

# GEAR COUPLING

## Gear Coupling

Gear Coupling takes the method of coupling by linking sleeve and Hub With shaft and our gear coupling adopted. AGMA method (U.S.A.) in manufacturing of gear which is the most important in gear Coupling so that we can maintain high quality in product.

## Characteristic

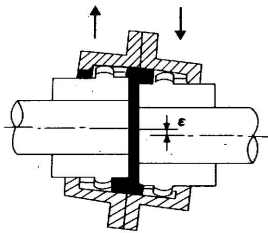
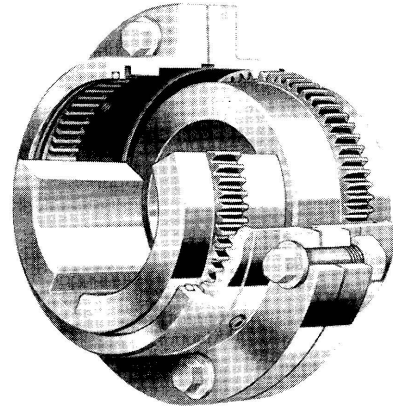
- 1) Light weight, small size, long life and very little loss of transmitting power.
- 2) It prevents leakage of lubricants by using gasket at the connection point, and it's convenient to set by concavo-convex style.
- 3) Gear Coupling permits parallel, angular and end floating misalignments by crown gear form of hub tooth.

\*In case of double engagement.

- 4) The coupling made of S45C has a good endurance to high speed and peak load and we can use some special materials.
- 5) It is possible to make various special type you want to use for multiple purposes.

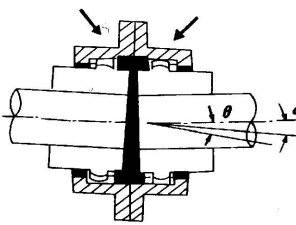
## Application

- 1) Heavy load
- 2) High speed over 5,000rpm.
- 3) The place where very powerful torque also below 100rpm is required.
- 4) The shaft to motivate sliding and also resolve.
- 5) The place where we need intermediate shaft to connect the long distance between shaft ends.
- 6) Unfit low HP and small size.



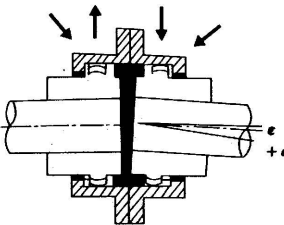
### <Parallel Misalignment>

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



### <Angular Misalignment>

The driving and driven shafts cross to each other with an angle on the same straight line.



### <End Floating>

The driving and driven shafts slide slightly each other on the center line.

### <Composite Misalignment>

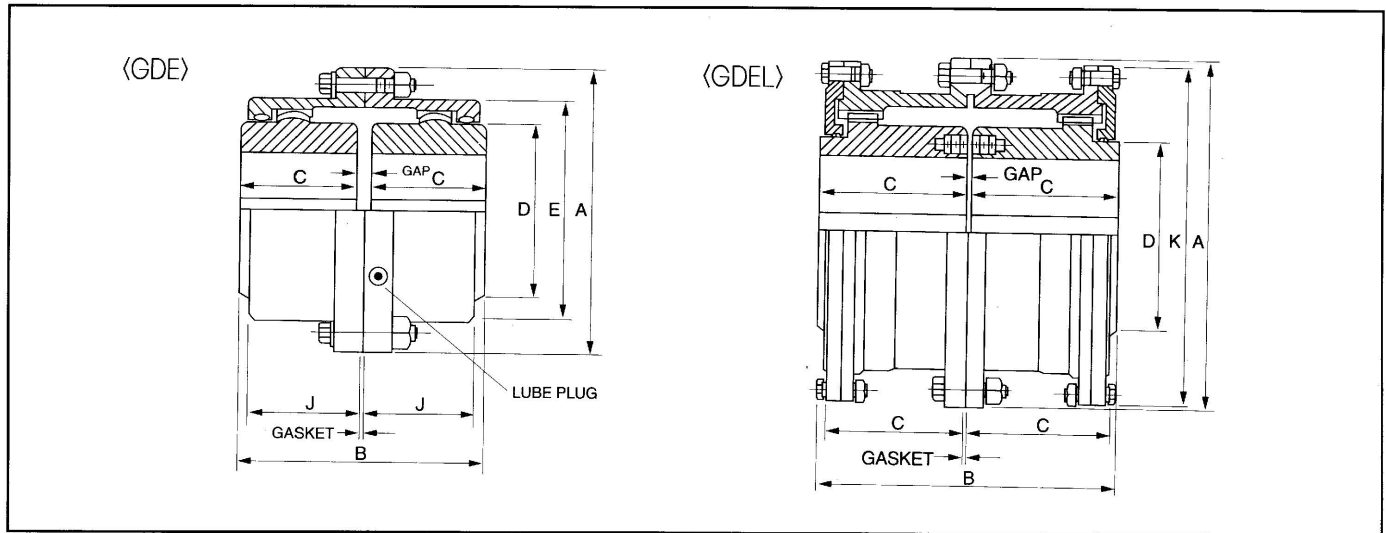
If usually appears above 3 line shaft misalignments under real operating.

## Allowable Misalignment

Size \ S	10G	15G	20G	25G	30G	35G	40G	45G	50G	55G	60G	70G	80G	90G	100G	110G	120G
$\epsilon$ (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
$\theta^\circ$ (a)	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)

# GEAR COUPLING

Type **GDE** ( Double Engagement Coupling ), **GDEL** ( Double Engagement Large Coupling ),



<GDE>

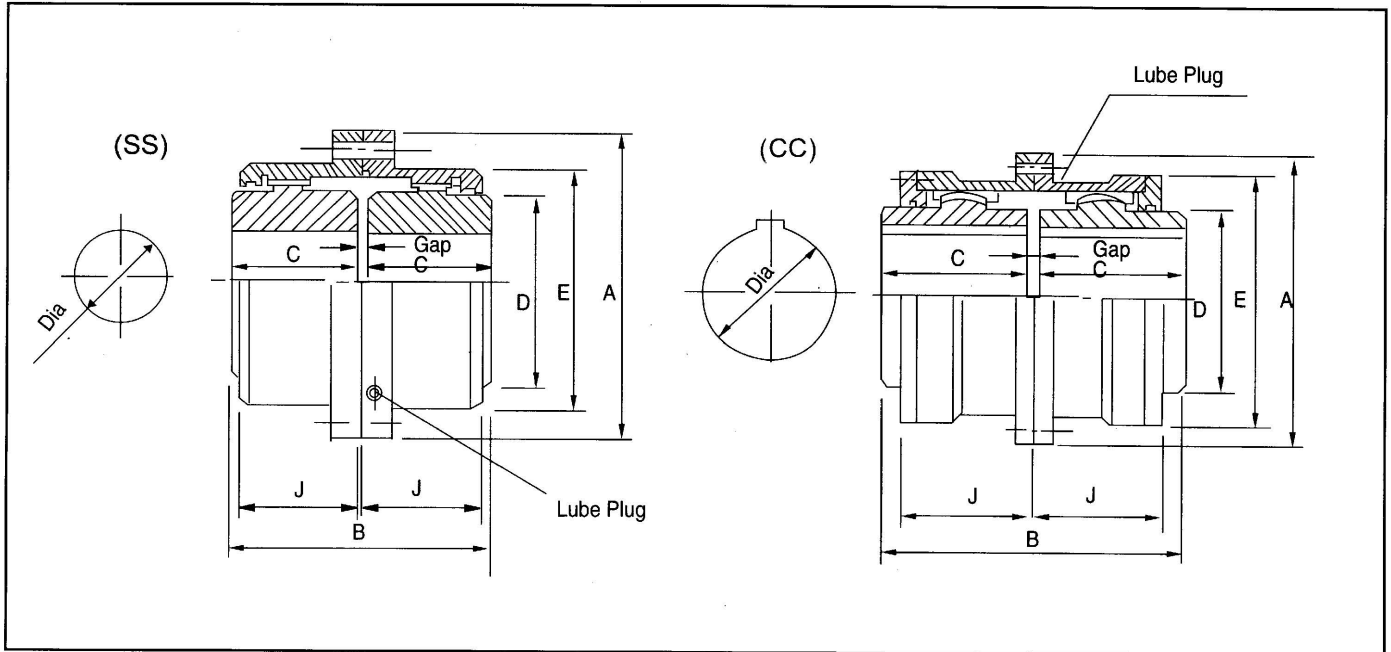
Size	HP Per 100 rpm	Max Speed (rpm)	Basic Torque (kg.cm)	Bore Dia (mm)		Dimensions(mm)						Gap	Cplg Wt(kg)	Lube Wt (kg)	Size
				Max	Min	A	B	C	D	E	J				
10GDE	12	8,000	8,594	48	13	116	89	43	69	84	39	3	4.5	0.04	10GDE
15GDE	27	6,500	19,337	60	19	152	101	49	86	105	48	3	9.1	0.07	15GDE
20GDE	50	5,600	35,810	73	25	178	127	62	105	126	59	3	15.9	0.11	20GDE
25GDE	90	5,000	64,458	92	32	213	159	77	131	155	72	5	25.9	0.23	25GDE
30GDE	150	4,400	107,430	105	38	240	187	91	152	180	84	5	43.1	0.36	30GDE
35GDE	230	3,900	164,726	124	51	279	218	106	178	211	98	6	68.0	0.54	35GDE
40GDE	350	3,600	250,670	146	64	318	248	121	210	245	111	6	97.5	0.91	40GDE
45GDE	480	3,200	343,776	165	76	346	278	135	235	274	123	8	136.1	1.04	45GDE
50GDE	650	2,900	465,530	178	89	389	314	153	254	306	141	8	190.5	0.77	50GDE
55GDE	850	2,650	608,770	197	102	425	344	168	279	334	158	8	249.5	2.22	55GDE
60GDE	1,100	2,450	787,820	222	114	457	384	188	305	366	169	8	306.2	3.18	60GDE

<GDEL>

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	DG	J	K				Gap
70GDEL	1,600	2,150	1,145,920	254	89	527	451.5	221	343	356	196	517	9.5	485.4	4.35	70GDEL
80GDEL	2,100	1,750	1,504,020	279	102	591	507.5	249	356	368	243	572	9.5	703.1	9.53	80GDEL
90GDEL	2,850	1,550	2,041,170	305	114	660	565	276	394	419	265	641	13	984.3	12.25	90GDEL
100GDEL	4,000	1,450	2,864,800	343	127	711	623	305	445	470	294	699	13	1302.0	14.97	100GDEL
110GDEL	5,500	1,330	3,939,100	387	140	775	679	333	495	521	322	749	13	1678.3	17.69	110GDEL
120GDEL	7,000	1,200	5,013,400	425	152	838	719	353	546	572	341	826	13	2113.8	20.87	120GDEL

# GEAR COUPLING

Type **SS** (Gear Double) **CC** (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			
				DA	DE											
SS112	8	3,600	5,730	40	50	16	112	108	50	58	79	39	8	4.6	0.04	SS112
SS125	14	3,600	10,160	50	56	31	125	134	63	70	92	44	8	6.7	0.05	SS125
SS140	20	3,600	14,630	56	63	31	140	150	71	80	107	49	8	9.3	0.07	SS140
SS160	31	3,600	22,390	63	71	31	160	170	80	95	120	62	10	14	0.09	SS160
SS180	48	3,600	34,380	71	80	45	180	190	90	105	134	70	10	19	0.12	SS180
SS200	69	3,600	49,100	80	90	45	200	210	100	120	149	79	10	26	0.15	SS200
SS224	100	3,080	71,330	90	100	51	224	236	112	145	174	89	12	38	0.25	SS224
SS250	134	2,650	96,190	100	125	51	250	262	125	165	200	99	12	56	0.35	SS250
SS280	233	2,340	166,600	125	140	51	280	294	140	190	224	111	14	83	0.48	SS280
SS315	367	1,980	262,600	160	180	112	315	356	170	225	260	124	16	135	0.77	SS315
SS355	552	1,800	395,400	180	200	125	355	396	190	250	288	139	16	184	0.94	SS355
SS400	776	1,570	555,500	200	236	140	400	418	200	285	329	157	18	261	1.36	SS400
CC450	1,050	1,570	752,000	200	224	140	450	418	200	290	372	151	18	304	1.79	CC450
CC500	1,652	1,320	1,183,000	236	265	170	500	494	236	335	425	168	22	453	2.64	CC500
CC560	2,369	1,170	1,697,000	265	300	190	560	552	265	385	475	187	22	664	3.23	CC560
CC630	3,700	990	2,650,000	315	355	224	630	658	315	455	548	213	28	1,020	4.93	CC630
CC710	5,306	870	3,800,000	355	400	250	710	738	355	510	622	242	28	1,460	6.63	CC710
CC800	7,600	780	5,443,000	400	450	280	800	832	400	570	690	267	32	2,090	9.35	CC800

\*Coupling Weight, without Bore machining