

## Sure-Flex® Couplings Installation Instructions



Sure-Flex flanges (outer metallic parts) and sleeves (inner elastomeric members) come in many sizes and types. First, determine the size and type of components being used. Remove all components from their boxes, and loosely assemble the coupling on any convenient surface. (Do not attempt to install the wire ring on the two-piece E or N sleeve at this time.) Also check maximum RPM values in Table 2 against operating speed. All rubber sleeves (EPDM and Neoprene) have the same ratings for a given size and may be used interchangeably. However, because rubber and Hytrel sleeves have completely different ratings, they never should be used interchangeably.



Inspect all coupling components and remove any protective coatings or lubricants from bores, mating surfaces and fasteners. Remove any existing burrs, etc. from the shafts.

2 Slide one coupling flange onto each shaft, using snug-fitting keys where required. With

the Type B flange, it may be necessary to expand the bore by wedging a screwdriver into the saw cut of the bushing.

**3** Position the flanges on the shafts to approximately achieve the G<sub>1</sub> dimension shown in Table 2. It is usually best to have an equal length of shaft extending into each flange. Tighten one flange in its final position. Refer to Table 1 for fastener torque values. Slide the other far enough away to install the sleeve. With a two-piece sleeve, do not move the wire ring to its final position; allow it to hang loosely in the groove adjacent to the teeth, as shown.





4 Slide the loose flange on the shaft until the sleeve is completely seated in the teeth of each flange, (The "G1" dimension is for reference and not critical.) Secure the flange to the shaft using the torque values from Table 1.

TABLE 1 - FASTENER TORQUE VALUES (ft.-ibs.)

TABLE 1 — FASTENER TORQUE VALUES (ITIDS.)										
	TYPE J	TYPE S	TYPE B	TYPE SC*		TYPE C				
Coupling Size	2 Setscrews at 90°	2 Setscrews at 90°	3 Hex Head Cap Screws	4 Hex Head Cap Screws Flange to Hub	1 Setscrew over Keyway in Hub	Clamping Screws	1 Setscrew over Keyway			
3	3									
4	3			51/2**	13					
5	7	13		4	13		(1			
6	13	13	5	9	13	15	13			
7	13	13	5	9	13	- 30	13			
8	23	23	9	18	23 23	55	13			
9		23	9	31	23	55	13			
10		23	15	50	50	130	13			
11		23	30	75	50	130	13			
12		50	60	150	100	250	13			
13		100	75	150	165					
14		100	75	150	165					
16	more of the designation	100	135	150	165					

<sup>&</sup>quot;Torque values apply to hub size when different than flange size.
""Value for socket head clamping screw.

## Sure-Flex Installation Instructions (continued)

Different coupling sleeves require different degrees of alignment precision. Locate the alignment values for your sleeve size and type in Table 2 below.

5 Check parallel alignment by placing a straightedge across the two coupling flanges and measuring the maximum offset at various points around the periphery of the coupling without rotating the coupling. If the maximum offset exceeds the figure shown under "Parallel" in Table 2, realign the shafts.



Check angular alignment with a micrometer or caliper. Measure from the outside of one flange to the outside of the other at intervals around the periphery of the coupling. Determine the maximum and minimum dimensions without rotating the coupling. The difference between the maximum and minimum must not exceed the figure given under "Angular" in Table 2. If a correction is necessary, be sure to recheck the parallel alignment.

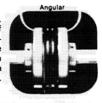


TABLE 2 - MAXIMUM RPM AND ALLOWABLE MISALIGNMENT (Dimensions in Inches)										
Sleeve Size	Maximum RPM	Types JE, JN, JES, JNS, E & N			*Type H & HS					
		Parallel	Angular	G <sub>1</sub>	Parallel	Angular	G <sub>1</sub>			
3 4 5 6 7 8 9 10 11 12 13 14 16	9200 7600 7600 6000 5250 4500 3750 3600 3600 2800 2400 2200	.010 .010 .015 .015 .020 .020 .025 .025 .032 .032 .040 .045	.035 .043 .056 .070 .081 .094 .109 .128 .151 .175 .195 .242 .330	1.188 1.500 1.938 2.375(1) 2.563 2.938 3.500 4.063 4.875 5.688 6.625 7.750 10.250	 .010 .012 .015 .017 .020 .022 .025 .030		2.375 2.563 2.938 3.500 4.063 4.875 5.688 6.625 7.750			

Note: Values shown above apply if the actual torque transmitted is more than 1/4 the coupling rating. For lesser torque, reduce the above values by 1/2.

7 If the coupling employs the two-piece sleeve with the wire ring, force the ring into its groove in the center of the sleeve. It may be necessary to pry the ring into position with a blunt screwdriver.

8 Install coupling guards per OSHA requirements.

CAUTION: Coupling sleeves may be thrown from the coupling assembly with substantial force when the coupling is subjected to a severe shock load or abuse.

<sup>\*</sup> Type H and HS sleeves should not be used as direct replacements for EPDM or Neoprene sleeves.

<sup>(1)</sup> Value when using 6J flanges is 2.125.