



BACK STOP, CAM CLUTCH

Products by Sam bo clutch

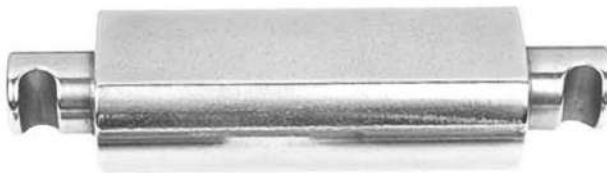
TYPE OF CAMS



Small size
(BS30K~BS75K)



Medium size
(BS85K~BS200K)



Large size
(BS200K over)



MZ-K, PB-K, B200K Series



MG-K, PNC-K Series



Speciality



BS-200K Series

CONTENTS OF CAM CLUTCHES

FOR THE ONLY BACKSTOPPING (HIGH TORQUE, LOW SPEED)

BS-K
Series



For backstopping application only (Grease Lubrication)

Torque range : 30~32,000 kgf.m

Bore range : 20~ 350

BS-RK
Series



For backstop application only (Oil Lubrication)

BS-RK Series is with oil reservoirs, over running speed is high than BS-K Series

Torque range : 2,500~32,000 kgf.m

Bore range : Ø100~Ø350

FOR THE ONLY BACKSTOPPING, OVERRUNNING, INDEXING (LOW-MEDIUM SPEED, LIGHT LOAD)

LD-K
Series



Suitable for the low speed, Light load (Grease Lubrication)

Torque range : 0.6~5 kgf.m

Bore range : Ø10~Ø30

B200K
Series



B200K series are supported by bearing and shaft mounted directly.

Torque range : 4~142 kgf.m

Bore range : Ø16.5~Ø79.3

PB-K
Series



Outer race is easy to mounting gear, pulleys, sprockets.. etc.
(Grease Lubrication)

Torque range : 3~215 kgf.m

Bore range : Ø10~Ø45

NFS-K, NSS-K
Series



Clutches have same diameters as metric ball bearing, require bearing support. (Grease Lubrication)

Torque range : 1.3~142 kgf.m

Bore range : Ø8~Ø60

FOR THE BACKSTOPPING, OVERRUNNING, INDEXING (HIGH SPEED, HEAVY LOAD)

MZ-K
Series



For general purpose (Pre-lubricated with a grease)

Torque range : 33~3,100 kgf.m

Bore range : 20~70

Bore range : 20~Ø70

MZ-CK
MG-CK
Series



This series are clutch with couplings utilizing MZ-K, MG-K series

Torque & Bore range : MZ-K, MG-K series

Bore range of coupling : Ø40~Ø80 (MZ-K)

Bore range of coupling : Ø56~Ø285 (MG-K)

MG-K
MI-K
MR-K
Series



For high speed, precision, general purpose (Oil Lubrication)

Torque range : 32~18,000 kgf.m

Bore range : Ø19~ 250

MG-RK
Series



For backstopping application with high speed (Oil Lubrication)

This series consist of MG-K series and oil reservoir type

Torque range : 32~18,000 kgf.m

Bore range : 19~ 250

OTHER
Series

PNC-K Series

BSD-K Series

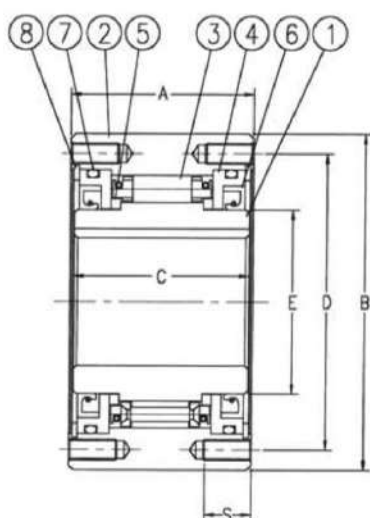
GFR-K Series



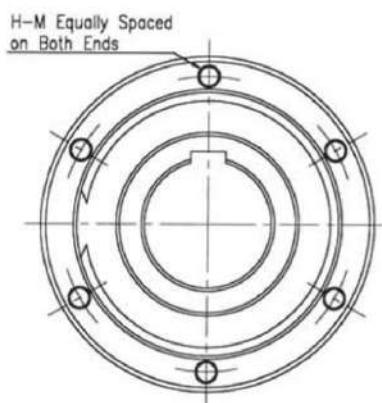
FOR BACKSTOP APPLICATION ONLY

BS-K Series

FOR BACKSTOP APPLICATION



- 1. Inner Race
- 2. Outer Race
- 3. Cam Cage Assembly
- 4. Seal Supporter
- 5. Oil Seal
- 6. O Ring
- 7. Snap Ring
- 8. Dust Protective Plate



Specication

Dimensions-mm

Model	Max Torque (kgf-m)	Stock Bore Size	Normal Overrunning Drag (kgf-m)	Max. Overrunning (rpm) Inner Race	A	B	C	D	E	S	H-M No. of Tapped Holes x Dia x Pitch	Grease Filler Hole	Q'ty of Grease (gf)	Weight (kgf)
BS 30K	30	20~30	0.06	200	64	90	64	80	45	10	4 x M6 x 1.0	-	-	2.1
BS 50K	80	30~50	0.1	200	67	125	67	110	70	12	4 x M8 x 1.25	-	-	4.0
BS 65K	160	40~65	0.4	150	90	160	85	140	90	20	6 x M10 x 1.5	-	-	11.5
BS 75K	250	50~75	0.6	150	90	170	85	150	100	20	6 x M10 x 1.5	-	-	13.5
BS 85K	600	60~85	0.8	150	115	210	110	185	115	30	6 x M12 x 1.75	-	-	24.7
BS 95K	800	70~95	1.0	150	115	230	110	200	130	30	6 x M14 x 2.0	-	-	29.4
BS 110K	1,100	80~110	1.5	150	115	270	110	220	150	30	6 x M16 x 2.0	-	-	34.2
BS 135K	1,600	90~135	2.0	100	135	320	130	280	180	30	8 x M16 x 2.0	-	-	68.0

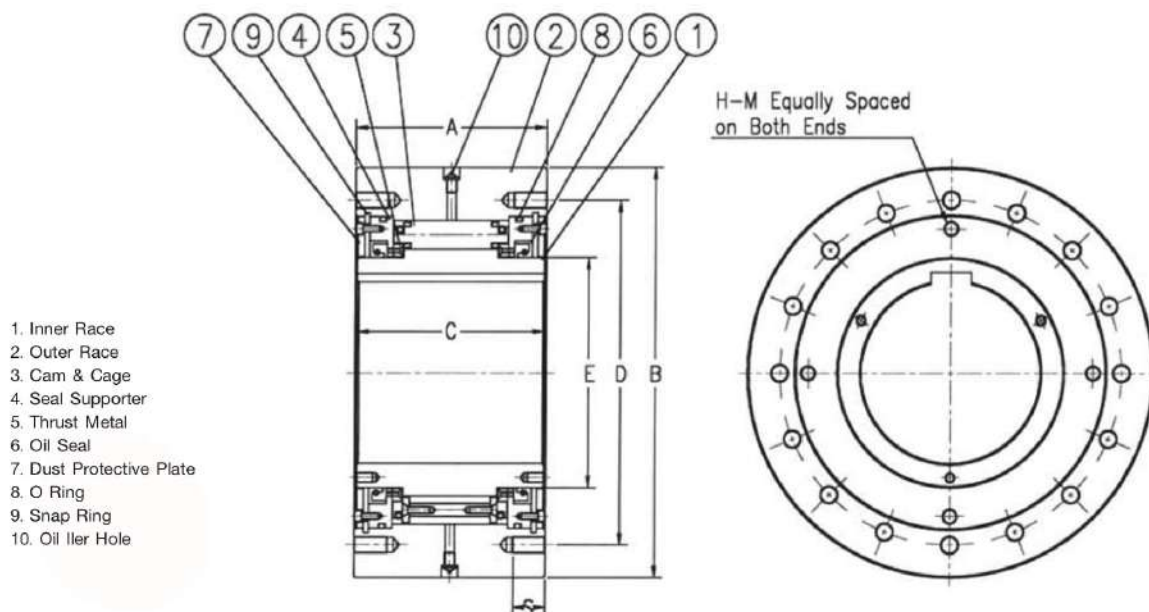
Character

1. For the only backstop application in slant conveyors and bucket elevators.
2. Pre-lubricated with grease and no lubrication maintenance required.

*Specify the Bore & key way dimension when ordering

BS-K Series

FOR BACKSTOP APPLICATION



Specication

Dimensions-mm

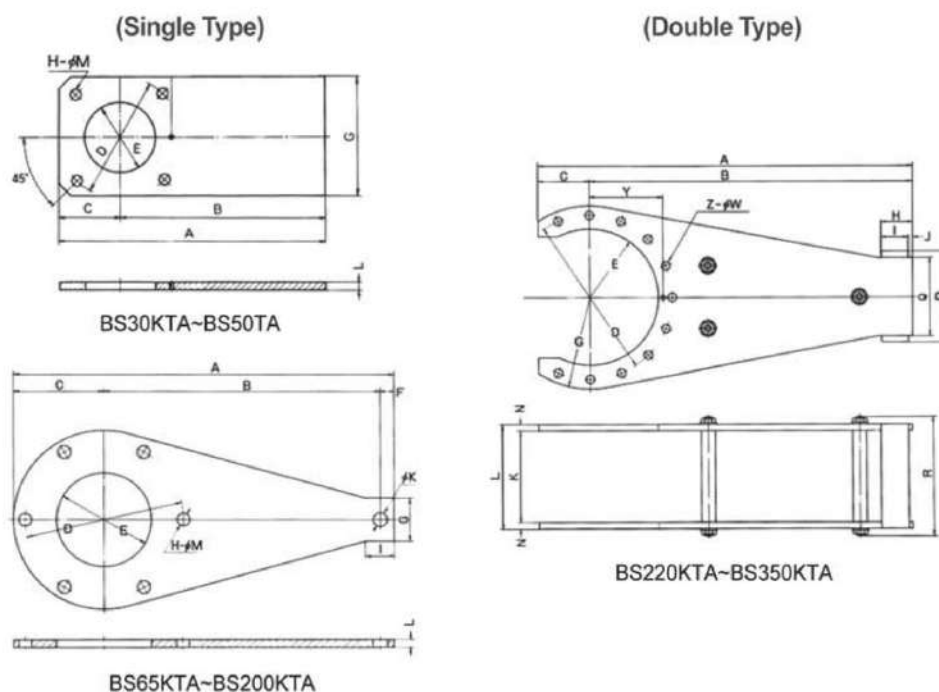
Model	Max Torque (kgf-m)	Stock Bore Size	Nominal Overrun-ning Drag (kgf-m)	Max. Overrun-ning (rpm) Inner Race	A	B	C	D	E	S	H-M No.of Tapped Hoies x Dia x Pitch	Grease Filler Hole	Q'ty of Grease (gf)	Weight (kgf)
BS 160K	2,500	100~160	3.5	100	135	360	130	315	210	40	10 x M20 x 2.5	PT $\frac{1}{4}$	300	85.6
BS 200K	3,800	110~200	4.5	100	150	430	145	380	260	40	8 x M22 x 2.5	PT $\frac{1}{4}$	380	140.0
BS 220K	5,000	150~220	7.5	80	235	500	230	420	280	40	16 x M20 x 2.5	PT $\frac{1}{4}$	1,100	263.5
BS 250K	9,000	180~250	9.5	50	295	600	290	530	340	50	16 x M24 x 3.0	PT $\frac{1}{4}$	3,200	580.0
BS 270K	12,500	200~270	9.5	50	295	650	290	575	370	50	16 x M24 x 3.0	PT $\frac{1}{4}$	3,600	620
BS 300K	18,000	230~300	11.0	50	295	780	290	690	470	60	16 x M30 x 3.5	PT $\frac{1}{4}$	4,500	850
BS 350K	32,000	250~350	16.0	50	320	930	360	815	535	70	16 x M36 x 4.0	PT $\frac{1}{4}$	5,200	1,605

Character

Grease lubrication and lubrication maintenance is necessary.

TORQUE ARM (OPTION)

Torque Arm is at your option (For BS-K, BS-RK series)



Dimension (Single Type)

Dimensions-mm

Torque Arm No.	A	B	C	D	E	F	G	I	K ϕ	L	H-M ϕ	Approx. Weight (kg)
BS 30KTA	168	130	38	80	55	-	75	-	-	6	4-6.6	0.5
BS 50KTA	230	180	50	110	80	-	100	-	-	6	4-9	0.8
BS 65KTA	306	210	80	140	90	16	50	30	13.5	6	6-11	1.7
BS 75KTA	354	250	85	150	100	19	65	35	16.5	6	6-11	2.3
BS 85KTA	434	300	105	185	115	29	95	45	20.5	9	6-14	5.0
BS 95KTA	497	350	115	200	130	32	105	55	20.5	9	6-16	6.2
BS 110KTA	560	385	135	220	140	40	110	60	26	12	6-18	10.5
BS 135KTA	666	470	160	280	180	36	120	65	26	12	8-18	14.8
BS 160KTA	792	580	180	315	260	32	120	65	31	19	10-22	27.4
BS 200KTA	838	580	215	380	310	43	130	70	41	19	8-24	34.2

Dimension (Single Type)

Dimensions-mm

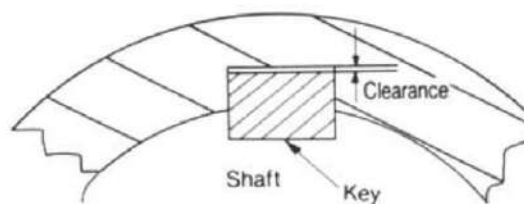
Torque Arm No.	A	B	C	D	E	G	H	I	J	K	L	N	P	Q	R	Z-W ϕ	Approx. Weight (kg)
BS 220KTA	950	820	130	420	176	235	80	70	10	235	259	12	238	200	311	11-22	58
BS 250KTA	1170	1000	170	530	214	300	100	90	10	295	319	12	288	250	375	11-26	95
BS 270KTA	1270	1100	170	575	235	325	110	100	10	295	319	12	298	260	375	11-26	110
BS 300KTA	1480	1300	180	690	285	390	135	120	15	295	333	19	356	300	395	11-32	200
BS 350KTA	1850	1600	250	815	328	465	135	120	15	320	385	19	414	350	430	11-39	330

INSTALLATION

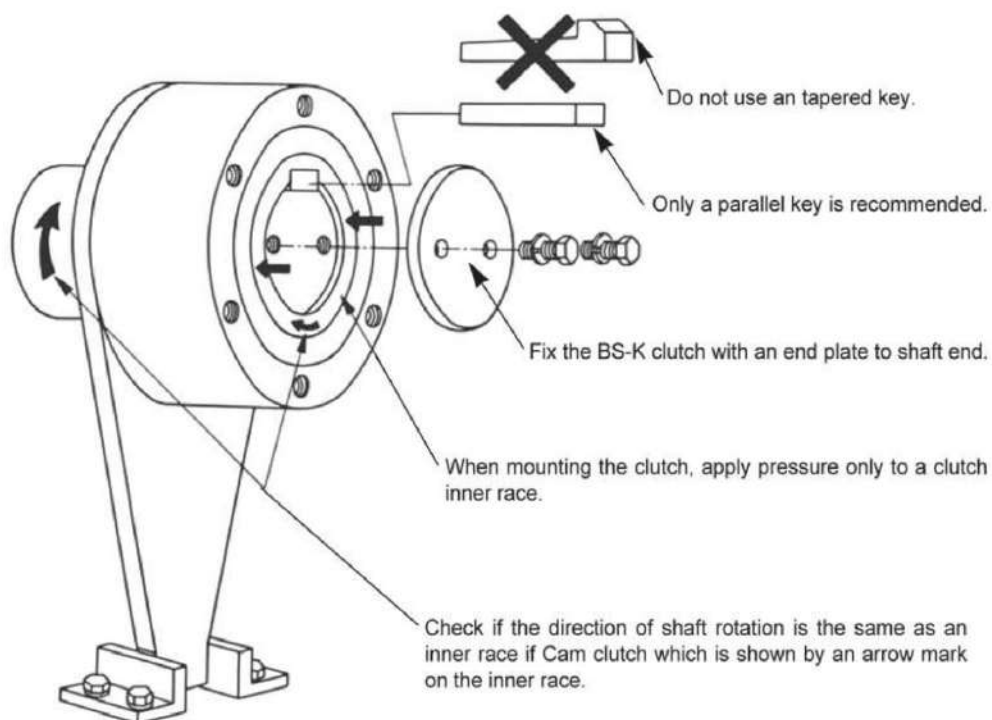
Installation of BS-K series

Installation procedure

1. Before installation, check if the direction of shaft rotation is the same as an inner race of cam clutch which is shown by an arrow mark on the inner race.
2. Recommended fit of bore to shaft is H8 (clutch bore) to h8 (shaft) or H7 to h7.
Interference fit and shrinkage fit are prohibited for clutch fitting.
3. When mounting the cam clutch, apply pressure only to a clutch inner race with soft hammer (Do not hit a clutch outer race, a seal supporter nor a dust protective cover.)
4. Only a parallel key is recommendable for clutch fitting.
Do not use an inclined key. And there shall be clearance between clutch keyway and key ceiling. (refer the side drawing)
5. Fix clutch with an end plate to shaft end. (refer the below drawing)



Loose on top key
Tight fit on both sides of key



INSTALLATION

Installation of torque arm (BS-K series)

Installation procedure of torque arm

1. Before mounting a torque arm onto a clutch outer race, clean off contact-area of a torque arm and a clutch outer race.
2. High tension bolts (over 11T in Jis standard) are recommended for torque arm xing , and screw all bolts tightly
3. The end of torque arm shall be restrained to prevent rotation either by a pin or a set of angle iron.(refer the below drawing)
 - For xing by a pin , pin diameter should be smaller by 1-2 mm than that of pin holl the torque arm end.

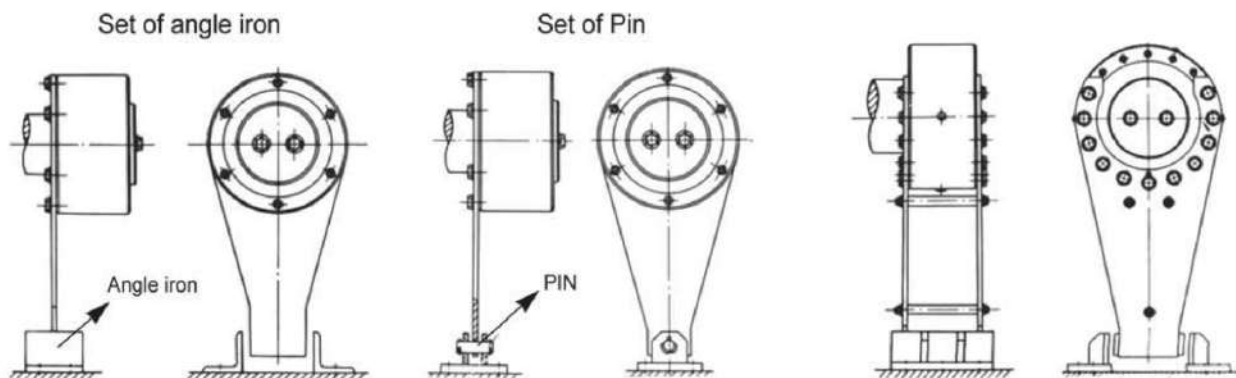
Note : The torque arm should be free axially in order to prevent the clutch from any load induced by misalignment and distortion
 - The end of torque arm shall not be welded

*BS 30K-BS 200K & BS 160RK-BS 200RK : Use a single torque arm

*BS 220K-BS 350K & BS 220RK-BS 350RK : Use a double torque arm

BS 30K-BS 200K

BS 220K-BS 350K



Note : Torque Arm end must be axially free.

LUBRICATION & MAINTENANCE

BS30K-BS135K

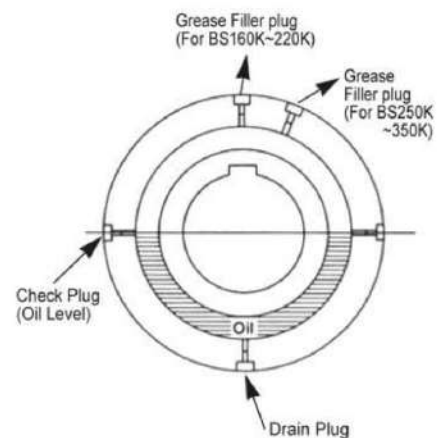
PRE-LUBRICATED WITH GREASE TYPE

No lubrication maintenance is required. (Special grease for very low temperatures must be used in surroundings below - 10C.)

BS 160RK-BS 350K

GREASE LUBRICATED TYPE

1. Use four plugs on the clutch outer race for grease II, level check and drain. (locate one of the plugs at the top as grease filler then, the other plugs are for grease level checking and grease draining)
2. Detach plugs for grease level check. and pour grease through grease filler hole (top) until grease flows out from level check hole (middle). then attach the plugs and screw tightly.
3. Grease shall be added at 3 months intervals after initial grease II and change whole grease at six months intervals. (after draining old grease, clean inside of the clutch and II the clutch with new grease.



BS 160RK-BS 350RK

OIL-LUBRICATED OIL RESERVOIR TYPE

1. Detach the oil plug installed on the oil reservoir and pour oil into the oil reservoir up to the blue line of the oil level gage.
 - oil level : Blue line on the oil gage show level for oil II,
 - Red line shows the lowest level of oil during operation
2. Periodical check is necessary to maintain proper oil level, that is, oil is above the red line of the oil gage. Whole oil shall be changed once a year to receive the ne long life service of the cam clutch.

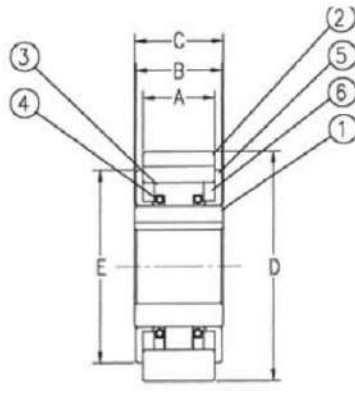
*Recommended Grease & Oil



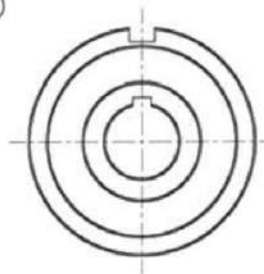
BACKSTOPPING / OVERRUNNING / INDEXING (FOR LIGHT LOAD)

LD-K Series

FOR LIGHT DUTY AT LOW SPEED



1. Inner Race
2. Outer Race
3. Cam and Roller
4. Spring
5. Side Plate
6. Thrust Plate



Specication

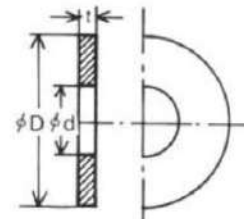
Dimensions-mm

Model	Max Torque (kgf-m)	Nominal Overrunning Drag (kgf-m)	Max. Overrunning (rpm) Inner Race	Max. Indexing (cycle/min)	(kgf)	Stock Bore Size		A	B	C	D		E	Outer Race Keyway	Weight (kgf)
						Dia (H7)	Key way								
LD 04K	0.6	0.02	300	100	20	10	4 x 1.5	19.5	23.9	24	47	^{-0.014} _{-0.039}	40	5 x 3	0.24
LD 05K	1.0	0.03	300	100	30	14	5 x 2	19.5	23.9	24	52	^{-0.017} _{-0.042}	45	5 x 3	0.28
LD 06K	2.0	0.03	200	100	50	20	5 x 2	19.5	23.9	24	62	^{-0.017} _{-0.042}	52	7 x 4	0.40
LD 07K	3.0	0.04	200	100	70	25	7 x 3	19.5	23.9	24	72	^{-0.017} _{-0.042}	62	7 x 4	0.53
LD 08K	5.0	0.05	200	100	80	30	7 x 3	19.5	23.9	24	80	^{-0.017} _{-0.042}	70	10 x 4.5	0.64

Character

1. Be sure to attach the plate, this prevents the outer race from slipping away from the innerrace.
2. Never apply thrust loads to the clutch.
3. The bores of the pulley, sprocket, etc., should have a tolerance of H6 or H7.

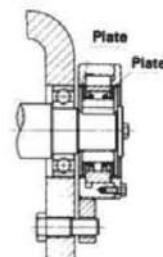
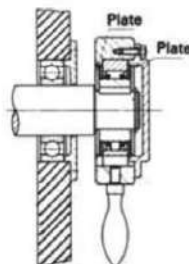
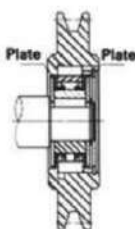
Plate Dimensions



Dimensions-mm

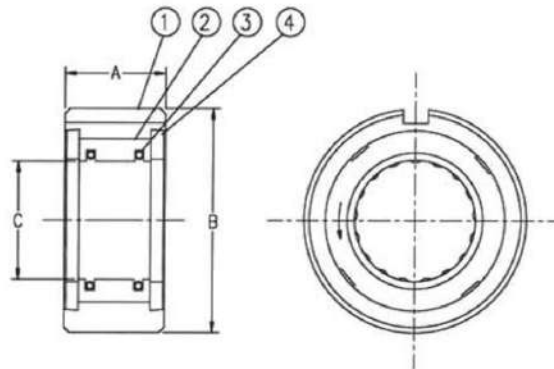
Model	t	d ϕ	d ϕ
LD 04K	2	10	40
LD 05K	2	14	45
LD 06K	3	20	52
LD 07K	3	25	62
LD 08K	3	30	70

Application



B200K Series

SHAFT MOUNTED TYPE



1. Inner Race
2. Cam
3. Spring
4. Side Plate

Specication

Dimensions-mm

Model	Max Torque (kgf-m)	Nominal Overrunning Drag (kgf-m)	Overrunning (rpm)		Max. Indexing (cycle/min)	Dimension			Keyway	Bearing Number	Weight (kgs)
			Max.	Min.		A	B	C			
B203K	4	0.01	2,400	500	150	25.0	40 ^{-0.014 -0.039}	16.510	4 x 2.5	6203	0.16
B204K	6	0.01	2,400	500	150	25.0	47 ^{-0.014 -0.039}	18.796	5 x 3	6204	0.25
B205K	10	0.02	1,800	400	150	25.0	52 ^{-0.014 -0.039}	23.622	5 x 3	6205	0.29
B206K	24	0.02	1,800	350	150	28.0	62 ^{-0.014 -0.039}	32.766	7 x 4	6206	0.42
B207K	38	0.02	1,800	300	150	28.0	72 ^{-0.014 -0.039}	42.088	7 x 4	6207	0.50
B208K	56	0.02	1,800	200	150	32.0	80 ^{-0.014 -0.039}	46.761	10 x 4.5	6208	0.73
B209K	56	0.02	1,800	200	150	32.0	85 ^{-0.020 -0.045}	46.761	10 x 4.5	6209	0.89
B210K	80	0.03	1,200	200	150	32.0	90 ^{-0.020 -0.045}	56.109	10 x 4.5	6210	0.87
B211K	80	0.03	1,200	200	150	32.0	100 ^{-0.020 -0.050}	56.109	10 x 4.5	6211	1.24
B212K	125	0.03	1,200	180	150	42.0	110 ^{-0.020 -0.050}	70.029	10 x 4.5	6212	1.56
B213K	125	0.03	1,200	180	150	42.0	120 ^{-0.020 -0.050}	70.029	10 x 4.5	6213	2.07
B214K	142	0.04	1,000	180	150	42.0	125 ^{-0.024 -0.060}	79.356	12 x 4.5	6214	2.05

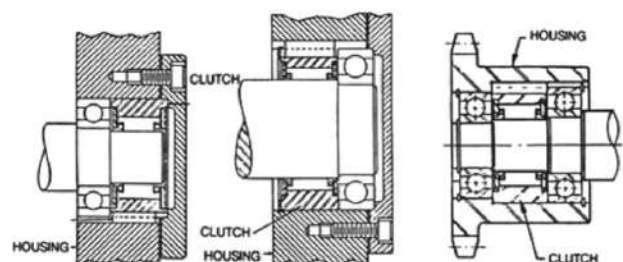
Character

1. 200K Series are shaft mounted directly.
 2. Clutch have the same O.D as the ball bearing.
- For installation of clutch, shaft must be supported by bearings. (refer the side drawing)

Tolerance of housing bore

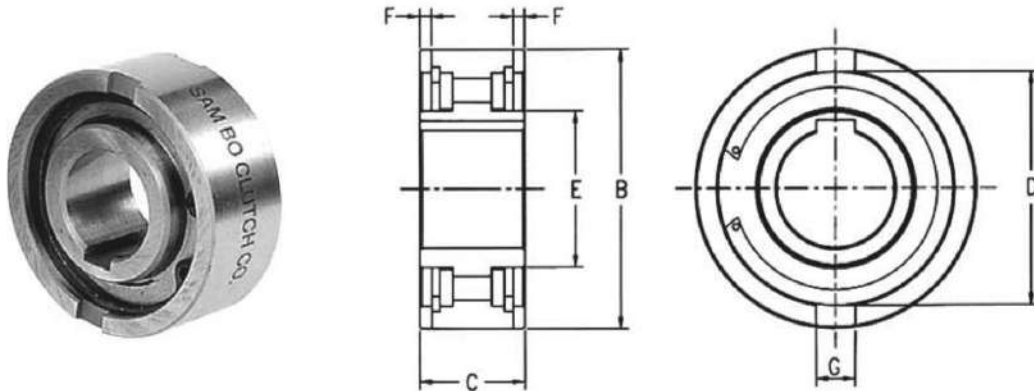
Model	Tolerance of housing bore
B203K, B204K	0 to + 0.025
B205K, B206K, B207K, B208K	0 to + 0.030
B210K, B211K, B212K, B213K	0 to + 0.035
B214K	0 to + 0.040

Application



NFS-KSeries

FOR INNER RACE HIGH SPEED, GENERAL PURPOSE



Specication

Dimensions-mm

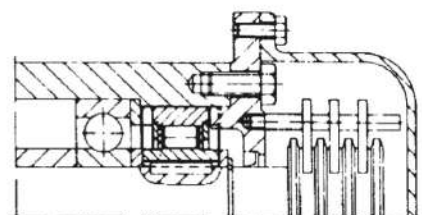
Model	Torque Capacity kgf*m	Max. Overrunning (rpm)		Stock Bore Size		B (n6)	C	D	E	F	G	Weight (kgs)
		Inner Race	Outer Race	Dia (H7)	Key Way							
NFS-15K	2.9	3,500	1,800	15	5 x 1.2	42	18	36	22	1.8	5	0.13
NFS-17K	5.1	3,200	1,600	17	5 x 1.2	47	19	37	23	2.3	5	0.18
NFS-20K	8.6	2,500	1,300	20	6 x 1.6	52	21	45	29	2.3	6	0.22
NFS-25K	13.1	2,000	1,000	25	8 x 2.0	62	24	52	35	2.8	8	0.37
NFS-30K	20.4	1,600	800	30	8 x 2.0	72	27	60	40	2.5	10	0.55
NFS-35K	48.5	1,400	700	35	10 x 2.4	80	31	70	48	3.5	12	0.73
NFS-40K	62.0	1,300	650	40	12 x 2.2	90	33	78	55	4.1	12	1.02
NFS-45K	77.1	1,100	550	45	14 x 2.1	100	36	85	59	4.6	14	1.36
NFS-50K	114.7	1,000	500	50	14 x 2.1	110	40	92	65	5.6	14	1.82
NFS-60K	201.5	840	420	60	18 x 2.3	130	46	110	80	5.5	18	2.96
NFS-70K	256.5	750	380	70	20 x 2.7	150	51	125	90	6.9	20	4.26
NFS-80K	402.3	670	340	80	22 x 3.1	170	58	140	105	7.5	20	6.25

Character

1. NFS-K Series is Cam type clutch
2. Clutches have same diameters as metric medium series ball bearing.
3. Clutches require bearing support to assure concentricity between inner and outer race.
4. Clutches must be lubricated before putting in service.

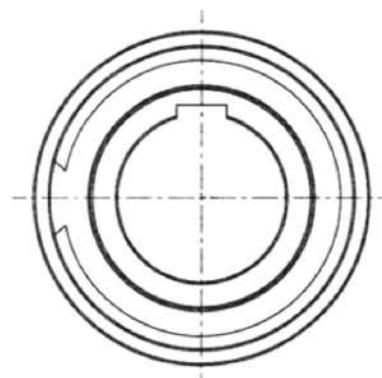
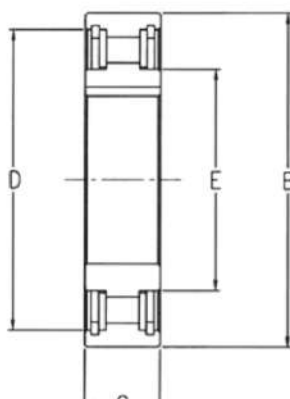
*The key way is in accordance with DIN 6885 sheet 3.

Application



NSS-KSeries

FOR INNER RACE HIGH SPEED, GENERAL PURPOSE



Specication

Dimensions-mm

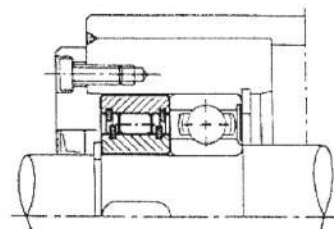
Model	Torque Capacity kgf·m	Max. Overrunning (rpm)		Stock Bore Size		B (n6)	C	D	E	Weight (kgf)
		Inner Race	Outer Race	Dia (H7)	Key Way					
NSS-20K	4.2	2,600	1,300	20	6 x 1.6	47	14	40	26	0.12
NSS-25K	5.7	2,200	1,100	25	8 x 2.0	52	15	45	32	0.15
NSS-30K	10.7	1,800	900	30	8 x 2.0	62	16	55	42	0.23
NSS-35K	13.9	1,600	800	35	10 x 2.4	72	17	62	48	0.33
NSS-40K	30.2	1,400	700	40	12 x 2.2	80	18	72	53	0.40
NSS-45K	35.4	1,300	650	45	14 x 2.1	85	19	75	57	0.47
NSS-50K	41.1	1,200	600	50	14 x 2.1	90	20	80	62	0.53
NSS-60K	66.2	910	460	60	18 x 2.3	110	22	100	78	0.91

Character

1. NSS-K Series is Cam type clutch
2. Clutches have same diameters as metric medium series ball bearing.
3. Clutches require bearing support to assure concentricity between inner and outer race.
4. Clutches must be lubricated before putting in service.
5. Excellent for applications where space is restricted.

*The key way is in accordance with DIN 6885 sheet 3.

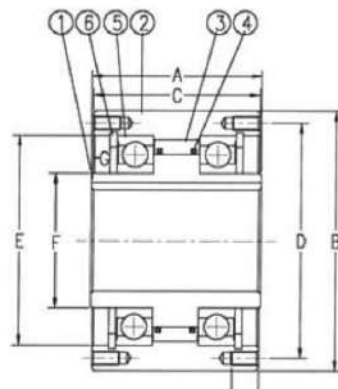
Application



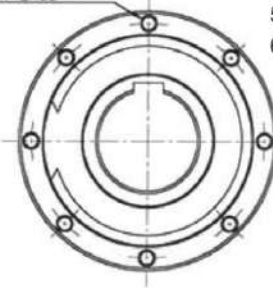
BACKSTOPPING / OVERRUNNING / INDEXING (FOR HEAVY LOAD)

MZ-K Series

FOR GENERAL PURPOSES



H-M Equally Spaced
on Both Ends



1. Inner Race
2. Outer Race
3. Cam
4. Spring
5. Shield Bearing
6. Snap Ring

Specication

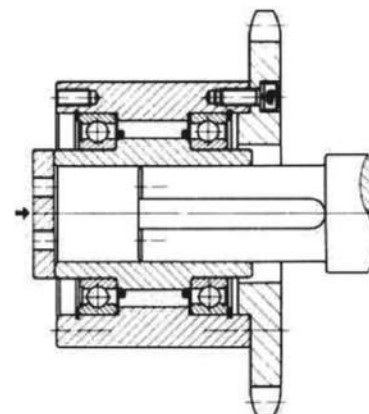
Dimensions-mm

Model	Max. Torque (kgf-m)	Nominal Overrun- ning Drag (kgf-m)	Max. Overrunning (rpm)		Max. Indexing (cycle/ min)	Stock Bore Size		A	B (n6)	C	D	E (M6)	F	G	H-M No. of Tapped Holes x Dia x Pitch	S	Weight (kgf)
			Inner Race	Outer Race		Dia (H7)	Key Way										
MZ-20K	33	0.03	1,600	700	150	20	6 x 2.8	67	80	65	68	55	30	7.6	6 x M6 x 1.0	13	2.0
MZ-30K	75	0.04	1,500	500	150	30	10 x 3.3	82	100	80	88	75	45	8.9	6 x M8 x 1.25	16	3.6
MZ-45K	165	0.07	1,400	300	150	45	14 x 3.8	92	125	90	110	95	60	8.4	8 x M8 x 1.25	16	6.0
MZ-60K	215	0.10	1,200	250	150	60	18 x 4.4	102	155	100	140	125	80	9.1	8 x M8 x 1.25	16	9.9
MZ-70K	310	0.13	1,100	250	150	70	20 x 4.9	105	175	103	162	145	95	8.6	8 x M8 x 1.25	20	12.9

Character

1. MZ-K Series are shielded by bearings on both ends, packed with a grease.
2. High tension bolts are recommended for pulleys, gears or sprockets xing to the outer race of cam clutch. (refer the drawing)
3. Fix Clutch by an end plate to shaft end. (refer the side drawing)
4. Ambient temperature range is-5 C to+40 C

Application

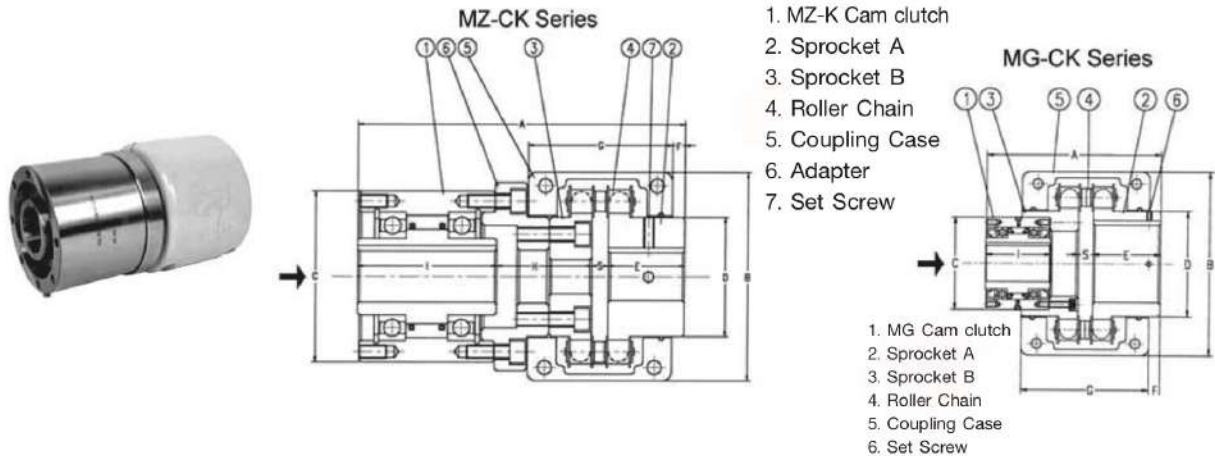


Shaft Tolerance

Model	Shaft Tolerance
MZ-20K	0 to - 0.021
MZ-30K	0 to - 0.021
MZ-45K	0 to - 0.025
MZ-60K	0 to - 0.030
MZ-70K	0 to - 0.030

MZ-CK, MG-CK Series

CAM CLUTCH WITH COUPLING



Specication / MZ-CK Series

Dimensions-mm

Model	Max. Torque (kgf-m)	Nominal Overrunning Drag (kgf-m)	Max. Overrunning (rpm)		Clutch Side Stock Bore Size		Coupling Side Stock Bore Size		A	B	C (h7)	D	E	F	G	H	I	S	Weight (kgf)
			Inner Race	Outer Race	Dia (J7)	Key Way	Min.	Max.											
MZ 20CK	33	0.03	1,600	700	20	6 x 2.8	15	40	174	111	80	60	45	7.35	85	52.3	67	9.7	6.1
MZ 30CK	75	0.04	1,500	500	30	10 x 3.3	15	45	194	122	100	70	45	7.35	85	57.3	82	9.7	9.4
MZ 45CK	165	0.07	1,400	300	45	14 x 3.8	20	56	226	142	125	85	56	8.7	106	66.5	92	11.5	15.8
MZ 60CK	215	0.10	1,200	250	60	18 x 4.4	20	75	236	167	155	110	56	8.7	106	66.5	102	11.5	24.5
MZ 70CK	310	0.13	1,100	250	70	20 x 4.9	25	80	260	186	175	115	63	5.6	130	76.8	105	15.2	32.6

Specication / MG-CK Series

Dimensions-mm

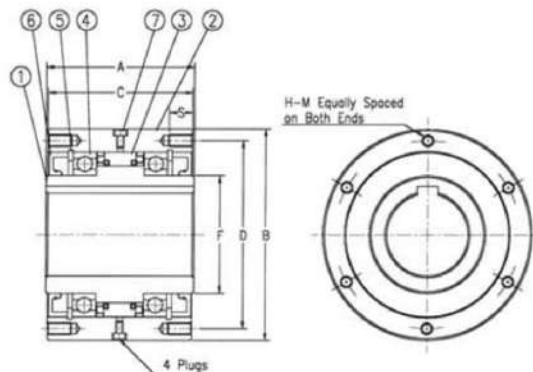
Model	Max. Torque (kgf-m)	Nominal Overrunning Drag (kgf-m)	Max. Overrunning (rpm)		Clutch Side Stock Bore Size		Coupling Side Stock Bore Size		A	B	C (h7)	D	E	F	G	S	I	Weight (kgf)
			Inner Race	Outer Race	Dia (H7)	Key Way	Min.	Max.										
MZ 300CK	32	0.023	2,800	900	19	5 x 2	20	56	155	142	77	85	56	8.7	106	11.5	63	8.5
MZ 400CK	55	0.029	2,600	800	22	5 x 2	20	75	160	167	88	110	56	8.7	106	11.5	70	13.5
MZ 500CK	165	0.052	2,400	800	31.5	7 x 3	30	100	195	220	108	140	71	13.55	130	15.2	89	28
MZ 600CK	320	0.086	2,100	700	50	12 x 3.5	45	125	250	307	136	170	90	24.8	181	22.7	95	52
MZ 700CK	600	0.173	1,500	500	70	18 x 6	55	150	275	357	180	210	100	24.8	181	22.7	127	80
MZ 750CK	970	0.35	1,400	500	85	24 x 6	60	160	340	406	200	224	112	2.1	250	30.1	153	147
MZ 800CK	1,800	0.55	1,300	475	110	28 x 7	75	200	370	472	250	280	140	30	250	30.1	158	182
MZ 900CK	2,500	0.69	1,200	400	135	35 x 9	98	260	496	578	300	374	241	121.7	280	37.5	165	420
MZ 1000CK	3,450	0.83	1,200	325	160	38 x 10	108	285	510	-	370	408	241	-	-	37.5	188	470

Character of MZ-CK, MG-CK Series

1. MZ-CK Series & MG-CK Series are clutch coupling utilizing MZ-K, MG-K Series clutches.
2. Specify right hand (R.H) or left hand (L.H) inner race viewed from direction of arrow mark when ordering (Refer the above drawing)
3. Accurately align both sprockets

MG-K, MI-K, MR-K Series

FOR HIGH SPEED, GENERAL PURPOSE



1. Inner Race
2. Outer Race
3. Cam Cage Assembly
4. Bearing
5. Snap Ring
6. Oil Seal
7. Lubrication Filler Plug

Specication

Dimensions-mm

Model	Max. Torque (kgf-m)	Nominal Overrunning Drag (kgf-m)	Max. Overrunning (rpm)		Max. Indexing (cycle/min)	Stock Bore Size		A	B (h7)	C	D	F	S	H-M No. of Tapped Holes x Dia x Pitch	Lubrication Filler Plug Dia. x Pitch	Oil (CC)	Weight (kgf)
			Inner Race	Outer Race		Dia (H7)	Key Way										
MG 300K MI 300K	32	0.023 0.031	2,800 50	900 -	300 -	19	5 x 2	63	77	60	66	30	13	4 x M6 x 1.0	M6 x 1.0	25 50	1.7
MG 400K MI 400K	55	0.029 0.038	2,600 50	800 -	300 -	22	5 x 2	70	88	67	73	35	16	4 x M8 x 1.25	M6 x 1.0	30 60	2.4
MG 500K MI 500K	165	0.052 0.069	2,400 50	800 -	300 -	31.5	7 x 3	89	108	86	92	50	16	4 x M8 x 1.25	M6 x 1.0	50 100	4.5
MG 600K MI 600K	320	0.086 0.158	2,100 30	700 -	300 -	50	12 x 3.5	95	136	92	120	75	16	6 x M8 x 1.25	M6 x 1.0	80 160	7.5
MG 700K MI 700K	600	0.173 0.268	1,500 30	500 -	300 -	70	18 x 6	127	180	124	160	100	20	6 x M10 x 1.5	M6 x 1.0	135 260	17.5
MG 750K MI 750K MR 750K	970	0.35 0.42 -	1,400 30 575	500 - 2,600	- 300 -	85	24 x 6	153	200	150	175	110	25	8 x M14 x 2.0	M8 x 1.25	400 800 400	35.7
MG 800K MI 800K MR 800K	1,800	0.55 0.85 -	1,300 20 475	475 - 2,100	- 300 -	110	28 x 7	158	250	155	220	140	25	8 x M16 x 2.0	M8 x 1.25	500 1000 500	40.0
MG 900K MI 900K MR 900K	2,500	0.69 0.96 -	1,200 20 475	400 - 1,850	- 300 -	135	35 x 9	165	300	160	265	170	32	10 x M16 x 2.0	M8 x 1.25	620 1,240 620	70.5
MG 1000K MI 1000K MR 1000K	3,450	0.83 1.30 -	1,200 20 325	325 - 1,600	- 300 -	160	38 x 10	188	370	180	325	200	32	12 x M16 x 2.0	M8 x 1.25	850 1,700 850	108.5

Character

This series are precision clutches comprised ball bearing. (oil lubrication)

- MG-K Series : For high speed of inner race with overrunning applications.
- MI-K Series : For indexing applications.
- MR-K Series : For high speed of outer race with overrunning applications.

Shaft Tolerance

Model	Shaft Tolerance	Model	Shaft Tolerance
MG, MI-300K & 400K	+0 to - 0.021	MG, MI-500K & 600K	+0 to - 0.025
MG, MI-700K	+0 to - 0.030	MG, MI, MR-750K & 800K	+0 to - 0.035
MG, MI, MR-900K & 1000K	+0 to - 0.040		

LUBRICATION & MAINTENANCE

Maintenance of each Series

Model		Lubrication	Maintenance
MZ-K, LD-K		Pre-lubricated with grease	No lubrication maintenance required
B200K, PB-K, NFS-K		Grease Lubrication	Change the grease every six months
MG, MI, MR, PNC, PHC, GFR, BSD-K		Oil Lubrication	Add oil every 100 hours, change every 3 months
MG-RK		Oil Lubrication	Add oil every 300 hrs, change every 3 months
BS-K	30~135	Pre-lubricated with grease	No lubrication maintenance required
	160~350	Grease Lubrication	Change grease two times a year
BS-RK	160R~350R	Oil Lubrication	Change oil once a year

*Ref. : Clean inside of clutch when change oil grease.

Recommended Oil

Maker	Overrunning application		Indexing application
	In low speed or temperature -10 C to 30 C applications	In high speed or temperature 30 C to 50 C applications	
Shell Oil	Dexron II Rimulla CT Oil 10W Shell Clavus Oil 17 Rotella S Oil 10W	Rimulla CT Oil 20W/20,30 Rotella S Oil 20W/20,30	Shell Clavus Oil 15
Mobil Oil	ATF 220 Delvas 1310 DTE Oil Light	Delvac 1330	Gargoyle Arctic Light

Recommended Grease

Maker	BS-K Series	B200, PB, LD, NFS, MZ-K Series
Shell Oil	Alvania Grease No.1	Alvania Grease No.2
Mobil Oil	Mobilux Grease No.1	Mobilux Grease No.2