

#### Coupling Type EB (Exposed Bolts) Part Numbers

Coupling Size	Full Flex Coupling			Fastener Set (Includes Gasket)		Sleeve		Flex Hub		
	No Bore Part No.	Wt.	Finish Bore <sup>①</sup> Part No.	Part No.	Wt.	Part No.	Wt.	No Bore Part No.	Wt.	Finish Bore <sup>①</sup> Part No.
1	1H EB FF	10	1H EB FF FB	1 EB FS	1	1H EB SLEEVE	2	1H FHUB	3	1H FHUB
1 1/2	1 1/2H EB FF	19	1 1/2H EB FF FB	1 1/2 EB FS	1	1 1/2H EB SLEEVE	6	1 1/2H FHUB	3	1 1/2H FHUB FB
2	2H EB FF	30	2H EB FF FB	2 EB FS	1	2H EB SLEEVE	8	2H FHUB	7	2H FHUB FB
2 1/2	2 1/2H EB FF	52	2 1/2H EB FF FB	2 1/2 EB FS	2	2 1/2H EB SLEEVE	14	2 1/2H FHUB	12	2 1/2H FHUB FB
3	3H EB FF	76	3H EB FF FB	3 EB FS	3	3H EB SLEEVE	17	3H FHUB	20	3H FHUB FB
3 1/2	3 1/2H EB FF	117	3 1/2H EB FF FB	3 1/2 EB FS	5	3 1/2H EB SLEEVE	28	3 1/2H FHUB	28	3 1/2H FHUB FB
4	4H EB FF	180	4H EB FF FB	4 EB FS	5	4H EB SLEEVE	41	4H FHUB	47	4H FHUB FB
4 1/2	4 1/2H EB FF	244	4 1/2H EB FF FB	4 1/2 EB FS	7	4 1/2H EB SLEEVE	53	4 1/2H FHUB	66	4 1/2H FHUB FB
5	5H EB FF	361	5H EB FF FB	5 EB FS	9	5H EB SLEEVE	80	5H FHUB	96	5H FHUB FB
5 1/2	5 1/2H EB FF	422	5 1/2H EB FF FB	5 1/2 EB FS	14	5 1/2H EB SLEEVE	89	5 1/2H FHUB	115	5 1/2H FHUB
6	6H EB FF	494	6H EB FF FB	6 EB FS	14	6H EB SLEEVE	100	6H FHUB	140	6H FHUB
7	7H EB FF	822	7H EB FF FB	7 EB FS	22	7H EB SLEEVE	160	7H FHUB	240	7H FHUB

① All finish bores and keyways per AGMA/ANSI 9112 commercial standard tolerances with interference fit bores. Clearance fit bores are available on request and include one setscrew over keyway.

#### Coupling Type SB (Shrouded Bolts) Part Numbers

Coupling Size	Full Flex Coupling			Fastener Set (Includes Gasket)		Sleeve		Flex Hub		
	No Bore Part No.	Wt.	Finish Bore <sup>①</sup> Part No.	Part No.	Wt.	Part No.	Wt.	No Bore Part No.	Wt.	Finish Bore <sup>①</sup> Part No.
1	1H SB FF	10	1H SB FF FB	1 SB FS	1	1H SB SLEEVE	2	1H FHUB	3	1H FHUB FB
1 1/2	1 1/2H SB FF	19	1 1/2H SB FF FB	1 1/2 SB FS	1	1 1/2H SB SLEEVE	6	1 1/2H FHUB	3	1 1/2H FHUB FB
2	2H SB FF	30	2H SB FF FB	2 SB FS	1	2H SB SLEEVE	8	2H FHUB	7	2H FHUB FB
2 1/2	2 1/2H SB FF	52	2 1/2H SB FF FB	2 1/2 SB FS	2	2 1/2H SB SLEEVE	13	2 1/2H FHUB	12	2 1/2H FHUB FB
3	3H SB FF	76	3H SB FF FB	3 SB FS	2	3H SB SLEEVE	15	3H FHUB	20	3H FHUB FB
3 1/2	3 1/2H SB FF	117	3 1/2H SB FF FB	3 1/2 SB FS	4	3 1/2H SB SLEEVE	26	3 1/2H FHUB	28	3 1/2H FHUB FB
4	4H SB FF	180	4H SB FF FB	4 SB FS	4	4H SB SLEEVE	37	4H FHUB	47	4H FHUB FB
4 1/2	4 1/2H SB FF	244	4 1/2H SB FF FB	4 1/2 SB FS	4	4 1/2H SB SLEEVE	50	4 1/2H FHUB	66	4 1/2H FHUB FB
5	5H SB FF	361	5H SB FF FB	5 SB FS	7	5H SB SLEEVE	72	5H FHUB	96	5H FHUB FB

① All finish bores and keyways per AGMA/ANSI 9112 commercial standard tolerances with interference fit bores. Clearance fit bores are available on request and include one setscrew over keyway.

#### Coupling Type (Exposed Bolts) Part Numbers

Coupling Size	Full Flex	Male Half w/Access	Female Half w/Access	Hub	Male Sleeve	Female Sleeve	End Ring	Center Flange Fastener Set (includes gasket)	End Ring Fastener Set (includes gasket)
8	8H EB FF	8H EB MH	8H EB FH	8H FHUB	8H EB MSLEEVE	8H EB FSLEEVE	8H ERING	8 EB FS	8 ERFS
9	9H EB FF	9H EB MH	9H EB FH	9H FHUB	9H EB MSLEEVE	9H EB FSLEEVE	9H ERING	9 EB FS	9 ERFS
10	10H EB FF	10H EB MH	10H EB FH	10H FHUB	10H EB MSLEEVE	10H EB FSLEEVE	10H ERING	10 EB FS	10 ERFS
11	11H EB FF	11H EB MH	11H EB FH	11H FHUB	11H EB MSLEEVE	11H EB FSLEEVE	11H ERING	11 EB FS	11 ERFS
12	12H EB FF	12H EB MH	12H EB FH	12H FHUB	12H EB MSLEEVE	12H EB FSLEEVE	12H ERING	12 EB FS	12 ERFS
13	13H EB FF	13H EB MH	13H EB FH	13H FHUB	13H EB MSLEEVE	13H EB FSLEEVE	13H ERING	13 EB FS	13 ERFS
14	14H EB FF	14H EB MH	14H EB FH	14H FHUB	14H EB MSLEEVE	14H EB FSLEEVE	14H ERING	14 EB FS	14 ERFS
15	15H EB FF	15H EB MH	15H EB FH	15H FHUB	15H EB MSLEEVE	15H EB FSLEEVE	15H ERING	15 EB FS	15 ERFS
16	16H EB FF	16H EB MH	16H EB FH	16H FHUB	16H EB MSLEEVE	16H EB FSLEEVE	16H ERING	16 EB FS	16 ERFS
18	18H EB FF	18H EB MH	18H EB FH	18H FHUB	18H EB MSLEEVE	18H EB FSLEEVE	18H ERING	18 EB FS	18 ERFS
20	20H EB FF	20H EB MH	20H EB FH	20H FHUB	20H EB MSLEEVE	20H EB FSLEEVE	20H ERING	20 EB FS	20 ERFS
22	22H EB FF	22H EB MH	22H EB FH	22H FHUB	22H EB MSLEEVE	22H EB FSLEEVE	22H ERING	22 EB FS	22 ERFS
24	24H EB FF	24H EB MH	24H EB FH	24H FHUB	24H EB MSLEEVE	24H EB FSLEEVE	24H ERING	24 EB FS	24 ERFS
26	26H EB FF	26H EB MH	26H EB FH	26H FHUB	26H EB MSLEEVE	26H EB FSLEEVE	26H ERING	26 EB FS	26 ERFS
28	28H EB FF	28H EB MH	28H EB FH	28H FHUB	28H EB MSLEEVE	28H EB FSLEEVE	28H ERING	28 EB FS	28 ERFS
30	30H EB FF	30H EB MH	30H EB FH	30H FHUB	30H EB MSLEEVE	30H EB FSLEEVE	30H ERING	30 EB FS	30 ERFS

#### Standard Spacer Couplings

Full-flex spacer couplings are used for 4 bearing installations with extended shaft separations. Tabulated below are spacers for industry standard shaft separations,  $C_L$ .

Type EB exposed bolt spacers and Type SB shrouded bolt spacers for standard shaft separations are normally in stock. Other lengths are manufactured to order.

Spacer length,  $L$ , is calculated by subtracting the standard full-flex, close coupled gap,  $C$ , from the shaft separation,  $C_L$ .

$$L = C_L - C \quad (\text{full-flex, close coupled})$$

#### Spacer Part Numbers

##### Stock Spacer Part Numbers

##### Type SB (Shrouded Bolts)

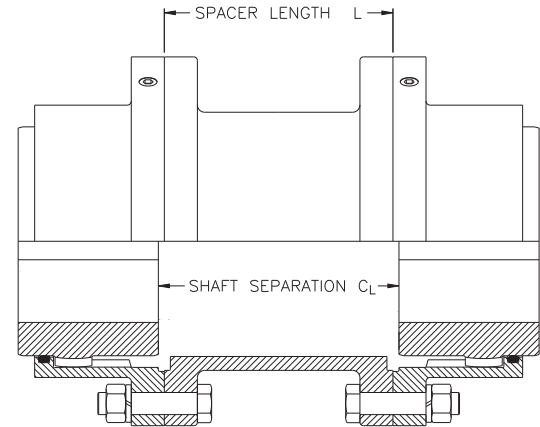
Coupling Size	Shaft Separation							
	3 1/2"		4 3/8"		5"		7"	
1 1/2	1 1/2 SB SPR350	6	1 1/2 SB SPR438	7	1 1/2 SB SPR500	8		
2	2 SB SPR350	8	2 SB SPR438	9	2 SB SPR500	10	2 SB SPR700	12
2 1/2					2 1/2 SB SPR500	14	2 1/2 SB SPR700	17
3					3 SB SPR500	17	3 SB SPR700	20
3 1/2					3 1/2 SB SPR500	27		

Note: Spacer part number references the shaft separation, not the actual length of the spacer.

##### Stock Spacer Part Numbers

##### Type EB (Exposed Bolts)

Coupling Size	Shaft Separation			
	5"		7"	
1 1/2	1 1/2 EB SPR500	8		
2	2 EB SPR500	10	2 EB SPR700	12
2 1/2	2 1/2 EB SPR500	14		
3	3 EB SPR500	17		



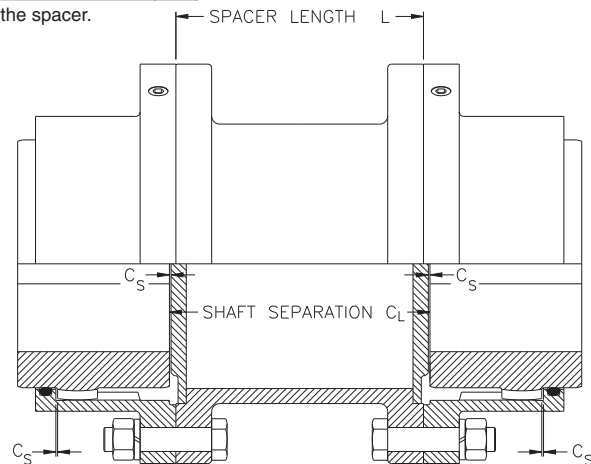
#### LEF Spacer Couplings

Limited End Float (LEF) spacer couplings are used for sleeve bearing motor applications with extended shaft separations. LEF spacers are supplied with steel LEF plates installed in each end.

Spacer length,  $L_{LEF}$ , is calculated by subtracting the LEF full-flex, close coupled gap,  $C_{LEF}$ , from the shaft separation,  $C_L$ .

$$L_{LEF} = C_L - C_{LEF} \quad (\text{full-flex, close coupled})$$

LEF spacers are shorter than standard spacers for a given shaft separation, and are manufactured to order.



Coupling sizes 8 - 30 are also available as spacer couplings for extended shaft separations. These sizes are available in exposed bolt only.

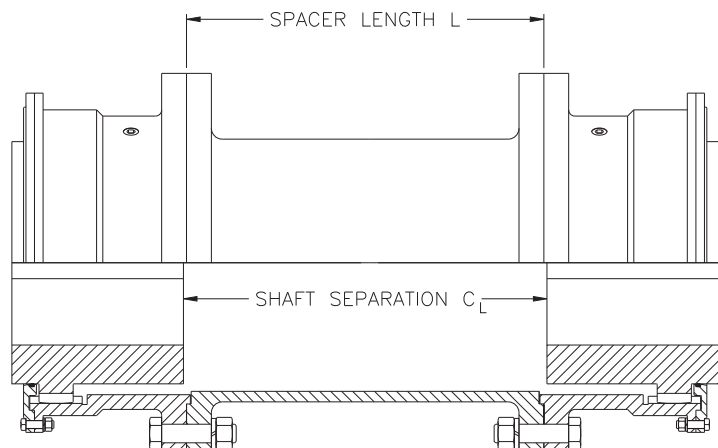
Spacers for coupling sizes 4 - 30 are non-stock and are manufactured to order. LEF spacer couplings are also manufactured to order.

Note: Spacer part number references the shaft separation, not the actual length of the spacer.

#### Coupling Greases

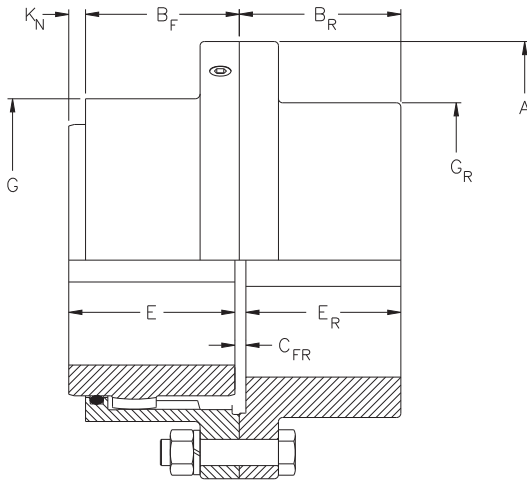
KOP-FLEX offers greases specifically designed for use in coupling applications. For proper lubrication and long service life, use KSG Standard Coupling Grease, or KHP High Performance Coupling Grease. See pages 170-172 for detailed specifications.

### Spacer Couplings Size 8-30



### Flex Rigid and Floating Shaft Couplings Size 1-7

When driving and driven shafts are widely separated, an unsupported or floating shaft is used to span the gap. The two couplings required at each end of that shaft consist of one half of a standard coupling bolted to a Rigid Hub, each unit called a Flex-Rigid Coupling. Usually, the rigid hubs are mounted on the driving and driven shafts so that the flex halves on the floating shaft may be replaced without disturbing the connected equipment.



**Coupling Type EB (Exposed Bolts) Part Numbers**

Coupling Size	Flex Rigid Coupling			Rigid Hub		
	No Bore Part No.	Wt.	Finish Bore Part No.	No Bore Part No.	Wt.	Finish Bore Part No.
1	1H EB FR	10	1H EB FR FB	1 EB RHUB	5	1 EB RHUB FB
1 1/2	1 1/2H EB FR	19	1 1/2H EB FR FB	1 1/2 EB RHUB	9	1 1/2 EB RHUB FB
2	2H EB FR	31	2H EB FR FB	2 EB RHUB	15	2 EB RHUB FB
2 1/2	2 1/2H EB FR	55	2 1/2H EB FR FB	2 1/2 EB RHUB	27	2 1/2 EB RHUB FB
3	3H EB FR	83	3H EB FR FB	3 EB RHUB	40	3 EB RHUB FB
3 1/2	3 1/2H EB FR	126	3 1/2H EB FR FB	3 1/2 EB RHUB	65	3 1/2 EB RHUB FB
4	4H EB FR	184	4H EB FR FB	4 EB RHUB	90	4 EB RHUB FB
4 1/2	4 1/2H EB FR	252	4 1/2H EB FR FB	4 1/2 EB RHUB	124	4 1/2 EB RHUB FB
5	5H EB FR	371	5H EB FR FB	5 EB RHUB	119	5 EB RHUB FB
5 1/2	5 1/2H EB FR	418	5 1/2H EB FR FB	5 1/2 EB RHUB	200	5 1/2 EB RHUB FB
6	6H EB FR	504	6H EB FR FB	6 EB RHUB	250	6 EB RHUB FB
7	7H EB FR	792	7H EB FR FB	7 EB RHUB	370	7 EB RHUB FB

**Coupling Type SB (Shrouded Bolts) Part Numbers**

Coupling Size	Flex Rigid Coupling			Rigid Hub		
	No Bore Part No.	Wt.	Finish Bore Part No.	No Bore Part No.	Wt.	Finish Bore Part No.
1	1H SB FR	10	1H SB FR FB	1 SB RHUB	5	1 SB RHUB FB
1 1/2	1 1/2H SB FR	19	1 1/2H SB FR FB	1 1/2 SB RHUB	9	1 1/2 SB RHUB FB
2	2H SB FR	31	2H SB FR FB	2 SB RHUB	15	2 SB RHUB FB
2 1/2	2 1/2H SB FR	55	2 1/2H SB FR FB	2 1/2 SB RHUB	27	2 1/2 SB RHUB FB
3	3H SB FR	83	3H SB FR FB	3 SB RHUB	40	3 SB RHUB FB
3 1/2	3 1/2H SB FR	126	3 1/2H SB FR FB	3 1/2 SB RHUB	65	3 1/2 SB RHUB FB
4	4H SB FR	184	4H SB FR FB	4 SB RHUB	90	4 SB RHUB FB
4 1/2	4 1/2H SB FR	252	4 1/2H SB FR FB	4 1/2 SB RHUB	124	4 1/2 SB RHUB FB
5	5H SB FR	371	5H SB FR FB	5 SB RHUB	119	5 SB RHUB FB

① All finish bores and keyways per AGMA/ANSI 9112 commercial standard tolerances.

② Rigid hubs are furnished less fasteners.

**Flex-Rigid Coupling Data**

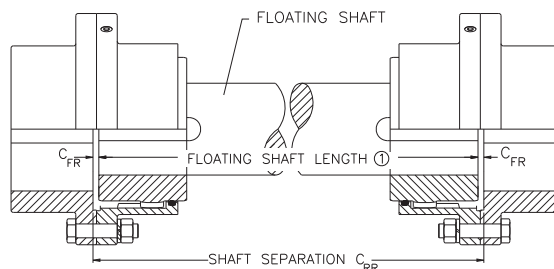
Coupling Size	Maximum Bore with Standard Keyway		Rating HP / 100 RPM	Torque Rating (lb.-in.)	Peak Torque Rating (lb.-in.)	Maximum Speed (RPM) ②	Dimensions						
	Flex	Rigid					A	B <sub>F</sub>	B <sub>R</sub>	C <sub>FR</sub> ①	E	E <sub>R</sub>	G <sub>R</sub>
1	1 5/8	2 1/4	12	7500	15000	14500	4 9/16	1 17/32	1 21/32	5/32	1 11/16	1 9/16	3
1 1/2	2 1/4	2 11/16	27	17000	34000	12000	6	1 25/32	1 15/16	5/32	1 15/16	1 27/32	3 13/16
2	2 7/8	3 3/8	50	31500	63000	9300	7	2 11/32	2 3/8	5/32	2 7/16	2 9/32	4 13/16
2 1/2	3 1/2	4	90	56700	113400	7900	8 3/8	2 11/16	3	3/16	3 1/32	2 29/32	5 3/4
3	4	4 3/4	160	101000	202000	6800	9 7/16	3 9/32	3 9/16	3/16	3 19/32	3 15/32	6 3/4
3 1/2	4 5/8	5 1/2	235	148000	296000	6000	11	3 27/32	4 1/8	7/32	4 3/16	4 1/32	7 3/4
4	5 1/2	6 3/8	375	236000	472000	5260	12 1/2	4 3/8	4 5/8	5/16	4 3/4	4 7/16	9
4 1/2	6 1/4	7 1/4	505	318000	636000	4770	13 5/8	4 27/32	5 1/4	11/32	5 5/16	5 1/16	10 1/8
5	7 1/8	8 1/2	700	441000	882000	4300	15 5/16	5 17/32	5 7/8	11/32	6 1/32	5 11/16	11 3/8
5 1/2*	8	8	920	580000	1160000	3880	16 3/4	6 7/32	7 5/32	11/32	6 29/32	6 31/32	10 3/4
6*	8 7/8	8 3/4	1205	759000	1518000	3600	18	6 21/32	7 21/32	11/32	7 13/32	7 15/32	11 1/2
7*	10 3/8	10	1840	1160000	2320000	3000	20 3/4	7 11/16	9	7/16	8 11/16	8 3/4	13 3/8

\* Sizes 5 1/2, 6 and 7 are only available with exposed bolts. Type EB exposed bolts are standard.

① Floating shaft length is equal to the shaft separation minus 2 times the CFR dimension.

② Max. speed is based on flange stress limits and does not consider lateral critical speed considerations for floating shaft applications.

**FLOATING SHAFT ASSEMBLY**



**Ordering Instructions:** When ordering floating shaft couplings, be sure to include hp and rpm, shaft separation, and equipment shaft sizes. Applications with very large shaft separations and/or high speeds may require tubular floating shafts due to lateral critical speed concerns.

**Important:** Care must be exercised in proper selection of any shaft coupling. The Users must assure themselves that the design of the shaft to coupling hub connection is adequate for the duty intended.