ISO-9001:2000 Germany(TÜV) Korea(R) France(BV)

Line Shaft
Coupling

Jac coupling

http ://www.jacoup.co.kr E-mail : jac@jacoup.co.kr

Jac has the right product for your application!

GEAR COUPLING 04

DISC COUPLING 17

MICRO COUPLING 29

RUBBER COUPLING 30

TIRE COUPLING 33

WIRE DRUM COUPLING 36

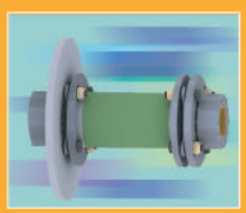
GRID COUPLING 42

JAW COUPLING 47

FLEXIBLE COUPLING 49

BRAKE DRUM COUPLING 52

UNIVERSAL JOINT 56



WIND POWER COUPLING

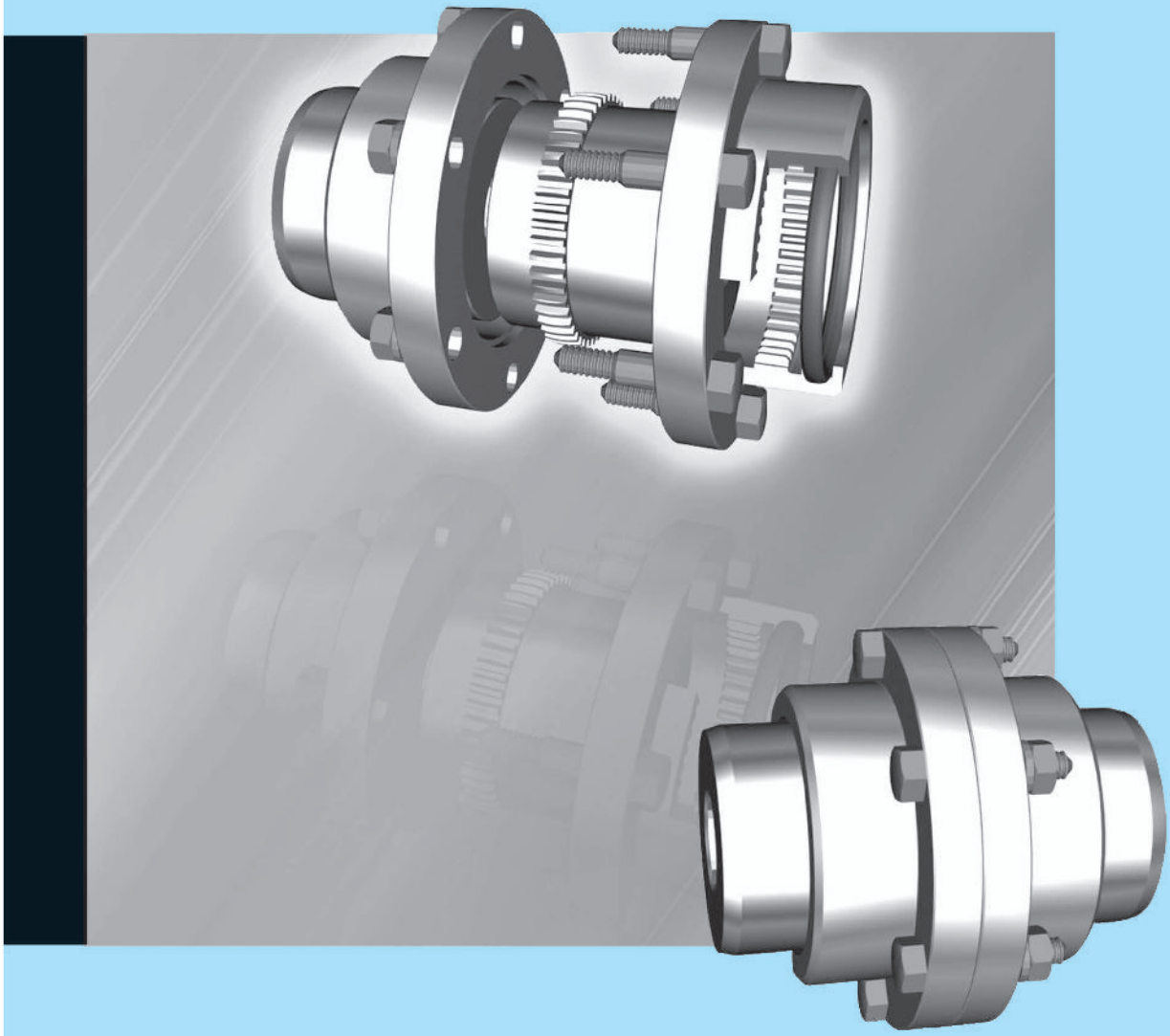
ISO-9001:2000 Germany(TÜV) Korea(R) France(BV)

New Millennium, 21C
Challenge to the best coupling!

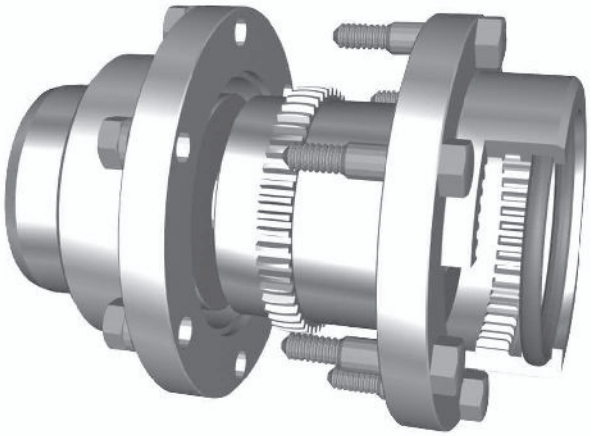
Sweat and endeavor for the new 21C dream!
This is our highest goal.
Jac is doing its best through much sweat and constant
efforts to surpass other company' s articles home and abroad.

C · O · N · T · E · N · T · S

GEAR
COUPLING



GEAR COUPLING



■ Distinctive

1. With the capacity of handling heavy loads, gear couplings are much smaller and lighter than any other couplings. Noise or vibrations is hardly produced even in high speed operation.

2. The tooth of outer gear is manufactured in crown shape. So even when the axial misalignment occurs it provides good operation.

3. On both sleeves as there are grooves, it is easy to attach and there is not the leakage of grease.

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

5. ***Jac*** is manufacturing with new design and thorough going quality control high quality standard couplings conformable to KS and JIS.

■ Structure

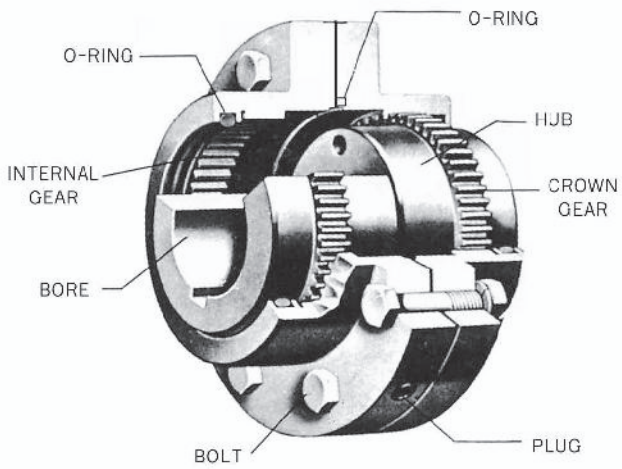
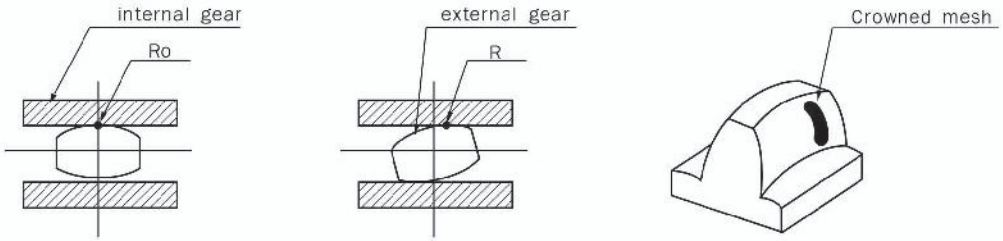


Fig. 2

1. ***Jac*** Gear coupling consists of the internal spur gears in its sleeves and the external spur gears with crowned teeth on its hubs, both of which are in mesh when assembled. At the tooth section of the hub, the tooth surface is crowned and the tooth top is rounded in the axial direction in order to prevent interference at the tooth section when they are operated in eccentric condition.
2. If it is properly mounted without any displacement the external tooth comes is contact with the mating internal tooth at the middle of the crowned portion(RO) and if it is mounted with offset and angular displacement, the former will some in contact with the latter at a point distant from the middle of the crowned portion.



Accurate alignment　　Stress pattern and contact area comparisions

Fig. 3

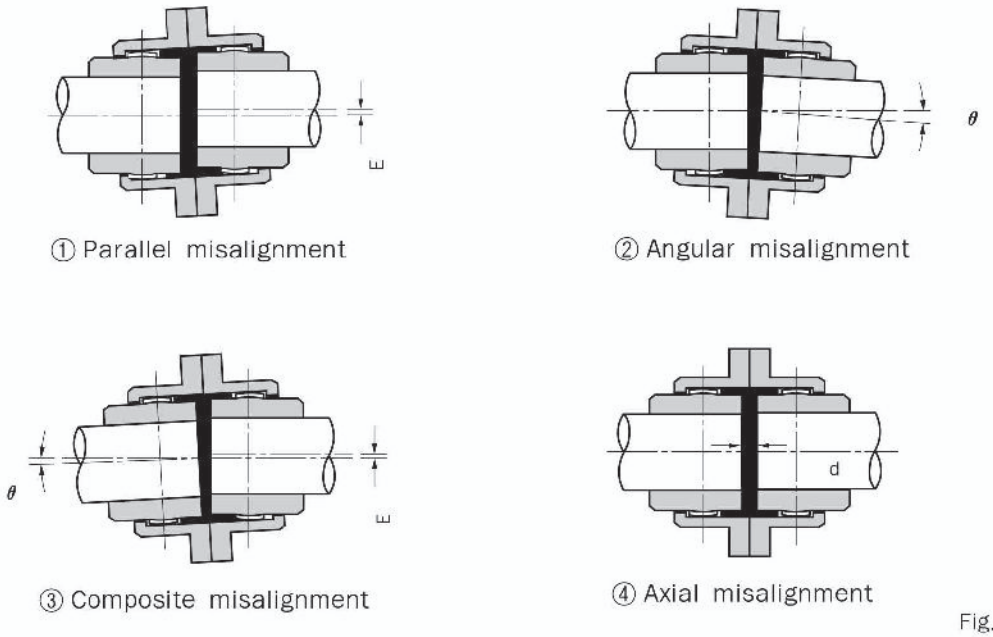
3. Misalignment

① Parallel Misalignment
The drving shaft and the driven shaft are parallel to each other but not on the same straight line.

② Angular Misalignment
The driving shaft and the driven shaft cross to each other but not on the same straight line.

③ Composite Misalignment
The driving shaft and the driven shaft do not cross to each other nor are they parallel to each other.

④ Axial Misalignment
The driving shaft and the driven shaft are on the same line but the distance between the two shafts varies(The permissible axial Misalignment is ±25% of C)



① Parallel misalignment　② Angular misalignment

③ Composite misalignment　④ Axial misalignment

Fig. 4

4. Allowable Amounts of Misalignments.
The following tables show the allowable amounts of displacement determined by a stuctural consideration. It is, therefore, practically recommended that the alignment should be made as accurately as possible according to the service conditions such as the place of application, type of machine, service rpm, etc.

Allowable amounts of misalignments of SSM, CCM-type

coupling Size	Parallel misalign-ment (mm)	Axial misalign-ment (mm)	Angular misalign-ment (°)	coupling Size	Parallel misalign-ment (mm)	Axial misalign-ment (mm)	Angular misalign-ment (°)	coupling Size	Parallel misalign-ment (mm)	Axial misalign-ment (mm)	Angular misalign-ment (°)
112	1	2	3°	250	2	4	3°	560	4	6.5	2°
140	1.25	2.5	3°	315	2.5	5	3°	710	5	8.5	2°
160	1.25	3	3°	355	3	5.5	3°	800	5.5	9.5	2°
180	1.5	3	3°	400	3	6.5	3°	900	6.5	10.5	2°
200	1.5	3	3°	450	3	5	2 °	1000	7	12	2°
224	1.5	4	3°	500	3.5	6	2°	1120	8	13	2°

Allowable amounts of misalignments of GD, GDL-type

coupling Size	Parallel misalign-ment (mm)	Axial misalign-ment (mm)	Angular misalign-ment (°)	coupling Size	Parallel misalign-ment (mm)	Axial misalign-ment (mm)	Angular misalign-ment (°)	coupling Size	Parallel misalign-ment (mm)	Axial misalign-ment (mm)	Angular misalign-ment (°)
10	1	1.5	3°	40	3.4	3.5	3°	80	6.6	5	2°
15	1.3	1.5	3°	45	3.7	4	3°	90	7.5	5	2°
20	1.6	2	3°	50	4	4	3°	100	8.4	6	2°
25	2	3	3°	55	4.5	5	3°	110	12.3	6	2°
30	2.5	3	3°	60	5	5	3°	120	12.7	8	2°
35	3	3	3°	70	6	5	2°				

■ Application

Recommendable	Not Recommendable	Symbol
(1) (2) (3) (4)	(5) (6) (7) (8)	*jac*-SSM, CCM *jac*-GD, GDL 固定支持 Support by fixed bearings. *jac*-SEM, CEM *jac*-GS, GSL 可頃支持 Support by inclinable bearings.

Fig. 6

1. In case of *Jac*-SEM it will be used like (1) or (2). The case such as (5) must be basically avoided except for when shafts are in complete alignment.
2. When *Jac*-SSM are coupled with an intermediate shaft, the shaft requires fixed supports as (3).
3. When *Jac*-SSM is used together with *Jac*-SEM, an inclinable bearing spporting the intermediate shaft must be set up.
4. If the intermediate shaft is in inclining state, it causes vibration.
5. For use in high speed revolution, the allowable max. rpm of the coupling can be increased by adjusting the alignment and improving the balance of the coupling sleeves.

■ Lubrication and Handling

1. We advise the adequate lubricant to be used for *Jac* gear coupling to support good peformance and long life.
2. Grease lubricant.
   When assembling, pack the coupling sleeve and the coupling hub with the recommended grease until their teeth become invisible, and after tightening the reamer bolts, add the grease through the oil plug hole using a grease gun, etc.
3. Supplement and Replacement
   Every month, or240~250 hours after operation, you should supply grease. Every 3 months or 4,000 hours after operation, you should replace grease after you get rid of the deteriorated.
4. Selection of grease
   The handling range of temperature for grease is from -17℃ to 70℃. You choose grease according to the rpm and circumstance.
5. How to fill up lube oil
   The sleeve is provided with 2 oil holes, as shown in Fig. 8, with one hole inclined at about 30° upwards. Open the plug and supply oil through this port. Oil should be supplied until it overflows from the oil hole.
6. Change and inspection of lube oil
   It is desirable to change oil after 3 months of operation for the first time, and subsequently, every 6 months. If leakage of lube oil is found during operation, be sure to check the cause of leakage and after taking necessary measures, check the amount of oil and replenish it if necessary.
7. Cautions for oil lubrication
   In the case of oil lubrication, the enclosed oil may leak between the key and keyway then you should apply either a sealant to the key or to mount a cover on the hub shaft end to prevent oil leakage.

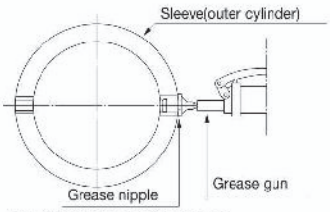


Fig.-7 How to apply grease

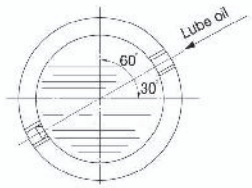


Fig.-8 How to fill lube oil

Recommended Lubricants

MAKERS	GEAR OIL	GREASE
ESSO	SPARTAN EP 680	PEN-O-LED EP #1
SHELL	OMURA OIL 680	ALVANIA EP #1
MOBIL	MOBIL GEAR 636	MOBIL PLEX 46
CALTEX	MULTIFAK EP #1	MEROPA 680

■ Maintenance & Check

1. there are any vibration and noise in coupling.
2. there is any oil leakage in the coupling.
3. there is any damage in the teeth.
4. there are any deterioration and damage in the "O" ring.
5. there is any deterioration in the lubricating oil.
6. there is any variation in the oil quantity.
   Always check the 1&2 above which can be observed from outside and compare them with those under normal operation. For the items other than the items 1&2 above, check them every 6 months.
   For the extreme overload operation, excessive both-way rotaion, and large misalignment, shorten the interval of check.

table 3.

Company \ Oil	Grease #1	Grease #2
Gulf Oil Corp.	Gulf crown Grease EP #1	Gulf crown Grease EP #0
Shell Oil Corp.	Alvania Grease EP #1	Alvania EP-R0
Texaco Inc.	Multifak EP-1	Multifak EP-O
Mobil Oil Corp.	Mobilux EP-1	Mobilux EP-O

■ Selection Method of Size

1. From the following formula, obtain torque required for selection.

$$Ta = 974 \times \frac{KW}{N} \times SF \quad \text{or} \quad Ta = 716 \times \frac{HP}{N} \times SF$$

Ta = Selected torque(kg.m)
KW = Transmistted load(kw)
HP = Transmistted load(HP)
N = Working revolution(rpm)
S.F = Recommended Service Factor

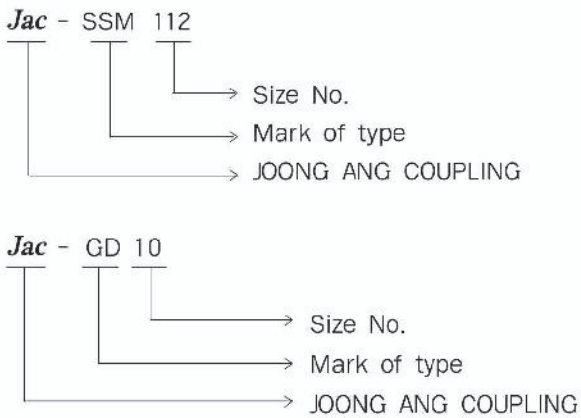
2. First select the same or greater size by comparing with basic torque of each size and calculated torque and then examine the suitability of boring driver.

Recommended Service Factor (S.F) table 4.

Driving machines			Load	Examples of driven machines
Electric motor or turbine	Hydraulic power	Reciprocation motion		
1	1.25	1.5	Smooth	Pumps, Blowers, Generators, and Exciters.
1.5	1.8	2	Light shock	Compressors, Mixers, Grinders, Machine Tools, Wood Working Machines, and Textile Machines.
2	2.3	2.5	Medium shock	Ball and Roll Mills, Reciprocating Compressors, Elevators, Paper Machines, Punch Presses.
2.5	2.8	3	Heavy shock	Steel & Iron Manufacturing Machines, Mining Machines, Roll Mills, and Rubber Mixers.
3	3.5	4	Extremely heavy shock	Ore Crushers, Vibraion Conveyors, and Cutters.

※ The above service factors are applied to the general conditions, the service factor should be considered according to the actual conditions.

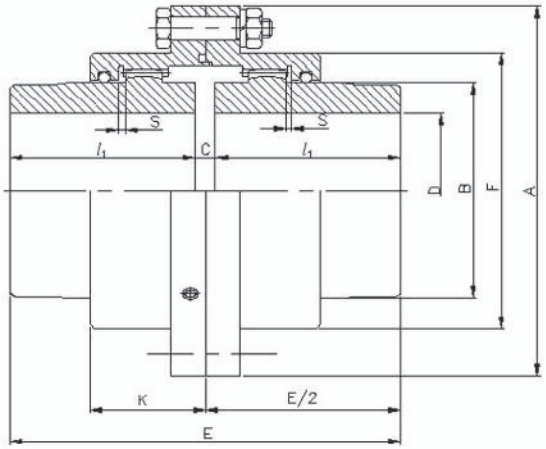
■ Designation



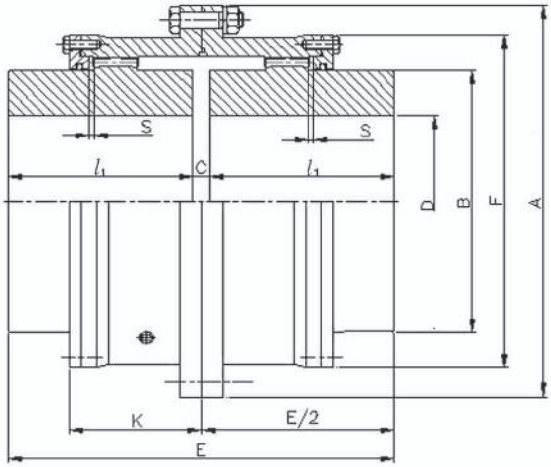
SSM, GD : Gear double engagement type
CCM, GDL: Gear double engagement large type
SEM, GS : Gear Single engagement type
CEM, GSL: Gear Single engagement large type

■ Dimensions (KS & JIS Standard)

Jac-SSM



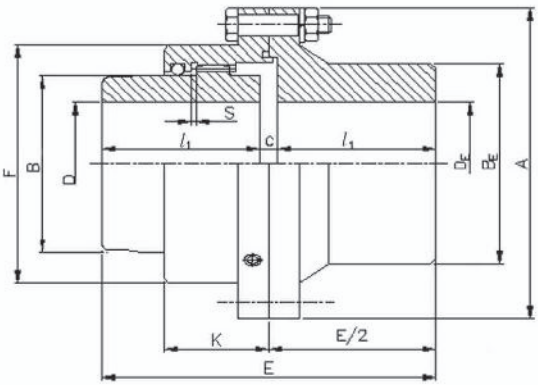
Jac-CCM



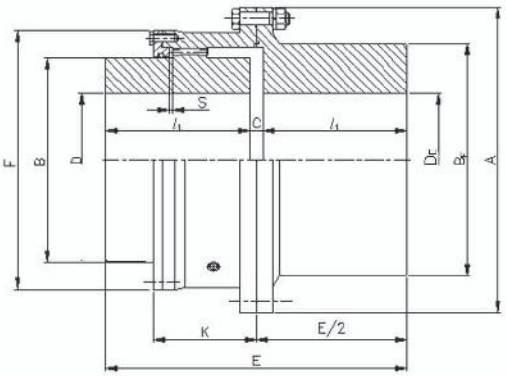
SIZE OUTSIDE Dia A	Torque Rating (kgf • m)	Max Speed (rpm)	Dimensions(mm)									GREASE Q'TY (l)	Weight (kg)	GD² (kgf • m²)
			Bore D		E	l_1	C	B	F	K	S			
			Min	Max										
SSM 112	80.3	4000	17	40	108	50	8	58	79	40	2	0.055	4.3	0.0198
SSM 125	142	4000	22	50	134	63	8	70	92	43	2.5	0.072	6.6	0.0353
SSM 140	205	4000	22	56	150	71	8	80	107	47	2.5	0.11	9.3	0.0612
SSM 160	314	4000	22	65	170	80	10	95	120	52	3	0.14	14	0.113
SSM 180	482	4000	32	75	190	90	10	105	134	56	3	0.18	19	0.191
SSM 200	689	3810	32	85	210	100	10	120	149	61	3	0.24	26	0.315
SSM 224	1000	3410	42	100	236	112	12	145	174	65	4	0.36	39	0.599
SSM 250	1470	3050	42	115	262	125	12	165	200	74	4	0.53	55	1.08
SSM 280	2340	2720	42	135	294	140	14	190	224	82	4.5	0.69	81	2.06
SSM 315	3680	2420	100	160	356	170	16	225	260	98	5.5	1.1	129	4.24
SSM 355	5550	2150	125	180	396	190	16	250	288	108	5.5	1.3	177	7.13
SSM 400	7790	1900	140	200	418	200	18	285	329	114	6.5	2.0	242	12.5
CCM 450	11000	1690	140	205	418	200	18	290	372	151	5	2.6	298	16.6
CCM 500	16600	1520	170	250	494	236	22	335	424	168	6	3.8	446	36.9
CCM 560	25500	1360	190	280	552	265	22	385	472	187	6.5	4.6	642	67.6
CCM 630	42000	1210	224	325	658	315	28	455	544	213	8	6.7	1010	137
CCM 710	61200	1070	250	360	738	355	28	510	622	242	8.5	9.4	1440	250
CCM 800	87500	950	280	405	832	400	32	570	690	267	9.5	13	2030	441
CCM 900	125000	840	315	475	932	450	32	670	792	295	10.5	17	3030	860
CCM 1000	171000	760	355	510	1040	500	40	720	858	322	12	23	4120	1380
CCM 1120	240000	682	400	600	1160	560	40	840	990	360	13	31	5920	2650
CCM 1250	331000	610	500	710	1460	710	40	960	1126	399	14	45	9410	5290

■ Dimensions (KS & JIS Standard)

Jac-SEM



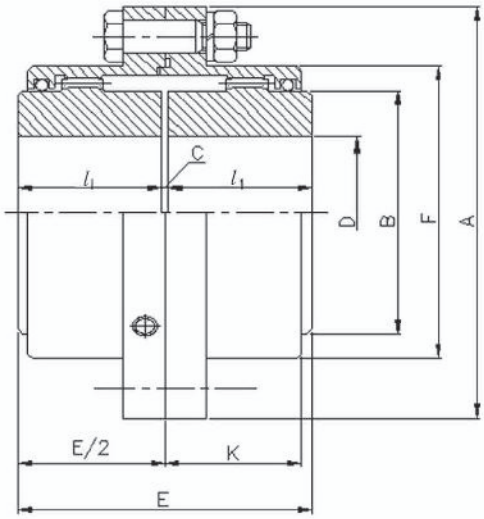
Jac-CEM



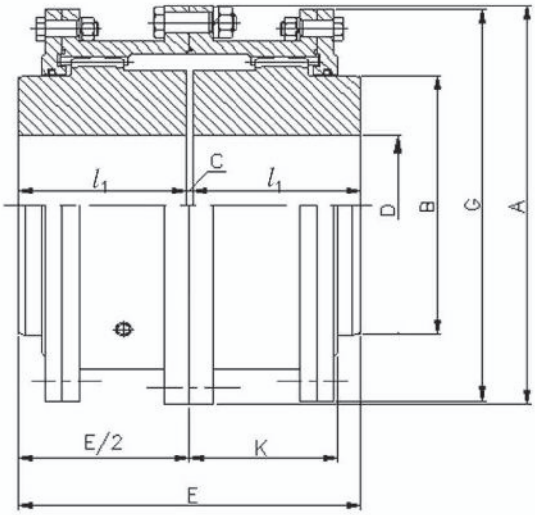
SIZE	Torque Rating	Max Speed	Dimensions(mm)												GREASE	Weight	GD²
OUTSIDE Dia A	(kgf • m)	(rpm)	Bore D		Bore D_E		E	l_1	C	B	F	K	B_E	S	Q'TY (ℓ)	(kg)	(kgf · m²)
			Min	Max	Min	Max											
SEM 112	80.3	4000	17	40	17	50	108	50	8	58	79	40	70	2	0.042	4.6	0.0197
SEM 125	142	4000	22	50	22	56	134	63	8	70	92	43	80	2.5	0.056	6.7	0.0348
SEM 140	205	4000	22	56	22	63	150	71	8	80	107	47	90	2.5	0.085	9.3	0.0591
SEM 160	314	4000	22	65	22	75	170	80	10	95	120	52	105	3	0.11	14	0.111
SEM 180	482	4000	32	75	32	80	190	90	10	105	134	56	115	3	0.14	19	0.183
SEM 200	689	3810	32	85	32	95	210	100	10	120	149	61	135	3	0.18	26	0.317
SEM 224	1000	3410	42	100	42	105	236	112	12	145	174	65	150	4	0.29	38	0.579
SEM 250	1470	3050	42	115	42	125	262	125	12	165	200	74	180	4	0.41	56	1.08
SEM 280	2340	2720	42	135	42	150	294	140	14	190	224	82	210	4.5	0.56	83	2.14
SEM 315	3680	2420	100	160	100	180	356	170	16	225	260	98	250	5.5	0.90	135	4.55
SEM 355	5550	2150	125	180	125	200	396	190	16	250	288	108	275	5.5	1.1	184	7.50
SEM 400	7790	1900	140	200	140	236	418	200	18	285	329	114	325	6.5	1.6	261	14.1
CEM 450	11000	1690	140	205	140	225	418	200	18	290	372	151	320	5	2.1	304	18.2
CEM 500	16600	1520	170	250	170	270	494	236	22	335	424	168	380	6	3.1	453	37.0
CEM 560	25500	1360	190	280	190	305	552	265	22	385	472	187	430	6.5	3.8	664	70.0
CEM 630	42000	1210	224	325	224	355	658	315	28	455	544	213	500	8	5.8	1020	139
CEM 710	61200	1070	250	360	250	400	738	355	28	510	622	242	565	8.5	7.8	1460	252
CEM 800	87500	950	280	405	280	450	832	400	32	570	690	267	635	9.5	11	2090	451
CEM 900	125000	840	315	475	315	510	932	450	32	670	792	295	715	10.5	14	3020	743
CEM 1000	171000	760	355	510	355	570	1040	500	40	720	858	322	800	12	20	4130	1440
CEM 1120	240000	682	400	600	400	640	1160	560	40	840	990	360	900	13	26	5970	2810
CEM 1250	331000	610	500	710	500	800	1460	710	40	960	1126	399	1060	14	37	9820	5630

■ Dimensions (AGMA Standard)

Jac-GD



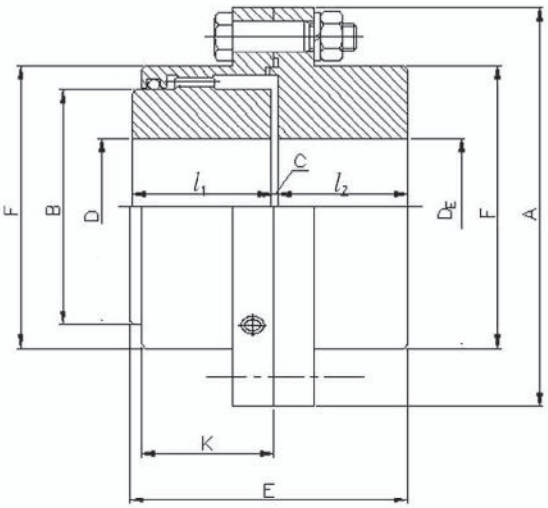
Jac-GDL



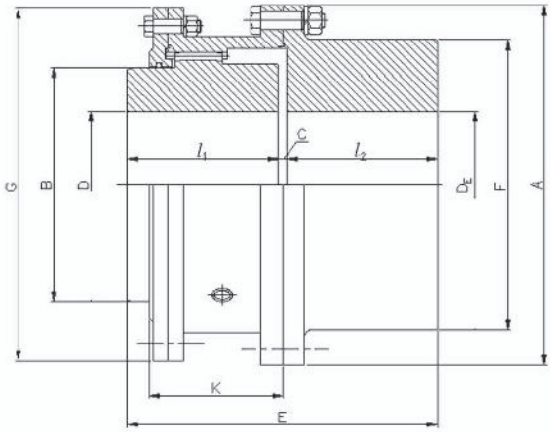
Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kgf · cm)	Bore D(mm)		Dimensions(mm)								Weight (kg)	Grease wt(kg)
				Max	Min	A	E	l_1	B	F	K	G	C		
10GD	12	8,000	8,594	48	13	116	89	43	69	84	39		3	4.5	0.04
15GD	27	6,500	19,337	60	19	152	101	49	86	105	48		3	9.1	0.07
20GD	50	5,600	35,810	73	25	178	127	62	105	126	59		3	15.9	0.11
25GD	90	5,000	64,458	92	32	213	159	77	131	155	72		5	29.5	0.23
30GD	150	4,400	107,430	105	38	240	187	91	152	180	84		5	43.1	0.36
35GD	230	3,900	164,726	124	51	279	218	106	178	211	98		6	68.0	0.54
40GD	350	3,600	250,670	146	64	318	248	121	210	245	111		6	97.5	0.91
45GD	480	3,200	343,776	165	76	346	278	135	235	274	123		8	136.1	1.04
50GD	650	2,900	465,530	178	89	389	314	153	254	306	141		8	190.5	1.77
55GD	850	2,650	608,770	197	102	425	344	168	279	334	158		8	249.5	2.22
60GD	1,100	2,450	787,820	222	114	457	384	188	305	366	169		8	306.2	3.18
70GDL	1,600	2,150	1,145,920	254	89	527	451.5	221	343		196	517	9.5	485.4	4.35
80GDL	2,100	1,750	1,504,020	279	102	591	507.5	249	356		243	572	9.5	703.1	9.53
90GDL	2,850	1,550	2,041,170	305	114	660	565	276	394		265	641	13	984.3	12.25
100GDL	4,000	1,450	2,864,800	343	127	711	623	305	445		294	699	13	1302.0	14.97
110GDL	5,500	1,330	3,939,400	387	140	775	679	333	495		322	749	13	1678.3	17.69
120GDL	7,000	1,200	5,013,400	425	152	838	719	353	546		341	826	13	2113.8	20.87

■ Dimensions (AGMA Standard)

Jac-GS



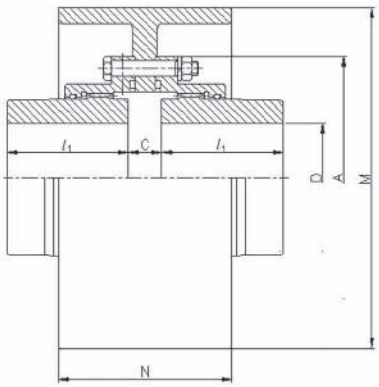
Jac-GSL



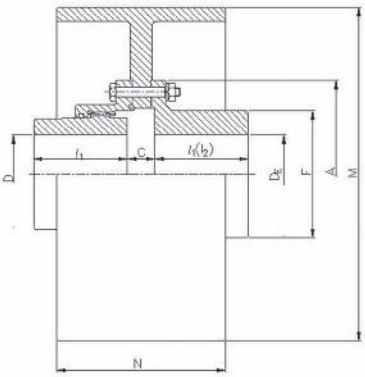
Size	HP Per 100 rpm	Max. Speed (rpm)	Basic Torque (kgf · cm)	Bore D(mm)			Dimensions(mm)									Weight (kg)	Grease wt(kg)
				Max		Min	A	E	l_1	B	F	K	l_2	G	C		
				D_E	D												
10GS	12	8,000	8,594	60	48	13	116	87	43	69	84	39	40		4	4.5	0.02
15GS	27	6,500	19,337	75	60	19	152	99	49	86	105	48	46		4	9.1	0.04
20GS	50	5,600	35,810	92	73	25	178	124	62	105	126	59	58		4	15.9	0.07
25GS	90	5,000	64,458	111	92	32	213	156	77	131	155	72	74		5	27.2	0.12
30GS	150	4,400	107,430	130	105	38	240	184	91	152	180	84	88		5	43.1	0.18
35GS	230	3,900	164,726	149	124	51	279	213.5	106	178	211	98	102		5.5	61.2	0.27
40GS	350	3,600	250,670	171	146	64	318	243	121	210	245	111	115		7	99.8	0.47
45GS	480	3,200	343,776	194	165	76	346	274	135	235	274	123	131		8	136.1	0.57
50GS	650	2,900	465,530	222	178	89	389	309	153	254	306	141	147		9	195.0	0.91
55GS	850	2,650	608,770	248	197	102	425	350	168	279	334	158	173		9	263.1	1.13
60GS	1,100	2,450	787,820	267	222	114	457	384	188	305	366	169	186		10	324.3	1.70
70GSL	1,600	2,150	1,145,920	305	254	89	527	454	221	343	425	196	220	517	13	508.0	2.27
80GSL	2,100	1,750	1,504,020	343	279	102	591	511	249	356	451	243	249	572	13	698.5	4.99
90GSL	2,850	1,550	2,041,170	381	305	114	660	566	276	394	508	265	276	641	14	984.5	6.35
100GSL	4,000	1,450	2,864,800	406	343	127	711	626	305	445	530	294	305	699	16	1251.9	7.71
110GSL	5,500	1,330	3,939,400	445	387	140	775	682	333	495	584	322	333	749	16	1637.5	9.07
120GSL	7,000	1,200	5,013,400	495	425	152	838	722	353	546	648	341	353	826	16	2077.5	10.89

■ Dimensions

Brake Drum Type

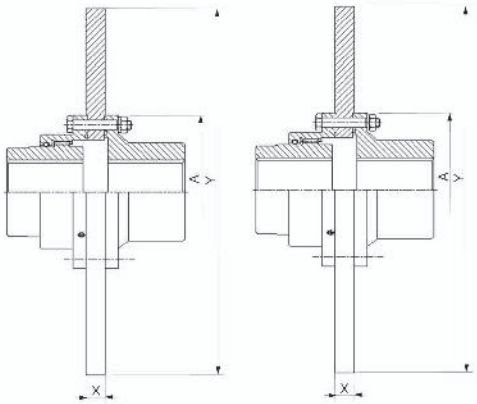


Jac-SSMB
Jac-GDBW



Jac-SEMB
Jac-GSBW

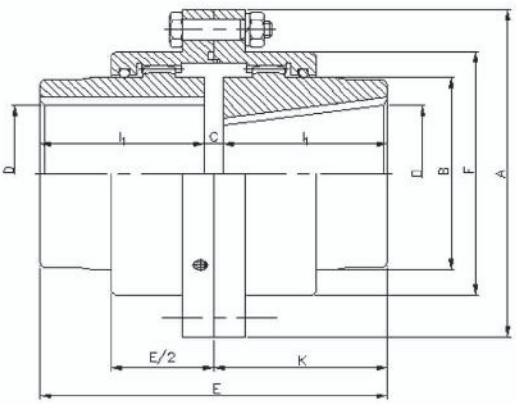
Brake Disc Type



Jac-SSMB					DRUM SIZE		*Jac*-GDBW, GSBW						
Size	l_1	C	D max/min	DE max/min	M	N	DE max/min	D max/min	C	l_1	l_2	A	Size
140	63	24	56/22	63/22	200	100	75/19	60/19	16	49	46	152	15G
160	80	26	65/22	75/22			95/25	73/25	16	62	58	178	20G
180	90	29	75/32	80/32	250	125	113/32	92/32	19	77	74	213	25G
200	100	29	85/32	95/32									
224	112	31	100/42	105/42	315	160	130/38	105/38	19	91	88	240	30G
250	125	31	115/42	125/42									
280	140	31	135/42	150/42	355	180	149/51	124/51	25	106	102	279	35G
315	160	41	160/100	180/100	400	200	171/64	146/64	25	121	115	318	40G
355	180	43	180/125	200/125	450	224	194/76	165/76	27	135	131	346	45G
400	200	49	200/140	236/140	500	250	222/89	178/89	33	153	147	389	50G

* 'M' and 'N' are variable according to the space of machine.

Mill Motor Type



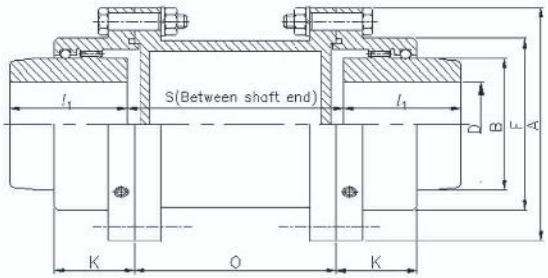
Jac-SMM

Size	DIMENSIONS						GD²
OUTSIDE Dia A	E	l_1	l_2	C	K_1	K_2	(kgf·m²)
SMM 125(a)	157	50	75	32	43	66	0.038
SMM 125(b)	172	50	90	32	43	66	0.039
SMM 140	185	63	90	32	47	72	0.066
SMM 160	220	80	100	40	52	82	0.123
SMM 180	246	90	115	41	56	87	0.208
SMM 200	260	100	115	45	61	93	0.336
SMM 224	289	112	125	52	65	102	0.637
SMM 250	305	125	125	55	74	105	1.09
SMM 280(a)	339	140	140	59	82	115	2.09
SMM 280(b)	339	140	150	49	82	115	2.13
SMM 315(a)	386	160	170	56	98	128	4.27
SMM 315(b)	421	160	185	76	98	143	4.42
SMM 355	491	180	235	76	108	155	7.79

■ Special Applications

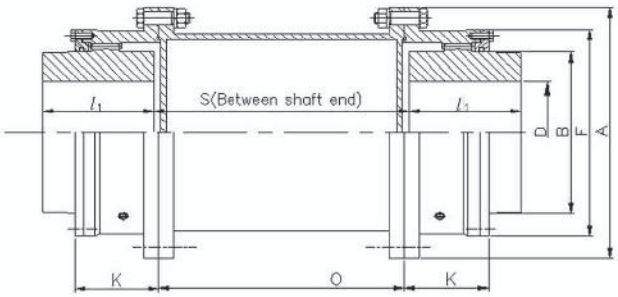
Space Type Gear Coupling

Jac-SAM
Jac-GDS



Jac-SSM112～400
Jac-GD10～60

Jac-CAM

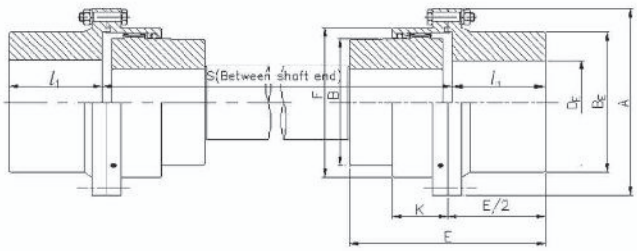


Jac-CCM450～1250

* "S" is the distance between shaft ends. Please give us the further information on "S" when you order.

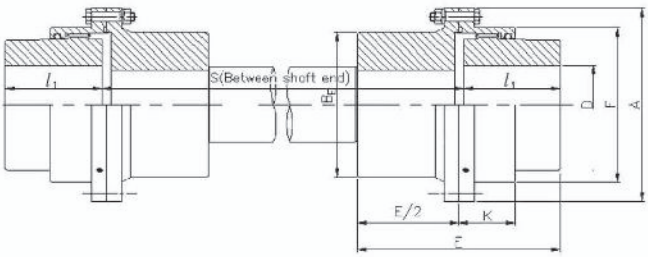
With Flex Hub on Floating Shaft

Jac-SHM
Jac-GFO



With Flange on Floating Shaft

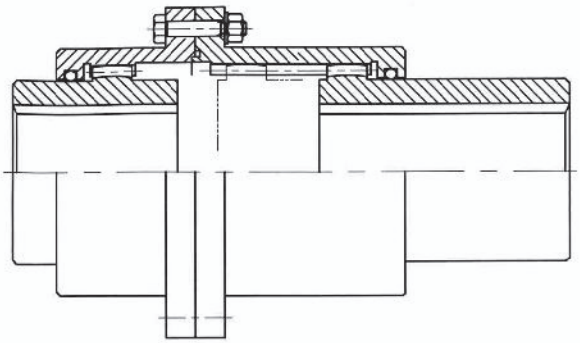
Jac-SFM
Jac-GFR



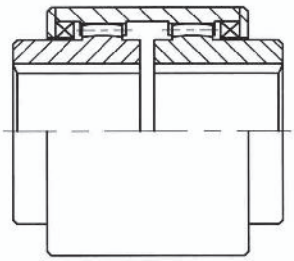
* "S" is the distance between shaft ends. Please give us the further information on "S" when you order.

NOTE) The detail dimensions on the above figures are the same as our original standard size(SSM, SEM, GD, GS)on the page 10 through page 13.

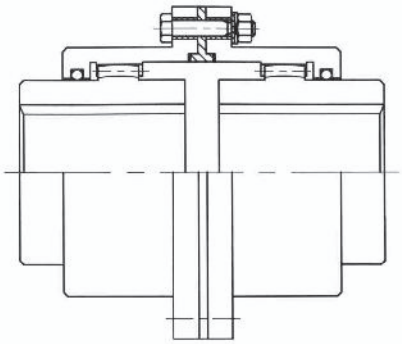
■ Special Applications



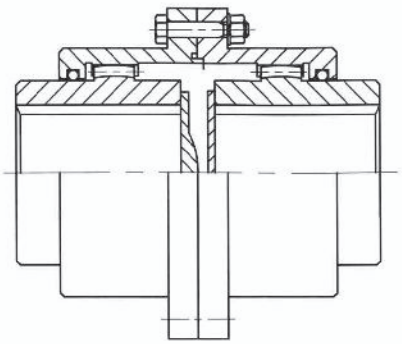
SLIDE TYPE



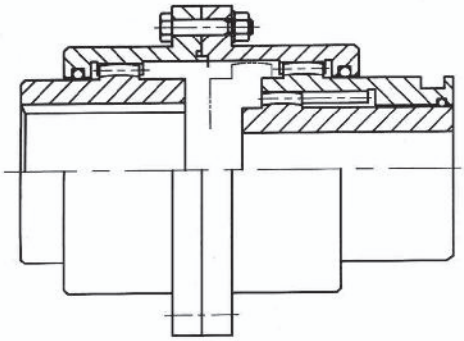
SLEEVE TYPE



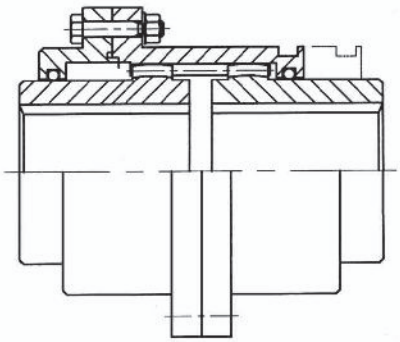
INSULATION TYPE

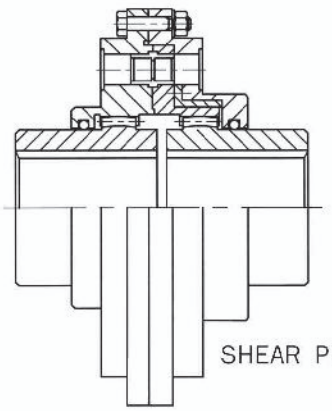


LIMITED-END PLAY TYPE

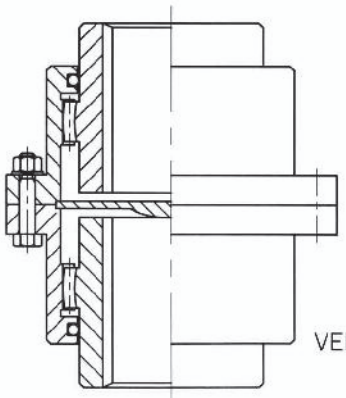


DETACHABLE CLUTCH TYPE

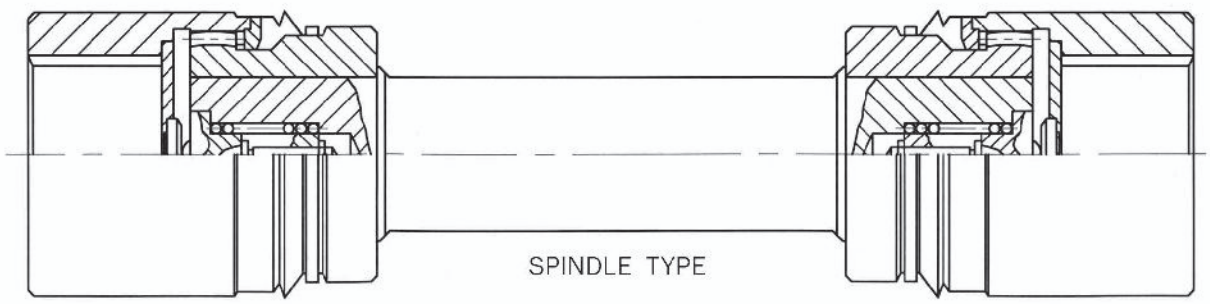




SHEAR PIN TYPE

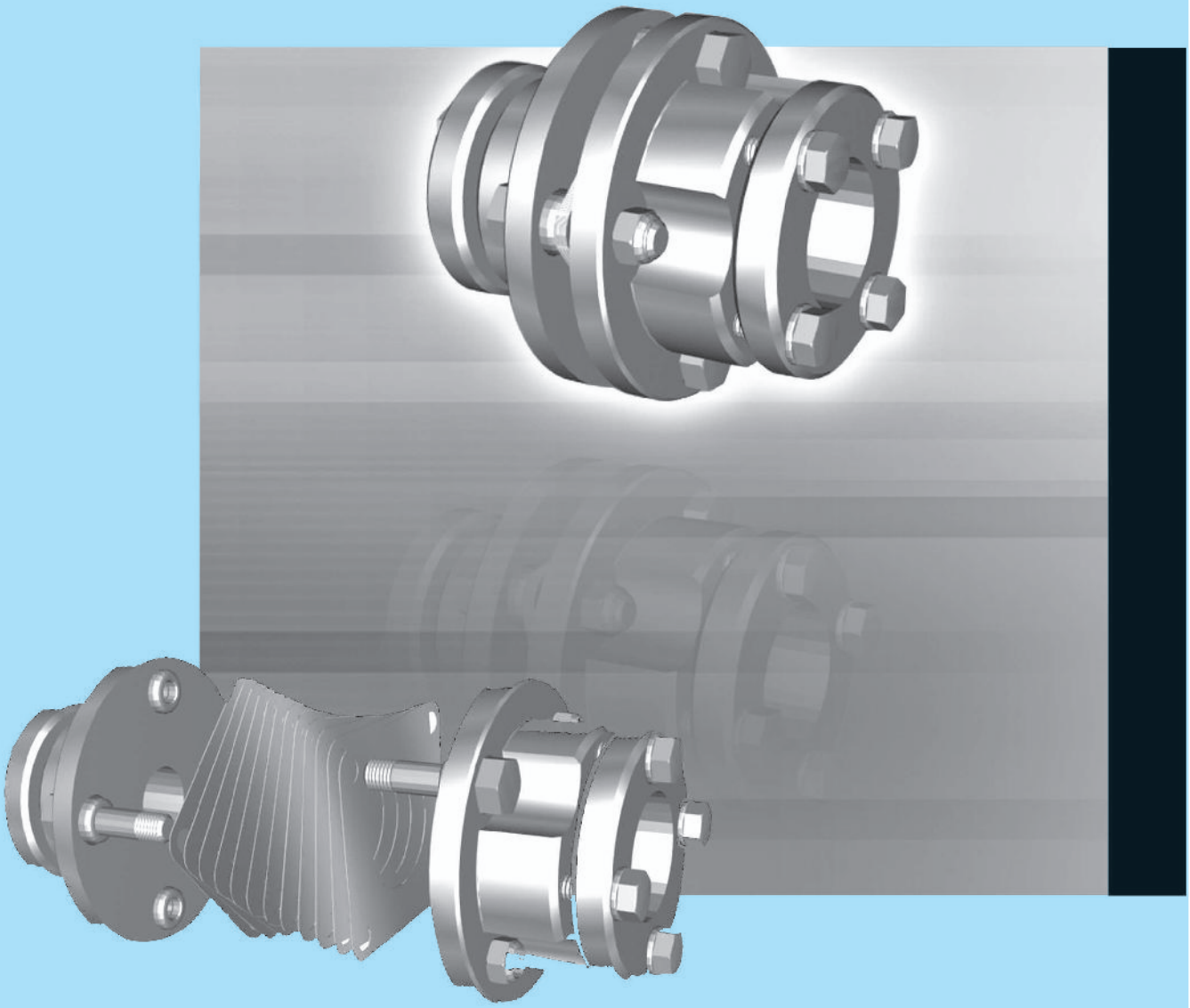


VERTICAL TYPE

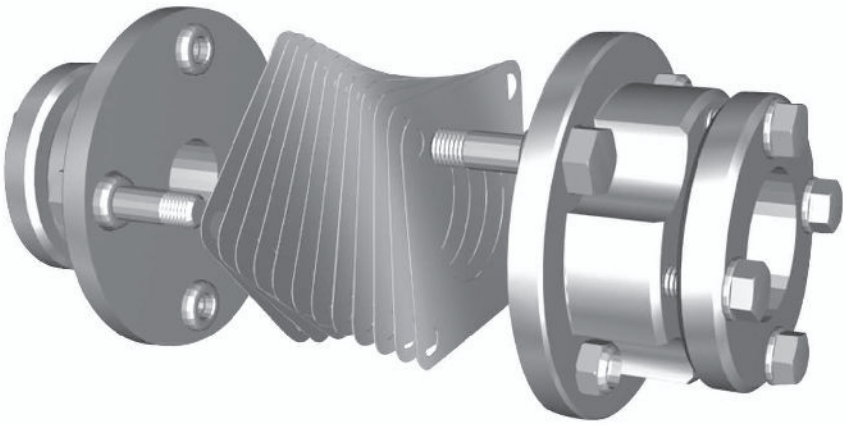


SPINDLE TYPE

DISC & MICRO
COUPLING



DISC & MICRO COUPLING



■ Distinctive Features

1. In all areas of industry, the demand for machinery and equipment of ever higher precision and efficiency is increasing daily, couplings, serving as important power transmission parts, are also expected to exhibit higher quality and reliability.

2. Lubricating oil is unnecessary because the *Jac* DISK COUPLING has no sliding, frictional, or moving parts. Therefore, there is no friction or noise, and energy loss is low, with no dirty oil to cope with.

3. Higher torsional and no backlash.
   For the equipment such as machine tools with numerical controllers, indexing systems, and printing machines requiring accruate shaft rotation and phase control, *Jac* DISK COUPLINGS are best suited because of their high torsional stiffness.

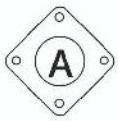
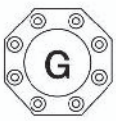
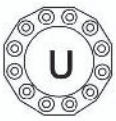
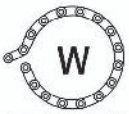
4. The key point of the *Jac* DISK COUPLING design is the laminated straight sided flex pack, an assembly of thin stainless steel elements.
   Please refer to the figure above.

5. When properly installed and if initial conditions remain unchanged, *Jac* DISK COUPLING has an unlimited service life. Required maintenance consists of a visual inspection of the condition of the element (flexible plate) and of the bolts and nuts when operation is stopped.
   Should the element be damaged due to overload or accident, a fail-safe mechanism transmitting rotation via washers becomes operational.

6. Flexible couplings prevent problems by absorbing shaft misalignment while transmitting torque; this puts an opposing load on the shaft.
   With *Jac* DISK COUPLING however, this load is much lower than that with other types of couplings.

7. Load stress on *Jac* DISK COUPLING is maintained at very low level, except in special cases. Therefore the service life of these couplings is practically unlimited when operated within the acceptable range of allowable misalignment. Couplings can be mounted and unmounted quickly and easily due to their compactness and small number of parts. Excellent reassembly characteristics provide superior speed.

■ Type of Flexible Elements

Usage \ Type of disc-plate		A	E	G	S	U	W
		 Max.angular misalignment:1° Allowable torque: 3.4-650kg · m	 Max.angular misalignment:0.7° Allowable torque: 58-13.070kg · m	 Max.angular misalignment:0.5° Allowable torque: 392-18,150kg · m	 Max.angular misalignment:0.35° Allowable torque: 1,379-26,130kg · m	 Max.angular misalignment:0.25° Allowable torque: 1,669-31,936kg · m	 Number of bolts:10-20.Number is determined based on service conditions.Consult us for further information.. Max.torque:200×10³ kg · m
single		A3	E3	-	-	-	-
double disc-flex	short space	AX	-	-	-	-	-
	standard space	A4	E4	G4	S4	U4	W4
	custom space	AB	EB	GB	SB	UB	WB
floating disc-flex	horizontal	A5	E5	G5	S5	U5	W5
	vertical	A7	E7	G7	S7	U7	W7

■ Designation

Jac - □□□ - □ / □ - □

→ Length of 'SHAFT ENDS' (only space and Floating Type use)

→ Bore size and the method of fitting with shaft on the driven shaft

→ Bore size and the method of fitting with shaft on the driving shaft

EX) 20K : Bore size ø20, use KEY WAY.

20S25 : Bore size ø20, use SPAN RING(POWER LOCK)

16T : Bore size ø16, TAPER 1/10

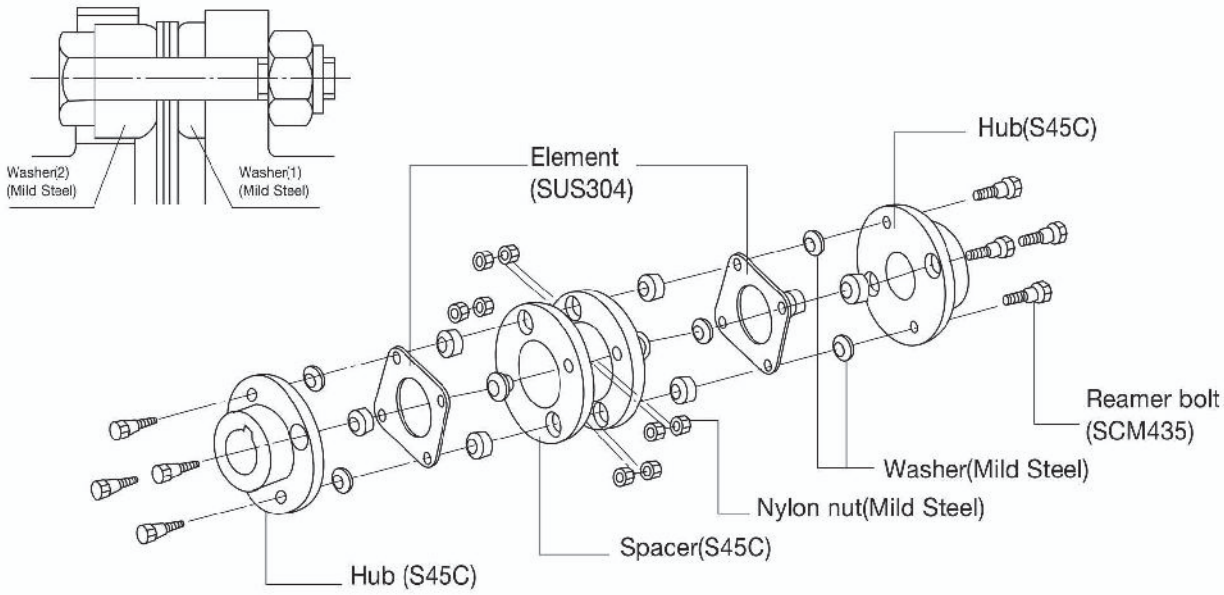
→ Type of HUB(N : standard HUB, P, Z : special HUB, K : P+Z HUB ←See dimensions)

HUBS are available in several different types for various applications.

→ Size No.

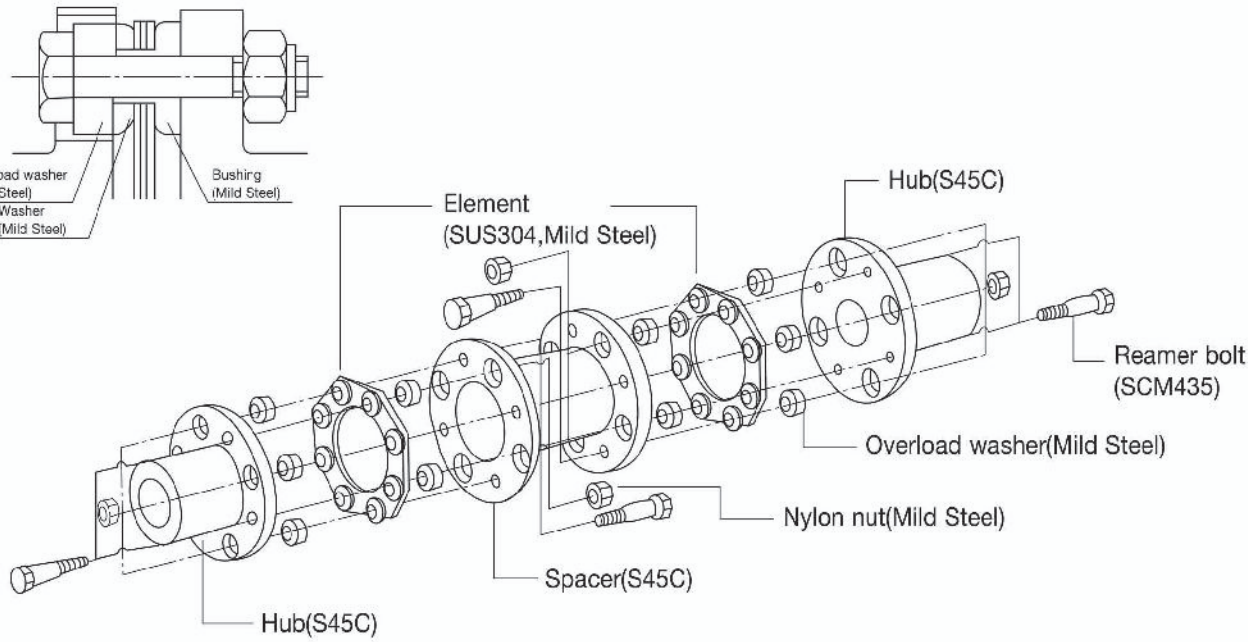
→ Model No.

■ Design features of 4-bolt coupling



Standard materials are shown in parentheses.

■ Design features of 6-12-bolt coupling

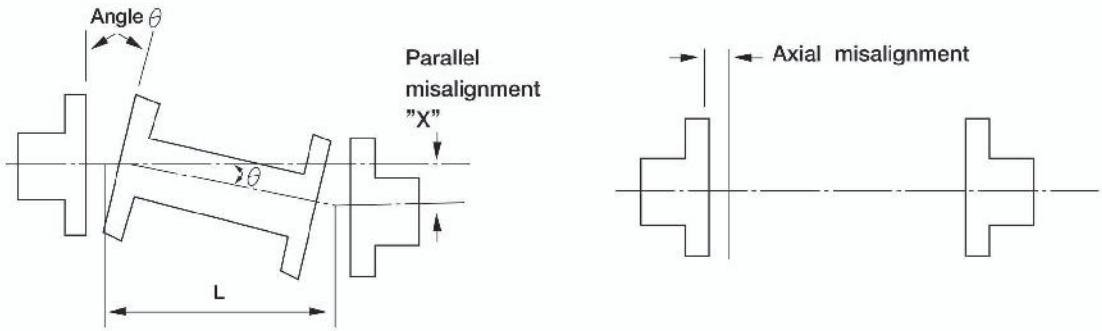


Standard materials are shown in parentheses.

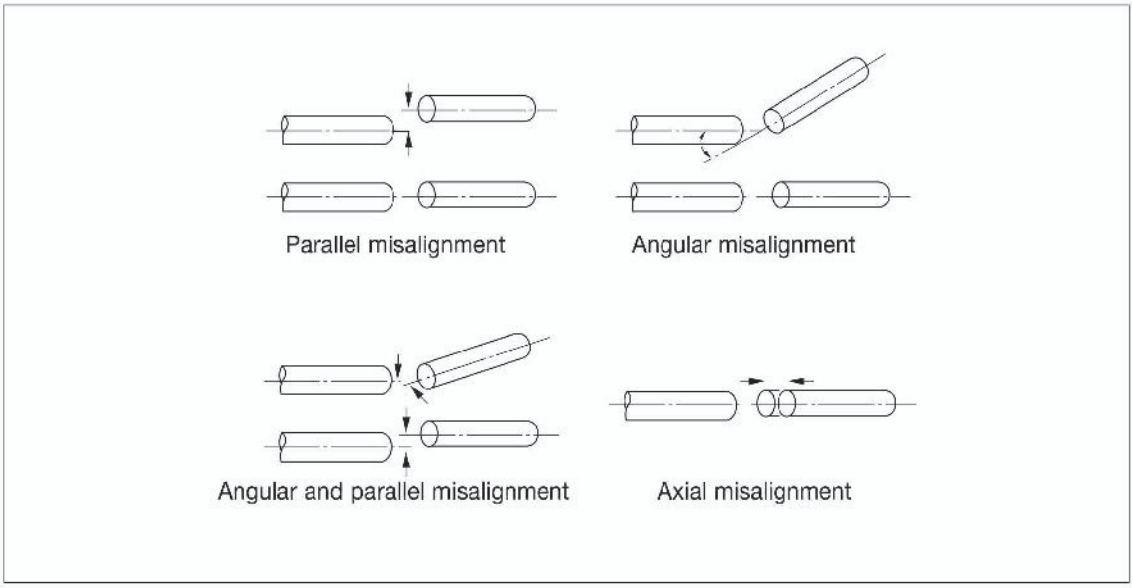
■ PERFORMANCE

DISPLACEMENT

Allowances for axial and parallel displacement of coupling depend on the number of bolts in the flexible element and operating speed. Axial and parallel displacement are in inverse proportion in other words, when one increases, the other decreases. Therefore,the two sholuld be taken into consideration concurrently. The parallel displacement between the driving and driven shafts is absorbed by the angle($\triangle\theta$)of the flexible elements, as shown in the following.



■ MISALIGNMENT



The shafts may be misaligned by various causes, such as the effects of heat, settling foundation, vibration and worm bearing etc.

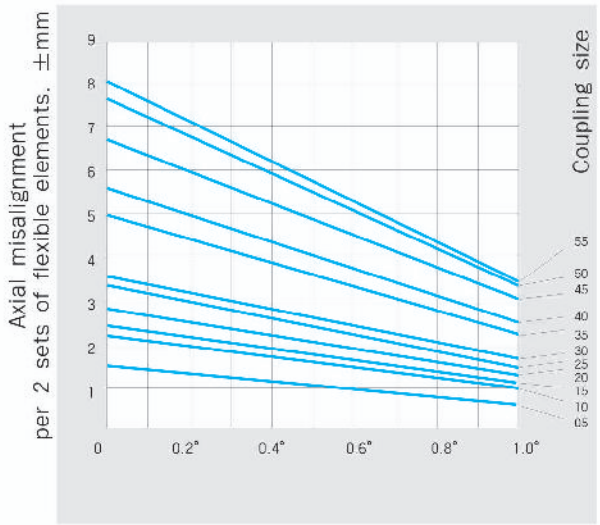
The initial misalignment and heavy stresss imposed on the coupling will coupling life due to small capacity of absorbing misalignment.

Any or all of the misalignments shown in the above illustrations are present in all connected drives.

The *Jac* Disk coupling permits angular misalignment of up to 1° per flexible element.(in the case of a four-Bolt coupling)

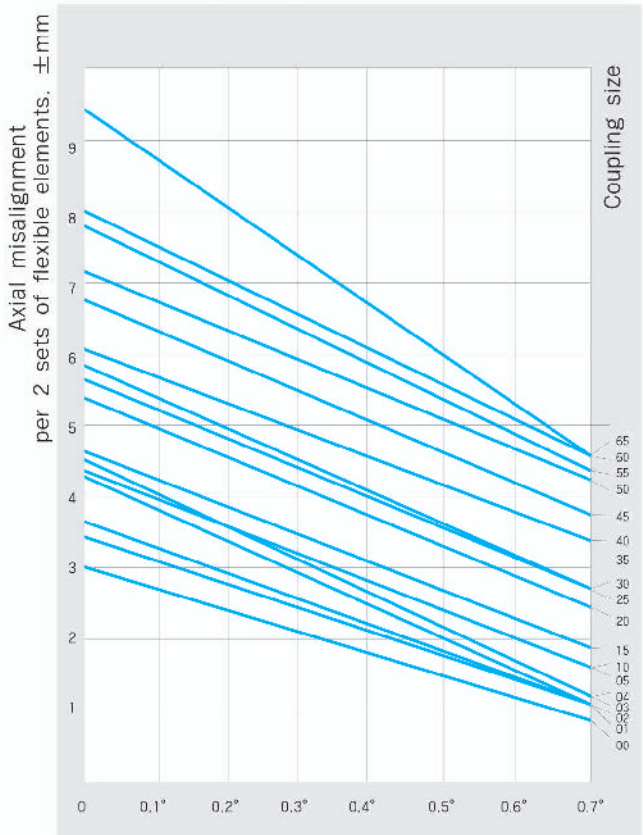
■ END FLOAT

A - TYPE (4Bolt)

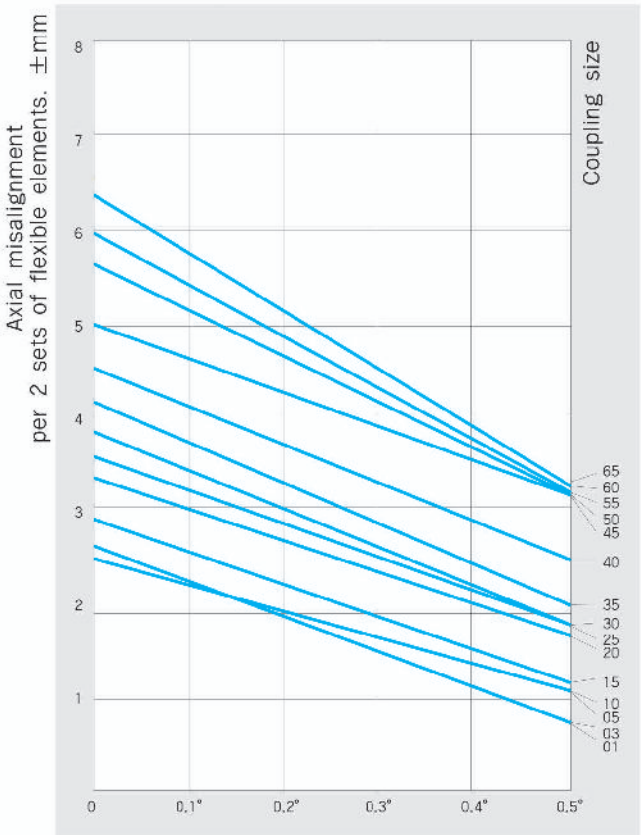


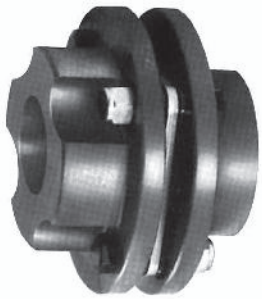
- Most driving equipment requires the absorption of axial displacement(end float). *Jac* Couplings permit great axial displacement with minimum end thrust. The graph shows the degrees of maximum allowable axial displacement in relation to various amounts of angular displacement. Good durability of the couplings is secured by working within the indicated limltes.
- The arrangement of plate packs provides *Jac* couplings with very high degree of torsional stiffness and ensures transmission of torque free from rotational backlash but permits parallel offset displacement, angular displacement, and axial displacement of shafts.

E - TYPE (6Bolt)



G - TYPE (8Bolt)

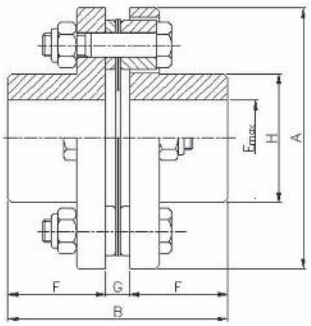


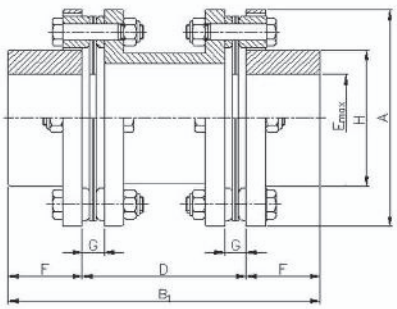


A3- TYPE

AX, A4 - TYPE

A5 - TYPE



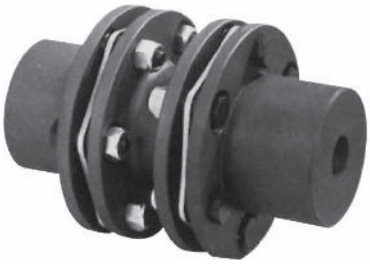


(A3 - TYPE) 4-Bolt

Size No.	Basic torque (Kgf · m)	Max radial load (kg)	Max. rpm	Standard Hub(N-Hub)						Special Hub(K-Hub)			Weight (kg) (A3)	GD² (kgf · cm²)
				A	B	Emax	F	G	H	P-Hub	Z-Hub			
										F	H	Emax		
05	3.4	15	47,000	67.4	56.9	22	25.4	6.1	33.1	40	47	32	0.6	8
10	9.2	25	39,000	81.1	57.4	32	25.4	6.6	45.8	40	58	40	1.1	24
15	18	56	34,000	92.8	65.8	35	28.7	8.4	50.8	45	66	42	1.7	48
20	25	83	30,000	103.7	78.2	42	33.5	11.2	61.0	50	77	48	2.5	80
25	43	120	25,000	125.8	93.9	50	41.1	11.7	71.2	60	92	60	4.3	224
30	79	180	22,000	143.0	107.3	60	47.8	11.7	83.9	70	104	70	6.9	440
35	130	270	19,000	168.0	131.2	72	57.2	16.8	105.5	85	129	85	11.3	1080
40	210	380	16,000	194.1	144	82	63.5	17.0	118.2	100	147	95	16.7	2080
45	340	450	15,000	214.2	174.0	95	76.2	21.6	137.2	115	166	110	22.7	3520
50	500	610	13,000	246.2	201.7	108	88.9	23.9	156.3	135	191	120	35.4	7200
55	650	770	11,000	275.6	230.4	118	101.6	27.2	169.0	150	209	130	52.0	12800

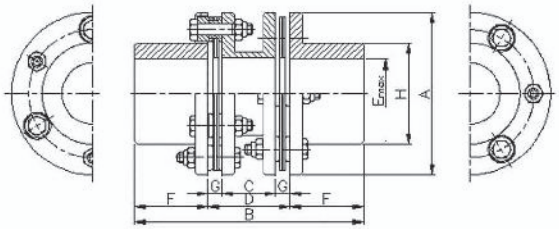
(Ax, A4 - TYPE) 4-Bolt Spacer Type

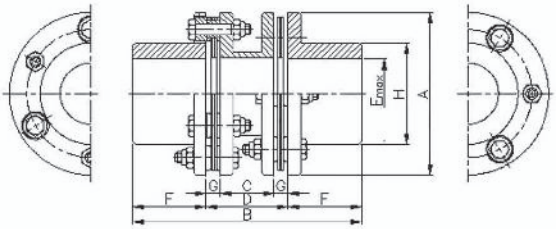
Size No.	Basic torque (kgf · m)	Max. Speed rpm	A4(Standard)			AX(Short)			AB(Custom)		
			D	Weight (kg)	GD² (kgf · cm²)	D	Weight	GD²	B1	D	Dmax
05	3.4	47,000	88.9	1.2	18	36	1.1	17.8	2F + D	Desired distance between shaft ends	200
10	9.2	39,000	88.9	1.9	44	39	1.7	41			200
15	18	34,000	101.6	2.9	84	47	2.7	79			250
20	25	30,000	127.0	4.1	148	53	3.7	136			250
25	43	25,000	127.0	7.1	396	62	6.6	337			250
30	79	22,000	127.0	10.8	800	69	10.3	775			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	650	11,000	177.8	75.0	20400	134	73.9	20127			400



E4-TYPE

G4-TYPE





(E4 TYPE) 6-Bolt

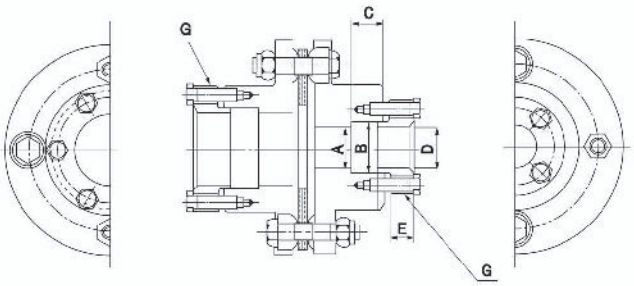
Size No.	Torque (kgf · m)	A (㎜)	B (㎜)	C (㎜)	(1) D (㎜)	Emax (㎜)	F (㎜)	G (㎜)	H (㎜)	Max (rpm)	Weight (Kg)	Inertial Effect GD² (Kgf · ㎡)	Torsional stiffness (Kgf · m/rad)	(2) Allow-able End Float (±㎜)	(3) Axial Spring Constat (kg/㎜)
00	58	119	168	39.4	60	51	54	10.3	74	26,000	6.0	0.03	0.45×10^5	3.0	16.5
01	94	137	198	50.0	72	55	63	11.0	81	23,000	9.1	0.06	0.69×10^5	3.4	21.1
02	174	161	238	67.2	90	67	74	11.4	97	19,000	16.9	0.14	0.94×10^5	3.6	28.0
03	341	180	269	82.4	109	72	80	13.3	104	17,000	21.6	0.26	1.61×10^5	4.2	45.7
04	500	212	308	87.6	118	85	95	15.2	124	15,000	35.1	0.59	3.14×10^5	4.5	60.6
05	620	276	377	118	153	111	112	17.5	161	11,600	65.1	1.8	3.98×10^5	3.9	42.2
10	840	276	377	115	153	111	112	19.0	161	11,600	66.1	1.9	4.95×10^5	3.9	59.5
15	1,090	308	440	134	172	133	134	19.0	193	10,300	107.8	3.7	7.34×10^5	4.2	57.0
20	1,820	346	497	148	191	152	153	21.5	218	9,200	156.1	6.7	1.22×10^6	4.9	76.2
25	2,690	375	553	175	223	165	165	24.0	240	8,500	211.8	10.6	1.70×10^6	5.2	85.7
30	3,410	410	610	195	254	178	178	29.5	258	7,800	274.5	16.5	2.17×10^6	5.4	99.2
35	4,070	445	646	211	270	187	188	29.5	272	7,200	333.3	23.9	2.44×10^6	5.6	103.4
40	4,720	470	686	212	274	205	206	31.0	297	6,800	399.2	30.7	2.99×10^6	6.3	102.0
45	6,100	511	749	223	287	231	231	32.0	334	6,200	525.3	48.0	3.86×10^6	6.7	100.5
50	7,620	556	800	227	292	254	254	32.5	364	5,700	676.3	72.9	4.80×10^6	7.3	113.3
55	9,440	587	839	243	311	263	264	34.0	382	5,400	803.4	100.6	6.09×10^6	7.8	123.2
60	10,890	629	895	274	343	275	276	34.5	399	5,000	954.1	137.4	6.60×10^6	8.7	131.0
65	13,070	654	934	285	356	289	289	35.5	419	4,800	1,095.3	176.9	7.98×10^6	8.9	138.3

(G4 TYPE) 8-Bolt

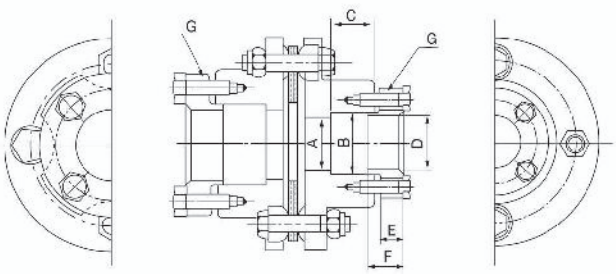
Size No.	Torque (kgf · m)	A (㎜)	B (㎜)	C (㎜)	D (㎜)	Emax (㎜)	F (㎜)	G (㎜)	H (㎜)	Max (rpm)	Weight (kg)	GD² (kgf · m²)	Allowable Endfloat (±㎜)	Torsional Stiffness (kgf · m)
01	392	214	333	92.6	117	95	108	12.2	137	15,000	38.0	0.65	2.1	7.3
03	726	246	369	99.6	127	108	121	13.7	156	13,000	55.5	1.24	2.1	15.9
05	915	276	421	118	153	111	134	17.5	161	11,600	72.2	1.8	2.1	22.1
10	1,100	276	421	115	153	111	134	19.0	161	11,600	73.3	1.8	2.1	22.1
15	1,570	308	492	134	172	133	160	19.0	193	10,300	119.7	3.7	2.4	45
20	2,610	346	557	146	191	152	183	22.5	218	9,200	174.3	6.8	2.9	58
25	3,850	375	619	167	223	165	198	28.0	240	8,500	233.8	10.8	3.1	110
30	4,810	410	682	192	254	178	214	31.0	258	7,800	305.3	16.7	3.3	150
35	5,820	445	720	208	270	187	225	31.0	272	7,200	367.4	25.0	3.6	170
40	6,570	470	768	206	274	205	247	34.0	297	6,800	447.5	31.1	4.0	170
45	8,530	511	843	221	287	231	278	35.0	334	6,200	591.6	48.0	4.5	170
50	10,530	556	902	218	292	254	305	37.0	364	5,700	761.4	74.7	5.0	310
55	13,070	587	945	236	311	263	317	37.5	382	5,400	901.9	101.6	5.2	360

■ Design standard for Span ring HUB and Thrust Flange

Assemble N-HUB & N-HUB



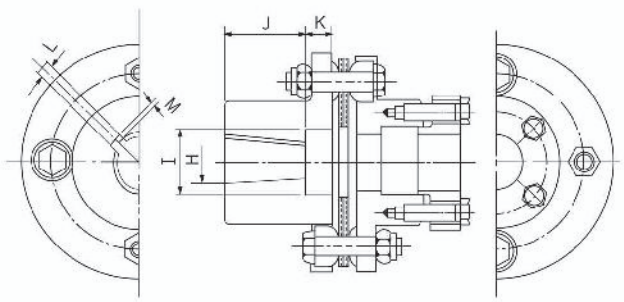
Assemble Z-HUB & N-HUB



• N-HUB : Standard HUB • Z-HUB : Special HUB

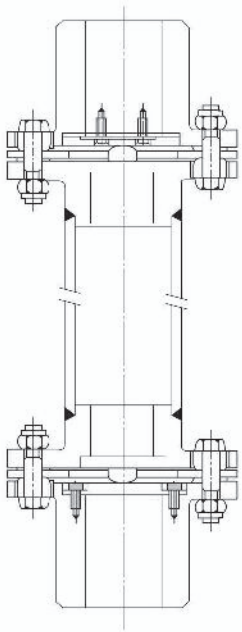
ø A (H7 ㎜) SHAFT DIA	ø B (H7 ㎜) SPAN RING OUT DIA	SPAN RING SIZE	C (㎜) SPAN RING		ø D (㎜) +0.05 +0.10	E (㎜)	MINIMUM APPLICABLE COUPLING SIZE	G BOLT USED
			1EA	2EA				
15	19	15×19	8	14.6	15	10	A3-05Z A3-10N	4-M6×20L
16	20	16×20			16			
17	21	17×21			17			
18	22	18×22			18			
19	24	19×24			19			
20	25	20×25			20		A3-05Z A3-10N A3-15N	4-M6×25L
22	26	22×26			22		A3-10N A3-15N	4-M6×20L 4-M6×25L
24	28	24×28			24	12	A3-10Z A3-15N A3-20N	4-M6×20L
25	30	25×30			25			4-M6×25L
28	32	28×32			28			6-M6×25L
30	35	30×35			30			
32	36	32×36			32		A3-15N A3-20N	
35	40	35×40	9	15	35		A3-15Z A3-20N A3-25N	
36	42	36×42			36		A3-20N A3-25N	6-M8×30L
38	44	38×44			38	15	A3-20Z A3-25N	4-M8×30L 6-M8×30L
40	45	40×45	10	16.5	40		A3-20Z A3-25N A3-30N	4-M8×30L
42	48	42×48			42			6-M8×30L 6-M8×30L
45	52	45×52	13	21.5	45		A3-25Z A3-30N A3-35N	4-M8×30L
48	55	48×55			48			6-M8×30L 6-M8×30L
50	57	50×57			50		A3-30Z A3-35N	4-M8×30L
55	62	55×62			55			6-M8×25L

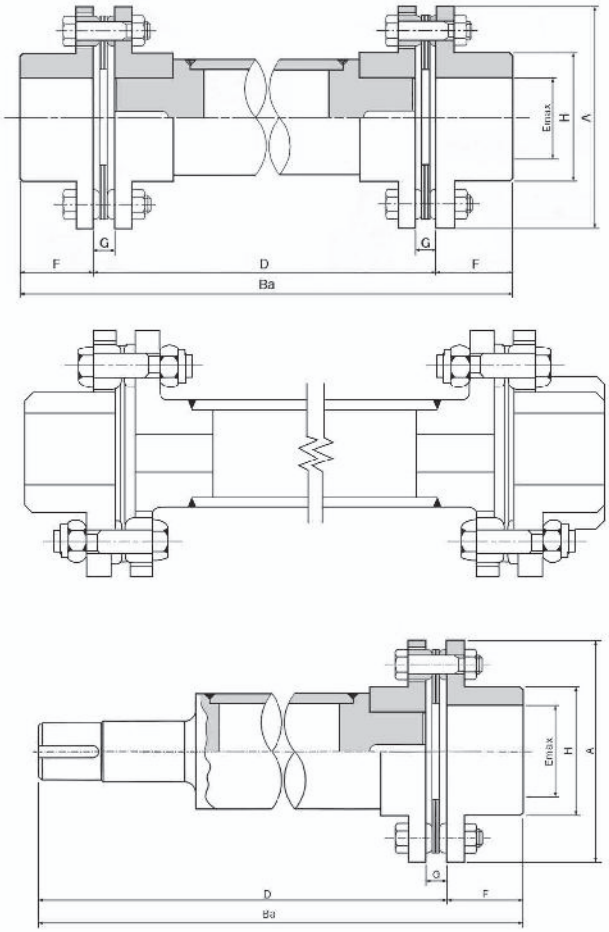
■ Design standards for tapered-shaft bores



COUPLING SIZE	ø H	ø I	J	K	L	M	TAPER
A3-05-11T	11	21	16	9.4	4H7	1.2	$\frac{1}{10}$
A3-10-11T	11						
A3-05-16T	16	25	29.5	10.5	5F7	1.5	
A3-10-16T	16						
A3-15-16T	15.46			4.6			
A3-20-16T	16			4			
A3-25-16T	16			11.6			

■ Floating shaft type coupling





* "D" is the distance between shaft ends. Please give us the further information on "D" when you order.

■ Rotation limitations for standard floating shaft coupling

4Bolts Type (A-TYPE)

Size No.	Maximum Shaft Diameter(mm)		Maximum Span Dmax (mm) for Various Speed(rpm)								
	Standard Hub	Z(K) Hub	1800	1500	1200	1000	900	750	720	600	500
10	32	40	1610	1760	1970	2160	2280	2500	2550	2790	3060
15	35	42	1690	1850	2070	2270	2390	2620	2670	2930	3210
20	42	48	1880	2050	2300	2520	2650	2910	2970	3250	3560
25	50	60	2010	2210	2470	2700	2850	3120	3190	3490	3830
30	58	70	2220	2430	2720	2980	3140	3440	3510	3850	4210
35	74	85	2500	2740	3060	3350	3540	3870	3950	4330	4750
40	83	95	2690	2950	3300	3610	3800	4180	4250	4660	5120
45	95	110	2890	3170	3540	3880	4090	4490	4570	5010	5500
50	109	120	3100	3400	3800	4160	4390	4820	4910	5370	5900
55	118	130	3230	3540	3960	4330	4560	5010	5100	5590	

6Bolts Type (E-TYPE)

Size No.	Maximum distance between shaft ends Dmax (mm) for Various Speed(rpm)									
	Standard Hub	1800	1500	1200	1000	900	750	720	600	500
00	51	2010	2210	2470	2700	2850	3120	3190	3490	3830
01	55	2220	2430	2720	2980	3140	3440	3510	3850	4210
02	67	2500	2740	3060	3350	3540	3870	3950	4330	4750
03	72	2890	3170	3540	3880	4090	4490	4570	5010	5500
04	85	3100	3400	3800	4160	4390	4820	4910	5370	5900
05	111	3100	3400	3800	4160	4390	4820	4910	5370	5900
10	111	3100	3400	3800	4160	4390	4820	4910	5370	5900
15	133	3230	3540	3960	4330	4560	5010	5100	5590	
20	152	3720	4070	4560	4990	5250	5770	5880		
25	165	3720	4070	4560	4990	5250	5770	5880		

8Bolts Type (G-TYPE)

Size No.	Maximum distance between shaft ends Dmax (mm) for Various Speed(rpm)									
	Standard Hub	1800	1500	1200	1000	900	750	720	600	500
01	95	2890	3170	3540	3880	4090	4490	4570	5010	5500
03	108	3100	3400	3800	4160	4390	4820	4910	5370	5900
05	111	3100	3400	3800	4160	4390	4820	4910	5370	5900
10	111	3100	3400	3800	4160	4390	4820	4910	5370	5900
15	133	3230	3540	3960	4330	4560	5010	5100	5590	
20	152	3720	4070	4560	4990	5250	5770	5880		
25	165	3680	4030	4510	4940	5200	5710	5810		

■ Instruction for Installation and Maintenance

1. Distance between shaft ends
   To have coupling in the correct position, see both flange faces(G dimensions) within ±0.25mm, except in special cases.

2. Angular misalignment(Fig.1)

   (a) Fix a dial gauge on one side of hub, rotate hub, find minimum reading on dial gauge at zero.

   (b) Rotate coupling side with dial gauge 360~and readjust dial gauge so it shows smallest deflection reading. Peripheral face deflection for an angular misalignment of 0.1° is as shown in the table below.

   (c) Peripheral section of dial gauge may show abnormal deflection at through-hole area of hub. This is due to flaring of flange during working. Avoid this area

table 1.

Size No.		05	10	15	20	25	30	35	40	45	50	55
Gauge Reading (Tir mm)	Type A	0.12	0.15	0.16	0.20	0.22	0.25	0.29	0.34	0.40	0.43	0.48

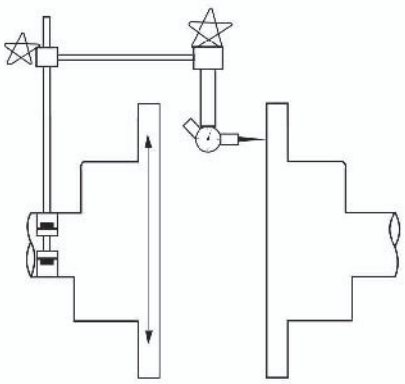


Fig. 1

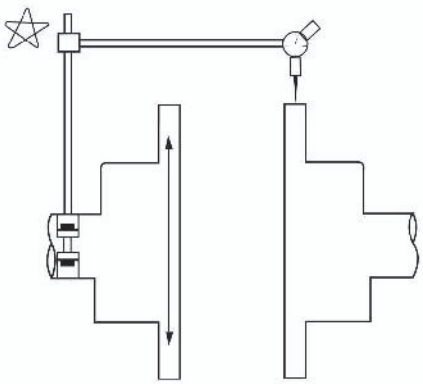
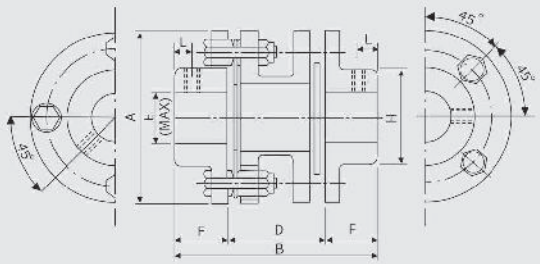


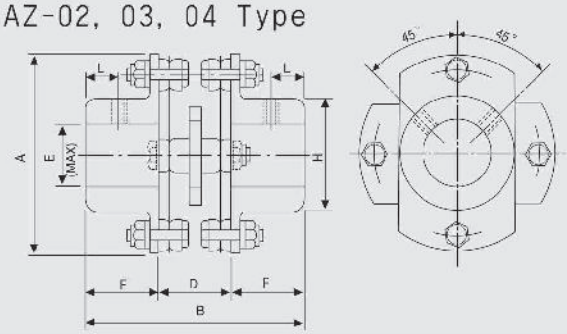
Fig. 2

■ MICRO COUPLING Shape

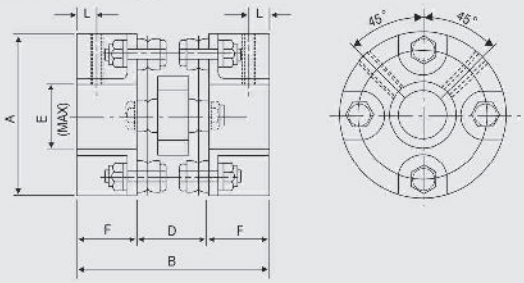
J-AB-04-NN Type

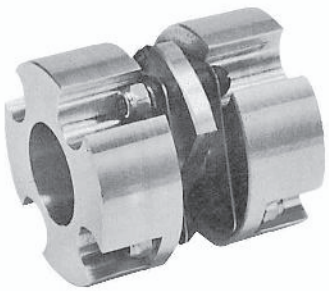


J-AZ-02, 03, 04 Type

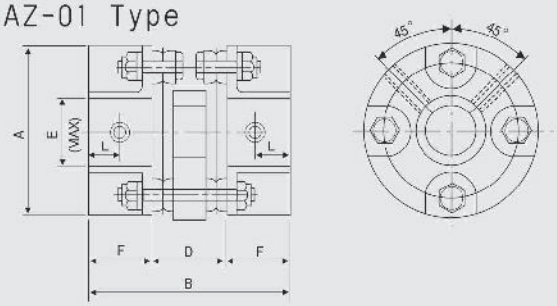


J-AZ-02-U Type



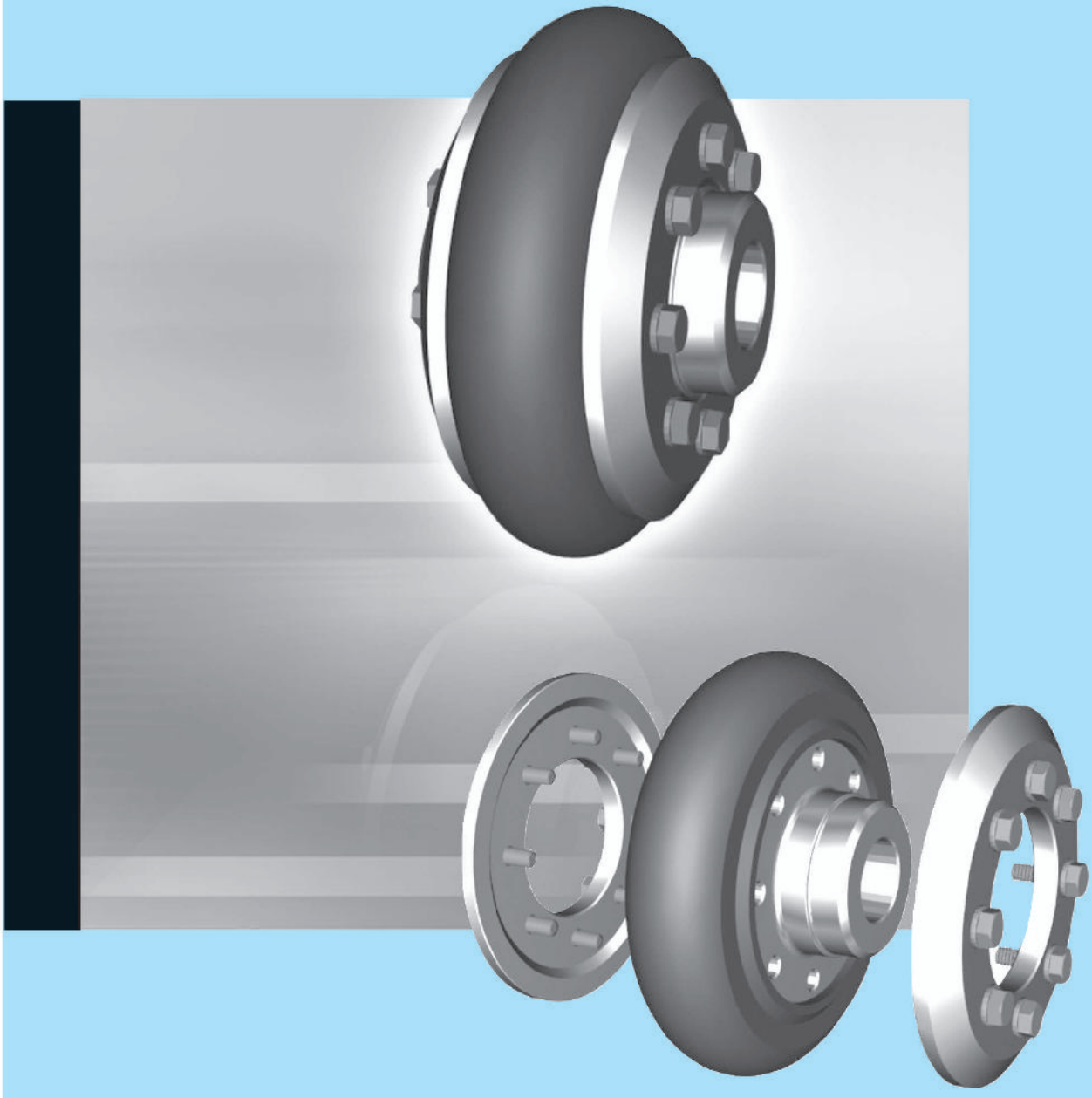


J-AZ-01 Type



Size	Rated Torque (kgf.cm)	A	H	F	Emax	D	B	L
AZ-01	100	26	-	8	10	11.4	27.4	4
AZ-02	100	32	18	12	10	11.4	35.4	5
AZ-03	600	42	26	12.5	16	13.8	38.8	4
AZ-04	3000	57	31	20	20	20.5	60.5	7
AB-04	3920	57	31	20	20	34.5	74.5	7

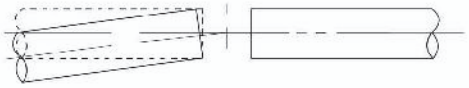
RUBBER
COUPLING



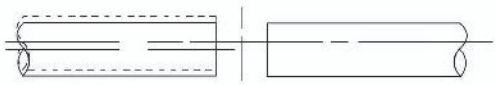
RUBBER COUPLING

■ Merit and Features

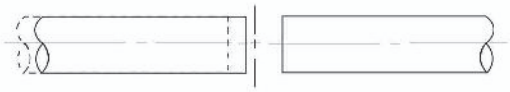
1. Rubber Flex couplings are easy to install and fit. By eliminating most vibration, they also eliminate most noise, improving working conditions and lengthened machine service life. Even under severe conditions they require absolutely no lubrication.
2. Declination.



a. Allowable declination of both shaft ($\Delta\theta$) is 6° for any diameter.



b. Eccentricity.
Allowable eccentricity of both (Δh) is 0.1% of outside diameter for any size shaft.



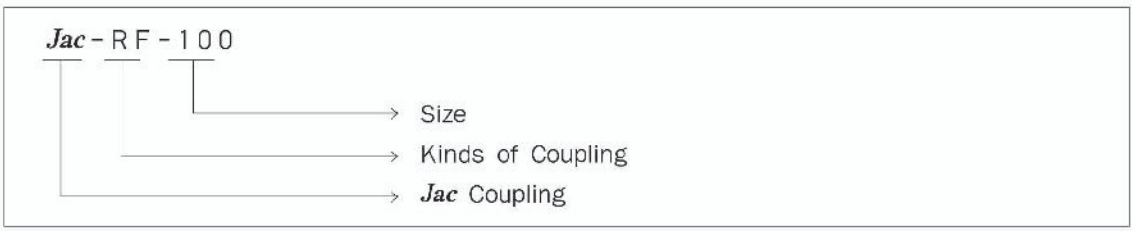
c. Clearance Error (End play).
Allowable clearance error of both shaft (Δd) is 2% of outside diameter for coupling of any size.

3. Since RF coupling are highly elastic, they have improved shock damping to absorb vibration better.
4. As a result, shaft rotation is quieter and vibration almost totally eliminated and shaft rotational torque and torsion angle of coupling become almost completely proportional.
5. They simplifies design especially in case where shaft vibration could pose particular problems.

■ Application

1. The place where shock and vibration are serious.
2. The place where angular misalignment is serious.
3. The place where you need electric insulation.
4. The place where you have difficulty in supplying lubricant.
5. The place where you have difficulty in checking and repairing.
6. When you want to protect the important related parts.

■ Selection Method of Size



1. Obtain the Torque.

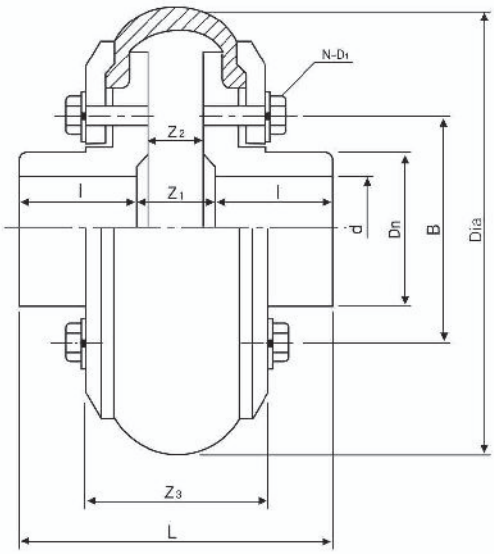
$$T = 973.5 \times \frac{KW}{N} \times K$$

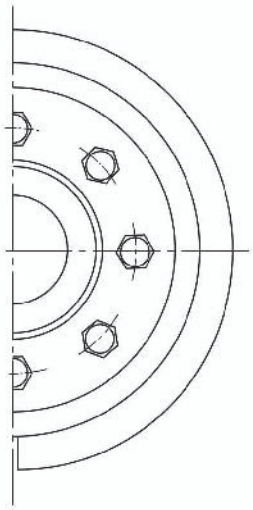
$$T = 716 \times \frac{HP}{N} \times K$$

T = Using Torque(kg · m)
KW(HP) = Transmitted load Service factor.

2. If the tolerable max Shaft dia(mash) indicated by the table is smaller than the required shaft dia, select the next large dia, and the tolerable revolution number of the selected coupling must also be cheked.

■ Dimensions

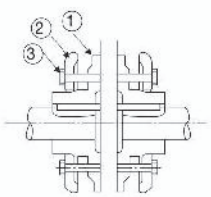




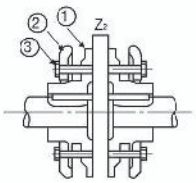
Size Dia(mm)	Torque Rating (kgf · m)	Max. Speed (r.p.m)	Dimensions(mm)										Weight (kg)
			Bore		Dn	L	l	Z_1	Z_2	Z_3	B	N- D_1	
			Min.	Max.									
RF100	3	4,000	10	22	36	66	26	14	10	40	54	2×6-M6	1.21
RF135	8	4,000	16	30	48	90	35	20	14	53	70	2×6-M8	2.87
RF180	15	3,000	23	35	64	120	46	28	20	70	95	2×6-M10	6.38
RF210	30	3,000	28	50	76	143	54	35	27	83	110	2×8-M10	9.40
RF265	75	2,000	33	60	95	178	67	44	32	105	140	2×8-M12	19
RF310	125	2,000	36	70	112	208	75	58	36	121	165	2×8-M12	31
RF400	275	1,600	40	85	145	270	100	70	44	153	210	2×8-M16	70
RF450	500	1,250	55	100	165	300	110	80	50	171	240	2×8-M20	101
RF550	1,000	1,000	90	130	200	365	130	105	53	196	280	2×8-M24	170
RF700	2,000	800	100	160	255	460	165	130	70	256	364	2×8-M30	358

■ How to Connect

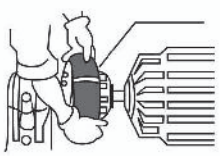
1. Install flanges over the ends of both shafts, making sure they lock tightly with the keys. To make later installation steps easier, do not tighten bolts securing pressure ring more than three turns.



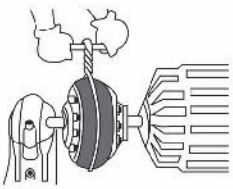
2. Adjust coupling clearance to the specified tolerance. Setting is determined by referring to Z values shown in Tables 1. For long service life, it is important that the Z value is maintained as uniformly as possible around the entire circumference.



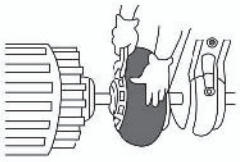
3. The rubber is cut at one point on its circumference and a gap should be left when installing as shown in Fig 3 and as determined in table 1 according to size.



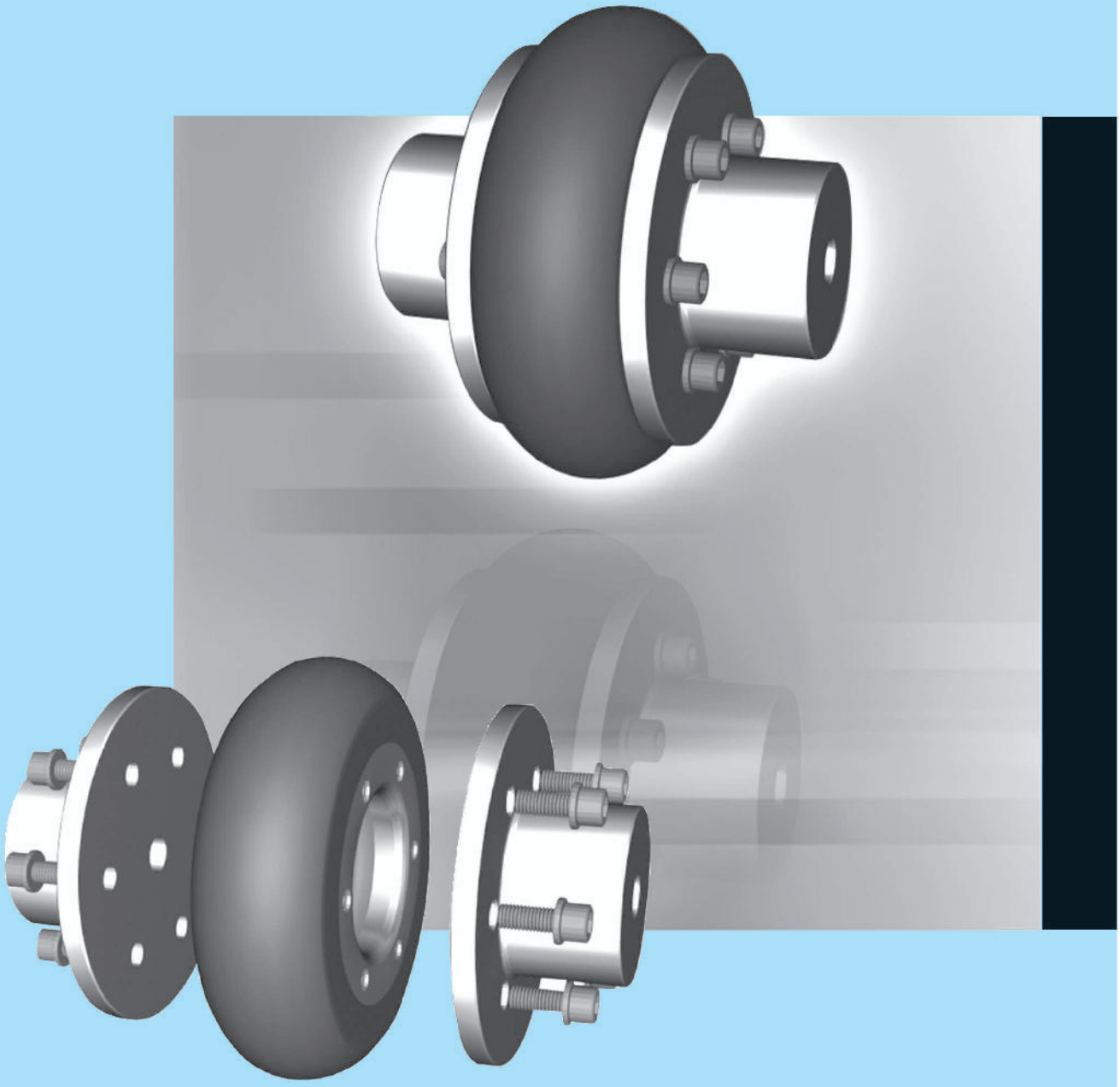
4. Prior to tightening the rubber should be secured by wrapping a fiber rope or cloth around its circumference to hold it in place as shown in Fig. Rubber and flanges should contact each other as uniformly as possible around the entire circumference. To align, tab the rubber with a plastic hammer or other instrument which will not cause abrasions or damage.



5. Tighten pressure ring with bolts. Tighten bolts in a crisscross pattern for uniform compression of the rubber.



TIRE
COUPLING



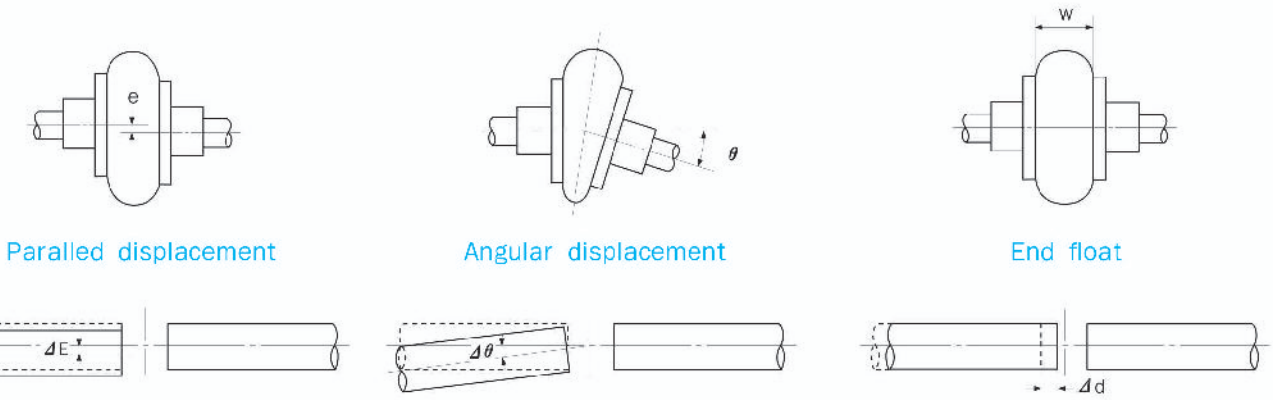
TIRE COUPLING

■ Distinctive Features

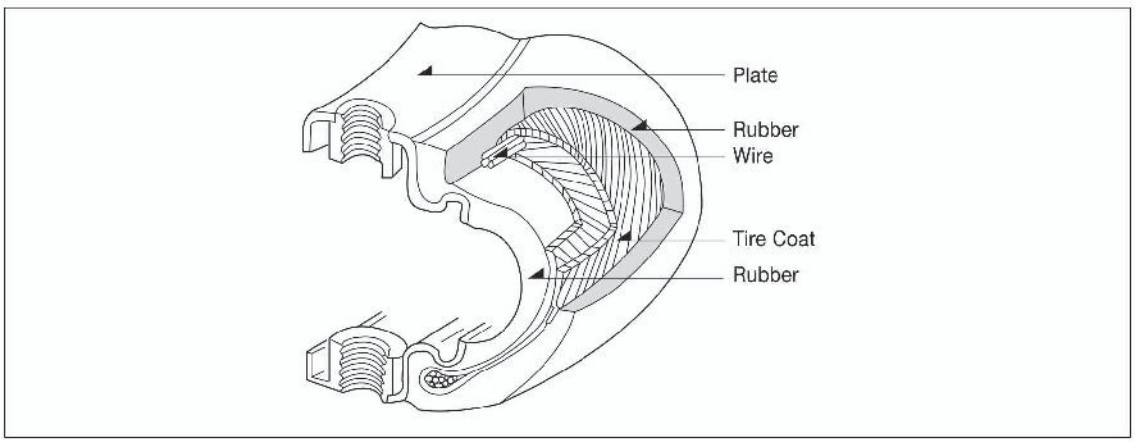
1. The *Jac* tire coupling using natural compounds makes couplings suitable for use in most conditions.

2. Handle combinations of parallel, angular and axial dislpacements.

   Parallel displacement(ΔE) : 1% of out dia.
   Angular displacement($\Delta \theta$) : within 2°
   End float(Δ d) : within -10% and +3% the width of the coupling.



3. Mounting-Demounting. Installation is quick and easy. No special tools needed.

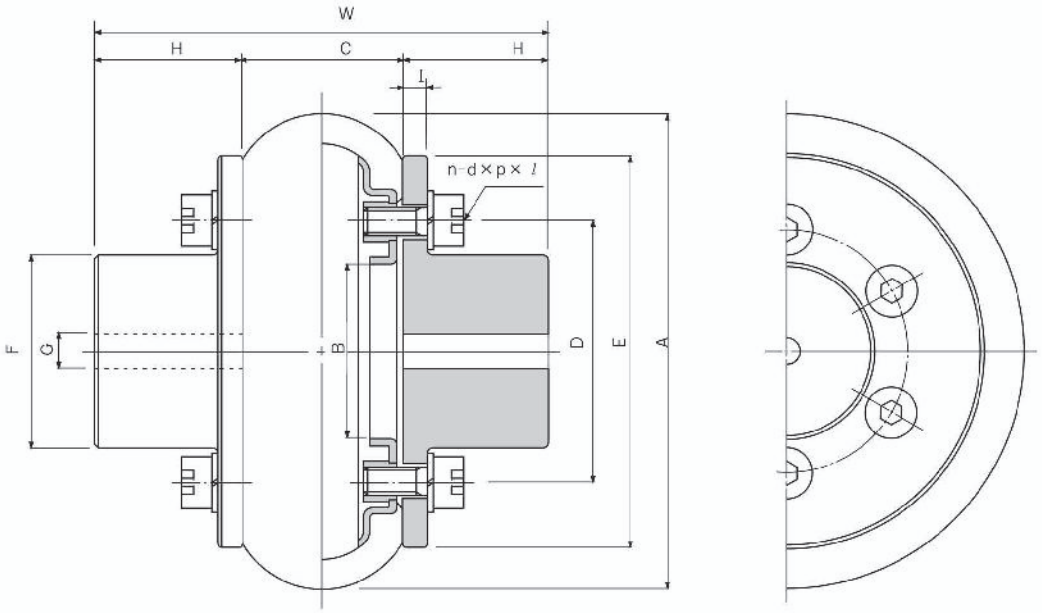


4. Reduce Torsional Vibrations.
   Absorb shock Loads.

5. After Installation.
   Eliminates the need for lubrication.
   No dismounting needed for inspection of components.

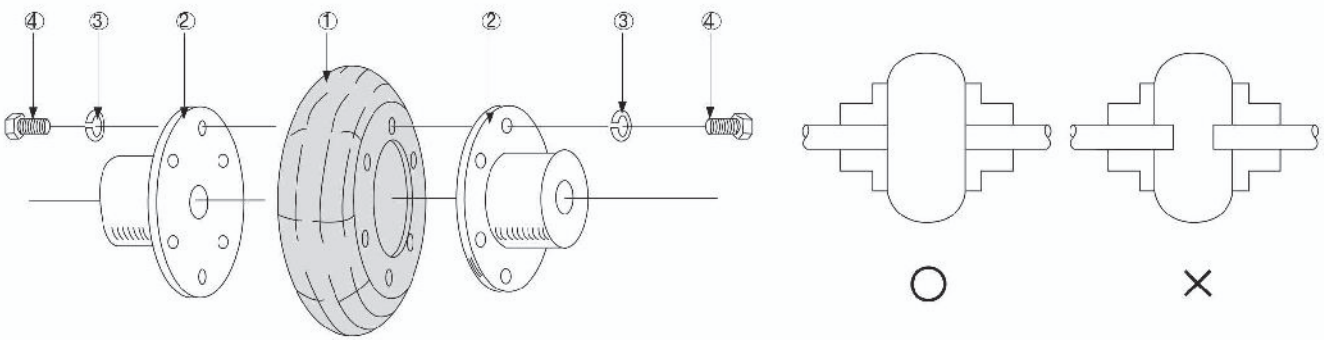
6. Damping.
   Reduce Vibrations and torsional oscillations.

■ Dimensions



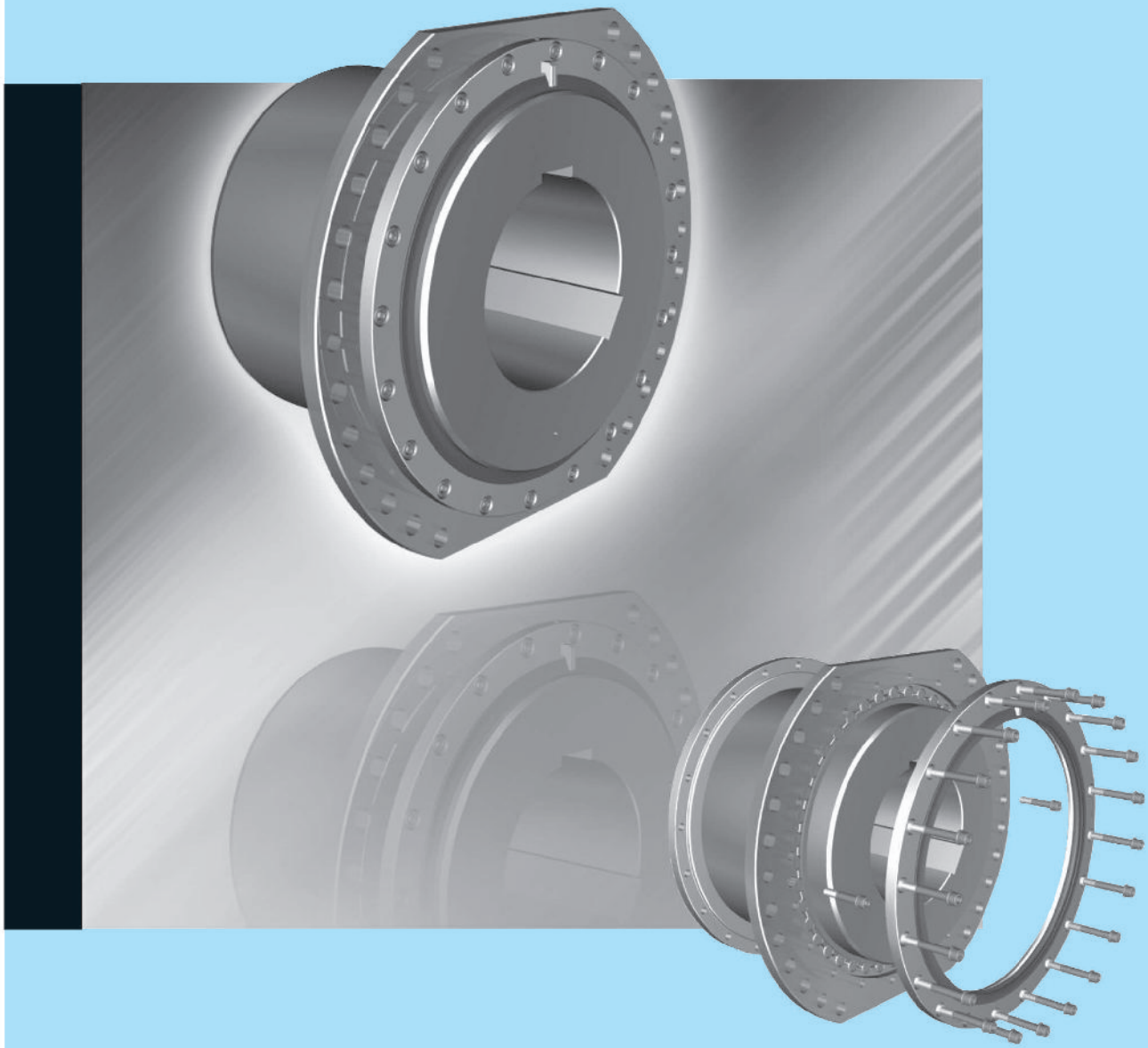
Size	Rating Torque (kgf · m)	Max. r.p.m	Tire				Flange				G		W	Bolt 2×n-d×p× l	GD² (kgf · cm²)	Weight (kg)
			A	B	C	D	E	F	H	I	Min. Bore	Max. Bore				
JAC-100	5	5000	100	35	37	50	82	36	28	6	8	22	93	2×6-M6×1.0×20	34.9	1.1
JAC-120	10	4500	120	45	39	65	106	48	35	6	10	28	109	2×6-M8×1.25×20	78.4	2.0
JAC-140	15	4200	140	52	45	75	118	55	44	7	24	35	133	2×6-M10×1.5×25	164.6	3.0
JAC-160	22	4000	160	62	51	85	132	65	53	8	24	42	157	2×6-M10×1.5×25	301.8	4.5
JAC-185	30	3600	185	74	58	100	154	77	60	10	34	48	178	2×6-M12×1.75×25	568.4	6.6
JAC-220	50	3200	220	84	67	112	180	89	69	12	34	55	205	2×6-M12×1.75×30	1293.6	11.8
JAC-265	100	2600	265	112	82	140	214	117	94	14	40	75	270	2×6-M12×1.75×35	3802.4	21.7
JAC-340	165	2100	340	142	106	180	272	150	120	18	44	95	346	2×6-M16×2.0×45	12544	46.5
JAC-445	500	1600	455	190	139	236	344	202	160	25	54	128	459	2×6-M18×2.5×55	44688	110
JAC-550	1000	1200	550	230	173	290	430	246	170	26	64	170	513	2×8-M24×3.0×70	125440	187
JAC-700	2000	1000	700	310	220	370	544	326	220	26	84	220	660	2×12-M24×3.0×70	356720	394

■ Installation

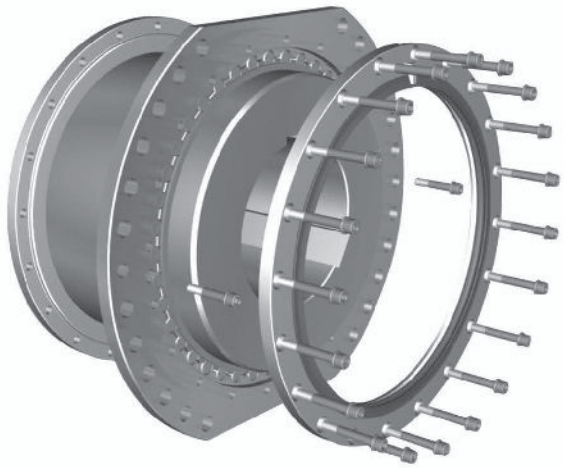


With tire, connect coupling flanges to driving and driven shaft.Now mount the tire and tighten the clamping screws gradually, untill the specified tightening torque is reached.

WIRE DRUM
COUPLING



WIRE DRUM COUPLING



■ Distinctive Features

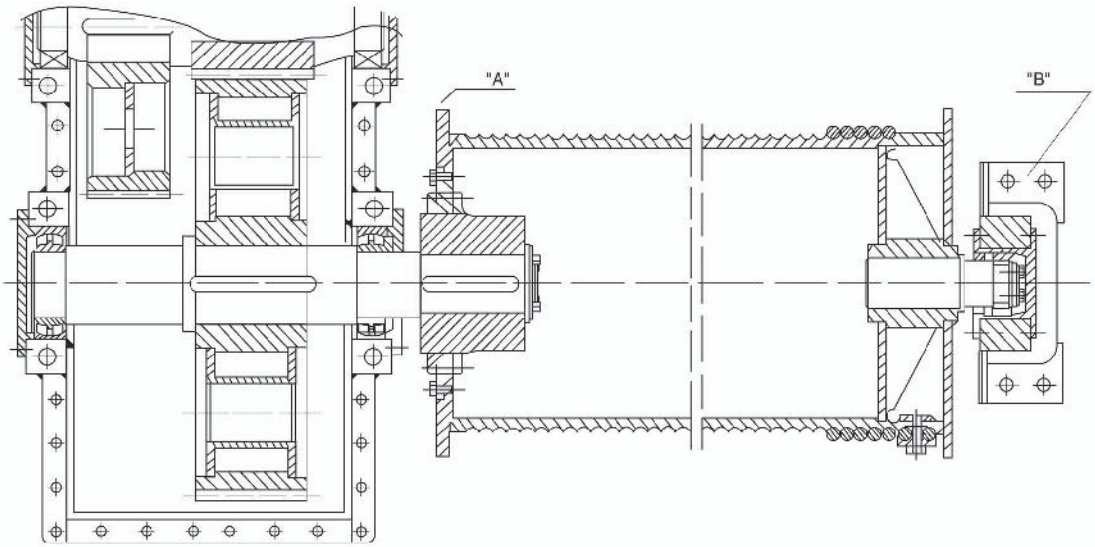
1. The *Jac* Drum coupling is designed for installation in drum drive of crain and conveying system. The drum coupling can be used in the very difficult and rough operating conditions of iron and steel work and continuous heavy load operation in shore cranes.

2. With compact design and capacity of transmitting large radial load, enjoy longer life and minimum loss of power. Angular misalignment can be allowed up to 1.5°

3. According to the size of couplings, max ±3~±8mm of end float can be absorbed. Drum couplings are not suitable for transmitting axial forces.

4. With the design of decreasing slip movement of rollers. Backlash between crowned rollers and cylindrical bores, the relative movement between rollers and bores, which is cause of wear, are considerably reduced due to the natural movement of drum.

5. In the transmission of power, a stamping hardness of the rollers profile is produced, with which higher wear resistence is achieved.



■ Application

1. The *Jac* Drum coupling is suitable for crane and hoisting construction to couple wire drum and reducer gear box, especially it is suitable for the heavy and difficult operating condition of iron and steel works.

2. When the gear shaft is connected to hoisting drum with single or twin drive, three or four point mounting is required for a crane unit. Fig1 and 2 show the arrangement of a drum drive of a crane assembly. These types of connection require a considerable amount of cost and time to align the system.

3. In the event of misialignment, which may occur due to inaccurate assembly, considerable additional forces become effective in the shaft. In this case bending stress at the drum shaft occur during rotation, which can cause bearing and roller damage.

4. In case of a single drum drive with rigid connection of gear shaft and drum,(see fig.3) a given load F and bending or alignment error will produce a max. bending moment at the end of the gear shaft and of M.

5. If bearing is used instead of rigid connection, a joint must be fitted. In this case max. bending moment at the end of the gear shaft with the same load F is only 25% of M.

6. The coupling hub of the drum coupling is assembled to the output shaft of reducer gear. The pedestal seat of drum can be designed as a bearing.

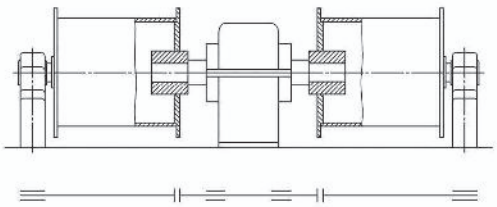


Fig. 1 Diagram of a twin-drum drive without built-in joint.

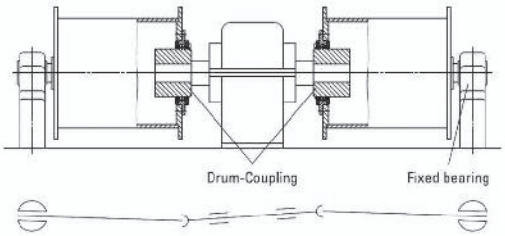


Fig. 2 Diagram of a twin-drum drive with built-in joint.

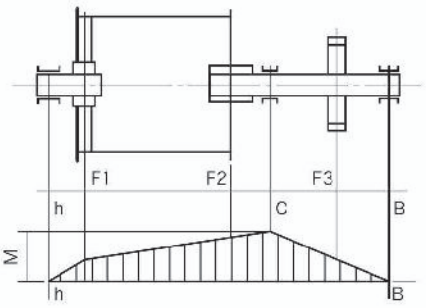


Fig. 3

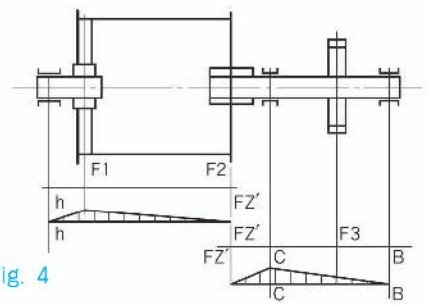
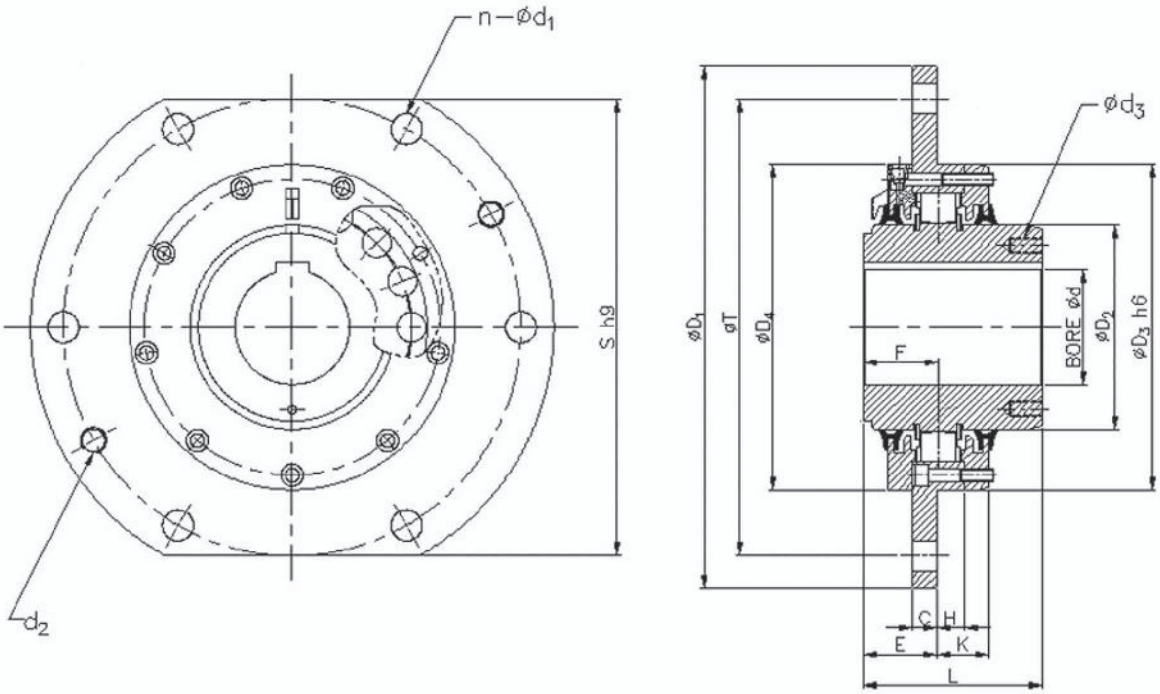


Fig. 4

■ Dimensions



Size	Torque Max (kgf • m)	Radial Lord Max (kgf)	Bore d		Dementions																Axial Play Max (mm)	Weight (kg)	GD² (kgf • m²)
			Min	Max	D1	L	D2	D3	D4	S	E	F	C	H	K	d3	T	n	d1	d2			
D0.25	459	1480	40	65	250	95	95	160	159	220	42	44	12	16	31	-	220	6	15	M12	3	10.5	0.06
D0.5	612	1683	50	75	280	100	110	180	179	250	42	44	12	16	31	-	250	6	15	M12	3	13	0.09
D0.75	765	1887	60	85	320	110	125	200	199	280	45	46	15	17	32	-	280	6	19	M16	4	18.5	0.16
D1	918	2040	60	95	340	125	140	220	219	300	45	46	15	17	32	-	300	6	19	M16	4	23	0.22
D1.3	1581	3163	80	110	360	130	160	240	239	320	45	47	15	19	34	-	320	6	19	M16	4	27.5	0.30
D1.6	1989	3571	80	125	380	145	180	260	259	340	45	47	15	19	34	-	340	6	19	M16	4	33	0.40
D2	2449	3928	100	140	400	170	195	280	279	360	45	48	15	22	32	M16	360	6	19	M16	4	44	0.58
D3	2857	4285	100	155	420	175	215	310	309	380	45	50	15	22	33	M16	380	6	19	M16	4	53	0.80
D4	3877	5000	100	180	450	185	255	340	339	400	60	61	20	22	31	M20	400	6	24	M20	4	70	1.33
D6	7143	11734	120	215	550	240	305	420	419	500	60	65	20	30	45	M20	500	6	24	M20	6	131	3.6
D10	12245	12755	140	245	580	260	345	450	449	530	60	67	20	30	46	M24	530	8	24	M20	6	164	5.2
D15	18367	15036	160	290	650	315	433	530	529	580	65	69	25	30	43	M24	600	8	24	M20	6	260	10.9
D26	31632	25510	170	310	680	350	470	560	559	600	65	78	25	35	63	M30	630	24	24	M20	6	340	15.8
D34	40816	30612	200	330	710	380	502	600	599	640	81	88	35	38	59	M30	660	24	28	M24	8	415	22.2
D42	51020	34693	230	370	780	410	566	670	669	700	81	88	35	38	59	M30	730	24	28	M24	8	560	36.8
D62	69898	38775	260	420	850	450	630	730	729	760	81	90	35	40	61	M30	800	24	28	M24	8	720	57.69
D82	94801	53517	290	450	940	500	693	800	799	830	86	92	40	50	62	M36	875	32	28	M24	10	1000	5
D92	112130	56065	330	470	1025	500	725	860	859	900	86	92	40	50	62	M36	945	32	34	M30	10	1100	119

■ Installation

1. Before fixing the drum, line alignment must be done and the largest difference between the measured values at any two points may not exceed the following dimension.
   Drum diameter 1,000mm or smaller : 0.5mm
   Drum diameter 1,000mm or larger : 0.8mm

2. During installation, care must be taken to ensure that the indicator and markings on the teeth of crown must be in their correct position.

3. Before drilling the holes for fixing the drum bearing in the bridge, the articulated joint being installed must be adjusted along the axis.

4. Should there be enough space available to insert the bolts for the retention of outer cover, then these bolts must be introduced into the holes of cover before sliding the housing and hub into place.

Size	D 0.25~D 0.5	D 0.75~D 3	D 4~D 10	D 15	D 26~D 62
y	50	55	70	80	90

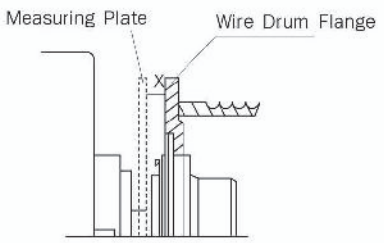


fig.1

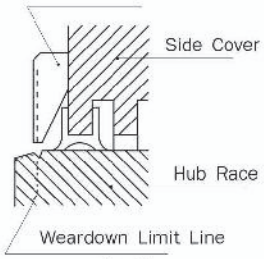


fig.2

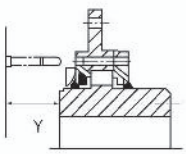
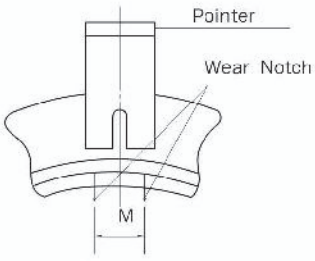


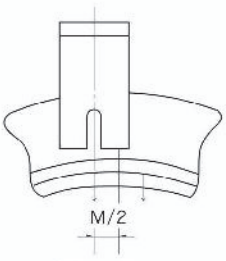
fig.3

5. At least once a year, following points must be checked ;
   a) tightness of screws.
   b) wear status ; if max wear shows, change the unit.
   c) check angular misalignment.

Coupling Size	D0.25	D0.5	D0.75	D1	D1.3	D1.6	D2	D3	D4	D6	D10	D15	D26	D34	D42	D62
max. permissible wear M / 2	4				6					8						

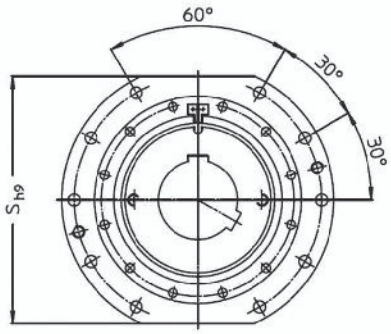


Normal

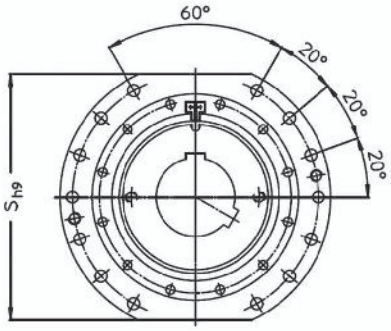


Weardown

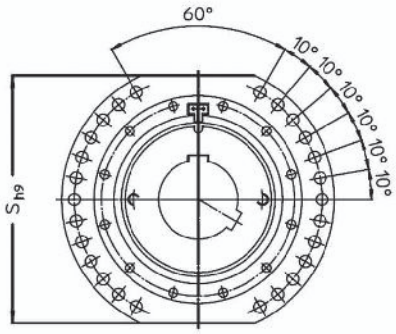
■ Flange holes



SIZE D0.25~D6



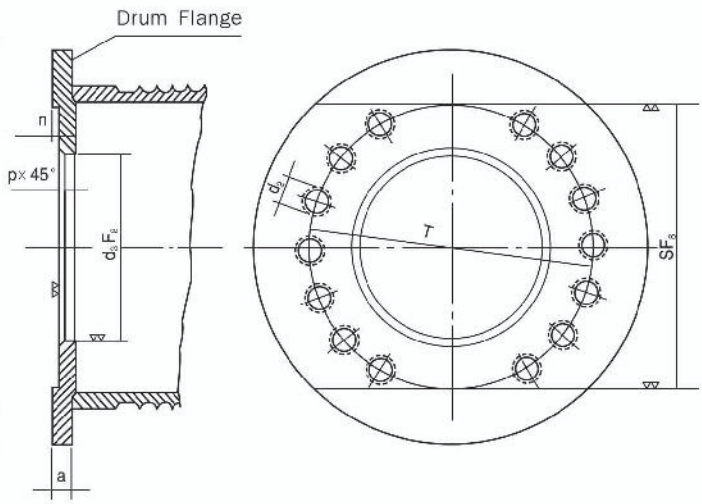
SIZE D10~D15

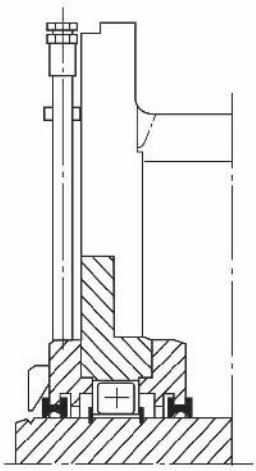


SIZE D26~D62

Cable drum flange, coupling side

Size	D	T	S F8	a min.	d_1	d_2	d_3 F8	p	n min.
D0.25	250	220	220	25	15	M12	160	3	10
D0.5	280	250	250				180		
D0.75	320	280	280		19	M16	200		
D1	340	300	300				220		
D1.3	360	320	320				240		
D1.6	380	340	340				260		
D2	400	360	360				280		
D3	420	380	380				310		
D4	450	400	400	30	24	M20	340		
D6	550	500	500				420		
D10	580	530	530	40			450		20
D15	650	600	580	50			530		25
D26	680	630	600				560	5	
D34	710	660	640	60	28	M24	600		35
D42	780	730	700				670		
D62	850	800	760				730		
D82	940	875	830	70	28	M24	800	5	40
D92	1025	945	900		34	M30	860		





Lubrication and maintenance

After installation of the coupling into the drum, the lubrication pipe is connected to the lubrication hole. Full up lub-oil must be done before completion of assembly and grease must be forced in until lubricant flows out of the overflow hole. Operating temperature of grease are -17°~70°C. The lubrication periods vary according to the types of drive.

GRID
COUPLING

GRID COUPLING

■ Characteristics

1) PARALLEL

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

2) ANGULAR

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 resilent grid.

3) END FLOAT

Unrestrained end float for both driving and driven membres is permitted because the grid slides freely in the lubricated grooves. It can also be limited to any required amount.

4) TORSIONAL FLEXIBLITY

When shock, vibration, and overload occuring at start act with the grid, which are reduced by the flexibility of grid that makes power point move to the tooth face.

■ Torsional Flexibility

1) LIGHT LOAD

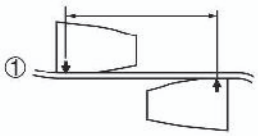
The grid bears near the outer edges of the hub teeth. The long span between the points of contact remains free to flex under load variations

2) NORMAL LOAD

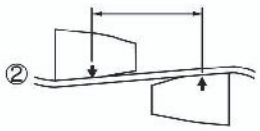
As the load increases, the distance between the contact points on the hub teeth is shortened, but a free span still remains to cushion shock loads.

3) SHOCK LOAD

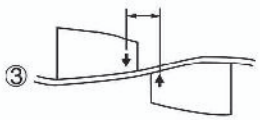
The coupling is flexible within its rated capacity. Under extreme overioads, the grid bears fully on the hub teeth and transmits full load directly.



(LIGHT LOAD)



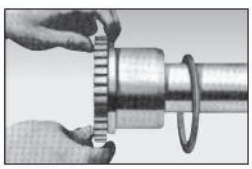
(NORMAL LOAD)



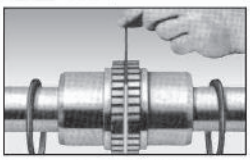
(SHOCK LOAD)

■ Instruction for Installation

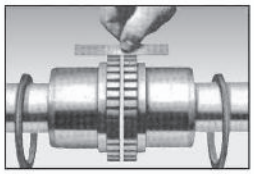
1) Clean all metal parts using nonflammable solvent. Lightly coat oil seals with grease and place on shaft before mounting Hub.



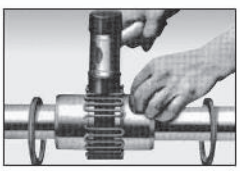
2) Using a spacer bar, make the gap egual in thickness.



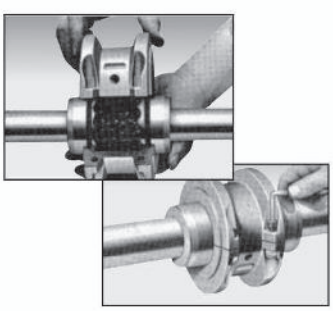
3) Align so that a straight edge rests squarely on both hubs as shown fig.
The clearance must not exceed the limit specified in table 2.



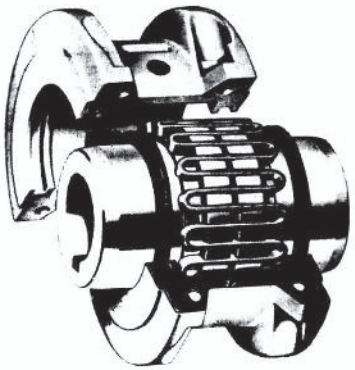
4) After greasing the tooth groove hub, fix the grid in the same direction.

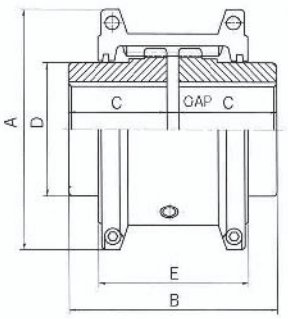


5) Pack the spaces between and around the grid with as much lubricants as possible and position gaskets on half assembled lower cover so that the match marks are on the same side.



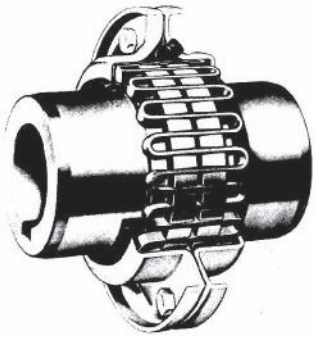
SH(Horizontal Split aluminum) TYPE

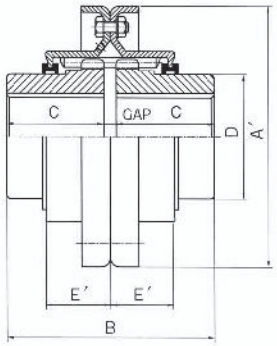




SH(Horizontal Split alumminum cover) TYPE

SV(Vertical Split Steel Cover) TYPE



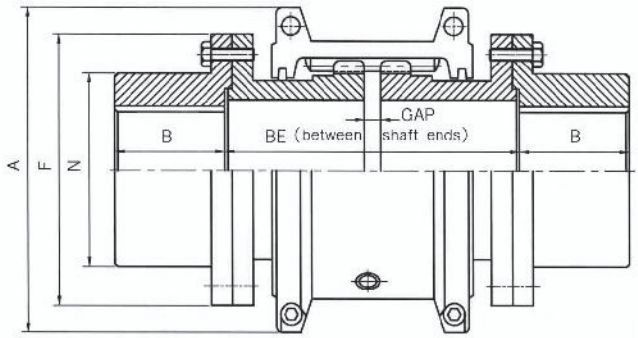


SV(Vertical Split Steel cover) TYPE

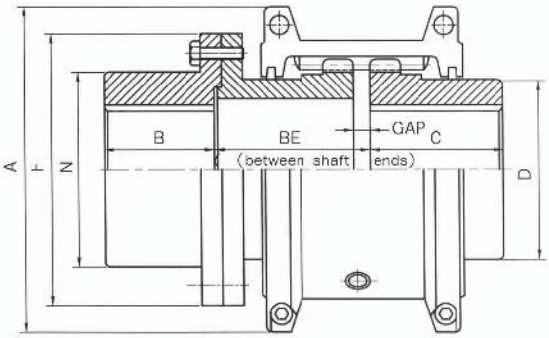
Size	HP Per 100 (rpm)	Max Speed (rpm)	Basic torque (kgf · cm)	Bore(mm)		Dimensions(mm)							Gap(mm)			Coupling Weight (kg)	Lube Weight (kg)
				Max	Min	A	A′	B	C	D	E	E′	Min.	Normal	Max.		
20S	0.68	4,500	486	30	12.7	101.6	111.1	98.0	47.5	39.7	66.5	24.2	1.5	3	4.5	1.9	0.03
30S	1.93	4,500	1,383	36	12.7	111.0	120.7	98.0	47.5	49.2	68.3	25.0	1.5	3	4.5	2.6	0.03
40S	3.22	4,500	2,304	44	12.7	117.5	128.5	104.6	50.8	57.1	70.0	25.7	1.5	3	4.5	3.4	0.05
50S	5.63	4,500	4,033	50	12.7	138.0	147.6	123.6	60.3	66.7	79.5	31.2	1.5	3	4.5	5.4	0.05
60S	8.85	4,350	6,337	57	19.1	150.5	162.0	130.0	63.5	76.2	92.0	32.2	1.5	3	4.5	7.3	0.09
70S	13	4,125	9,217	65	19.1	161.9	173.0	155.4	76.2	87.3	95.0	33.7	1.5	3	4.5	10	0.11
80S	27	3,600	19,010	79	27.0	194.0	200.0	180.8	88.9	104.8	116.0	44.2	1.5	3	6	18	0.17
90S	48	3,600	34,564	95	27.0	213.0	231.8	199.8	98.4	123.8	122.0	47.7	1.5	3	6	25	0.25
100S	81	2,440	58,183	107	41.3	250.0	266.7	245.7	120.6	142.0	155.5	60.0	1.5	4.5	9.5	42	0.43
110S	121	2,250	86,411	117	41.3	270.0	285.8	258.5	127.0	160.3	161.5	64.2	1.5	4.5	9.5	54	0.51
120S	177	2,025	126,736	136	60.3	308.0	319.0	304.4	149.2	179.4	191.5	73.4	1.5	6	12.5	81	0.73
130S	257	1,800	184,343	165	66.7	346.0	377.8	329.8	161.9	217.5	195.0	75.1	1.5	6	12.5	121	0.91
140S	370	1,650	265,993	184	66.7	384.0	416.0	371.6	182.8	254.0	201.0	78.2	1.5	6	12.5	178	1.13
150S	515	1,500	368,686	203	100.0	453.1	476.3	371.8	182.9	269.2	271.3	106.9	1.5	6	12.5	234	1.95
160S	724	1,350	518,465	228	120.7	501.4	533.4	403.3	198.1	304.8	278.9	114.3	1.5	6	12.5	317	2.81
170S	965	1,225	691,286	279	133.4	566.4	584.2	437.8	215.9	355.6	304.3	119.4	1.5	6	12.5	448	3.49
180S	1,338	1,100	958,584	311	152.4	629.9	630.0	483.6	238.8	393.7	321.1	130.0	1.5	6	12.5	619	3.76
190S	1,770	1,050	1,267,358	339	152.4	675.5	685.0	524.2	259.1	436.9	325.1	135.0	1.5	6	12.5	776	4.40
200S	2,413	900	1,728,216	361	177.8	756.9	737.0	564.8	279.4	497.8	355.6	145.0	1.5	6	12.5	1,057	5.62

※ Coupling Weight, Without Bore machining.

SPACE TYPE



SAS(Full Space) TYPE

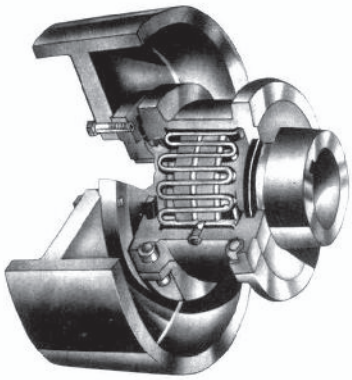


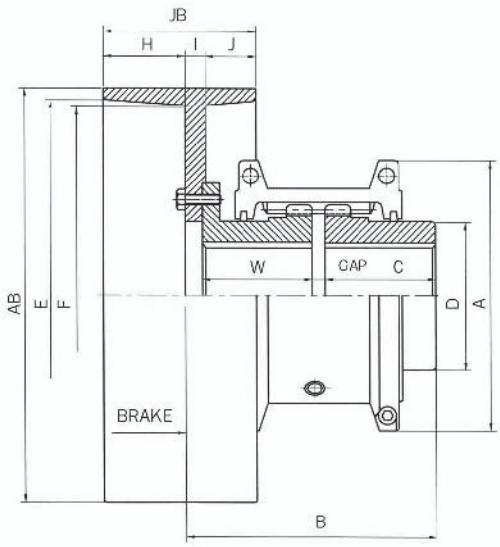
SFS(Half Space) TYPE

Size	HP Per 100 (rpm)	Max Speed (rpm)	Basic torque (kgf · cm)	Bore Dia (mm)		Dimensions(mm)									Flange Bolt No.	Lube Weight (kg)
						A	B	BE(SAS)		BE(SFS)		N	F	Gap		
				Max.	Min.			Min.	Max.	Min.	Max.					
20S	0.68	3,600	486	36	12.7	101.6	35	89	203	45	102	52	86	5	4	0.03
30S	1.93	3,600	1,383	44	12.7	111.0	41	89	216	45	109	59	94	5	8	0.03
40S	3.22	3,600	2,304	57	12.7	117.5	54	89	216	45	109	78	113	5	8	0.05
50S	5.63	3,600	4,033	64	12.7	138.0	60	112	216	57	109	87	126	5	8	0.05
60S	8.85	3,600	6,337	79	19.1	150.5	73	127	330	64	166	103	145	5	8	0.09
70S	13	3,600	9,217	83	19.1	161.9	79	127	330	64	166	109	153	5	12	0.11
80S	27	3,600	19,010	95	27.0	194.0	89	184	406	93	204	122	178	5	12	0.17
90S	48	3,600	34,564	108	27.0	213.0	102	184	406	93	204	142	210	5	12	0.25
100S	81	2,440	58,183	127	38.1	250.0	90	203	406	103	205	171	251	6.5	12	0.43
110S	121	2,250	86,411	149	50.8	270.0	104	210	406	106	205	196	277	6.5	12	0.51
120S	177	2,025	126,736	165	63.5	308.0	119	246	406	125	205	225	319	9.5	12	0.73
130S	257	1,800	184,343	178	76.2	346.0	135	257	406	130	205	238	346	9.5	12	0.91
140S	370	1,650	264,993	203	88.9	384.0	152	267	406	135	205	266	386	9.5	12	1.13
150S	515	1,500	368,686	254	101.6	453.1	173	345	371	175	187	334	425	9.5	14	1.95
160S	724	1,350	518,465	279	114.3	501.4	186	356	406	180	205	366	457	9.5	14	2.81
170S	965	1,225	691,286	330	127.0	566.4	220	384	445	194	224	425	527	9.5	16	3.49
180S	1,338	1,100	958,584	330	101.6	629.9	249	400	490	202	247	451	591	9.5	16	3.76
190S	1,770	1,050	1,267,358	362	114.3	675.6	276	411	530	207	267	508	660	9.5	18	4.40
200S	2,413	900	1,728,216	381	127.0	756.9	305	445	575	224	289	530	711	9.5	18	5.62

※ Coupling Weight, Without Bore machining.

SBW(Brake Wheel) TYPE





Cplg Size	Standard Brake Wheel	
	Moter Power (40% ED KW)	Brake Torque (kg, m)
2020S		
2030S		
2040S	2.2	5
2050S	5.5	10
2060S	5.5 7.5 11	10 14 21.2
2070S	15	30
2080S	30	53
2090S	37 45	63 80
2100S	45	132
2110S	75 90	180
2120S	110 132	335
2130S	160 200	400 475
2140S	160 200	400 475

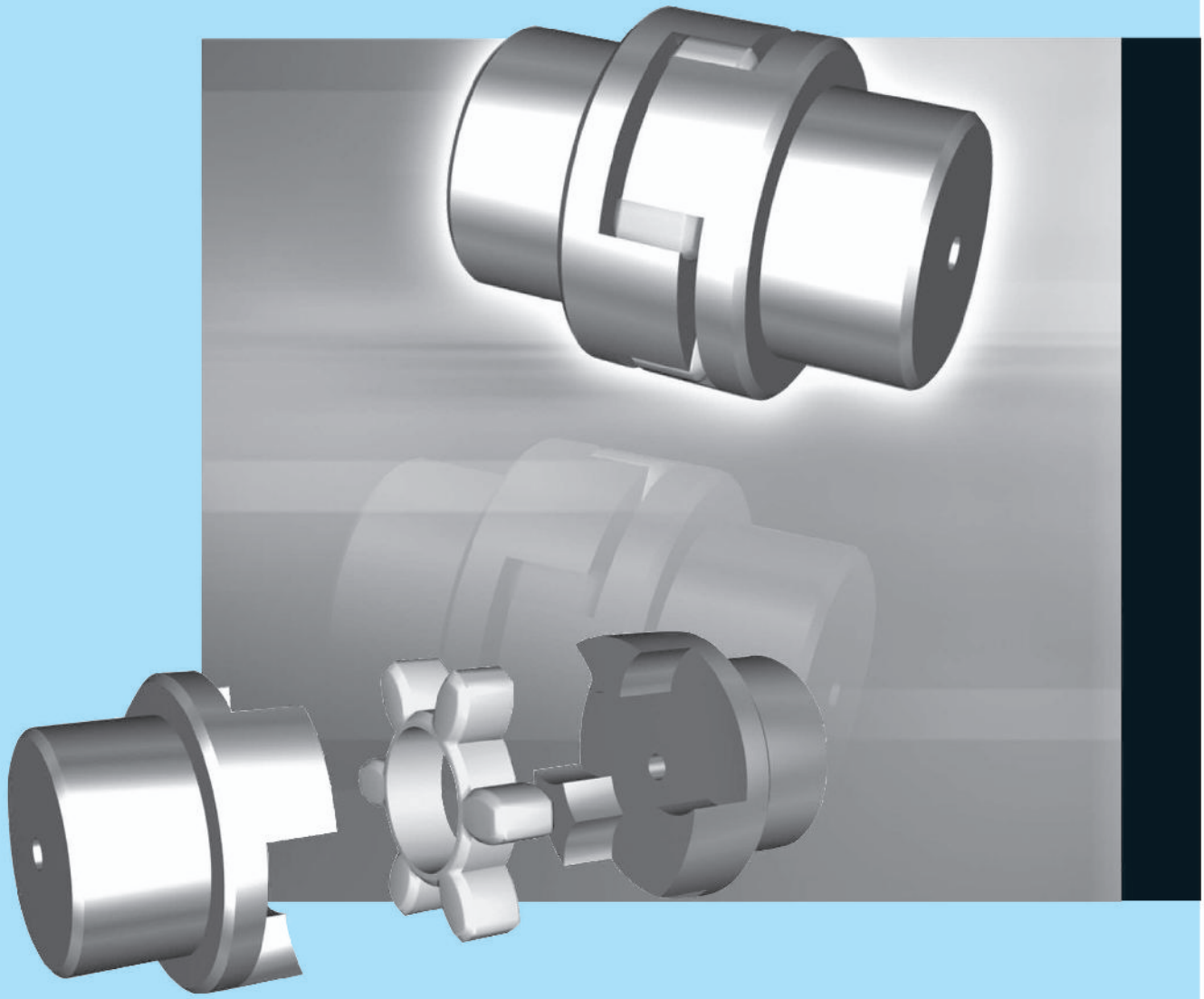
※Based on crane motor.

Brake wheel Size(mm)		Size	Max.Brake Rating of CPLG (kgf,cm)	Bore Dia. (mm)		Dimension (mm)									Lube Weight (kg)
AB	JB			Max.	Min.	A	C	D	E	F	H	I	J	Gap	
		20S	110	30	12.7	102	48	39.6						3	0.03
		30S	359	36	12.7	111	48	49						3	0.03
160	80	40S	663	44	12.7	117	51	57	145	140	40	12	28	3	0.05
200	100	50S	1,202	50	12.7	138	60	66	184	178	50	17	33	3	0.05
200	100	60S	2,129	57	19.1	151	63	76	184	178	50	17	33	3	0.09
250	125	70S	3,373	68	19.1	162	76	87	230	224	62.5	22	40.5	3	0.11
315	160	80S	6,497	82	27.0	194	89	105	292	285	80	23	57	3	0.17
355	180	90S	11,060	95	27.0	213	98	124	330	320	90	26	64	3	0.25
400	200	100S	19,355	107	41.3	251	121	142	374	362	100	28	72	5	0.43
450	224	110S	29,032	117	41.3	270	127	160	422	410	112	32	80	5	0.51
500	250	120S	44,240	136	60.3	308	149	179	462	445	125	35	90	6	0.73
560	280	130S	66,212	165	66.7	346	162	218	516	495	140	45	95	6	0.91
560	280	140S	89,862	184	66.7	384	184	253	516	495	140	45	95	6	1.13

※If you need SBW type

First, determine the size of brake of your coupling and then the 'B' and 'W' according to above dimension.

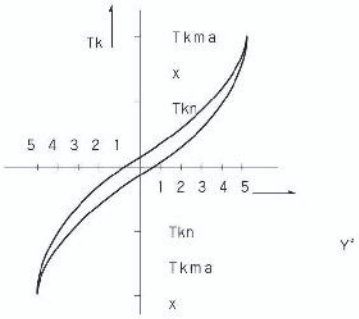
JAW
COUPLING

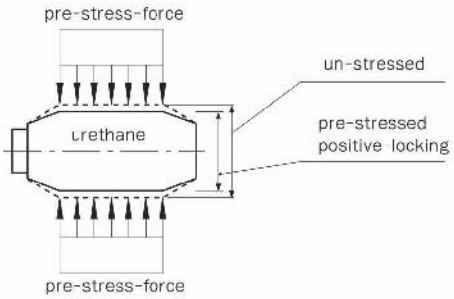


JAW COUPLING

■ Distinctive Features

1. Torsionally flexible and designed for positive torque transmission.
   They are puncture-proof. Operational vibrations and shock are efficiently attenuated and reduced.
2. Owing to their linear design, the maximum twisting angle with jac couplings of any size amounts to 5°. Fig.1 shows the capacity of the elastomeric, which is related to its attenuating effect.
3. Setting and repairing is easy.





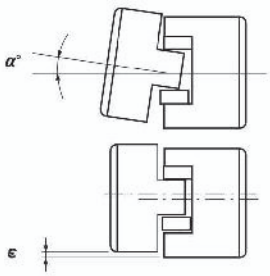
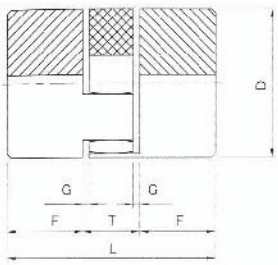


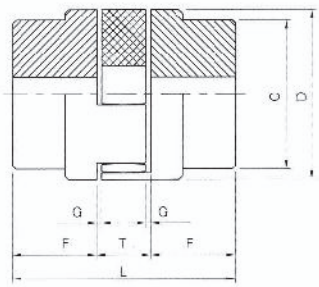
Fig. 1

table 1.

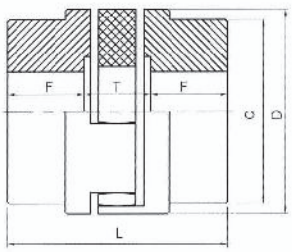
Size No.	050	070	090	0010	0020	2035-A	2035	3545	4560	6070	7080	8090
Angular misalignment(α°)	0.15	0.2		0.4		0.8	1.0			1.4		
Parallel misalignment(εmm)	1.3											



Only CR050~CR090



Only CR0010~CR3545

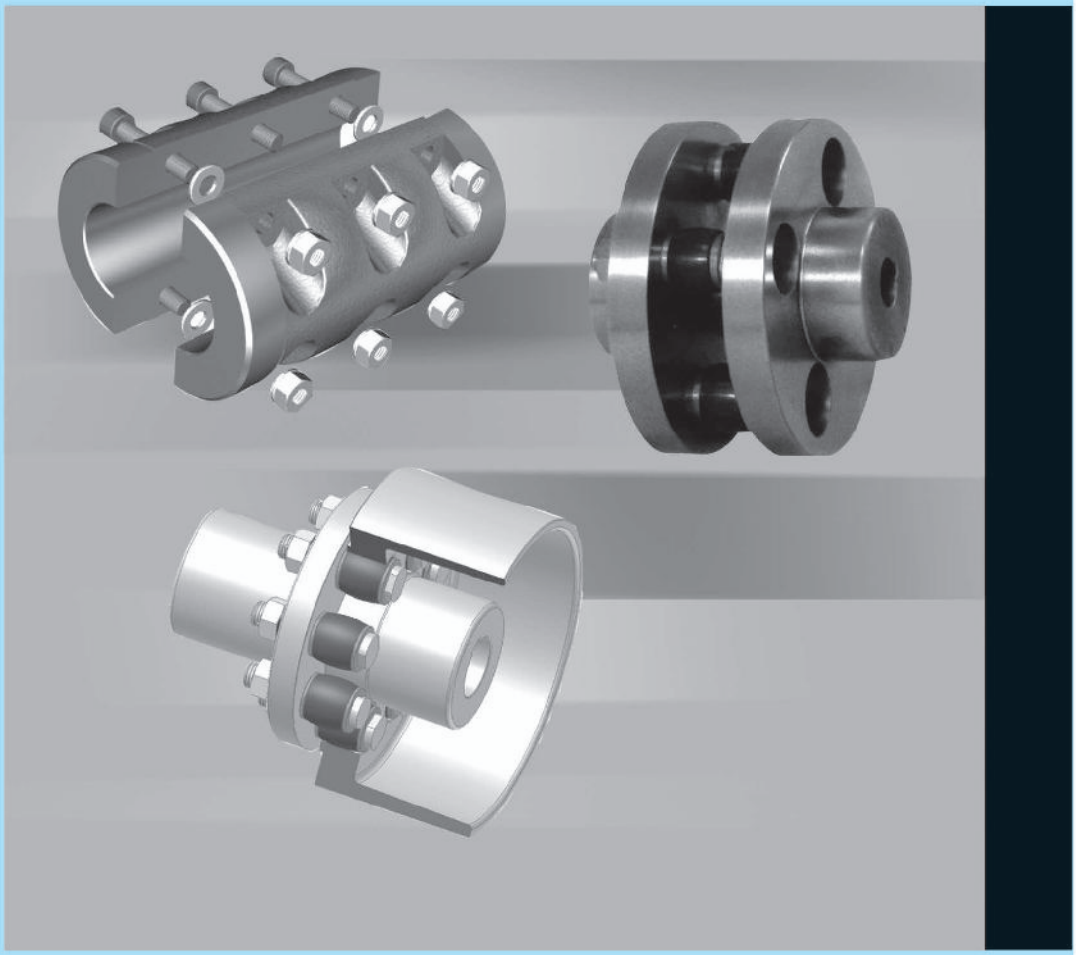


Only CR4560~CR90100

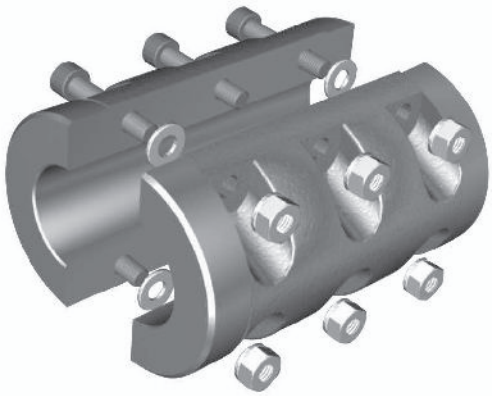
■ Dimensions & technical Data

Size	Bore Dia(mm)		Basic Torque (kgf · m)	Torsion angle	Dimensions(mm)						
	min	max			C	D	F	T	L	G	WEIGHT (kg)
CR 050	5	11	0.4		-	25	12	11	35	1	0.08
CR 070	7	14	1		-	35	18.5	13	50	1.5	0.3
CR 090	7	22	1		-	40	25	16	66	2	0.5
CR 0010	11	19	2.5		42	48	24	17	65	1.5	0.5
CR 0020	14	24	3.4		50	58	27	18	72	1.5	0.9
CR 2035-A	19	28	12		58	68	35	20	90	1.5	1.3
CR 2035	19	38	32	3.2°	68	78	35	22	92	1.5	2.5
CR 3545	28	45	65		88	98	38.5	29	106	4	4.4
CR 4560	38	60	90		98	118	45	30	120	3	7.8
CR 6070	42	75	125		115	135	46	33	125	3.5	10
CR 7080	65	100	293		130	160	66	45	177	5	19.5
CR 8090	65	110	520		150	200	105	45	255	5	36
CR 90100	65	110	790		180	230	110	50	270	6	39

FLEXIBLE
COUPLING



MUFF COUPLING



The biggest advantage of the *Jac* MUFF coupling is that it uses standard meterial FCD45(JIS) instead of FC(JIS).

■ Distinctive Features

1. Muff Coupling is designed as a dividing structure, therefore, it is easy to assemble, disassemble and removal from the shaft.

2. The system is fixed, therefore there is no backlash.

3. Because of a modified design, it transmits more torque. Much better than any other coupling

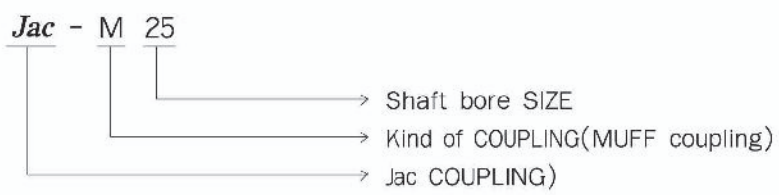
4. Basic Construction:
   Designed to insert the KEY(WAY) to the CLAMP accordingly.

5. Muff Coupling comes in a standard range of diameters from ø 25 to ø 120. Each size is standardized by KS and JIS.

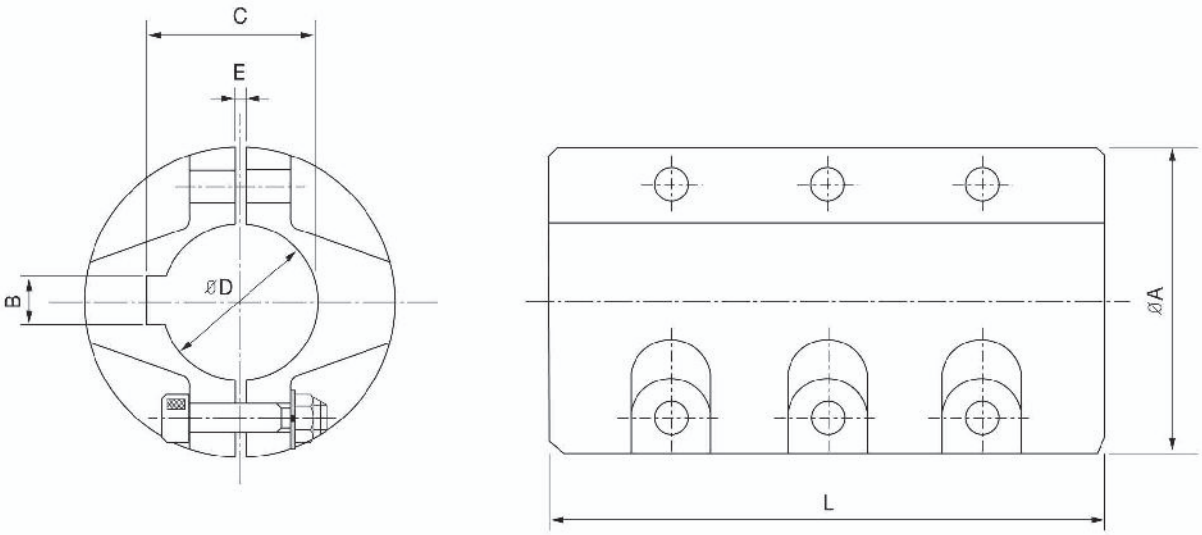
■ Application

Muff Coupling(MC) is suitable to be installed for crain & hoist, conveyance agitator, sluice, iron manufacturing works, and to connect long length line shafts.

■ Disignation

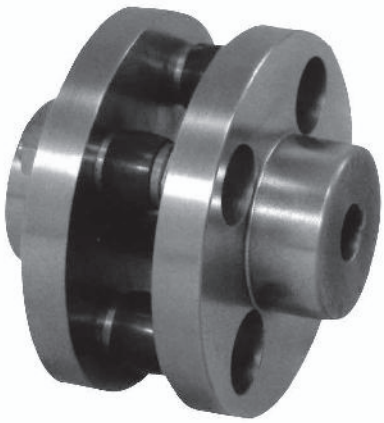


■ Dimensions & technical Data



SIZE	Bore ø D(H8)	A	L	KEY WAY			E	BOLT	TORQUE (kgf.m)	WEIGHT (kg)
				B(js9)	C	KEY(b × h)				
J-M25	ø 25H8	ø 50	88	7	28.0	7 × 7	1.6	4-M6 × 30L	22	1.0
J-M30	ø 30H8	ø 60	105	7	33.0	7 × 7	1.6	4-M6 × 30L	30	1.5
J-M35	ø 35H8	ø 70	120	10	38.5	10 × 8	1.6	4-M8 × 35L	40	2.5
J-M40	ø 40H8	ø 80	140	10	43.5	10 × 8	1.6	6-M10 × 40L	55	3.9
J-M45	ø 45H8	ø 90	160	12	48.5	12 × 8	1.6	6-M10 × 45L	70	5.6
J-M50	ø 50H8	ø 100	176	12	53.5	12 × 8	2.0	6-M10 × 45L	95	7.2
J-M55	ø 55H8	ø 110	180	15	60.0	15 × 10	2.0	6-M10 × 45L	120	9.6
J-M60	ø 60H8	ø 120	184	15	65.0	15 × 10	2.0	6-M12 × 50L	150	11.6
J-M65	ø 65H8	ø 130	200	18	69.4	18 × 11	2.5	6-M12 × 50L	205	12.2
J-M70	ø 70H8	ø 140	214	18	74.4	18 × 11	2.5	6-M14 × 55L	245	15.7
J-M75	ø 75H8	ø 150	240	20	79.9	20 × 12	2.5	6-M14 × 55L	300	20.6
J-M80	ø 80H8	ø 160	264	20	84.9	20 × 12	2.5	6-M16 × 55L	360	21.5
J-M85	ø 85H8	ø 170	278	24	93.0	24 × 16	2.5	6-M16 × 55L	435	27.4
J-M90	ø 90H8	ø 180	292	24	98.0	24 × 16	3.0	6-M18 × 75L	530	30.0
J-M95	ø 95H8	ø 190	300	24	103.0	24 × 16	3.0	6-M18 × 75L	615	37.5
J-M100	ø 100H8	ø 200	320	28	106.4	28 × 16	3.0	6-M18 × 75L	690	42.0
J-M110	ø 110H8	ø 210	360	28	116.4	28 × 16	3.0	6-M18 × 75L	900	56.0
J-M120	ø 120H8	ø 280	410	32	127.4	32 × 18	3.0	8-M20 × 75L	1,100	85.0

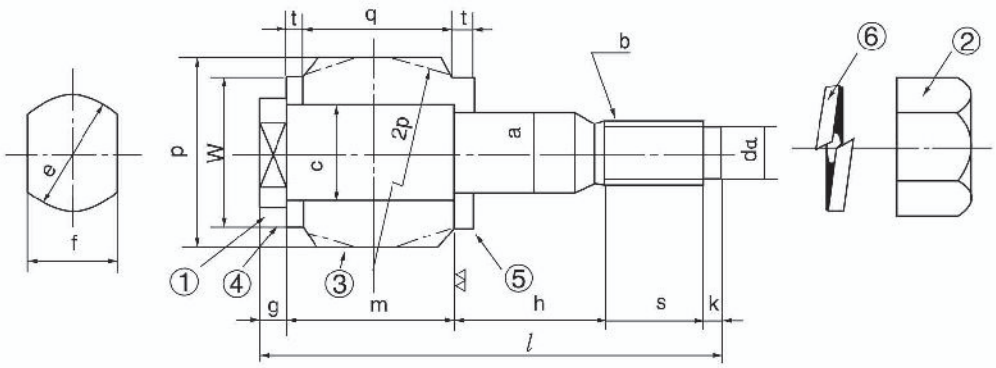
FLANGE & BRAKE DRUM COUPLING



■ Distinctive Features

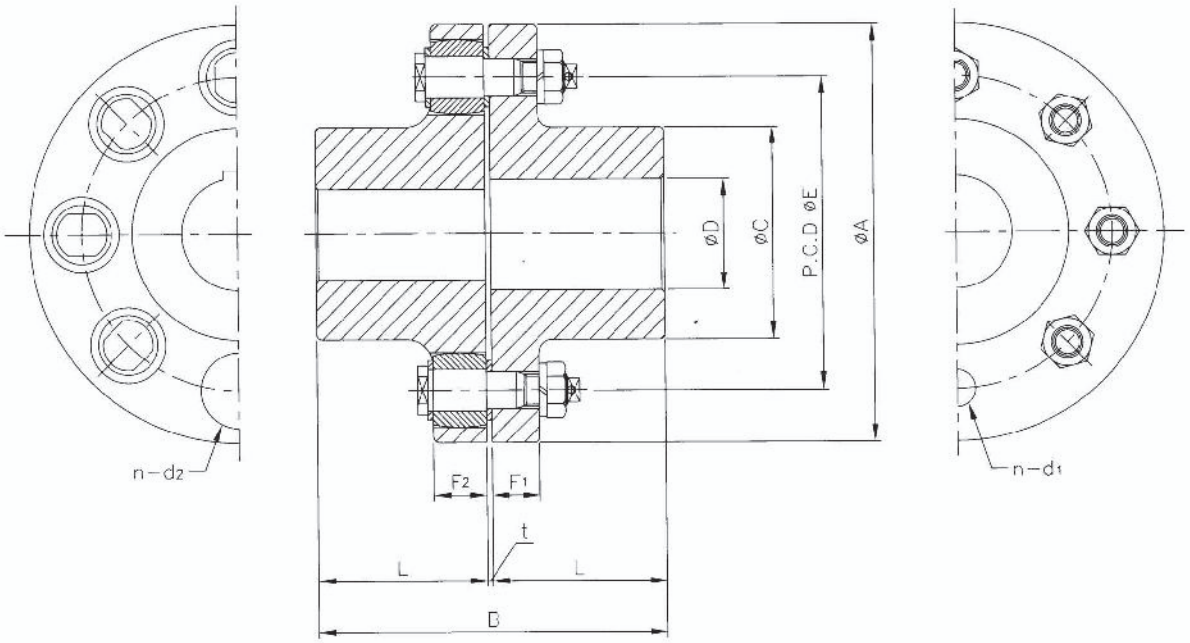
1) It transmits power smoothly.
2) It has availiable absorption of shock load and vibration.
3) The power pressing shaft does not occur from coupling.
4) Easy and simple installation and maintenance.
5) Simple construction and complete flexibility.

■ Bolt Dimensions



NO	Size	Thread	①Bolt												②Washer			③Bush			④Washer		
	ø a× l	d	øa_1	ø a	ød_1	e	f	g	h	s	k	m	l	x	a_1	t	ø w	øa_1	p	q	ø a	t	ø w
1	8×50	M8	9	8	5.5	12	10	4	15	12	2	17	50	1.9	9	3	14	9	18	14	8	3	14
2	10×56	M10	12	10	7	16	13	4	17	14	2	19	56	2.3	12	3	18	12	22	16	10	3	18
3	14×64	M12	16	14	9	19	17	5	19	16	3	21	64	2.6	16	3	25	16	31	18	14	3	25
4	20×85	M20	22.4	20	15	28	24	5	24.6	25	4	26.4	85	3.8	22.4	4	32	22.4	40	22.4	20	4	32
5	25×100	M24	28	25	18	34	30	6	30	27	5	32	100	4.5	28	4	40	28	50	28	25	4	40
6	28×116	M24	31.5	28	18	38	32	6	30	31	5	44	116	4.5	31.5	4	45	31.5	56	40	28	4	45
7	35.5×150	M30	40	35.5	23	48	41	8	38.5	38.5	6	61	150	5.3	40	5	56	40	71	56	35.5	5	56
10	35.5×174	M30	40	35.5	23	48	41	8	61	38	6	61	174	5.3	40	5	56	40	71	56	35.5	5	56
12	45×240	M42	50	45	33	60	50	10	81	48	8	87	240	6.8	50	7	71	50	85	80	45	7	71
14	56×295	M52	63	56	40	75	63	12	108	59	8	108	295	7.5	63	8	90	63	106	100	56	8	90

■ Dimensions

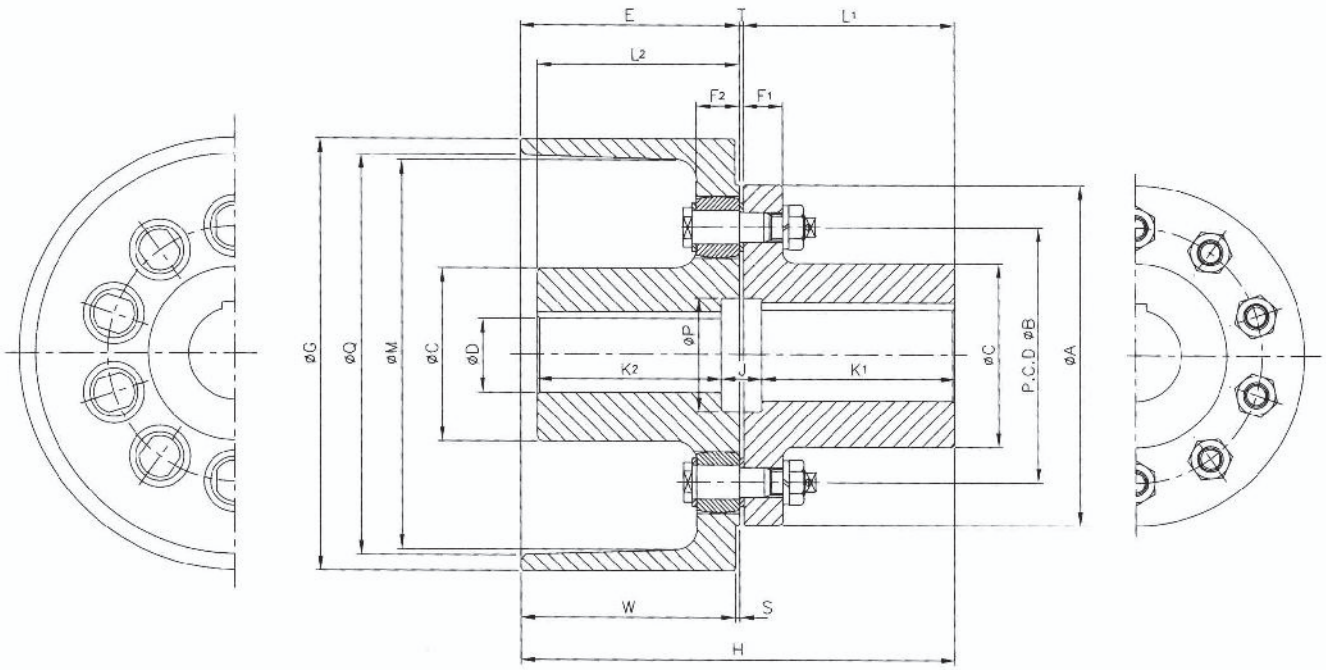


Size	HP Per 100 (rpm)	Max Speed (rpm)	Basic torque (kgf · cm)	Bore(mm) max. D1	Bore(mm) max. D2	Bore(mm) min.	Dimensions(mm) A	B	C1	C2	E	F1	F2	L	t	Bolt Hole n	Bolt Hole d1	Bolt Hole d2	Coupling weight (kg)
90A	0.07	4,000	50	20		—	90	59	35.5		60	14	14	28		4	8	19	1.4
100A	0.14	4,000	100	25		—	100	74	42.5		67	16	16	35.5		4	10	23	2.1
112A	0.23	4,000	161	28		16	112	83	56	50	75	16	16	40		4	10	23	2.7
125A	0.35	4,000	250	32	28	18	125	93	71	50	85	18	18	45	3	4	14	32	3.5
140A	0.67	4,000	501	38	35	20	140	103	63		100	18	18	50		6	14	32	4.9
160A	1.56	4,000	1,120	45		25	160	115	80		115	18	18	56		8	14	32	6.8
180A	2.24	3,500	1,607	50		28	180	129	90		132	18	18	63		8	14	32	9.6
200A	3.50	3,200	2,503	56		32	200	146	100		145	22.4	22.4	71		8	20	41	13.2
224A	5.59	2,550	4,003	63		35	224	164	112		170	22.4	22.4	80		8	20	41	18.4
250A	8.80	2,300	6,302	71		40	250	184	125		180	28	28	90	4	8	25	51	26.0
280A	14	2,050	10,032	80		50	280	204	140		200	28	40	100		8	28	57	36.5
315A	22	1,800	16,071	90		63	315	228	160		236	28	40	112		10	28	57	49.1
355A	35	1,600	25,032	100		71	355	255	180		260	35.5	56	125		8	35.5	72	74.9
400A	56	1,400	40,031	110		80	400	255	200		300	35.5	56	125		10	35.5	72	94.3
450A	88	1,350	63,018	125		90	450	285	224		355	35.5	56	140	5	12	35.5	72	127.8
560A	140	1,150	100,030	140		100	560	325	250		450	35.5	56	160		14	35.5	72	206.3
630A	223	1,000	160,028	160		110	630	365	280		530	35.5	56	180		18	35.5	72	277.0

※ Coupling Weight, Without Bore machining.

■ Dimensions

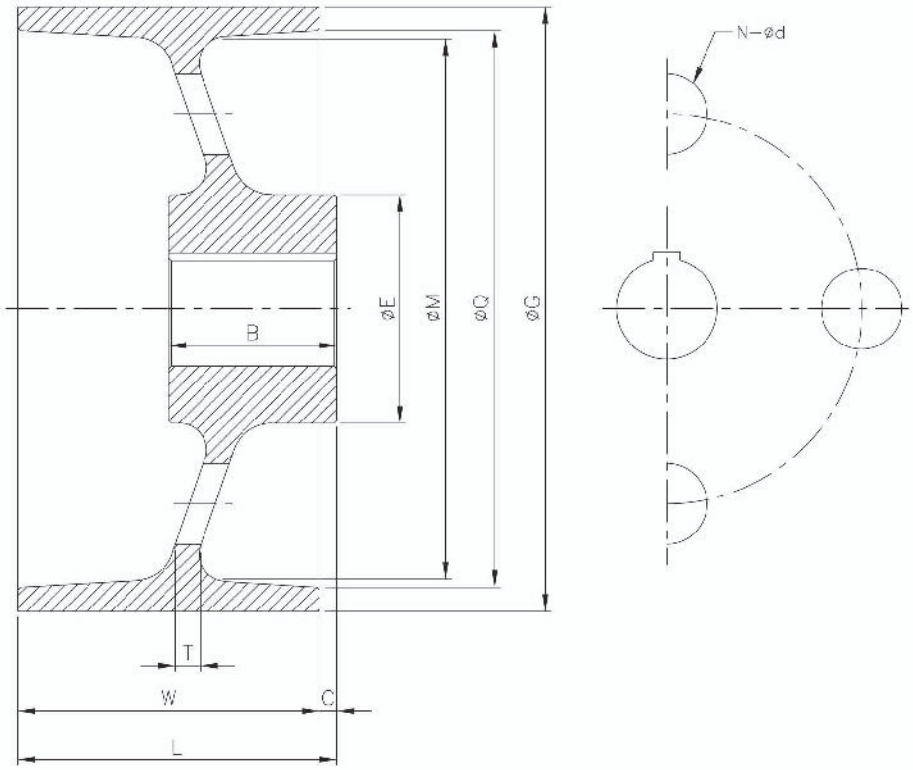
Brake Drum Coupling (BWC)



Size	Dimensions(mm)																		Weight (kg)	GD² (kgf·m²)
	Bore ø D		ø G	W	S	E	L_1	L_2	H	T	ø C	K_1	K_2	J	ø P	ø M	ø Q	ø A		
	Min.	Max.																		
BWC 160	20	37	160	80	4	84	95	76	182	3	63	82	63	29	43	140	145	140	9	0.20
BWC 200	28	53	200	100	4	104	128	96	235	3	90	112	80	35	60	178	184	180	19	0.30
BWC 250S	35	66	250	125	4	129	128	106	261	4	112	112	90	36	75	224	230	224	34	0.80
BWC 250L	35	66	250	125	4	129	158	106	291	4	112	142	90	36	75	224	230	224	36	0.81
BWC 315	40	75	315	160	4	164	158	128	326	4	125	142	112	36	85	285	292	250	57	2.40
BWC 355	50	84	355	180	4	184	160	130	348	4	140	142	112	40	95	320	330	280	80	4.30
BWC 400	63	95	400	200	4	204	190	158	398	4	160	172	140	40	105	362	374	315	110	6.80
BWC 450	71	105	450	224	4	228	195	163	428	5	180	172	140	51	125	410	422	355	160	13.6
BWC 500	80	115	500	250	4	254	235	183	494	5	200	212	160	51	135	445	462	400	250	26.0
BWC 560	90	130	560	280	4	284	240	188	529	5	224	212	160	61	150	495	516	450	310	42.0
BWC 762	110	165	762	362	4	366	240	208	611	5	280	212	180	61	190	690	710	630	580	160

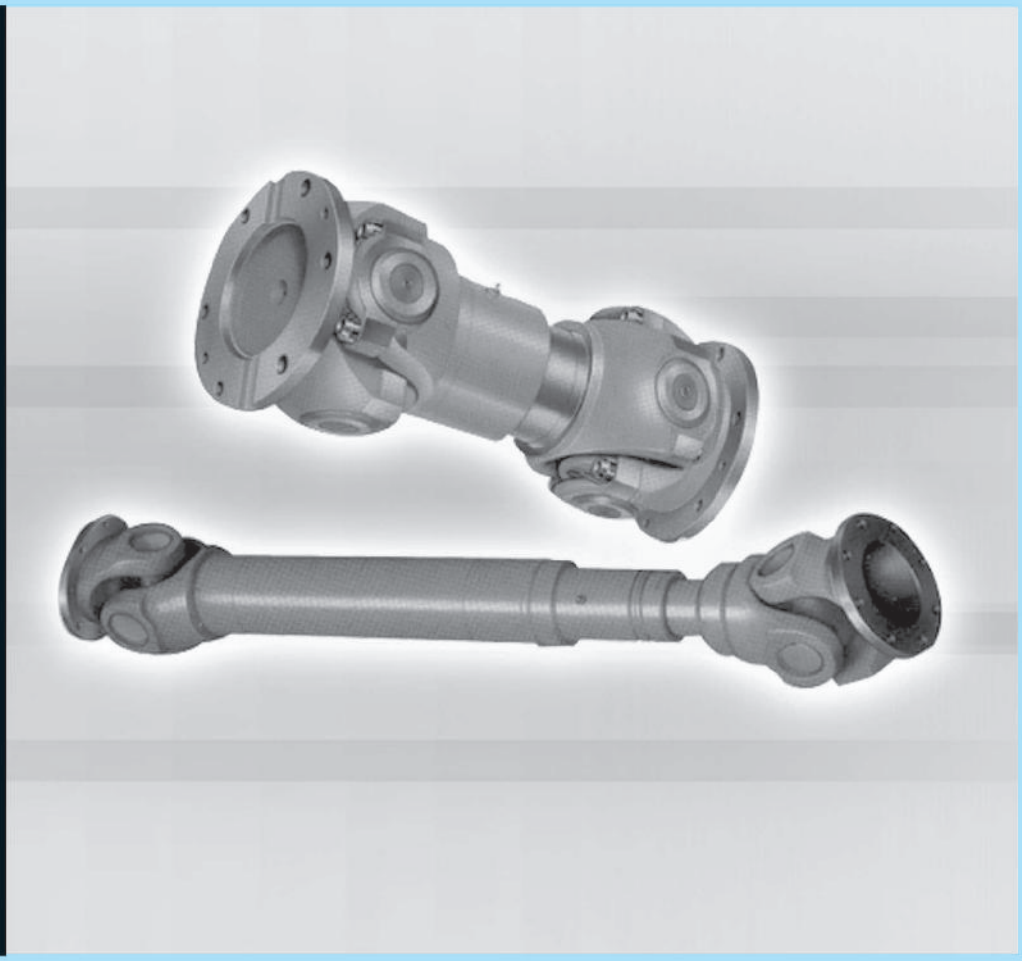
■ Dimensions

Brake Drum (BW)

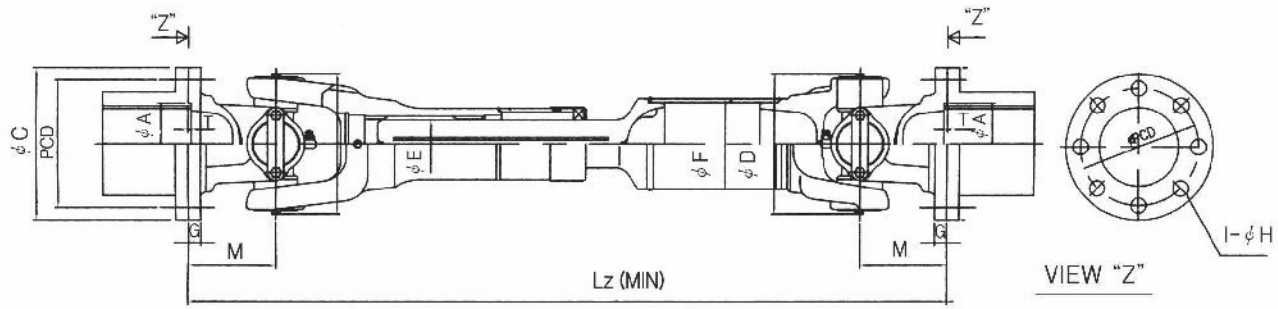


Size	Dimensions(mm)												Weight (kg)	GD² (kgf·m²)
	Bore ø D		ø G	W	C	L	B	ø E	ø M	ø Q	T	N-ø d		
	Min.	Max.												
BW 160	20	37	160	80	32	112	82	63	140	145	16	4-19	6	0.07
BW 200	28	48	200	100	32	132	112	80	178	184	16	4-19	10	0.21
BW 250	35	60	250	125	32	157	112	100	224	230	16	4-30	18	0.57
BW 315	40	60	315	160	35	195	112	100	285	292	20	4-30	29	1.70
BW 355	50	67	355	180	40	220	142	112	320	330	20	4-40	40	3.10
BW 400	63	75	400	200	40	240	142	125	362	374	25	4-40	60	5.50
BW 450	71	96	450	224	55	279	172	160	410	422	25	4-40	85	9.40
BW 500	80	108	500	250	60	310	212	180	445	462	28	4-40	130	18.0
BW 560	90	120	560	280	65	345	212	200	495	516	28	4-40	180	33.0
BW 762	110	135	762	362	80	442	212	224	690	710	35	4-40	340	124.0

UNIVERSAL JOINT



UNIVERSAL JOINT JYL TYPE

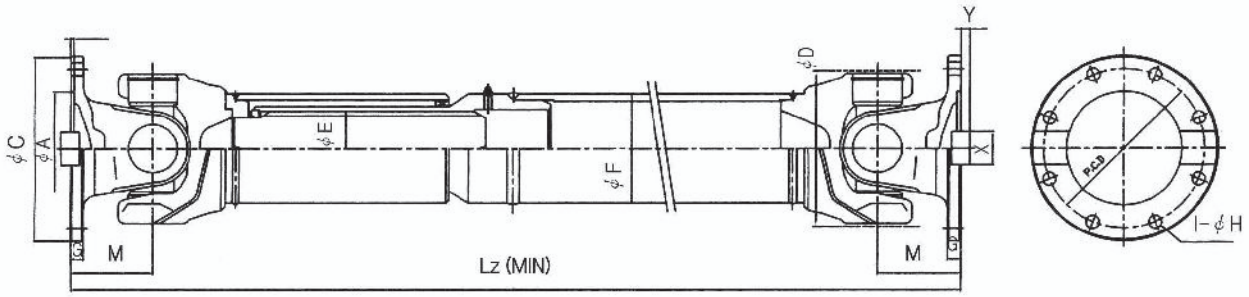


JYL SERIES FOR LIGHT TORQUE

(Unit : mm)

SIZE	JYL75	JYL90	JYL100	JYL120	JYL150	JYL160	JYL180	JYL200
Tn kgf.m (normal operating torque)	35	35	103	196	406	574	700	1,150
Tm kgf.m (max transmitting torque)	52	52	154	294	609	861	1,050	1,733
Lz (shortest compressed length)	375	375	365	500	605	565	710	900
ø D (swing diameter)	68	68	100	122	164	168	180	196
ø E (spline stroke)	33	33	33	42	54	50.8	60	76
M	41	41	70	83	100	100	118/135	135
β° (max operating angle)	25°	25°	25°	25°	25°	25°	25°	25°
LA (spline stroke)	60	60	70	80	80	80	80	80
ø F (pipe diameter)	50.8	50.8	76.2	76.2	88.9	88.9	101.6	114.3
ø C	75	90	100	120	150	160	180	200
P.C.D	62	74.5	85	101.5	130	138	158	178
ø A	42	47	57	75	90	90	100	110
I-ø H	4-6.5	4-8.5	6-8.5	8-10.5	8-12.5	8-12.5	8-14.5	8-14.5
T	2.5	2.5	2.5	3	3	3	3	3
G	6	8	8	9	12	12	14	18

UNIVERSAL JOINT JYM TYPE

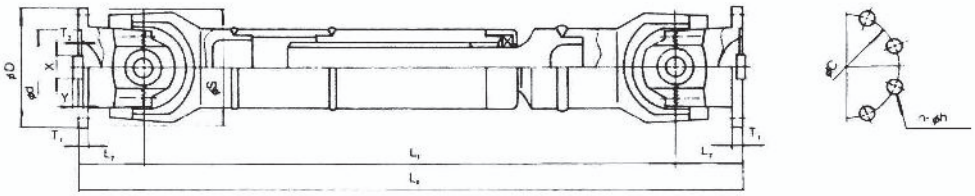


JYM SERIES FOR LIGHT TORQUE

(Unit:mm)

SIZE	JYM180	JYM200	JYM225	JYM250	JYM285	JYM315
Tn kgf.m (normal operating torque)	700	1,330	1,470	2,100	3,010	4,620
Tm kgf.m (max transmitting torque)	1,050	2,030	2,240	3,150	4,568	7,000
Lz (shortest compressed length)	710	800	870	970	1,100	1,250
ø D (swing diameter)	180	200	215	250	285	315
ø E (spline stroke)	75	80	102	110	130	130
M	118	120	130	140	175	200
β° (max operating angle)	25°	25°	25°	25°	25°	25°
LA (spline stroke)	80	90	100	100	100	100
ø F (pipe diameter)	114.3	120	120	165.1	216.3	216.3
ø C	180	200	225	250	285	315
P.C.D	158	178	196	218	245	280
ø A	110	120	140	140	175	175
I-ø H	8-15	8-17	8-19	8-21	10-23	10-25
T	3	3	3	5	5	6
G	16	18	20	25	27	32
X	25	28	32	36	42	48
Y	7	8	9	11	15	15

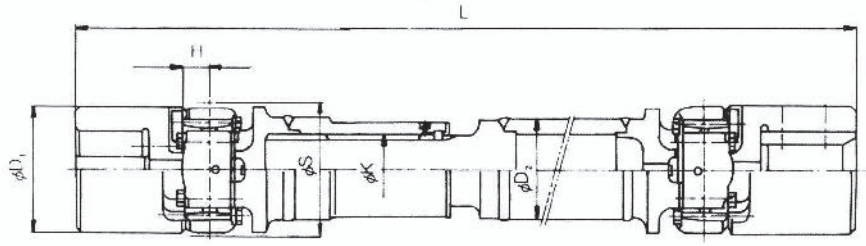
UNIVERSAL JOINT FORK TYPE



(Unit:mm)

NOTATION / TYPE	ϕD	ϕd	Lo (Min)	L1	L2	ϕC	ϕS	T1	T2	n-ϕh	X×Y	(MAX) ANGLE	Tmax (kgf.m) TORQUE
JWF 180	180	90	940	710	115	154	180	19	5	8-16	20×18	15	2,000
JWF 200	200	100	1050	800	125	170	200	20	5	8-16	28×16	15	3,200
JWF 225	225	110	1100	820	140	195	225	23	6	10-16	32×22	15	4,500
JWF 250	250	125	1250	940	155	220	250	25	6	12-18	36×24	15	6,000
JWF 260	260	135	1300	980	160	230	260	25	6	12-18	36×26	15	7,000
JWF 280	280	140	1350	1010	170	248	280	28	7	12-20	42×28	15	9,000
JWF 300	300	155	1450	1070	190	265	300	28	7	14-22	42×28	10	11,000
JWF 320	320	165	1500	1100	200	285	320	32	7	14-22	4832	10	13,000
JWF 350	350	175	1600	1160	220	310	350	36	8	14-24	5436	10	18,500
JWF 380	380	185	1750	1280	235	335	380	36	8	14-24	5436	10	23,000
JWF 400	400	200	1900	1400	250	358	400	40	8	16-26	6040	10	26,000
JWF 420	420	210	2000	1470	265	375	420	42	8	16-26	6242	10	30,000
JWF 450	450	225	2100	1540	280	402	450	45	8	16-30	6644	10	37,000
JWF 480	480	240	2200	1600	300	424	480	48	8	16-30	7048	10	42,000
JWF 500	500	250	2300	1680	310	446	500	50	10	16-33	7450	10	48,000

UNIVERSAL JOINT BLOCK TYPE



(Unit:mm)

NOTATION / TYPE	ϕD1	ϕD2	L	ϕS	ϕK	H	MAX ANGLE	Tmax(Kgf.m) TORQUE	CAP BOLT	TIGHT TROQUE	SPLINE STROCK
JB 160	160	130	680	160	90	30	10	1,200	M 16	19	± 50
JB 190	190	152	750	190	102	38	10	2,200	M 18	29	± 60
JB 220	220	177	880	220	130	45	10	3,800	M 20	38	± 90
JB 260	260	203	970	260	140	52	10	6,800	M 24	66	± 100
JB 300	300	260	1150	300	180	60	10	9,500	M 30	120	± 120
JB 350	350	298	1270	350	205	70	10	16,500	M 33	175	± 130
JB 400	400	323	1430	400	225	80	10	25,000	M 39	310	± 140
JB 425	425	323	1450	425	230	86	8	30,000	M 42	410	± 140
JB 450	450	360	1590	450	250	92	8	36,000	M 42	410	± 150
JB 500	500	393	1740	500	280	107	8	52,000	M 48	610	± 180

Service Factor

Alphabetical listing of applications

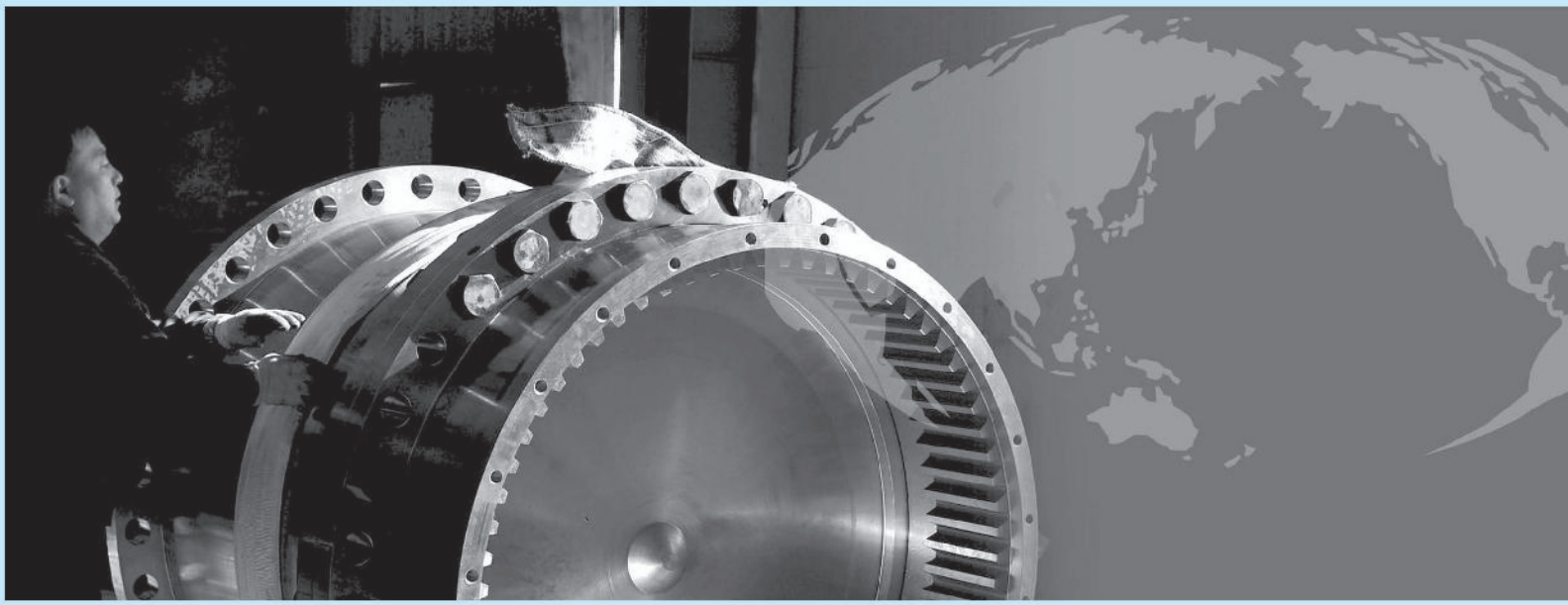
AERATOR ····2.5
AGITATORS
Vertical and Horizontal
screw,propeller,Paddle ····1.5
BARGE HAUL PULLER
BLOWERS
Centrifugl ····1.5
Lobe or Vane····1.75
CAR DUMPERS····4.0
CAR PULLERS ····2.5
CLARIFIER OR CLASSIFIER
····1.5
COMPRESSORS
Centrifugal ····1.1
Rotary,Lobe or Vane ····2.0
Rotary,Screw ····2.0
Reciprocation
Direct Connected★
With out Flywheels★
#With flywheel and Gear
between Compressor
and Prime Mover
1 cylinder,single actirg ····5.0
1 cylinder,double acting ····5.0
2 cylinders,single acting ····5.0
2 cylinders,double acting ····5.0
3 cylinder,single actirg ····5.0
3 cylinder,double acting ····3.0
4 or more cyl..singl act ····3.5
4 or more cyl..double act ····3.5
CONVEYOR
Apron,Assembly,Belt,Chain
Flight,Screw ····1.5
Bucket ····2.0
Live Roll,Shake and
Reciprocation ····3.5
▲★CRANES AND HOIST
Main Hoist ····.5
Skip Hoist ····2.5
Slope ····2.25
Bridge,Travel or Trolley ····.5
DYNAMOMETER ····1.5
ELEVATORS
Bucket,Centrifugal
Discharge ····2.0
Freight or Passenger
(Not Approved)
Gravity discharge ····2.0
ESCALATORS(Not Approved)
EXCITER GENERATOR ····1.75
EXTRUDER,PLASTIC ····2.25
FANS
Centrifugal ····1.1
Cooling Tower ····3.0
Forced Draft-Across the
Line start ····2.0
Forced Draft Mctor
Driven thru fluid or
electric slip clutch ····1.5
Gas Reciculating ····2.5
Induced Draft with damper
control or blade cleaner ····2.0
Induced Draft wihout
controls ····3.0
FEEDERS ····3.0
Apron,Belt,Disc,Screw ····2.0
Reciprocation ····3.5
GENERATORS
Even Load ····1.1
Hoist or Railway Service ····2.0
Welder Load ····3.0
HAMMERMILL ····2.5
LAUNDRY WASHER OR
TUMBLER ····3.0
LINE SHAFTS
Any processing Machinery ····2.0
MACHINE TOOLS
Auxiliary and Traverse Drive ····1.5
Bending Roll,Notching prss,
Punch Press,Planer,Plte
Reversing ····2.5
Main Drive ····2.0
MAN LITS(Not Approved)
METAL FORMING
MACHINES
Dra Bench Carriage and Main Drive···3.0
Extruder ····3.0
Forming Machine and Forming
Mills ····3.0
Slitters ····1.5
Wire Drawing or Flattening ····2.5
Wire Winder ····2.25
Coilers and Uncoilers ····2.25
MIXERS(see Agitators)
Concrete ····2.5
Muller ····2.5
PRESS,PRINTING ····2.25
PUG MILL ····2.5
PULVERIZERS
Hammermill and Hog ····2.5
Roller ····2.0
PUMPS
Centrifugal
Constant Speend 1.1
Frequent Speed Changes
under Load ····2.0
Descakling, with accumlators ····2.0
Gear, Rotary, or Vane ····1.75
Reciprocating
1 cyl..single or double act. ····3.0
2 cyl..single acting ····3.0
2 cyl..double acting ····2.5
3 or more cyliders ····2.0
SCREENS
Air Washing ····1.5
Grizzly ····3.0
Rotary Coal or Sand ····2.0
Vibrating ····3.5
Water ····1.5
SKI TOW & LIFTS(Not Aporoved)

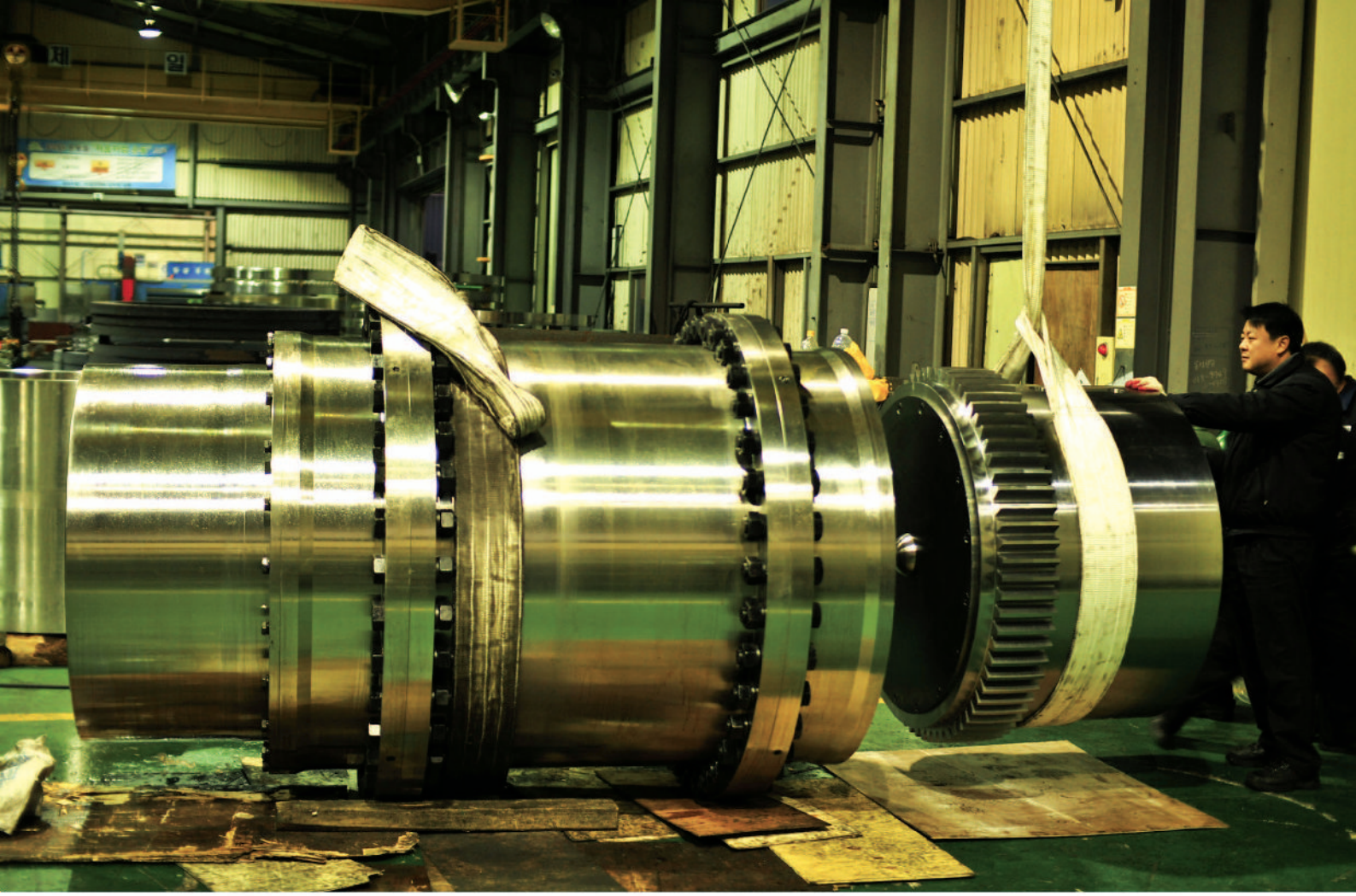
STEERING GEAR ····1.5
STOKER ····1.5
TUMBLING BARREL ····1.5
WINCH, MANEUVERING
Dredge, Marine ····2.5
WINDLASS ····2.0
WOODWORKING ····2.0
MACHINERY ····1.5
WORK LIFT PLATFORMS
(Not approved)
Alphabetical listing of industries
AGGREGATE PROCEDDING,CEMENT,
MINING KILNS;TUBE,ROD AND BALL
MILLS
Direct or on L.S.shaft of Reducer,with
final drive Machined Spur Gears ····3.0
Single Helical or
Herringbon Gears ····2.25
Conveyors, Feeders, Screens,
Elevators,See General Listing
Crushers,Ore or Stone ····3.5
Dryer,Rotary ····2.0
Grizzly ····3.0
Hammermill or Hog ····2.5
Tumbling Mill or Barrel ····2.5
BREWING AND DISTILLING
Bottle and Can
Filling Machines ····1.5
Brew Kettle ····1.5
Cookers,Continuous Dty ····1.75
Lauter Tub ····2.25
Mash Tub ····1.75
Scale Hopper,Frequent Peaks ····2.25
CLAY WORKING INDUSTRY
Brick Press, Brequette Machine,
Clay Working Machine, Plug Mill ···2.25
DREDGES
Cable Reel ····2.25
Conveyors ····1.5
Cutter Head, jig Drive ····3.0
Maneuvering Winch ····2.5
Pumps(uriform load) ····2.0
Screen Drive Stacker ····2.5
Utility Winch ····2.5
FOOD INDUSTRY
BEET SLICER ····2.5
Botting,Can Filing Machine
Cereal Cooker ····1.75
Dough Mixer,Meat Grinder ····2.5
LUMBER
Beet Slicer ····2.5
Botting,Can Filing Machine
Cereal Cooker ····1.75
Dough Mixer,Meat Grinder ····2.5
LUMBER
Band Resaw ····2.0
Circular Resaw,Cut-off ····2.5
Edger,Head Rig,Hog ····3.0
Gang Saw
(Reciprocating) ····3.0
Log Haul ····3.0
Planer ····2.5
Rolls,Non-Reversing ····2.0
Rolls,Reversing ····3.0
Sawdust Conveyor ····1.75
Slab Conveyor ····2.5
Sorting Table ····2.0
Trimmer ····2.25
★METAL ROLLING MILLS
Coilers(Up or Down)Cold
Mills only ····2.25
Coilers(Up or Down)Hot ····2.5
Coke Plants
Pusher Ram Drive ····3.5
Door Opener ····3.0
Pusher or Larry Car
Traction Drive ····4.0
Cold Mills-
Strip Mills
TemperMills★
Cooling Beds ····2.0
Drawbench ····3.0
Feed Rolls-Blooming Mills
Furnace Pushers ····4.0
Hot and Cold Saws ····3.0
Hot Mills-
Strp or Sheet Mills
Reversing Blooming or Slabbing Mills
Edger Drives
Inger Cars
Manipulators ····4.0
Merchant Mills
Mill Tables
Roughing Breakdown
Mills ····4.0
Hot Bed or Transfer
non-reversing ····2.25
Runout,reversing ····4.0
Reel Drives ····2.25
Rod Mills
Screwdown ····3.0
Seamless Tube Mills
Piercer ····4.0
Thrust Block ····3.0
Tube Conveyor Rolls ····3.0
Reeler ····3.0
Kick Out ····3.0
Sideguards ····4.0
Skelp Mills
Slitters,Steel Mill only ····2.25
Soaking Pit Cover Drives
Lift ····1.75
Travel ····2.5
Straighteners ····2.5
Unscramblers(Billet Bundle Busters)3.0
Wire Drawing Machinery ····2.25
OIL INDUSTRY
Chiller ····2.75
Oilwell Pumping
(Not over 15% peak torque) ····3.0
Raraffin filter Press ····2.0
Rotary Kiln ····3.0
PAPER MILLS
Barker Auxiliary,Hydraulic ····3.0
Barker,Mechanical ····3.0
Barking Drum
L.S Shaft of ruducer with
Final drive-Helical
or Herringbone Gear ····3.0
Machined Spur Gear ····3.5
Cast Tooth Spur Gear ····4.0
Beater & Pulper ····2.5
Bleachers, Coaters ····1.75
Calender & Super Calender ····2.5
Chipper ····4.0
Converting Machine ····1.75
Couch ····2.25
Cutter,Felt Whipper ····3.0
Cylinder,Dryer ····2.25
Felt Strecher ····2.0
Fourdrinier ····2.25
Jordon ····3.0
Log Haul ····3.0
Line Shaft ····2.0
Press ····2.25
Pulp Grinder ····2.25
Reel,Rewinder,Winder ····2.0
Stock Chest,Washer
Thickener ····2.0
Stock Pumps, Centrifugal
Constant Speed ····1.5
Frequent Speed Changes
Under Load ····1.75
Suctiuon Roll ····2.5
RUBBER INDUSTRY
CALENDER ····3.0
Cracker Plasticator ····3.5
Extuder ····2.25
Intensive or Banbury Mixer ····3.5
Mixing Mill, Refiner or sheeter
One or two in line ····3.5
Three or four in line ····3.0
Five or more in line ····2.25
Tire Building Machine ····3.5
Trie & Tube Press Opener
(peak Torque) ····1.5
Tuber Strainer, Pelletizer ····2.25
Warming Mill
One or two Mills in line ····3.0
Three or more Mills in line ····2.25
Washer ····3.5
SEWAGE DISPOSAL
EQUIPMENT
Bar Screen, Chemical Feeders
Collectors, Dewatering
Screen, Grit Collector ····1.5
SUGAR INDUSTRY
Cane Carrier & Leveler ····2.5
Cane Knife & Crusher ····3.0
Mill Stands, Turbine Driven
with all helical or
herringbone gerar ····2.0
Electric Drive or Steam Engine
Drive with Helical,
Herringbone, or Spur Gears
with any Prime Mover ····2.25
TEXTILE INDUSTRY
BATCHER ····1.75
Calender, Caed Machine ····2.0
Cloth Finishing Machine ····2.25
Dry Can Loom ····2.0
Dyeing Machinery ····1.75
Knitting Machine ····2.2
Mangle, Napper Scaper ····1.75
Spinner, Tenter Frame,
Winder ····2.0
Reducer ····2.0

Best of Best Coupling

Jac' s Challenge for the best quality

will be continued forever!





Jac coupling

HOME PAGE http ：// www.jacoup.co.kr
E-mail ： jac@jacoup.co.kr

ISO-9001:2000 Germany(TÜV) Korea(R) France(BV)

Jac coupling

HOME PAGE *http://www.jacoup.co.kr*
E-mail : *jac@jacoup.co.kr*

HEAD OFFICE & FACTORY:
JOONG-ANG COUPLING 720-1,HAKJANG-DONG,
SASANG-GU, BUSAN, KOREA
TEL : +82-51-317-0822, FAX : +82-51-317-0855

2nd FACTORY:
TEL : +82-51-314-0822, FAX : +82-51-313-0855

■BRANCH OFFICE

Seoul Office
TEL : +82-2-2671-0414
FAX : +82-2-2671-0413

Kyeong-In Office
TEL : +82-32-576-0789
FAX : +82-32-576-0785