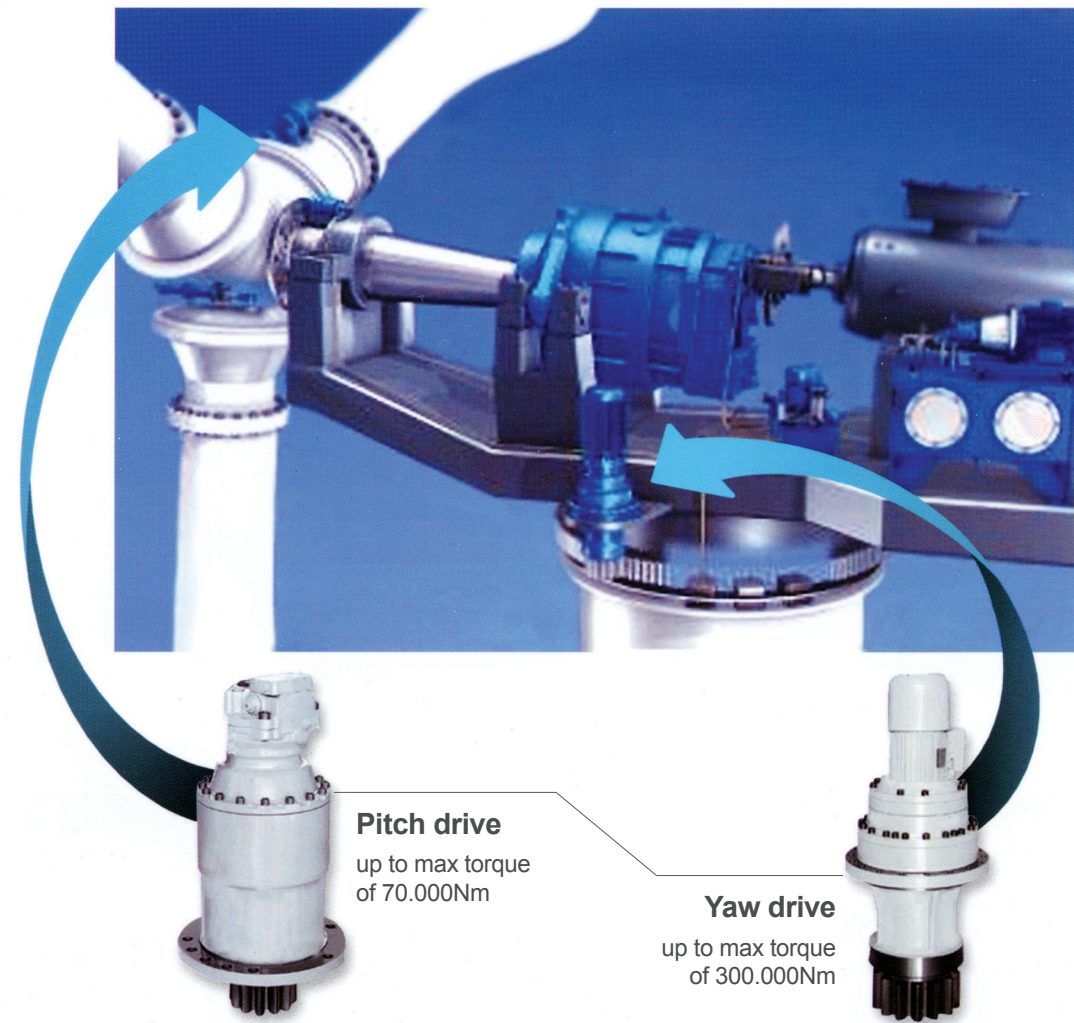


Solution For The Pitch & Yaw Drive



Pitch drive
up to max torque
of 70.000Nm

Yaw drive
up to max torque
of 300.000Nm



Woorim products are used in the latest state of the art wind turbines to control the necessary functions of pitch and yaw drive systems.

Torque Range

2.500 - 300.000 Nm

Gear Ratios

60 - 2000

Key Features

- Flange mounted
- Output shaft (splined or integral pinion)
- Rugged construction
- High torque capacity
- Output shaft supported by heavy duty bearings

General Features

- High transmissible torque
- High radial / thrust load capacity
- High shock resistance & designed for heavy duty
- Wide range of reduction ratios (from 60 up to 2.000)
- High efficiency
- Compact dimensions
- Low weight
- Low cost

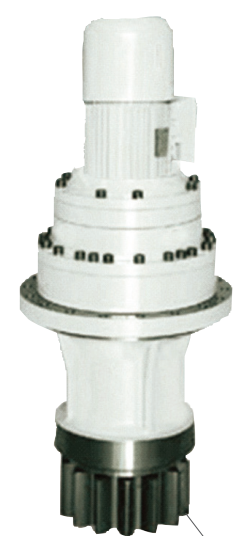
Standards

- Modular design
- In line or right angle design
- Different output versions

Construction Features

- There can be from 3 up to 5 reduction stages, depending upon the total required reduction ratio
- Each stage may have from 3 up to 5 planets
- The gears are made of alloyed steel & heat treated
- The planets are supported by roller bearings or full rollers track bearings to obtain an high efficiency during the phases of starting & running
- The output housing is made by cast iron & designed to hold the heavy loads generated during the machine's job

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Yaw drive



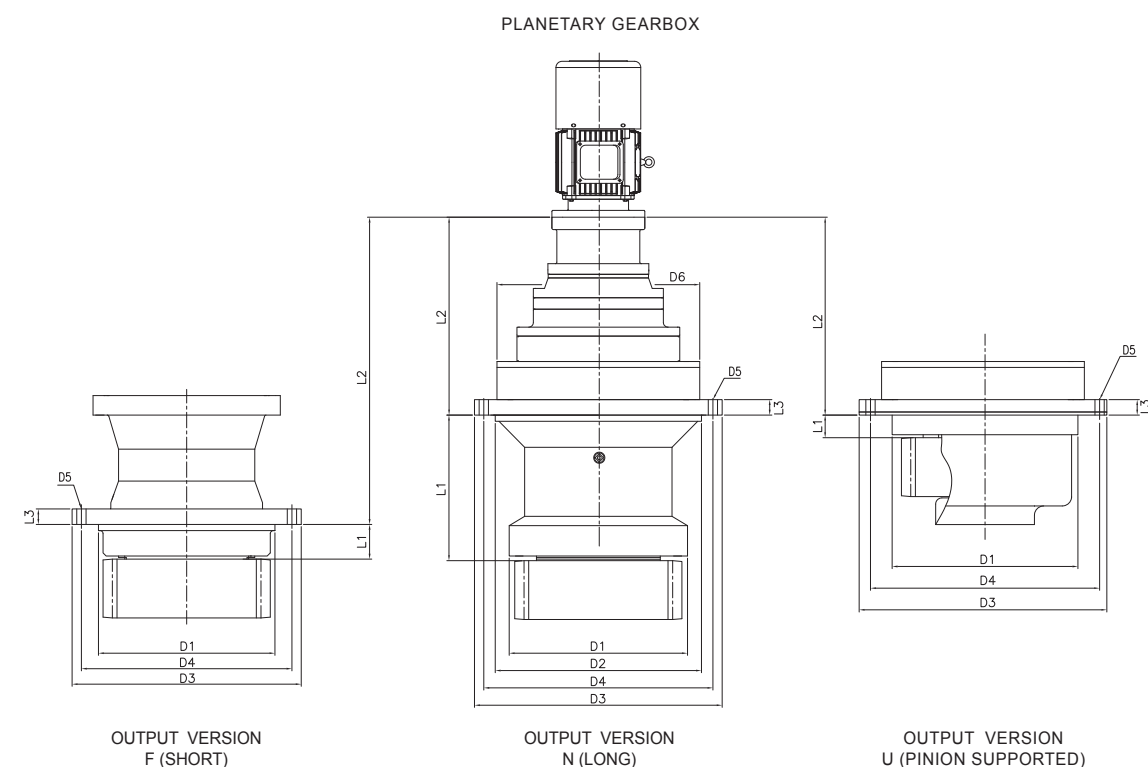
Pitch drive

Yaw drive

TYPE	Nominal Torque (Nm)	Peak Torque (Nm)	Range of Ratios	Available pinion module	Weight (Kg)
W 8.0 Y	8,000	15,000	600 - 2000	From m10 - m14	120
W 12.0 Y	12,000	25,000	600 - 2000	From m12 - m16	170
W 21.0 Y	21,000	52,000	600 - 2000	From m12 - m20	300
W 25.0 Y	25,000	60,000	600 - 2000	From m14 - m20	350
W 30.0 Y	30,000	75,000	600 - 2000	From m16 - m20	400
W 42.0 Y	42,000	105,000	600 - 2000	From m16 - m20	550
W 60.0 Y	60,000	150,000	600 - 2000	From m20 - m24	650
W 80.0 Y	80,000	200,000	600 - 2000	From m22 - m26	1000
W 100.0 Y	100,000	250,000	600 - 2000	From m26 - m30	1800
W 120.0 Y	120,000	300,000	600 - 2000	From m30 - m36	2100

Pitch drive

TYPE	Nominal Torque (Nm)	Peak Torque (Nm)	Range of Ratios	Available pinion module	Weight (Kg)
W 2.5 P	2,500	4,500	100 - 250	From m10 - m12	60
W 4.0 P	4,000	8,000	100 - 250	From m10 - m12	90
W 8.0 P	8,000	16,500	100 - 250	From m10 - m14	120
W 12.0 P	12,000	25,000	100 - 250	From m12 - m16	170
W 18.0 P	18,000	40,000	100 - 250	From m12 - m20	300
W 25.0 P	25,000	55,000	100 - 250	From m14 - m20	350
W 30.0 P	30,000	70,000	100 - 250	From m16 - m20	400



TYPE	VERSION	D1	D2	D3	D4	D5	D6	L1	L2	L3
W 2.5	F	175		275	245	10 - Φ18	244	41	370	20
W 4.0	F	175		275	245	10 - Φ18	244	41	400	20
W 8.0	F	250		360	320	24 - Φ18	292	130	460	35
W 8.0	N	200	250	360	325	10 - Φ18	292	225	350	25
W 12.0	F	310		410	360	12 - Φ22	348	70	540	30
W 12.0	N	230	280	348	314	12 - Φ18	348	300	360	98
W 21.0	F	310		410	360	12 - Φ22	348	70	540	30
W 21.0	N	230	280	348	314	24 - Φ18	348	300	400	125
W 21.0	U	340		405	375	24 - Φ18	348	90	450	40
W 25.0	F	320		410	370	24 - Φ18	400	75	600	35
W 25.0	N	300	425	500	450	24 - Φ18	400	360	500	40
W 25.0	U	340		400	370	24 - Φ18	400	36	550	176
W 30.0	F	390		520	480	30 - Φ18	428	60	700	35
W 30.0	N	300	425	500	460	12 - Φ22	428	350	520	40
W 42.0	F	410		490	450	24 - Φ22	428	125	660	40
W 42.0	N	400	425	520	470	24 - Φ22	428	318	580	40
W 42.0	U	415		530	480	16 - Φ28	428	140	500	45
W 60.0	F	420		530	490	24 - Φ22	490	160	870	40
W 60.0	U	555		645	600	32 - Φ30	490	430	760	100
W 80.0	F	555		650	600	32 - Φ30	542	70	900	50
W 80.0	U	555		650	600	32 - Φ30	542	70	900	50
W 100.0	F	630		740	680	32 - Φ30	695	112	1250	50
W 120.0	U	750		900	830	24 - Φ32	695	60	900	100