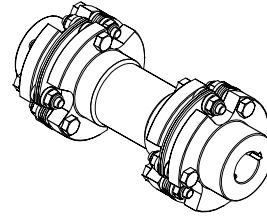


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## Installation Instructions for 6F / 6S Composite Disc Couplings

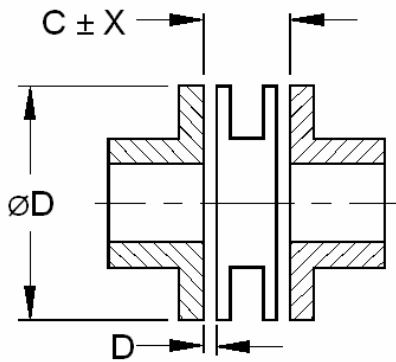
1. Clean hub bores and shafts. Remove any nicks or burrs. The key (if used) should have a snug side to side fit with a small clearance on top. Install the key(s) on the shafts. Mount the coupling hubs on the shafts.
2. The equipment must sit flat on its base and be properly mounted before aligning shafts. Adjust hub axial spacing to proper C dimension **Note:  $C=(2*D)+\text{center member length}$** . If possible, the shafts should not extend beyond the inside hub face. Move the center member between the hub ends and support with blocks or a nylon strap. Install the disc pack between the one of the hub. Three bolts connect the disc pack to the hub and center member (6 bolts total). Insert the bolts thru the holes of hub/center member and tighten snugly. (do not torque bolts). Repeat procedure for other end. As a guide the disc pack width D dimension should be with tolerance shown in Table 1. This dimension is suggested for initial installation and has additional capacity for thermal and structural movement. The axial spacing of the shaft should be positioned so that the disc packs are flat and parallel to the mating surfaces under normal operation conditions. There should be a minimal amount of waviness in the disc pack when viewed from the side.
3. After adjusting axial spacing to proper dimensions tighten hubs to shafts (See Tables 3 and 4 on page 3 for proper tightening torque).
4. Laser alignment is an option. Dial indicator method is shown.
5. Align the shafts to the specifications for angular misalignment specified in Table 2. Multiple number in table by the hub diameter to get angular misalignment specification. See diagrams 2 for recommended measurement method using a dial indicator to read the face of the other hub. Rotate the hub shafts together making sure the axial spacing remains constant. Adjust equipment by shimming and/or moving. Repeat procedure for until coupling is aligned. 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.
6. Align the shafts to the specifications for parallel misalignment specified in Table 2. Multiple number in table by the DBSE (C dim) to get parallel misalignment specification. See diagram 3 for recommended measurement method using a dial indicator to read the outside diameter of the other hub. Rotate the hub shafts together making sure the axial spacing remains constant. Adjust equipment by shimming and/or moving. Repeat procedure for until coupling is aligned to specifications. 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.
7. Tighten the locknuts per tightening torque specifications (Table 1). Tighten the locknuts of hub first, then those of the center member to approximately  $\frac{1}{2}$  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. Repeat procedure for the other end of coupling. 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 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 is possible (see catalog ratings), but will generally reduce the life of the flex disc pack.

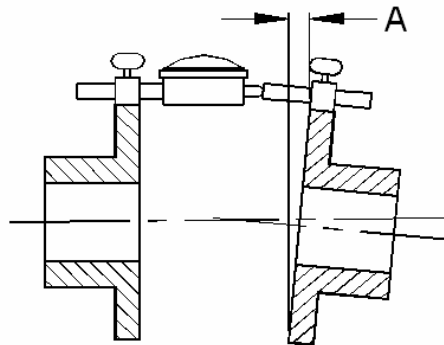
**\*NOTE:** Rotating equipment is potentially dangerous and should be properly guarded. The user is responsible for compliance with all applicable safety codes and proper guarding.

# ////// ZERO-MAX

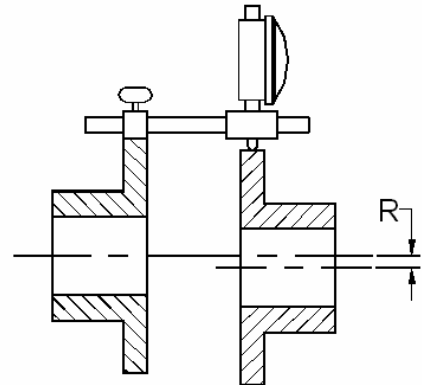
MOTION CONTROL PRODUCTS



**DIAGRAM 1**  
CHECK HUB SEPARATION



**DIAGRAM 2**  
CHECK ANGULAR MISALIGNMENT



**DIAGRAM 3**  
CHECK PARALLEL MISALIGNMENT

**Table 1**  
Axial Spacing, Tightening Torque and dimension Specifications

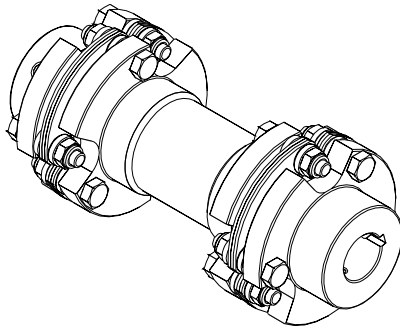
Model	Axial Spacing Specifications		Tightening Torque (Dry values)		Outside Diameter	
	D See Diagram 1				Ø D	
	Inch	mm	Inch	mm		
6F18/6S18	0.276±0.010	7.01±0.25	17-19 in lb	205 Ncm	1.85	47.0
6F22/6S22	0.306±0.012	7.77±0.30	45-50 in lb	540 Ncm	2.25	57.2
6F26/6S26	0.306±0.015	7.77±0.38	45-50 in lb	540 Ncm	2.59	65.9
6F30/6S30	0.460±0.017	11.68±0.43	90-95 in lb	10.5 Nm	3.00	76.2
6F37/6S37	0.522±0.023	13.26±0.58	225-235 in lb	26 Nm	3.75	95.3
6F45/6S45	0.582±0.030	14.78±0.76	36-38 ft lb	51 Nm	4.50	114.3
6F52/6S52	0.646±0.037	16.41±0.94	36-38 ft lb	51 Nm	5.25	133.4
6F60/6S60	0.768±0.043	19.51±1.09	64-68 ft lb	89 Nm	6.00	152.4
6F67/6S67	0.860±0.050	21.84±1.27	64-68 ft lb	89 Nm	6.75	171.5
6S77	1.012±0.053	25.70±1.35	155-160 ft lb	215 Nm	7.75	196.9
6S90	1.134±0.060	28.80±1.52	305-315 ft lb	420 Nm	9.00	228.6
6S105	1.446±0.070	36.73±1.78	530-540 ft lb	725 Nm	10.50	266.7
6S120	1.536±0.083	39.01±2.11	530-540 ft lb	725 Nm	12	304.8

**Table 2**  
Angular and Parallel Misalignment at Installation Specifications

Rpm Range	Angular Misalignment (per inch of hub diameter)			Parallel Misalignment (per inch of "C" dimension)		
	C= up to 30" (759mm)	C= 30" up to 60" (760mm to 1524mm)	C > 60" (1,525mm)	C= up to 30" (759mm)	C= 30" up to 60" (760mm to 1524mm)	C > 60" (1,525mm)
0-500	0.016	0.014	0.011	0.017	0.014	0.011
500-1,000	0.014	0.011	0.008	0.014	0.011	0.008
1,000-1,500	0.011	0.008	0.006	0.011	0.008	0.005
1,500 +	0.006	0.005	0.003	0.005	0.004	0.003

# ////// **ZERO-MAX**

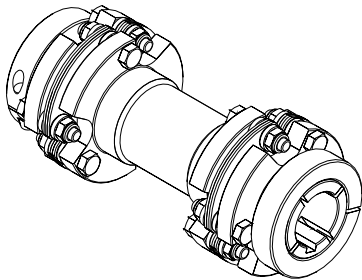
MOTION CONTROL PRODUCTS



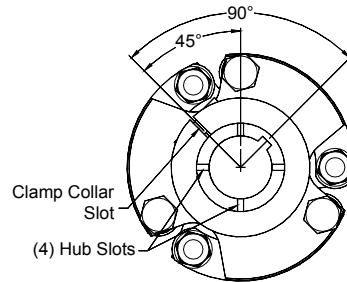
**Fig. 1**  
Set Screw Style Hub

**Table 3**  
Set Screw Torque Table

Screw Size	Hex Size	Torque (in lb)	Torque (Nm)
#10-32unf	0.094	36	4.1
1/4-20unc	0.125	87	9.8
3/8-16unc	0.188	290	33
1/2-13unc	0.250	620	70
3/4-10unc	0.375	2400	271
1"-8unc	0.563	5000	564
<b>Metric</b>			
M5 x 0.8	2.5mm	35	4.0
M6 x 1.0	3mm	64	7.2
M8 x 1.25	4mm	150	17
M10 x 1.50	5mm	290	33
M12 x 1.75	6mm	480	54
M20 x 2.50	10mm	2100	237
M24 x 3.00	12mm	3860	440



**Fig. 2**  
Clamp Style Hub



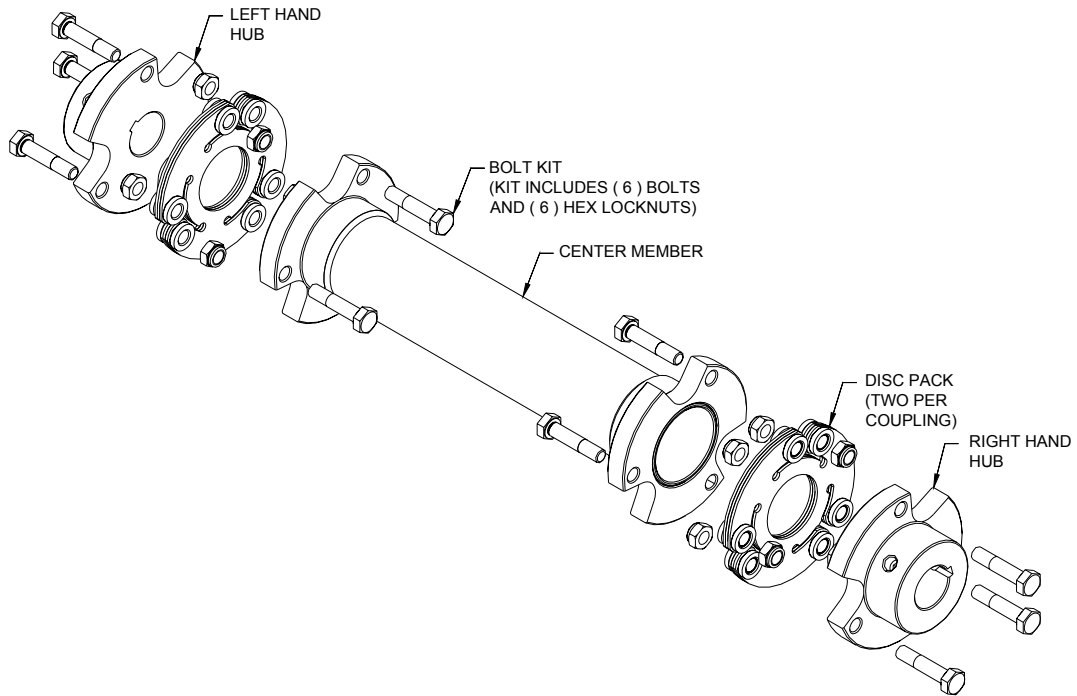
**Fig. 3**  
Clamp Slot Location

**Table 4**  
Clamp Collar Bolt Torque Table

Clamp bolt Size	Hex Size	Torque (in lb)	Torque (Nm)
1/4-28unf	0.188	170	19
5/16-24unf	0.250	325	37
3/8-24unf	0.312	570	64
1/2-20unf	0.375	1370	155
<b>Metric</b>			
M6 x 1.0	5mm	141	16
M8 x 1.25	6mm	345	39
M10 x 1.50	8mm	680	77

## **Clamp Hub Assembly**

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



**Fig. 5**

**Table 4**  
**Replacement Parts**

Model	Disc Pack		Bolt Kit	
	Qty	Part No	Qty	Part No
6F18/6S18	2	A018002	2	A018100
6F22/6S22	2	A022000	2	A022100
6F26/6S26	2	A026000	2	A026100
6F30/6S30	2	A030000	2	A030100
6F37/6S37	2	A037000	2	A037100
6F45/6S45	2	A045000	2	A045100
6F52/6S52	2	A052000	2	A052101
6F60/6S60	2	A060000	2	A060100
6F67/6S67	2	A067000	2	A067100
6S77	2	A077000	2	A077100
6S90	2	A090000	2	A090100
6S105	2	A105000	2	A105100
6S120	2	A120000	2	A120100