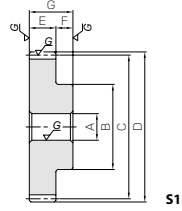




Specifications	
Precision grade	JIS grade N6 (JIS B1702-1:1998) JIS grade 2 (JIS B1702:1976)
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Transverse pressure angle	20°
Helix angle	21°30'
Material	SCM440
Heat treatment	Thermal refined, tooth surface induction hardened
Tooth hardness	50 ~ 60HRC
Face width (E)	8
Hub width (F)	10
Total length (G)	18
Screw offset (J)	5



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

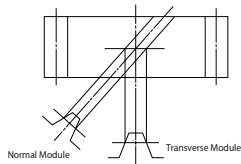
Catalog No.	No. of teeth	Direction of helix	Shape	Bore A <sub>H7</sub>	Hub dia. B	Pitch dia. C	Outside dia. D	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)
								Bending strength	Surface durability	Bending strength	Surface durability		
KHG1-20R KHG1-20L	20	R L	S1	6	17	20	22	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
KHG1-25R KHG1-25L	25	R L	S1	8	20	25	27	10.7	8.12	1.09	0.83	0.08~0.16	0.048
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
KHG1-44R KHG1-44L	44	R L	S1	10	30	44	46	20.2	25.3	2.06	2.58	0.08~0.16	0.14
KHG1-45R KHG1-45L	45	R L	S1	10	30	45	47	20.7	26.5	2.12	2.71	0.08~0.16	0.14
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
KHG1-80R KHG1-80L	80	R L	S1	15	50	80	82	41.0	91.8	4.18	9.36	0.10~0.18	0.44
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]

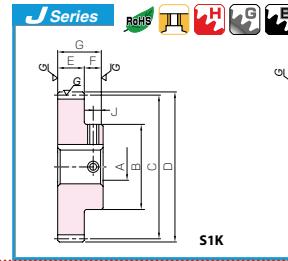
- The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 165 for more details.
- The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.
- These gears produce axial thrust forces. See Page 167 for more details.
- 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]

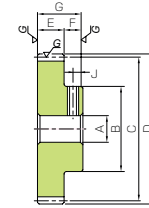
- Please read "Caution on Performing Secondary Operations" (Page 166) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.
- Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm).
- While cutting off the entire hub may cause curvature deformation by residual stress, some products are straightened and annealed after refining the material.



\* Above is for illustration purposes only and differs from actual tooth forms. To find more details, please see the section "4.3 Helical Gears" in separate technical reference book (Page 22).

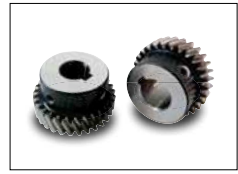


S1K



S1T

Newly added



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

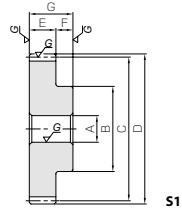
Bore H7	* The product shapes of J Series items are identified by background color.														
	6	8	10	12	14	15	16	17	18	19	20	22	25	28	30
Keyway Js9	—		4 x 1.8			5 x 2.3			6 x 2.8			8 x 3.3			
Screw size	—		4 x 1.8			5 x 2.3			6 x 2.8			8 x 3.3			
Catalog No.	M4	M5	M4			M5			M6			M6			
KHG1-20R J BORE															
KHG1-20L J BORE															
KHG1-22R J BORE															
KHG1-22L J BORE															
KHG1-24R J BORE															
KHG1-24L J BORE															
KHG1-25R J BORE															
KHG1-25L J BORE															
KHG1-28R J BORE															
KHG1-28L J BORE															
KHG1-30R J BORE															
KHG1-30L J BORE															
KHG1-32R J BORE															
KHG1-32L J BORE															
KHG1-35R J BORE															
KHG1-35L J BORE															
KHG1-36R J BORE															
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KHG1-40L J BORE															
KHG1-44R J BORE															
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KHG1-45R J BORE															
KHG1-45L J BORE															
KHG1-48R J BORE															
KHG1-48L J BORE															
KHG1-50R J BORE															
KHG1-50L J BORE															
KHG1-60R J BORE															
KHG1-60L J BORE															
KHG1-70R J BORE															
KHG1-70L J BORE															
KHG1-80R J BORE															
KHG1-80L J BORE															
KHG1-90R J BORE															
KHG1-90L J BORE															
KHG1-100R J BORE															
KHG1-100L J BORE															

[Caution on J series]

- 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.
- 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, Js 9 tolerance.
- Certain products which would otherwise have a very long tapped hole are contoured 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.



Specifications	
Precision grade	JIS grade N6 (JIS B1702-1: 1998) JIS grade 2 (JIS B1702: 1976)
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
Face width (E)	12
Hub width (F)	12
Total length (G)	24
Screw offset (J)	6

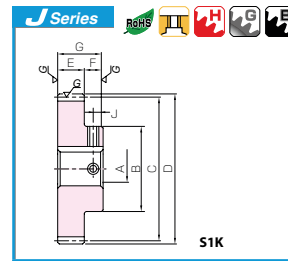


\* The precision grade of J Series products is equivalent to the value shown in the table.

Catalog No.	No. of teeth	Direction of helix	Shape	Bore A <sub>H7</sub>	Hub dia.	Pitch dia.	Outside dia.	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)								
					B	C	D	Bending strength	Surface durability	Bending strength	Surface durability										
KHG1.5-20R KHG1.5-20L	20	R L	12	12	24	30	33	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										
KHG1.5-24R KHG1.5-24L	24	R L			28	36	39	30.9	25.3	3.15	2.58										
KHG1.5-25R KHG1.5-25L	25	R L			30	37.5	40.5	32.7	27.7	3.33	2.83										
KHG1.5-26R KHG1.5-26L	26	R L			32	39	42	34.5	30.2	3.52	3.08										
KHG1.5-28R KHG1.5-28L	28	R L			36	42	45	38.1	35.7	3.89	3.64										
KHG1.5-30R KHG1.5-30L	30	R L			38	45	48	41.8	41.6	4.26	4.24										
KHG1.5-32R KHG1.5-32L	32	R L			40	48	51	45.5	48.0	4.64	4.89										
KHG1.5-35R KHG1.5-35L	35	R L			15	15	42	52.5	55.5	51.1	58.5			5.21	5.96	0.10~0.18	0.30				
KHG1.5-36R KHG1.5-36L	36	R L					45	54	57	52.9	62.2			5.40	6.35						
KHG1.5-40R KHG1.5-40L	40	R L					50	60	63	60.5	78.5			6.17	8.00						
KHG1.5-44R KHG1.5-44L	44	R L					50	66	69	68.1	96.8			6.95	9.87						
KHG1.5-45R KHG1.5-45L	45	R L	18	18			50	67.5	70.5	70.0	102	7.14	10.4	0.12~0.20	0.47						
KHG1.5-48R KHG1.5-48L	48	R L					50	72	75	75.8	117	7.73	12.0								
KHG1.5-50R KHG1.5-50L	50	R L					60	75	78	79.6	128	8.12	13.1								
KHG1.5-52R KHG1.5-52L	52	R L					60	78	81	83.5	140	8.51	14.2								
KHG1.5-60R KHG1.5-60L	60	R L					20	20	60	90	93	99.1	191					10.1	19.5	0.12~0.20	0.81
KHG1.5-70R KHG1.5-70L	70	R L							60	105	108	114	256					11.6	26.1		
KHG1.5-80R KHG1.5-80L	80	R L							70	120	123	132	343					13.5	35.0		
KHG1.5-90R KHG1.5-90L	90	R L							70	135	138	151	442					15.4	45.1		
KHG1.5-100R KHG1.5-100L	100	R L			70	150			153	170	554	17.4	56.5								

- [Caution on Product Characteristics]
- The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 165 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.
  - These gears produce axial thrust forces. See Page 167 for more details.
  - 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]
- 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.
  - 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).
  - While cutting off the entire hub may cause curvature deformation by residual stress, some products are straightened and annealed after refining the material.



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																
KHG1.5-20L J BORE																
KHG1.5-22R J BORE																
KHG1.5-22L J BORE																
KHG1.5-24R J BORE																
KHG1.5-24L J BORE																
KHG1.5-25R J BORE																
KHG1.5-25L J BORE																
KHG1.5-26R J BORE																
KHG1.5-26L J BORE																
KHG1.5-28R J BORE																
KHG1.5-28L J BORE																
KHG1.5-30R J BORE																
KHG1.5-30L J BORE																
KHG1.5-32R J BORE																
KHG1.5-32L J BORE																
KHG1.5-35R J BORE																
KHG1.5-35L J BORE																
KHG1.5-36R J BORE																
KHG1.5-36L J BORE																
KHG1.5-40R J BORE																
KHG1.5-40L J BORE																
KHG1.5-44R J BORE																
KHG1.5-44L J BORE																
KHG1.5-45R J BORE																
KHG1.5-45L J BORE																
KHG1.5-48R J BORE																
KHG1.5-48L J BORE																
KHG1.5-50R J BORE																
KHG1.5-50L J BORE																
KHG1.5-52R J BORE																
KHG1.5-52L J BORE																
KHG1.5-60R J BORE																
KHG1.5-60L J BORE																
KHG1.5-70R J BORE																
KHG1.5-70L J BORE																
KHG1.5-80R J BORE																
KHG1.5-80L J BORE																
KHG1.5-90R J BORE																
KHG1.5-90L J BORE																
KHG1.5-100R J BORE																
KHG1.5-100L J BORE																

- [Caution on J series]
- 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.
  - 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 centerbored 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.



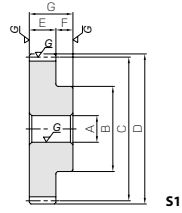
# Ground Helical Gears



## Module 2

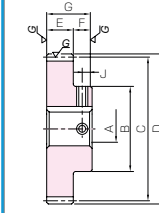


Specifications	
Precision grade	JIS grade N6 (JIS B1702-1: 1998) JIS grade 2 (JIS B1702: 1976)
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Transverse pressure angle	20°
Helix angle	21°30'
Material	SCM440
Heat treatment	Thermal refined, tooth surface induction hardened
Tooth hardness	50 ~ 60HRC
Face width (E)	16
Hub width (F)	13
Total length (G)	29
Screw offset (J)	6.5



## Ground Helical Gears

Newly added



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

Keyway	* The product shapes of J Series items are identified by background color.																
Bore H7	12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	45	50
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		14 x 3.8
Catalog No.	M4				M5				M6			M8		M10		M12	
KHG2-15R J BORE																	
KHG2-15L J BORE																	
KHG2-16R J BORE																	
KHG2-16L J BORE																	
KHG2-18R J BORE																	
KHG2-18L J BORE																	
KHG2-20R J BORE																	
KHG2-20L J BORE																	
KHG2-22R J BORE																	
KHG2-22L J BORE																	
KHG2-24R J BORE																	
KHG2-24L J BORE																	
KHG2-25R J BORE																	
KHG2-25L J BORE																	
KHG2-26R J BORE																	
KHG2-26L J BORE																	
KHG2-28R J BORE																	
KHG2-28L J BORE																	
KHG2-30R J BORE																	
KHG2-30L J BORE																	
KHG2-32R J BORE																	
KHG2-32L J BORE																	
KHG2-35R J BORE																	
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KHG2-36R J BORE																	
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KHG2-40R J BORE																	
KHG2-40L J BORE																	
KHG2-44R J BORE																	
KHG2-44L J BORE																	
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KHG2-45L J BORE																	
KHG2-48R J BORE																	
KHG2-48L J BORE																	
KHG2-50R J BORE																	
KHG2-50L J BORE																	
KHG2-52R J BORE																	
KHG2-52L J BORE																	
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KHG2-60L J BORE																	
KHG2-70R J BORE																	
KHG2-70L J BORE																	
KHG2-80R J BORE																	
KHG2-80L J BORE																	
KHG2-90R J BORE																	
KHG2-90L J BORE																	
KHG2-100R J BORE																	
KHG2-100L J BORE																	

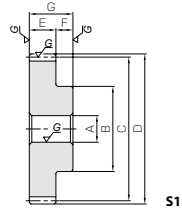
Catalog No.	No. of teeth	Direction of helix	Shape	Bore A <sub>H7</sub>	Hub dia. B	Pitch dia. C	Outside dia. D	Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	
								Bending strength	Surface durability	Bending strength	Surface durability			
KHG2-15R KHG2-15L	15	R L		12	24	30	34	40.5	22.8	4.13	2.32	0.10~0.20	0.11	
KHG2-16R KHG2-16L	16	R L			26	32	36	40.6	24.1	4.14	2.46			0.13
KHG2-18R KHG2-18L	18	R L			30	36	40	48.5	31.9	4.95	3.25			
KHG2-20R KHG2-20L	20	R L			32	40	44	56.6	40.8	5.77	4.16			
KHG2-22R KHG2-22L	22	R L		15	36	44	48	64.9	50.6	6.62	5.16	0.12~0.22	0.20	
KHG2-24R KHG2-24L	24	R L			38	48	52	73.3	61.4	7.47	6.26			0.25
KHG2-25R KHG2-25L	25	R L			40	50	54	77.5	67.3	7.90	6.86			
KHG2-26R KHG2-26L	26	R L			42	52	56	81.8	73.4	8.34	7.49			0.30
KHG2-28R KHG2-28L	28	R L			45	56	60	90.4	86.6	9.21	8.83			
KHG2-30R KHG2-30L	30	R L			50	60	64	99.1	101	10.1	10.3			0.33
KHG2-32R KHG2-32L	32	R L	50	64	68	108	117	11.0	11.9					
KHG2-35R KHG2-35L	35	R L	50	70	74	121	142	12.3	14.5	0.37				
KHG2-36R KHG2-36L	36	R L	50	72	76	126	151	12.8	15.4					
KHG2-40R KHG2-40L	40	R L		20	60	80	84	143	191	14.6	19.5	0.14~0.24	0.65	
KHG2-44R KHG2-44L	44	R L			60	88	92	161	236	16.5	24.0			0.50
KHG2-45R KHG2-45L	45	R L			60	90	94	166	248	16.9	25.3			
KHG2-48R KHG2-48L	48	R L			60	96	100	172	273	17.5	27.9			0.55
KHG2-50R KHG2-50L	50	R L			60	100	104	181	299	18.4	30.5			
KHG2-52R KHG2-52L	52	R L			65	104	108	189	326	19.3	33.2			0.63
KHG2-60R KHG2-60L	60	R L			65	120	124	225	447	22.9	45.6			
KHG2-70R KHG2-70L	70	R L			70	140	144	269	625	27.4	63.7			0.85
KHG2-80R KHG2-80L	80	R L	80	160	164	301	799	30.7	81.4					
KHG2-90R KHG2-90L	90	R L	90	180	184	344	1030	35.0	105	0.98				
KHG2-100R KHG2-100L	100	R L	100	200	204	387	1290	39.4	132					

- [Caution on Product Characteristics]**
- The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 165 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.
  - These gears produce axial thrust forces. See Page 167 for more details.
  - 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]**
- 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.
  - 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).
  - While cutting off the entire hub may cause curvature deformation by residual stress, some products are straightened and annealed after refining the material.

- [Caution on J series]**
- 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.
  - 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, Js 9 tolerance.
  - Certain products which would otherwise have a very long tapped hole are centerbored 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.



Specifications	
Precision grade	JIS grade N6 (JIS B1702-1: 1998) JIS grade 2 (JIS B1702: 1976)
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
Face width (E)	20
Hub width (F)	14
Total length (G)	34
Screw offset (J)	7



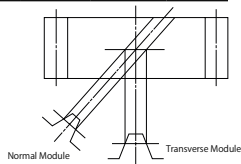
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\* The precision grade of J Series products is equivalent to the value shown in the table.

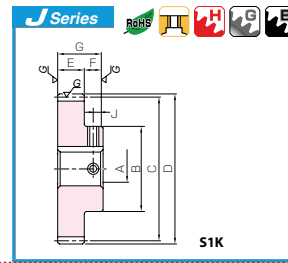
Catalog No.	No. of teeth	Direction of helix	Shape	Bore A <sub>H7</sub>	Hub dia.	Pitch dia.	Outside dia.	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	
					B	C	D	Bending strength	Surface durability	Bending strength	Surface durability			
KHG2.5-15R KHG2.5-15L	15	R L	S1	15	30	37.5	42.5	71.8	41.1	7.32	4.19	0.10~0.20	0.20	
KHG2.5-16R KHG2.5-16L	16	R L			32	40	45	79.4	47.9	8.09	4.89			
KHG2.5-18R KHG2.5-18L	18	R L			38	45	50	94.8	63.4	9.67	6.47			
KHG2.5-20R KHG2.5-20L	20	R L			40	50	55	111	81.3	11.3	8.29			
KHG2.5-22R KHG2.5-22L	22	R L			44	55	60	127	101	12.9	10.3			
KHG2.5-24R KHG2.5-24L	24	R L			48	60	65	143	122	14.6	12.5			
KHG2.5-25R KHG2.5-25L	25	R L		20	18	50	62.5	67.5	151	134	15.4	13.7	0.12~0.22	0.61
KHG2.5-26R KHG2.5-26L	26	R L				50	65	70	160	146	16.3	14.9		
KHG2.5-28R KHG2.5-28L	28	R L				60	70	75	176	173	18.0	17.6		
KHG2.5-30R KHG2.5-30L	30	R L				65	75	80	193	201	19.7	20.5		
KHG2.5-32R KHG2.5-32L	32	R L				70	80	85	211	232	21.5	23.7		
KHG2.5-35R KHG2.5-35L	35	R L				70	87.5	92.5	236	284	24.1	28.9		
KHG2.5-36R KHG2.5-36L	36	R L	25	20	70	90	95	245	302	25.0	30.8	0.14~0.24	1.34	
KHG2.5-40R KHG2.5-40L	40	R L			70	100	105	268	365	27.3	37.2			
KHG2.5-44R KHG2.5-44L	44	R L			75	110	115	302	451	30.8	46.0			
KHG2.5-45R KHG2.5-45L	45	R L			75	112.5	117.5	310	474	31.6	48.3			
KHG2.5-48R KHG2.5-48L	48	R L			75	120	125	336	547	34.2	55.8			
KHG2.5-50R KHG2.5-50L	50	R L			80	125	130	353	599	36.0	61.0			
KHG2.5-52R KHG2.5-52L	52	R L	60	25	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]
- The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 165 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.
  - These gears produce axial thrust forces. See Page 167 for more details.
  - 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]
- 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.
  - 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).
  - While cutting off the entire hub may cause curvature deformation by residual stress, some products are straightened and annealed after refining the material.



\* Above is for illustration purposes only and differs from actual tooth forms. To find more details, please see the section "4.3 Helical Gears" in separate technical reference book (Page 22).



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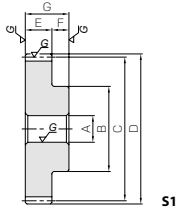
To order J Series products, please specify; Catalog No. + J + BORE

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 x 2.3			6 x 2.8			8 x 3.3			10 x 3.3			12 x 3.3		14 x 3.8	
Catalog No.	M4			M5			M6			M8			M10			
KHG2.5-15R J BORE																
KHG2.5-15L J BORE																
KHG2.5-16R J BORE																
KHG2.5-16L J BORE																
KHG2.5-18R J BORE																
KHG2.5-18L J BORE																
KHG2.5-20R J BORE																
KHG2.5-20L J BORE																
KHG2.5-22R J BORE																
KHG2.5-22L J BORE																
KHG2.5-24R J BORE																
KHG2.5-24L J BORE																
KHG2.5-25R J BORE																
KHG2.5-25L J BORE																
KHG2.5-26R J BORE																
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KHG2.5-28R J BORE																
KHG2.5-28L J BORE																
KHG2.5-30R J BORE																
KHG2.5-30L J BORE																
KHG2.5-32R J BORE																
KHG2.5-32L J BORE																
KHG2.5-35R J BORE																
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KHG2.5-44R J BORE																
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KHG2.5-45R J BORE																
KHG2.5-45L J BORE																
KHG2.5-48R J BORE																
KHG2.5-48L J BORE																
KHG2.5-50R J BORE																
KHG2.5-50L J BORE																
KHG2.5-52R J BORE																
KHG2.5-52L J BORE																
KHG2.5-60R J BORE																
KHG2.5-60L J BORE																

- [Caution on J series]
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  - Keyways are made according to JIS B1301 standards, Js9 tolerance.
  - Certain products which would otherwise have a very long tapped hole are contoured 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.



Specifications	
Precision grade	JIS grade N6 (JIS B1702-1: 1998) JIS grade 2 (JIS B1702: 1976)
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
Face width (E)	25
Hub width (F)	16
Total length (G)	41
Screw offset (J)	8



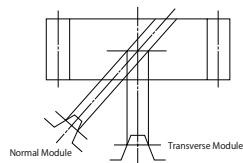
S1

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

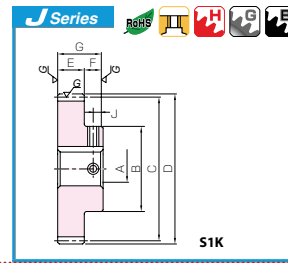
Catalog No.	No. of teeth	Direction of helix	Shape	Bore A <sub>H7</sub>	Hub dia.	Pitch dia.	Outside dia.	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)						
					B	C	D	Bending strength	Surface durability	Bending strength	Surface durability								
KHG3-15R KHG3-15L	15	R L	S1	18	36	45	51	129	74.7	13.2	7.62	0.10~0.20	0.36						
KHG3-16R KHG3-16L	16	R L			38	48	54	143	87.2	14.6	8.89								
KHG3-18R KHG3-18L	18	R L			40	54	60	171	115	17.4	11.8								
KHG3-20R KHG3-20L	20	R L			20	50	60	66	199	148	20.3			15.1	0.12~0.22	0.70			
KHG3-22R KHG3-22L	22	R L				54	66	72	228	184	23.3			18.8					
KHG3-24R KHG3-24L	24	R L				58	72	78	258	224	26.3			22.8					
KHG3-25R KHG3-25L	25	R L				60	75	81	272	245	27.8			25.0					
KHG3-26R KHG3-26L	26	R L				60	78	84	287	268	29.3			27.3					
KHG3-28R KHG3-28L	28	R L				70	84	90	318	316	32.4			32.2					
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		
KHG3-35R KHG3-35L	35	R L					80	105	111	407	498			41.5			50.7		
KHG3-36R KHG3-36L	36	R L	80	108			114	422	530	43.0	54.0								
KHG3-40R KHG3-40L	40	R L	80	120			126	482	670	49.2	68.3								
KHG3-44R KHG3-44L	44	R L	80	132			138	543	828	55.4	84.4								
KHG3-45R KHG3-45L	45	R L	80	135	141		558	869	56.9	88.6									
KHG3-48R KHG3-48L	48	R L	85	144	150		604	1000	61.6	102									
KHG3-50R KHG3-50L	50	R L	30	85	150		156	635	1090	64.7	112	0.14~0.24	3.95						
KHG3-52R KHG3-52L	52	R L		85	156		162	666	1190	67.9	122								
KHG3-60R KHG3-60L	60	R L		90	180		186	757	1560	77.2	159								

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S1K

Newly added



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	18	19	20	22	25	28	30	32	35	40	45	50		
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	
KHG3-15R J BORE														
KHG3-15L J BORE														
KHG3-16R J BORE														
KHG3-16L J BORE														
KHG3-18R J BORE														
KHG3-18L J BORE														
KHG3-20R J BORE														
KHG3-20L J BORE														
KHG3-22R J BORE														
KHG3-22L J BORE														
KHG3-24R J BORE														
KHG3-24L J BORE														
KHG3-25R J BORE														
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KHG3-50L J BORE														
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KHG3-52L J BORE														
KHG3-60R J BORE														
KHG3-60L J BORE														

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