



CD® Power-Series Composite Disc Coupling

Installation Instructions For Single-Flex Clamp Hub x Adaptor Mount Couplings

TOOLS REQUIRED

- Calibrated torque wrench
 - Hex socket set
 - 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.
 - When initially mounting the coupling, the misalignment may be one and one half times the maximum permissible misalignment shown in the catalog. Inspect hub bores, shafts, flange, and keyways making sure there are no burrs. Clean hub bores, shafts, and flanges. Standard clamping hub bores are supplied with slight clearance fit (see catalog).
 - Remove screws holding the CD Coupling Mounting Plate to the Adaptor Flange (see illustration 1).
 - Inspect mating equipment flange for any rust, oil, etc. Clean and deburr as needed.
 - Consult mating equipment manufacture's installation guide before installing and tightening fasteners. If mating equipment manufacturer's instructions differ from these instructions, use the mating equipment manufacturer's instructions. Contact Zero-Max if questions.
 - Install CD coupling Adaptor Flange on mating equipment's flange. Flange faces to be flush to each other and bolt holes to be lined up before installing fasteners.
 - Install socket head cap screws hand tightening initially. **Do not apply lubricant to the screw threads.** Tighten fasteners half turn in a continuous "star" or "crisscross" sequence until fasteners reach tightening torque. After each fastener has been tightened to the proper torque, repeat tightening sequence at tightening torque.
 - Install clamp hub onto shaft. It is recommended that the ends of the shaft be flush with the end of each hub. At the minimum the shaft should extend past the hub clamp slot and extend into one third of the hub flange (non-slotted) area. If the shaft extends past the hub face verify there is enough clearance between shaft and disc pack and the shaft (and key, if applicable) will not contact the disc pack during operation. **Do not tighten hub to shaft at this point.**
 - Install CD Coupling Mounting Plate onto Adaptor Flange. Faces should be flush with each other and bolt holes lined up before installing fasteners.
 - Install socket head cap screws hand tightening initially. **Do not apply lubricant to the screw threads.** Tighten fasteners half turn in a continuous "star" or "crisscross" sequence until fasteners reach tightening torque. After each fastener has been tightened to the proper torque, repeat tightening sequence at tightening torque.



Illustration 1

- Adjust hub separation to dimension "C" specified in the Table on page 2. Tighten Clamp Hub to the shaft. See the Table on page 2 for the proper tightening torque.
- NOTE: If Clamp Hub is a Two-Bolt (C2) Split Clamp Hub, hand-tighten both bolts initially making sure the gap is even on both sides of the shaft. **Do not apply lubricant to the screw threads.** Next, tighten fasteners half turn in a continuous sequence until fasteners reach tightening torque. After each fastener has been tightened to the proper torque, repeat tightening sequence at tightening torque.
- Align the shaft and flange within the limits for axial, parallel, and angular misalignment specified on the Table on page 2. For best alignment results, use a laser alignment tool or dial indicator. If not available, a straight edge and feeler gauges can be used.

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 coupling at higher degrees of misalignment is possible (see catalog ratings), but will generally reduce the life of the composite disc pack.

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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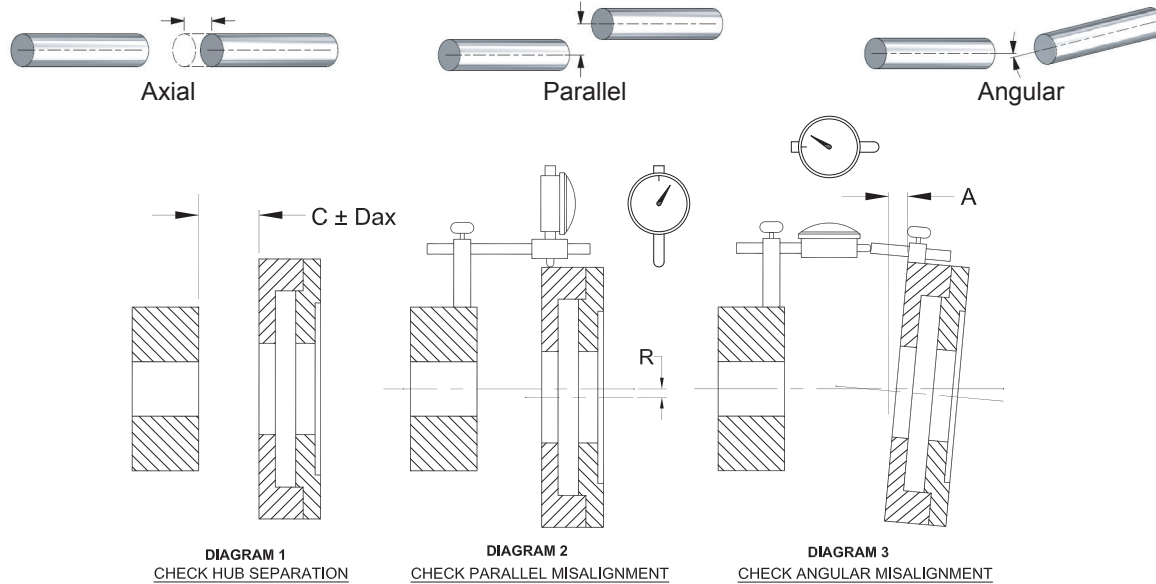


Table 1: Alignment and Assembly Specifications for Single-Flex Clamp Hub x Adaptor Mount

Model	C±X Axial Separation and Misalignment	R Parallel Misalignment	A Angular Misalignment		Clamp Hub Socket Head Cap Screw C1 Hub = 1 Fastener C2 Hub = 2 Fasteners		Disc Pack Socket Head Cap Screw		ISO Flange Model	CD Mounting Plate to Adaptor Plate Socket Head Cap Screw		Adaptor Plate to Mating Equipment Flange Socket Head Cap Screw (See note 1)	
	Inch (mm)	Inch (mm)	Inch (mm)	Angle (degrees)	Wrench Size	Tightening Torque	Wrench Size	Tightening Torque		Wrench Size	Tightening Torque	Wrench Size	Tightening Torque
8A55	0.321 ± 0.003 (8.15 ± 0.075)	0.0002 (0.0051)	0.005 (0.13)	0.125	5 mm	140 in lbs (16 Nm)	2.5 mm	13 in lb (148 Ncm)	AM31	2.5 mm	16 in lb (180 Ncm)	4 mm	90 in lb (11.2 Nm)
8A67	0.351 ± 0.004 (8.91 ± 0.10)	0.0002 (0.0051)	0.006 (0.15)	0.125	6 mm	190 in lbs (21 Nm)	3 mm	28 in lb (320 Ncm)	AM50	4 mm	80 in lb (9 Nm)	5 mm	150 in lb (19.3 Nm)
12A85	0.281 ± .003 (7.14 ± 0.075)	0.0003 (0.0076)	0.005 (0.13)	0.084	6 mm	30 ft lbs (41 Nm)	4 mm	59 in lb (7 Nm)	AM63	5 mm	140 in lbs (16 Nm)	5 mm	150 in lb (19.3 Nm)
12A105	0.426 ± .004 (10.82 ± 0.10)	0.0004 (0.008)	0.006 (0.15)	0.084	8 mm	60 ft lbs (81 Nm)	5 mm	119 in lb (13 Nm)	AM80	6 mm	325 in lb (36 Nm)	6 mm	30 ft lb (46 Nm)
12A140	0.486 ± 0.005 (12.34 ± .13)	0.0005 (0.013)	0.008 (0.20)	0.084	12 mm	145 ft lbs (197 Nm)	6 mm	298 in lb (34 Nm)	AM125	6 mm	325 in lb (36 Nm)	8 mm	60 ft lb (93 Nm)
12A165	0.584 ± 0.006 (14.84 ± 0.15)	0.0006 (0.015)	0.010 (0.25)	0.084	14 mm	240 ft lbs (325 Nm)	8 mm	48 ft lb (65 Nm)	AM140	12 mm	150 ft lb (203 Nm)	14 mm	260 ft lb (395 Nm)
12A190	0.706 ± 0.007 (17.93 ± 0.18)	0.0008 (0.020)	0.011 (0.28)	0.084	14 mm	300 ft lbs (407 Nm)	10 mm	78 ft lb (105 Nm)	AM160	14 mm	230 ft lb (312 Nm)	17 mm	510 ft lb (773 Nm)

1: Tightening torques for screws in accordance with DIN 13-1 (coefficient of friction = 0.14)

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.

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