
SURE-FLEX®

ELASTOMERIC

COUPLINGS


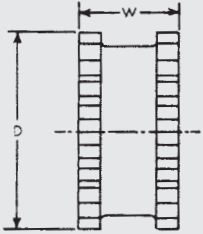


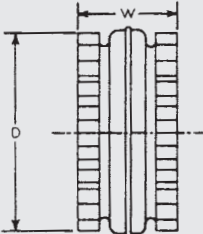


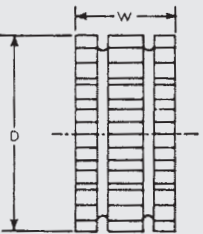
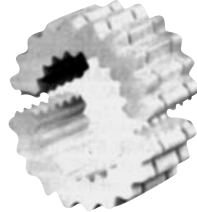
- **Need No Lubrication, No Maintenance**
- **Quick, Easy Installation**
- **Clean, Quiet Performance**



SURE-FLEX SLEEVE SELECTION



Flexible sleeves for Wood's Sure-Flex couplings are available in four materials (EPDM Neoprene, Hytrel and Urethane) and in three basic constructions. Characteristics of the materials are given on page F1—4 and the various types are shown and described here.

 <p>JE, JN</p>		 <p>Types JES, JNS</p>	<p>JE-JES-JN-JNS</p> <p>J sleeves are molded EPDM rubber (E) or Neoprene (N). They are available in one-piece solid construction (JE, JN) or one-piece split construction (JES, JNS). These sleeves may be used in any Sure-Flex flange within a given size.</p>
 <p>E and N (Assembled)</p>		 <p>Types E and N (Disassembled)</p>	<p>E-N</p> <p>These sleeves are of two-piece design with a retaining ring. They are available in either EPDM (E) or Neoprene (N). They may be used with any flange within a given size. Sleeves are shown here assembled and disassembled.</p>
 <p>H or U</p>		 <p>HS</p>	<p>H-HS-U</p> <p>H (Hytrel) and U (Urethane) sleeves, designed for high-torque applications, transmit four times as much power as an equivalent EPDM or Neoprene sleeve. Available in one-piece solid construction (H or U) or two-piece split construction (HS), these can be used only with S, C and SC flanges. They cannot be used with J or B flanges or as direct replacements for EPDM or Neoprene sleeves.</p>

DIMENSIONS (in.)

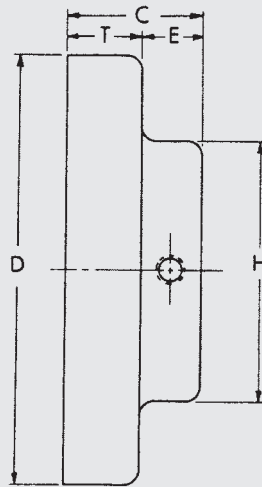
Coupling Size	JE, JES, JN & JNS Sleeves EPDM & Neoprene			E and N Sleeves EPDM & Neoprene			H, U & HS Sleeves Hytrel & Urethane		
	D	W	Wt. (lbs.)	D	W	Wt. (lbs.)	D	W	Wt. (lbs.)
3	1 7/8	1	.06	...	...	...	...	...	...
4	2 5/16	1 1/4	.10	2 5/16	1 1/4	.11	...	...	...
5	2 15/16	1 9/16	.20	2 15/16	1 9/16	.25	...	...	...
6	3 3/4	1 7/8	.40	3 3/4	1 7/8	.49	3 3/4	1 7/8	.44
7	4 11/32	2 3/16	.62	4 11/32	2 3/16	.77	4 11/32	2 3/16	.69
8	5 1/16	2 1/2	1.13	5 1/16	2 1/2	1.4	5 1/16	2 1/2	1.4
9*	6	3	1.46	6	3	2.0	6	3	1.8
10*	7 1/16	3 7/16	2.32	7 1/16	3 7/16	3.2	7 1/16	3 7/16	2.9
11	...	...	...	8 3/16	4	5.1	8 3/16	4	4.5
12	...	...	...	9 9/16	4 11/16	8.1	9 9/16	4 11/16	7.3
13	...	...	...	11 3/16	5 1/2	13.0	11 3/16	5 1/2	11.8
14	...	...	...	13 3/32	6 1/2	21.1	13 3/32	6 1/2	19.3
16	...	...	...	17 29/32	8 3/4	45.3	...	...	...

The 13 and 14 Hytrel available with HS sleeves only.

*All 9J and 10J sleeves available in EPDM only.

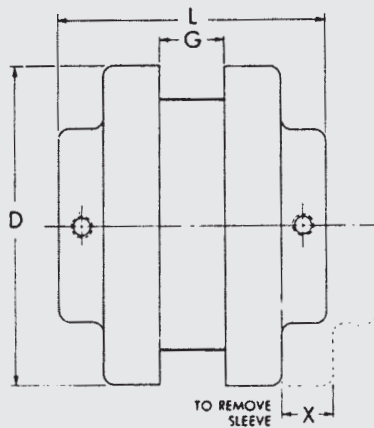
Only sizes available in Urethane.

TYPE J SURE-FLEX BTS – FOR CLOSE COUPLED APPLICATIONS



FLANGES

Type J flanges size 3 and 4 are manufactured of sintered carbon steel. The powdered metal manufacturing process provides high dimensional accuracy and uniform material properties for high strength. Size 5 and 6 are made of high strength cast iron. All flanges are bored-to-size for a slip fit on standard shafts. The outside diameter of the flange is machined so the surface can be used to check alignment without a special tool. Type J flanges can be used with sleeves of any construction except the Hytrel. Each flange has a keyseat and one (1) setscrew over the keyway.



COUPLINGS

Type J Sure-Flex Couplings are bored-to-size. Normally, they employ the one-piece JE sleeve, or the one-piece JES sleeve with saw cut to permit replacement where there is insufficient gap between shafts.

Spacing between internal flange hubs equals G. Spacing between shafts should be greater than 1/8 in. and less than L minus .85 times the sum of the two bore diameters.

To order complete couplings, specify coupling size with flange symbol (J) giving bore and keyseat. Refer to page F1-3 to order the required coupling.

DIMENSIONS (in.)

Product No.	Dimensions								Wt. (lbs.)	STOCK BORES*																					
										(Inches)																					
	C	D	E	G	H	L	T	X		3/8	1/2	5/8	3/4	7/8	15/16	1	1-1/8	1-3/16	1-1/4	1-3/8	Max Bore	9	11	12	14	15	16	19	20	24	25
3J	51/64	2.062	13/32	3/8	1-1/2	1-31/32	25/64	5/8	0.3	X	X	X	X	X							7/8	...	X	X	X	X	X	X			
4J	55/64	2.500	27/64	5/8	1-5/8	2-11/32	7/16	5/8	0.4		X	X	X	X	X	X					1	...	...	...	X	X	X	X	X	X	X
5J	1-3/64	3.250	29/64	3/4	1-7/8	2-27/32	19/32	59/64	0.9		X	X	X	X	X	X	X				1-1/8	...	...	...	...	...	...	...	...	...	...
6J	1-5/16	4.000	9/16	7/8	2-1/2	3-1/2	3/4	1-3/32	1.2			X	X	X	X	X	X	X	X	X	1-3/8	...	...	...	...	...	...	...	...	...	...

*We do not recommend reboring the 3J and 4J Flanges. See page F1-13 for standard keyseat dimensions & F1-10 for bore tolerances.

■ Approximate weight for each flange.

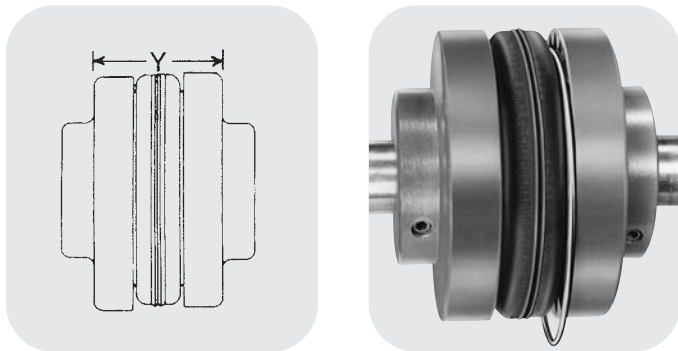
Installation Instructions

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 the table 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.

1 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. When using Type B flanges, follow the instructions furnished with the Sure-Grip bushing.

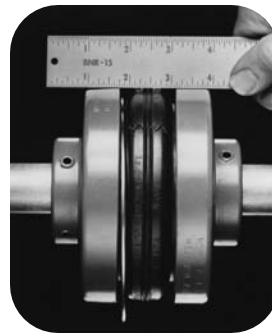
3 Position the flanges on the shafts to approximately achieve the Y dimension shown in the table. It is usually best to have an equal length of shaft extending into each flange. Move one flange to its final position. Torque fasteners to proper values. Slide the other flange far enough away to install 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.



4 Slide the loose flange on the shaft until the sleeve is completely seated in the teeth of each flange. (The “Y” dimension is for reference and not critical.) Secure the flange to the shaft. Different coupling sleeves require different degrees of alignment precision. Locate the alignment values for your sleeve size and type in the table.

5 Check parallel alignment by placing a straight-edge 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 the table, realign the shafts.

6 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 the table. If a correction is necessary, be sure to recheck the parallel alignment.



Parallel



Angular

MAXIMUM RPM AND ALLOWABLE MISALIGNMENT

(Dimensions in inches)

Sleeve Size	Maximum RPM	Types JE, JN, JES, JNS, E & N			*Type H & HS		
		Parallel	Angular	Y	Parallel	Angular	Y
3	9200	.010	.035	1.188	...	...	...
4	7600	.010	.043	1.500	...	...	...
5	7600	.015	.056	1.938	...	...	...
6	6000	.015	.070	2.375	.010	.016	2.375
7	5250	.020	.081	2.563	.012	.020	2.563
8	4500	.020	.094	2.938	.015	.025	2.938
9	3750	.025	.109	3.500	.017	.028	3.500
10	3600	.025	.128	4.063	.020	.032	4.063
11	3600	.032	.151	4.875	.022	.037	4.875
12	2800	.032	.175	4.688	.025	.042	5.688
13	2400	.040	.195	6.688	.030	.050	6.625
14	2200	.045	.242	7.750	.035	.060	7.750
16	1500	.062	.330	10.250	...	...	...

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.

*Type H and HS sleeves **should not** be used as direct replacements for EPDM or Neoprene sleeves.

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.