

# APCK 2 stage ratio 4~11

## Overview

- Heavy Duty right angel spiral bevel gearbox
- Black coated steel housing, aluminum output and motor adapter flange
- Steel output shaft, curvic plate flange
- Helical gear technology
- Nominal Torques:
  - $T_{2N}$  : 75 Nm – 4.955 Nm
- Ratios
  - 2-stage : 4 / 5.5 / 8 / 11
- Low Backlash
  - 2-stage :  $\leq 2$  arcmin
- High Efficiency
  - 2-stage :  $\geq 95\%$
- Easy mount
- Low noise
- Compact structure
- Sizes available: APCK090 / APCK110 / APCK140 / APCK200 / APCK255 / APCK285



# Specifications

Model No.	Stage	Ratio <sup>1</sup>	APCK090	APCK110	APCK140	APCK200	APCK255	APCK385		
Nominal Output Torque $T_{2N}$	Nm	2	4	75	465	790	1,710	2,595	4,920	
			5.5	105	370	645	1,435	2,180	4,080	
			8	150	470	800	1,580	2,610	4,955	
			11	205	375	650	1,440	2,195	4,100	
Emergency Stop Torque $T_{2Not}$	Nm	2	4~11						2 times $T_{2N}$	
Max. Acceleration Torque $T_{2b}$	Nm	2	4~11						1.5 times $T_{2N}$	
No Load Running Torque <sup>(2)</sup>	NM	2	4~11	2.5	5.8	12	25	48	95	
Backlash <sup>(3)</sup>	arcmin	2	4~11							≤2
Torsional Rigidity	Nm/arcmin	2	4~11	27	56	112	389	642	1,275	
Nominal Input Speed $n_{1N}$	rpm	2	4~11	3,600	3,000	2,300	1,800	1,500	1,100	
Max. Input Speed	rpm	2	4~11	6,000	5,500	4,500	3,500	3,000	2,200	
Max. Axial Load $F_{2a}$ <sup>(4)</sup>	N	2	4~11	2,220	4,070	8,530	17,000	26,900	39,200	
Max. Tilting Moment $M_{2k}$ <sup>(4)</sup>	Nm	2	4~11	280	480	1,310	3,530	5,920	9,230	
Service Life <sup>(5)</sup>	hr	2	4~11							20,000
Operating Temp.	°C	2	4~11							- 10° C ~ 90° C
Degree of Gearbox Protection		2	4~11							IP65
Lubrication		2	4~11							Synthetic lubrication grease
Mounting Position		2	4~11							All directions
Running Noise <sup>(2)</sup>	dB(A)	2	4~11	≤68	≤68	≤70	≤70	≤72	≤74	
Efficiency	%	2	4~11							≥95%

(1) Ratio ( i = N in / N out)

(2) These values are measured by gearbox with ratio 10 (1-stage) or ratio 100 (2-stage) at 3,000 rpm no loading.

(3) Backlash is measured at 2% of Nominal Output Torque  $T_{2N}$

(4) Applied to the output shaft center at 100 rpm.

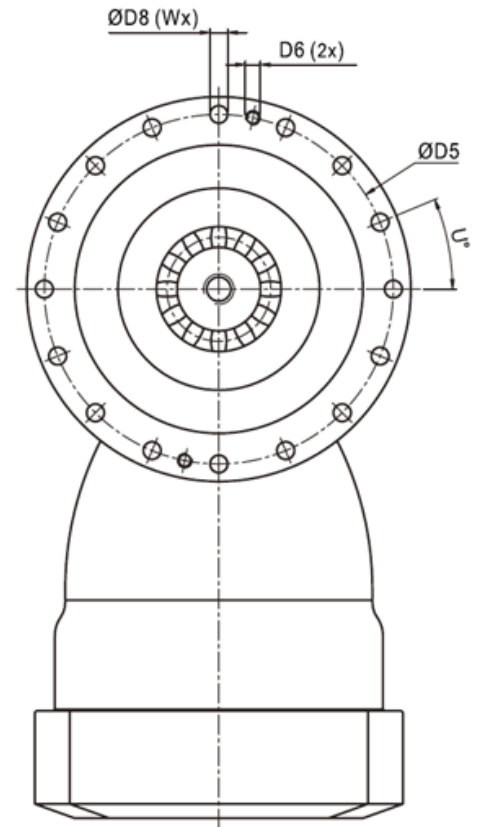
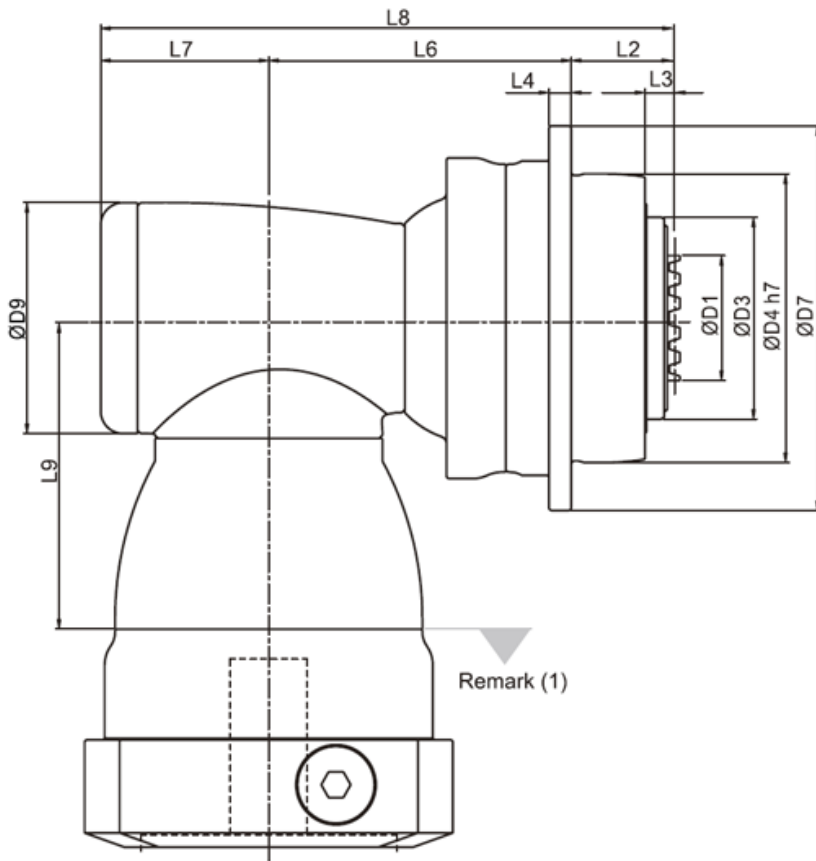
(5) Continuous operation is not recommended.

# Inertia

Model No.		APCK090	APCK110	APCK140	APCK200	APCK255	APCK285
Ø <sup>(A)</sup>	Stage	2st	2st	2st	2st	2st	2st
11		0.41	-	-	-	-	-
14		0.41	-	-	-	-	-
19		1.61	1.61	-	-	-	-
24		3.9	4.01	5.61	-	-	-
28		-	5.53	5.61	-	-	-
32	kg.cm <sup>2</sup>	-	7.57	8.11	-	-	-
35		-	14.95	15.32	15.32	-	-
38		-	17.58	17.72	17.72	-	-
42		-	-	22.95	22.95	23.74	-
48		-	-	52.74	52.74	53.49	55.14
55		-	-	-	-	87.34	89.59
60		-	-	-	-	-	113.06

(A) Ø = Input shaft diameter.

# Sizes



	APCK090	APCK110	APCK140	APCK200	APCK255	APCK285
D1	36	46	60	80	90	120
D3	63	80	100	160	180	200
D4 h7	90	110	140	200	255	285
D5	109	135	168	233	280	310
D6	-	-	-	-	M12	M12
D7	120	147	180	249.5	302	332
D8	5.5	5.5	6.6	9	13.5	13.5
D9	92	116	156	156	195	240
L2	32.5	31.5	40.5	52.5	68.5	77.5
L3	9.5	9.5	10	11	16	19
L4	7	8	10	12	18	20
L6	100.5	124.5	175.5	185	199	265.5
L7	61.5	76	97.5	97.5	105.5	141
L8	194.5	232	313.5	335	373	484
L9	113.5	147.5	196.5	196.5	229	260
U in degree	22.5	22.5	15	15	11.25	11.25
W	16	16	24	24	32	32

(1) Dimensions are related to motor interface. Please contact APEX for details.