

## Stainless Steel Single-Flex Six Bolt Composite Disc Couplings



### Installation Instructions For Single-Flex Stainless Steel Composite Disc Couplings

#### TOOLS REQUIRED

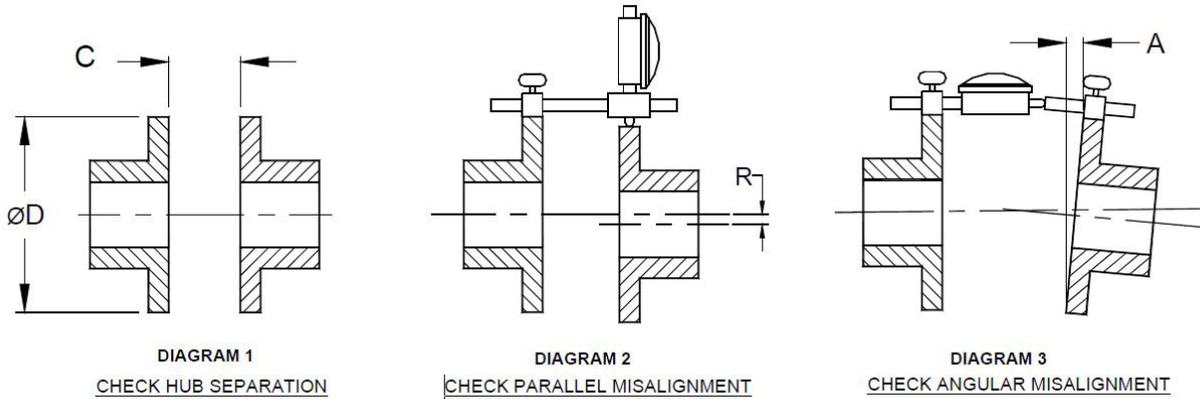
- Calibrated torque wrench with sockets for coupling hex nuts and hub set screws or clamp collar screws
  - Open end wrench for coupling hex bolts
  - Shaft alignment tools
  - Cleaning cloth
  - Caliper
- These instructions are for standard series couplings with normal running conditions. Special couplings may have different instructions or drawings.
  - Inspect hub bores, shafts and keyways making sure there are no burrs. Clean hub bores and shafts. Standard CD coupling clamp and set screw hubs are supplied with slight clearance fit (see catalog). Install hubs on shafts. Place one of the hubs flush with end of shaft. Tighten hub to shaft: If hub is set screw style (Figure 1), see Table 2 on page 2 for proper tightening torque. If installing clamp hub (Figure 2) see assembly details and Table 3 on page 2 for proper procedure and tightening torque.
  - Install the disc pack between the hubs. Three bolts connect the disc pack to each hub (6 bolts total). Insert the bolts thru the 3 holes of the first hub that is tightened to the shaft and tighten the locknuts until the disc pack bushings are seated into the hub counter bores.
  - Adjust hub separation to dimension “C” specified in Table 1 on page 2. The disc pack bushings will need to be seated into the second hub counter bores in order to get the proper “C” dimension. If possible, the shafts should not extend beyond the inside hub face. If the shaft extends past the hub face verify there is enough clearance to install the disc pack and also verify the shaft will not contact the disc pack during operation. Tighten second hub to the shaft.
  - Align the shafts within the limits for parallel and angular misalignment specified in Table 1 on page 2. See diagrams 2 and 3 for recommended measurement and alignment methods. For best alignment results, use a laser alignment tool or dial indicator (always rotate the hub on which the indicator is mounted). If not available, a straight edge and feeler gauge can be used.
- Install the three bolts that connect the disc pack to the second hub. Insert the bolts thru the 3 holes of the second hub and tighten the locknuts until the disc pack bushings are seated into the hub counter bores.
  - Tighten the locknuts per the tightening torque specifications in Table 1 on page 2. Tighten the locknuts of one hub, then those of the other hub to approximately ½ the stated torque value. Next repeat the process but tightening to the full torque value. **It is also recommended to apply torque on the locknut, not the bolt.**
  - Re-check and tighten all fasteners after several hours of operation to ensure proper tightening.

**Note:** Aligning the shafts as closely as possible at the time of initial installation will reduce noise and allow the coupling extra capacity for misalignments and loads which will occur during operation over the life of the connected equipment. Installing and operating the coupling at higher degrees of misalignment are possible (see catalog), but will reduce the life of the composite disc pack. Contact Zero Max with additional questions.

**Note:** Coupling and shaft alignment should be checked periodically due to foundation settling, equipment shifting, etc. Alignment should be re-checked after the first several hours of operation.

**⚠ Caution: Rotating equipment is potentially dangerous and should be properly guarded. It is the responsibility of the machine builder, user, or operator to follow all applicable safety codes and provide a suitable guard. Make sure the machine is “locked out” and cannot be accidentally started during installation or maintenance of coupling.**

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**Table 1: Alignment and Assembly Specifications for Stainless Steel Single-Flex Series 6Axx-SS**

Model	Separation and Misalignments						Tighten Torque (dry values)		Unit	
	C See Diagram 1		R See Diagram 2		A See Diagram 3				Outside Diameter Ø D	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm		
6A30-SS	0.460 ± 0.017	11.68 ± 0.43	0.003	0.08	0.026	0.66	95 in-lb	10.7 Nm	3.00	76.2
6A37-SS	0.522 ± 0.023	13.26 ± 0.58	0.004	0.10	0.033	0.83	230 in-lb	26 Nm	3.75	95.3
6A45-SS	0.582 ± 0.030	14.78 ± 0.76	0.005	0.13	0.039	1.00	38 ft-lb	51 Nm	4.50	114.3
6A52-SS	0.646 ± 0.037	16.41 ± 0.94	0.006	0.15	0.046	1.20	38 ft-lb	51 Nm	5.25	133.4

**Note:** The above misalignment specifications are recommended values for installation. They allow for extra capacity from operation over time. Refer to the catalog for maximum allowable misalignment specifications.

Figure 1

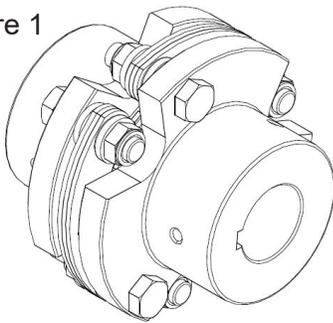


Figure 2

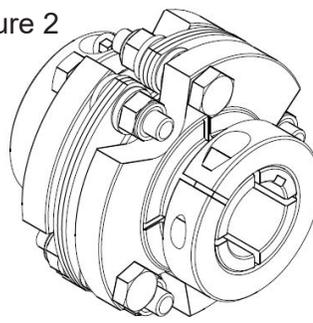
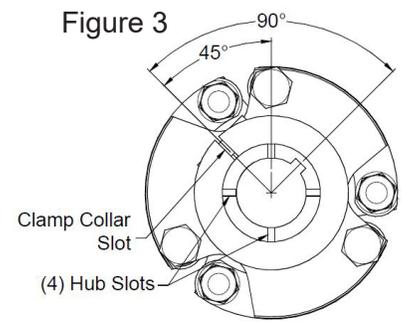


Figure 3



**Table 2: Stainless Steel Set Screw Torque Table**

Screw Size	Wrench Size	Torque (in-lb)	Torque (Nm)
1/4-20 unc	0.125	70	7.9
3/8 - 16 unc	0.188	230	26
1/2 - 13 unc	0.250	500	56
Metric			
M5 x 0.8	2.5mm	28	3.2
M6 x 1.0	3mm	51	5.8
M8 x 1.25	4mm	120	13.6
M10 x 1.50	5mm	230	26

**Table 3: Stainless Steel Clamp Collar Bolt Torque Table**

Screw Size	Wrench Size	Torque (in-lb)	Torque (Nm)
1/4-28 unf	0.188	110	12.4
5/16-24 unf	0.250	195	22
3/8-24 unf	0.312	345	39
Metric			
M6 x 1.0	5mm	85	9.6
M8 x 1.25	6mm	195	22

## Clamp Hub Assembly

Before tightening the clamp collar screw(s), orient the clamp collar slot 90 degrees from the keyway centerline (see Figure 3). If there is no keyway, orient the clamp collar slot 45 degrees from one of the hub slots (see Figure 3). Tighten clamp screw(s) to tightening torque shown on clamp collar.

