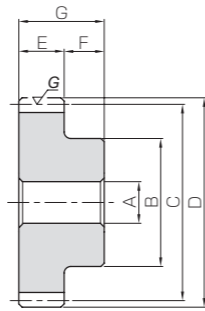


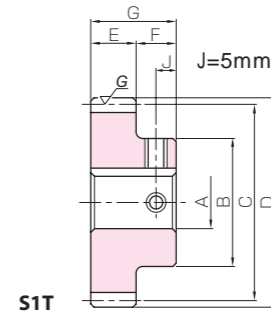
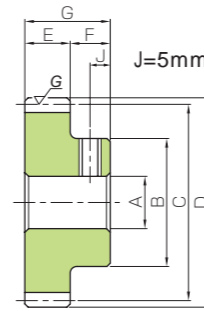


Specifications	
Precision grade	JIS grade N7 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat Treatment	Gear teeth induction hardened
Tooth hardness	50 to 60HRC
Surface treatment	Black oxide coated except for teeth

\* The precision grade of J Series products is equivalent to the value shown in the table.



S1



S1T

S1K



To order J Series products, please specify: **Catalog No. + J + BORE.**

Catalog Number	No. of teeth	Shape	Bore		Hub dia.			Pitch dia.		Outside dia.		Face width		Hub width		Total Length	Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)
			A <sub>H7</sub>	B	C	D	E	F	G	Bending strength	Surface durability	Bending strength	Surface durability									
KSSG1-15	15	S1	6	12	15	17	8	10	18	2.96	1.03	0.30	0.11	0.08~0.16	0.016							
KSSG1-16	16			13	16	18				3.28	1.19	0.33	0.12									
KSSG1-17	17			14	17	19				3.60	1.36	0.37	0.14									
KSSG1-18	18			15	18	20				3.93	1.54	0.40	0.16									
KSSG1-19	19			16	19	21				4.26	1.73	0.43	0.18									
KSSG1-20	20			17	20	22				4.60	1.94	0.47	0.20									
KSSG1-21	21			18	21	23				4.94	2.14	0.50	0.22									
KSSG1-22	22			18	22	24				5.28	2.36	0.54	0.24									
KSSG1-23	23			20	23	25				5.63	2.59	0.57	0.26									
KSSG1-24	24		20	24	26	5.98	2.83	0.61	0.29													
KSSG1-25	25		8	10	20	25	27	6.33	3.07	0.65	0.31	0.08~0.16	0.048									
KSSG1-26	26				20	26	28	6.68	3.33	0.68	0.34											
KSSG1-27	27				20	27	29	7.04	3.60	0.72	0.37											
KSSG1-28	28				20	28	30	7.39	3.89	0.75	0.40											
KSSG1-29	29				25	29	31	7.75	4.18	0.79	0.43											
KSSG1-30	30				25	30	32	8.11	4.48	0.83	0.46											
KSSG1-32	32				25	32	34	7.37	4.27	0.75	0.43											
KSSG1-34	34				25	34	36	7.98	4.84	0.81	0.49											
KSSG1-35	35				25	35	37	8.28	5.14	0.84	0.52											
KSSG1-36	36	25	36	38	8.59	5.45	0.88	0.56														
KSSG1-38	38	10	12	30	38	40	9.21	6.10	0.94	0.62	0.10~0.18			0.12								
KSSG1-40	40			30	40	42	9.83	6.79	1.00	0.69												
KSSG1-42	42			30	42	44	10.5	7.51	1.07	0.77												
KSSG1-44	44			30	44	46	11.1	8.28	1.13	0.84												
KSSG1-45	45			30	45	47	11.4	8.67	1.16	0.88												
KSSG1-48	48			30	48	50	12.3	9.92	1.26	1.01												
KSSG1-50	50			35	50	52	13.0	10.8	1.32	1.10												
KSSG1-55	55			35	55	57	14.6	13.2	1.48	1.34												
KSSG1-56	56			35	56	58	14.9	13.7	1.52	1.40												
KSSG1-60	60	40	60	62	16.2	15.8	1.65	1.61														
KSSG1-64	64	15	18	40	64	66	17.4	18.1	1.78	1.84		0.12~0.20	0.28									
KSSG1-70	70			40	70	72	19.4	21.8	1.97	2.22												
KSSG1-75	75			40	75	77	21.0	25.2	2.14	2.57												
KSSG1-80	80			50	80	82	22.6	28.8	2.30	2.94												
KSSG1-90	90			50	90	92	25.8	36.9	2.64	3.77												
KSSG1-100	100			50	100	102	26.9	42.5	2.74	4.34												
KSSG1-120	120			50	120	122	32.9	62.5	3.36	6.37												

[Caution on Product Characteristics] The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 24 for more details.  
The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.

[Caution on Secondary Operations] Please read "Cautions on Performing Secondary Operations" (Page 26) when performing modifications and/or secondary operations for safety concerns.

Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm).

Catalog Number	Bore H7	* The product shapes of J Series items are identified by background color.														
		6	8	10	12	14	15	16	17	18	19	20	22	25	28	30
KSSG1-15 J BORE	S1T															
KSSG1-16 J BORE	S1T															
KSSG1-17 J BORE	S1T	S1T														
KSSG1-18 J BORE	S1T	S1T														
KSSG1-19 J BORE	S1T	S1T														
KSSG1-20 J BORE	S1T	S1T														
KSSG1-21 J BORE		S1T	S1K													
KSSG1-22 J BORE		S1T	S1K													
KSSG1-23 J BORE		S1T	S1K	S1K												
KSSG1-24 J BORE		S1T	S1K	S1K												
KSSG1-25 J BORE		S1T	S1K	S1K												
KSSG1-26 J BORE		S1T	S1K	S1K												
KSSG1-27 J BORE		S1T	S1K	S1K												
KSSG1-28 J BORE		S1T	S1K	S1K												
KSSG1-29 J BORE		S1T	S1K	S1K	S1K	S1K										
KSSG1-30 J BORE			S1K	S1K	S1K	S1K										
KSSG1-32 J BORE			S1K	S1K	S1K	S1K										
KSSG1-34 J BORE			S1K	S1K	S1K	S1K										
KSSG1-35 J BORE			S1K	S1K	S1K	S1K										
KSSG1-36 J BORE			S1K	S1K	S1K	S1K										
KSSG1-38 J BORE			S1K	S1K	S1K	S1K	S1K	S1K								
KSSG1-40 J BORE			S1K	S1K	S1K	S1K	S1K	S1K								
KSSG1-42 J BORE			S1K	S1K	S1K	S1K	S1K	S1K								
KSSG1-44 J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K							
KSSG1-45 J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K							
KSSG1-48 J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K							
KSSG1-50 J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K						
KSSG1-55 J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KSSG1-56 J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KSSG1-60 J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K				
KSSG1-64 J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K			
KSSG1-70 J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K			
KSSG1-75 J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K			
KSSG1-80 J BORE					S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KSSG1-90 J BORE					S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	
KSSG1-100 J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K
KSSG1-120 J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K

[Caution on J series] As available-on-request products, these require a lead-time for shipping within 2 working days (excludes the day ordered), after placing an order.  
Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.  
Keyways are made according to JIS B1301 standards, Js9 tolerance.  
Certain products which would otherwise have a very long tapped hole are counterbored to reduce the length of the tap.  
Areas of products which have been re-worked will not be black oxide coated.  
For products having a tapped hole, a set screw is included.  
When using S1T set screws for fastening gears to a shaft, only use this method for applications with light load usage. For secure fastening, please use dowel pins in combination.



Application Hints



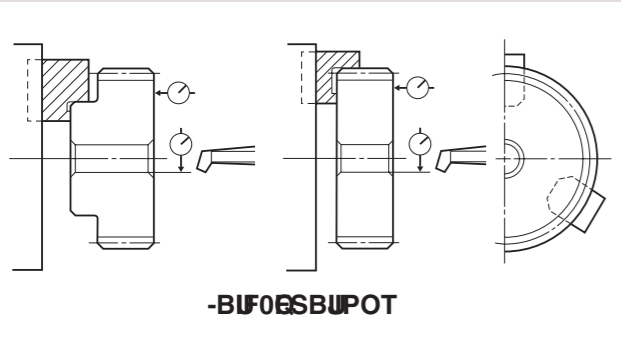
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 5& (a 9 BBJMRDTQSBDFBSTDPN

1. Cautions on Handling

), QPEVUBSFQDBHFEPOFCZ OFBQFWFOU  
 TDSBTTBOEEFOUCV GZVQOEJTTFTTV DIBTSVU  
 TDSBDIFPSEFOUWOLF QPEDUTSFNPWFEGSPN  
 UCPBEGESQDIBTFQFBTDFDPOBDFUFTQJFS  
 VQOEJOHPOLFIBOEMJOHNFLPELQPEDVNBZF  
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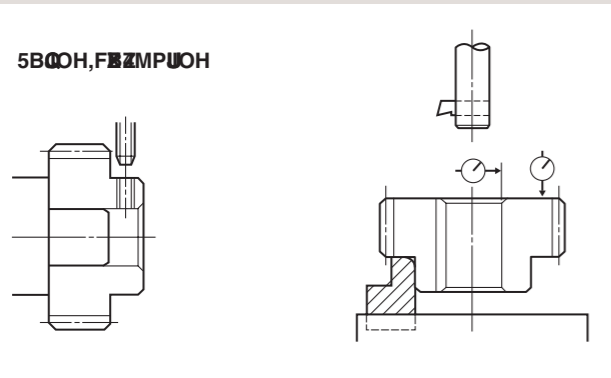
2. Cautions on Performing Secondary Operations

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 BUHUIB66UBB  
 51666 BUQBHBSDUHTUIB5IF  
 GBFEJEF GBMBUHUID U6\*GUTUE  
 pDUUBBTMMBFUIBMUBUWUP  
 TDBUBUIB5BUIFFSGBD  
 \*GSEHTSM MDSN UIFE  
 B SEKBTGBN SDRM BTE  
 DBUBUBUIBIZBMZHUP  
 SFTSZTBSHMMBTP6HBBUP



-BUFOGEBUPOT

9 BNF TDBUZUIB BN  
 UIBUIF TUSHUIBUIK TUHISUIBUIB  
 UIFBSUF EISIB AFIME  
 UPBUIFC BNBUBUISP BNB  
 BUQBZBMBUP  
 \*BUBW TUSFTSBUUBZ  
 BST



5BOH,FBZMPUOH

5P BWLQPCMFNT PG SFEVHFBS QFDJTTJPO BOE  
 PIFSNOBDBJQHEJGGJDMUFT EBNQ  
 NBDIJOFUHFHBSSTBSFEVFGBDFXEL  
 8IFO JOEDUPOIBSEFOJQHPEDUFS NBM  
 T8FTTDSBDINBZQBSMTP OPB UBFQFDJ  
 TJPOISBEFPGUPEVUEFDJMJOFTCZPS HSBEFT  
 BTEFGPSNBUPONBBSJBMNBZDDZGZFRVJSF  
 BMFSBODFGPSPFUSUNBDIJOJHJTOFDFT  
 TBSZGBSIFBFBNUFOU

Induction Hardening

GZBQZOEPUOIBSEFOJOHB UHFBSFIPG  
 4QPEDU2OFF EBEFTJHOBBUFI BSEFTT  
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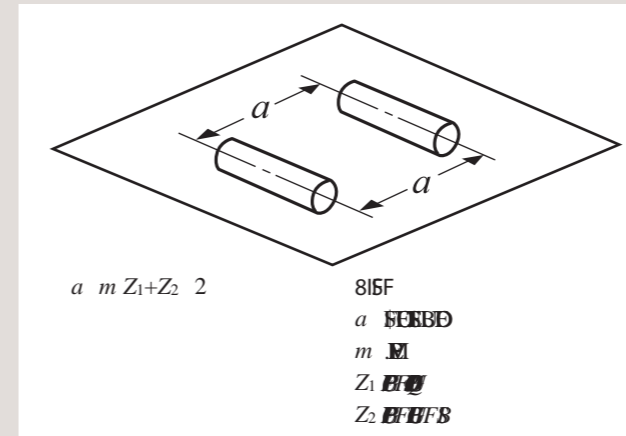
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 )3XEU  
 BNF B)3

),T4QJpDBUPOTGPS)FB5SFBNUFOU  
 )BSEFOFEMPDBUPUSUPUTVGBDFPS5PBT  
 GBDFBOE5PPI5PPU  
 )BSEFTTB)3

)BSEFTTBOEFG(FBSEFIDEDUPO)BSEFOJOH  
 5IFBSEFOJOHNFLPEBOEFTBEPGUFIBSE  
 FOFEBLBSFBWBSZFOEJOHPOLF TJ(FPG  
 HFBST  
 4JODFEJGGVSEFOJOH SFBNFOTBOJFE  
 JOBDBEODFXUFNPEV MFBEOCMCFSPG  
 BFUFIBSEFTTMFWFMZFTJHOBBJT SFGSSFE  
 BBTUFI BSEFTTPGUSFCFSEFJBNFBSPS  
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 SPPNBOPOFFRMBUUFIBSEFTT2ZFTJH  
 OBBE  
 TBUFFDUWFDBTFEFGPS4JUTTED  
 JGJREZ4BT5IFEJTU BODFGSPNIFTSGBPG  
 LDBTFBUFB SFBXUBSEFTT)75IF  
 DBTFEJFSTGSPNBSFBBSFBPGBPU

3. Points of Caution during Assembly

JTUSHBSTB SFFHUPW UISEB  
 BDBTI IBTTMFHUIB5TUBEW  
 UIGBM BMB5TU BDM66  
 YBUIBDBTIBB5MBT66  
 UDBBDF  
 BDBTIBZBKT UZDBHUIF B5T  
 UBON BUHHBSTB BBUIMBT B  
 TMUUIED BMTBBS BDBTIBHF  
 BTBSUBBMS66



5IRBMPBUUF UIF UM5BUIURJ BM  
 MFUIB)TUSHBST1MBT66UBITBUB  
 IFHHBSEBBISBT

5PBM-FOH5PMFSBODFGPS4BOE)FMJDBM(FBST

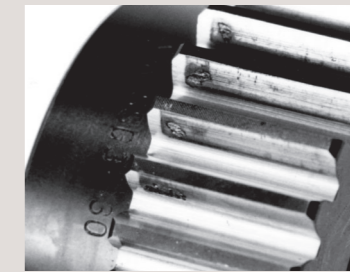
Total Length (mm)	Tolerance
PSMFTT	$\mu$
B	$\mu$
OWFS	$\mu$

[Note] 5IFGPMMPXOHQPEDUBSFDMEFE GSPN UETCMF4Q  
 QOJPTIBGWOKFDUPONMETQHFHSTMPDICTQ  
 HFBSTBOE.OZPOGPEV

4SHBSTSD RISTUGBD IBSF  
 UPGBTUIB5SMZ UITURIBGUT BMBSTUP  
 SBTIGUHUSUIFIBGU  
 ZBTBSH6BMMZTF GBTUHHBSTUBTIGU  
 BUIZTIBESZBMZHSMMPFGB

TETSB BMZHBUTURJ FIBGU BTB GBT  
 UFMZUITETSE  
 516BS BMTBIFBTF BFEUHTTH B.F  
 D-D104\* -0,8B4BS HIBSBSUT  
 GBFBHHUIBMBUIT  
 76GZUIBUUIBPIBGUTBSBSBMMM\*BSBTTMZ  
 MMBUBBIBBDDIMMBTF  
 BBSIBTTMZ BUHBUIMBZ5  
 BSMBSBUIBIBSUIBHH  
 UIBPIBBSBUBHUIB

5FUBMBTBS4EP  
 BFBDMZUISBBD



1BUBDBBUH

BSMBEUR\*4HBS  
 MBUBZP  
 SFD TFB  
 UBBU SNL HN  
 BUJIBMMBIF  
 E HTSUIB UM  
 UIBMMAIF TSGB6MUZ  
 UBR  
 5IFUUH SPUIF  
 BUBDBSBBGUS  
 ISTEPPUP

4. Cautions on Starting

IFDIFGPMMPXOHJU FNTCFGPSFTBSUOH  
 w SFUHFHSTJOTBMMFETDFZFMZ  
 TWSF0FWFOBPIDPOBDU  
 w TUFSEBFRB5CBDMBTI  
 FT5FBWPJE(FSPCBDMBTI  
 w )BSPBSMSJDBUPOCFFOTQJFE  
 GHFBSTBSF0TFCFT5FBBDIB TBGFDPWFSB  
 FOT5FTBGFTPCFDBSFGMOPBBDISPBUOHHFBST  
 (FBSTBOCFMCSJHBUHFHSBTF M5JDBUPONFU  
 PETBTIM5JDBUPONFUPJMCBUIFPEPSGSPDFE  
 W5JDBUPONFUPEDJSDMBUPOM5JDBUPONFUP  
 PSJOUJMBPESBUPOLF M5JDBONBZFB5 JPSBNNBSL  
 FEMZPDIFDPOEJUPOPGFM5JDBOGBESTBSUOH  
 PSNP SFBDIOJDBMJOGRAQFBTFTFFIF TFDUPO(FBS  
 -5JDBUPO1BHFP5BDDIOJDBMSFGFSFODFCPPL  
 GUF SFJTBOZCOPSNBUBT OPJTFFPSWCSBUPO  
 E5JOHTBSQIDUHFHFBSTBOEBTTFCM5POEJUPO  
 )JHIFBSBDBBDBZNPPLHFB5 BFT5GBDFBOE  
 DPSSDFBIDPOB DBSFTPNFPGU NFB5FTBHB5JOTU  
 HF5OPJTFFPSNPSFBDIOJDBMJOGPSNBUBTFTFF  
 LFTFDWPO (FBS/PJTFFBOE0BSNFB5FT1B HF  
 PGP5BDDIOJDBMSFGFSFODFCPPL

KHK considers safety a priority in the use of our products. When handling, adding secondary operations, assembling, and operating KHK products, please be aware of the following issues in order to prevent accidents.

- Warning: Precautions for preventing physical and property damage**
  - 8IFOVJOH,),SP pr EDUGPMMP5FMFOBGF5FHMBUPCTODDBUPOBM4B8BOE)FBM3FHMB UPOTFD.)
  - 1B5BUBUPOBIFG he PMMPXOHJENTIFO JOTBMMJOHSFN5SGSPSNJOHNB.5OBODFB0EJOTBOPDQIGFQPEVU.
  - 55OPUF5KSpowerTXDI h
  - WOPB FBDIPSDSBMDEFSJFQPEVU t.
  - 8FBS5QJBBDMPLJO HBOE5PDUWFFRWQFOGQPSIFRSL h.
- Caution Cautions in Preventing Accidents**
  - FGPSFVJOH,),SP ED5FBEIF5FDB5 UPOTJOUFDBBMPHDBSFGMMZOP5V5JDPSSFDUZ
  - WPJEVJOF OWJSPONFOUBNBZB5WFSTFM5DFUFGPEVU.
  - 05Q SPEVUBSFNB05B5FE0EFSBT5JP5SRBMD5PO5PMTT5NCBTFEPOUF4 ISORBMJ5BOBHF nageNFOU5BNJGZVou  
 OPUDFB05BMG0DPOTQ0DIBTJOH5 BQPEVUBFTFDPO0BDFUFTQJFSlier.