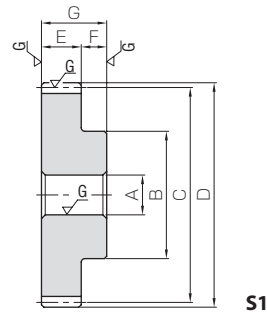




Specifications	
Precision grade	JIS grade N6 (JIS B1702-1:1998) *
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Transverse pressure angle	20°
Helix angle	21°30'
Material	SCM440
Heat treatment	Thermal refined, tooth surface induction hardened
Tooth hardness	50 ~ 60HRC
Surface treatment	Black oxide coated except for ground part

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

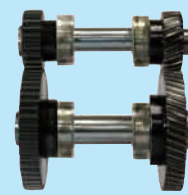


S1

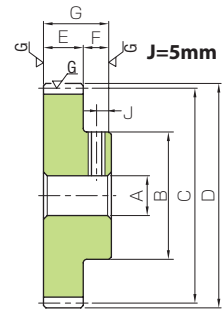
Drop in Replacements for Spur Gears

KHG ground helical gears use a "transverse" module.
The assembly distance is the same as spur gear pairs with the same module and number of teeth.
Improved strength and low noise: Take the next step up from spur gears.

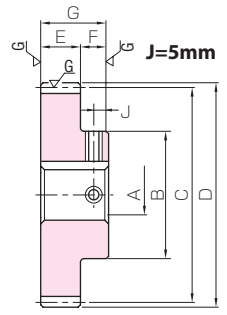
* For details of transverse helical gears, please see Page 25 of our technical reference book.



J Series



S1T



S1K

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

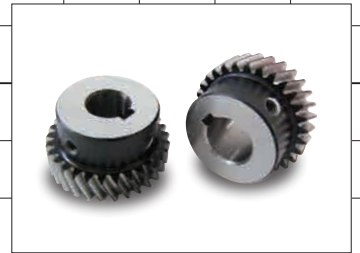
Catalog No.	No. of teeth	Direction of helix	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total Length	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)
				A _{H7}	B	C	D	E	F	G	Bending strength	Surface durability	Bending strength	Surface durability		
KHG1-20R KHG1-20L	20	R L	S1	6	17	20	22	8	10	18	7.79	4.98	0.79	0.51	0.08~0.16	0.034
KHG1-22R KHG1-22L	22	R L	S1	8	18	22	24				8.92	6.14	0.91	0.63	0.08~0.16	0.037
KHG1-24R KHG1-24L	24	R L	S1	8	20	24	26				10.1	7.43	1.03	0.76	0.08~0.16	0.046
KHG1-28R KHG1-28L	28	R L	S1	8	20	28	30				12.4	10.4	1.27	1.06	0.08~0.16	0.056
KHG1-30R KHG1-30L	30	R L	S1	10	25	30	32				13.6	12.1	1.39	1.23	0.08~0.16	0.072
KHG1-32R KHG1-32L	32	R L	S1	10	25	32	34				13.5	12.6	1.37	1.29	0.08~0.16	0.078
KHG1-35R KHG1-35L	35	R L	S1	10	25	35	37				15.1	15.4	1.54	1.57	0.08~0.16	0.088
KHG1-36R KHG1-36L	36	R L	S1	10	25	36	38				15.7	16.3	1.60	1.67	0.08~0.16	0.091
KHG1-40R KHG1-40L	40	R L	S1	10	30	40	42				17.9	20.5	1.83	2.10	0.08~0.16	0.12
KHG1-48R KHG1-48L	48	R L	S1	10	30	48	50				22.5	30.5	2.29	3.11	0.08~0.16	0.16
KHG1-50R KHG1-50L	50	R L	S1	12	35	50	52				23.6	33.3	2.41	3.40	0.08~0.16	0.18
KHG1-60R KHG1-60L	60	R L	S1	12	40	60	62				29.3	49.4	2.99	5.04	0.10~0.18	0.26
KHG1-70R KHG1-70L	70	R L	S1	12	40	70	72				35.2	68.9	3.58	7.02	0.10~0.18	0.32
KHG1-90R KHG1-90L	90	R L	S1	15	50	90	92				46.9	118	4.78	12.1	0.10~0.18	0.53
KHG1-100R KHG1-100L	100	R L	S1	15	50	100	102				50.4	142	5.14	14.5	0.10~0.18	0.62

- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 164 for more details.
 - ② 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.
 - ③ These gears produce axial thrust forces. See Page 167 for more details.
 - ④ Right handed and left handed helical gears in the same module are designed to mesh as a pair, but KHG gears are not interchangeable with SH type helical gears.

- [Caution on Secondary Operations]
- ① Please read "Caution on Performing Secondary Operations" (Page 166) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.
 - ② 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).
 - ③ While cutting off the entire hub may cause curvature deformation by residual stress, some products are straightened and annealed after refining the material.

Bore H7		* The product shapes of J Series items are identified by background color.															
Keyway Js9		6	8	10	12	14	15	16	17	18	19	20	22	25	28	30	
Screw size		—		4 × 1.8		5 × 2.3				6 × 2.8				8 × 3.3			
Catalog No.		M4	M5	M4						M5				M6			
KHG1-20R J BORE KHG1-20L J BORE	S1T S1T																
KHG1-22R J BORE KHG1-22L J BORE		S1T S1T															
KHG1-24R J BORE KHG1-24L J BORE		S1T S1T															
KHG1-28R J BORE KHG1-28L J BORE		S1T S1T															
KHG1-30R J BORE KHG1-30L J BORE			S1K S1K	S1K S1K													
KHG1-32R J BORE KHG1-32L J BORE			S1K S1K	S1K S1K													
KHG1-35R J BORE KHG1-35L J BORE			S1K S1K	S1K S1K													
KHG1-36R J BORE KHG1-36L J BORE			S1K S1K	S1K S1K													
KHG1-40R J BORE KHG1-40L J BORE			S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K									
KHG1-48R J BORE KHG1-48L J BORE			S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K									
KHG1-50R J BORE KHG1-50L J BORE				S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K							
KHG1-60R J BORE KHG1-60L J BORE				S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K						
KHG1-70R J BORE KHG1-70L J BORE				S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K						
KHG1-90R J BORE KHG1-90L J BORE						S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG1-100R J BORE KHG1-100L J BORE						S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		

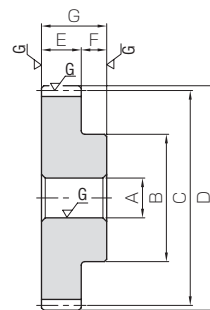
- [Caution on J series]
- ① As available-on-request products, requires a lead-time for shipping within **2 working-days (excludes the day ordered)**, after placing an order. Please allow additional shipping time to get to your local distributor.
 - ② Number of products we can process for one order is **1 to 20 units**. For quantities of 21 or more pieces, we need to quote price and lead time.
 - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
 - ④ Certain products which would otherwise have a very long tapped hole are counterbored to reduce the length of the tap.
 - ⑤ Areas of products which have been re-worked will not be black oxide coated.
 - ⑥ For products having a tapped hole, a set screw is included.
 - ⑦ 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.





Specifications	
Precision grade	JIS grade N6 (JIS B1702-1:1998) *
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Transverse pressure angle	20°
Helix angle	21°30'
Material	SCM440
Heat treatment	Thermal refined, tooth surface induction hardened
Tooth hardness	50 ~ 60HRC
Surface treatment	Black oxide coated except for ground part

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



S1

Catalog No.	No. of teeth	Direction of helix	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 _{H7}	B	C	D	E	F	G	Bending strength	Surface durability	Bending strength	Surface durability		
KHG1.5-20R KHG1.5-20L	20	R L	S1	12	24	30	33	12	12	24	26.3	18.5	2.68	1.89	0.08~0.16	0.088
KHG1.5-22R KHG1.5-22L	22	R L			26	33	36				27.4	20.8	2.79	2.12		0.11
KHG1.5-24R KHG1.5-24L	24	R L			28	36	39				30.9	25.3	3.15	2.58		0.13
KHG1.5-25R KHG1.5-25L	25	R L			30	37.5	40.5				32.7	27.7	3.33	2.83		0.15
KHG1.5-26R KHG1.5-26L	26	R L			32	39	42				34.5	30.2	3.52	3.08		0.17
KHG1.5-28R KHG1.5-28L	28	R L			36	42	45				38.1	35.7	3.89	3.64		0.19
KHG1.5-30R KHG1.5-30L	30	R L		15	38	45	48				41.8	41.6	4.26	4.24	0.10~0.18	0.22
KHG1.5-32R KHG1.5-32L	32	R L			40	48	51				45.5	48.0	4.64	4.89		0.26
KHG1.5-36R KHG1.5-36L	36	R L			45	54	57				52.9	62.2	5.40	6.35		0.33
KHG1.5-40R KHG1.5-40L	40	R L			50	60	63				60.5	78.5	6.17	8.00		0.42
KHG1.5-48R KHG1.5-48L	48	R L			50	72	75				75.8	117	7.73	12.0		0.52
KHG1.5-50R KHG1.5-50L	50	R L		18	60	75	78				79.6	128	8.12	13.1	0.12~0.20	0.63
KHG1.5-52R KHG1.5-52L	52	R L			60	78	81				83.5	140	8.51	14.2		0.67
KHG1.5-60R KHG1.5-60L	60	R L			60	90	93				99.1	191	10.1	19.5		0.81
KHG1.5-70R KHG1.5-70L	70	R L		20	60	105	108				114	256	11.6	26.1	0.12~0.20	1.02
KHG1.5-80R KHG1.5-80L	80	R L			70	120	123				132	343	13.5	35.0		1.37
KHG1.5-90R KHG1.5-90L	90	R L			70	135	138				151	442	15.4	45.1		1.65
KHG1.5-100R KHG1.5-100L	100	R L			70	150	153				170	554	17.4	56.5		1.97

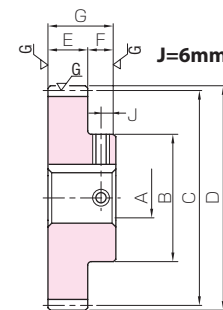
- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 164 for more details.
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Drop in Replacements for Spur Gears

KHG ground helical gears use a "transverse" module.
The assembly distance is the same as spur gear pairs with the same module and number of teeth.
Improved strength and low noise: Take the next step up from spur gears.

* For details of transverse helical gears, please see Page 25 of our technical reference book.



S1K



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

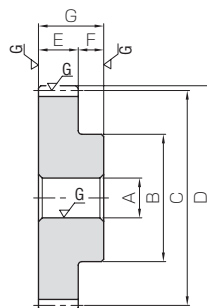
Bore H7		* The product shapes of J Series items are identified by background color.															
Keyway Js9		12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	
Screw size		4 x 1.8		5 x 2.3				6 x 2.8				8 x 3.3			10 x 3.3		12 x 3.3
Catalog No.		M4					M5					M6			M8		
KHG1.5-20R J BORE	S1K																
KHG1.5-20L J BORE	S1K																
KHG1.5-22R J BORE	S1K																
KHG1.5-22L J BORE	S1K																
KHG1.5-24R J BORE	S1K	S1K	S1K														
KHG1.5-24L J BORE	S1K	S1K	S1K														
KHG1.5-25R J BORE	S1K	S1K	S1K	S1K	S1K												
KHG1.5-25L J BORE	S1K	S1K	S1K	S1K	S1K												
KHG1.5-26R J BORE	S1K	S1K	S1K	S1K	S1K												
KHG1.5-26L J BORE	S1K	S1K	S1K	S1K	S1K												
KHG1.5-28R J BORE			S1K	S1K	S1K	S1K	S1K	S1K									
KHG1.5-28L J BORE			S1K	S1K	S1K	S1K	S1K	S1K									
KHG1.5-30R J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K								
KHG1.5-30L J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K								
KHG1.5-32R J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K								
KHG1.5-32L J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K								
KHG1.5-36R J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K							
KHG1.5-36L J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K							
KHG1.5-40R J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KHG1.5-40L J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KHG1.5-48R J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K				
KHG1.5-48L J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K				
KHG1.5-50R J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG1.5-50L J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG1.5-52R J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG1.5-52L J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG1.5-60R J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG1.5-60L J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG1.5-70R J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG1.5-70L J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG1.5-80R J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	
KHG1.5-80L J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	
KHG1.5-90R J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	
KHG1.5-90L J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	
KHG1.5-100R J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	
KHG1.5-100L J BORE								S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	

- [Caution on J series]
- ① As available-on-request products, requires a lead-time for shipping within 2 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
 - ② 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.
 - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
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 - ⑥ For products having a tapped hole, a set screw is included.



Specifications	
Precision grade	JIS grade N6 (JIS B1702-1:1998) *
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Transverse pressure angle	20°
Helix angle	21°30'
Material	SCM440
Heat treatment	Thermal refined, tooth surface induction hardened
Tooth hardness	50 ~ 60HRC
Surface treatment	Black oxide coated except for ground part

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



S1

Catalog No.	No. of teeth	Direction of helix	Shape	Bore				Pitch dia.	Outside dia.	Face width	Hub width	Total Length	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)
				A _{H7}	B	C	D						Bending strength	Surface durability	Bending strength	Surface durability		
KHG2-15R KHG2-15L	15	R L	S1	12	24	30	34	16	13	29			40.5	22.8	4.13	2.32	0.10~0.20	0.11
KHG2-18R KHG2-18L	18	R L			30	36	40						48.5	31.9	4.95	3.25		0.17
KHG2-20R KHG2-20L	20	R L			32	40	44						56.6	40.8	5.77	4.16		0.20
KHG2-22R KHG2-22L	22	R L			36	44	48						64.9	50.6	6.62	5.16		0.25
KHG2-24R KHG2-24L	24	R L			38	48	52						73.3	61.4	7.47	6.26		0.30
KHG2-25R KHG2-25L	25	R L			40	50	54						77.5	67.3	7.90	6.86		0.33
KHG2-26R KHG2-26L	26	R L		15	42	52	56						81.8	73.4	8.34	7.49	0.12~0.22	0.37
KHG2-28R KHG2-28L	28	R L			45	56	60						90.4	86.6	9.21	8.83		0.43
KHG2-30R KHG2-30L	30	R L			50	60	64						99.1	101	10.1	10.3		0.50
KHG2-32R KHG2-32L	32	R L			50	64	68						108	117	11.0	11.9		0.55
KHG2-35R KHG2-35L	35	R L			50	70	74						121	142	12.3	14.5		0.63
KHG2-36R KHG2-36L	36	R L			50	72	76						126	151	12.8	15.4		0.65
KHG2-40R KHG2-40L	40	R L	20	18	60	80	84						143	191	14.6	19.5	0.14~0.24	0.85
KHG2-44R KHG2-44L	44	R L			60	88	92						161	236	16.5	24.0		0.98
KHG2-45R KHG2-45L	45	R L			60	90	94						166	248	16.9	25.3		1.02
KHG2-48R KHG2-48L	48	R L			60	96	100						172	273	17.5	27.9		1.13
KHG2-50R KHG2-50L	50	R L			60	100	104						181	299	18.4	30.5		1.16
KHG2-60R KHG2-60L	60	R L			65	120	124						225	447	22.9	45.6		1.65
KHG2-70R KHG2-70L	70	R L	25	25	70	140	144						269	625	27.4	63.7		2.21
KHG2-80R KHG2-80L	80	R L			80	160	164						301	799	30.7	81.4		2.93
KHG2-90R KHG2-90L	90	R L			90	180	184						344	1030	35.0	105		3.73
KHG2-100R KHG2-100L	100	R L			100	200	204						387	1290	39.4	132		4.64

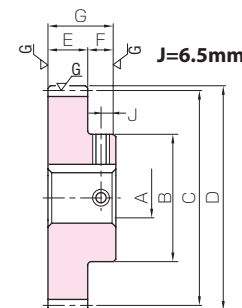
- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 164 for more details.
 - ② The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.
 - ③ These gears produce axial thrust forces. See Page 167 for more details.
 - ④ Right handed and left handed helical gears in the same module are designed to mesh as a pair, but KHG gears are not interchangeable with SH type helical gears.

- [Caution on Secondary Operations]
- ① Please read "Caution on Performing Secondary Operations" (Page 166) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.
 - ② 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).
 - ③ While cutting off the entire hub may cause curvature deformation by residual stress, some products are straightened and annealed after refining the material.

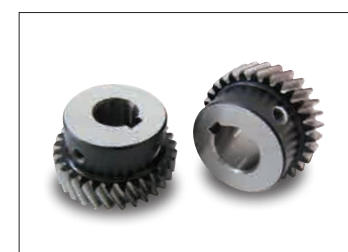
Drop in Replacements for Spur Gears

KHG ground helical gears use a "transverse" module. The assembly distance is the same as spur gear pairs with the same module and number of teeth. Improved strength and low noise: Take the next step up from spur gears.

* For details of transverse helical gears, please see Page 25 of our technical reference book.



S1K



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

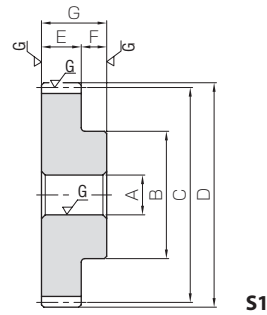
Bore H7		* The product shapes of J Series items are identified by background color.																	
Keyway Js9		12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	45	50	
Screw size		4 × 1.8			5 × 2.3			6 × 2.8			8 × 3.3			10 × 3.3			12 × 3.3		
Catalog No.		M4			M5			M6			M8			M10					
KHG2-15R J BORE	S1K																		
KHG2-15L J BORE	S1K																		
KHG2-18R J BORE	S1K	S1K	S1K	S1K	S1K	S1K													
KHG2-18L J BORE	S1K	S1K	S1K	S1K	S1K	S1K													
KHG2-20R J BORE				S1K	S1K	S1K													
KHG2-20L J BORE				S1K	S1K	S1K													
KHG2-22R J BORE				S1K	S1K	S1K	S1K	S1K	S1K										
KHG2-22L J BORE				S1K	S1K	S1K	S1K	S1K	S1K										
KHG2-24R J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K									
KHG2-24L J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K									
KHG2-25R J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K									
KHG2-25L J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K									
KHG2-26R J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K									
KHG2-26L J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K									
KHG2-28R J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K								
KHG2-28L J BORE				S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K								
KHG2-30R J BORE							S1K	S1K	S1K	S1K	S1K	S1K	S1K						
KHG2-30L J BORE							S1K	S1K	S1K	S1K	S1K	S1K	S1K						
KHG2-32R J BORE							S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KHG2-32L J BORE							S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KHG2-35R J BORE							S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KHG2-35L J BORE							S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KHG2-36R J BORE							S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KHG2-36L J BORE							S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					
KHG2-40R J BORE										S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-40L J BORE										S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-44R J BORE										S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-44L J BORE										S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-45R J BORE										S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-45L J BORE										S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-48R J BORE										S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-48L J BORE										S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-50R J BORE												S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-50L J BORE												S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-60R J BORE												S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-60L J BORE												S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-70R J BORE												S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-70L J BORE												S1K	S1K	S1K	S1K	S1K	S1K		
KHG2-80R J BORE												S1K	S1K	S1K	S1K	S1K	S1K	S1K	
KHG2-80L J BORE												S1K	S1K	S1K	S1K	S1K	S1K	S1K	
KHG2-90R J BORE												S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K
KHG2-90L J BORE												S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K
KHG2-100R J BORE												S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K
KHG2-100L J BORE												S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K

- [Caution on J series]
- ① As available-on-request products, requires a lead-time for shipping within 2 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
 - ② 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.
 - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
 - ④ Certain products which would otherwise have a very long tapped hole are counterbored to reduce the length of the tap.
 - ⑤ Areas of products which have been re-worked will not be black oxide coated.
 - ⑥ For products having a tapped hole, a set screw is included.



Specifications	
Precision grade	JIS grade N6 (JIS B1702-1:1998) *
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Transverse pressure angle	20°
Helix angle	21°30'
Material	SCM440
Heat treatment	Thermal refined, tooth surface induction hardened
Tooth hardness	50 ~ 60HRC
Surface treatment	Black oxide coated except for ground part

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



S1

Catalog No.	No. of teeth	Direction of helix	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 _{H7}	B	C	D	E	F	G	Bending strength	Surface durability	Bending strength	Surface durability		
KHG2.5-18R KHG2.5-18L	18	R L	S1	15	38	45	50	20	14	34	94.8	63.4	9.67	6.47	0.10~0.20	0.33
KHG2.5-20R KHG2.5-20L	20	R L		18	40	50	55				111	81.3	11.3	8.29		0.38
KHG2.5-22R KHG2.5-22L	22	R L			44	55	60				127	101	12.9	10.3		0.47
KHG2.5-24R KHG2.5-24L	24	R L			48	60	65				143	122	14.6	12.5	0.12~0.22	0.57
KHG2.5-25R KHG2.5-25L	25	R L		20	50	62.5	67.5				151	134	15.4	13.7		0.61
KHG2.5-26R KHG2.5-26L	26	R L			50	65	70				160	146	16.3	14.9		0.65
KHG2.5-28R KHG2.5-28L	28	R L			60	70	75				176	173	18.0	17.6		0.83
KHG2.5-30R KHG2.5-30L	30	R L		25	65	75	80				193	201	19.7	20.5		0.97
KHG2.5-32R KHG2.5-32L	32	R L			70	80	85				211	232	21.5	23.7		1.13
KHG2.5-35R KHG2.5-35L	35	R L			70	87.5	92.5				236	284	24.1	28.9	0.14~0.24	1.28
KHG2.5-40R KHG2.5-40L	40	R L		25	70	100	105				268	365	27.3	37.2		1.53
KHG2.5-48R KHG2.5-48L	48	R L			75	120	125				336	547	34.2	55.8		2.13
KHG2.5-50R KHG2.5-50L	50	R L			80	125	130				353	599	36.0	61.0		2.35
KHG2.5-52R KHG2.5-52L	52	R L			80	130	135				370	652	37.7	66.5		2.51
KHG2.5-60R KHG2.5-60L	60	R L			80	150	155				439	890	44.7	90.8		3.20

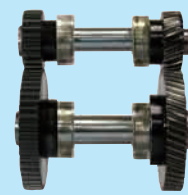
- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 164 for more details.
 - ② The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.
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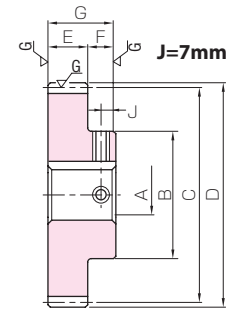
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J Series



S1K



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

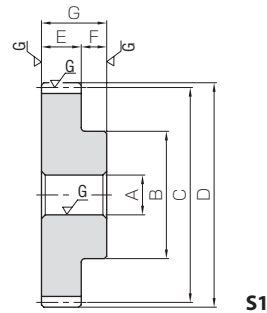
Bore H7	* The product shapes of J Series items are identified by background color.															
Keyway Js9	15	16	17	18	19	20	22	25	28	30	32	35	40	45	50	
Screw size	5 × 2.3			6 × 2.8				8 × 3.3			10 × 3.3		12 × 3.3	14 × 3.8		
Catalog No.	M4			M5				M6			M8		M10			
KHG2.5-18R J BORE KHG2.5-18L J BORE	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K									
KHG2.5-20R J BORE KHG2.5-20L J BORE				S1K S1K	S1K S1K	S1K S1K	S1K S1K									
KHG2.5-22R J BORE KHG2.5-22L J BORE				S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K								
KHG2.5-24R J BORE KHG2.5-24L J BORE				S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K							
KHG2.5-25R J BORE KHG2.5-25L J BORE						S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K						
KHG2.5-26R J BORE KHG2.5-26L J BORE						S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K						
KHG2.5-28R J BORE KHG2.5-28L J BORE						S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K					
KHG2.5-30R J BORE KHG2.5-30L J BORE						S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K				
KHG2.5-32R J BORE KHG2.5-32L J BORE						S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K			
KHG2.5-35R J BORE KHG2.5-35L J BORE						S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K			
KHG2.5-40R J BORE KHG2.5-40L J BORE								S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K			
KHG2.5-48R J BORE KHG2.5-48L J BORE								S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG2.5-50R J BORE KHG2.5-50L J BORE								S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG2.5-52R J BORE KHG2.5-52L J BORE								S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG2.5-60R J BORE KHG2.5-60L J BORE								S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		

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 - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
 - ④ Certain products which would otherwise have a very long tapped hole are counterbored to reduce the length of the tap.
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Specifications	
Precision grade	JIS grade N6 (JIS B1702-1:1998) *
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Transverse pressure angle	20°
Helix angle	21°30'
Material	SCM440
Heat treatment	Thermal refined, tooth surface induction hardened
Tooth hardness	50 ~ 60HRC
Surface treatment	Black oxide coated except for ground part

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



S1

Catalog No.	No. of teeth	Direction of helix	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 _{H7}	B	C	D	E	F	G	Bending strength	Surface durability	Bending strength	Surface durability		
KHG3-16R KHG3-16L	16	R L	S1	18	38	48	54	25	16	41	143	87.2	14.6	8.89	0.10~0.20	0.42
KHG3-18R KHG3-18L	18	R L			40	54	60				171	115	17.4	11.8	0.12~0.22	0.53
KHG3-20R KHG3-20L	20	R L			50	60	66				199	148	20.3	15.1		0.70
KHG3-24R KHG3-24L	24	R L		20	58	72	78				258	224	26.3	22.8		1.03
KHG3-25R KHG3-25L	25	R L			60	75	81				272	245	27.8	25.0		1.12
KHG3-28R KHG3-28L	28	R L			70	84	90				318	316	32.4	32.2		1.47
KHG3-30R KHG3-30L	30	R L		25	75	90	96				348	369	35.5	37.6	0.14~0.24	1.65
KHG3-32R KHG3-32L	32	R L			75	96	102				363	407	37.0	41.5		1.82
KHG3-35R KHG3-35L	35	R L			80	105	111				407	498	41.5	50.7		2.17
KHG3-36R KHG3-36L	36	R L			80	108	114				422	530	43.0	54.0		2.27
KHG3-40R KHG3-40L	40	R L			80	120	126				482	670	49.2	68.3		2.69
KHG3-44R KHG3-44L	44	R L			80	132	138				543	828	55.4	84.4		3.16
KHG3-45R KHG3-45L	45	R L			80	135	141				558	869	56.9	88.6		3.28
KHG3-48R KHG3-48L	48	R L			85	144	150				604	1000	61.6	102		3.75
KHG3-50R KHG3-50L	50	R L		30	85	150	156				635	1090	64.7	112		3.95
KHG3-60R KHG3-60L	60	R L			90	180	186				757	1560	77.2	159		5.57

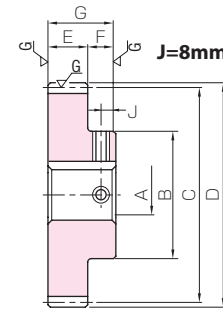
- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 164 for more details.
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S1K



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

Bore H7		* The product shapes of J Series items are identified by background color.											
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Screw size	6 x 2.8				8 x 3.3			10 x 3.3		12 x 3.3	14 x 3.8		
Catalog No.	M5				M6			M8			M10		
KHG3-16R J BORE KHG3-16L J BORE	S1K S1K	S1K S1K	S1K S1K	S1K S1K									
KHG3-18R J BORE KHG3-18L J BORE	S1K S1K	S1K S1K	S1K S1K	S1K S1K									
KHG3-20R J BORE KHG3-20L J BORE			S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K						
KHG3-24R J BORE KHG3-24L J BORE			S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K					
KHG3-25R J BORE KHG3-25L J BORE			S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K				
KHG3-28R J BORE KHG3-28L J BORE			S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K			
KHG3-30R J BORE KHG3-30L J BORE					S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG3-32R J BORE KHG3-32L J BORE					S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG3-35R J BORE KHG3-35L J BORE					S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG3-36R J BORE KHG3-36L J BORE					S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG3-40R J BORE KHG3-40L J BORE					S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG3-44R J BORE KHG3-44L J BORE					S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG3-45R J BORE KHG3-45L J BORE					S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K		
KHG3-48R J BORE KHG3-48L J BORE					S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	
KHG3-50R J BORE KHG3-50L J BORE							S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	
KHG3-60R J BORE KHG3-60L J BORE							S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	S1K S1K	

- [Caution on J series]
- ① As available-on-request products, requires a lead-time for shipping within 2 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
 - ② 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.
 - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
 - ④ Certain products which would otherwise have a very long tapped hole are counterbored to reduce the length of the tap.
 - ⑤ Areas of products which have been re-worked will not be black oxide coated.
 - ⑥ For products having a tapped hole, a set screw is included.