

Selection

Selection of Method size

By using the following formula, obtain Design Torque required.

$$T = 97400 \frac{kW}{N} \times SF$$

$$T = 71620 \frac{HP}{N} \times SF$$

T = Design torque (kg cm) kW = Power (kilo Watts) HP = Horse Power N = Working revolution (rpm) SF = Recommended service factor

- ▶ 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 maximum bore diameter of the size selected. If the coupling bore is not suitable, select the larger size coupling.
- ▶ 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 kind changes, take service factor twice

Example

When you select a COUPLING to connects 30HP, 1,1750rpm motor and rotary type pump. Motor shaft diameter is 48mm and pump's 52mm.

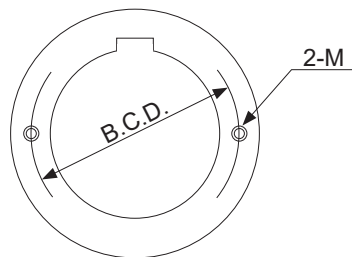
- ▶ service factor of pump is 1.8
- ▶ Normal transmitting power is 30HP

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

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

You will select the coupling size 1060 accepting up to 55mm shaft diameter. The size also accepts the application motor speed 1750 rpm. Either H (Horizontal split aluminum) or V (Vertical split steel) cover is available. Finally, the coupling size 1060 is selected.

Specification of Puller Holes

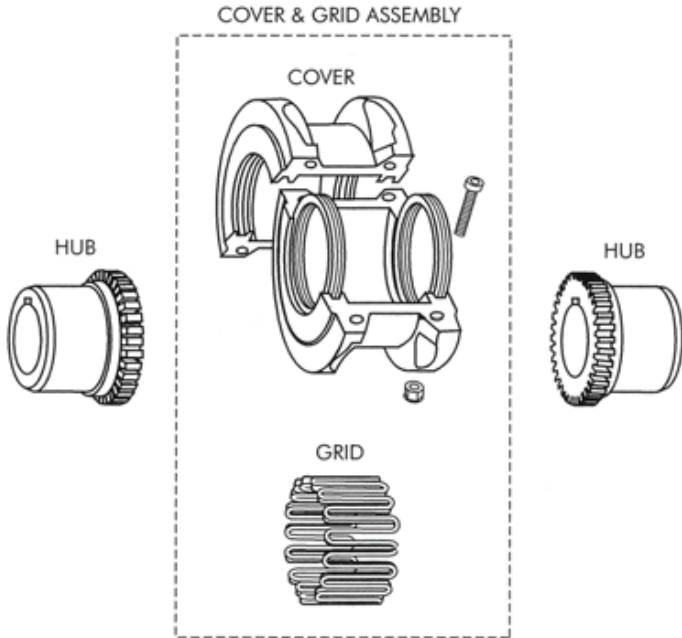


CPLG Size	B.C.D. (mm)	Bolt Size
1070	74	M8
1080	89.5	M8
1090	106	M10
1100	121.5	M10
1110	136.5	M10
1120	150.5	M12
1130	185	M16
1140	205	M16

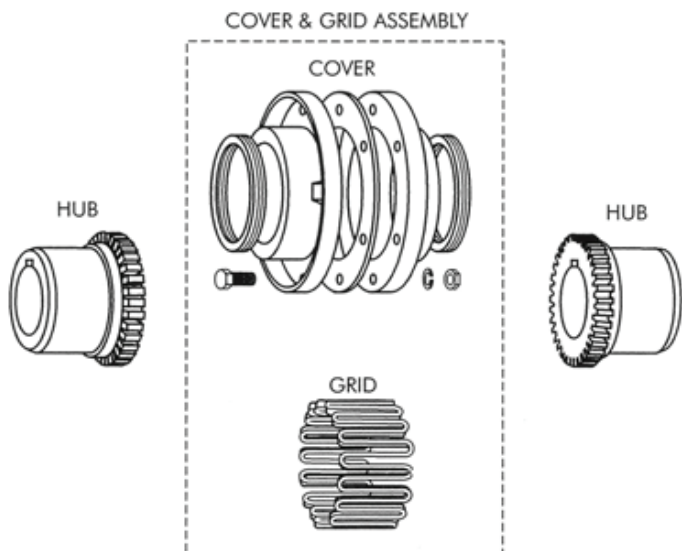
CPLG Size	B.C.D. (mm)	Bolt Size
1150	227.5	M20
1160	260	M20
1170	306	M24
1180	341	M30
1190	373	M30
1200	414	M30
1210	540	M30
1220	570	M30

Installation

TYPE H

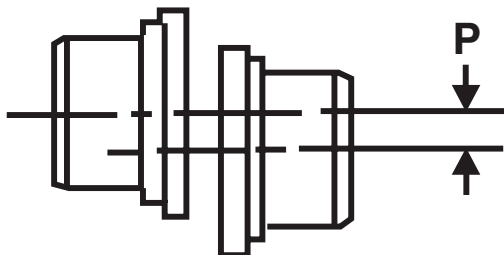


TYPE V

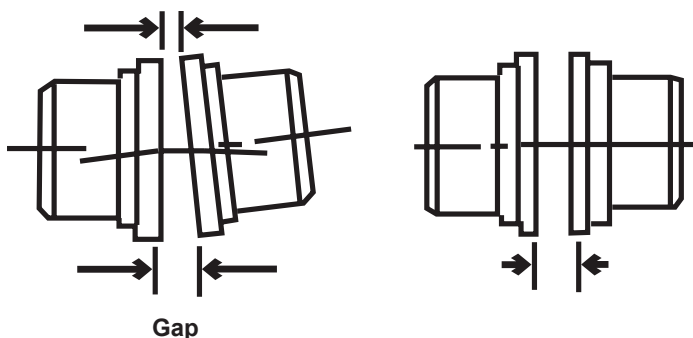


Misalignment Capacity

Parallel Misalignment



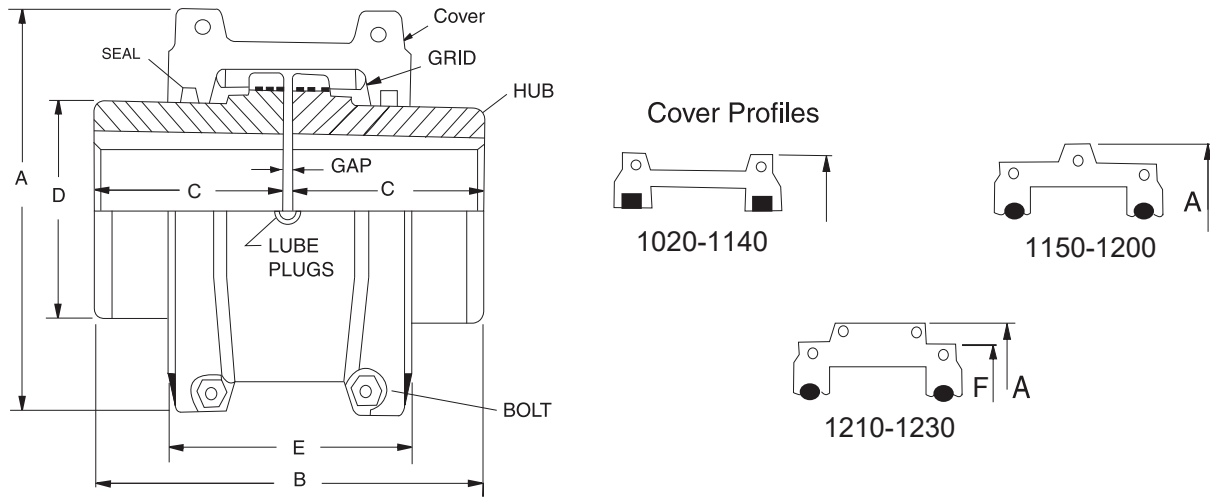
Angular Misalignment



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	0.33	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

Dimensions

TYPE H (Horizontal Split Aluminium Cover)

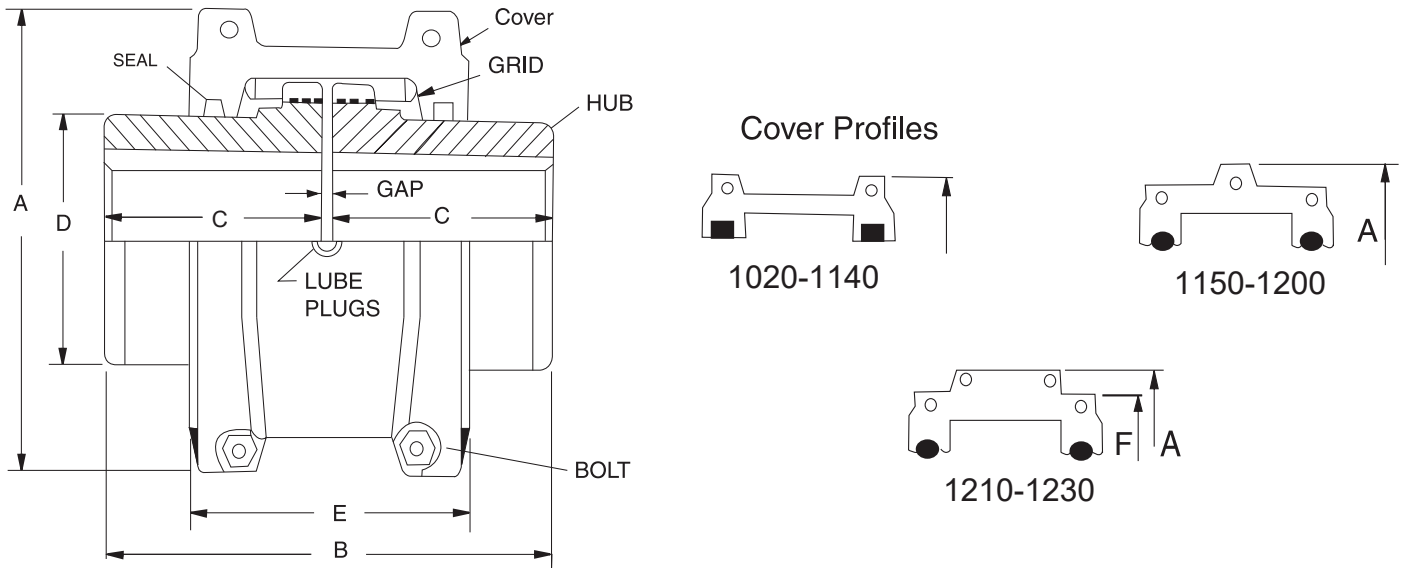


Size	HP per 100 rpm	Max. Speed (rpm)	Basic Torque (kg cm)	Bore Dia. (m)		Dimensions					Cap			Cpig Wt (kg)	Lube Wt (kg)
				Max.	Min.	A	B	C	D	E	Min.	Norm.	Max.		
1020H	0.68	4500	486	30	00012	101.6	98	47.5	39.7	66.5	1.5	3	4.5	1.9	0.03
1030H	1.93	4500	1383	35	00012	110	98	47.5	49.2	68.3	1.5	3	4.5	2.6	0.03
1040H	3.22	4500	2304	43	00012	117.5	104.6	50.8	57.1	70	1.5	3	4.5	3.4	0.05
1050H	5.63	4500	4033	50	00012	138	123.6	60.3	66.7	79.5	1.5	3	4.5	5.4	0.05
1060H	8.85	4.350	6377	55	00019	150.5	130	063.5	76.2	92	1.5	3	4.5	7.3	0.09
1070H	13	4.125	9217	65	00019	161.9	155.4	76.2	87.3	95	1.5	3	4.5	10	0.11
1080H	27	3600	19010	78	027	194	180.8	88.9	104.8	116	1.5	3	4.5	18	0.17
1090H	48	3600	34564	95	027	213	199.8	98.4	123.8	122	1.5	3	6	25	0.25
1100H	81	2400	58183	107	00041	250	245.7	120.6	142	155.5	1.5	3	6	42	0.43
1120H	177	2250	86411	117	00041	270	258.5	127	160.3	161.5	1.5	4.5	9.5	54	0.51
1130H	257	1800	184343	165	00067	346	329.8	161.9	217.5	195	1.5	6	12.5	121	0.91
1140H	370	1650	264993	184	00067	384	371.6	182.8	254	201	1.5	6	12.5	178	1.13
1150H	515	1500	368686	203	00108	453.1	3718	182.9	269.2	271.3	1.5	6	12.5	234	1.95
1160H	724	1350	518465	228	120.7	501.4	402.2	198.1	304.8	278.9	1.5	6	12.5	317	2.81
1170H	965	1225	691286	279	133.4	566.4	437.8	215.9	355.6	304.3	1.5	6	12.5	448	3.49
1180H	1338	1100	958584	311	152.4	629.9	483.6	238.8	393.7	3211	1.5	6	12.5	619	3.76
1190H	1770	1050	1267358	339	152.4	675.6	524.2	259.1	436.9	325.1	1.5	6	12.5	776	4.4
1200H	2413	900	1728216	361	177.8	756.9	564.8	279.4	497.8	355.6	1.5	6	12.5	1057	5.62
1210H	3230	820	2304288	36	177.8	844.5	622.3	304.8	533.4	431.8	3	13	24	1424	10.5
1220H	4350	730	3110788	411	203.2	820.7	622.9	325	571.5	490.2	3	13	24	1784	16.05
1230H	5640	680	4438775	450	250	1003.3	703.8	345.4	609.6	546.1	3	13	24	2267	24.0

All dimensions are in mm unless otherwise stated.

Dimensions

TYPE V (Vertical Split Steel Cover)



Size	HP per 100 rpm	Max. Speed (rpm)	Basic Torque (kg cm)	Bore Dia. (m)		Dimensions					Cap			Cpig Wt (kg)	Lube Wt (kg)
				Max.	Min.	A	B	C	D	E	Min.	Norm.	Max.		
1020	0.68	6000	486	30	12.7	111.1	98	47.5	39.7	24.2	1.5	3	4.5	2.0	0.03
1030	1.93	6000	1383	36	12.7	120.7	98	47.5	49.2	25	1.5	3	4.5	2.6	0.03
1040	3.22	6000	2304	44	12.7	128.5	104.6	50.8	57.1	25.7	1.5	3	4.5	3.4	0.05
1050	5.63	6000	4033	50	12.7	147.6	123.6	60.3	66.7	31.2	1.5	3	4.5	5.4	0.05
1060	8.85	6000	6377	57	19.1	162	130	63.5	76.2	32.2	1.5	3	4.5	7.3	0.09
1070	13	5500	9217	65	19.1	173	155.4	76.2	87.3	33.7	1.5	3	4.5	10.4	0.11
1080	27	4750	19010	79	27	200	180.8	88.9	104.8	44.2	1.5	3	4.5	17.7	0.17
1090	48	4000	34564	95	27	231.8	199.8	98.4	123.8	47.7	1.5	3	6	25.4	0.25
1100	81	3250	58183	107	41.3	266.7	245.7	120.6	142	60	1.5	3	6	42.2	0.43
1110	121	3000	86411	117	41.3	285.8	258.5	127	160.3	64.2	1.5	4.5	12.5	54.4	0.51
1120	177	2700	126736	136	60.3	319	304.4	149.2	179.4	73.4	1.5	4.5	12.5	81.6	0.73
1130	257	2400	184343	165	66.7	377.8	329.8	161.9	217.5	75.1	1.5	6	12.5	122.5	0.91
1140	370	2200	264993	184	66.7	416	371.6	182.8	254	78.2	1.5	6	12.5	180.1	1.13
1150	515	200	368686	203	108	453.1	3718	182.9	269.2	271.3	1.5	6	12.5	234	1.95
1160H	724	1350	518465	228	120.7	501.4	402.2	198.1	304.8	278.9	1.5	6	12.5	317	2.81
1170H	965	1225	691286	279	133.4	566.4	437.8	215.9	355.6	304.3	1.5	6	12.5	448	3.49
1180H	1338	1100	958584	311	152.4	629.9	483.6	238.8	393.7	3211	1.5	6	12.5	619	3.76
1190H	1770	1050	1267358	339	152.4	675.6	524.2	259.1	436.9	325.1	1.5	6	12.5	776	4.4
1200H	2413	900	1728216	361	177.8	756.9	564.8	279.4	497.8	355.6	1.5	6	12.5	1057	5.62
1210H	3230	820	2304288	36	177.8	844.5	622.3	304.8	533.4	431.8	3	13	24	1424	10.5
1220H	4350	730	3110788	411	203.2	820.7	622.9	325	571.5	490.2	3	13	24	1784	16.05
1230H	5640	680	4438775	450	250	1003.3	703.8	345.4	609.6	546.1	3	13	24	2267	24.0

All dimensions are in mm unless otherwise stated.

Lubrication

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

Grease

- ▶ Grease on the grid and hub teeth before assembling covers
- ▶ Fill up grease through the lub plug of the assembled coupling.

Supplement

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

Replacement

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

Selection

- ▶ Choose grease according to the ambient temperature range in the table below.

Common Industrial Lubricants (NYGL Grade #2)

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, U.S.A.	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