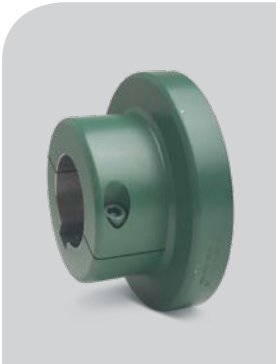
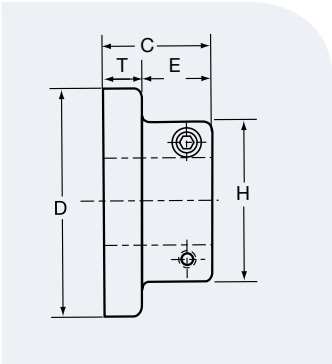
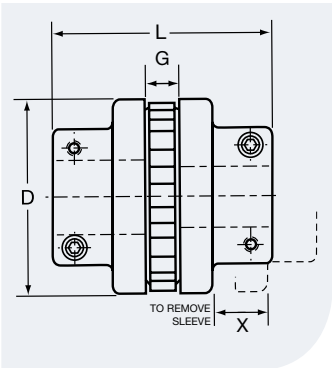
Selection Dimensions

CLAMP HUB – SPACER DESIGN







FLANGES

Sure-Flex Plus® Type C Clamp Hub flanges employ integral locking collars and screws to assure a secure shaft connection without marring the shaft surface. One setscrew is furnished over the key. The clamp hub flange is often used in applications that require easy seal replacement on equipment using face seals, as the clamp hub eliminates the need for a second set screw at 90 degrees from the key.

COUPLINGS

Type C Clamp Hub Couplings can use all sleeve types shown on page F1-5. Type C couplings may often be used where spacer couplings are required.

Spacing between internal flange hubs equals G.

To order complete couplings, specify coupling size with flange symbol (C), giving bore required. Refer to page F1–3 to order the required coupling.

DIMENSIONS (in.)

Flange Size	Stock Bores	Min Bore	Maximum Bore		Distance Between Shafts		Dimensions							Weight (lbs.)*
			Standard Keyseat	Shallow Keyseat	Min	Max	C	D	E	G	H	L	X	
6C	1-1/8, 1-7/8, 40mm	7/8	1-5/8	1-7/8	2	2 -3/4	1-15/16	4.000	1.16	7/8	3	4-3/4	1	2.6
7C	1-3/8, 1-7/8, 35mm, 40mm	1-1/8	1-7/8		2-5/16	3-7/16	2-3/16	4.625	1.41	1-1/16	3-1/4	5-7/16	1-3/16	3.6
8C	1-3/8, 1-5/8, 1-3/4, 1-7/8, 2-1/8, 2 -1/4, 2-3/8, 40mm	1-3/8	2-1/ 4	2-3/8	2-9/16	4	2-1/2	5.450	1.59	1-1/8	3-7/8	6-1/ 8	1-3/8	6.5
9C	1-5/8, 1-3/4, 1-7/8, 2, 2-1/8, 2-1/4, 2-3/8, 2-1/2	1-5/8	2-1/2	2-11/16	3-1/16	4-5/8	3	6.350	1.97	1-7/16	4-1/4	7-7/16	1-9/16	9.8
10C	1-5/8, 1-7/8, 2-1/4, 2-3/8, 2-1/2	1-5/8	2-7/8		3-9/16	5-1/4	3-1/2	7.500	2.28	1-11 /16	5	8-11/16	1-13/16	16.6
11C	2-1/8, 2-3/8, 2-1/2	1-7/8	3-3/8		4-1/8	5-7/8	4	8.625	2.5	1-7/8	5-3/8	9-7/ 8	2-1/8	26.0
12C	2-1/8	1-7/8	3-3/8		4-7/8	6-1/2	4-3/8	10.000	2.69	2-3/8	6	11-1/8	2-3/8	38.3

For Standard keyseat dimensions, see chart page F1—13. * Approximate weight of one flange.

Bore Tolerances for Type C Flanges

These bores provide a slip fit.

Bore (in.)	Tolerance (in.)
Up to and including 2”	+.0005 to +.0015
Over 2”	+.0005 to +.0020

Shallow Keyseat Dimensions

Some large bore Type C flanges are supplied with shallow keyseats. In these cases, a rectangular key is furnished. The flanges and bores involved are as follows:

Size	Bore Range	KS	Key Furnished
6C	1- 11 /16 to 1 -7/8	1/2 X 1/16	1/2 x 5/16 x 1-7/8
8C	2-5/16 to 2 -3/8	5/8 x 1/16	5/8 x 3/8 x 2-1/ 2
9C	2-7/16 to 2-11/16	5/8 x 3/16	5/8 x 1/2 x 3

Sure-Flex Plus® Couplings

Installation Instructions

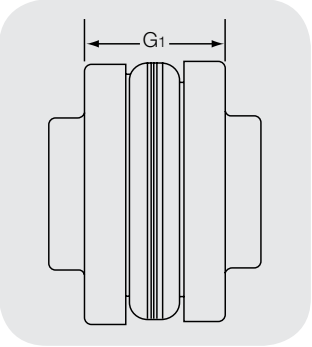
Installation Instructions

Sure-Flex Plus flanges (outer metallic parts) and sleeves (inner elastomeric elements) come in many sizes and types. First, determine the size and type of components being used. Check maximum RPM values in the table below against operating speed. Remove all components from their boxes, and loosely assemble the coupling on any convenient surface. ((If using a two-piece E or N sleeve, do not install the wire ring at this time.)

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 keys where required. When using Type B flanges, follow the instructions furnished with the Sure-Grip bushings.

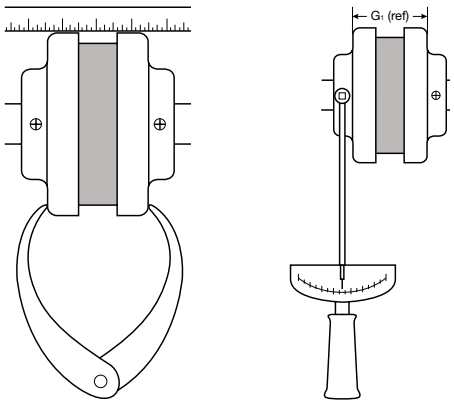
3 Position the flanges on the shafts to approximately achieve the G_1 dimension shown in the table. It is usually best to have an equal length of shaft extending into each flange. Move one flange to its final position. Torque fasteners to proper values. Slide the other flange far enough away to install 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 "G_1" 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 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.



MAXIMUM RPM AND ALLOWABLE MISALIGNMENT
(Dimensions in inches)

Sleeve Size	Maximum RPM	G_1(ref)	Types JE, JN, JES, JNS, E & N		*Type H, HS, Urethane	
			Parallel	Angular	Parallel	Angular
3	9200	1.2	.010	.035		
4	7600	1.5	.010	.043		
5	7600	1.9	.015	.056		
6	6000	2.4	.015	.070	.010	.016
7	5250	2.6	.020	.081	.012	.020
8	4500	2.9	.020	.094	.015	.025
9	3750	3.5	.025	.109	.017	.028
10	3600	4.1	.025	.128	.020	.032
11	3600	4.9	.032	.151	.022	.037
12	2800	5.7	.032	.175	.025	.042
13	2400	6.7	.040	.195	.030	.050
14	2200	7.8	.045	.242	.035	.060
16	1500	10.3	.062	.330		

Note: When using a VFD with a centrifugal pump or fan, reduce the above values by 1/2.

***Type H and HS sleeves should never be used as direct replacements for EPDM or Neoprene sleeves.**

7 If the coupling employs the two-piece sleeve with wire ring, move the ring into its groove in the center of the sleeve. If necessary, use soapy water and lever the ring with a blunt tool.

8 Install coupling guards per OSHA requirements.

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