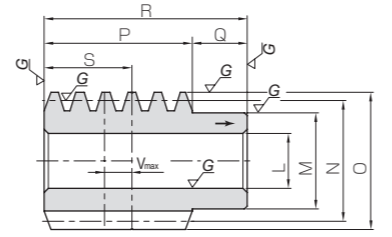
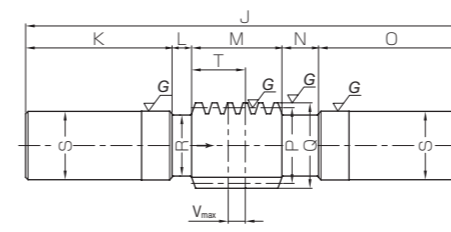




Specifications	
Precision grade	KHK W 001 grade 1
Reference section of gear	Axial
Gear teeth	Standard full depth
Normal pressure angle	17° 30'
Material	SCM440
Heat treatment	Thermal refined, tooth surface induction hardened
Tooth hardness	50 ~ 60HRC
Surface treatment	Black oxide coated except for ground part



W4



W6

Catalog No.	Nominal axial module	Number of starts	Nominal lead angle	Hand thread	Shape	Bore		Pitch dia.	Outside dia.	Face width	Hub width		Total length
						L <sub>H7</sub>	M				N	Q	
KWGD2.5-R1	m2.5	1	3°52'	R	W4	18	30	37	42	48	17	65	
KWGD3-R1	m3	1	3°54'	R	W4	20	35	44	50	54	20	74	

Position of reference tooth	Max. allowable shift	Weight (kg)	Catalog No.
S	V <sub>max</sub>	0.37	KWGD2.5-R1
29	10	0.61	KWGD3-R1

Catalog No.	Nominal axial module	Number of starts	Nominal lead angle	Hand thread	Shape	Total length		Shaft length (L)		Face width	Neck length (R)		Pitch dia.
						J	K	L	M		N	O	
KWGDLS2.5-R1	m2.5	1	3°52'	R	W6	260	85	16	48	26	85	37	
KWGDLS3-R1	m3	1	3°54'	R	W6	300	100	18	54	28	100	44	

Outside dia.	Neck dia.	Shaft dia.	Position of reference tooth	Max. allowable shift	Weight (kg)	Catalog No.
Q	R	S	T	V <sub>max</sub>		
42	30	36.2	29	10	2.00	KWGDLS2.5-R1
50	34	40.2	32	10	2.95	KWGDLS3-R1

[Caution on Product Characteristics] ① When the center distance is moved to reduce the backlash, the V max is the maximum amount of distance that you may shift without causing problems with the gear mesh. The V max is not a recommended value to use for adjustment when assembling.  
② These worms produce axial thrust forces. See Page 362 for more details.

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 362) 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).

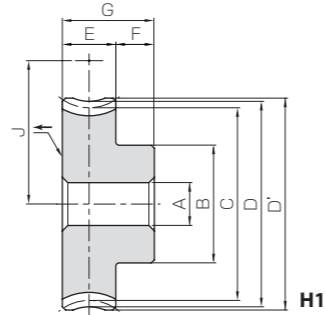
AGDL  
Duplex Worm Wheels

Module 2.5, 3

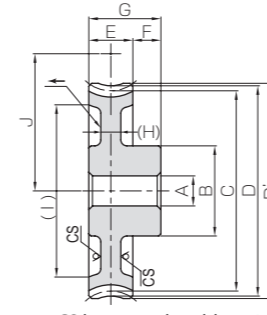
AGDL



Specifications	
Precision grade	KHK W 002 grade 1
Reference section of gear	Rotating plane
Gear teeth	Standard full depth
Normal pressure angle	17° 30'
Material	CAC702 (formerly JIS A l BC2)
Heat treatment	—
Tooth hardness	—



H1



HB

\* CS has a sand mold casting finish.

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

Catalog No.	Reduction ratio	Nominal axial module	No. of teeth	Helix angle	Hand thread	Shape	Bore		Pitch dia.	Throat dia.	Outside dia.		Face width	Hub width
							A <sub>H7</sub>	B			C	D		
AGDL2.5-20R1	20	m2.5	20	3°52'	R	H1	15	40	50	55	57.5	22	15	
AGDL2.5-30R1	30		30	3°52'	R	H1	15	40	75	80	82.5	22	15	
AGDL2.5-36R1	36		36	3°52'	R	H1	15	45	90	95	97.5	22	15	
AGDL2.5-40R1	40		40	3°52'	R	HB	15	45	100	105	107.5	22	15	
AGDL2.5-50R1	50		50	3°52'	R	HB	15	60	125	130	132.5	22	15	
AGDL2.5-60R1	60		60	3°52'	R	HB	15	80	150	155	157.5	22	15	
AGDL3-20R1	20	m3	20	3°54'	R	H1	20	50	60	66	69	28	17	
AGDL3-30R1	30		30	3°54'	R	H1	20	55	90	96	99	28	17	
AGDL3-36R1	36		36	3°54'	R	H1	20	60	108	114	117	28	17	
AGDL3-40R1	40		40	3°54'	R	HB	20	60	120	126	129	28	17	
AGDL3-50R1	50		50	3°54'	R	HB	20	70	150	156	159	28	17	
AGDL3-60R1	60		60	3°54'	R	HB	20	80	180	186	189	28	17	

Total length	Web thickness	Web O.D.	Mounting distance	Allowable torque (N·m) NOTE 1								Backlash (mm)	Weight (kg)	Catalog No.
				30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm	1800 rpm				
G	(H)	(I)	J	30 rpm	100 rpm	300 rpm	600 rpm	900 rpm	1200 rpm	1800 rpm				
37	—	—	43.5	38.1	31.4	24.5	20.1	17.6	16.0	13.8	0±0.045	0.45	AGDL2.5-20R1	
37	—	—	56	80.5	67.1	53.1	44.5	39.1	35.5	30.9	0±0.045	0.88	AGDL2.5-30R1	
37	—	—	63.5	113	94.5	75.5	63.8	56.0	51.0	44.3	0±0.045	1.25	AGDL2.5-36R1	
37	(10)	(86)	68.5	138	115	92.4	78.3	68.8	62.7	54.4	0±0.045	1.14	AGDL2.5-40R1	
37	(12)	(108)	81	208	174	141	120	106	97.3	84.3	0±0.045	1.93	AGDL2.5-50R1	
37	(12)	(133)	93.5	291	245	198	170	152	139	121	0±0.045	2.90	AGDL2.5-60R1	
45	—	—	52	65.0	53.3	41.5	33.8	29.5	26.9	22.8	0±0.045	0.81	AGDL3-20R1	
45	—	—	67	137	114	90.0	74.7	65.5	59.5	51.2	0±0.045	1.65	AGDL3-30R1	
45	—	—	76	193	160	128	107	93.8	85.6	73.4	0±0.045	2.32	AGDL3-36R1	
45	(14)	(106)	82	235	195	157	131	115	105	90.1	0±0.045	2.19	AGDL3-40R1	
45	(14)	(134)	97	355	295	239	202	178	163	140	0±0.045	3.26	AGDL3-50R1	
45	(14)	(164)	112	497	415	336	285	254	233	200	0±0.045	4.48	AGDL3-60R1	

[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 358 for more details.  
② Duplex worms and worm wheels must be mated in a predetermined orientation, which is indicated by the arrows. Therefore, the arrow on the wheel does not indicate the mounting direction, but the rotating direction. Please refer to the Application Hints on Page 365.

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 362) 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.

Duplex Worm Wheels

