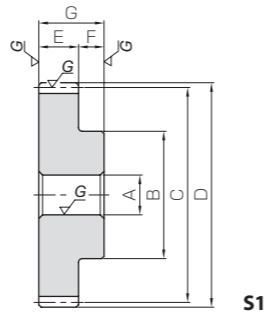




Specifications	
Precision grade	JIS grade N6 (JIS B1702-1: 1998) *
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Transverse pressure angle	20°
Helix angle	21°30'
Material	SCM440
Heat treatment	Thermal refined, tooth surface induction hardened
Tooth hardness	50 ~ 60HRC
Surface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

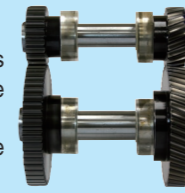
* The precision grade of J Series products is equivalent to the value shown in the table.



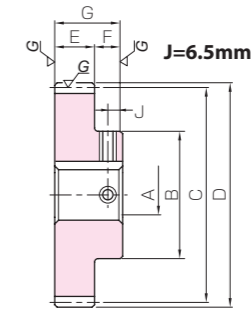
S1

Drop in Replacements for Spur Gears

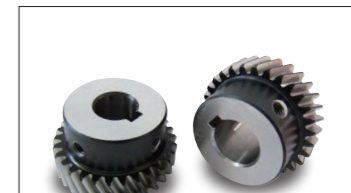
KKHG ground helical gears use a "transverse" module. The assembly distance is the same as spur gear pairs with the same module and number of teeth. Improved strength and low noise: Take the next step up from spur gears.



J Series



S1K



Ground Helical Gears

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			
KKHG2-15R KKHG2-15L	15	R L	S1	H7	12	24	30	34	16	13	29	0.10~0.20	40.5	22.8	4.13	2.32	0.11								
KKHG2-18R KKHG2-18L	18	R L																30	36	40	48.5	31.9	4.95	3.25	0.17
KKHG2-20R KKHG2-20L	20	R L																32	40	44	56.6	40.8	5.77	4.16	0.20
KKHG2-22R KKHG2-22L	22	R L																36	44	48	64.9	50.6	6.62	5.16	0.25
KKHG2-24R KKHG2-24L	24	R L																38	48	52	73.3	61.4	7.47	6.26	0.30
KKHG2-25R KKHG2-25L	25	R L																40	50	54	77.5	67.3	7.90	6.86	0.33
KKHG2-26R KKHG2-26L	26	R L																42	52	56	81.8	73.4	8.34	7.49	0.37
KKHG2-28R KKHG2-28L	28	R L																45	56	60	90.4	86.6	9.21	8.83	0.43
KKHG2-30R KKHG2-30L	30	R L																50	60	64	99.1	101	10.1	10.3	0.50
KKHG2-32R KKHG2-32L	32	R L																50	64	68	108	117	11.0	11.9	0.55
KKHG2-35R KKHG2-35L	35	R L																50	70	74	121	142	12.3	14.5	0.63
KKHG2-36R KKHG2-36L	36	R L																50	72	76	126	151	12.8	15.4	0.65
KKHG2-40R KKHG2-40L	40	R L	20	60	80	84	143	191	14.6	19.5	0.12~0.22	0.85													
KKHG2-44R KKHG2-44L	44	R L											88	92	161	236	16.5	24.0	0.98						
KKHG2-45R KKHG2-45L	45	R L											90	94	166	248	16.9	25.3	1.02						
KKHG2-48R KKHG2-48L	48	R L											96	100	172	273	17.5	27.9	1.13						
KKHG2-50R KKHG2-50L	50	R L											100	104	181	299	18.4	30.5	1.16						
KKHG2-60R KKHG2-60L	60	R L											120	124	225	447	22.9	45.6	1.65						
KKHG2-70R KKHG2-70L	70	R L											140	144	269	625	27.4	63.7	2.21						
KKHG2-80R KKHG2-80L	80	R L											160	164	301	799	30.7	81.4	2.93						
KKHG2-90R KKHG2-90L	90	R L											180	184	344	1030	35.0	105	3.73						
KKHG2-100R KKHG2-100L	100	R L											200	204	387	1290	39.4	132	4.64						

- [Caution on Product Characteristics]
- The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 164 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 KKHG gears are not interchangeable with KSH 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.
 - 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.																											
	12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	45	50											
Keyway Js9	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			
Screw size	M4				M5				M6				M8				M10											
Catalog No.	S1K																											
KKHG2-15R J BORE	S1K																											
KKHG2-15L J BORE	S1K																											
KKHG2-18R J BORE	S1K	S1K	S1K	S1K	S1K																							
KKHG2-18L J BORE	S1K	S1K	S1K	S1K	S1K																							
KKHG2-20R J BORE			S1K	S1K	S1K																							
KKHG2-20L J BORE			S1K	S1K	S1K																							
KKHG2-22R J BORE			S1K	S1K	S1K	S1K	S1K	S1K																				
KKHG2-22L J BORE			S1K	S1K	S1K	S1K	S1K	S1K																				
KKHG2-24R J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K																			
KKHG2-24L J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K																			
KKHG2-25R J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K																		
KKHG2-25L J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K																		
KKHG2-26R J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K																		
KKHG2-26L J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K																		
KKHG2-28R J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K																	
KKHG2-28L J BORE			S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K																	
KKHG2-30R J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K																
KKHG2-30L J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K																
KKHG2-32R J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K															
KKHG2-32L J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K															
KKHG2-35R J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K															
KKHG2-35L J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K															
KKHG2-36R J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K															
KKHG2-36L J BORE						S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K															
KKHG2-40R J BORE									S1K	S1K	S1K	S1K	S1K	S1K	S1K													
KKHG2-40L J BORE									S1K	S1K	S1K	S1K	S1K	S1K	S1K													
KKHG2-44R J BORE									S1K	S1K	S1K	S1K	S1K	S1K	S1K													
KKHG2-44L J BORE									S1K	S1K	S1K	S1K	S1K	S1K	S1K													
KKHG2-45R J BORE									S1K	S1K	S1K	S1K	S1K	S1K	S1K													
KKHG2-45L J BORE									S1K	S1K	S1K	S1K	S1K	S1K	S1K													
KKHG2-48R J BORE									S1K	S1K	S1K	S1K	S1K	S1K	S1K													
KKHG2-48L J BORE									S1K	S1K	S1K	S1K	S1K	S1K	S1K													
KKHG2-50R J BORE											S1K	S1K	S1K	S1K	S1K													
KKHG2-50L J BORE											S1K	S1K	S1K	S1K	S1K													
KKHG2-60R J BORE											S1K	S1K	S1K	S1K	S1K													
KKHG2-60L J BORE											S1K	S1K	S1K	S1K	S1K													
KKHG2-70R J BORE											S1K	S1K	S1K	S1K	S1K	S1K												
KKHG2-70L J BORE											S1K	S1K	S1K	S1K	S1K	S1K												
KKHG2-80R J BORE											S1K	S1K	S1K	S1K	S1K	S1K	S1K											
KKHG2-80L J BORE											S1K	S1K	S1K	S1K	S1K	S1K	S1K											
KKHG2-90R J BORE											S1K	S1K	S1K	S1K	S1K	S1K	S1K											
KKHG2-90L J BORE											S1K	S1K	S1K	S1K	S1K	S1K	S1K											
KKHG2-100R J BORE											S1K	S1K	S1K	S1K	S1K	S1K	S1K											
KKHG2-100L J BORE											S1K	S1K	S1K	S1K	S1K	S1K	S1K											

- [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 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.