Form-Flex[®] Semi-Floating Shaft Coupling Type A7, All Sizes, All Classes



Proper care in installing and aligning Form-Flex Semi-Floating Shaft Couplings will permit them to operate to full capacity, provide very good service life, while compensating for angular misalignment.

Installation

- 1. Inspect shafts and hubs and make sure they are free of burrs. Check the keys for proper fit in the hubs and shafts.
- 2. Mount the coupling hub on the equipment shaft so that the hub flange face is flush with the shaft end. If the hub is bored for an interference fit, the hub must be heated in oil or induction heater @ 300°F. and then quickly positioned on the equipment shaft. DO NOT SPOT HEAT, as this may cause distortion to the coupling hub.

 Move the equipment to be connected into position. Mount the pillow block bearing into position. Set the dimension between the hub face and pillow block bearing.
 NOTE: The coupling shaft end must extend sufficiently beyond the bearing to properly support the mating hub. See dimension F.

- 4. Assemble the blade pack to the spacer as shown in Figure 2. Tighten the nuts to the proper torque as indicated in Table 2.
- 5. Slide the spacer shaft into the bearing and install the washers, nuts and bolts to attach the spacer to the hub. Tighten the nuts to the values shown in Table 2 after bringing the equipment into an approximate good alignment.

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|------|------|------|------|------|------|------|------|------|------|------|------|
| 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 | .010 | .015 | .015 | .015 | .020 | .020 | .020 |

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

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 | |



Alignment

- 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.
- 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 a 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 disc. 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.

A 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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