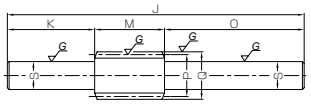
KWG Ground Worm Shafts

Module 0.5、0.8

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



W5

Catalog No.	Axial module	Number of starts	Lead angle	Hand thread	Shape	Total length J	Shaft length (L) K	Neck length (L) L	Face width M	Neck length (R) N	Shaft length (R) O	Pitch dia. P
KWG0.5-R1	*m0.5*	1	3°11'	R	W5	65	19	—	12	—	34	9
KWG0.5-R2		2	6°20'	R	W5	65	19	—	12	—	34	9
KWG0.8-R1	*m0.8*	1	3°49'	R	W5	85	25	—	20	—	40	12
KWG0.8-R2		2	7°36'	R	W5	85	25	—	20	—	40	12

Outside dia. Q	Neck dia. R	Shaft dia. S_{h7}	Weight (kg)	Catalog No.
10	—	6	0.018	**KWG0.5-R1**
10	—	6	0.018	**KWG0.5-R2**
13.6	—	8	0.043	**KWG0.8-R1**
13.6	—	8	0.043	**KWG0.8-R2**

[Caution on Product Characteristics] ① These worms produce axial thrust forces. See Page 344 for more details.

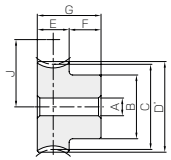
[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 344) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.
② Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm). Use carbide tools for the modification of the shaft area near the bottom land.

＊ For products not categorized in our KHK Stock Gear series, custom gear production services with short lead times is available. For details see Page 8.

AG Worm Wheels

Module 0.5、0.8

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 (formerly JIS AlBC2)
Heat treatment	—
Tooth hardness	—



HA

Catalog No.	Reduction ratio	Transverse module	No. of teeth	Number of starts	Helix angle	Hand thread	Shape	Bore A_{H7}	Hub dia. B	Pitch dia. C	Throat dia. D	Outside dia. D'	Face width E
AG0.5-20R1	20	*m0.5*	20	1	3°11'	R	HA	4	9	10	—	11	5
AG0.5-20R2	10		20	2	6°20'	R	HA	4	9	10	—	11	5
AG0.5-30R1	30		30	1	3°11'	R	HA	4	12	15	—	16	5
AG0.5-30R2	15		30	2	6°20'	R	HA	4	12	15	—	16	5
AG0.5-40R1	40		40	1	3°11'	R	HA	5	15	20	—	21	5
AG0.5-50R1	50		50	1	3°11'	R	HA	5	20	25	—	26	5
AG0.5-60R1	60		60	1	3°11'	R	HA	5	25	30	—	31	5
AG0.8-20R1	20	*m0.8*	20	1	3°49'	R	HA	5	12	16	—	17.6	8
AG0.8-20R2	10		20	2	7°36'	R	HA	5	12	16	—	17.6	8
AG0.8-30R1	30		30	1	3°49'	R	HA	5	18	24	—	25.6	8
AG0.8-30R2	15		30	2	7°36'	R	HA	5	18	24	—	25.6	8
AG0.8-40R1	40		40	1	3°49'	R	HA	6	20	32	—	33.6	8
AG0.8-50R1	50		50	1	3°49'	R	HA	8	25	40	—	41.6	8
AG0.8-60R1	60		60	1	3°49'	R	HA	8	25	48	—	49.6	8

NOTE 1 : Allowable torque for worm revolution (rpm)

Hub width F	Total length G	Web thickness (H)	Web O.D. (I)	Mounting distance J	Allowable torque (N·m) NOTE 1 30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm	1800 rpm	Backlash (mm)	Weight (kg)	Catalog No.
7	12	—	—	9.5	0.52	0.44	0.36	0.30	0.26	0.24	0.21	0.02~0.14	0.0056	**AG0.5-20R1**
7	12	—	—	9.5	0.51	0.42	0.33	0.27	0.24	0.22	0.19	0.02~0.14	0.0056	**AG0.5-20R2**
7	12	—	—	12	1.09	0.94	0.77	0.65	0.58	0.53	0.48	0.02~0.14	0.012	**AG0.5-30R1**
7	12	—	—	12	1.09	0.92	0.73	0.60	0.54	0.49	0.43	0.02~0.14	0.012	**AG0.5-30R2**
7	12	—	—	14.5	1.86	1.60	1.34	1.15	1.02	0.94	0.84	0.02~0.14	0.020	**AG0.5-40R1**
7	12	—	—	17	2.82	2.42	2.05	1.77	1.58	1.46	1.30	0.02~0.14	0.035	**AG0.5-50R1**
7	12	—	—	19.5	3.94	3.41	2.89	2.50	2.26	2.08	1.87	0.02~0.14	0.053	**AG0.5-60R1**
8	16	—	—	14	1.78	1.50	1.21	1.00	0.88	0.82	0.71	0.06~0.17	0.018	**AG0.8-20R1**
8	16	—	—	14	1.76	1.44	1.11	0.91	0.80	0.74	0.63	0.06~0.17	0.018	**AG0.8-20R2**
8	16	—	—	18	3.77	3.21	2.62	2.20	1.96	1.81	1.61	0.06~0.17	0.043	**AG0.8-30R1**
8	16	—	—	18	3.75	3.14	2.46	2.02	1.80	1.65	1.45	0.06~0.17	0.043	**AG0.8-30R2**
8	16	—	—	22	6.45	5.49	4.55	3.87	3.46	3.19	2.83	0.06~0.17	0.068	**AG0.8-40R1**
8	16	—	—	26	9.75	8.31	6.94	5.94	5.34	4.96	4.38	0.06~0.17	0.10	**AG0.8-50R1**
8	16	—	—	30	13.6	11.7	9.77	8.39	7.63	7.05	6.27	0.06~0.17	0.14	**AG0.8-60R1**

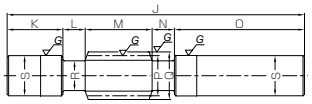
[Caution on Product Characteristics] ① The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see Page 342 for more details.

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 344) 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.

KWG Ground Worm Shafts

Module 1、1.5

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



W6

Catalog No.	Axial module	Number of starts	Lead angle	Hand thread	Shape	Total length J	Shaft length (L) K	Neck length (L) L	Face width M	Neck length (R) N	Shaft length (R) O	Pitch dia. P
KWG1-R1	*m*1	1	3°35'	R	W6	140	35	10	30	10	55	16
KWG1-R2		2	7°08'	R	W6	140	35	10	30	10	55	16
KWG1.5-R1	*m*1.5	1	3°26'	R	W6	190	50	15	40	15	70	25
KWG1.5-R2		2	6°51'	R	W6	190	50	15	40	15	70	25

Outside dia. Q	Neck dia. R	Shaft dia. S	Weight (kg)	Catalog No.
18	13	18.2	0.25	**KWG1-R1**
18	13	18.2	0.25	**KWG1-R2**
28	21	26.2	0.74	**KWG1.5-R1**
28	21	26.2	0.74	**KWG1.5-R2**

[Caution on Product Characteristics] ① These worms produce axial thrust forces. See Page 344 for more details.

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 344) 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). Use carbide tools for the modification of the shaft area near the bottom land.

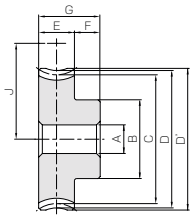
AG Worm Wheels

Module 1、1.5

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 (formerly JIS AIBC2)	
Heat treatment	—	
Tooth hardness	—	
Module	*m*1	*m*1.5
Face width (E)	10	14
Hub width (F)	10	10
Total length (G)	20	24
Screw offset (L)	5	5

∗ 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.
(H)	Web thickness
(l)	Web O.D.
J	Mounting distance



H1

NOTE 1 : Allowable torque for worm revolution (rpm)

Catalog No.	Reduction ratio	No. of teeth	Number of starts	Helix angle	Hand thread	Shape	A_{H7}	B	C	D	D'	(H)	(l)	J	Allowable torque (N-m) NOTE 1 30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm	1800 rpm	Backlash (mm)	Weight (kg)
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	0.08~0.19	0.038
AG1-20R2	10	20	2	7°08'	R	H1	6	16	20	22	23	—	—	18	3.31	2.69	2.06	1.68	1.48	1.35	1.15	0.08~0.19	0.038
AG1-30R1	30	30	1	3°35'	R	H1	6	20	30	32	33	—	—	23	7.08	5.98	4.84	4.05	3.63	3.31	2.92	0.08~0.19	0.078
AG1-30R2	15	30	2	7°08'	R	H1	6	20	30	32	33	—	—	23	7.03	5.84	4.56	3.72	3.33	3.03	2.63	0.08~0.19	0.078
AG1-40R1	40	40	1	3°35'	R	H1	8	26	40	42	43	—	—	28	12.1	10.2	8.43	7.12	6.38	5.86	5.13	0.08~0.19	0.13
AG1-50R1	50	50	1	3°35'	R	H1	8	30	50	52	53	—	—	33	18.3	15.5	12.9	10.9	9.87	9.09	7.95	0.08~0.19	0.20
AG1-60R1	60	60	1	3°35'	R	H1	10	35	60	62	63	—	—	38	25.6	21.8	18.1	15.4	14.1	12.9	11.4	0.08~0.19	0.29
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	0.10~0.21	0.10
AG1.5-20R2	10	20	2	6°51'	R	H1	8	22	30	33	34.5	—	—	27.5	9.72	7.87	5.92	4.87	4.25	3.83	3.27	0.10~0.21	0.10
AG1.5-30R1	30	30	1	3°26'	R	H1	10	30	45	48	49.5	—	—	35	20.8	17.5	13.9	11.7	10.4	9.40	8.28	0.10~0.21	0.22
AG1.5-30R2	15	30	2	6°51'	R	H1	10	30	45	48	49.5	—	—	35	20.7	17.1	13.1	10.8	9.56	8.58	7.46	0.10~0.21	0.22
AG1.5-40R1	40	40	1	3°26'	R	H1	12	35	60	63	64.5	—	—	42.5	35.6	30.0	24.2	20.6	18.3	16.6	14.6	0.10~0.21	0.37
AG1.5-50R1	50	50	1	3°26'	R	H1	12	45	75	78	79.5	—	—	50	53.8	45.4	36.9	31.6	28.3	25.8	22.6	0.10~0.21	0.59
AG1.5-60R1	60	60	1	3°26'	R	H1	12	50	90	93	94.5	—	—	57.5	75.3	63.8	51.9	44.7	40.4	36.7	32.4	0.10~0.21	0.83

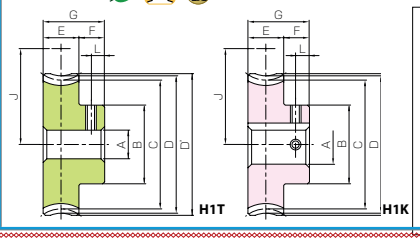
[Caution on Product Characteristics] ① The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see Page 342 for more details.

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 344) 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.

J Series

Worm Wheels

Newly added



H1T H1K

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

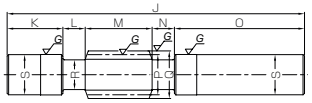
Bore H7	∗ The product shapes of J Series items are identified by background color.														
Keyway Js9	6	8	10	12	14	15	16	17	18	19	20	22	25	28	30
Screw size	—		4 × 1.8		5 × 2.3				6 × 2.8				8 × 3.3		
Catalog No.	M4	M5	M4						M5				M6		
AG1-20R1 J BORE															
AG1-20R2 J BORE															
AG1-30R1 J BORE															
AG1-30R2 J BORE															
AG1-40R1 J BORE															
AG1-50R1 J BORE															
AG1-60R1 J BORE															
AG1.5-20R1 J BORE															
AG1.5-20R2 J BORE															
AG1.5-30R1 J BORE															
AG1.5-30R2 J BORE															
AG1.5-40R1 J BORE															
AG1.5-50R1 J BORE															
AG1.5-60R1 J BORE															

[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, Js9 tolerance.
④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap.
⑤ For products having a tapped hole, a set screw is included.

KWG Ground Worm Shafts

Module 2、2.5

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



W6

Catalog No.	Axial module	Number of starts	Lead angle	Hand thread	Shape	Total length J	Shaft length (L) K	Neck length (L) L	Face width M	Neck length (R) N	Shaft length (R) O	Pitch dia. P
KWG2-R1	*m2*	1	5°12'	R	W6	200	35	25	40	25	75	22
KWG2-R2		2	10°18'	R	W6	200	35	25	40	25	75	22
KWG2.5-R1	*m2.5*	1	4°46'	R	W6	250	50	27	46	27	100	30
KWG2.5-R2		2	9°28'	R	W6	250	50	27	46	27	100	30

[Caution on Product Characteristics] ① These worms produce axial thrust forces. See Page 344 for more details.

Outside dia. Q	Neck dia. R	Shaft dia. S	Weight (kg)	Catalog No.
26	17	25.2	0.64	**KWG2-R1**
26	17	25.2	0.64	**KWG2-R2**
35	23	30.2	1.27	**KWG2.5-R1**
35	23	30.2	1.27	**KWG2.5-R2**

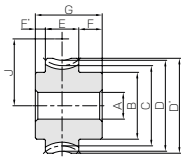
[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 344) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.
② Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm). Use carbide tools for the modification of the shaft area near the bottom land.

AGF Worm Wheels

Module 2、2.5

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 (formerly JIS AlBC2) ＊
Heat treatment	—
Tooth hardness	—

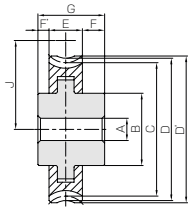
＊ H8, H9 shape have a hub made from FC200 cast iron.



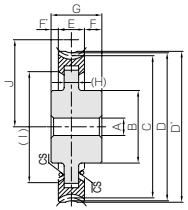
H6

Catalog No.	Reduction ratio	Transverse module	No. of teeth	Number of starts	Profile shift coefficient	Helix angle	Hand thread	Shape	Bore A_{H7}	Hub dia. B	Pitch dia. C	Throat dia. D	Outside dia. D'	Face width E	Hub width(R) F
AGF2-20R1	20	*m2*	20	1	−0.5	5°12'	R	H6	12	32	40	42	44	18	12
AGF2-20R2	10		20	2	−0.5	10°18'	R	H6	12	32	40	42	44	18	12
AGF2-25R1	25		25	1	−0.5	5°12'	R	H6	12	35	50	52	54	18	12
AGF2-30R1	30		30	1	−0.5	5°12'	R	H6	12	38	60	62	64	18	12
AGF2-30R2	15		30	2	−0.5	10°18'	R	H6	12	38	60	62	64	18	12
AGF2-36R1	36		36	1	0	5°12'	R	H6	12	40	72	76	78	18	12
AGF2-40R1	40		40	1	−0.5	5°12'	R	H8	12	45	80	82	84	18	12
AGF2-48R1	48		48	1	+0.5	5°12'	R	H9	12	50	96	102	104	18	12
AGF2-50R1	50		50	1	−0.5	5°12'	R	H9	12	50	100	102	104	18	12
AGF2-60R1	60		60	1	−0.5	5°12'	R	H9	12	50	120	122	124	18	12
AGF2.5-20R1	20	*m2.5*	20	1	0	4°46'	R	H6	12	35	50	55	57.5	20	15
AGF2.5-20R2	10		20	2	0	9°28'	R	H6	12	35	50	55	57.5	20	15
AGF2.5-25R1	25		25	1	0	4°46'	R	H6	12	40	62.5	67.5	70	20	15
AGF2.5-30R1	30		30	1	0	4°46'	R	H6	12	40	75	80	82.5	20	15
AGF2.5-30R2	15		30	2	0	9°28'	R	H6	12	40	75	80	82.5	20	15
AGF2.5-36R1	36		36	1	0	4°46'	R	H8	12	45	90	95	97.5	20	15
AGF2.5-40R1	40		40	1	0	4°46'	R	H8	12	50	100	105	107.5	20	15
AGF2.5-48R1	48		48	1	0	4°46'	R	H9	12	50	120	125	127.5	20	15
AGF2.5-50R1	50		50	1	0	4°46'	R	H9	12	55	125	130	132.5	20	15
AGF2.5-60R1	60		60	1	0	4°46'	R	H9	12	60	150	155	157.5	20	15

[Caution on Product Characteristics] ①The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see Page 342 for more details.
② There may be space in the casting between the two materials, but it will not affect the joint strength.



H8



H9

＊ CS has a sand mold casting finish.

NOTE 1 : Allowable torque for worm revolution (rpm)

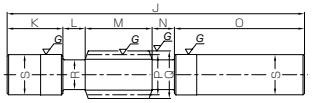
Hub width F	Total length G	Web thickness (H)	Web O.D. (I)	Mounting distance J	Allowable torque (N-m) NOTE 1 30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm	1800 rpm	Backlash (mm)	Weight (kg)	Catalog No.
5	35	—	—	30	19.4	16.1	12.8	10.5	9.30	8.49	7.31	0.11~0.24	0.25	**AGF2-20R1**
5	35	—	—	30	19.9	16.1	12.2	9.99	8.75	7.92	6.74	0.11~0.24	0.25	**AGF2-20R2**
5	35	—	—	35	29.4	24.5	19.6	16.3	14.4	13.2	11.4	0.11~0.24	0.37	**AGF2-25R1**
5	35	—	—	40	41.1	34.5	27.7	23.2	20.7	18.8	16.4	0.11~0.24	0.51	**AGF2-30R1**
5	35	—	—	40	42.3	35.0	27.0	22.1	19.9	17.7	15.4	0.11~0.24	0.51	**AGF2-30R2**
5	35	—	—	47	57.8	48.6	39.3	33.2	29.6	27.0	23.6	0.11~0.24	0.73	**AGF2-36R1**
5	35	—	—	50	70.3	59.2	48.1	40.7	36.4	33.2	28.9	0.11~0.24	0.85	**AGF2-40R1**
5	35	(10)	(76)	60	98.5	83.0	68.0	57.9	51.9	47.5	41.3	0.11~0.24	1.14	**AGF2-48R1**
5	35	(12)	(81)	60	106	89.5	73.4	62.5	56.2	51.5	44.9	0.11~0.24	1.14	**AGF2-50R1**
5	35	(12)	(96)	70	149	126	103	88.4	80.3	73.3	64.2	0.11~0.24	1.51	**AGF2-60R1**
5	40	—	—	40	35.1	29.0	22.6	18.6	16.3	14.8	12.8	0.14~0.27	0.44	**AGF2.5-20R1**
5	40	—	—	40	34.6	27.9	20.9	17.1	14.8	13.4	11.3	0.14~0.27	0.44	**AGF2.5-20R2**
5	40	—	—	46.25	53.0	43.9	34.8	28.9	25.3	23.0	20.0	0.14~0.27	0.66	**AGF2.5-25R1**
5	40	—	—	52.5	74.1	62.0	49.1	41.2	36.7	32.8	28.7	0.14~0.27	0.87	**AGF2.5-30R1**
5	40	—	—	52.5	73.6	60.6	46.2	37.8	33.2	29.9	25.8	0.14~0.27	0.87	**AGF2.5-30R2**
5	40	—	—	60	104	87.4	69.8	59.0	51.8	47.1	41.2	0.14~0.27	1.19	**AGF2.5-36R1**
5	40	—	—	65	127	106	85.4	72.4	63.7	57.9	50.5	0.14~0.27	1.23	**AGF2.5-40R1**
5	40	(13)	(97)	75	178	149	121	103	90.8	83.1	72.2	0.14~0.27	1.72	**AGF2.5-48R1**
5	40	(13)	(100)	77.5	192	161	130	111	98.4	90.0	78.3	0.14~0.27	1.92	**AGF2.5-50R1**
5	40	(13)	(125)	90	268	226	183	157	141	128	112	0.14~0.27	2.59	**AGF2.5-60R1**

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 344) 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.
②The tooth and the hub areas, fastened by casting, are designed to have higher hardness than other parts of the gear. However, please avoid areas other than the hub. Also, the strength may decrease if secondary operations are performed.

KWG
Ground Worm Shafts

Module 3、4

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



W6

Catalog No.	Axial module	Number of starts	Lead angle	Hand thread	Shape	Total length J	Shaft length (L) K	Neck length (L) L	Face width M	Neck length (R) N	Shaft length (R) O	Pitch dia. P
KWG3-R1	*m3*	1	4°31'	R	W6	300	55	30	60	30	125	38
KWG3-R2		2	8°58'	R	W6	300	55	30	60	30	125	38
KWG4-R1	*m4*	1	5°43'	R	W6	360	70	32.5	75	32.5	150	40
KWG4-R2		2	11°19'	R	W6	360	70	32.5	75	32.5	150	40

[Caution on Product Characteristics] ① These worms produce axial thrust forces. See Page 344 for more details.

Outside dia. Q	Neck dia. R	Shaft dia. S	Weight (kg)	Catalog No.
44	30	40.2	2.66	**KWG3-R1**
44	30	40.2	2.66	**KWG3-R2**
48	29	45.2	3.85	**KWG4-R1**
48	29	45.2	3.85	**KWG4-R2**

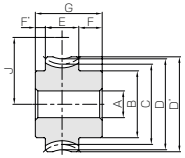
[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 344) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.
② Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm). Use carbide tools for the modification of the shaft area near the bottom land.

AGF
Worm Wheels

Module 3、4

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 (formerly JIS A ℓ BC2) ＊
Heat treatment	—
Tooth hardness	—

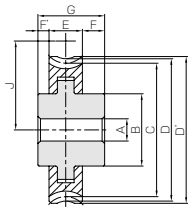
＊ H8, H9 shape have a hub made from FC200 cast iron.



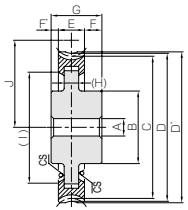
H6

Catalog No.	Reduction ratio	Transverse module	No. of teeth	Number of starts	Profile shift coefficient	Helix angle	Hand thread	Shape	Bore A_{H7}	Hub dia. B	Pitch dia. C	Throat dia. D	Outside dia. D'	Face width E	Hub width(R) F
AGF3-20R1	20	*m3*	20	1	+0.333	4°31'	R	H6	20	50	60	68	71	25	17.5
AGF3-20R2	10		20	2	+0.333	8°58'	R	H6	20	50	60	68	71	25	17.5
AGF3-25R1	25		25	1	0	4°31'	R	H6	20	55	75	81	84	25	17.5
AGF3-30R1	30		30	1	+0.333	4°31'	R	H8	20	55	90	98	101	25	17.5
AGF3-30R2	15		30	2	+0.333	8°58'	R	H8	20	55	90	98	101	25	17.5
AGF3-36R1	36		36	1	+0.333	4°31'	R	H8	20	60	108	116	119	25	17.5
AGF3-40R1	40		40	1	+0.333	4°31'	R	H8	20	70	120	128	131	25	17.5
AGF3-48R1	48		48	1	+0.333	4°31'	R	H9	20	70	144	152	155	25	17.5
AGF3-50R1	50		50	1	+0.333	4°31'	R	H9	20	75	150	158	161	25	17.5
AGF3-60R1	60		60	1	+0.333	4°31'	R	H9	20	80	180	188	191	25	17.5
AGF4-20R1	20	*m4*	20	1	0	5°43'	R	H6	20	60	80	88	92	30	20
AGF4-20R2	10		20	2	0	11°19'	R	H6	20	60	80	88	92	30	20
AGF4-25R1	25		25	1	0	5°43'	R	H6	20	65	100	108	112	30	20
AGF4-30R1	30		30	1	0	5°43'	R	H8	20	65	120	128	132	30	20
AGF4-30R2	15		30	2	0	11°19'	R	H8	20	65	120	128	132	30	20
AGF4-36R1	36		36	1	0	5°43'	R	H9	20	70	144	152	156	30	20
AGF4-40R1	40		40	1	0	5°43'	R	H9	20	80	160	168	172	30	20
AGF4-48R1	48		48	1	0	5°43'	R	H9	20	90	192	200	204	30	20
AGF4-50R1	50		50	1	0	5°43'	R	H9	20	90	200	208	212	30	20
AGF4-60R1	60		60	1	0	5°43'	R	H0	160	—	240	248	252	30	7

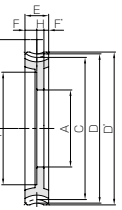
[Caution on Product Characteristics] ①The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see Page 342 for more details.
② There may be space in the casting between the two materials, but it will not affect the joint strength.



H8



H9



H0

＊ CS has a sand mold casting finish.

NOTE 1 : Allowable torque for worm revolution (rpm)

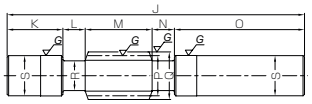
Hub width F	Total length G	Web thickness (H)	Web O.D. (I)	Mounting distance J	Allowable torque (N·m) NOTE 1 30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm	1800 rpm	Backlash (mm)	Weight (kg)	Catalog No.
7.5	50	—	—	50	59.7	49.1	38.3	31.5	27.5	25.1	21.5	0.16~0.29	0.88	**AGF3-20R1**
7.5	50	—	—	50	60.2	48.2	36.1	29.5	25.4	23.0	19.4	0.16~0.29	0.88	**AGF3-20R2**
7.5	50	—	—	56.5	90.2	74.3	58.8	48.9	42.6	39.0	33.5	0.16~0.29	1.24	**AGF3-25R1**
7.5	50	—	—	65	126	105	83.1	69.6	61.0	55.4	48.2	0.16~0.29	1.63	**AGF3-30R1**
7.5	50	—	—	65	128	105	79.8	65.2	57.2	51.6	44.3	0.16~0.29	1.63	**AGF3-30R2**
7.5	50	—	—	74	178	148	118	99.7	87.5	79.4	69.1	0.16~0.29	2.25	**AGF3-36R1**
7.5	50	—	—	80	216	180	145	122	108	98.0	84.9	0.16~0.29	2.52	**AGF3-40R1**
7.5	50	(15)	(120)	92	303	252	204	174	153	141	121	0.16~0.29	3.28	**AGF3-48R1**
7.5	50	(15)	(125)	95	326	272	220	188	166	152	132	0.16~0.29	3.62	**AGF3-50R1**
7.5	50	(15)	(155)	110	457	383	310	265	237	217	188	0.16~0.29	4.76	**AGF3-60R1**
10	60	—	—	60	123	101	78.8	64.6	56.3	51.5	43.8	0.19~0.32	1.77	**AGF4-20R1**
10	60	—	—	60	127	101	76.0	61.9	53.2	48.3	40.5	0.19~0.32	1.77	**AGF4-20R2**
10	60	—	—	70	186	153	121	100	87.3	79.9	68.5	0.19~0.32	2.56	**AGF4-25R1**
10	60	—	—	80	260	216	171	143	125	114	98.4	0.19~0.32	3.28	**AGF4-30R1**
10	60	—	—	80	270	220	168	137	120	108	92.2	0.19~0.32	3.28	**AGF4-30R2**
10	60	(20)	(113)	92	366	304	243	204	179	164	141	0.19~0.32	4.10	**AGF4-36R1**
10	60	(20)	(128)	100	445	370	297	251	220	201	173	0.19~0.32	5.25	**AGF4-40R1**
10	60	(20)	(160)	116	624	519	420	356	314	288	248	0.19~0.32	6.95	**AGF4-48R1**
10	60	(20)	(168)	120	673	560	454	385	340	312	269	0.19~0.32	7.35	**AGF4-50R1**
15	30	8	204	140	941	788	638	544	486	444	385	0.19~0.32	3.60	**AGF4-60R1**

[Caution on Secondary Operations] ①Please read "Caution on Performing Secondary Operations" (Page 344) 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.
②The tooth and the hub areas, fastened by casting, are designed to have higher hardness than other parts of the gear. However, please avoid areas other than the hub. Also, the strength may decrease if secondary operations are performed.

KWG Ground Worm Shafts

Module 5、6

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



W6

Catalog No.	Axial module	Number of starts	Lead angle	Hand thread	Shape	Total length	Shaft length (L)	Neck length (L)	Face width	Neck length (R)	Shaft length (R)	Pitch dia.
						J	K	L	M	N	O	P
KWG5-R1	***m5***	1	5°43'	R	W6	400	75	30	90	30	175	50
KWG6-R1	***m6***	1	5°43'	R	W6	400	60	40	100	40	160	60

[Caution on Product Characteristics] ① These worms produce axial thrust forces. See Page 344 for more details.

＊ For products not categorized in our KHK Stock Gear series, custom gear production services with short lead times is available. For details see Page 8.

Outside dia.	Neck dia.	Shaft dia.	Weight	Catalog No.
Q	R	S	(kg)	
60	36	50.2	5.75	**KWG5-R1**
72	44	60.2	8.09	**KWG6-R1**

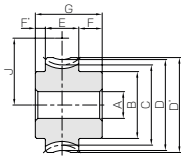
[Caution on Secondary Operations] ①Please read "Caution on Performing Secondary Operations" (Page 344) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.
②Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm). Use carbide tools for the modification of the shaft area near the bottom land.

AGF Worm Wheels

Module 5、6

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 (formerly JIS A ℄ BC2) ＊
Heat treatment	—
Tooth hardness	—

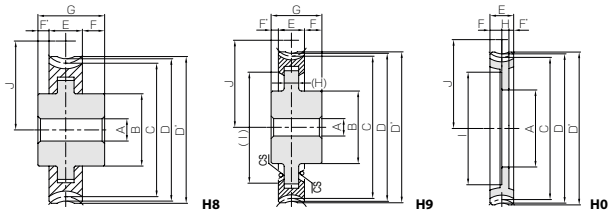
＊ H8, H9 shape have a hub made from FC200 cast iron.



H6

Catalog No.	Reduction ratio	Transverse module	No. of teeth	Number of starts	Profile shift coefficient	Helix angle	Hand thread	Shape	Bore	Hub dia.	Pitch dia.	Throat dia.	Outside dia.	Face width	Hub width(R)
									A_{H7}	B	C	D	D'	E	F
AGF5-20R1	20	***m5***	20	1	0	5°43'	R	H6	22	75	100	110	115	35	23
AGF5-25R1	25		25	1	0	5°43'	R	H6	22	75	125	135	140	35	23
AGF5-30R1	30		30	1	0	5°43'	R	H8	22	75	150	160	165	35	23
AGF5-36R1	36		36	1	0	5°43'	R	H9	22	90	180	190	195	35	23
AGF5-40R1	40		40	1	0	5°43'	R	H9	22	110	200	210	215	35	23
AGF5-48R1	48		48	1	0	5°43'	R	H0	140	—	240	250	255	35	7.5
AGF5-50R1	50		50	1	0	5°43'	R	H0	150	—	250	260	265	35	7.5
AGF5-60R1	60		60	1	0	5°43'	R	H0	200	—	300	310	315	35	7.5
AGF6-20R1	20	***m6***	20	1	0	5°43'	R	H6	25	85	120	132	138	40	23
AGF6-25R1	25		25	1	0	5°43'	R	H6	25	90	150	162	168	40	23
AGF6-30R1	30		30	1	0	5°43'	R	H8	25	100	180	192	198	40	23
AGF6-36R1	36		36	1	0	5°43'	R	H9	25	110	216	228	234	40	23
AGF6-40R1	40		40	1	0	5°43'	R	H0	130	—	240	252	258	40	8
AGF6-48R1	48		48	1	0	5°43'	R	H0	180	—	288	300	306	40	8
AGF6-50R1	50		50	1	0	5°43'	R	H0	190	—	300	312	318	40	8
AGF6-60R1	60		60	1	0	5°43'	R	H0	250	—	360	372	378	40	8

[Caution on Product Characteristics] ①The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see Page 342 for more details.
② There may be space in the casting between the two materials, but it will not affect the joint strength.
③ For H0-shaped products with a bore size of φ 190 or more, the bore tolerance is H8.



H8 H9 H0

＊ CS has a sand mold casting finish.

NOTE 1 : Allowable torque for worm revolution (rpm)

Hub width (L)	Total length	Web thickness	Web O.D.	Mounting distance	Allowable torque (N·m) NOTE 1							Backlash	Weight	Catalog No.
F'	G	(H)	(I)	J	30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm	1800 rpm	(mm)	(kg)	
12	70	—	—	75	211	172	134	108	95.0	86.2	72.7	0.22~0.35	3.26	**AGF5-20R1**
12	70	—	—	87.5	319	261	206	168	147	134	114	0.22~0.35	4.48	**AGF5-25R1**
12	70	(25)	(115)	100	446	369	291	239	211	191	164	0.22~0.35	5.37	**AGF5-30R1**
12	70	(25)	(140)	115	627	519	414	343	302	274	234	0.22~0.35	7.70	**AGF5-36R1**
12	70	(26)	(162)	125	763	632	506	421	371	337	288	0.22~0.35	9.97	**AGF5-40R1**
17.5	35	10	195	145	1070	886	715	598	530	483	411	0.22~0.35	5.04	**AGF5-48R1**
17.5	35	10	205	150	1150	956	772	646	574	523	446	0.22~0.35	5.28	**AGF5-50R1**
17.5	35	10	255	175	1610	1340	1090	913	820	744	639	0.22~0.35	6.48	**AGF5-60R1**
12	75	—	—	90	329	268	208	167	146	131	110	0.24~0.37	4.95	**AGF6-20R1**
12	75	—	—	105	497	405	319	259	227	204	173	0.24~0.37	7.14	**AGF6-25R1**
12	75	(30)	(135)	120	696	572	451	368	325	290	248	0.24~0.37	9.21	**AGF6-30R1**
12	75	(30)	(172)	138	978	806	641	528	466	417	355	0.24~0.37	12.5	**AGF6-36R1**
20	40	12	190	150	1190	981	784	648	572	513	436	0.24~0.37	6.20	**AGF6-40R1**
20	40	12	240	174	1670	1380	1110	920	816	735	628	0.24~0.37	7.58	**AGF6-48R1**
20	40	12	250	180	1800	1480	1200	994	885	796	676	0.24~0.37	8.00	**AGF6-50R1**
20	40	12	310	210	2520	2090	1680	1410	1260	1130	969	0.24~0.37	10.0	**AGF6-60R1**

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 344) 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.
②The tooth and the hub areas, fastened by casting, are designed to have higher hardness than other parts of the gear. However, please avoid areas other than the hub. Also, the strength may decrease if secondary operations are performed.