Contents

Industrial gearboxes

1 Center

Customer-centered, providing the best quality products and services

3 Business sectors

NGC provides a full range of solutions covering wind power, industrial and robotic reducers

50 Years of experience

Focusing on the transmission field for more than 50 years, expert in global gearbox and transmission technology solutions

500 National certified patents

Technology-driven market leader with extensive advanced manufacturing and R&D experience

535000 m^2 Industrial Business Manufacturing and R&D Center

The world's leading gear equipment manufacturer with Sino-German dual R&D center

Jianheng Road Factory

Production bases for large and heavy-duty gearboxes and high-speed gearboxes

Tiance Road Factory

Standard gearbox, reducer motor and other production bases

Airport Industrial Park Plant Area

Remanufacturing Base

Founded in 1969, NGC Group was listed in Hong Kong as "China High Speed Transmission" in 2007. It is a world-leading transmission solution provider covering industrial intelligent equipment, wind power generation and robot reducer.

NGC Group takes gear technology, products and services as its core business, integrates production, R&D, sales and service, focuses on industrial fields such as energy, major equipment and general equipment, and attaches importance to long-term investment in clean energy, low consumption and high efficiency. With leading technology, reliable quality and thoughtful service, NGC Group has become the most competitive partner in the field of global transmission technology.

The pioneering NGC has developed a number of epoch-making new products in the field of industrial equipment, and now assumes an important responsibility as an industry leader in this field.

Over the years, its product lines have been continuously improved to meet the needs of customers in various industries. The products are widely used in such fields as building materials, metallurgy, electric power, ports, coal, coal chemical industry, mining, rubber and plastics, petrochemical, papermaking and environmental protection.

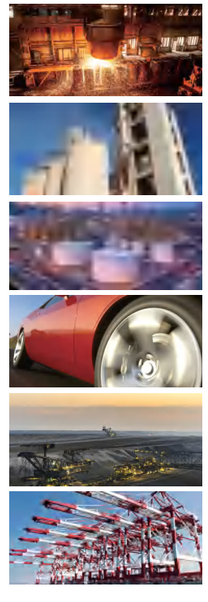
Through close technical cooperation with customers at home and abroad and the support of global R&D system, NGC has always been able to come up with solutions that exceed users' expectations. The confidence conveyed by NGC is leading the industry towards higher pursuits.

Positioning

NGC Group is committed to developing into an "expert in gearbox and transmission technology solutions" and implementing global operation.

Operations

NGC adheres to the consistent style of "being responsible for users and society is being responsible for itself" and "taking responsibility in place and doing things right at one time", continuously consolidating its competitive advantages of "technology-driven, cost advantage, quick response and service guarantee" to ensure the sustainability of enterprise development.



Standard industrial gearbox

MHB series standard industrial gearbox

The standard gearbox series is suitable for various mechanical power transmission fields, and the product series includes helical gearboxes and bevel gear-helical gearboxes. It has different types and designs, with multiple installation forms, which can meet the use requirements of various industrial fields.

Product features

- Modular design, good interchangeability of parts
- Reasonable torque range distribution, economic applicability
- Unique gear modification, high bearing capacity and excellent noise performance
- Hardened tooth surface design, with accuracy above Grade 5
- Various sealing forms to meet the sealing requirements of different applications
- Short delivery cycle and reliable quality

Main technical parameters

- Output torque: 2 ~ 1,400kNm
- Drive ratio: 1.25 ~ 450

Major applications

- Power transmission of various material handling, lifting, conveying, mixing, rotary kiln, dryer, powder concentrator, etc.

Gearbox with extended center distance

The hardened tooth surface crane reducer developed by NGC according to the needs of domestic and foreign markets has the advantages of large bearing capacity, high reliability, compact structure and light weight. It is suitable for crane lifting, luffing and other mechanisms.

Product features

- Combination of modular design and special design to meet the requirements of different working conditions
- Compact structure and large bearing capacity
- Gear modification, large contact ratio of tooth surface, stable transmission and low noise
- Multiple output modes: Flat key, spline, gear shaft end, hollow shaft, etc.
- Rolling bearing
- Non-standard design as required

Main technical parameters

- Output torque: 1,400 kNm
- Drive ratio: 6.3 ~ 400
- Center distance: 120 ~ 2,022 mm

Major applications

- All kinds of bridge cranes, portal cranes, gantry cranes, quay cranes, gantry cranes, rotary kilns and other occasions with requirements for equipment space

Standard industrial gearbox

Mixing gearbox

According to the working conditions of non-ferrous metals, chemical industry and environmental protection, NGC has made various optimized designs for gearboxes: Strengthened bearings, special seals, special lubrication, special boxes, etc., which are suitable for agitation tanks with complex working conditions and high reliability requirements in the chemical industry. Special gear modification is used for large axial load and radial load, and thrust bearing package is provided to meet the load requirements. The unique dry well sealing structure effectively reduces the risk of leakage, and the product has high reliability to meet the use requirements of equipment.

Product features

- Combination of modularization and special design, good interchangeability of parts
- Gear modification for working conditions, high bearing capacity and low noise
- Compact structure, which can bear large axial load and radial load
- Hardened tooth surface design, with accuracy above Grade 5
- Unique dry well sealing form, with high sealing reliability
- High cost performance, multiple optional accessories to meet different requirements

Main technical parameters

- Output torque: 137 ~ 340kNm
- Drive ratio: 22.4 ~ 450

Major applications

- Power transmission of various mixing equipment, reactors, decomposition tanks, mother liquor tanks and other storage tank equipment

Single-stage gearbox

According to the slurry conveying conditions, NGC has made a variety of optimized designs for gearboxes: Strengthened bearings, special seals, special lubrication, special boxes, etc., which are suitable for pump equipment in non-coal mine industries with complex working conditions and high reliability requirements. Special gear modification is used for large axial load and radial load. The unique sealing structure effectively reduces the risk of leakage, and the product has high reliability to meet the use requirements of equipment.

Product features

- Derivation based on MHB platform, modular design and good interchangeability of parts
- Reasonable torque range distribution, high torque density, economic applicability
- Gears are made of superior alloy steel by carburizing, quenching, grinding and finishing
- Profile modification and cylindrical spiral modification are conducted for gears. Loads in along tooth trace are distributed evenly, with high strength, low noise and low vibration
- Finite element analysis ensures optimization of part structure
- Various sealing forms to meet the sealing requirements of different applications
- Reliable quality and short delivery cycle

Main technical parameters

- Output torque: 4 ~ 136kNm
- Drive ratio: 1.25 ~ 5.6

Major applications

- Slurry pump, water pump, axial flow pump, perfusion pump, vacuum pump, reciprocating pump, disc mill, etc.

Air cooling island gearbox

In order to meet the special working conditions of cooling, NGC has developed special gearboxes for cooling column and air cooling island on the basis of modular gearboxes. Manufactured with brand-new design ideas, advanced calculation, analysis and optimization, strict manufacturing standards and international first-class manufacturing equipment, MHC series products exemplify high reliability and exceptional load-bearing capacity. Featuring various specialized designs, encompassing sealing, thermal efficiency, and gear strength, these gearboxes are particularly well-suited for the operating conditions encountered in air cooling island applications.

Product features

- The output low-speed shaft adopts a dry well design to reduce the risk of leakage and avoid oil leakage.
- Box curved surface design, high heat dissipation efficiency and low operating temperature
- Stable operation, high transmission efficiency and low noise
- Optimized structure, large bearing capacity and low vibration
- The lubrication system is reasonably configured to meet the requirements of various working conditions.
- Simple and reliable design structure of external components, easy for on-site operation and maintenance
- Multiple accessories

Main technical parameters

- Output torque: 10.3 ~ 41.5kNm
- Drive ratio: 8 ~ 22.4

Major applications

- Air cooling island in electric power, chemical industry and other industries

Cooling column gearbox

MBC series gearboxes embody a novel design concept, incorporating advanced computational analysis and optimization techniques. Manufactured with stringent quality standards and utilizing state-of-the-art equipment, they exemplify high reliability and exceptional load-bearing capacity. Featuring various specialized designs, encompassing sealing, thermal efficiency, and gear strength, these gearboxes are particularly well-suited for the operating conditions encountered in cooling column applications.

Product features

- The gearbox design is based on a MHB series platform approach, with a high degree of modularity, ensuring high reliability.
- The gear design involves determining gear parameter schemes that take into account multiple factors, such as overall gear tooth strength, transmission efficiency, wear rate, and vibration characteristics.
- A unique gear modification technique is employed tailored to the specific operating conditions.
- The casing is constructed using high-quality cast iron material, ensuring a smooth and sleek appearance, high reliability, and excellent vibration absorption capabilities.
- Finite element analysis is utilized to validate the strength and stiffness of components, resulting in the determination of the design scheme.
- Topology optimization techniques are employed to optimize the shape of the casing.
- Unique heat dissipation rib layout and fairing design, with strong heat dissipation capacity

Main technical parameters

- Drive ratio: 6.3 ~ 18
- Power range: 55 ~ 315 kW

Major applications

- Cooling of machinery such as steam turbines, air compressors and oil presses in petrochemical, coal chemical, electric power, metallurgy and other fields

Standard industrial planetary gearboxes

MP series standard industrial planetary gearbox

In order to meet the requirement of reliable performance of industrial gearboxes under extreme conditions 365 days a year, MP planetary gearboxes come with longer bearing design life and higher torque density, thus extending the service life of products and achieving the goal of long-lasting and reliable power transmission under extreme working conditions.

Product features

- Independent industrial standard planetary gearbox platform
- Advanced modular design technology
- Meet ISO, AGMA and DIN standards
- Optimized gear design and high transmission efficiency
- Unique gear modification scheme, high bearing capacity of gear
- Multiple input and output types

Main technical parameters

- Output torque: 100 ~ 5,800 kNm
- Drive ratio: 25 ~ 4,000

Major applications

- It is used for various rotary drives, such as roller press drive, sugar extractor drive, center transmission of tube mill, rotation of port machinery, lifting mechanism of winch and heavy-duty transmission in mining, engineering machinery, coal mine and other industries

Tower mill gearbox

The MPT series developed by NGC is based on the industrial standard planetary MP platform. Bu fully considering the actual working conditions and following the modular concept, multi-floating load balancing mechanism design and high-speed shaft maintenance-free seal design are adopted for this series of products, which effectively improves the bearing capacity, and all indicators have reached the international advanced level with full test verification. It features high reliability, high bearing capacity and easy maintenance.

Product features

- Modular design for easy part quality control and short lead time
- Topology optimization techniques are employed to improve the power density ratio of gearbox
- Multi-floating load balancing mechanism design is adopted to improve the bearing capacity of gearbox
- Maintenance-free sealing structure is adopted to improve the maintainability of products
- Combined gear modification scheme is used to make the gearbox operate more stably

Main technical parameters

- Drive ratio: 25 ~ 55
- Power range: 160 ~ 2250 kW

Major applications

- Supporting tower mill, which is widely used for fine grinding of non-ferrous metals, gold and nonmetallic minerals

Rotary gearbox of port machinery

Based on the MPP modular platform, it is a sub-platform specially developed by NGC for rotary application of portal cranes. The practical application conditions of the product have been fully considered for MPPH series rotary gearbox of port machinery, and international advanced software for design is used for design with full test verification. All technical indicators of the products have reached the international advanced level. With slight changes, it can also be used for rotary drive of ship loader, floating crane and car dumper.

Product features

- Design and development based on MPP modular planetary platform
- Less material types, higher universality and interchangeability of parts
- More stable product quality and higher reliability
- More scale benefits in the supply chain and lower product costs
- Higher torque density, smaller size and weight
- Inventory optimization, shortened delivery cycle and better O&M services
- It has the advantages of high transmission efficiency, superior performance, small vibration and low noise.
- Multi-floating load balancing mechanism design is adopted to improve the bearing capacity of gearbox

Main technical parameters

- Output torque: 19 ~ 104 kNm
- Drive ratio: 48 ~ 110 (expandable to 250)

Major applications

- It is suitable for material loading and unloading, handling machinery, port machinery, hoisting machinery and other fields.

Winch gearbox

The MPPW series winch gearbox of NGC features serial and modular planetary transmission and built-in design. Arranged inside the drum, matched with the rear support structure, built-in wet multi-disc brake, as well as hydraulic motor, motor and other drive modes, the gearbox has great space advantages and maintenance-free characteristics. With its excellent performance and strong versatility, it has been highly appraised by various main engine plants and owners.

Product features

- Serialized and modular design, with high universality
- Strong bearing capacity and high torque density
- Low temperature rise, low noise and stable transmission
- High transmission efficiency, good quality stability and low failure rate
- Mature product series and high cost performance
- Comprehensive coverage of models, wide application range and customized design

Main technical parameters

- Output torque: 5 ~ 1800 kNm
- Drive ratio: 45 ~ 450

Major applications

- It is applied to various engineering vehicles and lifting mechanisms in lifting equipment with lifting or dragging functions such as hoisting machinery (such as all kinds of mobile cranes, tower cranes and traveling cranes), port machinery (such as wheel cranes)

Standard industrial planetary gearboxes

Scraper gearbox

JS series scraper gearbox is a hard tooth surface heavy-duty gearbox independently developed by NGC after years of exploration and accumulation. This series of products are produced with advanced design concepts, strict enterprise manufacturing standards and international first-class manufacturing equipment to achieve high reliability and high bearing capacity, especially suitable for underground coal mines or similar harsh working environment. The scraper gearbox can be used within the range of 30° (maximum inclination angle) and 20° (maximum traveling angle) on the working face. High-power oil pump lubrication is adopted to ensure safe lubrication at extremely inclined positions. The three-level structure of bevel gear, cylindrical gear and planetary gear is adopted for horizontal installation; the two-level planetary gear structure is adopted for vertical installation. Featuring small volume, excellent performance, safety and reliability, etc., it has passed coal safety certification many times and has been successfully used in major coal groups such as Shenhua and Shandong Energy, gaining a great reputation. It can be specially designed and produced according to the actual use of users.

Product features

- Combination of special design to meet the requirements of working conditions
- Compact structure and large bearing capacity
- Gear modification, large contact ratio of tooth surface, stable transmission and low noise
- Special shaft seal design
- Strict loading test, high reliability
- Large dip angle and traveling angle design

Main technical parameters

- Drive ratio: 3.5 ~ 40
- Rated power: 40 ~ 1,600 kW

Major applications

- Scraper, reversed loader, etc.

Cutting gearbox of bolter-miner

As the core component of bolter-miner, the cutting gearbox of bolter-miner is characterized by harsh operating environment, complex structure, complicated working conditions, high sealing performance requirements, high transmission efficiency requirements and high reliability requirements. Based on NGC's advanced industrial gearbox technology platform, multiple advanced technologies such as systematic analysis of gear meshing characteristics, multi-objective gear modification, planetary transmission load sharing characteristics, structural topology optimization, bearing calculation and analysis, thermal power analysis, etc. have been applied to the cutting gearbox of NGC BHP series cutting gearbox of bolter-miner. The comprehensive performance of the product reaches the international advanced level.

Product features

- The structure is a combination of helical gear + bevel gear + planetary gear pair, and the motor is installed on the cutting drum at the square head of planetary carrier and output spline end of the gearbox.
- The high-performance cast steel box is designed as per FKM standard and is topologically optimized by finite element analysis to improve the rigidity of the box.
- After carburizing and hardening treatment, high-precision grinding, gear modification, etc., the gear can reach the national standard level 5 accuracy, with better bearing capacity and efficiency (≥ 93%) and reduced vibration and noise, and the comprehensive noise is ≤ 85dB(A).
- Optimized design of floating oil seal seat cavity, with a special auxiliary sealing structure to improve the reliability of floating oil seal
- Built-in mechanical pump reduces oil and gas resistance through calculation of flow field, temperature field and pressure field to ensure effective lubrication at all cutting angles

Main technical parameters

- Specification: Standard type, widened type
- Drive ratio: 58/50, 57/50
- Cutting power: 315 kW, 540 kW

Major applications

- Bolter-miner

Horizontal shaft tunneling and cutting gearbox

The horizontal shaft tunneling and cutting gearbox newly developed by NGC is based on NGC's advanced industrial gearbox technology platform. A number of advanced design, analysis and manufacturing technologies are adopted. The product is characterized by high bearing capacity, high reliability, low temperature rise, low vibration, etc., and its comprehensive performance has reached the international advanced and domestic first-class level. The product can fully meet the requirements of harsh operating environment, complex working conditions and extremely high sealing and reliability requirements for horizontal shaft TBM.

Product features

- The structure is a combination of helical gear + bevel gear + two-stage planetary gear pair, and the motor is installed on the cutting drum at the output spline end of the gearbox.
- The high-performance cast steel box is designed as per FKM standard and is topologically optimized by finite element analysis to improve the rigidity of the box.
- After carburizing and hardening treatment, high-precision grinding, gear modification, etc., the gear can reach the national standard level 5 accuracy, with better bearing capacity and efficiency and reduced vibration and noise.
- Optimized design of floating oil seal seat cavity, with a special auxiliary sealing structure outside the main floating seal to improve the reliability of floating oil seal under severe working conditions.
- Built-in mechanical pump reduces oil and gas resistance through calculation of flow field, temperature field and pressure field to ensure effective lubrication at all cutting angles.
- Built-in water spray system improves the service life of picks and optimizes the working environment of fully mechanized excavation face.

Main technical parameters

- Drive ratio: 35 ~ 80
- Transmission efficiency ≥ 93%
- Pressure-bearing capacity of spray water channel ≥ 5 MPa

Hoist gearbox

The hoist gearbox is a special gearbox in mine hoisting equipment, among which MP series are hard-tooth planetary gear reducers developed according to the needs of domestic and foreign markets and the trend of technological development. There are two-stage (ZZL) planetary gear structures, single-stage derived and two-stage derived planetary gear structures, such as one-stage parallel shaft + one-stage planetary structure (ZZDP), one-stage parallel shaft + two-stage planetary structure (ZZLP), etc. With complete varieties, it can not only meet the different spatial layout requirements of the complete machine, but also has large drive ratio range, large output torque and strong applicability.

Product features

- Special design, meeting the requirements of working conditions
- Compact structure and large bearing capacity
- Gear modification, large contact ratio of tooth surface, stable transmission and low noise
- Suitable for occasions with frequent starting and braking
- Non-standard design as required

Main technical parameters

- Drive ratio: 20 ~ 400
- Rated power: 30 ~ 1,800 kW

Major applications

- Mine hoist

High-speed gearbox

MTG series high-speed gearbox

The application environment of high-speed gearbox is special, and it is often used in high speed occasions in the fields of energy, chemical industry, oil and gas, etc. Therefore, it is required to have high efficiency, vibration and reliability. The MTG series high-speed gearbox independently developed by NGC is highly competitive in terms of efficiency, vibration, reliability and cost performance. And this series of products have passed the international API industry certification.

Product features

- High speed: maximum speed 25,000r/min, maximum linear speed 176m/s
- High standard: The design meets international and industry advanced standards such as API, AGMA and ISO
- High accuracy: Gear accuracy ISO 3~5
- High efficiency: Above 98.5%
- High reliability: Designed service life is not less than 20 years
- High bearing capacity: Advanced lightweight design technology

Main technical parameters

- Structure: Single-stage herringbone gear
- Drive ratio: 1 ~ 10
- Range of speed: High-speed shaft 3000 ~ 25000 r/min
- Rated power: 500 ~ 100000 kW

Major applications

- It is applicable to supporting gearboxes of steam turbine, gas turbine power generation unit, centrifugal axial flow fan, blower, compressor, high and low pressure pump, catalytic cracking energy recovery unit, air separation unit and other units.

High-speed gearbox of gas turbine

As the core equipment in gas turbine power generation, high-speed gearbox must meet the requirements of high efficiency and high reliability. The high-speed gearbox for NGC gas turbine has a wide range of options in center distance size, speed, speed ratio and power, which can well meet various needs of customers. In terms of gearbox efficiency, reliability and operation performance of complete machine, it has been strictly tested in customer practice.

Product features

- Flexible design, extended design based on MTG series
- Customized design to meet the requirements of different gas turbine units
- Various accessories can be integrated according to the requirements, such as turning gear and oil pump.
- Gearbox and accessories meet international and industry advanced standards such as API, AGMA and ISO
- Gear accuracy ISO 3~5
- The efficiency can reach more than 98.5%
- Low noise and stable operation
- With high-accuracy vibration, temperature and other system detection functions to ensure a high reliability in the operation of gearbox

Main technical parameters

- Center distance: 200 ~ 1000mm
- Gear ratio range: 1 ~ 10
- Range of speed: ≤ 25000 r/min
- Rated power: ≤ 100000 kW

Major applications

- Power plant gas turbine generation, power plant steam turbine generation, distributed energy generation

High-speed planetary gearbox

The TGP series high-speed planetary gearbox newly developed by NGC comes with the highest design criteria, high-precision manufacturing process and strict quality control to greatly reduce maintenance costs throughout its life cycle. With the advantage of multi-functional integration, the series can be directly connected to generators or gas turbines and integrate devices such as turning gear, start-up and pumps to provide customers with the most cost-effective solutions. Meanwhile, NGC can provide service support such as inspection, maintenance and repair of all types of high-speed planetary gearboxes.

Product features

- Structure type: Single-stage planetary and compound planetary
- Installation method: Anchor installation, flange installation, flange+anchor auxiliary support
- Executive standards: ISO6336, AGMA6011 and API613
- Weight and space savings: Coaxial arrangement, light weight, compact size
- Cost reduction: Light weight, small space occupation and low total cost
- Low-carbon environmental protection: High efficiency, infinite life design and low material consumption

Main technical parameters

- Drive ratio: 1.6 ~ 13 (single-stage planetary), 7 ~ 40 (compound planetary)
- Power: ≤ 50000 kW

Major applications

- Power generation, oil and gas, metallurgy, papermaking, distributed energy resources, ship propulsion, aviation, etc.

Integral multi-shaft compression gearbox

NGC TGM series integral multi-shaft compression gearboxes are mainly used in air separation equipment, especially large and extra-large air separation equipment, to help the development of petrochemical, coal chemical, metallurgy and other industries and solve the pain points of the industry. As the core component of complete air separation equipment, this product has strict requirements and controls in terms of overall design, raw materials, processing quality, etc., so that it can reach the domestic leading and international advanced level in reliability, efficiency, quality, etc.

Product features

- The gearbox comes with a parallel shaft single helical tooth structure to directly drive the compressor impeller to work and bear the axial force generated by the impeller;
- The product meets the requirements of API612, API677 and API613;
- The compression stages of the product can reach 10;
- The exhaust wheel can reach 100,000 Nm3/h;
- Gear accuracy: ISO3~5;
- The product has strict requirements for materials and processing to ensure the high reliability of gearbox operation

Main technical parameters

- Center distance of single stage: ≤ 1800 mm
- Single-stage speed ratio: ≤ 25
- Range of speed: ≤ 70000 r/min
- Rated power: ≤ 30000 kW

Major applications

- Petrochemical, coal chemical and metallurgical industries

Metallurgical rolling gearbox

Main drive gearbox of modular mill

The main drive gearbox technology of NGC modular mill can provide solutions for the transmission system of bar, wire and profile production lines. The gearbox of modular mill is generally a vertical gearbox and a horizontal gearbox arranged at intervals to ensure the shape and size of rolled products. The horizontal gearbox is driven by parallel shafts, while the vertical gearbox is driven by spiral bevel gears and parallel shafts. Generally, it has a single-input double-output or three-output structure, which transmits and distributes the power of the motor to two or three rollers, and achieves the torque and speed required for rolling through the reduction ratio. In addition to fully meeting the needs of actual working conditions, the main drive gearbox of NGC wire rod mill is also characterized by compact structure, impact resistance and stable operation. It can be used together with closed or short stress path mills, and vertical and horizontal gearboxes and horizontal conversion systems can be reasonably customized according to the requirements of the actual rolling process of the production line.

Product features

- The gearbox is of modular design, which is efficient, simple and easy to maintain.
- The box is designed as per FKM standard and is optimized by finite element analysis to improve the rigidity of the box.
- The gear is designed according to ISO 6336 standard, and through composite modification, the power torque can be maximized while ensuring smooth transmission and reducing vibration and noise
- The input and output shaft ends are fully mechanically sealed, with zero leakage.

Main technical parameters

- Center distance of output shaft: To 1,100 mm
- Output torque: To 1,200 kNm
- Drive ratio: to 120

Major applications

- Large, medium and small bar production lines, wire rod and high-speed wire rod production lines and some section steel production lines

Main drive gearbox for hot-rolled plate

Deployed in the production line of hot-rolled plates, the main drive gearbox of NGC hot-rolled plate can provide power transmission for the roughing mill area and finishing mill area on the production lines of hot continuous rolling plates, continuous casting and continuous rolling plates. The main drive gearbox of NGC hot-rolled plate is divided into a main reducer with reduction ratio and a gear stand for power distribution. The series transmission of the main reducer and the gear stand can transmit the power and torque of the main motor to the two rolls of the hot-rolled plate mill through reduction and distribution.

The rolling reduction and rolling force of the hot-rolled plate production line are large, which requires the drive system to provide a large rolling torque. More demanding requirements have been put forward for the reliability and stability in the design and manufacture of the gearbox in the main drive system. NGC's main drive gearbox for hot-rolled plates can fully meet its drive requirements.

Product features

- Manufactured with a brand-new serial design, the gearbox has compact structure and high power density ratio
- The box is designed as per FKM standard and is optimized by finite element analysis to improve the rigidity of the box.
- The gear is designed according to ISO 6336 standard, with herringbone gears and composite modification. It improves torque while ensuring smooth transmission and reducing vibration and noise
- More reliable welded gear with hardened tooth surface, double-spoke plate or three-spoke plate for connection, high accuracy and stable transmission

Main technical parameters

- Output torque: Max. 4,200 kNm
- Drive ratio: 1 ~ 10
- Rated power: Max. 12,000 kW

Major applications

- It is mainly used in production lines of hot continuous rolling plates, continuous casting and continuous rolling plates

Main drive gearbox for cold-rolled plate

The main drive gearbox of NGC cold-rolled plate is applied to the tandem cold rolling or reversible plate mill production line, mainly realizing the function of transmitting and distributing the power torque of the motor to the rolls of the mill. In order to adapt to the characteristics of high speed and high stability requirements for cold-rolled plates, the main drive gearbox of NGC cold-rolled plate is designed in a well-targeted manner to ensure its transmission requirements. Its high accuracy and reliability have been verified on the production line of tandem cold rolling plates and reversible plate mills in many projects.

Product features

- Manufactured with a brand-new serial design, the gearbox has compact structure and high power density ratio
- The box is designed as per FKM standard and is optimized by finite element analysis to improve the rigidity of the box.
- The gear is designed according to ISO 6336 standard, and the high-precision grinding reaches level 5 accuracy of ISO 1328 standard. Composite modification is carried out to improve torque while ensuring smooth transmission and reducing vibration and noise
- The input and output shaft ends are fully mechanically sealed, with zero leakage.

Main technical parameters

- Output torque: Max. 700 kNm
- Drive ratio: 0.8 ~ 6.8
- Rated power: Max. 7,500 kW

Major applications

- Tandem cold rolling plate production line: Reversible cold-rolled plate rolling production line

Special gearbox for metallurgy

Profile flying shear

Profile flying shear is a device used to cut the rolled piece on the continuous rolling production line of rods and wires. It can achieve cutting of the head, tail, and accident chopping of the rolled piece as well as multiple-length shearing of finished products during the operation of the rolled piece. NGC provides different types of flying shears designed for different functional requirements on different rolling lines, such as crank-connecting rod type flying shears, rotary flying shears and crank-connecting rod + rotary combined flying shears. Different structures can provide different cutting speeds and cutting forces under different working conditions, and can frequently start and brake under the control of electromechanical integrated control system on the rolling line to realize cutting under large inertia.

The low-temperature flying shear designed by NGC can realize the low-temperature shearing of rolled bar products after water cooling, and has the function of low-temperature shearing with high shear force and high accuracy.

Product features

- The product is designed according to serialization, and has the supporting capability for the design of a complete set of shearing device
- Optimized calculation of cutting edge trajectory, using Matlab analysis as the optimal solution, with accuracy and long service life
- The combined flying shear is equipped with an integrated tool rest, which greatly reduces the switching time of shearing mode and is efficient and reliable.
- Finite element analysis and optimization of main parts to improve system rigidity and stability
- Steel pressing device designed by high-speed cutting head and tail flying shear reduces the steel stacking rate, which is safe and efficient

Main technical parameters

- Maximum shearing area: 17,600 mm^2 (φ150 mm)
- Maximum shearing speed: 22 m/s

Major applications

- Continuous rolling production line for bars, wires and steel sections

BOF tilting device

The converter tilting device is used for stable tilting and accurate positioning of the furnace body in the oxygen top-blown converter steelmaking equipment, and completes a series of process operations such as molten iron mixing, tapping, charging and repairing. The converter tilting device of NGC is mainly composed of AC variable frequency motor, primary reducer, secondary reducer and torsion bar balancing device. It is designed with four-point meshing full-suspension flexible transmission type, and a torsion bar device is adopted for the torque balance mechanism. NGC tilting device is the key transmission mechanical equipment to realize converter steelmaking production. Its working characteristics include low speed, heavy load, large speed ratio, frequent starting and braking, and the ability to withstand large dynamic loads and harsh working conditions.

The core technology related to the primary reducer in the converter tipping device of NGC has obtained a national patent. The main supporting parts are of first-class brands to ensure the safe and reliable performance of the whole unit.

Product features

- The transmission products are designed according to serialization, with large transmission torque, stable, reliable and high safety
- The welded large gear is made of low-carbon high-quality alloy steel, the tooth surface is carburized and quenched, and the gear strength is greatly improved by high precision grinding.
- The connecting pins of the primary and secondary reducers are independently processed with high accuracy, which is convenient for replacement and improves the versatility of the primary reducer
- The torsion bar is designed with Adams software for dynamic analysis to ensure the strength and increase the flexible buffer capacity of the system.

Main technical parameters

- Specification: 30 ~ 300 T
- Maximum torque: 6,500 kNm
- Emergency torque: 15,000 kNm
- Drive ratio: 520 ~ 1,200

Major applications

- BOF steelmaking equipment

Herringbone gear base

Herringbone gear base is the core transmission component in metallurgical field, which transmits torque and ensures synchronous operation of working machine. It is widely used in steel plate rolling, billet processing, non-ferrous metal rolling and other systems in metallurgical industry with poor service conditions. The herringbone gear base developed by our company is characterized by small volume, light weight, large torque and high reliability, and its technology reaches the domestic leading and international advanced level.

Product features

- Manufactured with a brand-new serial design, the gearbox has compact structure and high power density ratio
- The gear is designed according to ISO 6336 standard, with double-sided grinding and composite modification. It improves torque while ensuring smooth transmission and reducing vibration and noise
- The shaft head adopts two-section pure interference connection, which is convenient for assembly with high safety factor of torque transmission
- The input and output shaft ends are fully mechanically sealed, with zero leakage.

Main technical parameters

- Specifications: 8, each of which is divided into 2 models
- Output torque: 466 ~ 4008 kNm
- Output speed: 23.82 ~ 530 r/min

Major applications

- Supporting plate rolling mill, cogging mill, etc.

Casting crane gearbox

YZ series and MHK series gearboxes with extended center distance are gearboxes for metallurgical cranes with hardened tooth surface developed by NGC according to the market demand at home and abroad. They are developed based on MHB series standard industrial gearbox platform, which have the advantages of wide application range of center distance, large bearing capacity, high reliability and light weight, and are suitable for lifting drive mechanisms of various metallurgical cranes and casting cranes.

Product features

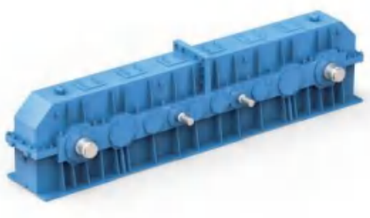
- Combination of modular design and special design to meet the requirements of different working conditions, with compact structure and large bearing capacity
- Gear modification, large contact ratio of tooth surface, stable transmission and low noise
- Multiple output modes: Flat key, spline, gear shaft end, hollow shaft and other output modes
- Non-standard design according to user requirements

Main technical parameters

- Output torque: 6.6 ~ 470 kNm
- Drive ratio: 14 ~ 250
- Center distance: 405 ~ 1990 mm

Major applications

- Metallurgical crane, casting crane, etc.



Mill gearbox

Gearbox for vertical mill

A vertical mill requires an extremely high power rating and availability. As one of the core components of the vertical mill, the gearbox is used to transmit power, reduce the motor speed to the grinding speed required by the mill, and form a support for the grinding table of the mill. The high axial forces and some of the radial forces generated during grinding are transmitted to the mill foundation through the thrust bearings and gearbox housing.

Product features

- Modular design and high universality of parts
- Longer bearing life and more reasonable lubrication distribution
- The gear is made of low-carbon alloy steel, carburized and hardened, and compositely modified to maximize the power torque while ensuring smooth transmission and reducing vibration and noise
- The box body and planetary rotary frame are designed according to FKM standard, and finite element analysis is carried out to improve the rigidity of the gearbox. The deformation during operation is smaller and the operation is more stable
- A complete set of original thrust bearing load-bearing mechanism ensures that the gearbox can bear the vertical additional load of the mill stably

Main technical parameters

- Stages of gear: Two-stage transmission (one-stage spiral bevel gear transmission, one-stage planetary gear transmission) three-stage transmission (one-stage spiral bevel gear transmission, one-stage parallel gear transmission, one-stage planetary gear transmission) three-stage transmission (one-stage spiral bevel gear transmission, two-stage planetary gear transmission)
- Drive ratio: 20 ~ 60
- Rated power: 80 ~ 9,000 kW

Major applications

- It is widely used in raw mill, coal mill, pre-grinding, cement mill, slag mill, gypsum and fly ash of building materials industry; coal mill and limestone mill of power industry and metallurgical industry; grinding system of calcite, ceramic powder, mining and other industries.

Gearbox for roller press

Roller press gearbox is a kind of transmission equipment widely used in various industrial fields, which has the characteristics of high efficiency, high accuracy and long life. NGC MPG series gearbox utilizes the transmission principle of planetary gear. The rotation and revolution of planetary gear realize multi-stage deceleration of power, thus improving the speed and torque of output shaft. By adjusting the number and gear ratio of planetary gears, this series can obtain different reduction ratios and output torques, realizing the perfect combination of high power and small volume, and providing strong support for modern industry, especially cement production.

Product features

- The gear is made of low-carbon alloy steel, carburized and hardened, and compositely modified to maximize the power torque while ensuring smooth transmission and reducing vibration and noise.
- The box body and planetary rotary frame are designed according to FKM standard, and finite element analysis is carried out to improve the rigidity of the box body. The deformation during operation is smaller and the operation is more stable
- More guaranteed manufacturing quality and higher reliability The transmission is highly compact and saves space;
- Longer bearing life and more reasonable lubrication distribution
- It can be equipped with a shrink disk, which is specially designed for easy disassembly and assembly

Main technical parameters

- Stages of gear: 2 or 3, 1st. parallel shaft gear pair (configured according to specific requirements) + 2nd. planetary gear pair + 3rd. planetary gear pair
- Output torque: 200 ~ 7,200kNm
- Drive ratio: max. i = 125

Major applications

- Crushing of materials and ore materials from various stages of cement production in industrial industries such as cement and mining

Center drive gearbox

MFY and MFYT series center drive gearboxes are a new type of low-speed and heavy-duty gearbox developed and designed by our company on the basis of fully absorbing the advanced technology of advanced industrial countries, summarizing the experience and shortcomings of large mill gearboxes designed and manufactured in China, and combining with the characteristics of our company. MFY series mill gearbox adopts double-split power, two-stage reduction and concentric transmission in structure. MFYT series mill gearbox adopts double-split power, three-stage reduction and concentric transmission in structure.

Product features

- The gearbox uses reduction and split drive structure to transmit torque
- The gear is made of low-carbon alloy steel, carburized and hardened, and the tooth profile and tooth alignment are modified through composite modification to maximize the power torque while ensuring smooth transmission and reducing vibration and noise
- Sliding bearings and gears are designed for permanent life
- Equipped with electronic control and detection system to monitor the operation status in real time
- Wide application and stable transmission
- Simple operation and high maintainability

Main technical parameters

- Stages of gear: Two-stage power double-split; three-stage parallel transmission+power double-split
- Rated power: 800 ~ 8,000 kW

Major applications

- Crushing of materials such as ore, coal lumps or cement clinker in the construction material, coal production and mining industries

Edge drive gearbox

For the edge drive of the tube mill, NGC specially configures a high-performance MBY (MBYX) gearbox as the main gearbox. MBY(X) series gearbox features modern gear design and manufacturing technology. Due to the harsh operating conditions and low speed heavy load in cement and other industries, safety, reliability and long service life are required, so edge drive mill gearboxes are specially designed for cement, coal grinding and other purposes.

Product features

- The gear is made of low-carbon alloy steel, carburized and hardened, and the tooth profile and tooth alignment are modified through composite modification to maximize the power torque while ensuring smooth transmission and reducing vibration and noise
- The gearbox is easy to maintain
- Both oil pan and non-oil pan designs fully meet the demand
- Symmetrical design, gears can be used on both sides
- High reliability and long service life

Main technical parameters

- Stages of gear: One-stage parallel shaft gear pair
- Drive ratio: max. i =7.1
- Rated power: 200 ~ 5,000 kW

Major applications

- Edge drive mill gearbox for cement and coal grinding

Rubber and plastic mechanical gearbox

Open mill gearbox

As a supporting main gearbox for the open rubber mixing machine, the open mill gearbox features high accuracy, heavy load and hard tooth surface. The gearbox adopts the transmission form of parallel cylindrical gear reduction. The input shaft is connected with the motor shaft through the elastic coupling, and driven by the motor. After gear reduction and deceleration of the gear between the two output shafts and power splitting, the two output shafts respectively transmit power to the rotor shaft of the open mill through the coupling to drive the rotor of the open mill for rubber mixing.

Product features

- Design and development based on industrial standard platform
- Modular design for easy part quality control and short lead time
- Topology optimization techniques are employed to improve the power density ratio of gearbox
- Multi-floating load balancing mechanism design is adopted to improve the bearing capacity of gearbox
- Maintenance-free sealing structure is adopted to improve the maintainability of products
- Combined gear modification scheme is used to make the gearbox operate more stably

Main technical parameters

- Drive ratio: 10 ~ 103
- Rated power: 37 ~ 450 kW

Major applications

- Supporting open mill for mixing, hot melting, tabletting and plasticizing of rubber

Internal mixer gearbox

As a supporting main gearbox for the closed rubber mixing machine, the main gearbox of the internal mixer features high accuracy, heavy load and hard tooth surface. The main gearbox of the internal mixer adopts a transmission form of parallel cylindrical gear reduction. The input shaft is connected with the motor shaft through a coupling and driven by the motor. After gear reduction and deceleration of the gear between two output shafts and power splitting, the power is transmitted to the internal mixer rotor shaft through the coupling to drive the internal mixer rotor for rubber mixing.

Product features

- Design and development based on industrial standard platform
- Modular design for easy part quality control and short lead time
- Topology optimization techniques are employed to improve the power density ratio of gearbox
- Multi-floating load balancing mechanism design is adopted to improve the bearing capacity of gearbox
- Maintenance-free sealing structure is adopted to improve the maintainability of products
- Combined gear modification scheme is used to make the gearbox operate more stably

Main technical parameters

- Drive ratio: 12.5 ~ 50
- Rated power: 22 ~ 3,000 kW

Major applications

- Supporting internal mixer for mixing, plasticating and final stirring of rubber or plastics

Conical twin-screw extrusion tabletting gearbox

The XSJY series conical twin-screw extruder gearbox developed by NGC is specially designed for the conical twin-screw extruder, and the tablet press gearbox is specially designed for the tablet press. This series of products has strong bearing capacity, high reliability, low noise and compact structure.

Product features

- Design and development based on industrial standard gearbox platform
- Modular design for easy part quality control and short lead time
- Topology optimization techniques are employed to improve the power density ratio of gearbox
- Multi-floating load balancing mechanism design is adopted to improve the bearing capacity of gearbox
- Maintenance-free sealing structure is adopted to improve the maintainability of products
- Combined gear modification technology for smoother operation, lower vibration and noise
- Non-standard design as required

Main technical parameters

- Drive ratio: 20 ~ 100
- Power: 75 ~ 355 kW

Major applications

- Equipped with conical twin-screw extruder and tablet press

Single screw extruder gearbox

The gearbox for single-screw extruder is a matching gearbox for compound or single extruder. It is mainly used in the rubber and plastic industry as a power transmission device for extrusion rubber materials, and can also be used as a power transmission device for extrusion materials in other industries. The composite extruder unit can be used for the production of passenger car, light truck and radial TBR tires. It can be used for the compounding of tread cap rubber, shoulder & wing rubber and base rubber; the compounding of sidewall rubber and bead wear-resistant rubber; the compounding of apex rubber; and the extrusion of shoulder pad rubber. It can also be used for the production of bias tires to carry out composite extrusion of integral products in the head of tread and sidewall.

Product features

- Design and development based on industrial standard platform
- Modular design for easy part quality control and short lead time
- Topology optimization techniques are employed to improve the power density ratio of gearbox
- Multi-floating load balancing mechanism design is adopted to improve the bearing capacity of gearbox
- Maintenance-free sealing structure is adopted to improve the maintainability of products
- Combined gear modification scheme is used to make the gearbox operate more stably

Main technical parameters

- Drive ratio: 18.35 ~ 53.6
- Rated power: 22 ~ 750 kW

Major applications

- Supporting single-screw extruder for extrusion of semi-finished rubber products, etc.

Rubber and plastic mechanical gearbox

Twin-screw extruder gearbox

SEPS series gearbox developed based on the advanced technology platform of NGC industrial gearbox is the core component of twin-screw extrusion equipment. Multiple advanced technologies such as multi-objective modification of large width-diameter ratio gear, dual output shaft phase difference zeroing technology, high-strength transmission shaft material modification and surface strengthening technology, structural topology optimization, thermal power optimization, etc. have been applied to the product, which is characterized by high bearing capacity, high reliability, low vibration and low temperature rise. It is suitable for twin screw extruder equipment, widely used in plastics, pharmacy, food and petrochemical industries.

Product features

- Strong bearing capacity
- High transmission accuracy
- Small axial deviation
- Phase difference zeroing
- Good splitting and load sharing
- high transmission efficiency
- Low vibration noise

Main technical parameters

- crew diameter: 50 ~ 177 mm
- Output center distance: 41.5 ~ 146 mm
- Screw speed: 200 ~ 1200 r/min
- Nominal speed ratio: 1.25 ~ 5.6
- Specific torque: 12.5 ~ 15 Nm/cm^3

Single screw extruder gearbox

SES series gearbox developed based on the advanced technology platform of NGC industrial gearbox is the core component of single-screw extrusion equipment. Multiple advanced technologies such as multi-objective gear modification, structural topology optimization and thermal power optimization have been applied to the product, which is characterized by high bearing capacity, high reliability, low vibration and low temperature rise. It is suitable for single screw extruder equipment, widely used in plastics, pharmacy, food and petrochemical industries.

Product features

- Smooth motion transmission
- High bearing capacity
- High torque density
- High axial bearing capacity
- high transmission efficiency
- Low vibration noise

Main technical parameters

- crew diameter: 35 ~ 250 mm
- Output torque: 2.4 ~ 73KNm
- Gear ratio range: 6.3 ~ 28

Gearbox of injection molding machine

The gearbox of injection molding machine is specially designed for all-electric injection molding machines. It has the advantages of strong bearing capacity, high reliability, light weight and low noise. It has a compact structure made of three-stage parallel shaft and vertical double flange.

Product features

- Design and development based on industrial standard platform
- Modular design for easy part quality control and short lead time
- Combined gear modification scheme is used to make the gearbox operate more stably
- Multiple output modes: Flat key, spline, hollow shaft, etc.
- Non-standard design of input and output interfaces as required

Main technical parameters

- Stages of gear: three-stage parallel shaft gear pair
- Drive ratio: 6.3 ~ 50
- Power: 20.5 ~ 355kW

Major applications

- Supporting all-electric injection molding machine

Permanent magnet gear drive

MGDS-E series bucket elevator permanent magnet gear drive system

Manufactured with electromechanical system torque fluctuation optimization technology, NVH control technology, efficiency improvement technology, topology optimization and other technologies, MGDS-E series bucket elevator permanent magnet gear drive system gives full play to the advantages of high efficiency of permanent magnet motor, high torque density ratio of gear transmission and intelligent control of frequency conversion system. The system features high efficiency, high reliability and high torque density ratio, which can fully meet the working requirements of bucket elevator.

Product features

- The electromechanical integrated structure design and modular design concept are adopted, and the electromechanical control field and circuit coupling simulation calculation technology is applied to optimize NVH performance and system time domain performance
- The electromagnetic structure design is mature and reliable. Rare earth permanent magnet materials with high magnetic energy product and coercive force are selected, and air gap flux density, cogging torque fluctuation and other technical optimizations are adopted to improve the stability and efficiency of motor running at low speed, with total system efficiency ≥ 95.5%
- The transmission module combines gear composite modification technology, multi-parameter and topological optimization technology to maximize the power torque while ensuring smooth transmission and reducing vibration and noise. The box has strong vibration absorption capacity, light weight and comprehensive noise ≤ 80dB(A)
- It is designed as per FKM standard and is topologically optimized by finite element analysis to improve the reliability
- The variable frequency system has excellent overload starting performance, multi-drive load sharing and high speed regulation accuracy, including a variety of safety settings

Main technical parameters

- Drive power: 18.5 ~ 280 kW
- Voltage class: 380V
- Output speed: 15 ~ 33 r/min
- Bearing torque: 35 ~ 310 kNm

Major applications

- It is mainly applicable to coal, mining, metallurgy, building materials, electricity, chemical and other industries.

MGDS-B series belt conveyor permanent magnet gear drive system

Manufactured with electromechanical system torque fluctuation optimization technology, NVH control technology, efficiency improvement technology, topology optimization and other technologies, MGDS-B series belt conveyor permanent magnet gear drive system gives full play to the advantages of high efficiency of permanent magnet motor, high torque density ratio of gear transmission and intelligent control of frequency conversion system. The system features high efficiency, high reliability and high torque density ratio, which can fully meet the working requirements of belt conveyor.

Product features

- The electromechanical integrated structure design and modular design concept are adopted, and the electromechanical control field and circuit coupling simulation calculation technology is applied to optimize NVH performance and system time domain performance.
- The electromagnetic structure design of permanent magnet motor is mature and reliable, and multiple optimization techniques such as air gap flux density and cogging torque fluctuation are employed to improve the stability and efficiency of low-speed operation of the motor, with total system efficiency ≥ 94%
- Based on the platform product, the transmission module is designed with a range of optimization technologies to maximize the power torque while ensuring smooth transmission and reducing vibration and noise, with comprehensive noise ≤ 80dB(A)
- It is designed as per FKM standard and is topologically optimized by finite element analysis , with high reliability, strong vibration absorption capacity and light weight.
- The variable frequency system has excellent overload starting performance, multi-drive load sharing and high speed regulation accuracy, including a variety of safety settings

Main technical parameters

- Drive power: 18.5 ~ 2000 kW
- Voltage class: 380 V / 660 V / 1140 V / 6 kV / 10kV
- Output speed: 42 ~ 90 r/min
- Bearing torque: 20 ~ 730 kNm

Major applications

- Building materials, coal, mining, metallurgy, electricity, chemical and other industries.

MGDS-M series internal mixer permanent magnet-gear drive system

Manufactured with electromechanical system torque fluctuation optimization technology, NVH control technology, efficiency improvement technology, topology optimization and other technologies, MGDS-M series internal mixer permanent magnet-gear drive system newly developed by NGC gives full play to the advantages of high efficiency of permanent magnet motor, high torque density ratio of gear transmission and intelligent control of frequency conversion system. The system features high efficiency, high reliability and high torque density ratio, which can fully meet the working requirements of internal mixer.

Product features

- The electromechanical integrated structure and concept of serialization are adopted, and the electromechanical control field and circuit coupling simulation calculation technology is applied to optimize NVH performance and system time domain performance.
- The permanent magnet motor is made of rare earth permanent magnet materials with high magnetic energy product and coercive force, and multiple optimization technologies such as air gap flux density and cogging torque fluctuation are adopted to improve the stability and efficiency of low-speed operation of the motor. The total system efficiency is ≥ 94%
- The transmission module combines gear composite modification technology, multi-parameter and topological optimization technology to maximize the power torque while ensuring smooth transmission and reducing vibration and noise. The comprehensive noise is ≤ 80dB(A)
- The variable frequency system has excellent overload starting performance and high speed regulation accuracy, including a variety of safety settings

Main technical parameters

- Drive power: 800 ~ 3000 kW
- Voltage class: 6 kV / 10kV
- Output speed: 40 ~ 60 r/min
- Bearing torque: 130 ~ 580 kNm

Major applications

- Internal mixer in rubber products industry, etc.

Gear motor

MK series gear motor

- Helical-bevel gear motor
- Power: 0.12 ~ 200 kW
- Output speed: 0.1 ~ 522 r/min
- Output torque: 200 ~ 50000 Nm
- Multiple installation methods
- Multiple frame sizes and gear ratios
- Efficiency up to 95%
- Installation method:
  Flange + solid shaft, anchor bolt + solid shaft, flange + hollow shaft, anchor bolt + hollow shaft
  Torque arm + hollow shaft
- Hollow shaft: Single key/involute spline/locking disc

Typical Applications

- Pallet conveyor
- Belt conveyor
- Chain conveyor
- Traveling of cranes, etc.
- Agitator, reactor
- Goods lifter
- Traveling & lifting drive in palletizer

MF series gear motor

- Parallel shaft-helical gear motor
- Power: 0.12 ~ 200 kW
- Output speed: 0.1 ~ 752 r/min
- Output torque: 130 ~ 18000 Nm
- Multiple installation methods
- Efficiency up to 94% ~ 98%
- Installation method:
  Flange + solid shaft, anchor bolt + solid shaft, flange + hollow shaft, anchor bolt + hollow shaft
  Torque arm + hollow shaft
- Hollow shaft:
  Single key/involute spline/locking disc

Typical Applications

- Material handling application
- Chain conveyor
- Punch
- Extruder
- Screw conveyor
- Traveling of cranes, etc.

MR series gear motor

- Helical gear motor
- Power: 0.09 ~ 160 kW
- Output speed: 0.05 ~ 973 r/min
- Output torque: 50 ~ 18000 Nm
- Single-stage series and secondary and tertiary coaxial series
- Large output torque and high allowable radial load
- Efficiency up to 94% ~ 98%
- Installation method:
  Flange + solid shaft, anchor bolt + solid shaft

Typical Applications

- Rotary table
- Pumps and fans
- Wastewater and sewage treatment equipment
- Fan
- Roller conveyor
- Belt conveyor
- Chain conveyor
- Agitator, reactor, etc.

MS series gear motor

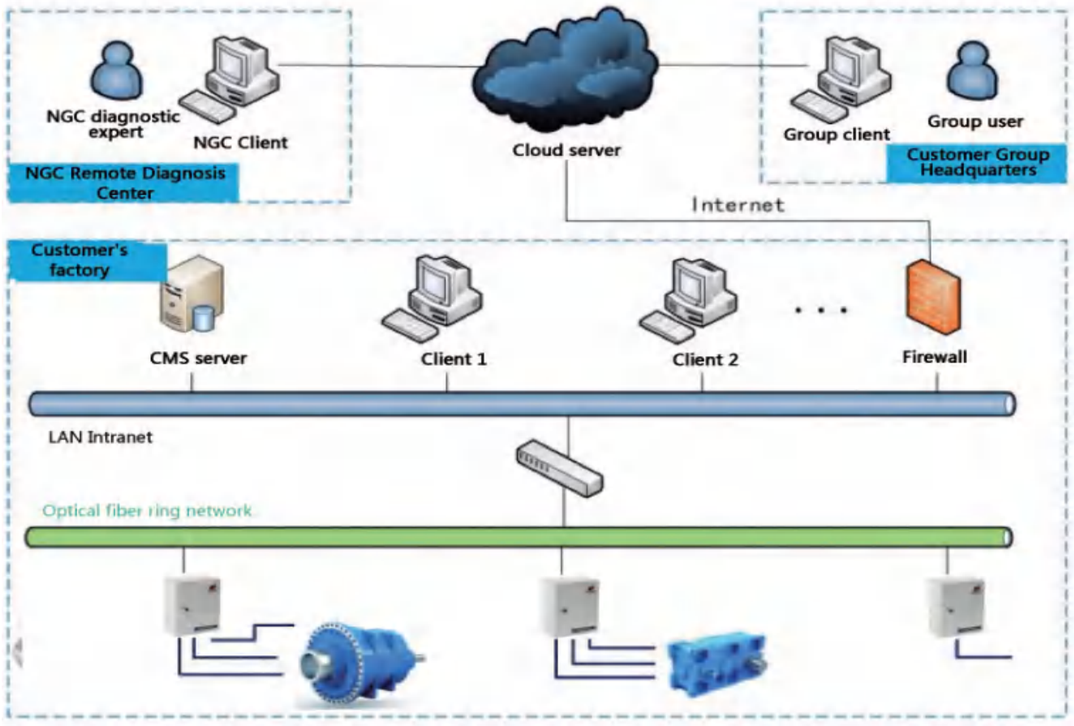
- Helical-worm gear motor
- Two-stage reduction, large speed ratio and stable transmission
- Power: 0.12 ~ 22 kW
- Output speed: 0.1 ~ 397 r/min
- Output torque: 92 ~ 4200 Nm
- Efficiency up to 89%
- Installation method:
  Flange + solid shaft, anchor bolt + solid shaft, flange + hollow shaft, torque arm + hollow shaft
- Hollow shaft: Single key/locking disc

Typical Applications

- Drives in theater applications
- Adjustment drive
- Punch
- Rotary table
- Corner conveyor

Intelligent products

Condition on-line monitoring system Network Architecture



NGC combines its valuable experience and deep understanding in the field of transmission equipment with information technology to launch a health monitoring and fault diagnosis system for Gear-Sight transmission equipment.

The system can monitor and record data including vibration, temperature, torque and oil metal wear particle operation in real time and store the information to customer cloud platform via Internet. (To meet the national network security requirements, each site needs to be equipped with two servers, one for local storage and the other connected to the Internet externally, which are isolated by a unidirectional network security grating physical firewall)

Gear-Sight 6000 series

NGC intelligent transmission equipment and platform services transform traditional machinery equipment into a physical information fusion system (CPS) suitable for smart factories.

Intelligent products and platform services include monitoring system, cloud platform and diagnostic expert database, predictive maintenance service, etc. The monitoring data is analyzed by the diagnostic expert database to realize remote accurate fault diagnosis and accurate remaining life evaluation of transmission equipment.

Product features

Intelligent

- Maximum configuration of 16-channel vibration and 2-channel rotation speed, meeting most requirements
- Intuitive and efficient human-machine interface, graphical parameter setting, easy configuration

Real-time

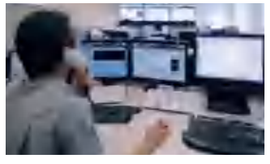
- Patented full sampling technology with high sensitivity to capture fault data in real time

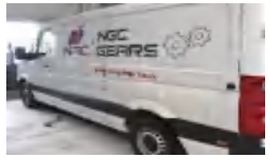
Accurate

- Advanced industrial ARM chip and DSP embedded technology, with anti-interference design to improve operation stability

Help enterprises achieve

- Less manual on-site spot check and patrol inspection, and reduced O&M costs
- Early monitoring and prevention of failures to achieve predictive maintenance and reduce the pressure on spare parts inventory
- Prevent unplanned shutdown, improve controllability of production process and increase efficiency
- Accumulate equipment application data and improve the ability of equipment maintenance personnel

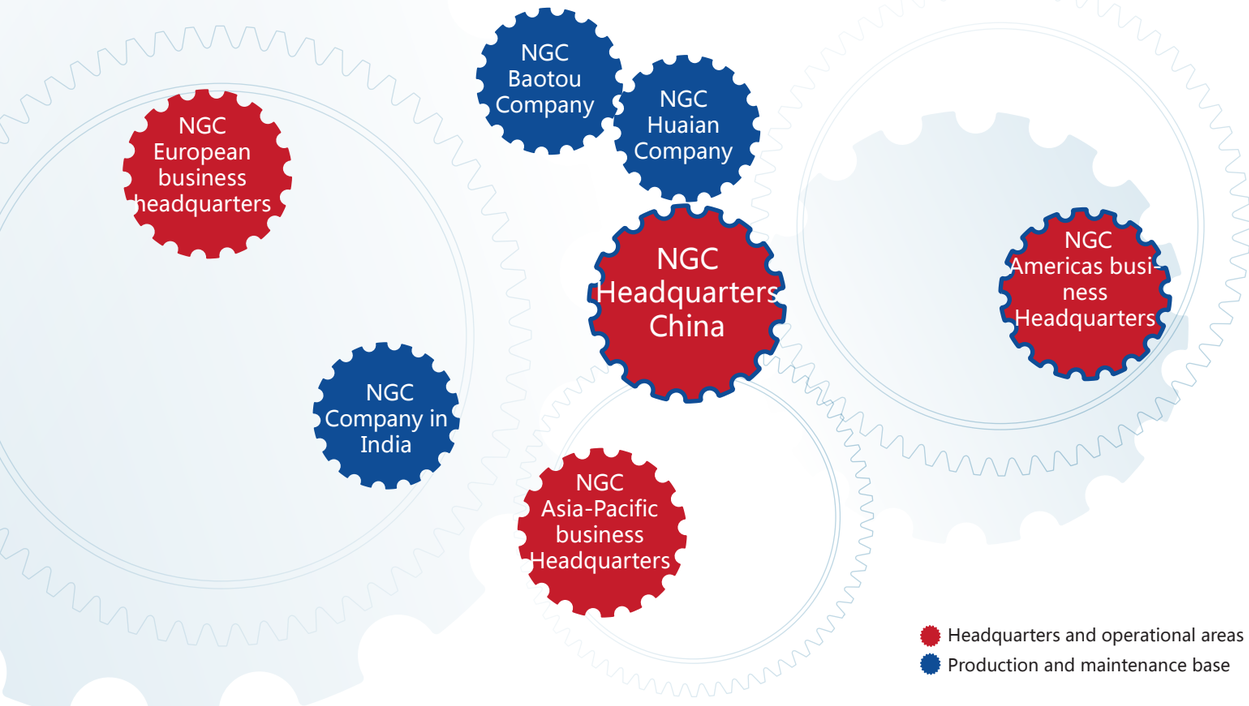




Service and Support

Excellent service concept

NGC always believes that only by being close to customers and adding value for them can we achieve customer satisfaction. Through the promotion of excellent performance management, the concept of time-saving, labor-saving and worry-free excellent service has been taken a step further.



Time-saving

NGC promises to respond to customer needs within 24 hours. The global service network is an effective guarantee for timely response of personnel and spare parts. Service outlets located in Asia, Europe, Africa and America provide efficient services to customers around the world and save time for them.

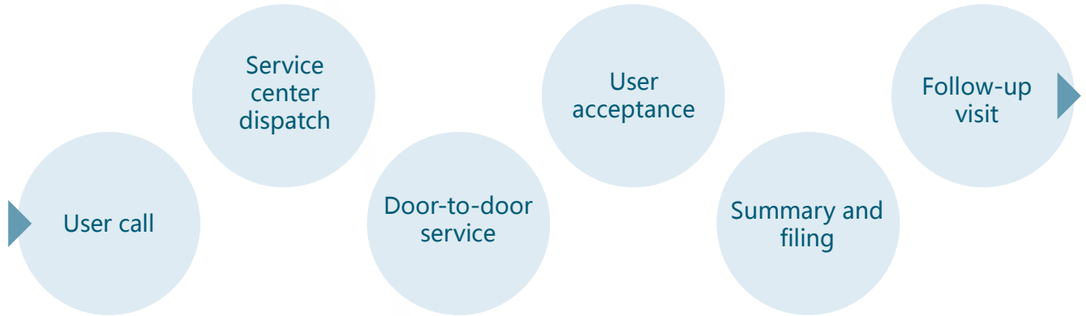
24H response

• The customer service seat is responsive all day long, and any question will be answered.

Localized network

• Overseas service resources covering four continents Headquarters+regional" service network covering 34 provinces, municipalities and autonomous regions in China

Service process



Labor-saving

- Based on the accumulation of product technology and the development of digital intelligence technology, NGC is committed to customizing optimal solutions to save energy for customers;
- Based on the long-term predictive reserve mechanism, NGC promotes iterative upgrading and sharing of spare parts resources to realize zero inventory O&M and save financial resources for customers;
- Save labor for customers based on professional engineering implementation teams.

Service technology

• Gearbox installation, commissioning and daily maintenance scheme to ensure stable equipment performance.
• Professional training and technical guidance to improve the equipment management level of customers.
• On-line and off-line intelligent diagnosis of gearbox to reduce equipment failure rate.
• Online and offline routine maintenance and repair of gearboxes, and renovation of old equipment to prolong the service life of equipment.
• Professional aftermarket service team provides customized services according to customer needs.

Forecast reserve

•**Relying on stock to ensure reserve coverage:**Based on the inventory data of products and the big data of spare parts ordering for many years, there is a common spare parts storage mechanism relying on overseas and domestic service outlets.

•**Rolling mechanism to ensure sufficient water level:** By regularly checking the inventory, and utilizing earSight big data diagnosis technology, the headquarters evaluates and replenishes spare parts inventory in time to maintain the reserve level of parts.

•**Joint reserves to ensure resource sharing:**Reserve finished parts or blanks with customers and suppliers to ensure the response of spare parts resources.

Project implementation

•**Complete construction qualification:**It has obtained the Work Safety License of Construction Enterprise and the Qualification Certificate of Construction Enterprise-Class II Professional Contracting for Electronic and Intelligent Engineering.

•**Dedicated team of technicians:** With rich experience in gearbox diagnosis, it can flexibly match the construction scheme according to the on-site diagnosis results and organize its implementation.

•**Professional maintenance tools:** Testing tools such as ultrasonic flaw detector, magnetic particle inspection and infrared centering instrument; professional maintenance tools such as hydraulic wrenches, hydraulic stretchers, hydraulic pumps and induction heaters.