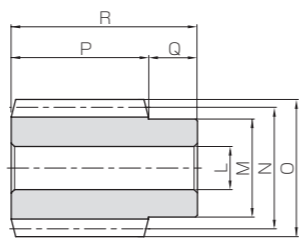




Specifications	
Precision grade	KHK W 001 grade 4 *
Reference section of gear	Normal plane
Gear teeth	Standard full depth
Normal pressure angle	14° 30'
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coating

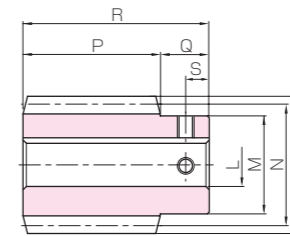
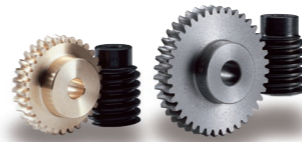
* The precision grade of J Series products is equivalent to the value shown in the table.



W1

Catalog No.	Normal module	Number of starts	Lead angle	Hand thread	Shape	Bore		Pitch dia.	Outside dia.	Face width	Hub width (R)		Hub width (L)
						LH7	M				N	O	
KSW3-R1 KSW3-R1J17 KSW3-R1J18 KSW3-R1J19 KSW3-R1J20	m3	1	3°55'	R	W1	16	35	44	50	50	20	—	
						17							
						18							
						19							
KSW3-R2 KSW3-R2J17 KSW3-R2J18 KSW3-R2J19 KSW3-R2J20	2	7°50'	R	W1	16	35	44	50	50	20	—		
					17								
					18								
					19								
KSW3-L1 KSW3-L1J17 KSW3-L1J18 KSW3-L1J19 KSW3-L1J20	1	3°55'	L	W1	16	35	44	50	50	20	—		
					17								
					18								
					19								
KSW3-L2 KSW3-L2J17 KSW3-L2J18 KSW3-L2J19 KSW3-L2J20	2	7°50'	L	W1	16	35	44	50	50	20	—		
					17								
					18								
					19								

(Caution on Product Characteristics) ① These worms produce axial thrust forces. See Page 362 for more details.



W1K

Total length	Keyway	Set Screw		Weight (kg)	Catalog No.
		Width×Depth	Size		
70	5 × 2.3	M4	10	0.64	KSW3-R1 KSW3-R1J17 KSW3-R1J18 KSW3-R1J19 KSW3-R1J20
				0.62	
				0.60	
				0.58	
70	6 × 2.8	M5	10	0.64	KSW3-R2 KSW3-R2J17 KSW3-R2J18 KSW3-R2J19 KSW3-R2J20
				0.62	
				0.60	
				0.58	
70	6 × 2.8	M5	10	0.64	KSW3-L1 KSW3-L1J17 KSW3-L1J18 KSW3-L1J19 KSW3-L1J20
				0.62	
				0.60	
				0.58	
70	6 × 2.8	M5	10	0.64	KSW3-L2 KSW3-L2J17 KSW3-L2J18 KSW3-L2J19 KSW3-L2J20
				0.62	
				0.60	
				0.58	

(Caution on Secondary Operations)

- Please read "Caution on Performing Secondary Operations" (Page 362) when performing modifications and/or secondary operations for safety concerns.
- Gear tooth hardening of the worm reduces the precision (introduces errors in the lead and pressure angles). Avoid heat treating as it will create bad tooth contact causing abrasion of the wheel.

(Caution on J series)

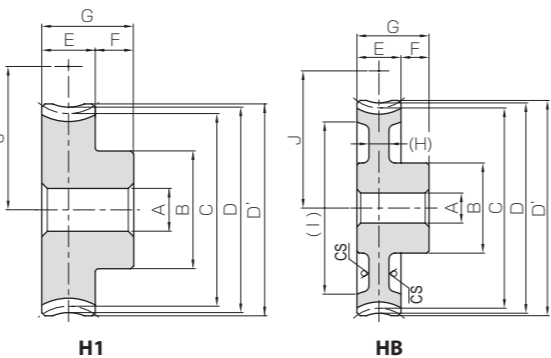
- As available-on-request products, requires a lead-time for shipping within **2 working-days (excludes the day ordered), after placing an order.** Please allow additional shipping time to get to your local distributor.
- Number of products we can process for one order is **1 to 20 units.** For quantities of 21 or more pieces, we need to quote price and lead time.
- Keyways are made according to JIS B1301 standards, Js9 tolerance.
- 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	
Catalog No.	KBG KCG
Precision grade	KHK W 002 grade 4 *
Reference section of gear	Normal plane
Gear teeth	Standard full depth
Normal pressure angle	14° 30'
Material	CAC502 (formerly JIS PBC2) FC200 **
Heat treatment	—
Tooth hardness	—

* The precision grade of J Series products is equivalent to the value shown in the table.
** FC200's tensile strength (200N/mm²) is derived from test specimens and differs according to the product shape.

AH7	Bore
B	Hub dia.
C	Pitch dia.
D	Throat dia.
D'	Outside dia.
E	Face width
F	Hub width
G	Total length
(H)	Web thickness
(I)	Web O.D.
J	Mounting distance



H1

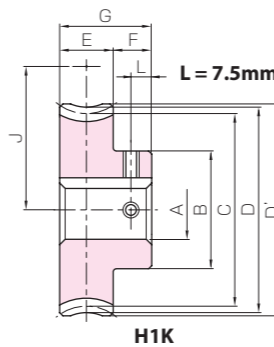
HB

**CS has a sand mold casting finish.

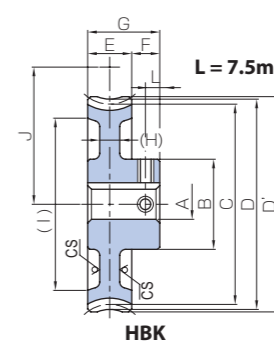
NOTE 1 : Allowable torque based on worm speed (rpm)

Catalog No.	Reduction ratio	No. of teeth	Number of starts	Helix angle Hand thread	Shape	AH7	B	C	D	D'	E	F	G	(H)	(I)	J	Allowable torque (N·m) NOTE 1						Backlash (mm)	Weight (kg)
																	30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm		
KBG3-20R1	20	10	1	3°55'	R	H1	50	60.14	66	69	28	43	—	—	52	22.1	18.1	14.1	11.5	10.0	0.15~0.33	0.89		
KBG3-20R2	20	2	7°50'																					
KBG3-20L1	20	10	1	3°55'	L	H1	50	60.14	66	69	28	43	—	—	52	22.1	18.1	14.1	11.5	10.0	0.15~0.33	0.73		
KBG3-20L2	20	2	7°50'																					
KBG3-30R1	30	15	1	3°55'	R	H1	55	90.21	96	99	28	43	—	—	67	46.6	38.7	30.6	25.4	22.2	0.15~0.33	1.50		
KBG3-30R2	30	2	7°50'																					
KBG3-40R1	40	20	1	3°55'	R	H1	55	120.28	126	129	30	45	(9)	(107)	82	79.8	66.3	53.2	44.6	39.1	0.15~0.33	1.79		
KBG3-50R1	50	25	1	3°55'																				
KBG3-50R2	50	2	7°50'		HB	63	151.41	156	159	30	15	45	(9)	(138)	97	121	100	81.1	68.4	60.5	0.15~0.33	2.50		
KBG3-60R1	60	60	1	3°55'																				
KBG3-20L1	20	10	1	3°55'	L	H1	50	60.14	66	69	28	43	—	—	52	22.1	18.1	14.1	11.5	10.0	0.15~0.33	0.73		
KBG3-20L2	20	2	7°50'																					
KBG3-30L1	30	15	1	3°55'	L	H1	55	90.21	96	99	28	43	—	—	67	46.6	38.7	30.6	25.4	22.2	0.15~0.33	1.50		
KBG3-30L2	30	2	7°50'																					
KBG3-40L1	40	20	1	3°55'	L	H1	55	120.28	126	129	30	45	(9)	(107)	82	79.8	66.3	53.2	44.6	39.1	0.15~0.33	1.79		
KBG3-50L1	50	25	1	3°55'																				
KBG3-50L2	50	2	7°50'		HB	63	151.41	156	159	30	15	45	(9)	(138)	97	121	100	81.1	68.4	60.5	0.15~0.33	2.50		
KBG3-60L1	60	60	1	3°55'																				

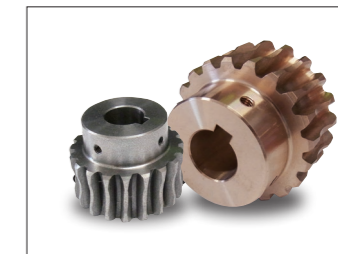
* Please see Page 394 for Cautions on Product Characteristics and Cautions on Performing Secondary Operations.



H1K



HBK



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.							
	20	22	25	28	30	32	35	40
Keyway Js9	20		25			30		
Screw size	6 × 2.8			8 × 3.3			10 × 3.3	
Catalog No.	M5				M8			
KBG3-20R1 J BORE	H1K	H1K	H1K	H1K	H1K			
KBG3-20R2 J BORE	H1K	H1K	H1K	H1K	H1K			
KBG3-20L1 J BORE	H1K	H1K	H1K	H1K	H1K			
KBG3-20L2 J BORE	H1K	H1K	H1K	H1K	H1K			
KCG3-20R1 J BORE	H1K	H1K	H1K	H1K	H1K			
KCG3-20R2 J BORE	H1K	H1K	H1K	H1K	H1K			
KCG3-30R1 J BORE	H1K	H1K	H1K	H1K	H1K			
KCG3-30R2 J BORE	H1K	H1K	H1K	H1K	H1K			
KCG3-40R1 J BORE	HBK	HBK	HBK	HBK	HBK	HBK		
KCG3-50R1 J BORE	HBK	HBK	HBK	HBK	HBK	HBK	HBK	
KCG3-50R2 J BORE	HBK	HBK	HBK	HBK	HBK	HBK	HBK	
KCG3-60R1 J BORE	HBK	HBK	HBK	HBK	HBK	HBK	HBK	HBK
KCG3-20L1 J BORE	H1K	H1K	H1K	H1K	H1K			
KCG3-20L2 J BORE	H1K	H1K	H1K	H1K	H1K			
KCG3-30L1 J BORE	H1K	H1K	H1K	H1K	H1K			
KCG3-30L2 J BORE	H1K	H1K	H1K	H1K	H1K			
KCG3-40L1 J BORE	HBK	HBK	HBK	HBK	HBK	HBK		
KCG3-50L1 J BORE	HBK	HBK	HBK	HBK	HBK	HBK	HBK	
KCG3-50L2 J BORE	HBK	HBK	HBK	HBK	HBK	HBK	HBK	
KCG3-60L1 J BORE	HBK	HBK	HBK	HBK	HBK	HBK	HBK	HBK

(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 counterbored to reduce the length of the tap.
- For products having a tapped hole, a set screw is included.