1

### Parts List

1. Bolt (8)
2. Hub (2)
3. Thin element washer (8)
4. Thick element washer (8)
5. Nylon locking nut (8)
6. Spacer (1)
7. Flex element (2)
8. Set screw (4)
9. 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 alignment. 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. If this is not done and a coupling is heavily stressed by torque or other forces, it will have little reserve left with which to accommodate misalignment stresses; and it might not provide the length of service intended. The closer the alignment TIR is to zero, the better the service life of the coupling.

### Installation

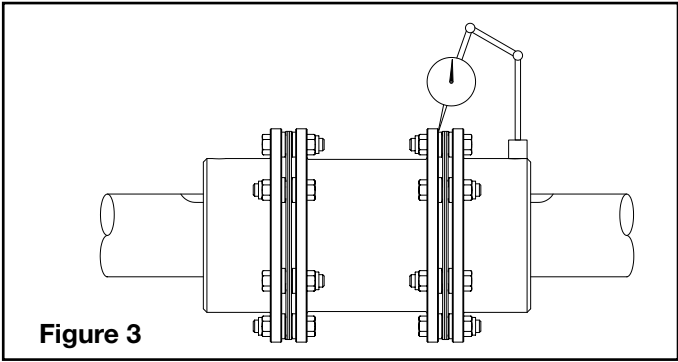
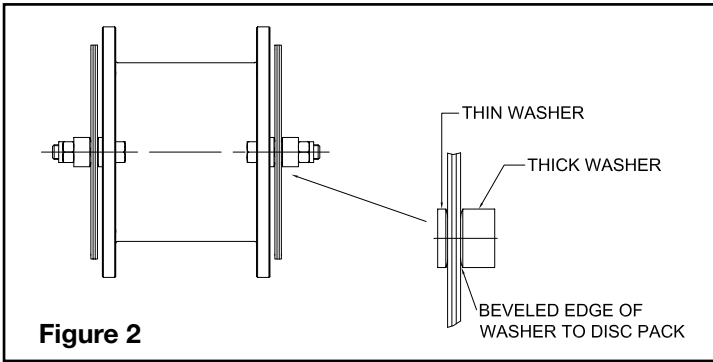
1. Inspect shafts and hubs and make sure they are free from burrs. Check for the proper fit of the keys to the shafts and hubs.
2. Fit the coupling hubs so that the shaft ends are flush with the face of the flange. If the hub is bored for an interference fit, the hubs should be heated in oil or induction 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. The D dimension is equal to the length of the spacer spool plus 2 times the "G" dimension per Table 1. Set the average gap between flanges, dimension "G" in Table 1, for the proper size coupling.
4. Assemble the flex elements and hardware to the spacer as shown in Figure 2. Warning: Ensure that the beveled face of the thick and thin washers are placed against the flex elements. Failure to do so will result in rapid coupling failure. Tighten these nuts to the proper torques as indicated in Table 2.

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

Size	05	10	15	20	25	30	35	40	45	50	55
G	.24	.27	.32	.34	.45	.47	.55	.60	.85	.94	1.07
±	.010	.010	.010	.010	.015	.015	.015	.015	.020	.020	.020

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

Size	05	10	15	20	25	30	35	40	45	50	55
FT-LB	8	8	17	17	40	58	58	115	115	160	400



Note: Thick washers are only beveled on one face. Thin washers may or may not be beveled on both faces. If thin washers are not beveled on both faces be careful to ensure the beveled face is against the flex element.

**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 when the maximum indicator readings are 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. **IMPORTANT:** To ensure long life re-check alignment after short period (one to two hours) of actual running. At this time also re-torque bolts and nuts to values in Table 2.

**Table 3 - Total Indicator Reading, Maximum; Inches**

Size	05	10	15	20	25	30	35	40	45	50	55
T.I.R.*	.020	.024	.028	.032	.038	.044	.052	.060	.066	.076	.086

\* Equivalent to .50° per flex element. Lower T.I.R. readings will provide better alignment of shafts and longer service life. NOTE: The closer to zero misalignment the better the service that can be expected.

**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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