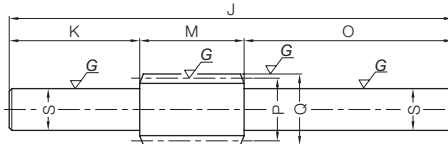




Ground Worm Shafts



Specifications	
Precision grade	KHK W 001 grade 2
Reference section of gear	Axial direction
Gear teeth	Standard full depth
Normal pressure angle	20°
Material	SCM440
Heat treatment	Thermal refined, gear teeth induction hardened
Tooth hardness	50 to 60HRC



W5

Catalog Number	Axial module	Number of Starts	Nominal lead angle	Direction of helix	Shape	Total Length	Shaft length (L)	Neck length (left)	Face width	Neck length (right)	Shaft length (R)	Pitch dia.
						J	K	L	M	N	O	P
KWG0.5-R1 KWG0.5-R2	m0.5	1 2	3°11' 6°20'	R	W5	65	19	—	12	—	34	9
KWG0.8-R1 KWG0.8-R2	m0.8	1 2	3°49' 7°36'	R	W5	85	25	—	20	—	40	12

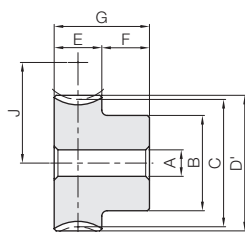
Outside dia.	Neck dia.	Shaft dia.	Weight (kg)	Catalog Number
Q	R	Sh7		
10	—	6	0.018	KWG0.5-R1 KWG0.5-R2
13.6	—	8	0.043	KWG0.8-R1 KWG0.8-R2



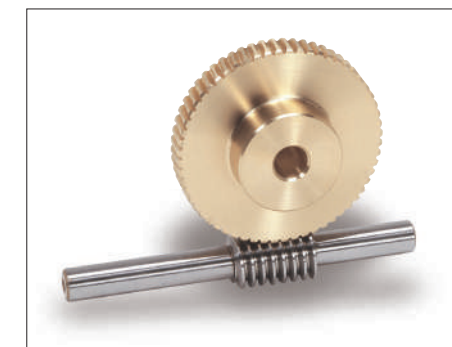
Worm Wheels



Specifications	
Precision grade	KHK W 002 grade 2
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Normal pressure angle	20°
Material	CAC702 (old JIS A & BC2)
Heat Treatment	—
Tooth hardness	—



HA



Catalog Number	Reduction ratio	Transverse module	No. of teeth	No. of starts of mating worm	Lead angle	Direction of helix	Shape	Bore	Hub dia.	Pitch dia.	Throat dia.	Outside dia.	Face width	Hub width					
								AH7	B	C	D	D'	E	F					
AG0.5-20R1 AG0.5-20R2 AG0.5-30R1 AG0.5-30R2 AG0.5-40R1	20 10 30 15 40	m0.5	20 20 30 30 40	1 2 1 2 1	3°11' 6°20' 3°11' 6°20' 3°11'	R	HA	4 4 4 4 5	9 9 12 12 15	10 10 15 15 20	—	11 11 16 16 21	5	7					
AG0.5-50R1 AG0.5-60R1	50 60		50 60	1 1	3°11' 3°11'			5 5	20 25	25 30	26 31								
AG0.8-20R1 AG0.8-20R2 AG0.8-30R1 AG0.8-30R2 AG0.8-40R1	20 10 30 15 40		m0.8	20 20 30 30 40	1 2 1 2 1			3°49' 7°36' 3°49' 7°36' 3°49'	R	HA	5 5 5 5 6	12 12 18 18 20			16 16 24 24 32	—	17.6 17.6 25.6 25.6 33.6	8	8
AG0.8-50R1 AG0.8-60R1	50 60			50 60	1 1			3°49' 3°49'			8 8	25 25			40 48	41.6 49.6			

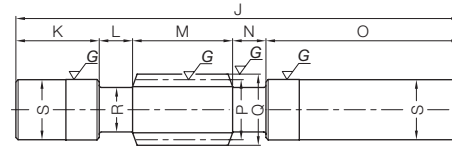
NOTE 1: Allowable torque based on worm speed (rpm)

Total length	Web thickness	Web O.D.	Mounting distance	Allowable torque (N·m) <small>NOTE 1</small>								Backlash (mm)	Weight (kg)	Catalog Number
				30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm	1800 rpm				
12	—	—	J	9.5	0.52	0.44	0.36	0.30	0.26	0.24	0.21	0.02~0.12	0.0056	AG0.5-20R1 AG0.5-20R2 AG0.5-30R1 AG0.5-30R2 AG0.5-40R1
				9.5	0.51	0.42	0.33	0.27	0.24	0.22	0.19			
				12	1.09	0.94	0.77	0.65	0.58	0.53	0.48			
				12	1.09	0.92	0.73	0.60	0.54	0.49	0.43			
				14.5	1.86	1.60	1.34	1.15	1.02	0.94	0.84			
16	—	—	J	17	2.82	2.42	2.05	1.77	1.58	1.46	1.30	0.02~0.12	0.035	AG0.5-50R1 AG0.5-60R1
				19.5	3.94	3.41	2.89	2.50	2.26	2.08	1.87			
				14	1.78	1.50	1.21	1.00	0.88	0.82	0.71			
				14	1.76	1.44	1.11	0.91	0.80	0.74	0.63			
				18	3.77	3.21	2.62	2.20	1.96	1.81	1.61			
16	—	—	J	18	3.75	3.14	2.46	2.02	1.80	1.65	1.45	0.02~0.12	0.043	AG0.8-20R1 AG0.8-20R2 AG0.8-30R1 AG0.8-30R2 AG0.8-40R1
				22	6.45	5.49	4.55	3.87	3.46	3.19	2.83			
				26	9.75	8.31	6.94	5.94	5.34	4.96	4.38			
				30	13.6	11.7	9.77	8.39	7.63	7.05	6.27			
				30	13.6	11.7	9.77	8.39	7.63	7.05	6.27			





Specifications	
Precision grade	KHK W 001 grade 2
Reference section of gear	Axial direction
Gear teeth	Standard full depth
Normal pressure angle	20°
Material	SCM440
Heat treatment	Thermal refined, gear teeth induction hardened
Tooth hardness	50 to 60HRC
Surface treatment	Black oxide coated except for ground part



W6

Catalog Number	Axial module	Number of Starts	Nominal lead angle	Direction of helix	Shape	Total Length		Shaft length (L)		Face width		Shaft length (R)		Pitch dia.
						J	K	L	M	N	O	P		
KWG1-R1 KWG1-R2	m1	1 2	3°35' 7°08'	R	W6	140	35	10	30	10	55	16		
KWG1.5-R1 KWG1.5-R2	m1.5	1 2	3°26' 6°51'	R	W6	190	50	15	40	15	70	25		

Outside dia.	Neck dia.	Shaft dia.	Weight (kg)	Catalog Number
Q	R	S		
18	13	18.2	0.25	KWG1-R1 KWG1-R2
28	21	26.2	0.74	KWG1.5-R1 KWG1.5-R2

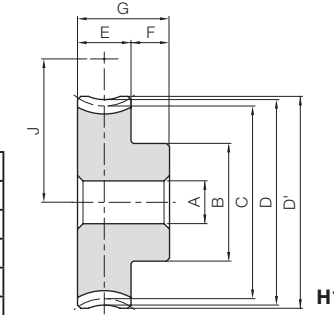
AG Module 1, 1.5
Worm Wheels



Specifications	
Precision grade	KHK W 002 grade 2
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Normal pressure angle	20°
Material	CAC702 (old JIS A & BC2)
Heat Treatment	—
Tooth hardness	—

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

A _{H7}	Bore
B	Hub dia.
C	Pitch dia.
D	Throat dia.
D'	Outside dia.
E	Face width
F	Hub width
G	Total length
J	Mounting distance



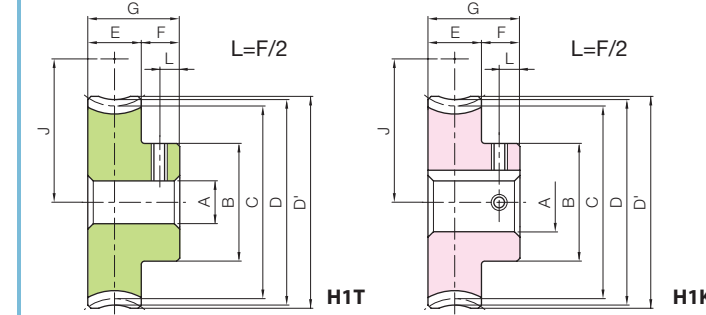
H1

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

Catalog Number	Reduction ratio	No. of teeth	No. of starts of mating worm	Lead angle helix direction	Shape	A _{H7}	B	C	D	D'	E	F	G	J	Allowable torque (N·m) NOTE 1								Backlash (mm)	Weight (kg)
															30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm	1800 rpm			
AG1-20R1	20	20	1	3°35'	R	H1	6	16	20	22	23			18	3.35	2.79	2.23	1.83	1.63	1.50	1.30	0.04~0.14	0.038	
AG1-20R2	10	20	2	7°08'			6	16	20	22	23				18	3.31	2.69	2.06	1.68	1.48	1.35			1.15
AG1-30R1	30	30	1	3°35'			6	20	30	32	33				23	7.08	5.98	4.84	4.05	3.63	3.31			2.92
AG1-30R2	15	30	2	7°08'			6	20	30	32	33	10	10	20	23	7.03	5.84	4.56	3.72	3.33	3.03			2.63
AG1-40R1	40	40	1	3°35'			8	26	40	42	43				28	12.1	10.2	8.43	7.12	6.38	5.86			5.13
AG1-50R1	50	50	1	3°35'			8	30	50	52	53				33	18.3	15.5	12.9	10.9	9.87	9.09			7.95
AG1-60R1	60	60	1	3°35'	10	35	60	62	63				38	25.6	21.8	18.1	15.4	14.1	12.9	11.4				
AG1.5-20R1	20	20	1	3°26'	R	H1	8	22	30	33	34.5			27.5	9.84	8.18	6.40	5.30	4.68	4.25	3.68	0.04~0.14	0.10	
AG1.5-20R2	10	20	2	6°51'			8	22	30	33	34.5				27.5	9.72	7.87	5.92	4.87	4.25	3.83			3.27
AG1.5-30R1	30	30	1	3°26'			10	30	45	48	49.5				35	20.8	17.5	13.9	11.7	10.4	9.40			8.28
AG1.5-30R2	15	30	2	6°51'			10	30	45	48	49.5	14	10	24	35	20.7	17.1	13.1	10.8	9.56	8.58			7.46
AG1.5-40R1	40	40	1	3°26'			12	35	60	63	64.5				42.5	35.6	30.0	24.2	20.6	18.3	16.6			14.6
AG1.5-50R1	50	50	1	3°26'			12	45	75	78	79.5				50	53.8	45.4	36.9	31.6	28.3	25.8			22.6
AG1.5-60R1	60	60	1	3°26'	12	50	90	93	94.5				57.5	75.3	63.8	51.9	44.7	40.4	36.7	32.4				

Worm Wheels

J Series



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	—		4x1.8			5x2.3				6x2.8			8x3.3		
Screw size	—		4x1.8			5x2.3				6x2.8			8x3.3		
Catalog Number	M4	M5	M4				M5			M6					
AG1-20R1 J BORE	H1T														
AG1-20R2 J BORE	H1T														
AG1-30R1 J BORE	H1T	H1T													
AG1-30R2 J BORE	H1T	H1T													
AG1-40R1 J BORE		H1T	H1K	H1K											
AG1-50R1 J BORE		H1T	H1K	H1K	H1K	H1K	H1K	H1K							
AG1-60R1 J BORE			H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K					
AG1.5-20R1 J BORE		H1T	H1K												
AG1.5-20R2 J BORE		H1T	H1K												
AG1.5-30R1 J BORE			H1K	H1K	H1K	H1K	H1K	H1K							
AG1.5-30R2 J BORE			H1K	H1K	H1K	H1K	H1K	H1K							
AG1.5-40R1 J BORE			H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K					
AG1.5-50R1 J BORE			H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	
AG1.5-60R1 J BORE			H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K	H1K

