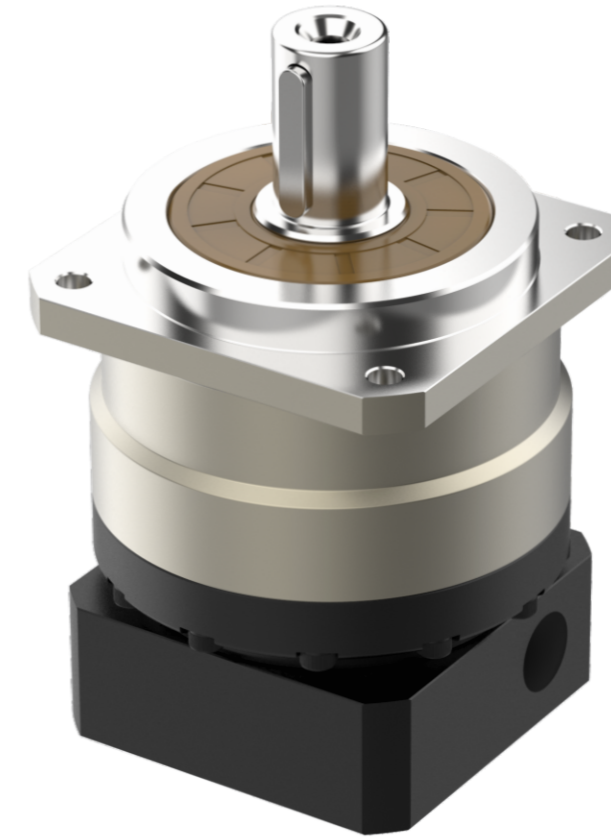


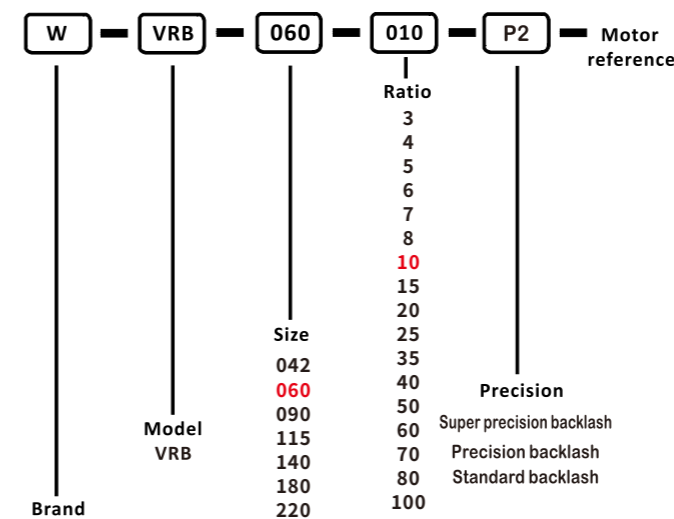
WVRB Series Planetary Gearbox

FEATURES

- » The planet gear carrier and output end adopt an integrated double-supported structure design to ensure maximum torsional rigidity, toughness, and rotational accuracy.
- » The planet gear adopts a full needle roller design to increase the contact area and improve the structural rigidity and output torque.
- » The gear uses low carbon steel carburized and quenched to achieve a surface hardness of HRC62 to obtain the best wear resistance and impact toughness.
- » The gear profile is designed with assistance from imported software to obtain the best possible design, thereby reducing noise.
- » The connection between the input end and the motor shaft adopts a double-sided clamping method to achieve maximum clamping force and zero backlash power transmission.



SELECTION



GENERAL NOTICES

- Type, model and torque
- Ratio or output speed
- Working conditions and connection methods
- Quantity and installed machine name
- Input mode and input speed
- Motor brand model or flange and motor shaft size

PLANETARY GEARBOX

Performance

Specification	Unit	Stage	Ratio	WVRB042	WVRB060	WVRB090	WVRB115	WVRB140	WVRB180	WVRB220
Rated output torque T_{2N}	Nm	1	3	19	50	130	208	342	588	1140
			4	20	55	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	15	19	50	130	208	342	588	1140
			20	20	55	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	20	55	140	290	542	1050	1700
			50	22	60	160	330	650	1200	2000
			60	20	55	150	310	600	1100	1900
Emergency stop torque T_{2NOT}	Nm	1,2	3~100 Triple rated output torque							
			Rated input speed n_{1N}							
			Maximum input speed n_{1B}							
Super precision backlash P_0	arcmin	1	3~10	-	≤1.5	≤1.5	≤1.5	≤1.5	≤1.5	≤1.5
		2	15~100	-	≤3	≤3	≤3	≤3	≤3	≤3
Precision backlash P_1	arcmin	1	3~10	-	≤3	≤3	≤3	≤3	≤3	≤3
		2	15~100	-	≤5	≤5	≤5	≤5	≤5	≤5
Standard backlash P_2	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
Allowable radial force F_{2aB}	N	1,2	3~100	780	1530	3250	6700	9400	14500	20000
Allowable axial force F_{2aB}	N	1,2	3~100	390	765	1625	3350	4700	7250	10000
Lifespan	hr	1,2	3~100	20000						
Efficiency	%	1	3~10	≥97%						
		2	15~100	≥94%						
Weight	kg	1	3~10	0.6	1.5	3.7	7.8	16	36	53
		2	15~100	0.7	1.6	4.2	11	17	37	54
Use of temperature	°C	1,2	3~100	-20°C~+40°C						
Lubricating		1,2	Synthetic lubricating grease							
IP Grade		1,2	3~100	IP65						
Installation direction		1,2	3~100	In any direction						
Noise level (n1=3000rpm,off load)	dB(A)	1,2	3~100	≤56	≤58	≤60	≤63	≤65	≤67	≤70

ROTATIONAL INERTIA OF REDUCER

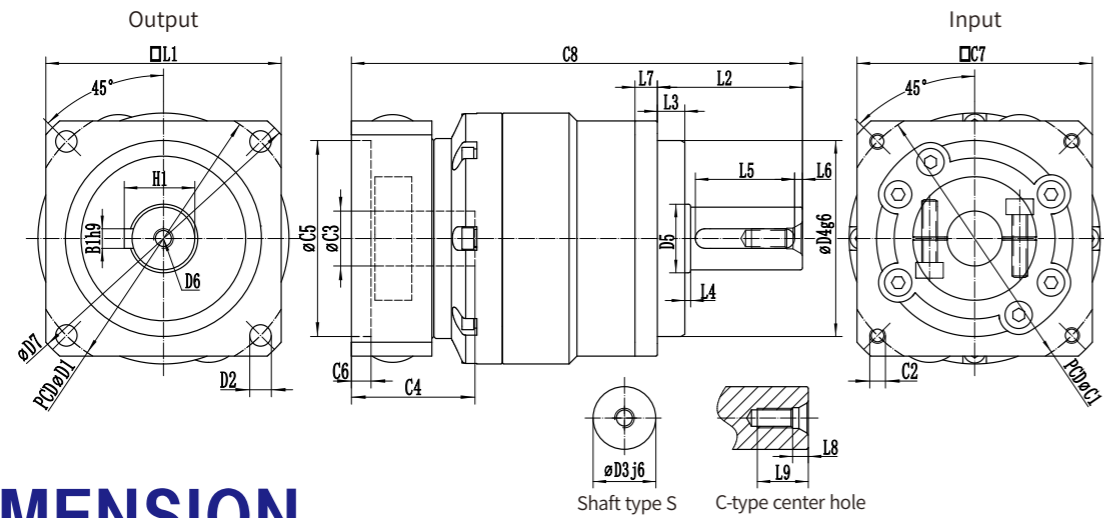
Rotational inertia

Specification	Unit	Stage	Ratio	WVRB042	WVRB060	WVRB090	WVRB115	WVRB140	WVRB180	WVRB220
Rotational inertia J_1	kg · cm ²	1	3	0.053	0.22	1.2	5.3	20	44	90
			4	0.041	0.17	0.95	4.1	15	28	62
			5	0.036	0.16	0.86	3.6	14	22	52
			6	0.034	0.15	0.82	3.3	13	18	47
			7	0.032	0.14	0.79	3.2	12	16	42
			8	0.031	0.14	0.77	3.1	12	15	40
			10	0.03	0.14	0.75	3	11	14	38
		2	15	0.035	0.14	0.72	2.8	11	12	36
			20	0.034	0.13	0.72	2.8	11	12	35
			25	0.034	0.13	0.71	2.8	11	12	35
			30	0.03	0.13	0.7	2.7	10	11	34
			35	0.034	0.13	0.71	2.7	11	12	35
			40	0.03	0.13	0.7	2.7	10	11	33
			50	0.03	0.13	0.69	2.7	10	11	33
			60	0.03	0.13	0.69	2.7	10	11	33
			70	0.03	0.13	0.69	2.7	10	11	33
			80	0.03	0.13	0.69	2.7	10	11	33
			100	0.03	0.13	0.69	2.7	10	11	33

1. Ratio ($i=N_{in}/N_{out}$)

2. Maximum acceleration torque $T_{2B} = 60\%$ of T_{2NOT}

3. Output speed 100rpm, acting on the center of the output shaft

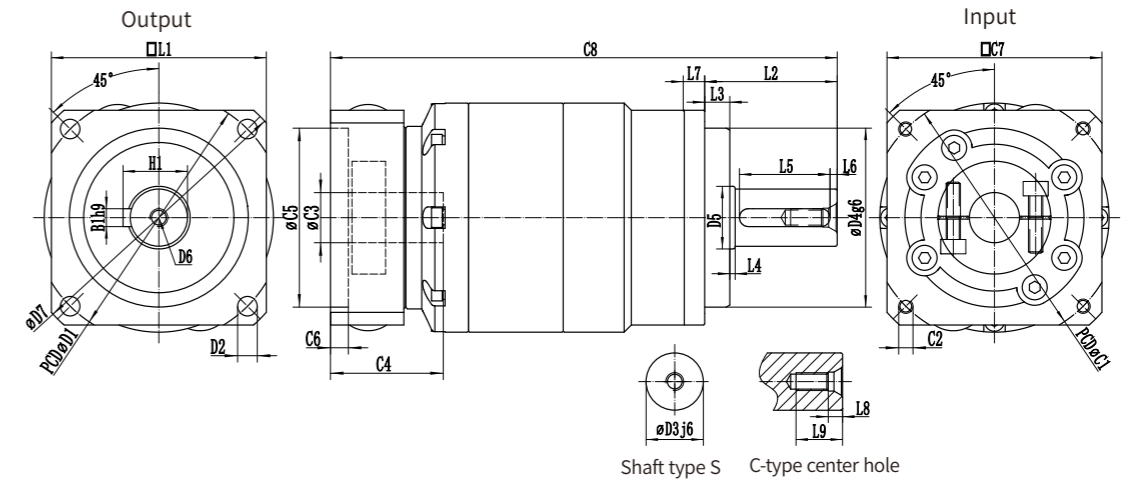


DIMENSION

SINGLE SECTION

Dimension(single stage,Ratio i=3~10)

Dimension	WVRB042	WVRB060	WVRB090	WVRB115	WVRB140	WVRB180	WVRB220				
D1	50	70	100	130	165	215	250				
D2	3.5	5.5	6.6	9	11	13.5	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	57	80	116	152	185	240	290				
L1	42	60	90	115	140	180	220				
L2	26	37	48	60	95	105	138				
L3	5.5	7	10	7	13	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	3.2	4.8	7.2	10	12	15	15				
L9	10	12.5	19	28	36	42	42				
C1	46	70	70	90	90	145	145	200	200	200	235
C2	M4	M4	M4	M5	M5	M8	M8	M12	M12*1.75P	M12*1.75P	M12*1.75P
C3	≤8	≤11	≤14	≤19	≤19	≤24	≤24	≤35	≤35/≤42	≤42	≤42/≤55
C4	26	31.5	31.5	41	41	59	60	81	81	114	117
C5	30	50	50	70	70	110	110	114.3	114.3	114.3	200
C6	5	5	5	5	6	14	14	19	19	24	20
C7	48	60	60	80	80	130	130	180	180	180	220
C8	86	95	115	128	147	165	199.5	221.5	279	318	377
B1 h9	5	5	6	10	12	16	20				
H1	15	18	24.5	35	43	59	79.5				



DIMENSION

SINGLE SECTION

Dimension(double stage,Ratio i=15~100)

Dimension	WVRB042	WVRB060	WVRB090	WVRB115	WVRB140	WVRB180	WVRB220					
D1	50	70	100	130	165	215	250					
D2	3.5	5.5	6.6	9	11	13.5	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	57	80	116	152	185	240	290					
L1	42	60	90	115	140	180	220					
L2	26	37	48	60	95	105	138					
L3	5.5	7	10	7	13	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	7	8	10	12	15	20					
L8	3.2	4.8	7.2	10	12	15	15					
L9	10	12.5	19	28	36	42	42					
C1	46	70	70	90	90	145	145	200	200	200	235	
C2	M4	M4	M4	M5	M4	M5	M8	M5	M8	M8*1.25P	M12*1.75P	M12*1.75P
C3	≤8	≤11	≤14	≤19	≤14	≤19	≤24	≤19	≤24	≤24/≤28	≤35	≤42
C4	26	31.5	31.5	41	31.5	41	59	41	60	66	80	114
C5	30	50	50	70	50	70	110	70	110	110	114.3	114.3
C6	5	5	5	5	5	6	14	6	14	10	9	24
C7	48	60	60	80	60	80	130	80	130	130	180	180
C8	107	116	147	160	168	184.5	202.5	214	244.5	325	352.5	441.5
B1 h9	5	5	6	10	12	16	20					
H1	15	18	24.5	35	43	59	79.5					

WANSHSIN Seikou(Hunan)Co., Ltd.



WANSHSIN is a professional gearbox, gear motor and inverter manufacturer and intelligent automation complete solution provider, integrating R&D, production, sales and service. The products cover the light and heavy industry, are widely used in new energy, robots, automobile manufacturing, warehousing, logistics, food industry and other industries. WANSHSIN has gradually become a reliable long-term partner of those leading enterprises of relevant industries.

Enterprise Honor

2019	2020	2022
<ul style="list-style-type: none"> National high-tech enterprise 	<ul style="list-style-type: none"> Ministry of Industry and Information Technology of the People's Republic of China "specialized, special and new" key small giant enterprise Hunan Enterprise Technology Center 	<ul style="list-style-type: none"> 2022 Hunan Reducer Engineering Technology Research Center 2022 The 2nd Ningxiang Mayor Quality Award(Organization)

Core Competitiveness



Leading R&D Capability

Three major R&D centers have been established to lead the industry's high-quality development with innovation.

Excellent Quality

We are the pioneer in introducing and launching the advanced automotive industry quality control standards pre-planning of product quality and have equipped with a large number of imported international advanced inspection/testing equipment to ensure product quality.

Advanced Manufacturing

We have hundreds of domestic advanced processing equipment with a total value of more than 100 million yuan, and our capacity is in a leading position in China.

Fast Delivery

Sufficient spare parts in warehouse to ensure very short lead time.