NGC

Professional in Wind Gearbox and Transmission System Solutions

NGC

Geared for a Better Future

About Us

Traditional sources of fossil fueled energy continue to be depleted while polluting the environment with carbon compounds. Wind energy is sustainable and emerging as the most promising alternative to fossil fuels. As one of the global market leaders in wind energy gearbox design and manufacture, NGC builds and supports the wind energy ecosystem to reduce carbon emissions and provide future generations the healthy planet Earth they deserve.

Driven by technological innovation and zero defect culture, NGC continuously strives in Research and Development to deliver an optimized solution even for harsh environments. Today more than 44,000 Main Gearboxes and Pitch and Yaw drives are operating reliably in over 30 countries across the globe. NGC gearboxes can be found even in countries with low temperature sites, high altitude areas, as well as in offshore wind farms.

NGC delivers the highest quality gearboxes by utilizing state of the art manufacturing technology and processes.

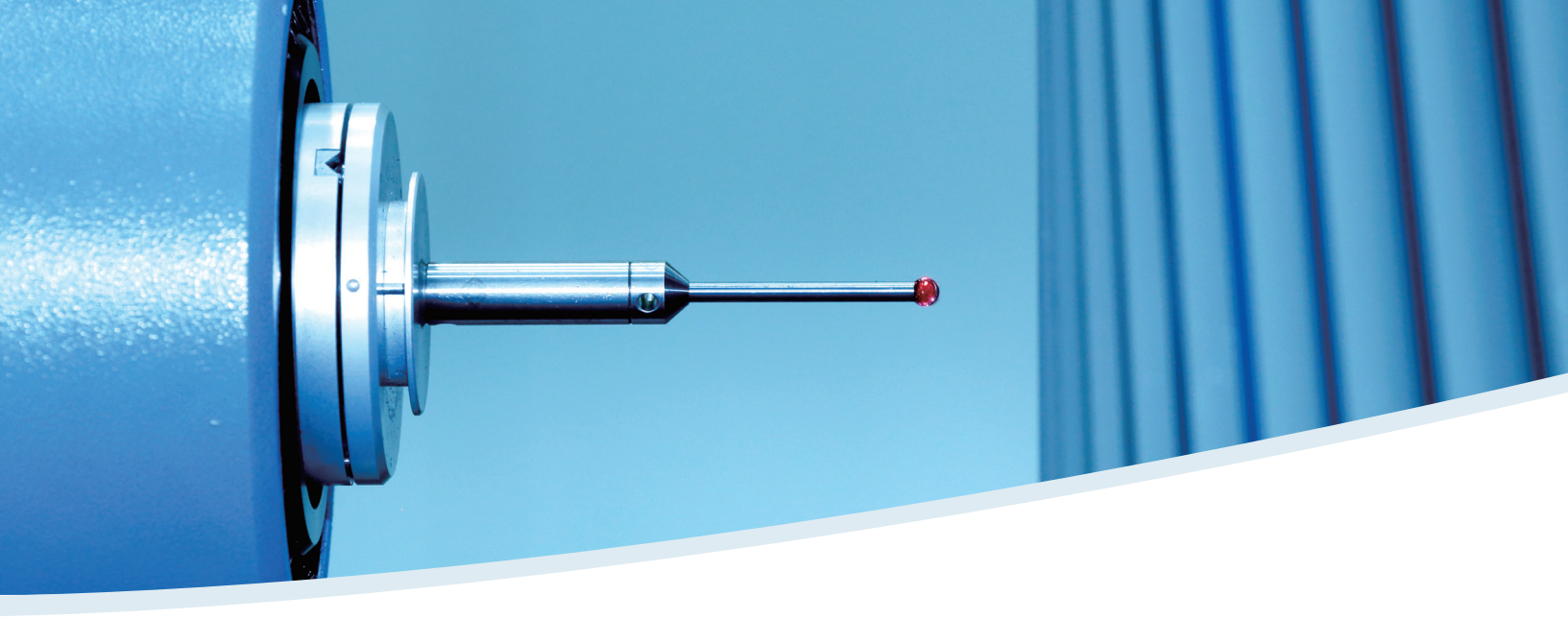
NGC has developed expertise and continues to grow through constant collaboration with our global partners and customers.

Management Excellence comes from our domestic pool of dedicated, competent and professional Technicians, Engineers and Managers.

NGC is expanding its service network with offices in China, Singapore, Europe and North America.

NGC maintains a global fleet of service technicians and engineers that are ever ready to support our customer anytime and anywhere in the globe.

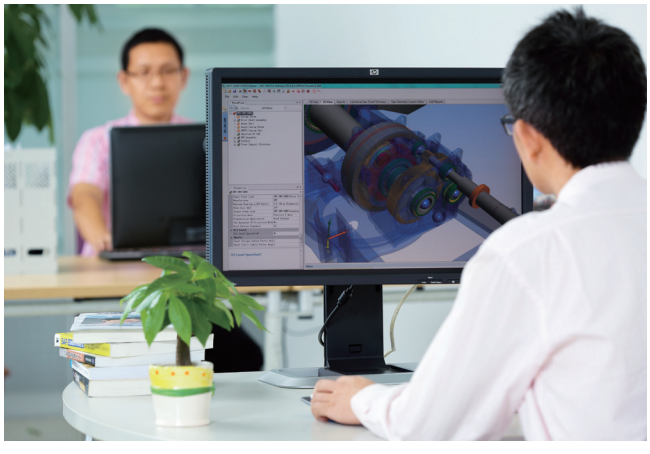
Currently, NGC has not only become one of the world leaders in wind gearbox supply but also a global partner to wind turbine manufacturers and wind farm operators.



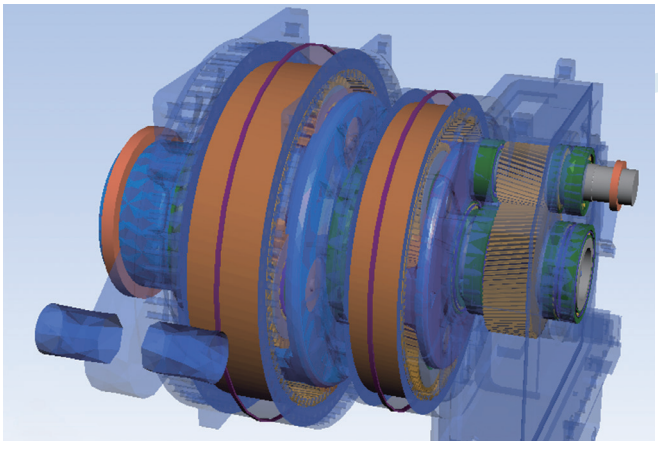
NGC Advantages

NGC has been a part of the gears industry for almost 50 years now. Using such experience is not enough in providing our customer with high quality and reliable gearbox. We integrate our vast experience with our R&D center where our scientists and engineers work diligently in creating a world class gearbox design.

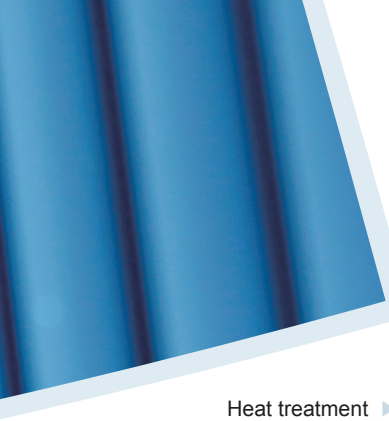
Our R & D centers located in China and in Germany conduct gear strength calculations, gearbox system simulation, noise analysis, Finite Element Analysis (FEA) of the structural parts and others to create an optimized, reliable and quality gearbox design to meet our customer's high quality standard.



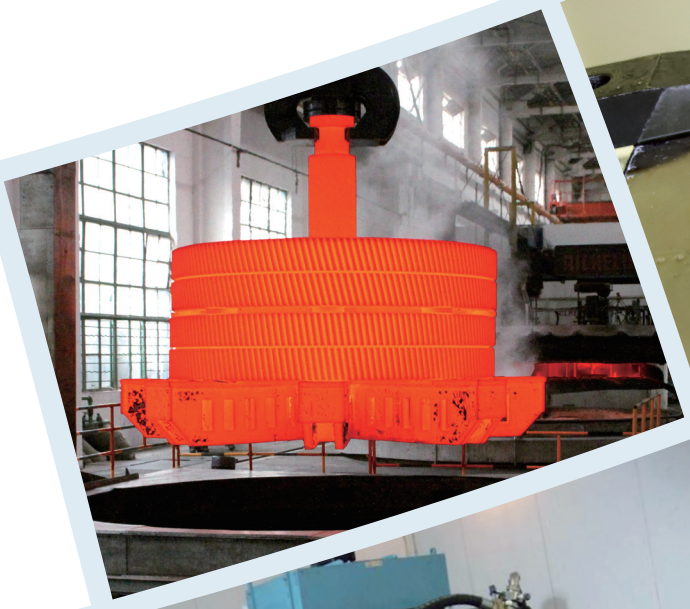
Design

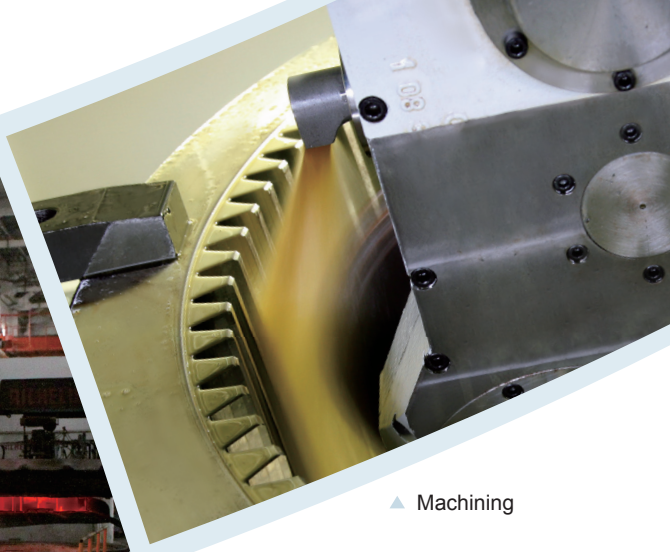


Simulation

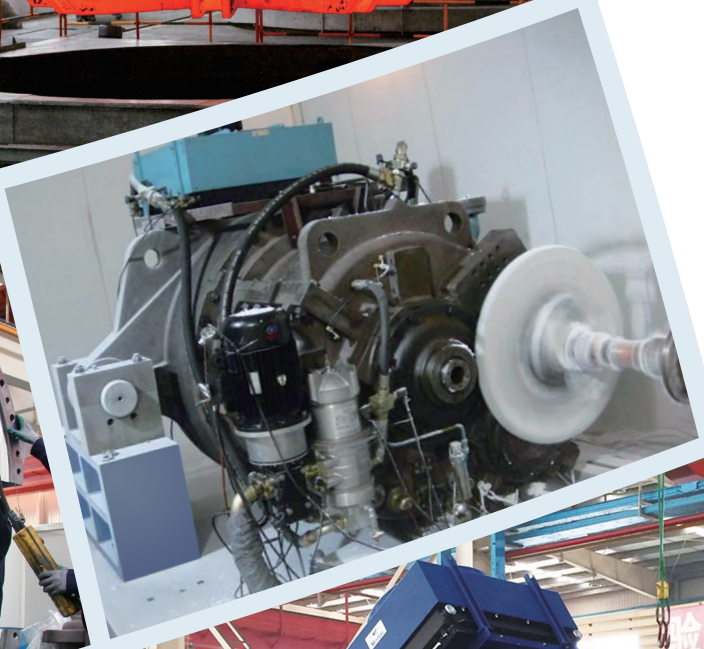


Heat treatment

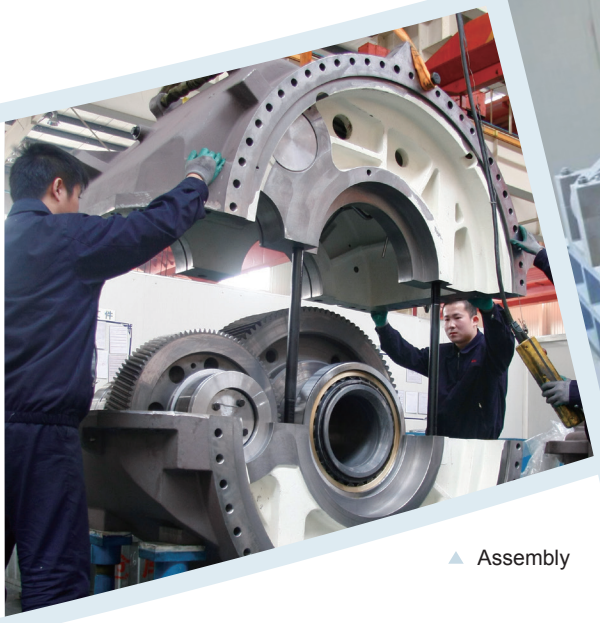




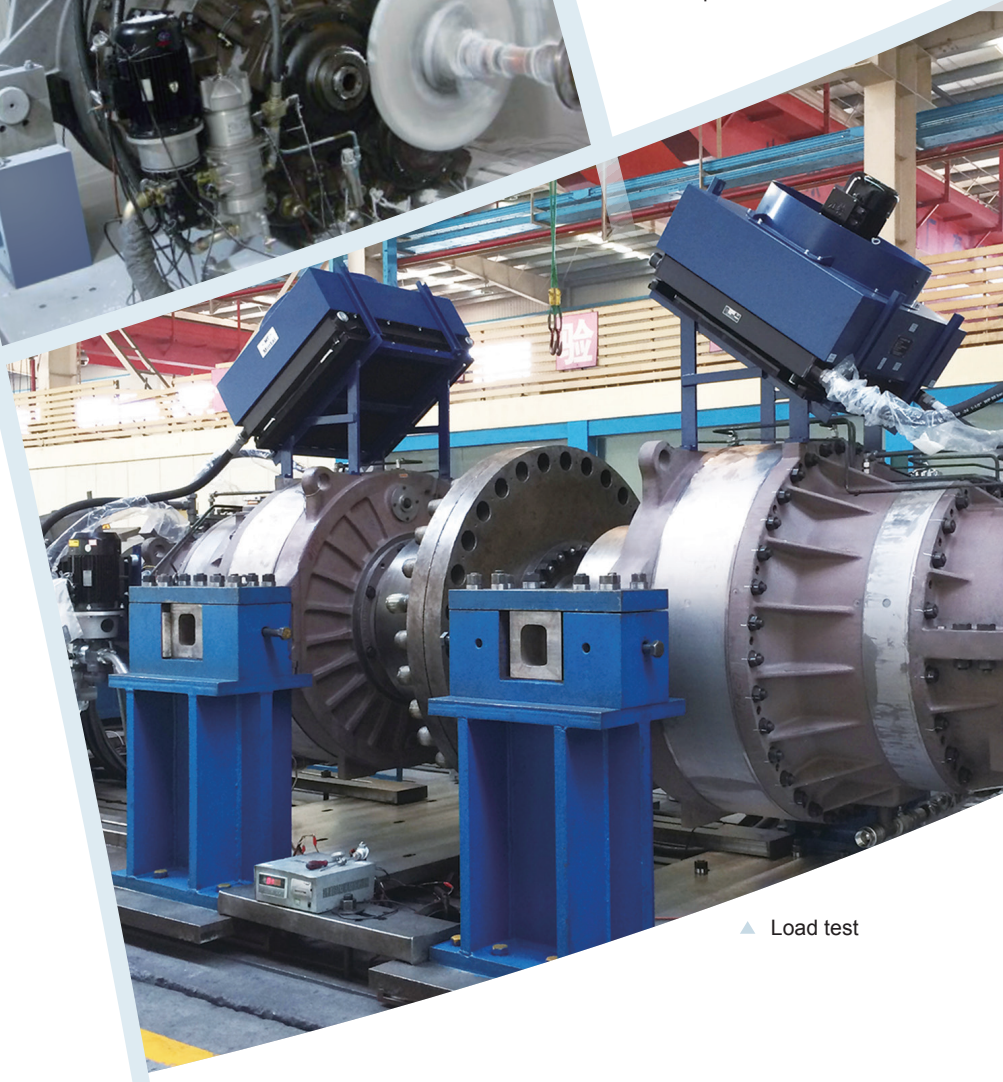
Machining



Low-temperature test



Assembly

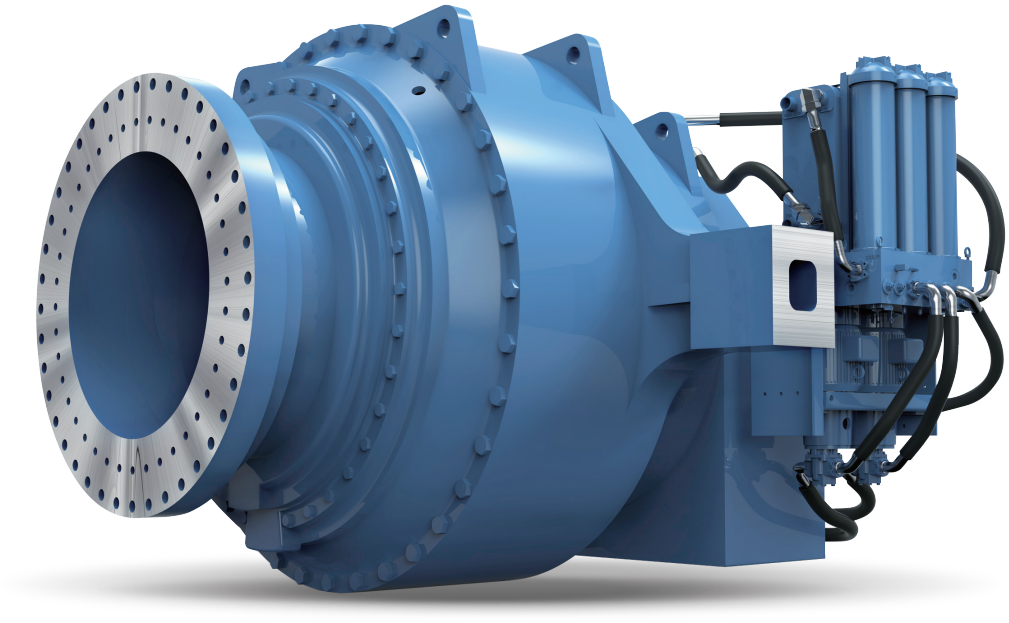


Load test

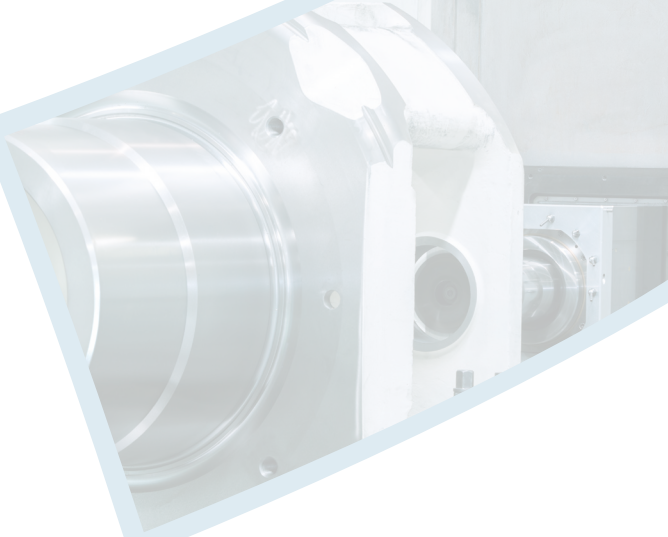
Our Products

NGC provides Main Gearboxes, Yaw and Pitch Drives System ranging from 650kW to 6MW. Our products are fully certified by DNV-GL, DEWI-OCC, TUV-SUD and other reputable third party certifying bodies according to the latest market standard testing procedures.

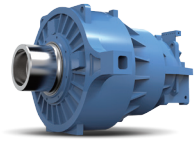
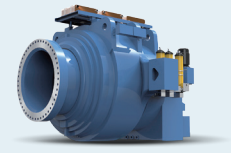
NGC products and system solutions are approved to be used in onshore and offshore applications, high altitude (>1000m), as well as low temperature (-40˚C) and high temperature (+50˚C) environments.



6MW Wind Gearbox



Main Gearbox

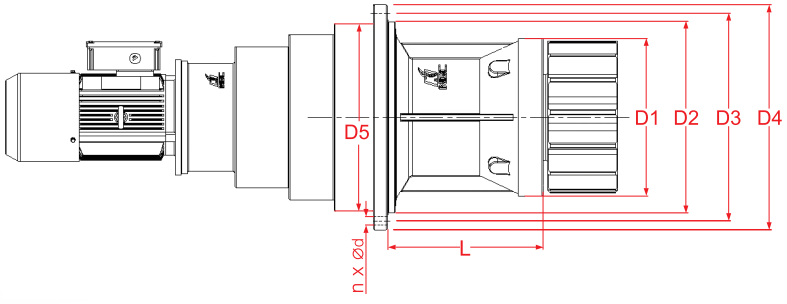
	Platform	Power Range	Ratio	Norminal Input Torque	Rotor Blades Diameter	Driving Arrangement
	1.5 MW	1,660 kW	79.9 - 119.2	982 KNm	70-89 m	One planetary stage (NGW) + two parallel or Two planetary stage (NGW) + one parallel
	2.0 MW	2,160 kW - 2,350 kW	72.3 - 131.6	1,560 KNm	80-115 m	One planetary stage (NGW) + two parallel
	3.0 MW	3,300 kW	82.3 - 140.6	2,500 KNm	110-120 m	Two planetary stage (NGW) + one parallel
	5.0 MW	5,500 kW	93.34	4,470 KNm	130 m	Two planetary stage (NGW) + one parallel
	6.0 MW	6,600 kW	119.2	6,240 KNm	155 m	Two planetary stage (NGW) + one parallel

Yaw Drive

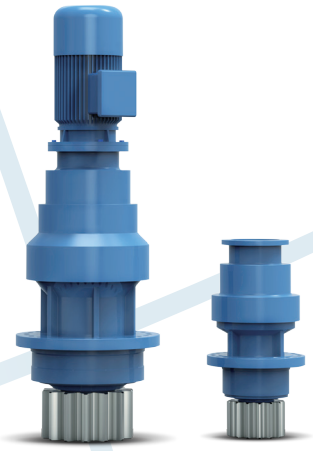
Technical Data

Type	Ratio	Nominal output torque (kNm)	Static output torque (kNm)	Output gear module (Upon request)
FDX202	500 ~ 3,000	10 ~ 15	30	14、16、18、20
FDX203	1,000 ~ 3,000	15 ~ 20	50	14、16、18、20
FDX204	1,000 ~ 3,000	20 ~ 25	70 max	14、16、18、20
FDX205	1,000 ~ 3,000	25 ~ 30	80 max	14、16、18、20、22
FDX206	1,000 ~ 3,000	30 ~ 40	100 max	18、20、22、24、25
FDX207	1,000 ~ 3,000	40 ~ 50	200 max	20、22、24、25
FDX208	1,000 ~ 3,000	50 ~ 65	200 max	22、24、25
FDX209	1,000 ~ 3,000	65 ~ 80	200 max	22、24、25

Dimensions



Type	D1/mm	D2/mm	D3/mm	D4/mm	D5/mm	L/mm	n	d/mm
FDX202	-	250	350	385	348	34	20	17
FDX203	-	300	400	437	400	85	20	17
FDX204	350	425	460	500	420	357	24	22
FDX205	-	365	400	437	430	89	24	22
FDX206	408	410	450	490	463	132	24	19
FDX207	-	550	600	660	540	145	24	26
FDX208	-	555	630	680	575	240	32	30
FDX209	-	555	600	650	515	97	32	30



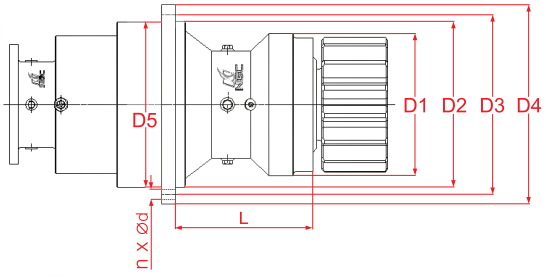
Yaw Pitch

Pitch Drive

Technical Data

Type	Ratio	Nominal output torque (kNm)	Static output torque (kNm)	Output gear module (Upon request)
FDX102	100 ~ 200	3 ~ 4	20 max	12、14
FDX103	100 ~ 200	4 ~ 5	25 max	12、14
FDX104	100 ~ 250	5 ~ 6	30 max	12、14、16
FDX105	100 ~ 250	6 ~ 8	40 max	12、14、16、18
FDX106	100 ~ 350	8 ~ 10	60 max	12、14、16、18
FDX107	100 ~ 350	10 ~ 12	80 max	14、16、18、20

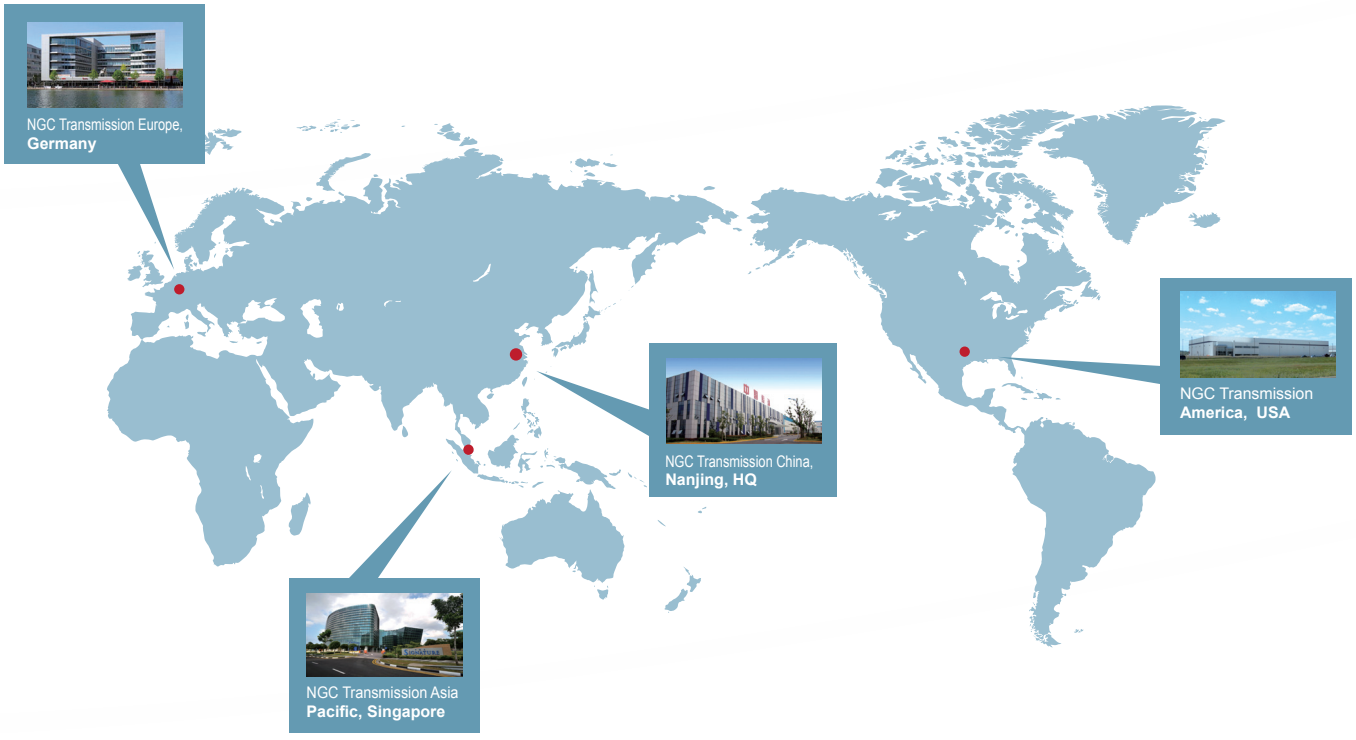
Dimensions



Type	D1	D2	D3	D4	D5	L	n	d
FDX102	228	278	350	380	313	302	16	18
FDX103	-	250	320	360	315	235	24	18
FDX104	300	320	380	420	350	235	20	17
FDX105	300	350	380	420	350	309	20	17
FDX106	330	425	460	496	420	350	18	20
FDX107	350	440	480	525	450	350	20	20

1. This table is only for reference.
2. Dimensions and parameters of output gear listed above can be modified according to customer's need.
3. Please contact us for more information.

Our Services



NGC offices are located in four regions of the globe to provide a global reach and offer engineering and sales support to our customer's demanding requirements.

Our Service Team, which consists of gearbox engineers, application engineers, field engineers, and authorized service partners, provides tailored technical support. Thanks to our well-developed global service network, our customers can always enjoy optimal gearbox maintenance service whenever and wherever possible.

Technical Support

- 24/7 customer service and support
- Global service network
- Professional and competent service team
- Established gearbox maintenance program

Exchange Programs

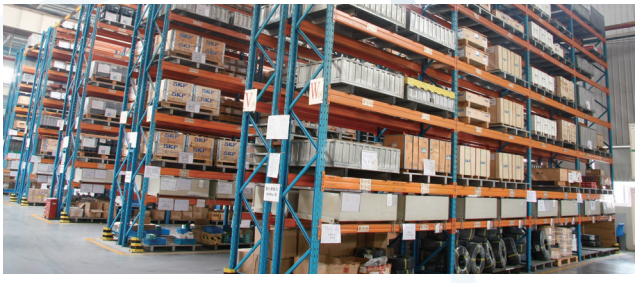
- Ranging from 650KW to 6MW
- Fast delivery for reduced downtime

Field Services

- Regional operating center for better service
- On-site testing and maintenance
- On-site oil replacement
- Up tower repairs

Spare Parts

- High reliability and availability
- High standard, 100% traceable



Factory Services

- Advanced test equipment
- Comprehensive maintenance program
- Latest product version

Other Customer Specific Services

- Customized services and support on different competitor products
- Continuously adding other makes and models to support customers

Contact Us

Wind Energy

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