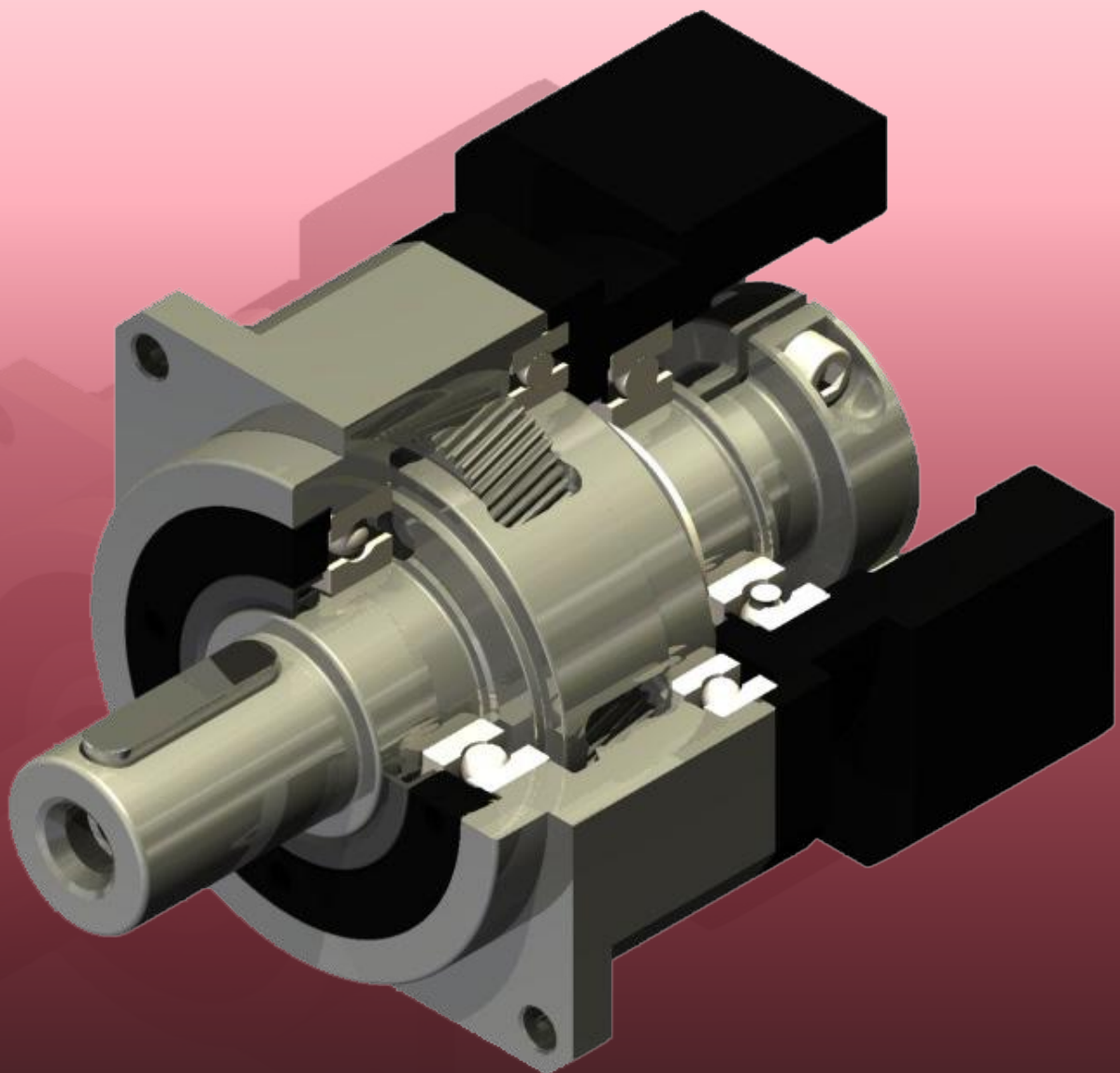
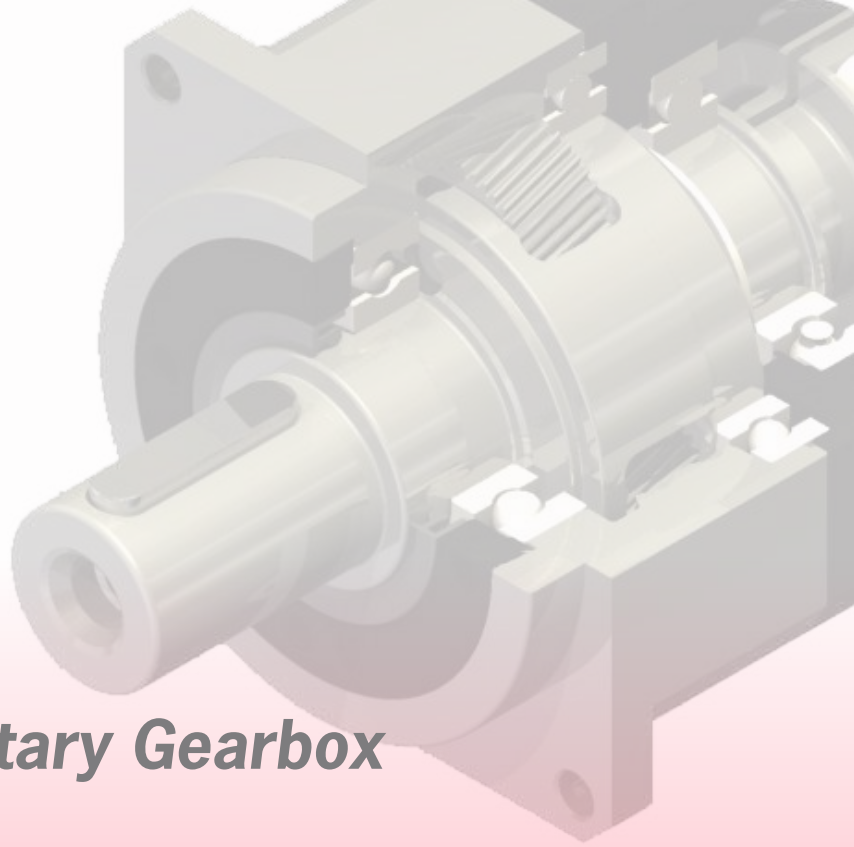


WAB Series

*Precision Planetary Gearbox
Helical Gear*



WAB Series

Precision planetary helical gear



- Low backlash
- Ultra-quiet
- High efficiency
- Long life

ORDERING CODE

W AB 060 010 K P2 FG

1 2 3 4 5 6 7

1 Wanshsin mark

2 AB: Type of gearbox

3 Size: 042 060 090 115 142 180 220

4 Ratio: 3.....100

5 Output shaft: K Key
S Smooth

6 Backlash: P0 Precision
P1 Reduced
P2 Standard

7 FG: Food grade grease (Optional)

PRODUCT FEATURES

- Precision helical gearing, small, compact, high-precision, ensuring long life and ultra-low noise
- Fully sealed structure to ensure that grease does not leak, maintenance-free
- Products have passed the test system efficiency, transmission efficiency up to 97%

WAB Series

Precision planetary helical gear

PERFORMANCE TABLE

Specifications	Unit	Stages	Reduction ratio (i)	WAB042	WAB060	WAB090	WAB115	WAB142	WAB180	WAB220
Rated output torque	Nm	1 (L1)	3	20	55	130	208	342	588	1140
			4	19	50	140	290	542	1050	1700
			5	22	60	160	330	650	1200	2000
			6	20	55	150	310	600	1100	1900
			7	19	50	140	300	550	1100	1800
			8	17	45	120	260	500	1000	1600
			10	14	40	100	230	450	900	1500
		2 (L2)	15	20	55	130	208	342	588	1140
			20	19	50	140	290	542	1050	1700
			25	22	60	160	330	650	1200	2000
			30	20	55	150	310	600	1100	1900
			35	19	50	140	300	550	1100	1800
			40	17	45	120	260	500	1000	1600
			50	22	60	160	330	650	1200	2000
			60	20	55	150	310	600	1100	1900
			70	19	50	140	300	550	1100	1800
			80	17	45	120	260	500	1000	1600
			100	14	40	100	230	450	900	1500
Acceleration torque	Nm	1,2	3 ~ 100			180% of the rated torque				
Emergency stop torque	Nm	1,2	3 ~ 100			300% of the rated torque				
Rated input speed	rpm	1,2	3 ~ 100	5000	5000	4000	4000	3000	3000	2000
Max input speed	rpm	1,2	3 ~ 100	10000	10000	8000	8000	6000	6000	4000
Backlash P0 (precision)	arcmin	1	3 ~ 10	—	≤2	≤2	≤2	≤2	—	—
		2	15 ~ 100	—	≤3	≤3	≤3	≤3	—	—
Backlash P1 (reduced)	arcmin	1	3 ~ 10	—	≤3	≤3	≤3	≤3	≤3	≤3
		2	15 ~ 100	—	≤5	≤5	≤5	≤5	≤5	≤5
Backlash P2 (standard)	arcmin	1	3 ~ 10	≤12	≤5	≤5	≤5	≤5	≤5	≤5
		2	15 ~ 100	≤16	≤8	≤8	≤8	≤8	≤8	≤8
Torsional rigidity	Nm/ arcmin	1,2	3 ~ 100	3	7	14	25	50	145	225
Radial load	N	1,2	3 ~ 100	780	1530	3250	6700	9400	145000	50000
Axial load	N	1,2	3 ~ 100	390	765	1625	3350	4700	7250	25000
Efficiency (%)	%	1	3 ~ 10	≥97%						
		2	15 ~ 100	≥94%						
Weight	kg	1	3 ~ 10	0.6	1.3	3.7	7.8	14.5	29	48
		2	15 ~ 100	0.8	1.5	4.1	9	17.5	33	60
Temperature	°C	1,2	3 ~ 100	-10 °C ~ 90 °C						
Protection class		1,2	3 ~ 100	IP65						
Lubrication		1,2	3 ~ 100	Full synthetic/ Food grade grease						
Noise	dB(A)	1,2	3 ~ 100	≤56	≤58	≤60	≤63	≤65	≤67	≤70

WAB Series

Precision planetary helical gear

PERFORMANCE TABLE MASS MOMENT OF INERTIA (related to input)

Specifications	Unit	Stages	Reduction ratio (i)	WAB042	WAB060	WAB090	WAB115	WAB142	WAB180	WAB220
Inertia J _i	kg * cm ²	1 (L1)	3	0.03	0.16	0.61	3.25	9.21	28.98	69.61
			4	0.03	0.14	0.48	2.74	7.54	23.67	54.37
			5	0.03	0.13	0.47	2.71	7.42	23.29	53.27
			6	0.03	0.13	0.45	2.65	7.25	22.75	51.27
			7	0.03	0.13	0.45	2.62	7.14	22.48	50.97
			8	0.03	0.13	0.44	2.58	7.07	22.59	50.84
			10	0.03	0.13	0.44	2.57	7.03	22.51	50.56
			15	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			20	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			25	0.03	0.03	0.13	0.47	2.71	7.42	23.29
		2 (L2)	30	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			35	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			40	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			50	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			60	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			70	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			80	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			100	0.03	0.03	0.13	0.44	2.57	7.03	22.51



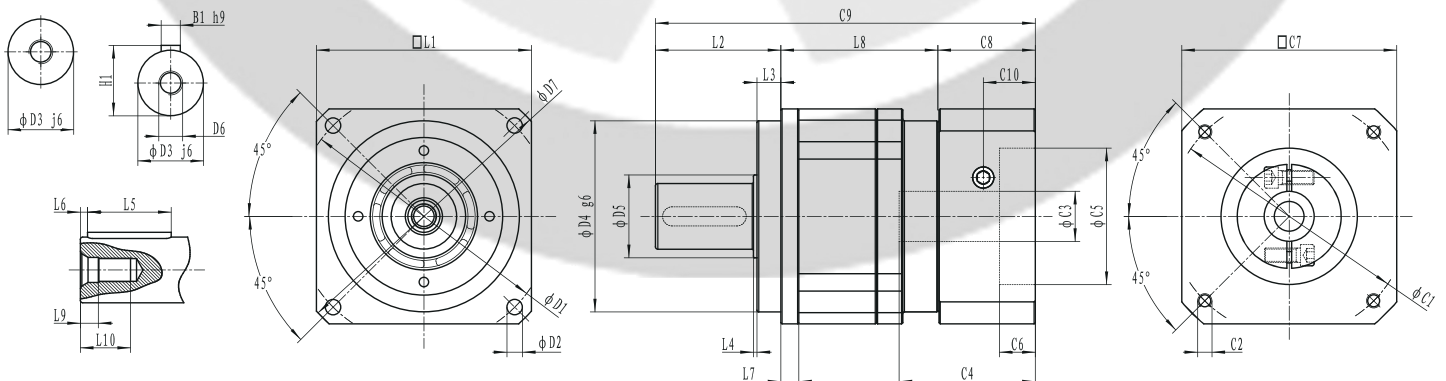
WAB Series

Precision planetary helical gear

DIMENSIONS: 1 – STAGE (L1)

Size	WAB042	WAB060	WAB090	WAB115	WAB142	WAB180	WAB220
D1	50	70	100	130	165	215	250
D2	3.5	5.5	6.6	9	11	13	17
D3 j6	13	16	22	32	40	55	75
D4 g6	35	50	80	110	130	160	180
D5	15	18	30	40	50	70	85
D6	M4*0.7P	M5*0.8P	M8*1.25P	M12*1.75P	M16*2.0P	M20*2.5P	M20*2.5P
D7	56	80	116	152	185	240	292
L1	42	60	90	115	142	180	220
L2	26	37	48	65	97	105	138
L3	5.5	6	10	12	15	20	30
L4	1	1.5	1.5	2	3	3	3
L5	16	25	32	40	63	70	90
L6	2	2	3	5	5	6	7
L7	4	6	8	10	12	15	20
L8	39.5	39.5	78.5	102	124.5	131.5	151.5
L9	4.5	4.8	7.2	10	12	15	15
L10	10	12.5	19	28	36	42	42
C1*	46	70	90	145	200	200	235
C2*	M4*0.7P	M5*0.8P	M5*0.8P	M8*1.25P	M12*1.75P	M12*1.75P	M12*1.75P
C3*	8	≤14/≤16	≤19/≤24	≤28	≤35/≤42	≤42	≤42/≤55
C4*	25	35	46.5	67	81	114	117
C5*	30	50	70	110	114.3	114.3	200
C6*	3.5	3.5	6	14	19	30	20
C7*	42	60	80	130	180	180	220
C8*	19.5	46	30	45.5	57.5	81.5	87.5
C9*	85	122.5	156.5	212.5	279	318	377
C10*	9.5	10.5	14.5	25.5	32	43.5	49.5
B1 h9	5	5	6	10	12	16	20
H1	15	18	24.5	35	43	59	79.5

*Other motor dimensions on request.



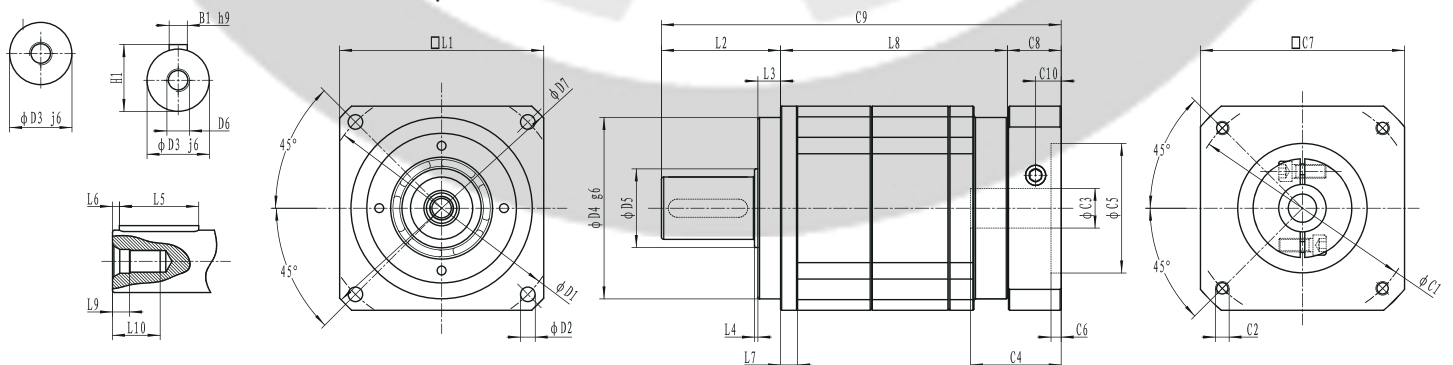
WAB Series

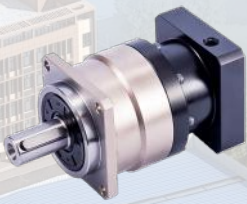
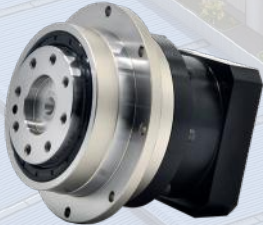
Precision planetary helical gear

DIMENSIONS: 2 – STAGE (L2)

Size	WAB042	WAB060	WAB090	WAB115	WAB140	WAB180	WAB220
D1	50	70	100	130	165	215	250
D2	3.5	5.5	6.6	9	11	13	17
D3 j6	13	16	22	32	40	55	75
D4 g6	35	50	80	110	130	160	180
D5	15	18	30	40	50	70	85
D6	M4*0.7P	M5*0.8P	M8*1.25P	M12*1.75P	M16*2.0P	M20*2.5P	M20*2.5P
D7	56	80	116	152	185	240	292
L1	42	60	90	115	142	180	220
L2	26	37	48	65	97	105	138
L3	5.5	6	10	12	15	20	30
L4	1	1.5	1.5	2	3	3	3
L5	16	25	32	40	63	70	90
L6	2	2	3	5	5	6	7
L7	4	6	8	10	12	15	20
L8	–	71.5	116	147	185.5	200	220
L9	4.5	4.8	7.2	10	12	15	15
L10	10	12.5	19	28	36	42	42
C1*	46	70	90	145	145	200	200
C2*	M4*0.7P	M5*0.8P	M5*0.8P	M8*1.25P	M8*1.25P	M12*1.75P	M12*1.75P
C3*	8	≤14/≤16	≤16/≤19	≤19/≤24	≤24/≤28	≤35	≤42
C4*	26	35	46.5	67	66	80	114
C5*	30	50	70	110	110	114.3	114.3
C6*	3.5	3.5	6	14	10	9	24
C7*	42	60	80	130	130	180	180
C8*	19.5	48	30	45.5	42.5	47.5	81.5
C9*	117.5	154.5	194	257.5	325	352.5	441.5
C10*	10.5	10.5	14.5	25.5	27	22.5	43.5
B1 h9	5	5	6	10	12	16	20
H1	15	18	24.5	35	43	59	79.5

*Other motor dimensions on request.



WVRB	WAE	WAB
		
WVRBR	WAER	WABR
		
WAD	WPF	WPL
		
WADR	WPFR	WPLR
		
WR	WAT	WT
