

KCP COUPLINGS



KOREA COUPLING CO., LTD.

PTE Manufacturer, Sales & Trade Biz

Challenge the World Create the Future!



Korea Coupling Co., Ltd., this is a specialist for power transmission equipments manufacturer including shaft couplings and supply high quality products to various industries, such as steel mills, paper, mining,

chemical & cement.

They are mainly used with hydraulic machineries, pumps, blower fans, conveyors, cranes & general power driven industrial equipments.

Under our management philosophy which we should serve a customer with best products, we have been creating new markets, both domestic and international, as supplying the best quality products.

We will try best to improve our products with continuous technical Researches and quality controls and assure you that you can find us of good services to you. Your deserved patronage / relationships and closer contacts will greatly be appreciated.

Wishing you everlasting prosperity and good co-operations always !

www.koreacoupling.co.kr



KCP COUPLINGS



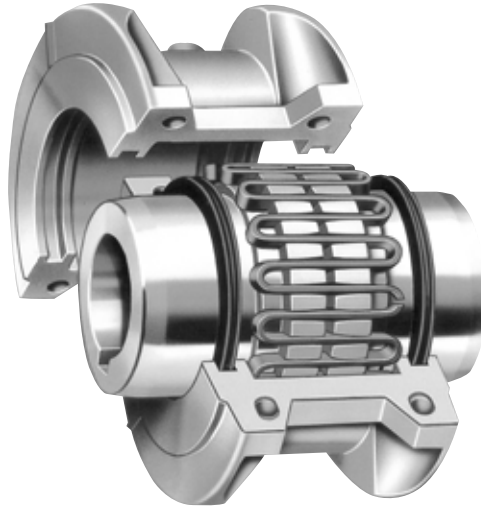
CONTENTS

- 05 • Taper Grid Couplings
- 21 • Gear Couplings
- 41 • Disc Flexible Couplings
- 53 • KCP Flexible Disc Coupling, Spacer Types
- 57 • Omega Coupling

TAPER GRID COUPLING



TAPER GRID COUPLING

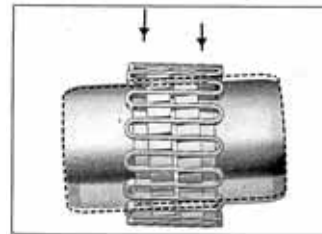


1. Characteristic & Merits

You can get more favorable convenience and cost down by using KCP Taper Grid Steel Flexible Couplings.

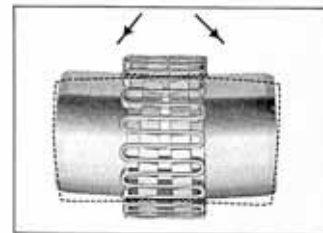
■ PARALLEL MISALIGNMENT

The movement of the grid in the lubricated grooves accommodates parallel missalignment and permits full functioning of the grid-groove action in damping out shock and vibration.



■ ANGULAR MISALIGNMENT

Under angular misalignment, the grid-groove design permits a rocking and sliding action of the lubricated grid and hubs without any loss of power through the resilient grid.

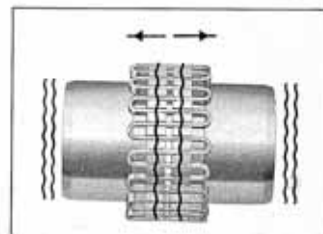


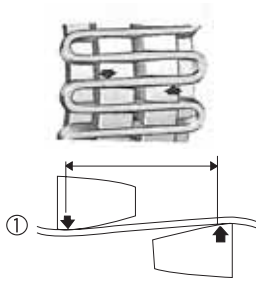
■ END FLOAT

Unrestrained end float of driving and driven members is permitted because the grid slides freely in the lubricated grooves.

■ TORSIONAL FLEXIBILITY

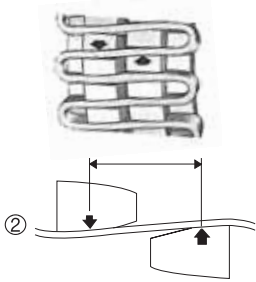
Torsional flexibility is the advantage of KCP Taper Grid Couplings, providing flexible accommodation to changing load conditions.





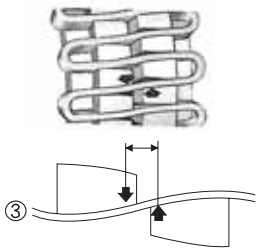
1 Grid in Light Load

The grid bears near the outer edges of the hub teeth. The long span between the points of contact remains flexible under load variations.



2 Grid in Normal Load

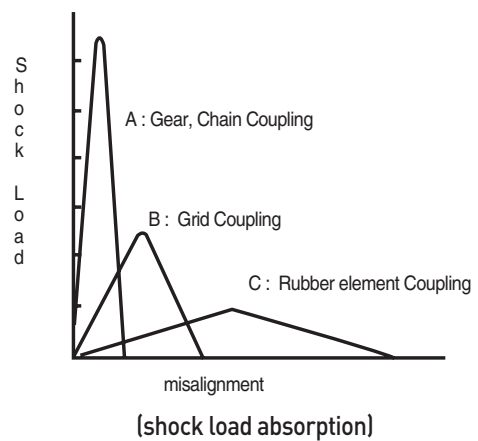
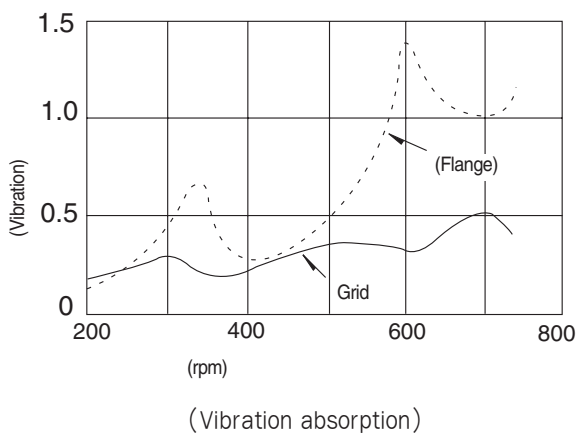
As the load increases, the distance between the contact points on the hub teeth is shortened, but a free span still remains flexible for shock loads.



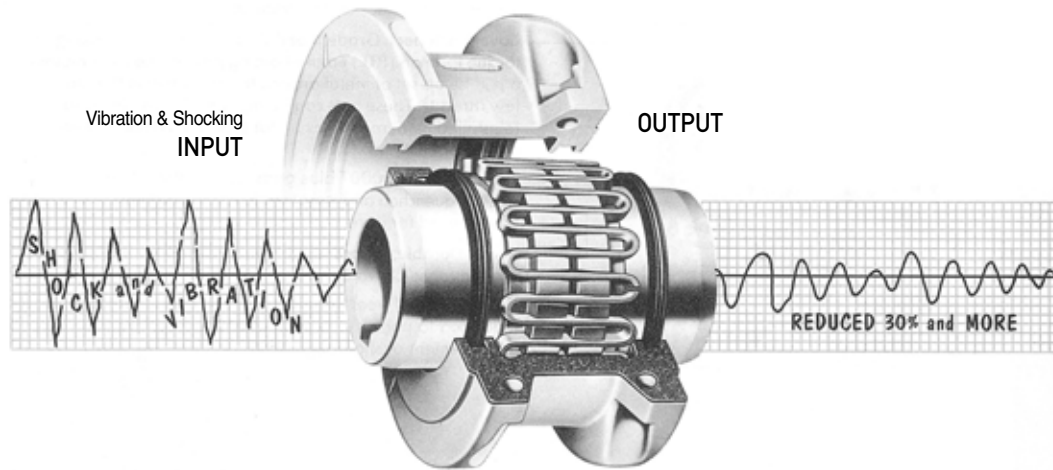
3 Grid in Shock Loads

The coupling is flexible within its rated power capacity. Under extreme overloads, the grid bears and transmits full load on the hub teeth directly.

KCP Taper Grid coupling creates the excellent performance as shown below.



The absorption of mechanical vibration of Taper Grid coupling



MERITS

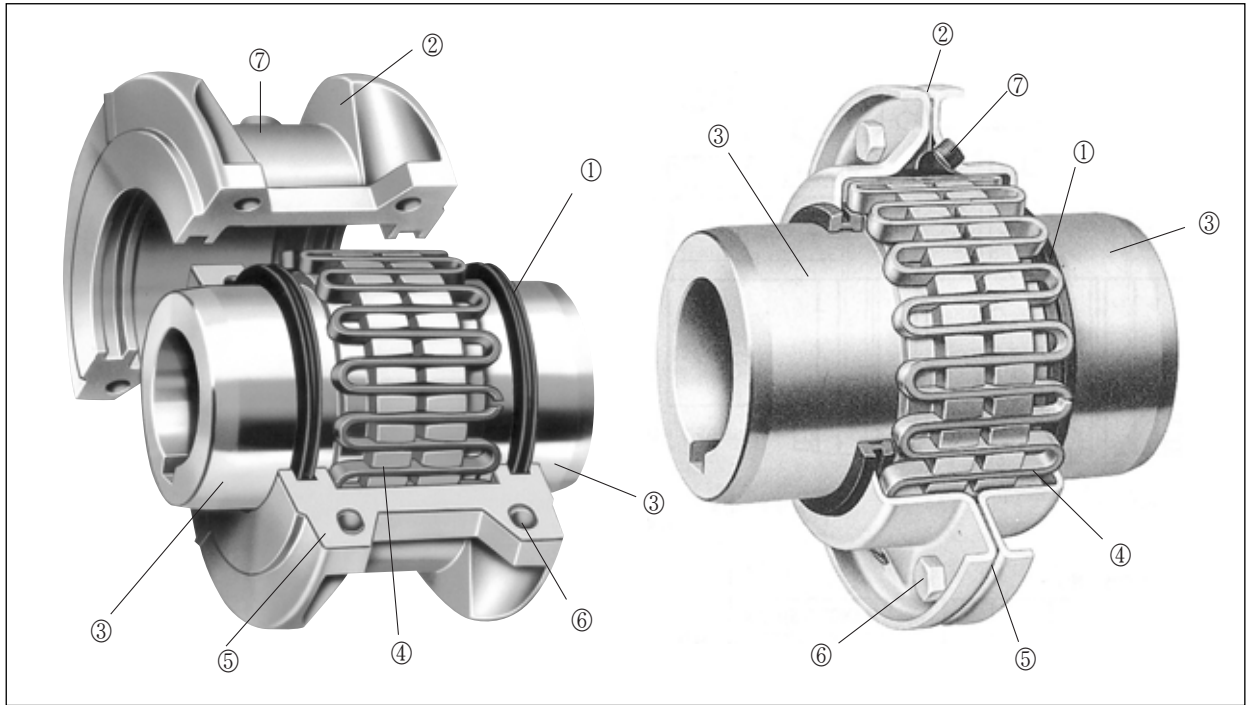
1. When overload occurs, grid breaks and prevents breaking shaft or machinery parts conneted.
2. When the parallel misaignment is too severe, the relating machine is protected by the virtue of shearing Grid on Tooth.
3. The life of parts(Mechanical Seal and Bearing, etc) can be extended as twice or more.
- 4, Quick installation and easy maintenance reduce labor cost and down-time cost.
5. KCP Grid coupling is interchangeable with international major brands.
6. It always transimits the power fully(100%) in low noise.
7. You can use it at cheaper maintenance cost by changing damaged parts only.

2. Application

Pin-Bush Flange coupling and Chain Couplings have usually been used, but now using the KCP TAPER GRID COUPLINGS, you will get many benefits .

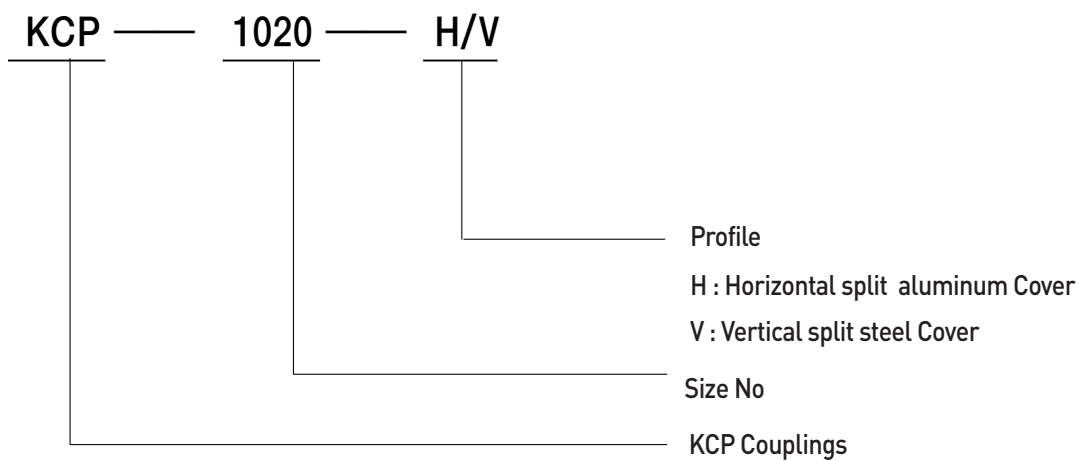
1. When required to reduce vibration and shock load.
2. When required adequate power transmission under line misalignment.
3. When required adequate power transmission under angular misalignment.
4. When required adequate power transmission under end floating.
5. When required to prevent breaking of the machinery parts under over load.
6. When reverse revolution is required.
7. When required smooth starting.

3. Structure



- | | | |
|------|-------------|-------------|
| Part | 1. Oil Seal | 4. Grid |
| | 2. H-Cover | 5. Gasket |
| | V-Cover | 6. Bolt |
| | 3. Hub | 7. Lub Plug |

4. Designation



- KSAS : Full spacer type(Horizontal split cover)
- KSFS : Half spacer type(Horizontal split cover)
- KSBW : Brake wheel type(Horizontal split cover)

5. Selection method of size

1. Selection method of size

- ① By using the following formula, obtain Design Torque required.

$$T = 97,400 \frac{\text{kw}}{\text{N}} \times \text{S.F} \quad T = 71,620 \frac{\text{HP}}{\text{N}} \times \text{S.F}$$

T = Design torque(kg · cm)
 kw = Power(kw)
 HP = Power(HP)
 N = Working revolution(rpm)
 S·F = Recommended service factor.

- ② Select the size with the same or with the greater value at the Basic Torque column, Refer to the maximum shaft diameters of the size selected, and then compare the shaft diameters of the application with the max. bore dia of the size selected. If the coupling bore is not suitable, select the larger size coupling.
- ③ Special requirements
- A. on calculating the torque required, use the lowest operating speed(N) of the application
- B. If there are reverse motions repeated or frequent irregular load changes, take service factor twice.

2. Example

When you select a COUPLING to connect 30HP, 1,750rpm motor and rotary type pump. Motor shaft dia is 48mm and pump's 52mm.

- ① service factor of pump is 1.8.

$$\text{Torque}(\text{kg} \cdot \text{cm}) = \frac{30 \times 71.620 \times 1.8}{1.750} = 2.210$$

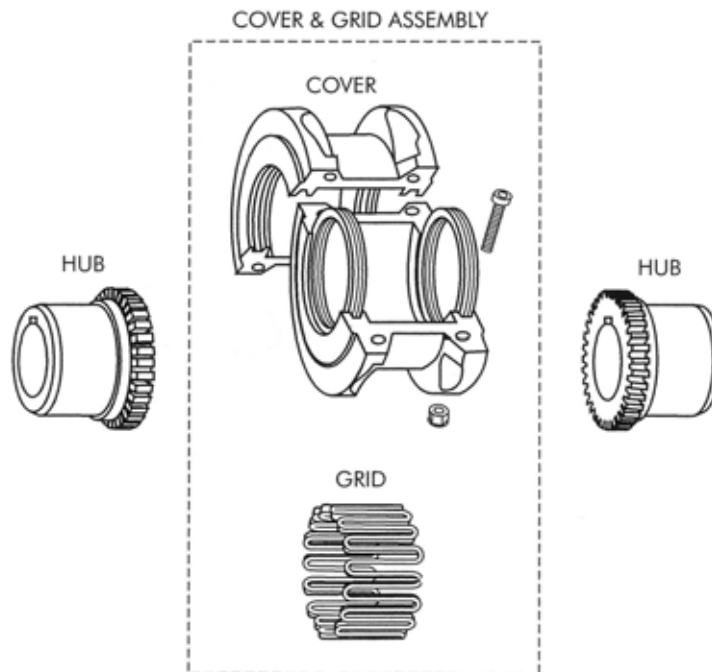
- ② Normal transmitting power is 30HP.

The coupling size 1040 accepts the calculated torque 2210kg · cm. And then compare the application shaft diameter sizes(52mm) to the maximum bore of the selected coupling size 1040(43φ mm).

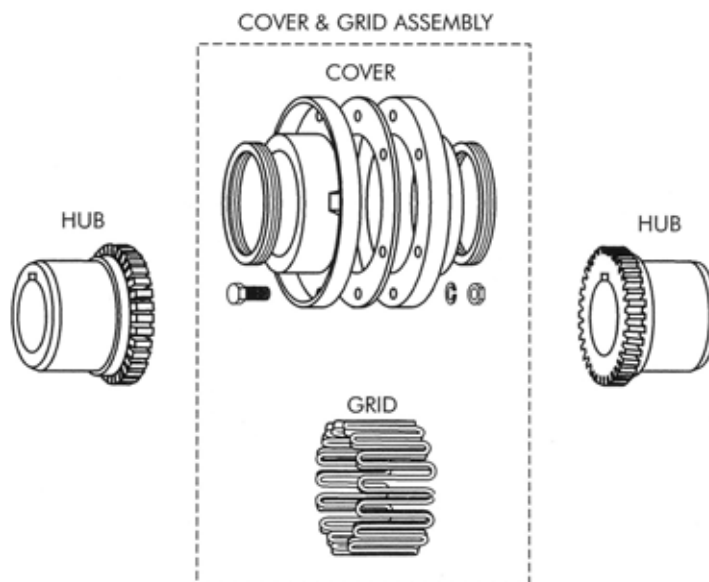
You will select the coupling size 1060 accepting upto 55mm shaft dia meter. The size also accept the application motor speed 1750 rpm. Either H or V cover is available. Finally, the coupling size 1060 is selected.

6. Installation

Type H

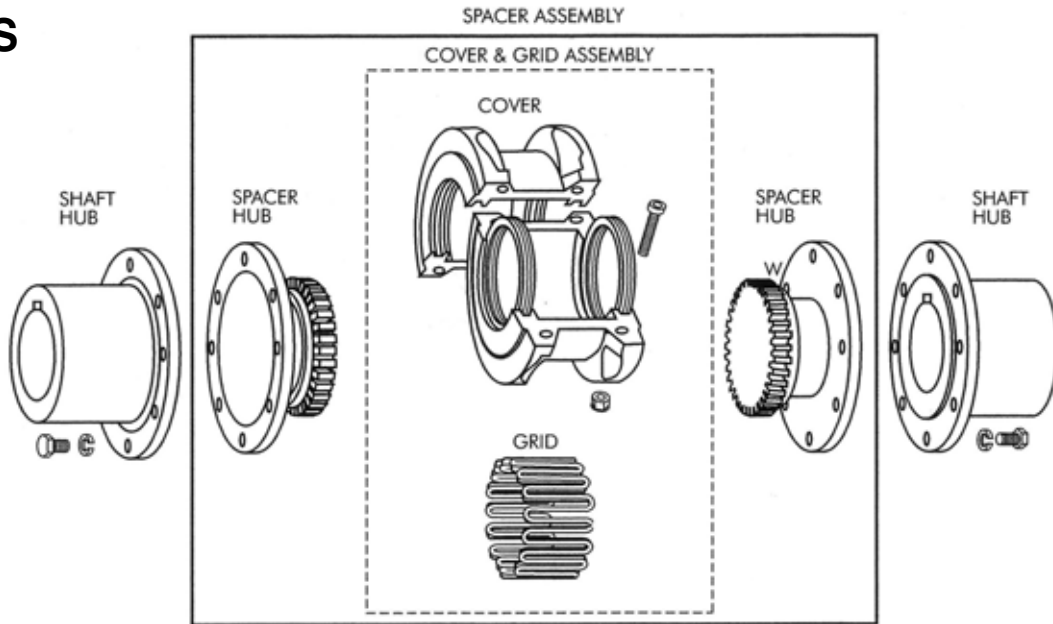


Type V



7. Installation

KSAS



KSFS

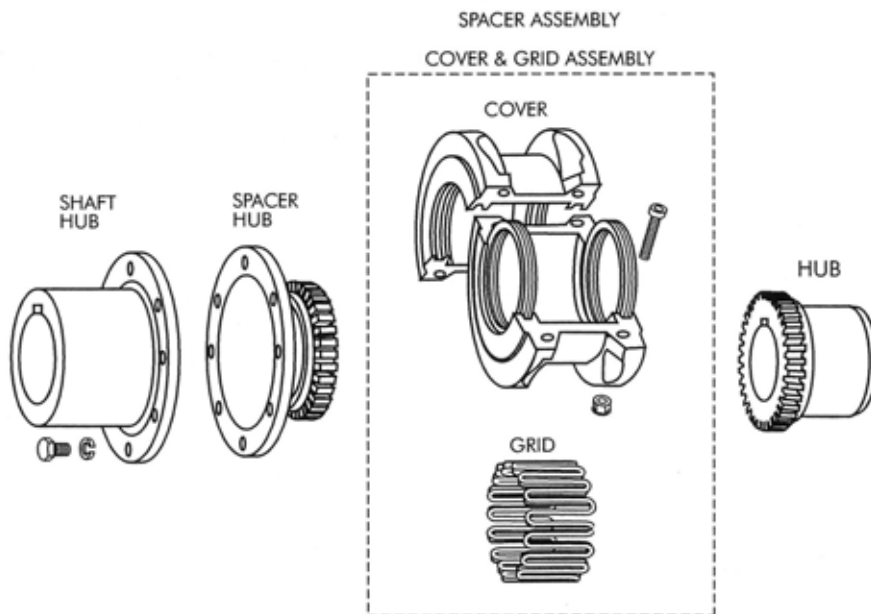
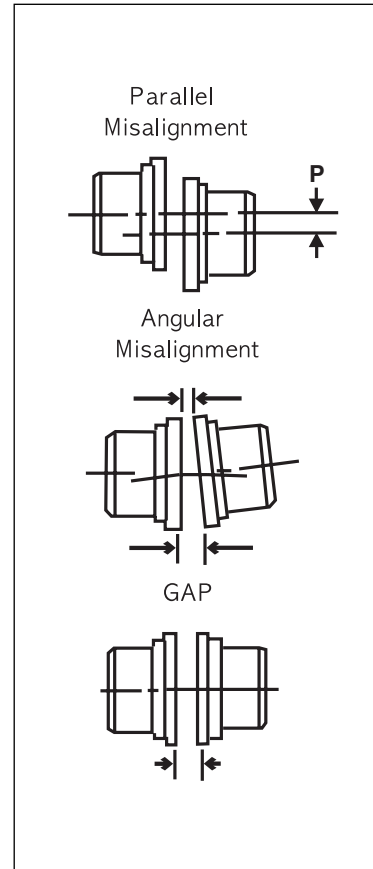


fig. 3 misalignment capacity

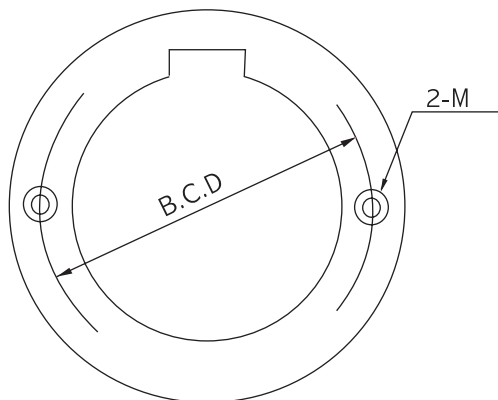
(Unit : mm)

Size	Recommended installation		Operating		Normal gap ±10%
	Parallel offset p	Angular(1/16°) X - Y	Parallel offset p	Angular(1/4°) X - Y	
1020	0.15	0.08	0.3	0.25	3
1030	0.15	0.08	0.3	0.30	3
1040	0.15	0.08	0.3	0.33	3
1050	0.20	0.10	0.4	0.41	3
1060	0.20	0.13	0.4	0.46	3
1070	0.20	0.13	0.4	0.51	3
1080	0.20	0.15	0.4	0.61	3
1090	0.20	0.18	0.4	0.71	3
1100	0.25	0.20	0.5	0.84	5
1110	0.25	0.23	0.5	0.91	5
1120	0.28	0.25	0.56	1.02	6
1130	0.28	0.30	0.56	1.19	6
1140	0.28	0.33	0.56	1.35	6
1150	0.30	0.41	0.6	1.57	6
1160	0.30	0.46	0.6	1.78	6
1170	0.30	0.51	0.6	2.01	6
1180	0.38	0.56	0.76	2.26	6
1190	0.38	0.61	0.76	2.46	6
1200	0.38	0.69	0.76	2.72	6



The life of coupling is reduced by excess of the limit.

8. Specification of Puller Holes)



CPLG Size	B.C.D. (mm)	Bolt Size	CPLG Size	B.C.D. (mm)	Bolt Size
1070	74	M8	1150	227.5	M20
1080	89.5	M8	1160	260	M20
1090	106	M10	1170	306	M24
1100	121.5	M10	1180	341	M30
1110	136.5	M10	1190	373	M30
1120	150.5	M12	1200	414	M30
1130	185	M16	1210	540	M30
1140	205	M16	1220	570	M30

9. Lubrication and Handing

Choose high quality lubricant for KCP Taper Grid Couplings for good performance and long life.

1. Grease Lubrication

Grease on the grid & hub teeth before assembling covers.

Fill up grease through the lub plug of the assembled coupling.

2. Supplement

Every three month Every 240~250 hours operating, you should add grease.

3. Replacement

Every 3 months, or every 4,000 hours operating you should replace all the deteriorated grease.

4. Selection

Choose grease according to the ambient temperature range in table 5.

■ Common Industrial Lubricants(NYGL Grade #2)

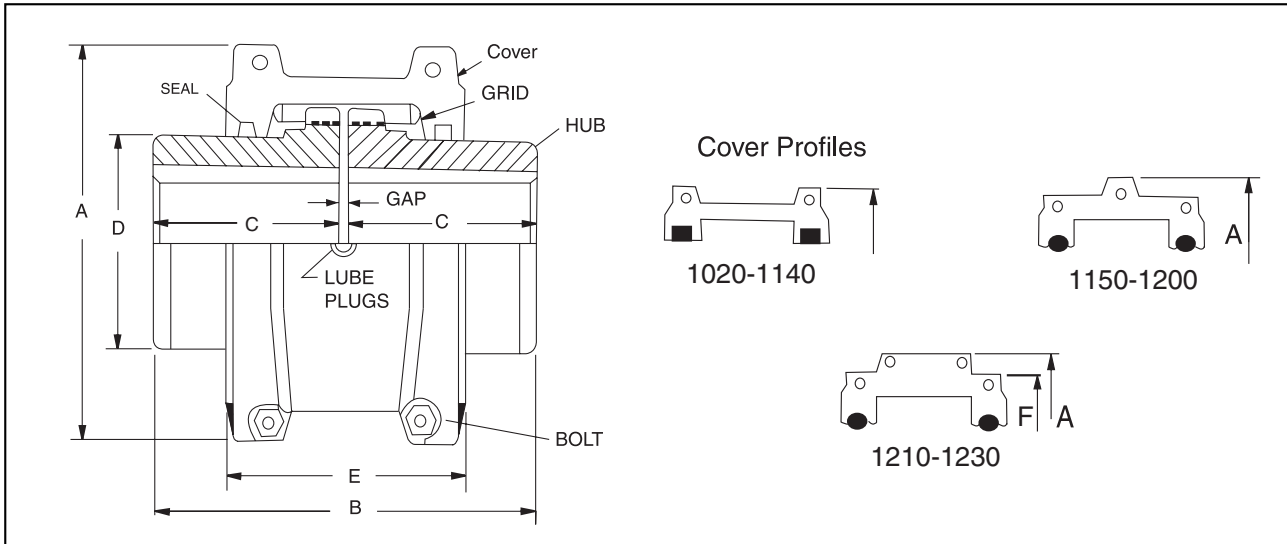
Table5

Manufacture	Ambient Temperature Range:	
	0°F to 150°F (-18°C to 66°C)	-30°F to 100°F (-34°C to 38°C)
Amoco Oil Co.	Amolith Grease #2	Amolith Grease #2
Atlantic Richfield co.	Litholene HEP 2	Litholene HEP 2
Chevron U.S.A Inc.	Chevron Dura-Lith EP-2	Chevron Dura-Lith EP-2
Cities Service Co.	Citgo HEP-2	Citgo HEP-2
Conoco Inc.	EP Conolith #2	EP Conolith #2
Exxon Company, USA	Ronex MP	Ronex MP
Gulf Oil Corp.	Gulfcrown Grease #2	Gulfcrown Grease #2
E.F.Houghton & Co.	Cosmolube #2	Cosmolube #1
Impenrial Oil Ltd.	Esso MP Grease H	Lotemp EP
Keystone Div.(Pennwalt)	#81 Light	#84 Light
Mobil Oil Corp.	Mobilux EP111	Mobilux #1
Phillips Petroleum Co.	IB & RB grease	Philube IB & RB grease
Shell Oil Co.	Alvania Grease #2	Alvania Grease #2
Standard Oil Co.(OH)	Factran #2	Factran #2
Sun Oil Company	Prestige 42	Prestige 42
Texaco Lubricants	Starplex HD 2	Multifac EP2
Union Oil Co.(CA)	Union Undoba #2	Union Undoba #2
Valvoline Oil Co.	Val-Lith EP #2	Val-Lith EP #2

■ Note: For feed processing in dustry, check with lube manufacture for approved lubricants.

10. Dimensions

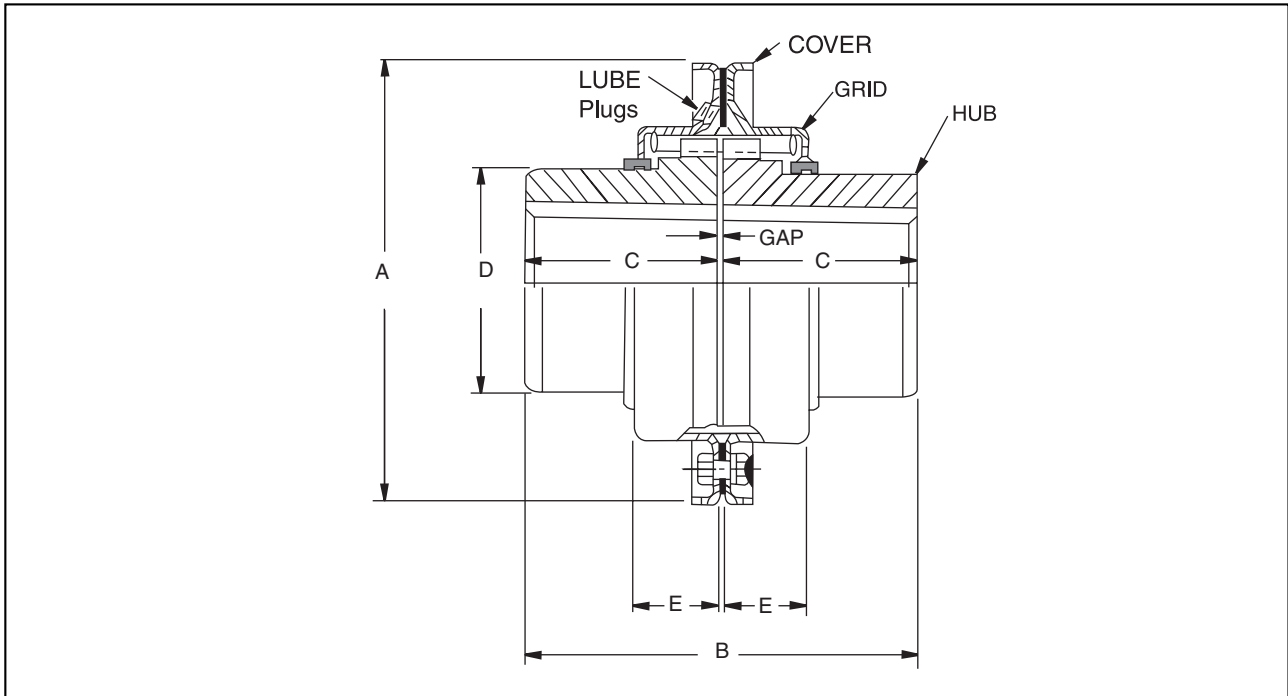
Type H (Horizontal Split Aluminium Cover)



Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia (mm)		Dimension (mm)					Gap (mm)			Cplg Wt (kg)	Lube Wt (kg)	Size
				Max.	Min.	A	B	C	D	E	Min.	Normal	Max.			
1020H	0.68	4,500	486	30	12	101.6	98.0	47.5	39.7	66.5	1.5	3	4.5	1.9	0.03	1020
1030H	1.93	4,500	1,383	35	12	110.0	98.0	47.5	49.2	68.3	1.5	3	4.5	2.6	0.03	1030
1040H	3.22	4,500	2,304	43	12	117.5	104.6	50.8	57.1	70.0	1.5	3	4.5	3.4	0.05	1040
1050H	5.63	4,500	4,033	50	12	138.0	123.6	60.3	66.7	79.5	1.5	3	4.5	5.4	0.05	1050
1060H	8.85	4,350	6,337	55	19	150.5	130.0	63.5	76.2	92.0	1.5	3	4.5	7.3	0.09	1060
1070H	13	4,125	9,217	65	19	161.9	155.4	76.2	87.3	95.0	1.5	3	4.5	10	0.11	1070
1080H	27	3,600	19,010	78	27.0	194.0	180.8	88.9	104.8	116.0	1.5	3	4.5	18	0.17	1080
1090H	48	3,600	34,564	95	27.0	213.0	199.8	98.4	123.8	122.0	1.5	3	6	25	0.25	1090
1100H	81	2,400	58,183	107	41	250.0	245.7	120.6	142.0	155.5	1.5	3	6	42	0.43	1100
1110H	121	2,250	86,411	117	41	270.0	258.5	127.0	160.3	161.5	1.5	4.5	9.5	54	0.51	1110
1120H	177	2,025	126,736	136	60	308.0	304.4	149.2	179.4	191.5	1.5	4.5	9.5	81	0.73	1120
1130H	257	1,800	184,343	165	67	346.0	329.8	161.9	217.5	195.0	1.5	6	12.5	121	0.91	1130
1140H	370	1,650	264,993	184	67	384.0	371.6	182.8	254.0	201.0	1.5	6	12.5	178	1.13	1140
1150H	515	1,500	368,686	203	108	453.1	371.8	182.9	269.2	271.3	1.5	6	12.5	234	1.95	1150
1160H	724	1,350	518,465	228	120.7	501.4	402.2	198.1	304.8	278.9	1.5	6	12.5	317	2.81	1160
1170H	965	1,225	691,286	279	133.4	566.4	437.8	215.9	355.6	304.3	1.5	6	12.5	448	3.49	1170
1180H	1,338	1,100	958,584	311	152.4	629.9	483.6	238.8	393.7	321.1	1.5	6	12.5	619	3.76	1180
1190H	1,770	1,050	1,267,358	339	152.4	675.6	524.2	259.1	436.9	325.1	1.5	6	12.5	776	4.40	1190
1200H	2,413	900	1,728,216	361	177.8	756.9	564.8	279.4	497.8	355.6	1.5	6	12.5	1,057	5.62	1200
1210H	3,230	820	2,304,288	366	177.8	844.5	622.3	304.8	533.4	431.8	3.0	13	24.0	1,424	10.50	1210
1220H	4,350	730	3,110,788	411	203.2	820.7	622.9	325.0	571.5	490.2	3.0	13	24.0	1,784	16.05	1220
1230H	5,640	680	4,438,775	450	250.0	1,003.3	703.8	345.4	609.6	546.1	3.0	13	24.0	2,267	24.00	1230

■ Coupling weight, with unbored hub assembly.

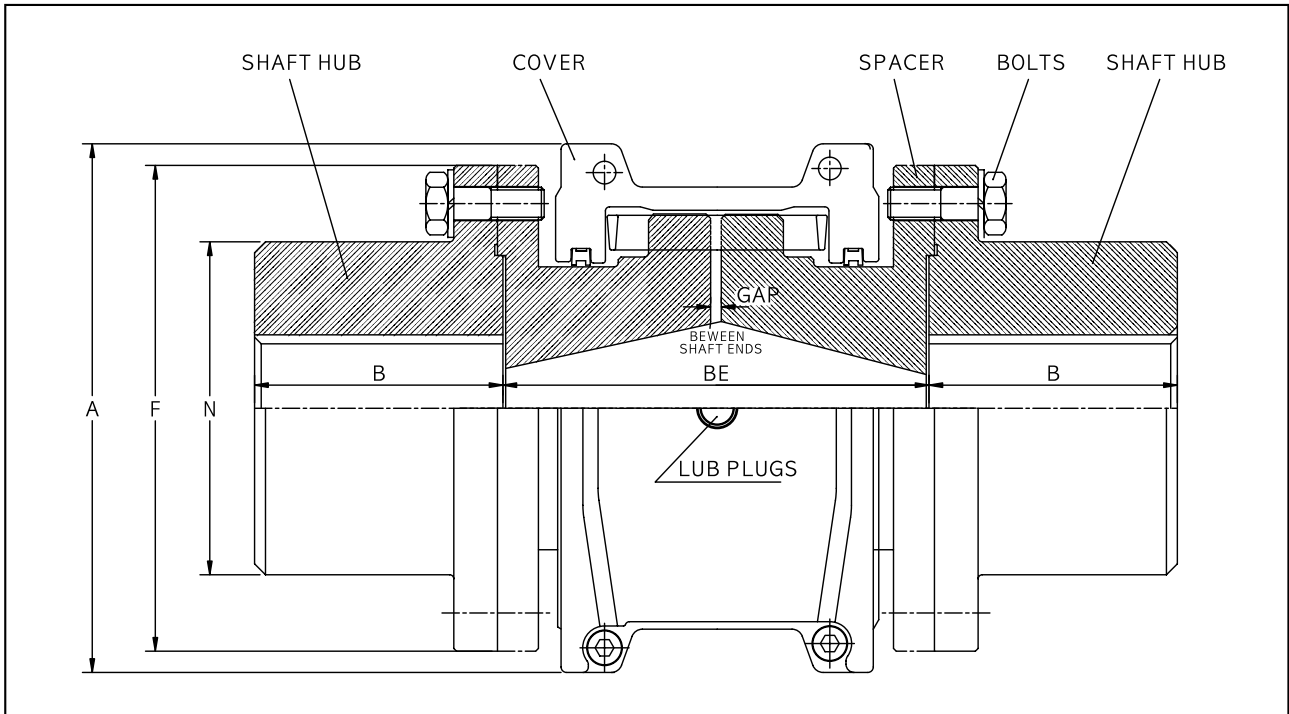
Type V (Vertical Split Steel Cover)



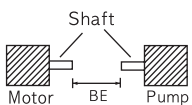
Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia (mm)		Dimensions(mm)					Gap(mm)			Cplg Wt(kg)	Lub Wt (kg)	Size
				Max.	Min.	A	B	C	D	E	Min.	Normal	Max.			
1020	0.68	6,000	486	30	12.7	111.1	98.0	47.5	39.7	24.2	1.5	3	4.5	2.0	0.03	1020
1030	1.93	6,000	1,383	36	12.7	120.7	98.0	47.5	49.2	25.0	1.5	3	4.5	2.6	0.03	1030
1040	3.22	6,000	2,304	44	12.7	128.5	104.6	50.8	57.1	25.7	1.5	3	4.5	3.4	0.05	1040
1050	5.63	6,000	4,033	50	12.7	147.6	123.6	60.3	66.7	31.2	1.5	3	4.5	5.4	0.05	1050
1060	8.85	6,000	6,337	57	19.1	162.0	130.0	63.5	76.2	32.2	1.5	3	4.5	7.3	0.09	1060
1070	13	5,500	9,217	65	19.1	173.0	155.4	76.2	87.3	33.7	1.5	3	4.5	10.4	0.11	1070
1080	27	4,750	19,010	79	27.0	200.0	180.8	88.9	104.8	44.2	1.5	3	4.5	17.7	0.17	1080
1090	48	4,000	34,564	95	27.0	231.8	199.8	98.4	123.8	47.7	1.5	3	6	25.4	0.25	1090
1100	81	3,250	58,183	107	41.3	266.7	245.7	120.6	142.0	60.0	1.5	3	6	42.2	0.43	1100
1110	121	3,000	86,411	117	41.3	285.8	258.5	127.0	160.3	64.2	1.5	4.5	12.5	54.4	0.51	1110
1120	177	2,700	126,736	136	60.3	319.0	304.4	149.2	179.4	73.4	1.5	4.5	12.5	81.6	0.73	1120
1130	257	2,400	184,343	165	66.7	377.8	329.8	161.9	217.5	75.1	1.5	6	12.5	122.5	0.91	1130
1140	370	2,200	264,993	184	66.7	416.0	371.6	182.8	254.0	78.2	1.5	6	12.5	180.1	1.13	1140
1150	515	2,000	368,686	203	108.0	476.3	371.8	182.9	269.2	106.9	1.5	6	12.5	230.0	1.95	1150
1160	724	1,750	518,465	228	120.7	533.4	402.2	198.1	304.8	114.3	1.5	6	12.5	321.1	2.81	1160
1170	965	1,600	691,286	279	133.4	584.2	437.8	215.9	355.6	119.4	1.5	6	12.5	448.2	3.49	1170
1180	1,338	1,400	958,584	311	152.4	630.0	483.6	238.8	393.7	130.0	1.5	6	12.5	591.0	3.76	1180
1190	1,770	1,300	1,267,358	339	152.4	685.0	524.2	259.1	436.9	135.0	1.5	6	12.5	761.0	4.40	1190
1200	2,413	1,100	1,728,216	361	177.8	737.0	564.8	279.4	497.8	145.0	1.5	6	12.5	1,021.0	5.62	1200

■ Coupling weight without Bore machining.

Type KSAS (Full Spacer)

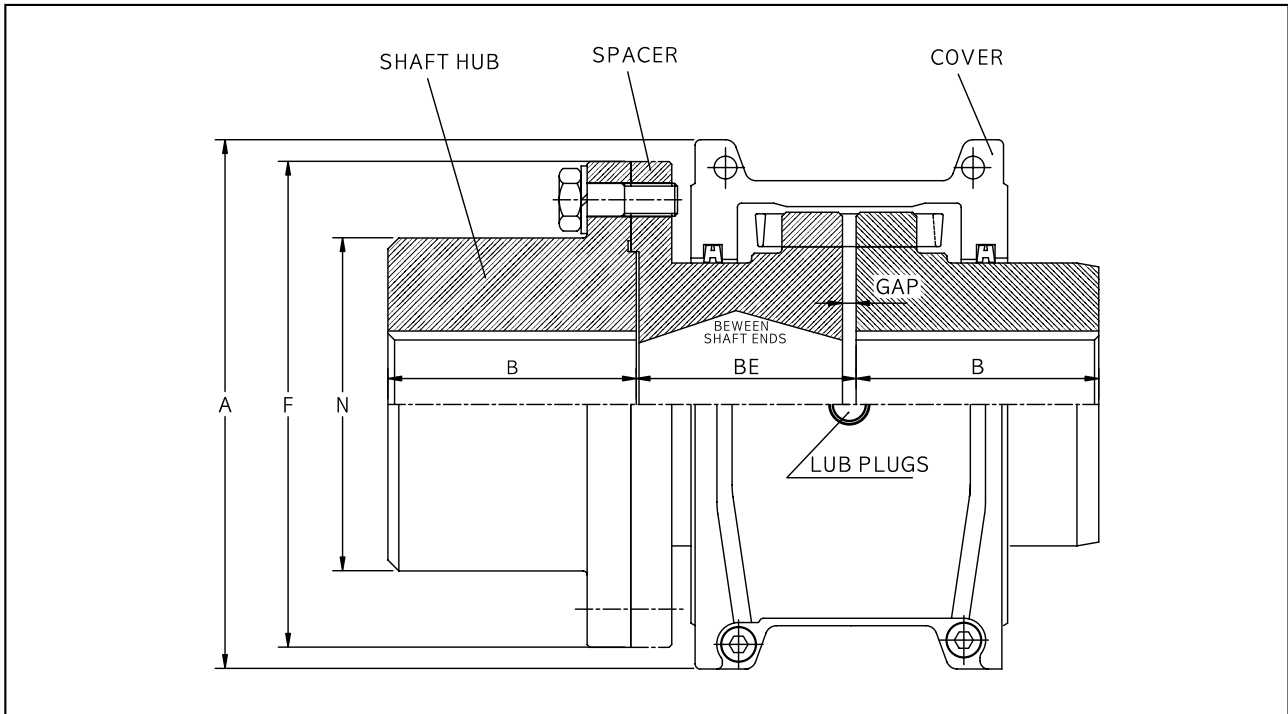


Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia (mm)		Dimensions (mm)							Flange Bolt No.	Lub Wt (kg)	Size
				Max.	Min.	A	B	BE (KSAS)		N	F.	Gap			
								Min.	Max.						
1020	0.68	3,600	486	36	12.7	101.6	35	89	203	52	86	5	4	0.03	1020
1030	1.93	3,600	1,383	44	12.7	111.0	41	89	216	59	94	5	8	0.03	1030
1040	3.22	3,600	2,304	57	12.7	117.5	54	89	216	78	113	5	8	0.05	1040
1050	5.63	3,600	4,033	64	12.7	138.0	60	112	216	87	126	5	8	0.05	1050
1060	8.85	3,600	6,337	79	19.1	150.5	73	127	330	103	145	5	8	0.09	1060
1070	13	3,600	9,217	83	19.1	161.9	79	127	330	109	153	5	12	0.11	1070
1080	27	3,600	19,010	95	27.0	194.0	89	184	406	122	178	5	12	0.17	1080
1090	48	3,600	34,564	108	27.0	213.0	102	184	406	142	210	5	12	0.25	1090
1100	81	2,400	58,183	127	38.1	250.0	90	203	406	171	251	6.5	12	0.43	1100
1110	121	2,250	86,411	149	50.8	270.0	104	210	406	196	277	6.5	12	0.51	1110
1120	177	2,025	126,736	165	63.5	308.0	119	246	406	225	319	9.5	12	0.73	1120
1130	257	1,800	184,343	178	76.2	346.0	135	257	406	238	346	9.5	12	0.91	1130
1140	370	1,650	264,993	203	88.9	384.0	152	267	406	266	386	9.5	12	1.13	1140
1150	515	1,500	368,686	254	101.6	453.1	173	345	371	334	425	9.5	14	1.95	1150
1160	724	1,350	518,465	279	114.3	501.4	186	356	406	366	457	9.5	14	2.81	1160
1170	965	1,225	691,286	330	127.0	566.4	220	384	445	425	527	9.5	16	3.49	1170
1180	1,338	1,100	958,584	330	101.6	629.9	249	400	490	451	591	9.5	16	3.76	1180
1190	1,770	1,050	1,267,358	362	114.3	675.6	276	411	530	508	660	9.5	18	4.40	1190
1200	2,413	900	1,728,216	381	127.0	756.9	305	445	575	530	711	9.5	18	5.62	1200

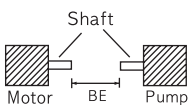


■ BE means the distance between shaft ends.

KSFS (Half Spacer)

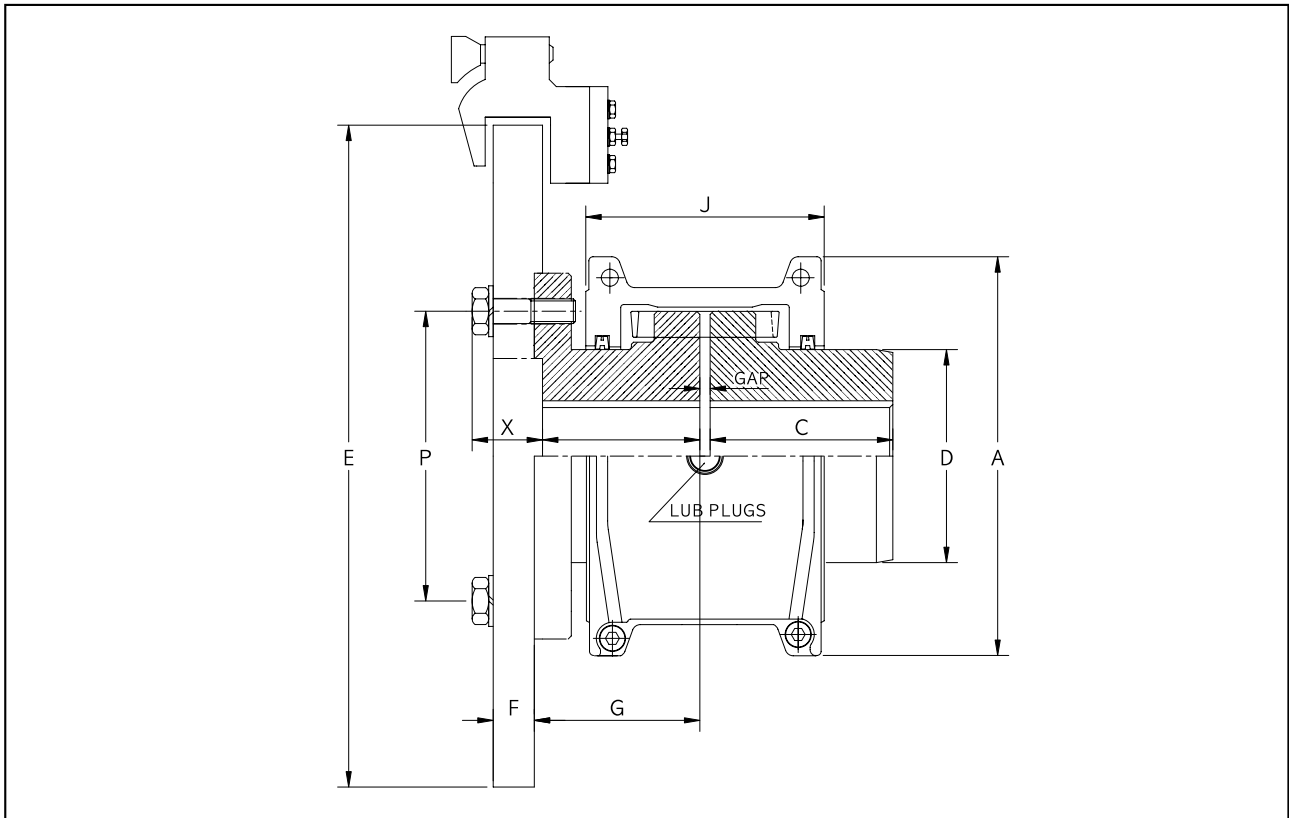


Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia (mm)		Dimensions(mm)							Flange Bolt No.	Lub Wt (kg)	Size
				Max.	Min.	A	B	BE(KSFS)		N	F.	Gap			
								Min.	Max.						
1020	0.68	3,600	486	36	12.7	101.6	35	45	102	52	86	5	4	0.03	1020
1030	1.93	3,600	1,383	44	12.7	111.0	41	45	109	59	94	5	8	0.03	1030
1040	3.22	3,600	2,304	57	12.7	117.5	54	45	109	78	113	5	8	0.05	1040
1050	5.63	3,600	4,033	64	12.7	138.0	60	57	109	87	126	5	8	0.05	1050
1060	8.85	3,600	6,337	79	19.1	150.5	73	64	166	103	145	5	8	0.09	1060
1070	13	3,600	9,217	83	19.1	161.9	79	64	166	109	153	5	12	0.11	1070
1080	27	3,600	19,010	95	27.0	194.0	89	93	204	122	178	5	12	0.17	1080
1090	48	3,600	34,564	108	27.0	213.0	102	93	204	142	210	5	12	0.25	1090
1100	81	2,400	58,183	127	38.1	250.0	90	103	205	171	251	6.5	12	0.43	1100
1110	121	2,250	86,411	149	50.8	270.0	104	106	205	196	277	6.5	12	0.51	1110
1120	177	2,025	126,736	165	63.5	308.0	119	125	205	225	319	9.5	12	0.73	1120
1130	257	1,800	184,343	178	76.2	346.0	135	130	205	238	346	9.5	12	0.91	1130
1140	370	1,650	264,993	203	88.9	384.0	152	135	205	266	386	9.5	12	1.13	1140
1150	515	1,500	368,686	254	101.6	453.1	173	175	187	334	425	9.5	14	1.95	1150
1160	724	1,350	518,465	279	114.3	501.4	186	180	205	366	457	9.5	14	2.81	1160
1170	965	1,225	691,286	330	127.0	566.4	220	194	224	425	527	9.5	16	3.49	1170
1180	1,338	1,100	958,584	330	101.6	629.9	249	202	247	451	591	9.5	16	3.76	1180
1190	1,770	1,050	1,267,358	362	114.3	675.6	276	207	267	508	660	9.5	18	4.40	1190
1200	2,413	900	1,728,216	381	127.0	756.9	305	224	289	530	711	9.5	18	5.62	1200



■ BE means the distance between shaft ends.

Type KHBD, (Disk Brake) Taper Grid Coupling



Size	KHBD		Dimension(mm)											Cplg WT kg	Lube WT kg	Brake Disk	
	Rated Torque kgf-m	Max speed rpm	Max bore	MIn bore	A	C	D	G	J	P	W	X	GAP			E	F
1020H	4.9	4,500	29	13	101.6	48	40	60	67.5	71	61	12	3.2	2.6	0.03	203	6.4
1030H	13.8	4,500	35	13	110	48	49	60	71.8	79	61	12	3.2	3.3	0.04	254	6.4
1040H	23.0	4,500	41	13	114.5	51	57	60	71.7	98	61	12	3.2	4.3	0.05	254	6.4
1050H	40.3	4,500	48	13	138	61	67	60	81.5	108	61	13	3.2	6.4	0.05	254	6.4
1060H	63.4	4,350	54	19	150.5	64	76	89	97.5	125	88	15	3.2	9.6	0.09	305	6.4
1070H	92.2	4,125	64	19	162	76	87	89	98.9	133	88	15	3.2	12.3	0.12	305	6.4
1080H	190.1	3,600	76	27	193.7	89	105	89	118.4	152	88	18	3.2	19.8	0.17	305	6.4
1090H	345.6	3,600	89	27	212.2	99	124	89	126.9	179	88	27	3.2	28.4	0.25	406	12.7
1100H	581.8	2,440	102	41	250	121	142	119	156	216	119	29	4.8	47.7	0.43	406	12.7
1110H	864.1	2,250	114	41	270	127	160	146	162.6	241	146	41	4.8	64.9	0.51	457	12.7
1120H	1,267.4	2,025	127	60	308	149	179	150	191	276	149	33	6.4	92.1	0.73	509	12.7
1130H	1,843.4	1,800	152	67	345.3	162	217	153	195	295	152	35	6.4	132	0.91	559	12.7
1140H	2,649.9	1,650	184	67	386	184	254	160	201	330	159	38	6.4	185	1.13	610	12.7
1150H	3,686.9	1,500	203	108	453	183	269	180	271	368	183	32	6.4	253	1.95	762	12.7
1160H	5,184.7	1,350	229	108	501	198	305	198	279	400	198	32	6.4	336	2.81	914	12.7

GEAR COUPLING



GEAR COUPLING



KCP Gear Coupling follows the international standards of AGMA and JIS, which easily allows to replace with major industrial products. Our Gear coupling compensate angular misalignment, parallel misalignment and end float. The fully crowned hub teeth provide minimum loading stress, and ensure longer life.

1. Characteristic

1. High torque, small size, long life and very little loss of transmitting power.
2. The concave-convex flange design allows easy assembly and the high quality gasket prevent leakage of lubricant.
3. Gear Coupling permits parallel, angular misalignments and end floating by crown gear teeth.

■ Parallel Misalignment

The driving and driven shafts are not parallel to each other, but not on the same straight line.

■ Angular Misalignment

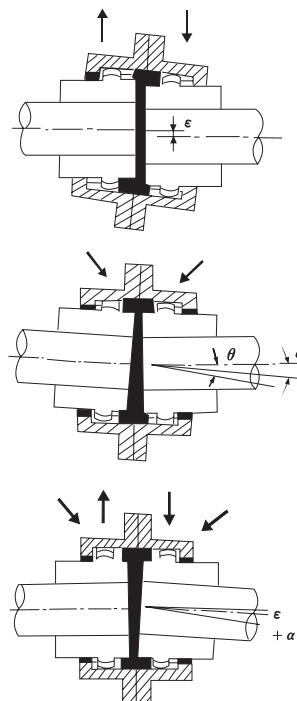
The driving and driven shafts installed with a limited angle.

■ End Floating

The driving and driven shafts slide slightly along with the gear teeth.

■ Composite Misalignment

Most of cases, above 3 misalignments appear with mixed in general use.



Allowable Misalignment

Size S	10G	15G	20G	25G	30G	35G	40G	45G	50G	55G	60G	70G	80G	90G	100G	110G	120G
ϵ (mm)	1.2	1.3	1.7	2.1	2.4	2.9	3.2	3.6	4.1	4.5	5.0	5.9	6.7	7.4	8.2	12.7	12.7
θ° (α)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	2(1)	2(1)	2(1)	2(1)	2(1)	2(1)

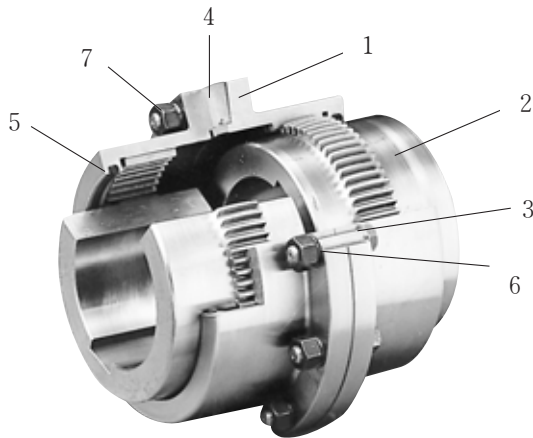
■ Data subject to double engagement couplings.

5. The coupling made of S45C has a good endurance to high speed and peak load.

Consult us for special materials, if required.

6. Customer's requirements of special design can be acceptable.

2. Structure



- 1. Internal Gear(Flanged Sleeve)
- 2. Crown Gear(Crown Gear Hub)
- 3. Reamer Bolt or AGMA Bolt
- 4. Gasket
- 5. O-ring
- 6. Spring Washer
- 7. Hex. Bolt & Nut.

■ The crowned hub teeth provide larger contact area and decrease the stress.

3. Application

1. Heavy load, but compact design coupling.
2. High speed up to 5,000rpm(Depending on size, refer to the data)
3. Low speed, but high starting torque.
4. End float application.
5. Spacer required, due to longer distance between shaft ends.
6. Low load and light weight application is not recommendable.

4. Standard Material

INTERNAL GEAR	CROWN GEAR	FLANGE	Bolt	O-Ring
SM 45C-N			SM 45C-H	NBR

- Special material and/or special treatment is required under the unusual application environments, such as high speed, high or low temperature, chemical corrosiveness, maximum load stress.
- Under the heavy load, high speed and corrosive environment, special materials shall be required.

5. Selection method of size

1. Selection

- ① Using the following formula, obtain Design Torque required.

$$T = 97,400 \frac{\text{kW}}{\text{N}} \times \text{S.F} \quad \text{또는} \quad T = 71,620 \frac{\text{HP}}{\text{N}} \times \text{S.F}$$

- T = Design torque(kg · cm)
 kW = Power(kw)
 HP = Power(HP)
 N = Working revolution (rpm)
 S · F = Recommended Service Factor

- ② Select the size with the same or greater value at the Basic Torque column, Refer to the maximum speed allowed to the size selected size, and then compare the shaft diameters of the application with the max. bore dia of the selected size. If the coupling bore is not suitable, select the next larger coupling size.

2. Special requirements.

- ① At the application of the Sliding Gear Coupling (type KGH) that endfloat movement occurs more than 5 times per hour, add 0.5 to the listed value of service factor
- ② At the applications such as continuous reverse revolutions, intermit operation, often peak load and high inertia required system, multiply 1.5 to the Design Torque calculated.
- ③ In the type of KGES-R and KGFS-O, the thickness and length of intermediate shaft must be determined according to our company's material specifications, consult with our Engineer.
- ④ Selecting the size of types KGDBW and KGSBW : apply brake power, if exceeds the prime mover power.

3. Example

Select Gear Coupling to connect 450HP 1,170rpm electric motor with reducer.

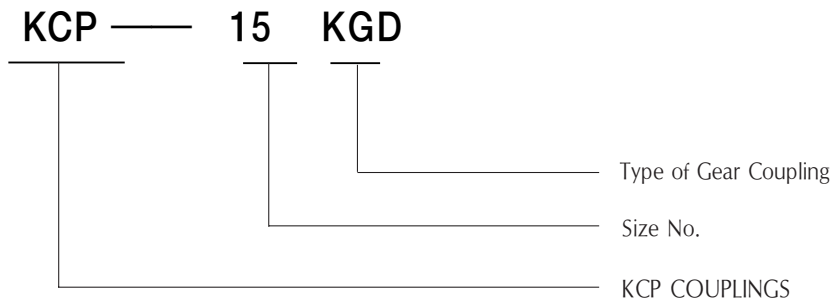
Motor shaft diameter is 80ϕ mm, Reducer shaft diameter is 90ϕ mm, Max. parallel alignment is 1.5mm

- ① Select type KGDE for higher valued application of parallel misalignment.
- ② Service factor is 2.0
- ③ Use the normal formula

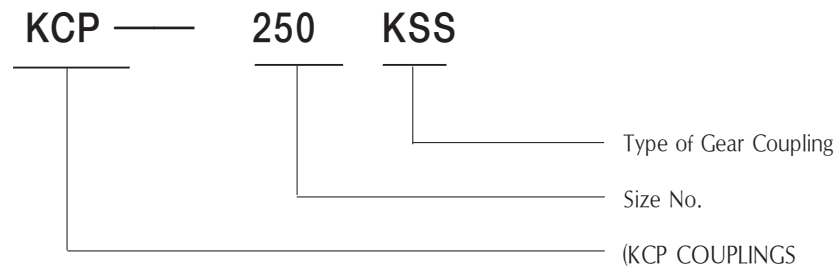
$$\text{HP}/100\text{rpm} = \frac{450 \times 100 \times 2.0}{1.170} = 76.9$$

Size KGDE25 is selected with rating of 90 HP per 100rpm. To apply larger shaft dia 90ϕ mm, finally KGDE 30 is selected.

6. Designation



- KGD : Double Engagement Coupling
- KGDL : Double Engagement Large Coupling
- KGS : Single Engagement Coupling
- KGSL : Single Engagement Large Coupling
- KGDS : Spacer Coupling - Double Engagement
- KGH10 : Double Engagmen - Horizontal Sliding Coupling
- KGH20 : Single Engagmen - Horizontal Sliding Coupling



- KSS : Double Engagment Coupling
- KSE : Single Engagement Coupling
- KCC : Double Engagement Coupling - Large type
- KCE : Single Engagment Coupling - Large type

7. Instruction for Installation

1. Small Size(up to size 60)

Hub bore and keyway must be machined accurately. During the key-fit to the shaft and the hub, be careful with the oil leakage.

- ① Clean all parts, Grease the crowned gear teeth and O-Ring.
Put O-Ring onto the shafts.
- ② Place the flanged sleeves on the shafts and mount the hubs.
- ③ Using a spacer bar, make the gap between the hubs equal to the normal gap specified.
- ④ Align the shaft with a strait bar by checking every 90° degree, referring to the table 3. Make it sure with a dial gauge not to exceed the offset limit.
- ⑤ Insert gasket between the flanged sleeves and fasten the bolts, positioning the lube plugo at 90°
- ⑥ Fill grease until overflowing at the open opposite Lub plug hole.

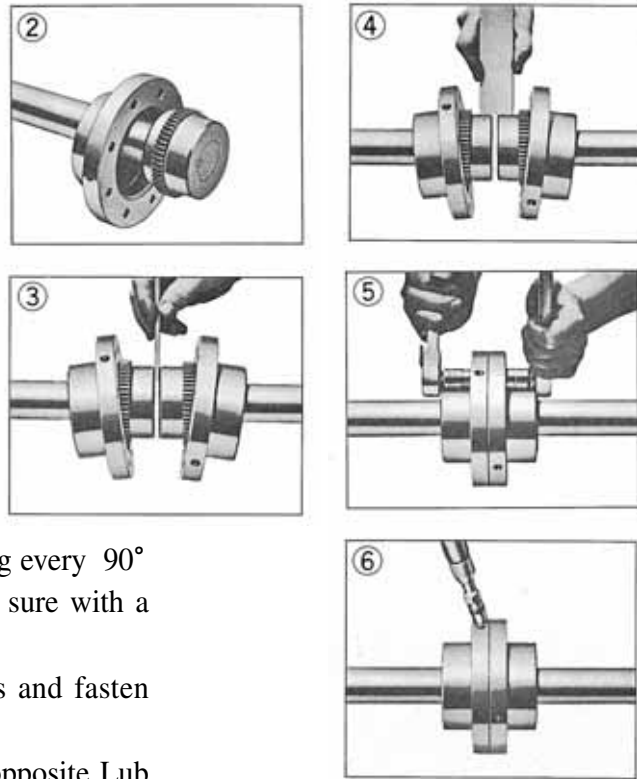


Fig. 3 Operating Limits of misalignment (mm)

Table 3

Size	10	15	20	25	30	35	40	45	50	55	60	70	80	90	100
Angular degree	0.125	0.125	0.25	0.25	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
Gap	3	3	3	4.5	4.5	6	6	8	8	8	8	9.5	10	13	13
Flange Bolt Torque(kg · cm)	96	320	480	960	960	1,650	1,650	1,650	2,070	2,070	2,070	2,980			

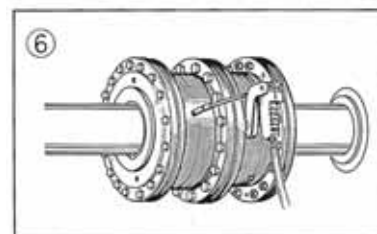
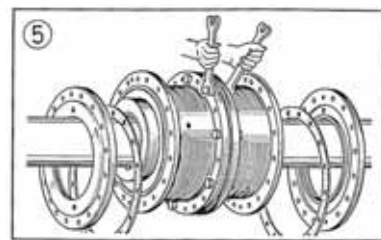
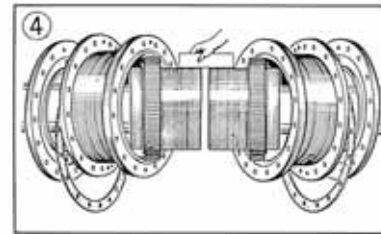
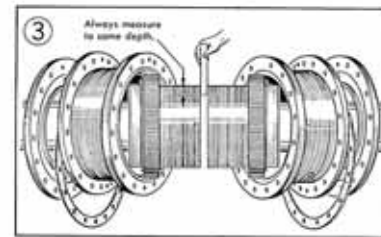
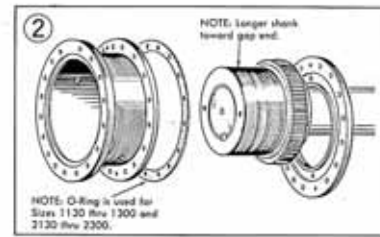
■ The life of coupling is reduced by excess of the OFFSET limit.

2. Large Size (over size 70)

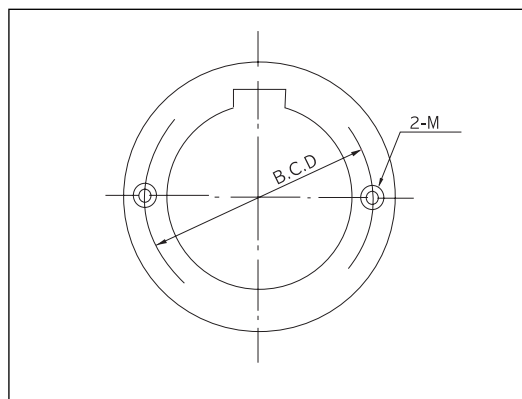
Hub bore and Keyway must be machined accurately.

During the Key-Fit work, be careful Internal Gear not to make oil leakage.

- ① Clean all parts. Pack with grease and seals with grease before assembly.
- ② Place the side covers with sealing gaskets on the shafts before mounting the crown gears. Mount crown gears on their respective shafts. Mount Internal Gears with side cover gaskets.
- ③ Use a spacer bar equal into the gap. The difference in minimum and maximum measurements should not exceed the angular limit specified in table 3.
- ④ Align with a straightedge, rests squarely at every 90° as shown in photo Check with feelers. The tolerance should not exceed the offset limit specified in Table 3.
- ⑤ Insert gasket between flanges. Position Internal Gears with lube holes at about 90° and then fasten the bolt&nuts.
- ⑥ Remove all lube plugs and fill recommended grease into the coupling until excess flow through the opposite lub plug hole. And screw down plugs.



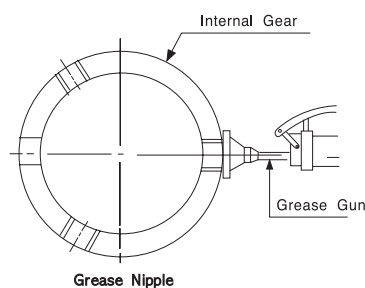
8. Selection of Puller Holes


표4 Table4

Size	BCD	Tap Size
20KG	89	M8
25KG	112	M10
30KG	128	M10
35KG	152	M12
40KG	181	M16
45KG	200	M16
50KG	216	M20
55KG	238	M20
60KG	268	M20
70KG	305	M24
80KG	318	M24
90KG	356	M30
100KG	394	M30
110KG	426	M30
120KG	498	M30

9. Lubrication and Handling

Information of the adequate lubricant for good performance and long life.



1. Lubricant

① Grease the Internal gear teeth and crown gear teeth, and fill enough lubricant Grease.

② Lub weight - Refer to "Dimensions Table" on page30.

③ Supplement and Replacement;

Add grease every moth or every 240~250 hours operating.

Renew all the contaminated grease every 3 months or every 4,000 hours operationg

④ Selection

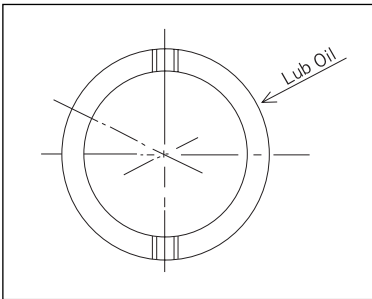
Allowable temperature of grease is from -17°C to 70°C . Refer to the table 6 that shows the coupling RPM allowed for the listed grease.

Table 5

Company	Oil	Grease # 1	Grease # 0
Gulf Oil Corp.		Gulfcrown Grease EP #1	Gulfcrown Grease EP #0
Shell Oil Corp.		Alvania Grease EP #1	Alvania Grease EP-RO
Texaco Inc.		Multifak EP - 1	Multifak EP - 0
Mobil Oil Corp.		Mobilux EP - 1	Mobilux EP - 0

■ NOTE : Lubricants listed in this manual are typical products.

2. Lubricant Filling



- ① Place the Lub plug holes × 2EA horizontal level. Fill up Lubricant until it overflows from the opposite hole.
- ② Supplement every month, or 240-250 hours operating.
- ③ Replacement completely all the contaminated lubricant, every 3 months or every 4,000 hours operating.

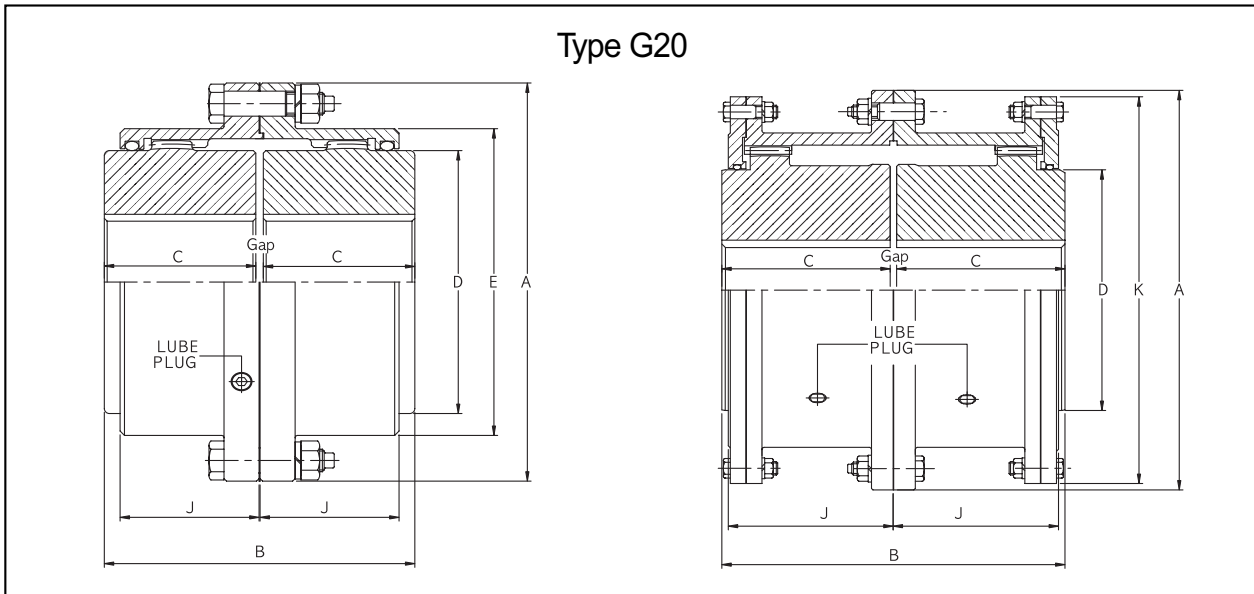
3. Selection of Lubricant

Table 6

Company		Shell	Mobil	Michang	Buhmwoo	Gulf	Fujikosan Nipponkoju	Houghton	Hanil		Caltex
CST 40°C	CST 40°C	omala 68	Mobilgear 626	Pio Gear EP 68	Buhmwoo Gearlube BG-68	Gulf EP Lubricant R 68	Hirax ME GO 300	MP Gear Oil 68	Nico Gear SP 68	Daphne CE compound 68C	Meropa Lubricant 68
		68	315								
100	465	omala 68		Pio Gear EP 68	Buhmwoo Gearlube BG-100	Gulf EP Lubricant HD 100	Hirax ME GO 500	MP Gear Oil 100	Nico Gear SP 100	Daphne CE compound 100S	Meropa Lubricant 100
150	700	omala 150	Mobilgear 629	Pio Gear EP 150	Buhmwoo Gearlube BG-150	Gulf EP Lubricant R150, HD150	Hirax ME GO 700	MP Gear Oil 150	Nico Gear SP 150	Daphne CE compound 150S	Meropa Lubricant 150, Synthetic Gear Lube
150	700	omala 220	Mobilgear 630	Pio Gear EP 220	Buhmwoo Gearlube BG-220	Gulf EP Lubricant R220, HD220	Hirax ME GO 1000	MP Gear Oil 220	Nico Gear SP 220	Daphne CE compound 220S	Meropa Lubricant 220
320	1500	omala 320	Mobilgear 632	Pio Gear EP 320	Buhmwoo Gearlube BG-320	Gulf EP Lubricant R320, HD320	Hirax ME GO 1500	MP Gear Oil 320	Nico Gear SP 320	Daphne CE compound 320S	Meropa Lubricant 320

■ Aboves are sample products.

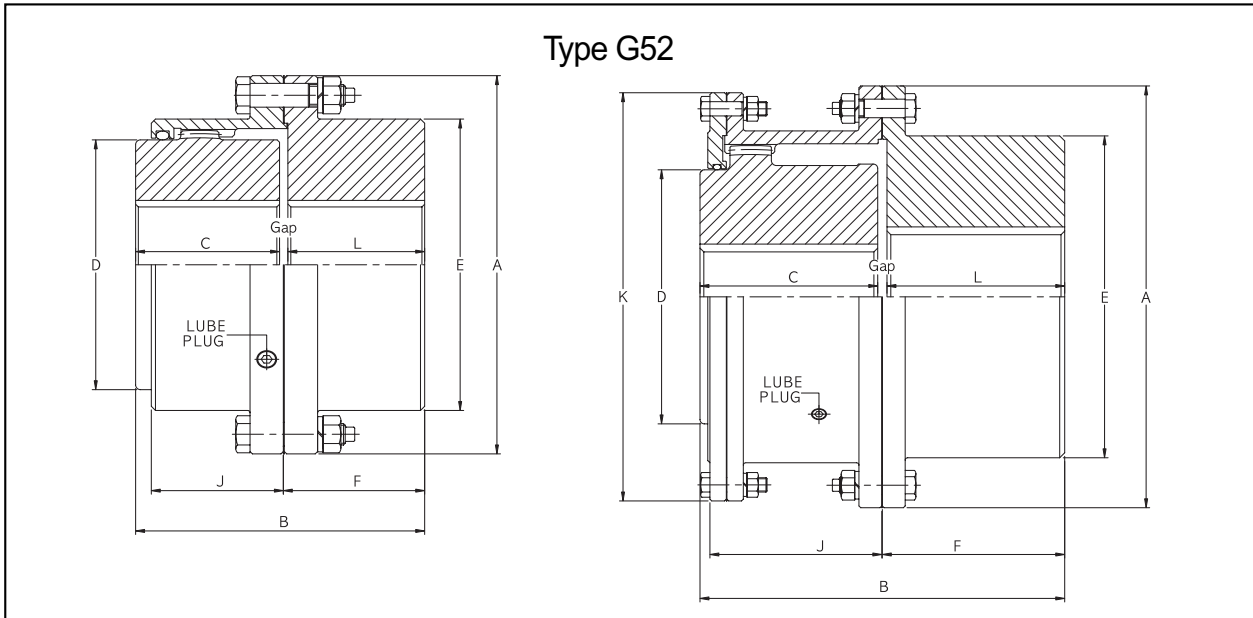
Type G20, (Double Gear) Gear Coupling - AGMA Type



Size	Type G20 Standard Flanged Sleeve							Dimension(inch)						
	HP per 100 rpm	Torque Rating (lb-in)	Allow Speed rpm	Max bore da	Min bore da	Cplg Wt(lb) G20	Lube wf lb	A	B	C	D	E	J	Gap
1010G	16	10,080	8,000	1,875	50	10	.09	4.56	3.50	1.69	2.70	3.30	1.53	.125
1015G	33	20,790	6,500	2,375	75	20	.16	6.00	4.00	1.94	3.40	4.14	1.88	.125
1020G	60	37,800	5,600	2,875	1.00	35	.25	7.00	5.00	2.44	4.14	4.98	2.34	.125
1025G	105	66,150	5,000	3,625	1.25	65	.50	8.38	6.25	3.03	5.14	6.10	2.82	.188
1030G	170	107,100	4,400	4,125	1.50	95	.80	9.44	7.37	3.59	6.00	7.10	3.30	.188
1035G	260	163,800	3,900	4,875	2.00	150	1.20	11.00	8.63	4.19	7.00	8.32	3.84	.250
1040G	430	270,900	3,600	5,750	2.50	215	2.00	12.50	9.75	4.75	8.25	9.66	4.38	.250
1045G	590	371,700	3,200	6,750	3.00	300	2.30	13.62	10.93	5.31	9.25	10.79	4.84	.312
1050G	795	500,900	2,900	7,375	3.50	420	3.90	15.31	12.37	6.03	10.00	12.04	5.54	.312
1055G	1,040	655,200	2,650	8,250	4.00	550	4.90	16.75	13.56	6.62	11.00	13.16	6.22	.312
1060G	1,270	800,100	2,450	9,125	4.50	675	7.00	18.00	15.13	7.41	12.00	14.41	6.66	.312
1070G	1,900	1,197,000	2,150	10,875	5.00	1070	9.60	20.75	17.75	8.69	14.00	16.73	7.70	.375

Size	Type G20 Standard Flanged Sleeve							Dimension(inch)						
	Torque Rating lb-in (millions)		Allow Speed rpm	Max bore da	Min bore da	Cplg Wt(lb) G20	Lube wf lb	A	B	C	D	J	K	Gap
	Series	Series												
1080G	1,506	2,070	1,750	10.50	4.000	1150	21	23.25	20.02	9.82	14.00	9.56	22.50	.375
1090G	1,997	2,791	1,550'	11.25	4.500	2170	27	26.00	22.26	10.88	15.50	10.44	25.25	.500
1100G	2,747	3,919	1,450'	12.75	5.000	2870	33	28.00	24.50	12.00	17.50	11.56	27.50	.500
1110G	3,654	5,393	1,330	14.00	5.500	3700	39	30.50	26.74	13.12	19.50	12.69	29.50	.500
1120G	4,914	6,880	1,200	15.25	6.000	4660	46	33.00	28.26	13.88	21.50	13.44	32.50	.500

Type G52, (Double Gear) Gear Coupling - AGMA Type

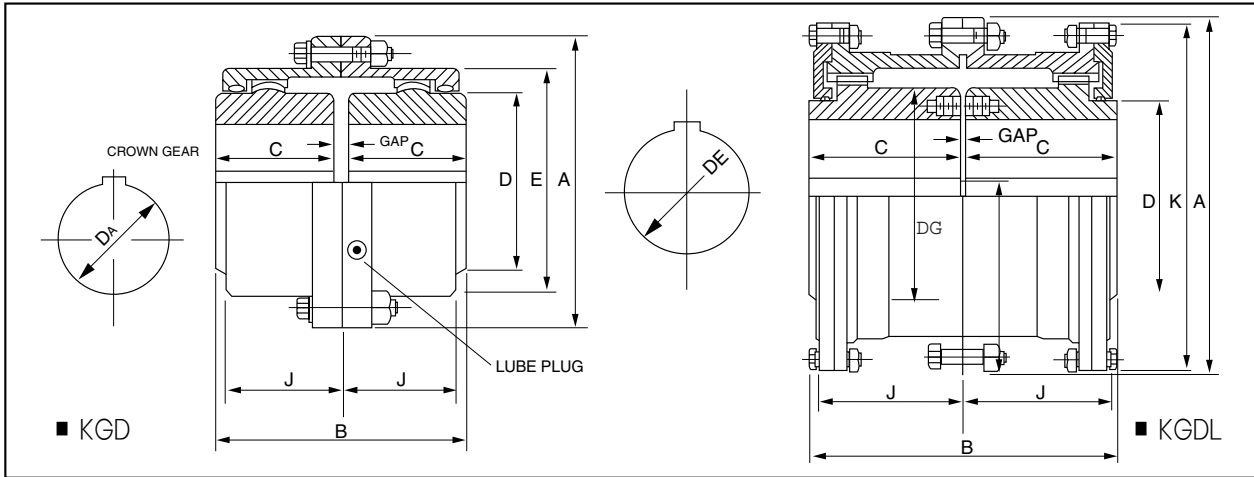


Size	Type G52 Large Flanged Sleeve						Dimension(inch)									
	HP per 100 rpm	Torque Rating (lb-in)	Allow Speed rpm	Max Bore Max		Cplg Wt(lb) G52	Lube wf lb	A	B	C	D	E	J	L	F	Gap
				DE	DA											
1010G	16	10,080	8,000	1,875	50	10	.50	4.56	3.41	1.69	2.70	3.30	1.53	1.56	1.66	.156
1015G	33	20,790	6,500	2,375	75	20	.09	6.00	3.92	1.94	3.40	4.14	1.88	1.82	1.92	.156
1020G	60	37,800	5,600	2,875	1.00	35	.15	7.00	4.90	2.44	4.14	4.98	2.34	2.30	2.40	.156
1025G	105	66,150	5,000	3,625	1.25	60	.26	8.38	6.12	3.03	5.14	6.10	2.82	2.90	3.00	.188
1030G	170	107,100	4,400	4,125	1.50	95	.40	9.44	7.24	3.59	6.00	7.10	3.30	3.46	3.56	.188
1035G	260	163,800	3,900	4,875	2.00	150	.60	11.00	8.43	4.19	7.00	8.32	3.84	4.02	4.12	.218
1040G	430	270,900	3,600	5,750	2.50	220	1.03	12.50	9.56	4.75	8.25	9.66	4.38	4.54	4.70	.281
1045G	590	371,700	3,200	6,750	3.00	300	1.25	13.62	10.75	5.31	9.25	10.79	4.84	5.14	5.30	.312
1050G	795	500,900	2,900	7,375	3.50	430	2.00	15.31	12.17	6.03	10.00	12.04	5.54	5.80	6.00	.344
1055G	1,040	655,200	2,650	8,250	4.00	580	2.50	16.75	13.76	6.62	11.00	13.16	6.22	6.80	7.00	.344
1060G	1,270	800,100	2,450	9,125	4.50	715	3.75	18.00	15.16	7.41	12.00	14.41	6.66	7.34	7.60	.406
1070G	1,900	1,197,000	2,150	10,875	5.00	1120	5.00	20.75	17.86	8.69	14.00	16.73	7.70	8.64	9.00	.506

Size	Type G52 Standard Flanged Sleeve						Dimension(inch)									
	Torque Rating lb-in(millions)		Allow Speed rpm	Max Bore Max		Cplg Wt(lb) G52	Lube wf lb	A	B	C	D	E	J	L	K	Gap
	1000 Series	2000 Series		DE	DA											
1080G	1,506	2,070	1,750	13.25	10.50	1540	11	23.25	20.12	9.82	14.00	17.75	9.56	9.80	22.50	.50
1090G	1,997	2,791	1,550'	15.00	11.25	2170	14	26.00	22.30	10.88	15.50	20.00	10.44	10.86	25.25	.56
1100G	2,747	3,919	1,450'	15.50	12.75	2760	17	28.00	24.62	12.00	17.50	20.88	11.56	12.00	27.50	.62
1110G	3,654	5,393	1,330	17.25	14.00	3610	20	30.50	26.86	13.12	19.50	23.00	12.69	13.12	29.50	.62
1120G	4,914	6,880	1,200	19.00	15.25	4580	24	33.00	28.37	13.88	21.50	25.50	13.44	13.87	32.50	.62

10. Dimensions

Type KGD (Double Engagement coupling), KGDL (Double Engagement Large coupling)



■ KGD

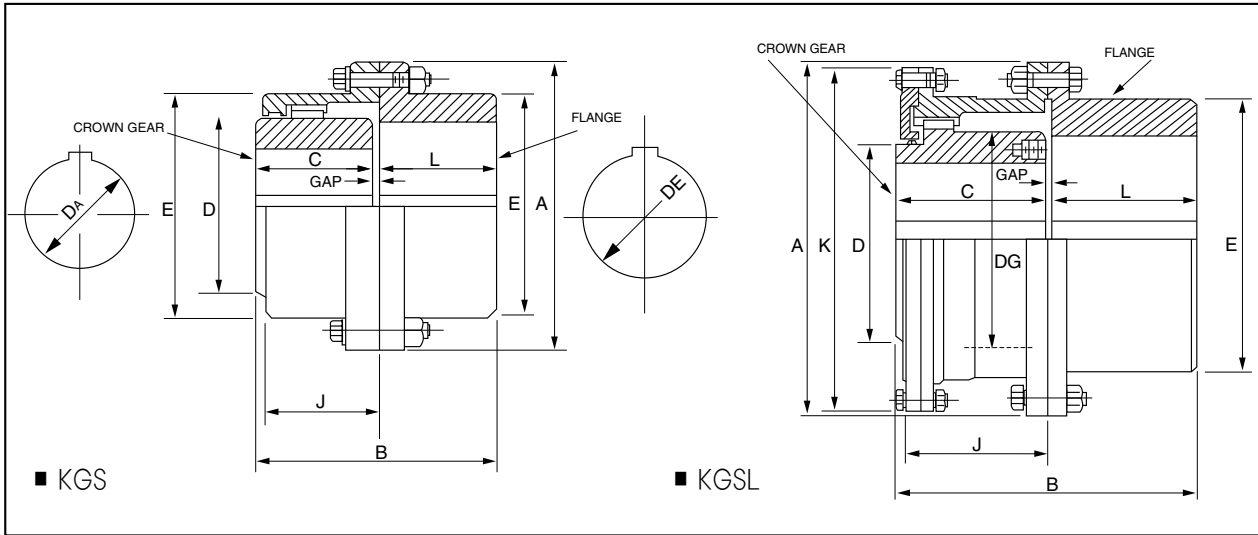
Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia(mm)		Dimensions(mm)						Gap	Cplg Wt (kg)	Lub Wt (kg)	Size
				Max.	Min.	A	B	C	D	E	J				
10KGD	12	8,000	8,594	48	13	116	89	43	69	84	39	3	4.5	0.04	10KGD
15KGD	27	6,500	19,337	60	19	152	101	49	86	105	48	3	9.1	0.07	15KGD
20KGD	50	5,600	35,810	73	25	178	127	62	105	126	59	3	15.9	0.11	20KGD
25KGD	90	5,000	64,458	92	32	213	159	77	131	155	72	5	25.9	0.23	25KGD
30KGD	150	4,400	107,430	105	38	240	187	91	152	180	84	5	43.1	0.36	30KGD
35KGD	230	3,900	164,726	124	51	279	218	106	178	211	98	6	68.0	0.54	35KGD
40KGD	350	3,600	250,670	146	64	318	248	121	210	245	111	6	97.5	0.91	40KGD
45KGD	480	3,200	343,776	165	76	346	278	135	235	274	123	8	136.1	1.04	45KGD
50KGD	650	2,900	465,530	178	89	389	314	153	254	306	141	8	190.5	0.77	50KGD
55KGD	850	2,650	608,770	197	102	425	344	168	279	334	158	8	249.5	2.22	55KGD
60KGD	1,100	2,450	787,820	222	114	457	384	188	305	366	159	8	306.2	3.18	60KGD

■ KGDL

Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia(mm)		Dimensions(mm)								Cplg Wt (kg)	Lub Wt (kg)	Size
				MAX	Min	A	B	C	D	DG	J	K	Gap			
70KGDL	1,600	2,150	1,145,920	254	89	527	451.5	221	343	356	196	517	9.5	485.4	4.35	70KGDL
80KGDL	2,100	1,750	1,504,020	279	102	591	507.5	249	356	368	243	572	9.5	703.1	9.53	80KGDL
90KGDL	2,850	1,550	2,041,170	305	114	660	565	276	394	419	265	641	13	984.3	12.25	90KGDL
100KGDL	4,000	1,450	2,864,800	343	127	711	623	305	445	470	294	699	13	1302.0	14.97	100KGDL
110KGDL	5,500	1,330	3,939,100	387	140	775	679	333	495	521	322	749	13	1678.3	17.69	110KGDL
120KGDL	7,000	1,200	5,013,400	425	152	838	719	353	546	572	341	826	13	2113.8	20.87	120KGDL

■ Coupling weight without Bore.

Type KGS (Single Engagement Large Coupling), KGSL (Single Engagement Large Coupling)



■ KGS

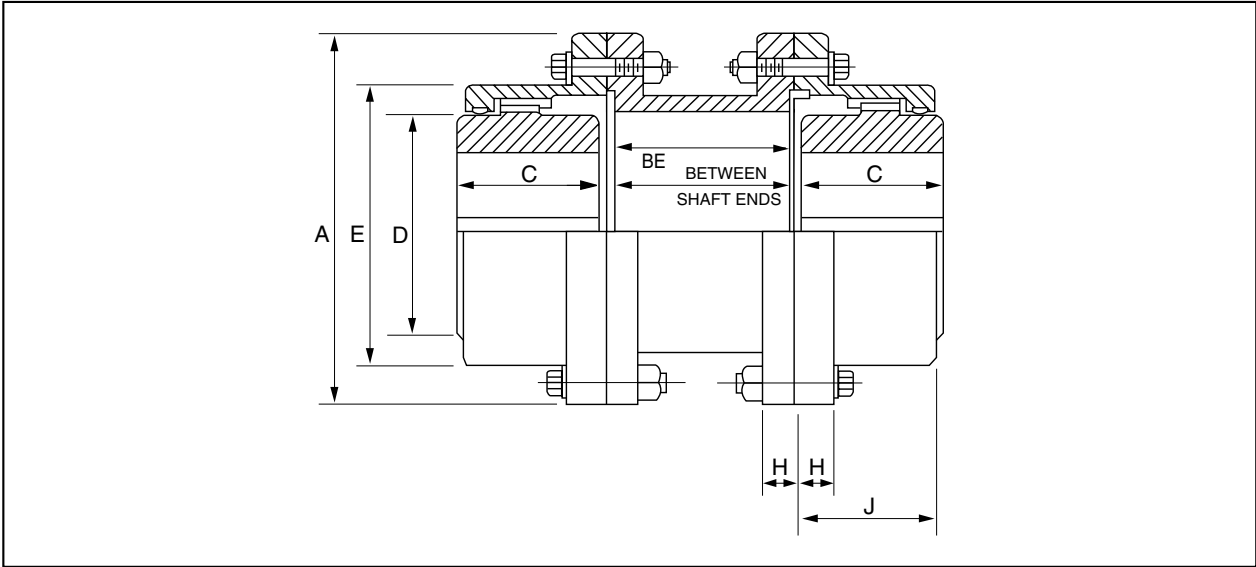
Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia(mm)			Dimensions(mm)								Cplg Wt (kg)	Lub Wt (kg)	Size
				Max.		Min	A	B	C	D	E	J	L	Gap			
				DE	DA												
10KGS	12	8,000	8,594	60	48	13	116	87	43	69	84	39	40	4	4.5	0.02	10KGS
15KGS	27	6,500	19,337	75	60	19	152	99	49	86	105	48	46	4	9.1	0.04	15KGS
20KGS	50	5,600	35,810	92	73	25	178	124	62	105	126	59	58	4	15.9	0.07	20KGS
25KGS	90	5,000	64,458	111	92	32	213	156	77	131	155	72	74	5	27.2	0.12	25KGS
30KGS	150	4,400	107,430	130	105	38	240	184	91	152	180	84	88	5	43.1	0.18	30KGS
35KGS	230	3,900	164,726	149	124	51	279	213	106	178	211	98	102	5.5	61.2	0.27	35KGS
40KGS	350	3,600	250,670	171	146	64	318	243	121	210	245	111	115	7	99.8	0.47	40KGS
45KGS	480	3,200	343,776	194	165	76	346	274	135	235	274	123	131	8	136.1	0.57	45KGS
50KGS	650	2,900	465,530	222	178	89	389	309	153	254	306	141	147	9	195.0	0.91	50KGS
55KGS	850	2,650	608,770	248	197	102	425	350	168	279	334	158	173	9	263.1	1.13	55KGS
60KGS	1,100	2,450	787,820	267	222	114	457	384	188	305	366	169	186	10	324.3	1.70	60KGS

■ KGSL

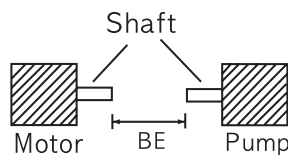
Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia(mm)			Dimensions(mm)								Cplg Wt (kg)	Lub Wt (kg)	Size		
				Max.		Min	A	B	C	D	DG	E	J	L				K	Gap
				DE	DA														
70KGSL	1,600	2,150	1,145,920	305	254	89	527	454	221	343	356	425	196	220	517	13	508.0	2.27	70KGSL
80KGSL	2,100	1,750	1,504,020	343	279	102	591	511	249	356	368	451	243	249	572	13	698.5	4.99	80KGSL
90KGSL	2,850	1,550	2,041,170	381	305	114	660	566	276	394	419	508	265	276	641	14	984.5	6.35	90KGSL
100KGSL	4,000	1,450	2,964,800	406	343	127	711	626	305	455	470	530	294	305	699	16	1,251.9	7.71	100KGSL
110KGSL	5,500	1,330	3,939,100	445	387	140	775	682	333	495	521	584	322	333	749	16	1,637.5	9.07	110KGSL
120KGSL	7,000	1,200	5,013,400	495	425	152	838	722	353	546	572	648	341	353	826	16	2,077.5	10.89	120KGSL

■ Coupling weight without Bore .

Type KGDS (Spacer Coupling - Double Engagement)



Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia(mm)		Dimensions(mm)								Cplg Wt (kg)	Lub Wt (kg)	Size
						Max.	Min.	A	BE		C	D	E			
				Min.	Max.											
10KGDS	12	7,000	8,594	48	13	116	83	311	43	69	84	14	39	6.8	0.04	10
15KGDS	27	5,500	19,337	60	19	152	83	311	49	86	105	19	48	13.6	0.07	15
20KGDS	50	4,600	35,810	73	25	178	83	311	62	105	126	19	59	20.4	0.11	20
25KGDS	90	4,000	64,458	92	32	213	95	311	77	131	155	22	72	38.6	0.23	25
30KGDS	150	3,600	107,430	105	38	240	95	311	91	152	180	22	84	54.4	0.36	30
35KGDS	230	3,100	164,726	124	51	279	120	311	106	178	211	28	98	88.5	0.54	35
40KGDS	350	2,800	250,670	146	64	318	120	311	121	210	245	28	111	122.5	0.91	40
45KGDS	480	2,600	343,776	165	76	346	120	311	135	235	274	28	123	165.6	1.04	45
50KGDS	650	2,400	465,530	178	89	389	146	311	153	254	306	38	141	238.1	1.77	50
55KGDS	850	2,200	608,770	197	102	425	146	311	168	279	334	38	158	306.2	2.22	55
60KGDS	1,100	2,100	787,820	222	114	457	146	311	188	305	366	25	169	358.3	3.18	60
70KGDS	1,600	1,800	1,145,920	254	127	527	146	311	221	356	425	28	196	562.5	4.35	70



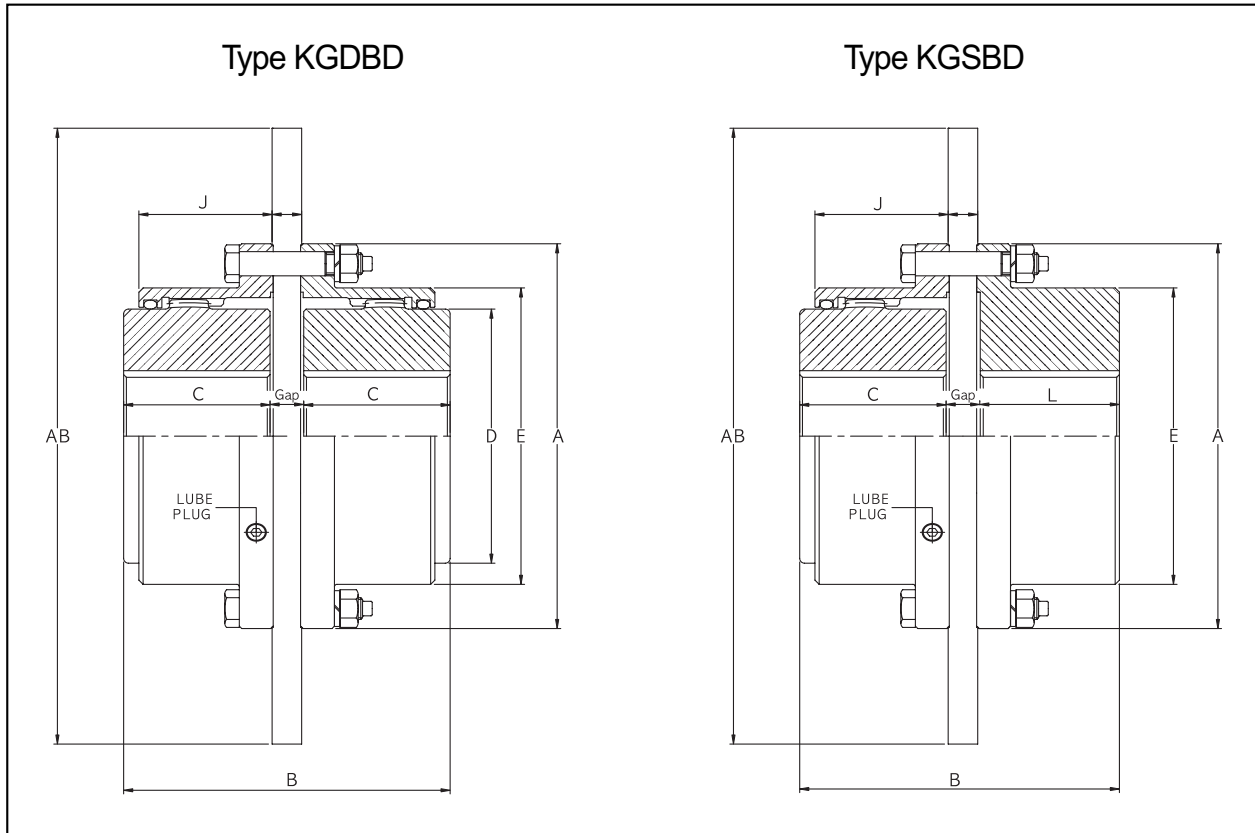
■ Application of spacer products.

- ① When impossible to connect hubs due to long distance between shaft ends.
- ② When necessary to prevent transmitting heat and electric currencty

■ 'BE' is the distance between shaft ends.

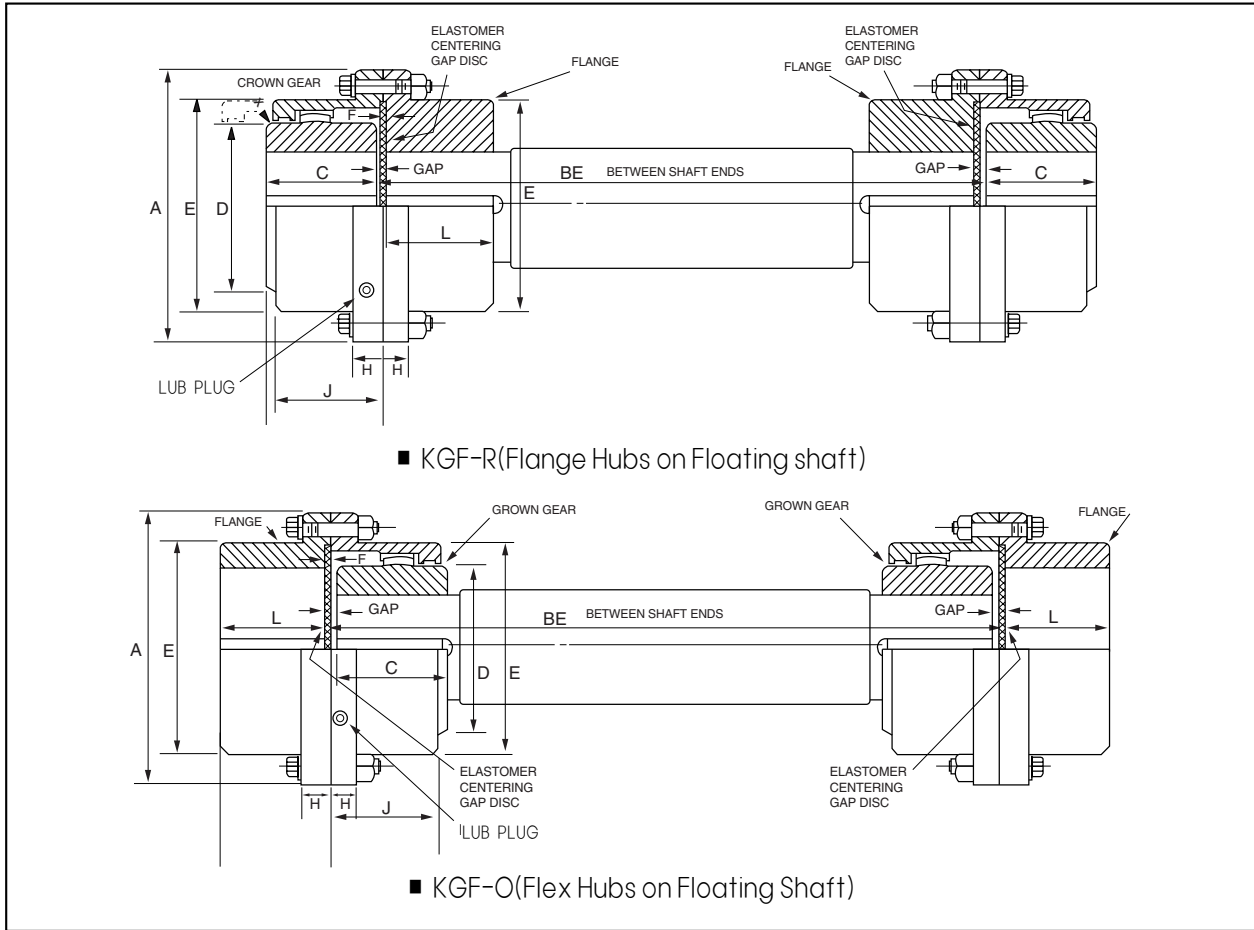
■ State 'BE' number when you order.

Type KGDBD, KGSBD (Brake Drum) Gear Coupling



Size	KGDBD, KGSBD			Dimension(mm)															
	Max Brake Rating of Cplg	Rated Torque kgf-m	Max speed rpm	Max bore da	Min bore de	Min bore da, de	B (KGD)	B (KGS)	A	C	D	E	J	L	M	W	Gap (KGD)	Gap (KGS)	
10KG	2,558	86	8,000	48	60	13	99	97	116	43	69	2.5	39	40	51	10	13	14	
15KG	5,807	193	6,500	60	75	19	114	112	152	49	86	2.5	48	46	61	13	16	17	
20KG	10,715	358	5,600	73	92	25	140	137	178	62	105	2.5	59	58	76	13	16	17	
25KG	19,356	644	5,000	92	111	32	173	170	213	77	131	2.5	72	74	91	14	19	19	
30KG	31,799	1,074	4,400	105	130	38	201	198	240	91	152	2.5	84	88	107	14	19	19	
35KG	49,081	1,647	3,900	124	149	51	237	233	279	106	178	2.5	98	102	130	19	25	25	
40KG	74,659	2,507	3,600	146	171	64	267	262	318	121	210	4.0	111	115	145	19	25	26	
45KG	102,310	3,437	3,200	165	194	76	297	293	346	135	235	4.0	123	131	165	19	27	27	
50KG	138,257	4,655	2,900	178	222	89	339	334	389	153	254	5.0	141	147	183	25	33	34	
55KG	181,463	6,088	2,650	197	248	102	369	375	425	168	279	5.0	158	173	203	25	33	34	
60KG	235,037	7,878	2,450	222	267	114	409	410	457	188	305	6.6	169	186	229	25	33	36	
70KG	341,495	11,459	2,150	254	305	127	477	479	527	221	356	8.0	196	220	267	25	35	38	

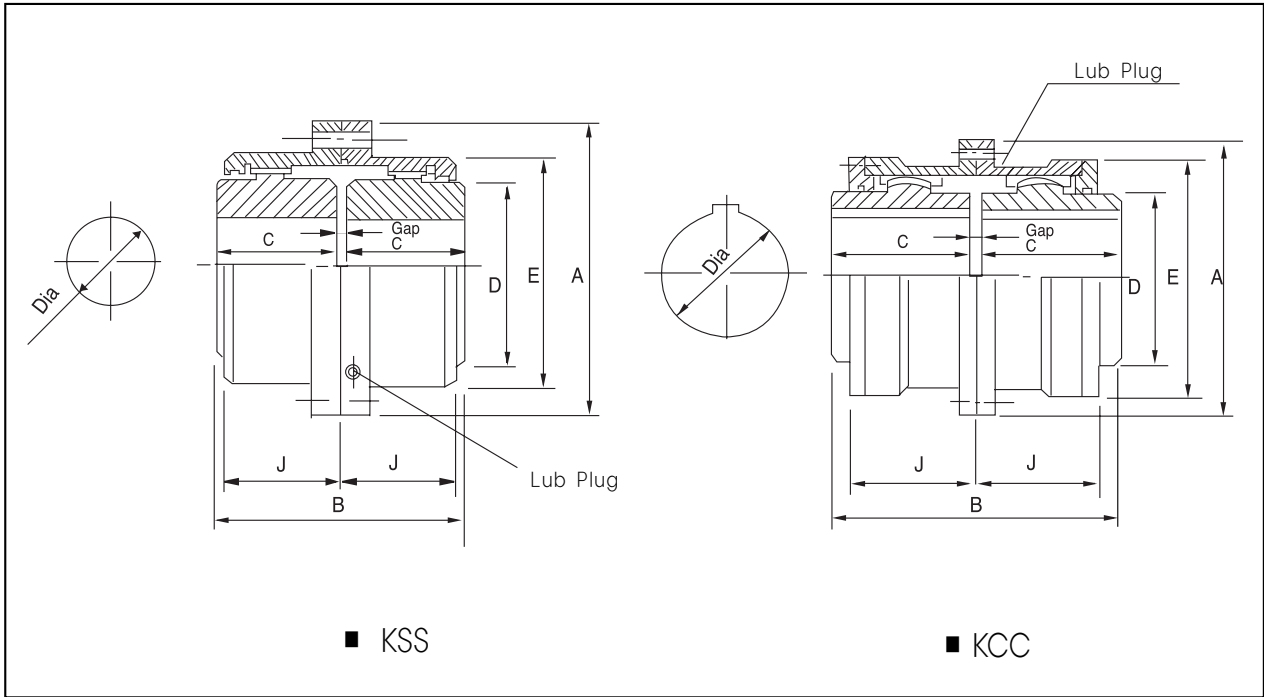
Type KGF (Single Engagement Coupling With Floating Shafts)



Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia(mm)			Dimensions(mm)											Cplg Wt (kg)	Lube Wt(kg) Per Cplg	Size	
				Max.		Min	A	BE Min.		C	D	F	E	H	J	L	Q				Gap
				Gear	Flange			GF-R	GF-O												
10KGF	12	8,000	8,594	48	60	13	116	92	133	43	69	2.5	84	14	39	40	42	4.0	4.5	0.02	10KGF
15KGF	27	6,500	19,337	60	75	19	152	105	159	49	86	2.5	105	19	48	46	49	4.0	9.1	0.04	15KGF
20KGF	50	5,600	35,810	73	92	25	178	129	197	62	105	2.5	126	19	59	58	61	4.0	15.9	0.07	20KGF
25KGF	90	5,000	64,458	92	111	32	213	162	241	77	131	2.5	155	22	72	74	76	5	27.2	0.12	25KGF
30KGF	150	4,400	107,430	105	130	38	240	189	279	91	152	2.5	180	22	84	88	90	5	43.1	0.18	30KGF
35KGF	230	3,900	164,726	124	149	51	279	219	324	106	178	2.5	211	28	98	102	105	5.5	68.0	0.27	35KGF
40KGF	350	3,600	250,670	146	171	64	318	248	419	121	210	4.1	245	28	111	115	119	7	99.8	0.47	40KGF
45KGF	480	3,200	343,776	165	194	76	346	281	508	135	235	4.1	274	28	123	131	135	8	136.1	0.57	45KGF
50KGF	650	2,900	465,530	178	222	89	389	316	533	153	254	5.1	306	38	141	147	152	9	195.0	0.91	50KGF
55KGF	850	2,650	608,770	197	248	102	425	367	572	168	279	5.1	334	38	158	173	178	9	263.1	1.13	55KGF
60KGF	1,100	2,450	787,820	222	267	114	457	397	597	188	305	6.6	366	25	169	186	193	10	324.3	1.70	60KGF
70KGF	1,600	2,150	1,145,920	254	305	127	527	470	673	221	356	8.4	425	28	196	220	229	13	508.0	2.27	70KGF

■ Coupling weight without Bore.

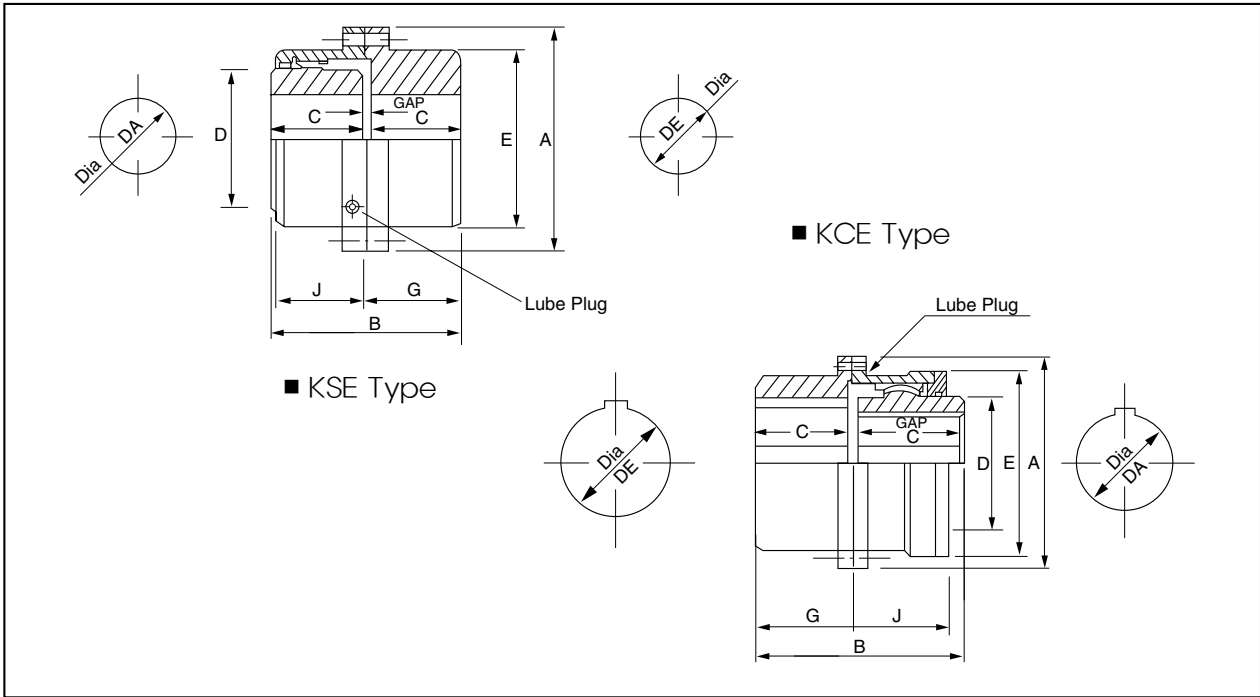
Type KSS (Gear Double) KCC (Gear Double Large)



Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia(mm)		Dimensions(mm)							Cplg Wt (kg)	Lube Wt (kg)	Size
				Max.	Min	A	B	C	D	E	J	Gap			
KSS112	8	3,600	5,730	40	16	112	108	50	58	79	40	8	4.6	0.04	KSS112
KSS125	14	3,600	10,160	50	31	125	134	63	70	92	43	8	6.7	0.05	KSS125
KSS140	20	3,600	14,630	56	31	140	150	71	80	107	47	8	9.3	0.07	KSS140
KSS160	31	3,600	22,390	63	31	160	170	80	95	120	52	10	14	0.09	KSS160
KSS180	48	3,600	34,380	71	45	180	190	90	105	134	56	10	19	0.12	KSS180
KSS200	69	3,600	49,100	80	45	200	210	100	120	149	61	10	26	0.15	KSS200
KSS224	100	3,080	71,330	90	51	224	236	112	145	174	65	12	38	0.25	KSS224
KSS250	134	2,650	96,190	100	51	250	262	125	165	200	74	12	56	0.35	KSS250
KSS280	233	2,340	166,600	125	51	280	294	140	190	224	82	14	83	0.48	KSS280
KSS315	367	1,980	262,600	160	112	315	356	170	225	260	98	16	135	0.77	KSS315
KSS355	552	1,800	395,400	180	125	355	396	190	250	288	108	16	184	0.94	KSS355
KSS400	776	1,570	555,500	200	140	400	418	200	285	329	114	18	261	1.36	KSS400
KCC450	1,050	1,570	752,000	200	140	450	418	200	290	372	151	18	304	1.79	KCC450
KCC500	1,652	1,320	1,183,000	236	170	500	494	236	335	425	168	22	453	2.64	KCC500
KCC560	2,369	1,170	1,697,000	265	190	560	552	265	385	475	187	22	664	3.23	KCC560
KCC630	3,700	990	2,650,000	315	224	630	658	315	455	548	213	28	1,020	4.93	KCC630
KCC710	5,306	870	3,800,000	355	250	710	738	355	510	622	242	28	1,460	6.63	KCC710
KCC800	7,600	780	5,443,000	400	280	800	832	400	570	690	267	32	2,090	9.35	KCC800

■ Coupling weight without Bore.

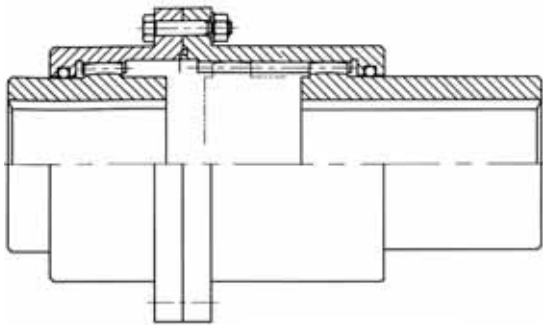
Type KSE (Gear Single) KCE (Gear Single Large)



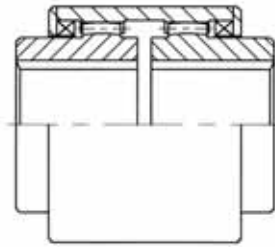
Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kg · cm)	Bore Dia (mm)			Dimensions (mm)								Cplg Wt (kg)	Lub Wt (kg)	Size
				Max.		Min	A	B	C	D	E	G	J	Gap			
				DA	DE												
KSE112	8	3,600	5,730	40	50	16	112	108	50	58	79	54	40	8	4.6	0.04	KSE112
KSE125	14	3,600	10,160	50	56	31	125	134	63	70	92	67	43	8	6.7	0.05	KSE125
KSE140	20	3,600	14,630	56	63	31	140	150	71	80	107	75	47	8	9.3	0.07	KSE140
KSE160	31	3,600	22,390	65	75	31	160	170	80	95	120	85	52	10	14	0.09	KSE160
KSE180	48	3,600	34,380	75	80	45	180	190	90	105	134	95	56	10	19	0.12	KSE180
KSE200	69	3,600	49,100	85	95	45	200	210	100	120	149	105	61	10	26	0.15	KSE200
KSE224	100	3,080	71,330	100	105	51	224	236	112	145	174	118	65	12	38	0.25	KSE224
KSE250	134	2,650	96,190	115	125	51	250	262	125	165	200	131	74	12	56	0.35	KSE250
KSE280	233	2,340	166,600	135	150	51	280	294	140	190	224	147	82	14	83	0.48	KSE280
KSE315	367	1,980	262,600	160	180	112	315	356	170	225	260	178	98	16	135	0.77	KSE315
KSE355	552	1,800	395,400	180	200	125	355	396	190	250	288	198	108	16	184	0.94	KSE355
KSE400	776	1,570	555,500	200	236	140	400	418	200	285	329	209	114	18	261	1.36	KSE400
KCE450	1,050	1,540	752,000	205	225	140	450	418	200	290	372	209	151	18	304	1.79	KCE450
KCE500	1,652	1,320	1,183,000	236	270	170	500	494	236	335	425	247	168	22	453	2.64	KCE500
KCE560	2,369	1,170	1,167,000	275	305	190	560	552	265	385	475	276	187	22	664	3.23	KCE560
KCE630	3,700	990	2,650,000	325	355	224	630	658	315	455	548	329	213	28	1,020	4.93	KCE630
KCE710	5,306	870	3,800,000	360	400	250	710	738	355	510	622	369	242	28	1,460	6.63	KCE710
KCE800	7,600	780	5,443,000	405	450	280	800	832	400	570	690	416	267	32	2,090	9.35	KCE800

■ Coupling weight without Bore.

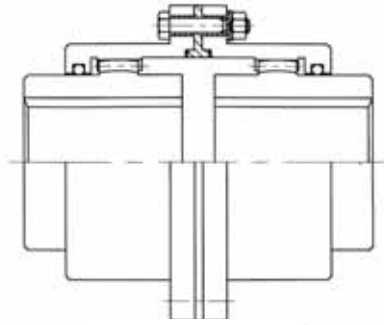
Special Type



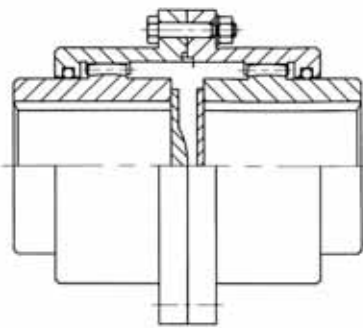
SLIDE TYPE



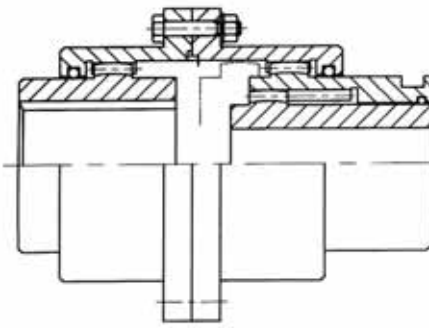
UNI SLEEVE



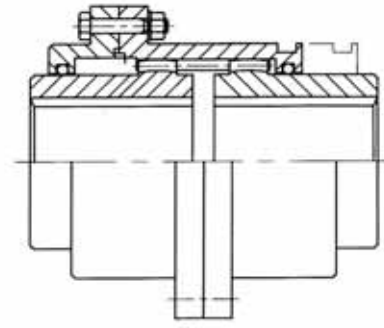
INSULATION TYPE



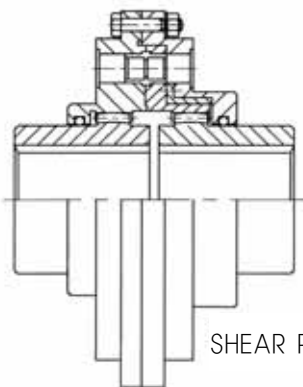
LIMITED - END PLAY TYPE



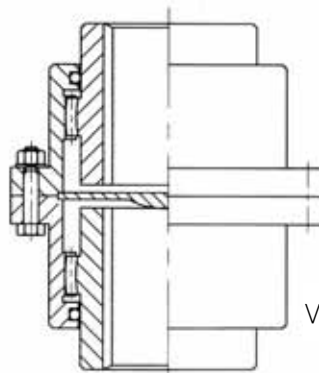
DETACHBLE CLUTCH TYPE



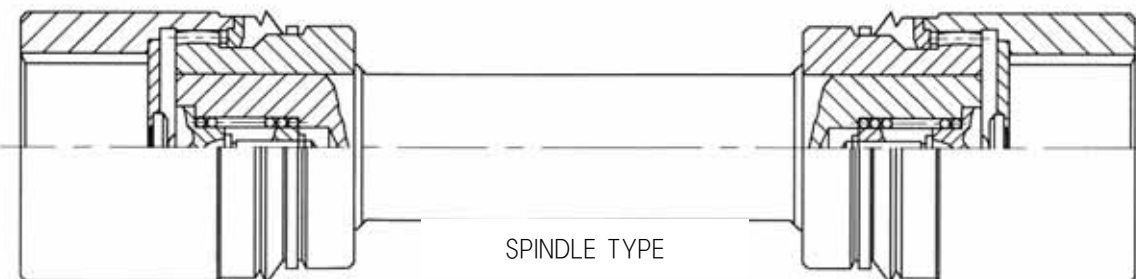
VERTICAL TYPE



SHEAR PIN TYPE



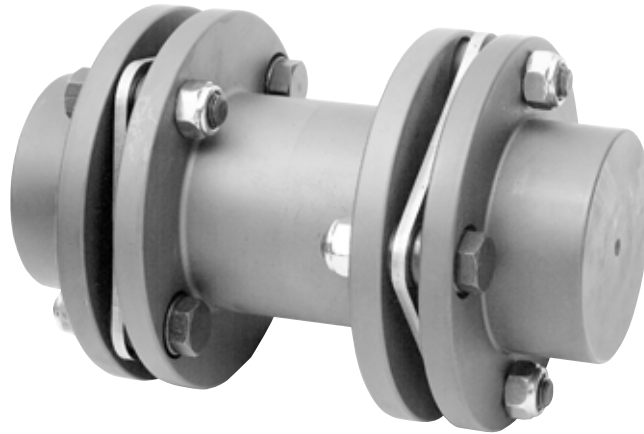
SPINDLE TYPE



DISC FLEXIBLE COUPLING



DISC FLEXIBLE COUPLING



1. Characteristic

1. No lubrication

No lubricant necessary.

2. Maintenance free

No maintenance necessary.

3. Simple design, light weight and high torque.

Composed with 2 hubs, one center unit, one disc pack and several bolts KCP Disc-flex couplings are available in wide ranges with variable operation conditions.

4. KCP Disc-Flex

Designed to allow axial, angular parallel misalignments.

5. No backlash and high torsional stiffness.

KCP Disc-Flex couplings allow no backlash and high torsional stiffness.

6. High performance

High temperature does not affect the all metal construction.

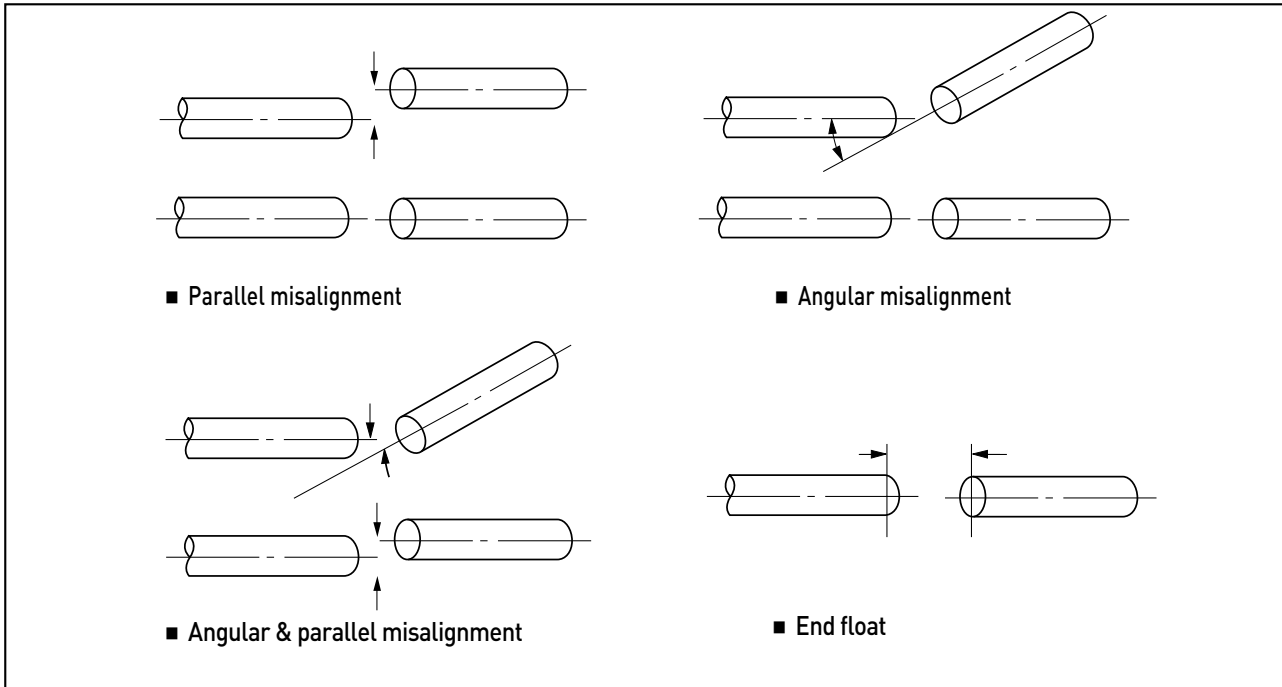
7. Easy to mount and dismount.

KCP Disc-Flex couplings have small number of parts and simple constructions which allow quick and easy mounting and easy dismounting work.

8. Safety measure.

When a severe over load may damage the couplings, the transmitting rotation will be continued through bolts.

2. Misalignment

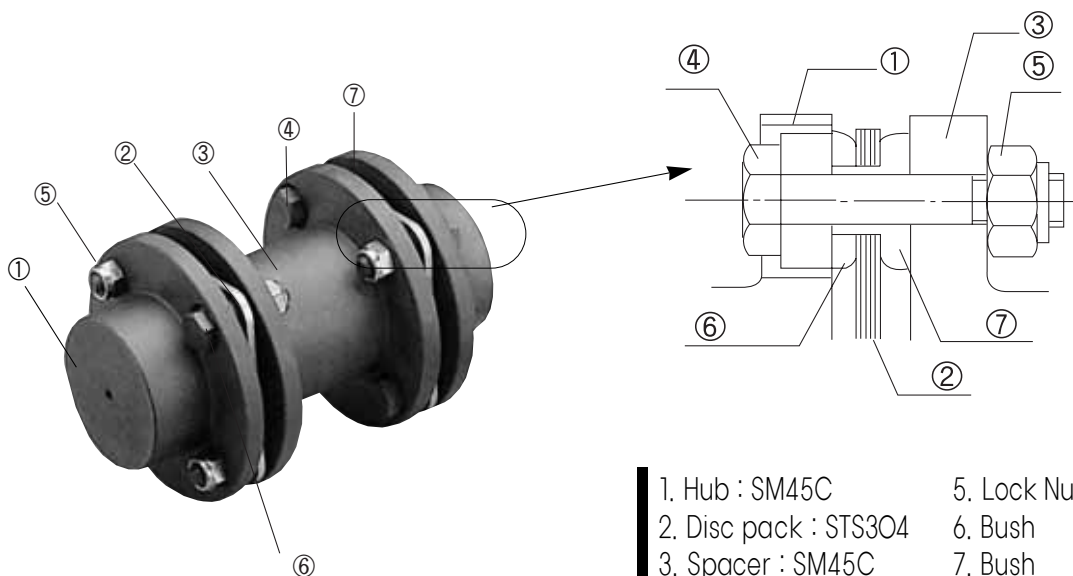


The shafts may be misaligned by various troubles, such as heat, vibration and worn bearing etc.

When the initial alignment is not correct and heavy stress is imposed on the coupling, life time is to be shortened.

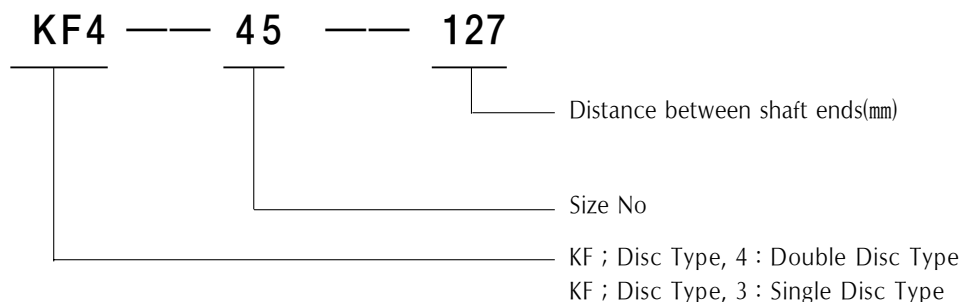
Any one or all of the misalignments shown above illustrations are occurred in usual.

3. Structure



- | | |
|-----------------------|--------------------|
| 1. Hub : SM45C | 5. Lock Nut : SS41 |
| 2. Disc pack : STS304 | 6. Bush |
| 3. Spacer : SM45C | 7. Bush |
| 4. Bolt : SM45C-H | |

4. Designation



5. Selection method of size

1. Selection method of size

$$T_{max} = \frac{97,400 \times kW}{N \times 100} \times S \cdot F \quad \text{또는} \quad T_{max} = \frac{71,620 \times HP}{N \times 100} \times S \cdot F$$

- T_{max} = Maximum torque(kg · m)
- kW = Transmitting power(kw)
- HP = Transmittiong power(HP)
- N = Working revolution(rpm)
- S.F = Recommended Service Factor(page 53)

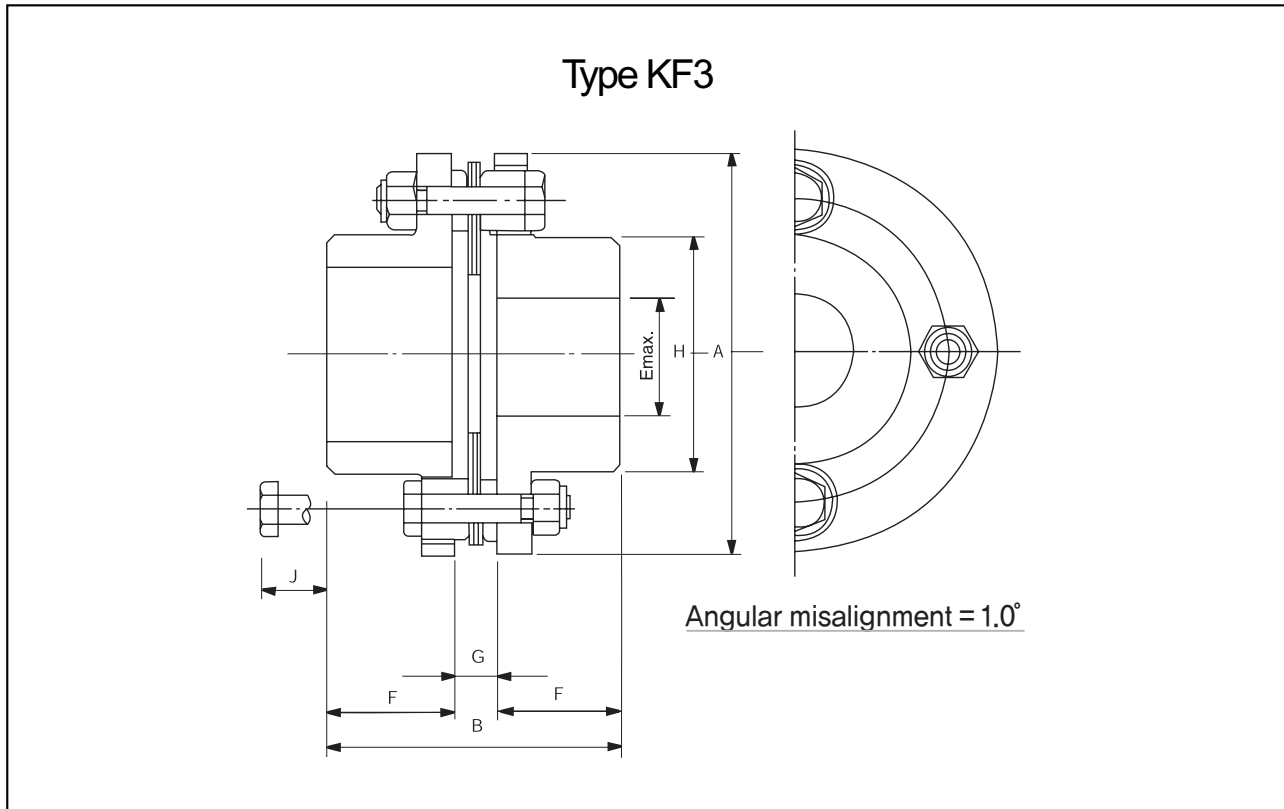
2. Selection procedure

- 1 Determine spacer length and select type.
- 2 By using above formula, calculate torque.
- 3 Select coupling size equal to or larger than the design torque.
- 4 Check Concerned conditions:
 - ① maximum bore
 - ② space circumstances
 - ③ end float
 - ④ maximum speed.
 - ⑤ necessity of dynamic balance.

Type of disc-plate Variation							
		KF3	KS3		-	-	-
single disc-flex	short space	KFX	-	-	-	-	-
	standard space	KF4	KS4	KE4	(KT4)	(KW4)	(KR4)
	custom space	KFB	KSB	KEB	(KTB)	(KWB)	(KRB)
Floating disc-flex	horizontal	KFH	KSH0	KEH	(KTH)	(KWH)	(KRH)
	vertical	KFV	KSVE	KEV	(KTV)	(KWV)	(KRV)
torque range(kg · .m)		3.4~	58~	382~	1,379~	1,669~	MAX~
		650	13,070	18,150	26,130	31,936	100X10 ³

6. Dimensions

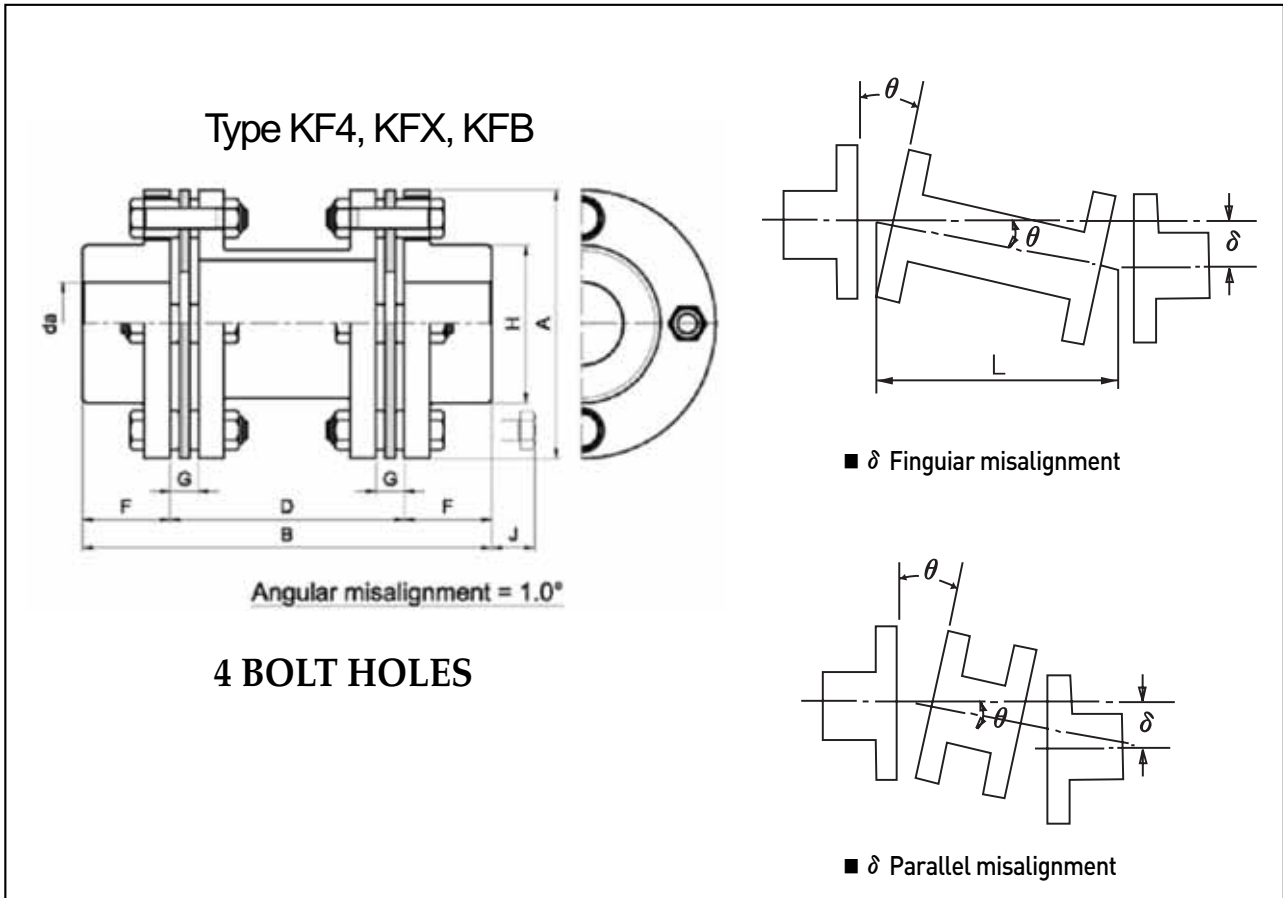
KF3 -Single Disc Flex



SIZE	Torque(kg.m)				Radial Load	Max. Speed (rpm)	Bore dia. (mm)	Dimensions(mm)						Cplg Wt(kg)	GD ² 1kg (kg.cm ²)	Bolting Torque (kg · m)
	Radial Load	1/3 Load	2/3 Load	Max. Radial Load				Emax.	A	B	F	G	H			
05	3.4	1.5	1.2	0.8	15	47,000	23	67	55.8	25	5.8	33	16	0.6	8	0.9
10	9.2	4.1	3.2	2.3	25	39,000	32	81	57.1	25	7.1	46	16	1.1	24	0.9
15	18	8.1	6.3	4.5	56	34,000	35	93	66.4	29	8.4	51	24	1.7	48	2.2
20	25	11.3	8.7	6.0	83	30,000	42	104	79	34	11	61	30	2.5	80	2.2
25	43	19.3	16.0	11.0	120	25,000	50	125	93.2	41	11.2	71	27	4.3	224	4.2
30	79	35.5	27.6	20.0	180	22,000	58	143	108.5	48	12.5	84	28	6.9	440	7.3
35	130	58.5	45.5	32.5	270	19,000	74	168	130	57	16	106	26	11.3	1080	7.3
40	210	94.5	73.4	52.5	380	16,000	83	194	145	64	17	118	30	16.7	2080	15.9
45	340	153	119	85	450	15,000	95	214	174.8	76	22.8	137	34	22.7	3520	15.9
50	500	225	171	125	610	13,000	109	246	202	89	24	156	26	35.4	7200	22.1
55	650	292	227	163	770	11,000	118	276	230	102	26	169	42	52.0	12800	55.3

KF4 (Standard)

KFX (Short)



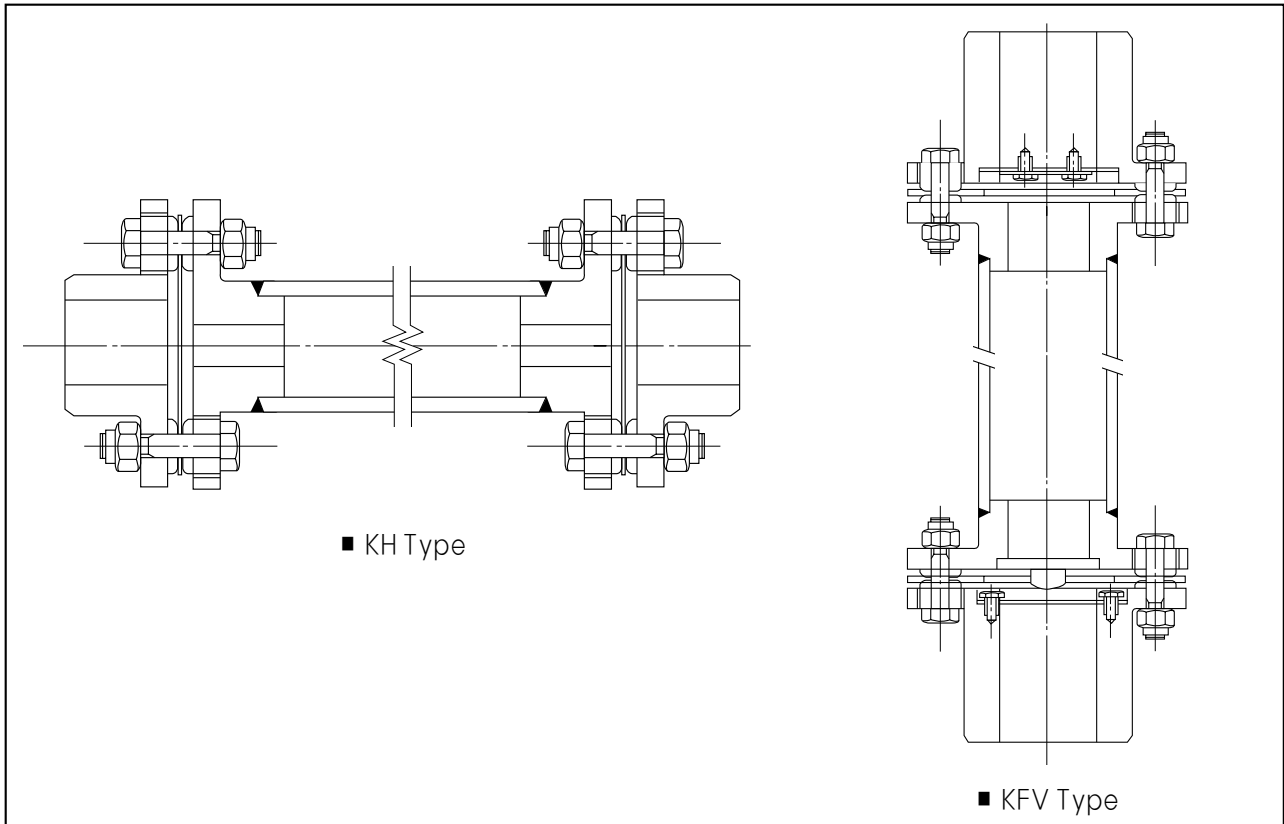
General Data			KF4(Standard)			KFX(Short)			KFB(Order made)		
Size	Torque (kg · m)	Max. Speed (rpm)	D (mm)	Cplg wt (kg)	GD ² (kg · cm ²)	D (mm)	Cplg wt (kg)	GD ² (kg · cm ²)	B (mm)	D (mm)	D Max. (mm)
05	3.4	47,000	88.9	1.2	18	36	1.1	17.8			200
10	9.2	39,000	88.9	1.9	44	39	1.7	41			200
15	18	34,000	101.6	2.9	84	47	2.7	79			250
20	25	30,000	127.0	7.1	396	53	6.6	136			250
25	43	25,000	127.0	7.1	386	62	6.6	337			350
30	79	22,000	127.0	10.8	800	69	10.3	775	$\approx D$		300
35	130	19,000	127.0	16.3	1680	78	15.6	1628			300
40	210	16,000	139.7	24.7	3400	89	24.0	3317			350
45	340	15,000	152.4	32.5	5600	97	31.5	5428			350
50	500	13,000	177.8	50.0	11200	109	48.4	10865			350
55	600	11,000	177.8	75.0	20400	134	9	20127			400

■ Refer to page43 for dimensions

Floating Disc-Flex

KH (Horizontal)

KFV(Vertical) KFV-00FV



Size No.	Torque (kg · m)	A (mm)	D min (mm)	F (mm)	H (mm)	J (mm)	(1) (kg)		(2) CD ² (kg · cm ²)	
							ⒶW ₁ D min	W ₂	Ⓑ D min	CD ²
10KF	9.2	81	72.2	25	46	16	1.9	0.029	50	0.44
15KF	18	93	75.8	29	51	22	3.0	0.032	98	0.59
20KF	25	104	88.4	34	61	20	4.3	0.039	168	1.10
25KF	43	126	99.4	41	71	25	7.5	0.075	442	2.82
30KF	79	143	111.4	48	84	28	11.7	0.110	922	6.03
35KF	130	168	141.6	57	106	23	18.7	0.139	2,032	12.33
40KF	210	194	154.0	64	119	30	28.3	0.161	3,839	19.21
45KF	340	214	183.2	76	137	22	38.3	0.186	6,857	29.65
50KF	500	246	211.8	89	157	23	58.2	0.250	13,639	52.73
55KF	650	276	234.4	102	170	40	0.310	0.310	25,552	76.53

1. Total weight can be calculated by using following equation

$$W = W_1 \text{ @ } D_{min} + L \times W_2$$

L: D - D min (cm)

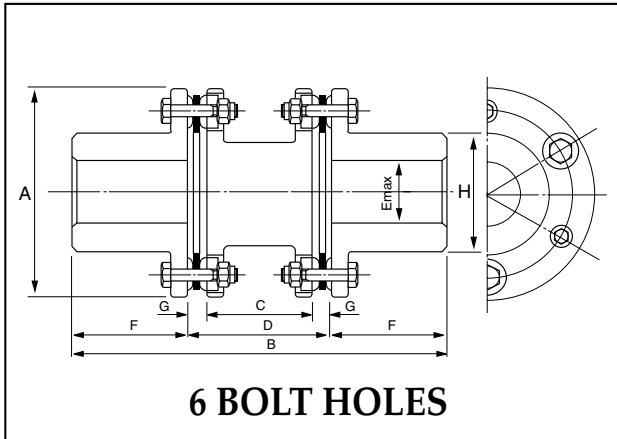
2. Total inertia effect can be calculated by using following equation.

$$GD^2 = \text{Ⓑ } D_{min} + L \times GD^2$$

Double Disc-Flex

KS4 (Double Standard Spacer)

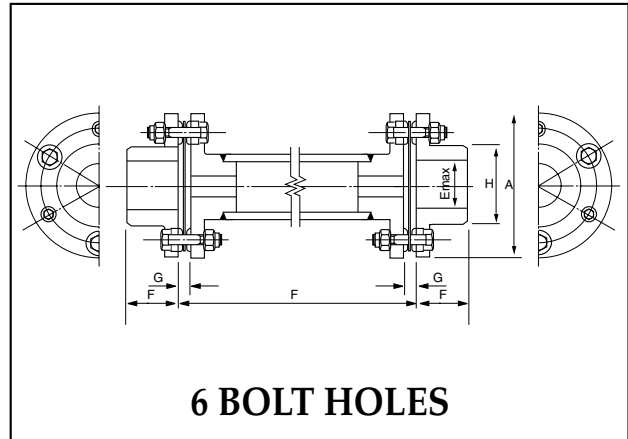
KSB (Double ,Ordered Spacer)



Floating Disc-Flex

KSHO (Floating Horizontal)

KSVE (Floating Vertical)



Angular misalignment = 0.7°

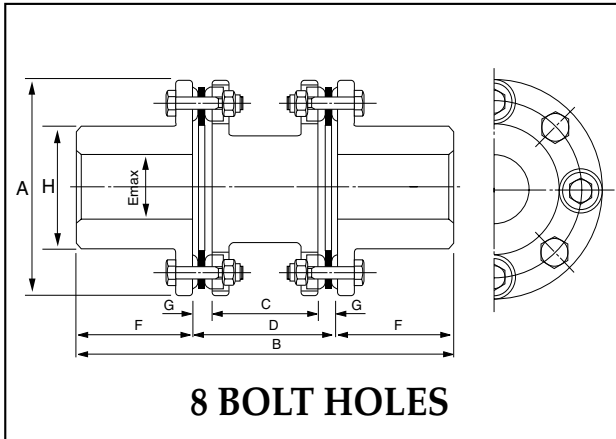
Size No.	Torque (kg · m)	A (mm)	B (mm)	C (mm)	S4	SHO SVE	Emax (mm)	F (mm)	G (mm)	H (mm)	Max (rpm)	Weight (kg)	Inertia GD ² (kg · m ²)	Axial Allowable Misalignment (±mm)	Bolting Torque (kg · m)
					(1)D (mm)	(1)D (mm)									
00	58	119	168	39.4	60	97	51	54	10.3	74	26,000	6.0	0.03	3.0	2.2
01	94	137	198	50.0	72	110	55	63	11.0	81	23,000	9.1	0.065	3.4	4.2
02	174	161	238	66	90	129	67	74	12	97	19,000	16.9	0.14	3.6	7.3
03	341	180	269	81	109	141	72	80	14	104	17,000	22.6	0.26	4.2	15.9
04	500	212	308	84	118	150	85	95	17	124	15,000	35.1	0.59	4.5	22.1
05	620	276	377	118	153	255	111	112	17.5	161	11,600	65.1	1.8	3.9	22.1
10	840	276	377	115	153	258	111	112	19.0	161	11,600	66.1	1.9	3.9	22.1
15	1,090	308	440	134	172	278	133	134	19.0	193	10,300	107.8	3.7	4.2	45
20	1,820	346	497	146	191	283	152	153	22.5	218	9,200	156.1	6.7	4.8	58
25	2,690	375	553	167	223	308	165	165	28	240	8,500	211.8	10.6	5.2	110
30	3,410	410	610	192	254	319	178	178	31	258	7,800	274.5	16.5	5.4	150
35	4,070	445	646	208	270	349	187	188	31	272	7,200	333.3	23.9	5.6	170
40	4,720	470	686	206	274	342	205	206	34	297	6,800	399.2	30.7	6.3	170
45	6,100	511	749	221	287	364	231	231	35.5	334	6,200	525.3	48.0	6.7	170
50	7,620	556	800	218	292	365	254	254	37	364	5,700	676.3	72.9	7.3	310
55	9,440	587	839	236	311	408	263	263	37.5	382	5,400	803.4	100.6	7.8	360

- Dimension "D" can be adjusted on order(SB type).
- Rotating speed limits shown in above table are based on standard pipe.

Double Disc-Flex

KE4 (Double Standard Spacer)

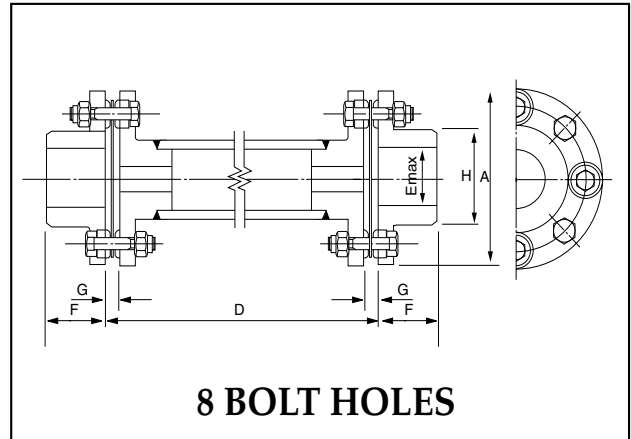
KEB (Double Custom Spacer)



Floating Disc-Flex

KEH (Floating Horizontal)

KEV (Floating Vertical)



Angular misalignment = 0.5°

Size No.	Torque (kg · m)	A (mm)	B (mm)	C (mm)	E4	EH, EV	Emax (mm)	F (mm)	G (mm)	H (mm)	Max (rpm)	Weight (kg)	Inertia CD ² (kg · m ²)	Axial Allowable Misalignment (±mm)	Bolting Torque (kg · m)
					(1)D (mm)	(1)D (mm)									
01	392	214	333	92.6	117	240	95	108	12.2	137	15,000	38.0	0.65	2.1	7.3
03	726	246	369	99.6	127	269	108	121	13.7	156	13,000	55.5	1.24	2.1	15.9
05	915	276	421	118	153	255	111	134	17.5	161	11,600	72.2	1.8	2.1	22.1
10	1,100	276	421	115	153	258	111	134	19.0	161	11,600	73.3	1.8	2.1	22.1
15	1,570	308	492	134	172	278	133	160	19.0	193	10,300	119.7	3.7	2.4	45
20	2,610	346	557	146	191	283	152	183	22.5	218	9,200	174.3	6.8	2.9	58
25	3,850	375	619	167	223	308	165	198	28.0	240	8,500	233.8	10.8	3.1	110
30	4,810	410	682	192	254	319	178	214	31.0	258	7,800	305.3	16.7	3.3	150
35	5,820	445	720	208	270	339	187	225	31.0	272	7,200	367.4	25.0	3.6	170
40	6,570	470	768	206	274	342	205	247	34.0	297	6,800	447.5	31.1	4.0	170
45	8530	511	843	221	287	364	231	278	35.5	334	6,200	591.6	48.0	4.5	170
50	10,530	556	902	218	292	365	254	305	37.0	364	5,700	761.4	74.7	5.0	310
55	13,070	587	945	236	311	408	263	317	37.5	382	5,400	901.9	101.6	5.2	360

- Dimension "D" can be adjusted on order, EB Type.
- Rotating speed limits shown in above table are based on standard pipe.
If rotating speed is over the limit, please consult with us.

7. General Instruction for Installation

Correct installation and alignment will assure longer life with smooth, trouble free service.

1. Check the shaft, hub bore and keyway have been cleaned completely

2. Check Angular misalignment (fig.1)

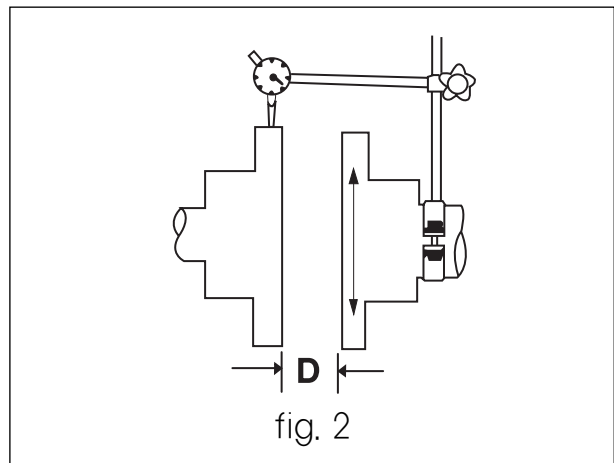
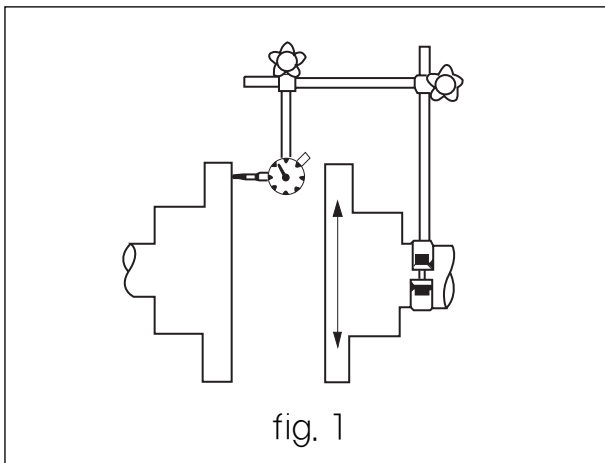
- ① Install dial indicator to hub and rotate the hub to locate point of minimum. reading on dial gauge and set dial to zero point.
- ② Rotate coupling 360° . Watch indicator for misalignment reading. Driving and driven should be lined up when dial indicator reading comes within maximum allowable figures.

3. Parallel misalignment (fig.2)

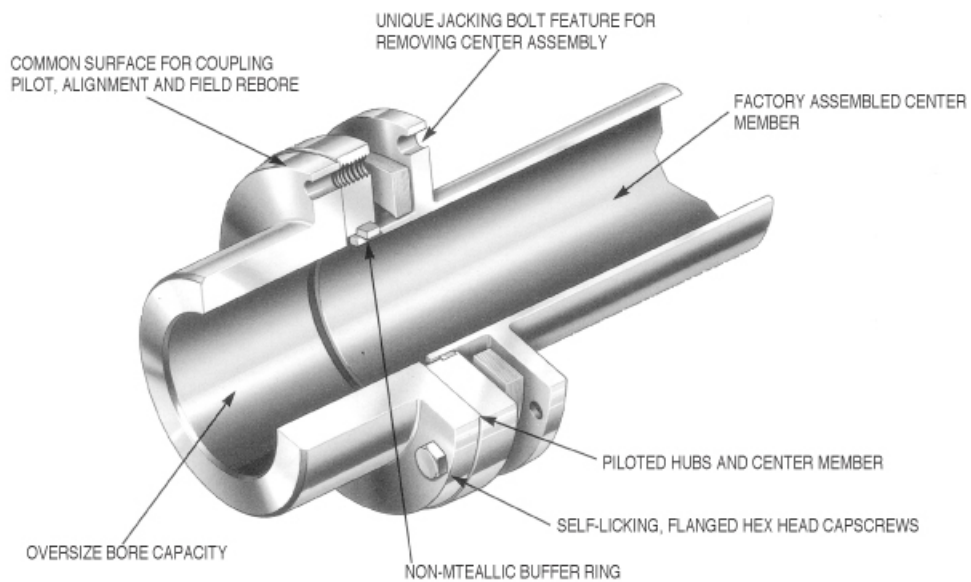
- ① Install dial indicator to driving hub, rotate driven hub and read indicator reading.
- ② Move or shim units so that parallel misalignment is brought within the maximum allowable variations.

4. Good Installation.

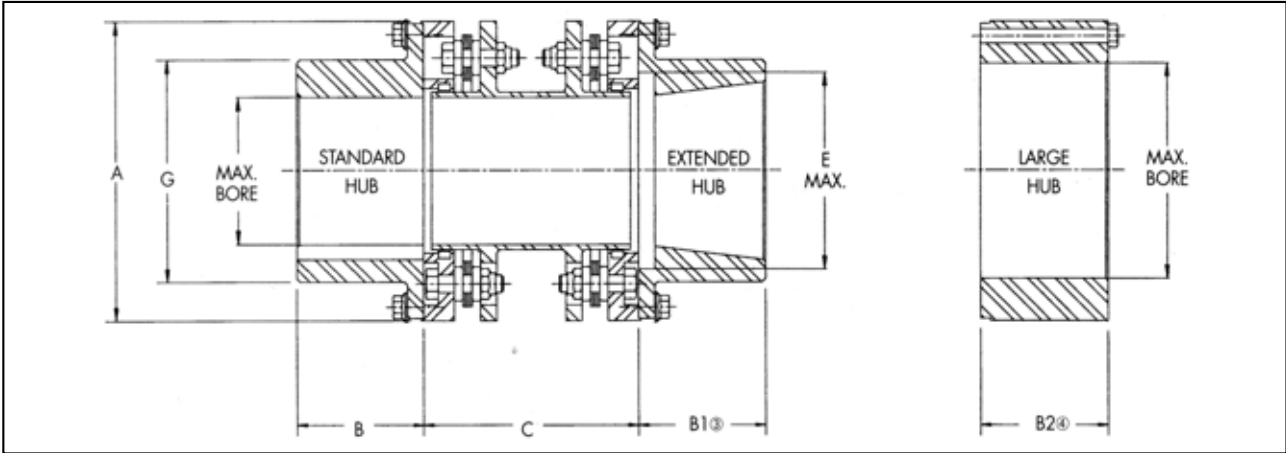
For longer service life, recheck the coupling for angular and parallel misalignment after 12 hours operation and fasten the bolts/nuts by rated torque.



KCP FLEXIBLE DISC COUPLING, SPACER TYPES



FLEXIBLE DISC COUPLINGS SPACE TYPE SERIES K71



■ Stocked "C" Dimensions

Coupling Size	"C" Dimension (mm)									
	89	100	111	127	140	178	180	190.5	203.2	228.6
150	●		●	●						
175	●	●	●	●	●					
225	●	●		●	●	●	●			
300				●	●	●	●			
350				●	●	●	●			
375				●	●	●	●			
412						●	●			
462						●		●	●	
512						●			●	●
562						●			●	
600										●
712										
800										
875										
1038										

■ General Dimensions - Millimeters

Coupling Size	B&B1 Hub Max Bore ①	B2 Hub Max Bore ①	A	B	③ B1	④ B2	Std. C	Min C	Max. E	G
150	38	-	91.28	33.3	42.9	41.3	89	87	53.2	58.7
175	48	70	105.6	39.7	52.4	46.0	89	87	65.1	71.4
225	58	83	125.4	50.8	63.5	52.4	127	87	79.4	84.9
300	76	102	151.6	66.7	82.6	69.9	127	102	104.8	112.8
350	89	114	171.5	79.4	95.3	76.2	127	127	123.9	133.4
375	95	127	193.7	82.6	101.6	82.6	140	127	136.5	143.7
412	105	-	203.2	92.1	111.1	-	178	165	146.1	154.8
462	118	-	228.6	104.8	127.0	-	178	178	165.1	173.8
512	130	-	254.8	114.3	136.5	-	178	178	184.2	193.7
562	143	-	278.6	127.0	152.4	-	203.2	203.2	203.2	212.7
600	152	-	297.7	133.4	161.9	-	228.6	228.6	212.7	227
712	181	-	352.4	158.8	-	-	23801	225	258.8	273.1
800	203	-	395.3	177.8	-	-	276.2	260	288.9	304.8
875	222	-	435.0	196.9	-	-	304.8	289	317.5	333.4
1038	264	-	501.7	228.6	-	-	355.6	337	377.8	395.3

For "C" dimensions other than shown, please Contact us.

■ Stocked "C" Dimensions

Coupling Size	Max. Kilowatt Per 100 RPM Service Factor					Max. RPM ①		Max Continuous Torque (Nm)	Peak Overload Torque (Nm)	Weight (kg) ②	Weight Change Per cm of c' (kg) ②	J (kg-cm ²) ②	J Change Per cm of c' (kg-cm ²) ②	Axial Deflection (mm) ⑤	No. of Bolts per Disc
	1.0	1.5	2.0	2.5	3.0	Not Bal ⑥	Bal-anced								
150	.97	.65	.48	.39	.32	9000	20800	92	184	3.1	.017	32	.04	±1.3	4
175	1.7	1.1	.86	.69	.57	8300	17000	168	336	4.5	.025	60	.10	±1.8	4
225	3.3	2.2	1.7	1.3	1.1	7700	16000	318	636	6.3	.034	120	.29	±1.9	6
300	7.8	5.2	3.9	3.1	2.6	6800	14000	750	1500	11.8	.046	360	.76	±2.2	6
350	14.2	9.5	7.1	5.7	4.7	6200	13500	1360	2720	19.5	.075	760	1.36	±2.3	6
375	22.2	14.8	11.1	8.9	7.4	5650	12000	2120	4240	25.4	.077	1250	1.87	±2.4	6
412	26.6	17.7	13.3	10.6	8.9	5350	11000	2540	5080	32.2	.107	1800	3.34	±2.8	6
462	43.3	28.9	21.7	17.3	14.4	5000	10000	4130	8260	46.2	.143	3280	5.36	±3.0	6
512	59.0	39.3	29.5	23.6	19.7	4700	9200	5620	11240	62.6	.185	5400	8.56	±3.3	6
562	83.5	55.7	41.8	33.4	27.8	4350	8300	7950	15900	85.3	.229	8900	12.0	±3.7	6
600	97.7	65.1	48.8	39.1	32.6	4150	7800	9300	18600	104	.313	12500	20.2	±4.1	6
712	129	86.5	64.9	51.9	43.3	3450	7200	12400	24800	162	.245	26650	19.5	±2.1	8
800	190	127	95.1	76.1	63.4	3250	6800	18200	36400	231	.387	47700	38.2	±2.3	8
875	278	185	139	111	92.7	3050	6400	26500	53000	309	.430	77550	52.5	±2.6	8
1038	409	273	205	164	136	2900	5800	39100	78200	490	.573	165000	85.7	±2.9	8

For ordering instructions, see page 7.

- ① See p.22 for explanation of RPM limits and balancing recommendations.
- ② Weight and J with standard length hubs, maximum bore and standard "C"
- ③ Extended Hub Length is designed longer in order to include a counter-bore for the threaded extension on a tapered shaft.
- ④ Large hub length. For sizes not shown, consult Rexnord.

⑤ KCP Flexible Disc Coupling meet all NEMA (MG1-14.37) specifications without modification or additional axial restricting devices.

⑥ Series 71 Coupling assembly meets AGMA Balance Class 9 when furnished with finished bores

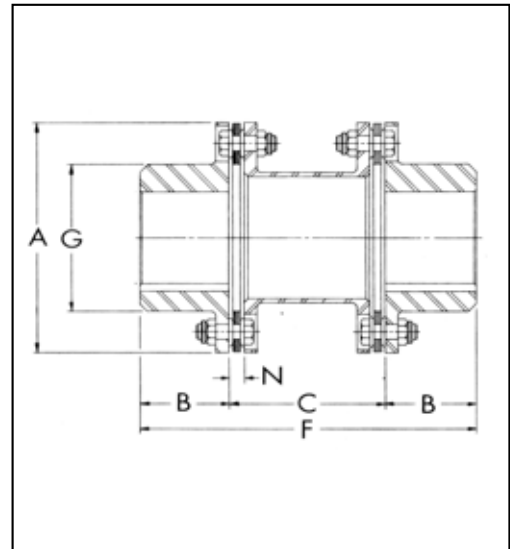
⑦ Hub size 150-600 finished without a finished bore will be solid. Hub sizes 712 and larger will have a minimum rough bore when finish bore is not specified.

NOTE : Dimensions subject to change. Certified dimensions of ordered material furnished on request.

FLEXIBLE DISC COUPLINGS SPACE TYPE SERIES K52

General Dimensons - Millimeters

Coupling Size	Max. Bore ⑥	A	B	Std C ②	Min. C	F	G	N
125	34	94	33.3	101.6	-	168	52.4	6.7
162	47	110	44.5	127	52	216	70	7.1
200	57	138	52.4	127	67	232	83.3	9.1
225	66	144	66.7	127	70	260	96	9.1
262	79	168	73	127	82	273	114	11.9
312	92	198	85.7	139.7	96	311	135	12.7
350	101	221	95.3	152.4	106	343	150	13.5
375	114	246	101.6	177.8	117	381	165	15.1
425	120	267	108	177.8	126	394	178	15.9
450	130	287	114	203.2	136	432	189	18.3
500	136	327	127	228.6	154	483	213	19.8
550	152	367	140	254	175	533	240	23.
600	165	406	152	254	191	559	260	24.6
700	190	464	178	279.4	218	635	299	30.2
750	203	503	191	279.4	235	660	321	31.8
800	222	546	210	304.8	255	724	346	33.3
850	234	584	222	330.2	273	775	368	35.7
925	257	635	241	355.6	293	838	400	38.1



Stocked Table

Engineering Data

Coupling Size	Max. Kilowatt Per 100 RPM Service Factor					Max. RPM ③		Max Continuous Torque (Nm)	Peak Overload Torque (Nm)	④ Weight (kg) 52	Weight Change Per cm of c' (kg) .028	④ J (kg-cm²) 52	J ② Change Per cm of c' Increase (kg-cm²) .17	Axial Deflection (mm) ①
	1.0	1.5	2.0	2.5	3.0	⑤ Not Bal	Bal-anced							
125	2.1	1.4	1.0	.84	.69	5,000	15,000	200	400	2.0	.028	20	.17	±.91
162	3.6	2.4	1.8	1.4	1.2	4,600	15,000	340	680	3.4	.037	43	.31	±.91
200	7.2	4.8	3.6	2.8	2.4	4,250	15,000	685	1,370	5.9	.045	129	.67	±.91
225	10.5	7.0	5.3	4.2	3.5	4,100	14,000	1,000	2,000	7.7	.047	187	.75	±.91
262	16.6	11.1	8.3	6.6	5.5	3,900	13,000	1,585	3,170	12.7	.072	421	1.53	±1.09
312	23.2	15.5	11.6	9.3	7.8	3,450	11,700	2,225	4,450	19.5	.087	919	2.68	±1.30
350	36.0	24.0	18.0	14.4	12.0	3,200	10,500	3,450	6,900	27.7	.097	1,644	3.71	±1.42
375	55.0	36.7	27.5	22.0	18.3	3,000	9,400	5,250	10,500	38.1	.133	2,750	6.11	±1.57
425	72.4	48.3	36.2	29.0	24.2	2,800	8,700	6,900	13,800	48.5	.173	4,155	9.444	±1.70
450	85	56.7	42.5	34.0	28.3	2,700	8,100	8,100	16,200	60	.184	5,910	11.38	±1.83
500	129	86.5	64.9	51.9	43.3	2,500	7,100	12,400	24,800	87	.245	11,150	19.80	±2.08
550	190	127	95.1	76.1	63.4	2,300	6,300	18,200	36,400	124	.387	20,420	38.21	±2.34
600	278	185	139	111	92.7	2,150	5,700	26,500	53,000	167	.430	33,360	52.53	±2.59
700	409	273	205	164	136	1,950	5,000	39,100	78,200	254	.573	66,130	85.73	±2.92
750	25	352	264	211	176	1,850	4,600	50,500	101,000	321	.734	96,270	132.4	±3.17
800	675	450	338	270	225	1,750	4,300	64,500	129,000	409	.954	147,470	221.5	±3.45
850	839	560	420	336	280	1,600	3,900	80,100	160,200	500	1.04	206,280	289.8	±3.66
925	1124	750	562	450	375	1,500	3,600	107,350	214,700	651	1.39	319,800	439.9	±3.96

For ordering instructions, see page 7.

- ① KCP Flexible Disc Coupling meet all NEMA (MG1-14.37) specifications without modification or additional axial restricting devices.
- ② Addittional "C" dimensions availiave. Consult US.
- ③ See pg.22 for exokabatuib of RPM limits and balancing recommendations.
- ④ Weight and J at maximum bore and standard "C" dimension listed.

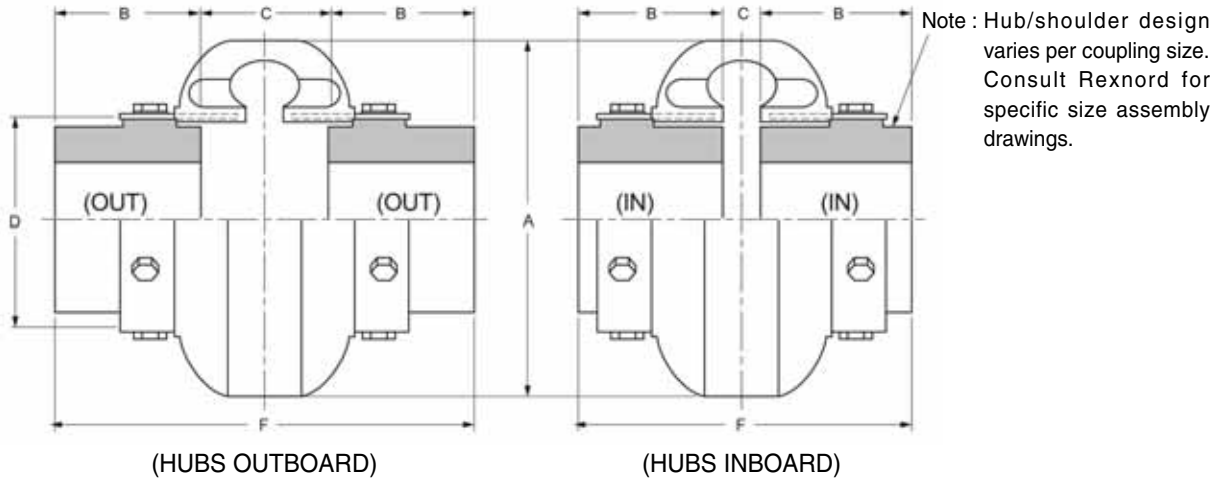
- ⑤ Blance recommendations based on AGMA Specification 515.02, Average Sensitivity and meet or exceed ISO standards.
- ⑥ Hub size 150-600 finished without a finished bore will be solid. Hub sizes 712 and larger will have a minimum rough bore when finish bore is not specified.

NOTE : Dimensions subject to change. Certified dimensons of ordered material furnished on request.

OMEGA COUPLING



KCP® OMEGA® STANDARD COUPLINGS WITH STRAIGHT BORE HUBS



Specification Data With Straight Bore Hubs

Omega Coupling Size	Recom. Max. Bore (In.)	① Continuous HP/100 RPM	① Continuous Torque (In.Lbs.)	Max. RPM	Dimensions In Inches							② Weight (Lb.)
					A	B	C		D	F		
							(In.)	(Out)		(In.)	(Out)	
K2	1.13	.30	190	7500	3.50	.94	1.34	1.90	1.85	3.22	3.78	1.2
K3	1.38	.58	365	7500	4.00	1.50	.81	1.31	2.32	3.81	4.31	2.4
K4	1.63	.88	550	7500	4.56	1.69	.44	1.31	2.60	3.81	4.69	3.0
K5	1.88	1.48	925	7500	5.38	1.75	.81	1.81	3.13	4.31	5.31	5.4
K10	2.13	2.30	1450	7500	6.38	1.88	.56	1.81	3.65	4.31	5.56	8.2
K20	2.38	3.65	2300	6600	7.25	2.06	.50	2.38	4.48	4.62	6.50	13.0
K30	2.88	5.79	3650	5800	8.25	2.31	.56	2.44	5.42	5.19	7.06	21.2
K40	3.38	8.85	5500	5000	9.50	2.50	.56	2.68	6.63	5.56	7.68	35
K50	3.63	12.14	7650	4200	11.00	2.75	.63	3.38	8.13	6.13	8.88	54
K60	4.00	19.84	12,500	3800	12.50	3.25	.69	3.44	8.75	7.19	9.94	72
K70	4.50	35.12	22,125	3600	14.00	3.62	.75	3.75	9.25	8.00	11.00	86
K80	6.00	62.70	39,500	2000	16.00	4.87	.75	5.00	11.25	10.50	14.75	170
K100	6.75	135	85,050	1900	21.00	5.50	1.75	3.75	14.13	12.75	14.75	244
K120	7.50	270	170,100	1800	25.00	6.00	2.25	4.88	17.63	14.24	16.88	425

① Service factor = 1.0
② With maximum bore hubs.

• **SPLIT-IN-HALF FLEX ELEMENT**

Allows disassembly and replacement without disturbing hubs or connected equipment.

• **REVERSIBLE HUBS**

Accommodates different shaft spacing requirements, and allows compression bushings to be installed from either side of the hub.



Straight Bore Hubs



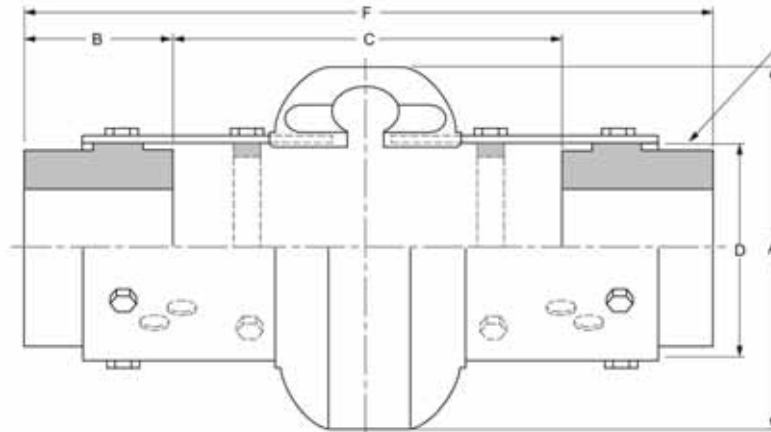
QD Hubs and Bushings



TAPER-LOCK® Hubs and Bushings

Note : Dimensions subject to change. Certified dimensions of ordered material furnished on request.

KCP® OMEGA® SPACER COUPLINGS WITH STRAIGHT BORE HUBS



Note : Hub/shoulder design varies per coupling size. Consult Rexnord for specific size assembly drawings.

Specification Data With Straight Bore Hubs

① Omega Coupling Size	Recom. Max. Bore (In.)	② Continuous HP/100 RPM	② Continuous Torque (In.Lbs.)	③ Max. RPM	Dimensions In Inches							⑥ Weight (Lb.)
					A	B	C		D	F		
							(In.)④	(Out)		(In.)⑤	(Out)	
KS2-R	1.13	.30	190	7500	3.50	.94	3.50	4.00	1.85	5.75	5.92	2.3
KS3-R	1.38	.58	365	7500	4.00	1.50	3.50	5.00	2.32	7.25	8.00	4.0
KS4-R	1.63	.88	550	7500	4.56	1.69	3.50	5.00	2.60	7.25	8.38	5.1
KS5-R	1.88	1.48	925	7500	5.38	1.75	3.50	5.00	3.13	7.25	8.50	7.5
KS10-R	2.13	2.30	1450	7500	6.38	1.88	3.50	5.00	3.65	7.25	8.75	10.3
KS20	2.38	3.65	2300	4800	7.25	2.06	2.55	7.00	4.48	9.38	11.12	15.6
KS30	2.88	5.79	3650	4200	8.25	2.31	2.05	7.00	5.42	9.38	11.62	25.1
KS40	3.38	8.85	5500	3600	9.50	2.50	1.67	7.00	6.63	9.38	12.00	40
KS50	3.63	12.14	7650	3100	11.00	2.75	1.17	7.00	8.13	9.38	12.50	60
KS60	4.00	19.84	12,500	2800	12.50	3.25	2.67	9.75	8.75	12.50	16.25	84
KS70	4.50	35.12	22,125	2600	14.00	3.62	1.99	9.75	9.25	12.50	17.00	102
KS80	6.00	62.70	39,500	1800	16.00	4.87	2.18	9.75	11.25	12.50	19.50	180

- ① Suffix "R" designates high speed ring design. Rings are furnished standard for sizes ES2-R to ES10-R, optional for sizes ES20 to ES80.
- ② Service factor = 1.0
- ③ Spacer coupling furnished with optional high speed rings(sizes ES20 to ES80) can be operated up to maximum allowable speeds for standard series couplings. See RPM Ratings on page 4
- ④ Minimum shaft spacing is 0.25 inch. See page 8 for additional information.
- ⑤ Overall length of element.
- ⑥ With max bore hubs.

• ADJUSTABLE SPACER DESIGN

Optional hole mounting positions and reversible hub features allow adjustment to accommodate most shaft spacing requirements(see page 8)

• UNIVERSAL HUBS

Straight bore and compression bushed hub designs are identical and interchangeable for both the spacer and standard couplings. This means maximum utilization of off the shelf inventory.



Straight Bore Hubs



QD Hubs and Bushings



TAPER-LOCK® Hubs and Bushings

Note : Dimensions subject to change. Certified dimensions of ordered material furnished on request.

Shrink Fitting

1. Introduction

The Shrink fit fastening process is widely used in industry to produce tight, precision assemblies where other fastening methods are neither necessary nor practical. It can also be used in research to produce a predicatable residual stress state.

2. Intenference

Steel hubs : 1/1,000 ~15/10,000 per mm of shaft dia.

3. Fitting Methods

A. When using the keys, lightly coat shaft with on antiseize lubricant to ease hub assembly.

(When sealing of key way is required do not coat)

B. Heat hubs to 135°C using one of the following methods.

① Oxy-Acetylent of Blow Torch-Mark

The hub with a 135°C temperature sensive crayon(melts at prescriped temperature) in several places near the teeth. Direct the motion whiel heating to avoid overheating on area. Do not apply heat directly to the teeth.

② Oven heating-Set the oven themostat at 135°C and heat the hub at leat 3 minutes for each mm of thickness. Do not reat hub teeth on the bottom of the container.

③ Oil bath-Use an oil with a flash point of 177°C or higher. Heat 6 minutes per mm of thickeness. Do not rest hub teeth on the bottom of the container.

4. Mount the hub on the shaft as quicly as possible to avoid heat loss.

Service Factor and Reference

1. Service Factor (1)

Service factors listed are typical values based on normal operation of the drive systems.

Alphabetical listing of applications

AERATOR	2.5	FORMING MACHINES	Cable Reel	2.25	Slitters, steel Mill only	2.25
AGITATORS		Draw Bench Carriage and	Conveyors	1.5	Soaking Pit Cover Drive	
Vertical and Horizontal Screw, propeller,		Main Drive	Cutter Head, Jig Drive	3.0	Lift	1.75
Paddle	1.5	Extruder	Maneuvering Winch	2.5	Travel	2.5
BARGE HAUL PULLER	3.0	Forming Machine and	Pumps(uniform load)	2.0	Straighteners	2.5
BLOWERS		Forming Mills	Screen Drive Stacker	2.5	Unscramblers	
Centrifugal	1.5	Slitters	Utility Winch	2.5	(Billet Bundle Busters)	3.0
Lobe or Bane	1.75	Wire Drawing or Flattening	FOOD INDUSTRY		Wire drawing Machinery	2.25
CAR DUMPERS	4.0	Wire Winder	BEET SLICER		OIL INDUSTRY	
CAR PULLERS	2.5	Coilers and Uncoilers	Bottling Can Filling Machine		Chiller	2.75
CLARIFIER OR CLASSIFIER	1.5	MIXERS(see Agtators)	General Cooker	1.75	Oilwell Pumping (not over 15% peak	
COMPRESSORS		Concrete	Dough Mixer, Meat Grinder	2.5	torque)	3.0
Centrifugal	1.1	Muller	LUMBER		Raffin filter Press	2.0
Rotary, Lobe or Vane	2.0	PRESS, PRINTING	Beet Slicer		Rotary Kiln	3.0
Rotary, Screw	2.0	PUG MILL	Bottling, Can Filling Machine		PAPER MILLS	
Reciprocation		PULVERIZERS	Cereal Cooker	1.75	Baker Auxiliary, Hydraulic	3.0
Director Connected ★		Hammermill and hog	Dough Mixer, Meat Grinder	2.5	Baker, Mechanical	3.0
With out Flywheels ★		Roller	LUMBER		Baking Drum	
★With flywheels and Gear between		PUMPS	Band Resaw	2.0	L.S Shaft of reducer with Final drive -	
Compressor and Prime Mover		Centrifugal	Circular Resaw, Cut-off	2.5	Helical or Herringbone Gear	3.0
1 cylinder, single acting	5.0	Constant Speed	Edger, Head Rig, Hog	3.0	Machined Spur Gear	3.5
1 cylinder, duple acting	5.0	Frequent Speed Changes	Gang Saw		Cast Tooth Spur Gear	4.0
2 cylinder, single acting	5.0	Under Load	(Reciprocating)	3.0	Beater & Pulper	2.5
2 cylinder, duple acting	5.0	Descaling with accumulators	Log Haul	3.0	Bleachers, Coaters	1.75
3 cylinder, single acting	5.0	Gear, Rotary or Vane	Planer	2.5	Calender % Super Calender	2.5
3 cylinder, duple acting	3.0	Reciprocating	Rolls, Non-Reversing	2.0	Chipper	4.0
4 or more cylinder, single acting	3.5	1 cyl... single or duple act.	Rolls, Reversing	3.0	Converting Machine	1.75
4 or more cylinder, duple acting	3.5	2 cyl... single acting	Sawdust Conveyor	1.75	Couch	2.25
CONBEYORS		3 or more cyliders	Slab Conveyor	2.5	Cutter, Felt Whipper	3.0
Apron, Assembly, Belt, Chain Fight,		XCREENS	Sorting Table	2.0	Cylinder, Dryer	2.25
Screw	1.5	Air Washing	Trimmer	2.25	Felt Strecher	2.0
Bucket	2.0	Grizzly	★METAL ROLLING MILLS		Fourdrinier	2.25
Live roll, Shaker and Reciprocation	3.5	Rotary Coal or Sand	Coilers(Up or Down) Cold		Jordon	3.0
@ ★CRANES AND HOIST		Vibrting	Mills only	2.25	Log Haul	3.0
Main Hoist	5	Water	Coilers(Up or Down) Hot	2.5	Line Shaft	2.0
Skip Hoist	2.5	SKI TOWS & LIFT(Not Approved)	Coke Plants		Press	2.25
Slope	2.25	STEERING GEAR	Pusher Ram Drive	3.5	Pulp Grinder	2.25
Bridge, Travel or Trolley	5	STOKER	Door Opener	3.0	Reel, Rewinder, Winder	2.0
DYNAMOMETER	1.5	TUMBLING BARREL	Pusher or Larry Car		Stock Pumps, Centrifugal	
ELEVATORS		WINCH,MANEUVERING	Traction Drive	4.0	Constant Speed	1.5
Bucket, Centrifugal Discharge	2.0	dredge, Maine	Cold Mills-		Frequent Speed Charges	
Freight or Passenger)Not Approved		WINDLASS	Strip Mills		Under Load	1.75
Gravity discharge	2.0	WOODWORKING	Temper Mills ★		Suction Roll	2.5
ESCALATORS(Not Approved)		MACHINERY	Cooling Beds	2.0	RUBBER INDUSTRY	
EXCITER GENERATOR	1.75	WORK LIFT PLATFORMS(Not	Drawbench	3.0	CALENDER	3.0
EXTRUDER, PLASTIC	2.25	approved)	Feed Rolls-Blooming Mills		Cracker Plasticator	3.5
FANS		Alphabetical Listing of industries	Furnace Pushers	4.0	Extruder	2.25
Centrifugal	1.1	AGGREGATE PROCESSING, CEMENT,	Hot and Cold Saws	3.0	Intensive or Banbury Mixer	3.5
Cooling Tower	3.0	MINING KILNS; TUBE, ROD AND BALL	Hot Mills -		Mixing Mill, Refiner or sheeter	
Forced Draft-Across the Line start ...	2.0	MILLS	Strup or Sheet Mills		One or two in line	3.0
Forced Draft Motro Driven thru fluid or		Direct or on L.S. shaft of Reducer, with	Reversing Blooming or Slabbing Mills		Five or more in line	2.25
electric clip clutch	1.5	final dreve Machined Spur Gears ...	Edger Drive		Washer	3.5
Gas Recirculating	2.5	Single Helical or	Ingot Cars		SEWAGE DISPOSAL EQUIPMENT	
Induced Draft with damper control or		Herringbone Gears	Manipulators	4.0	Bar Screen, Chemical Feeders	
blade cleaner	2.0	Conveyors, Feeders, Screens, Elevators,	Merchant Mills		Collectors, Dewatering	
Induced Draft without controls	3.0	See General Listing Crushers, Ore or	Mill Table		Screen, Grit Collector	1.5
FEEDERS	3.0	Stone	Roughing Breakdown		SUGAR INDUSGTRY	
Apron, Belt, Disc, Screw	2.0	Dryer, Rotary	Mills	4.0	Cane Carrier & Leveler	2.5
Reciprocation	3.5	Grizzly	Hot Bed or Transfer		Cane Knife & Crusher	3.0
GENERATORS		Hammermill or Hog	non-reversing	2.25	Milll Stands, Turbine Driven with all	
Even Load	1.1	Tumbling Mill or Barel	Runout, reversing	4.0	helical or Herringbone gear	2.0
Hoist or Railway Service	2.0	BREWING AND DISTINLING	Real Drivers	2.25	Electric Drive or Steam Engine	
Welder Load	3.0	Bottle and Can	Rod Mills		Drive with Helical,	
HAMMERMULL LAUNDRY WASHER		Filling Machines	Screwdown	3.0	Herringbone, or Spur Gears with any	
OR TUMBLER	3.0	Brew Kettle	Seamless Tube Mills		Prime Mover	2.25
LINE SHFTS		Cookers, Continuous Duty	Piercer	4.0	TEXTILE INDUSTRY	
Any processing Machienny	2.0	Lauter Tub	Thrust Black	3.0	BATCHER	1.75
MACHINE TOOLS		Mash Tub	Seamless Tube Mills		Calender, Card Machine	2.0
Auxillary and Traverse Drive	1.5	Scale Hopper, Frequent Peaks ...	Piercer	4.0	Cloth Finishing Machine	2.25
Bending Roll, Notching press, Punch		CLAY WORKING INDUSTRY	Thrust Black	3.0	Dry Can Loom	2.0
Press, Planer, Plate Reversing	2.5	Black Press Briquette Machine, Caly	Tube Conveyor Rolls	3.0	Dyeing Machinery	1.75
Main Drive	2.0	Working Machine, Pug Mill	Reeler	3.0	Knitting Machine	2.2
MAN LIFTS(Not Approved) METAL		DREDGES	Kick Out 3.0		Managle, Napper, Soaper	1.75

2. Service Factor (2)

Engine Drive Service Factors.

Service Factors for engine drives are those required for applications where good flywheel regulation prevents torque fluctuations greater than $\pm 20\%$. For drives where torque fluctuations are greater or where the operation is near a serious critical or torsional vibration, a mass elastic study is necessary.

No. of cylinders	4 or 5					6 or more				
① Service Factor	1.5	1.75	2.0	2.25	2.5	1.5	1.75	2.0	2.25	2.5
Engine Service Factor	2.5	2.75	3.0	3.25	3.5	2.5	2.75	3.0	3.25	3.5

To use Table 2, first determine application service foactor from Table 1. Use that factor to determine ENGINE Service Factor form Table 2. When service factor from Table 1 is greater than 2.5 or where 1, 2 or 3 cylinder engines are involved, refer complete application details to us for engineering review.

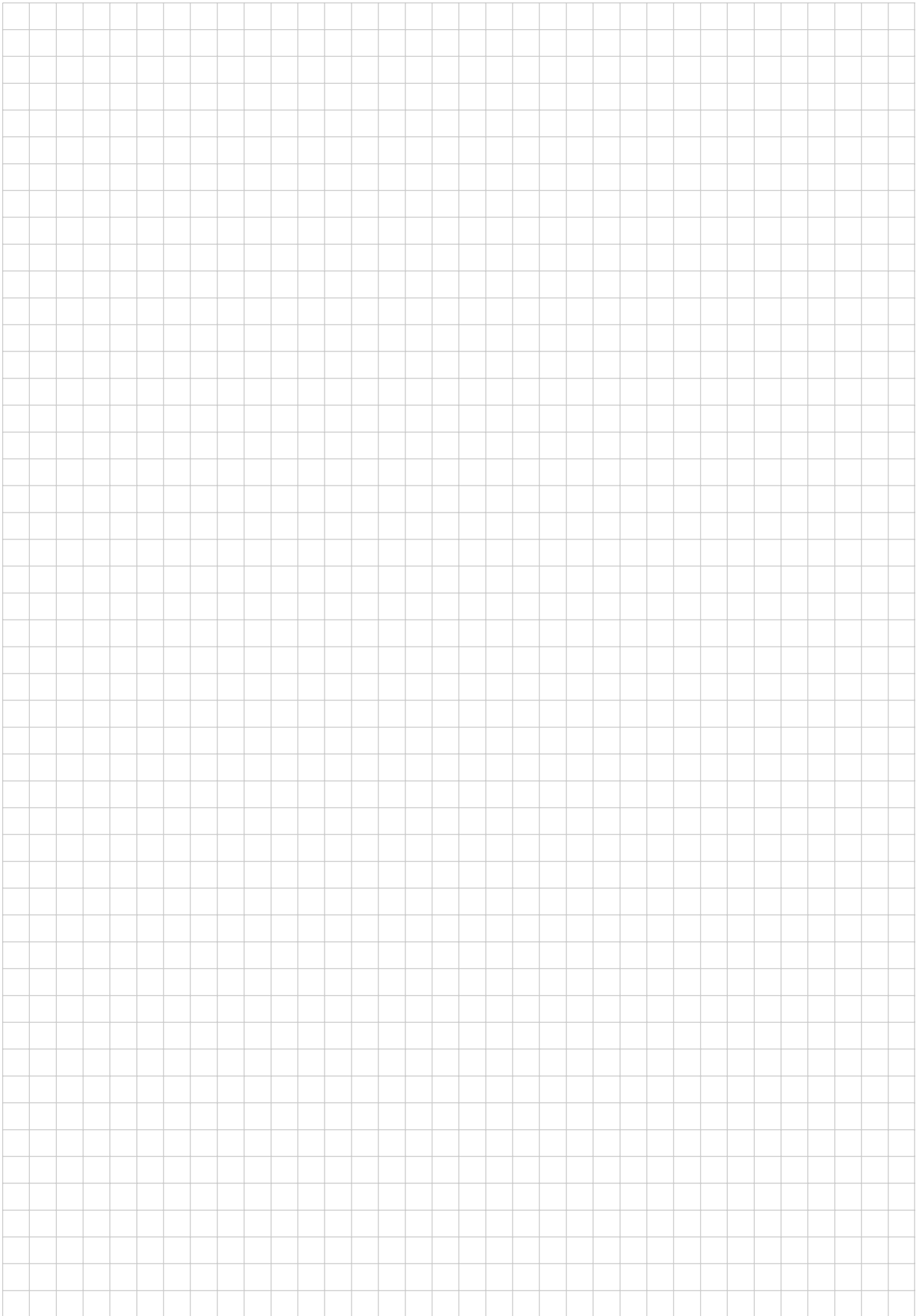
1. When electric motors, generators, engines, compressors and other machines are fitted with sleeve or straight roller bearings, use limited axil end float couplings to protect the bearings. Order a limited end float kit with the coupling.
2. * For balanced opposed design, refer to us.
3. ▲ If people are occasionally transported, refer to us for the selection of the proper size coupling and availability of the dual path feature that willll meet paallicable safety codes.
4. ★ Refer to Factory
5. ※ REPETITIVE HIGH PEAK LOAD APPLICATIONS : Use one of the following applicable foumulas for applications using motors with torque characteristics that are higher thn normall, applications with intermittent operation, shock loading, inertia effects due to starting and stopping and/or system induced peak Touque is the maximum that can exist in the system.
 - Ⓐ For NON REVERSING SERVICE : Req'd Coupling Torque Rating = System Peak Torque
 - Ⓑ For REVERSING SERVICE : Red'qd Coupling Torque Rating 2.0 × System Peak Torque

Torque Comparison Table for various Type and Size of coupling

COUPLING Torque	Grid Cplg		Gear Cplg			Chain Cplg		Rubber Cplg		Omega Cplg		Nylon Cplg		Flange Cplg		
	XXX	Torque	xxG	Torque	SSxx CCxx	Torque	xxCR	Torque	RHXX	Torque	Exx	Torque	Exx	Torque	xxHFF	Torque
000															90	50
100									60	100					100	100
													14	175	112	161
200											2	218			125	250
300									100	300			19	306		
													24	374		
400	1020	486									3	421				
500															140	501
600											4	639				
700							3812	774					28	701		
800									135	800						
900													32	916		
1000							4012	1685			5	1080	38	1293	160	1120
							4014	1685	180	1500	10	1670	42	1670	180	1607
2000	1040	2304										2650	48	2064	200	2503
3000							4016	3010	2104	3000						
4000	1050	4033									30	4210	65	4452	224	4003
5000					112	5730	5014	5708								
							5016	5708								
6000	1060	6337									40	6340			250	6302
7000							5018	7237	265	7500			80	7060		
8000			10	8594							50	8820				
9000	1070	9217														
10000					120	10160	6018	13636	310	12500					280	10032
	1080	19010	15	19337	140	14630	6022	18311			60	14400	100	12701	315	16071
20000					160	22390			400	27500	70	25500	125	28055	355	25032
30000	1090	34564	20	3581	180	34380	8018	30194								
40000					200	49100	8022	43343			80	45500			400	40031
50000	1100	58183							450	50000						
60000			25	64458			10020	68180							450	63018
70000					224	71330										
80000	1110	86411									100	98100				
90000					250	96190	12018	102270	550	100000						
100000	1120	126736	30	107430			12022	132464			1110	11100			560	100030
	1130	184343	35	164726	280	166600	16018	221098	700	19600					630	160028
200000	1140	264993	40	260670	315	262600	16022	324342								
300000	1150	386686	45	343776	355	395400	20018	445196								
400000		518465	50	20022			20022	557128								
500000	1160				400	555500										
600000	1170	691286	55	608770												
700000			60	787820	450	752000										
900000	1180	958584														
1000000	1190	1267358	70	1145920	500	118300										
	1200	1728216	80	1054020	560	169700										
2000000			90	2041170												
			100	2864800	630	2650000										
3000000			110	3839100	710	3800000										

$$T = 71,620 \times \frac{HP}{N} \times S \cdot F = 97,400 \times \frac{KW}{N} \times S \cdot F$$

Apply proper safety Factor accordingly after the characteristics of the machines to be coupled with.





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