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## About Us

NGC was founded in 1969 and has been publicly listed on the Hong Kong stock exchange since 2007. NGC Group is focused on gearbox and drive technology solutions for wind energy, rail and industrial applications.

In pursuit of excellence in the industrial transmission sector, NGC has taken a leading role by developing multiple ground-breaking products and services.

Over the years, with an improved product portfolio widely applied in cement processing, metallurgical equipment, rubber & plastic machinery, material handling, and others, NGC has met the demands of customers in almost every industry.

Through close cooperation with domestic and international customers, supported by global R&D centers, NGC has always been able to provide solutions beyond customers' expectations.





## General Purpose

### Modular Bevel-Helical Gearboxes | MHB Series

Products of NGC's MHB Series are applicable to various industrial applications due to their persuasive characteristics: high efficiency, high reliability, excellent cost performance and low product lifecycle costs. The helical-bevel gearboxes of this series are available in many different types and designs with torques ranging from 2 - 1,400 kNm. Their modular design assures flexible and fast delivery. Even any adjustment required by customers has no effect on the delivery time. Besides, the MHB-Series includes main accessories.

#### Characteristics

- Mounting positions: horizontal, vertical
- Improved bearing capacity
- Reduced noise emissions through gear flank modification
- Various sealing forms; outstanding sealing performance
- Various accessories
- Flexible and fast delivery
- Excellent cost-performance

#### Main Technical Parameters

- Series: MHB
- Design: 6 types
- Torque Range: 2 - 1,400 kNm
- Range of Ratio: 1.25 - 450

#### Applications

Belt conveyors, bucket elevators, blenders, lifting equipment, traveling machines, paper making and drying machines



### Modular Planetary Gearboxes | MP Series

Extreme industrial applications require a reliable and stable performance of gearboxes, 365 days a year. To meet these requirements, gearboxes of the MP Series possess a long bearing life and high power density, hence they have an extended product service life. Furthermore, they deliver power permanently and reliably under extreme operating conditions.

#### Characteristics

- Compact structure; optimized torque-weight ratio
- Designed according to ISO and AGMA standards
- Optimal internal gear design with high efficiency and power density
- Low vibration and noise for extended gearbox life
- Strong fatigue strength endowed by excellent processing technologies to reduce maintenance costs
- Diverse types of input and output shaft connections

#### Main Technical Parameters

- Series: MP
- Design: 7 types
- Sizes: 7
- Torque Range: 600 - 1,900 kNm
- Transmission Stages: 2 - 5
- Range of Ratio: 25 - 4,000

#### Applications

Construction machinery and mining industry

Rotating equipment, such as roller crusher drives, sugar mill drives, central drives for tube mills, slewing drives for port cranes, lifting drives for winches, heavy drives in mining



### High-Speed Gearboxes

NGC's high speed gearboxes have demanding requirements on gear strength and bearing service life due to its high-impact working loads. These gearboxes, available in different designs, have competitive advantages in load capacity, size, weight, appearance, quality and cost-performance. Products of this series are characterized by stable operation, low temperature emissions, low noise and high efficiency.

#### Characteristics

- Compact structure; high accuracy
- Long service life
- Improved bearing capacity
- Reduced noise emissions through gear flank modification

#### Main Technical Parameters

- Series: NGGS, MP
- Transmission Stages: single-stage
- Center Distance: 100 - 1,000 mm
- Power: up to 55,000 kW
- Torque: up to 7,350 kNm
- Rotation Speed: up to 67,000 r/min
- Tangential Speed of Pitch: up to 176 m/s
- Gear Machining Accuracy: up to ISO grade-3

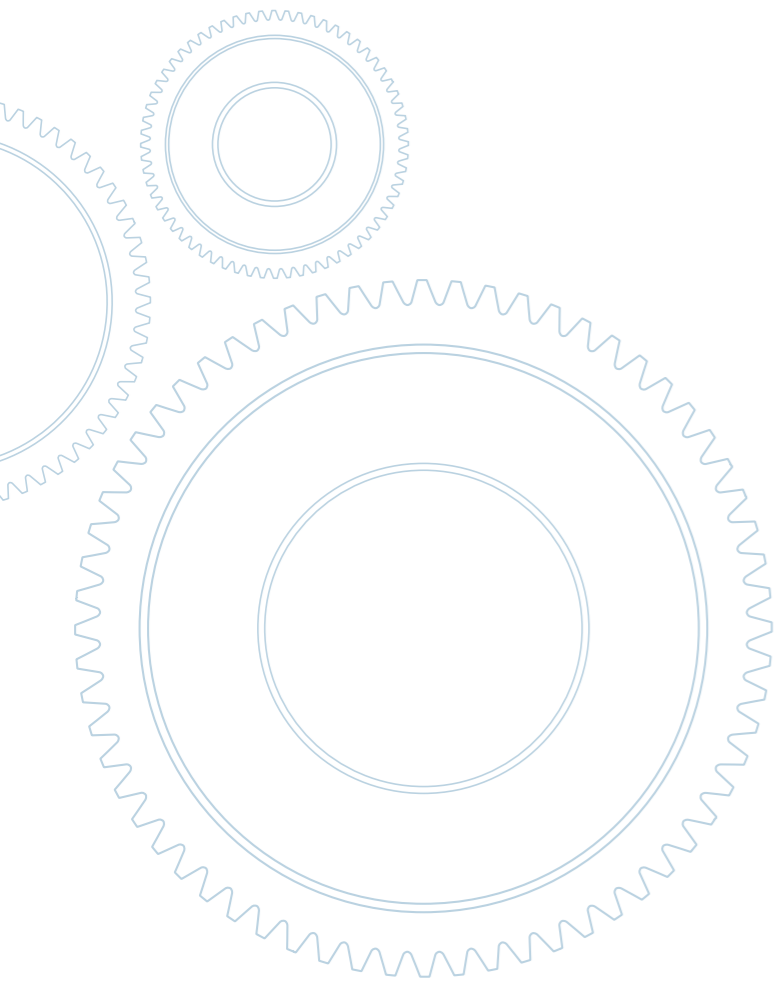
#### Applications

Auxiliary gearbox on steam turbines, electric power generation of combustion turbines, centrifugal and axial flow fans, blowers, compressors, high and low pressure pumps, recycling of deteriorative and catalytic energy, oxygen generators





# Cement



## Vertical Mill Gearboxes

A vertical mill gearbox is a key component of vertical mills, transmitting power, reducing the rotating speed of the motor to the one required by the mill during operation, and supporting the mill grinding table. It requires high power rating and an extremely high availability. Higher axial force and partial radial force generated during the grinding process are transmitted to the mill foundation through thrust bearing and its housing.

### Characteristics

- Optimized meshing accuracy of gears with low noise and high efficiency
- Housing and planetary carrier are analyzed and optimally designed by FEM, ensuring that the deformation during operation is small and stable
- Patented thrust bearing technology
- Guaranteed manufacturing quality and high reliability

### Main Technical Parameters

- Series: MLX
- Design: 3 types
- Transmission Stages: 2 or 3
  - 2-stage: 1 bevel gear stage, 1 planetary gear stage
  - 3-stage: 1 bevel gear stage, 1 parallel gear stage, 1 planetary gear stage OR 1 bevel gear stage, 2 planetary gear stages
- Range of Ratio: 20 - 60
- Rated Power: 80 – 9,000 kW

### Applications

Raw material, coal, cement, slag, gypsum and coal ash grinding as well as pre-grinding in the cement industry, coal and limestone mill in power plants



## Central Drive Gearboxes

A central drive gearbox is driving tube mills from the end surface. Large gearboxes are needed at a lower rated power range without a girth gear drive. Because of their large power capacity, NGC's power split gearboxes are especially effective in this application. An auxiliary drive is usually installed at the rear of the main motor or arranged between the main motor and the main gearbox.

### Characteristics

- Optimized meshing accuracy of gears with low noise and high efficiency
- Housing and planetary carriers are analyzed and optimally designed by FEM, ensuring that the deformation during operation is small and stable
- Guaranteed manufacturing quality and high reliability
- Compact design with high power-weight ratio
- Easy to operate and maintain

### Main Technical Parameters

- Series: MFY, MFYT
- Design: 2 types
- Sizes: 33
- Transmission Stages: 2 or 3
  - 2-stage: power split structure
  - 3-stage: parallel gears + power split structure
- Range of Ratio: up to 100
- Rated Power: 800 – 8,000 kW

### Applications

Cement processing, grinding in mining industry, tube mills



## Planetary Central Drive Gearboxes

Different from MFY, MFYT central drive gearboxes, NGC's planetary gearboxes for tube mills adopt a planetary drive structure. This makes the ZX and FZX gearboxes compact and effective in special applications because of its larger power capacity.

### Characteristics

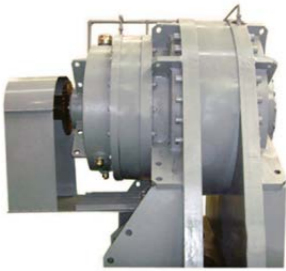
- Optimized meshing accuracy of gears with low noise and high efficiency
- Housing and planetary carriers are analyzed and optimally designed by FEM, ensuring that the deformation during operation is small and stable
- Patented multiform drive structure of the planetary gearbox
- Guaranteed manufacturing quality and high reliability
- Compact design with optimal power/weight ratio

### Main Technical Parameters

- Series: ZX, FZX, MP
- Design: 2 types
- Transmission Stages: 2 or 3
  - 1st stage: parallel gears (configured according to specific requirements)
  - 2nd stage: planetary gears
  - 3rd stage: planetary gears
- Range of Ratio: up to 125
- Rated Power: 1,250 – 10,000 kW

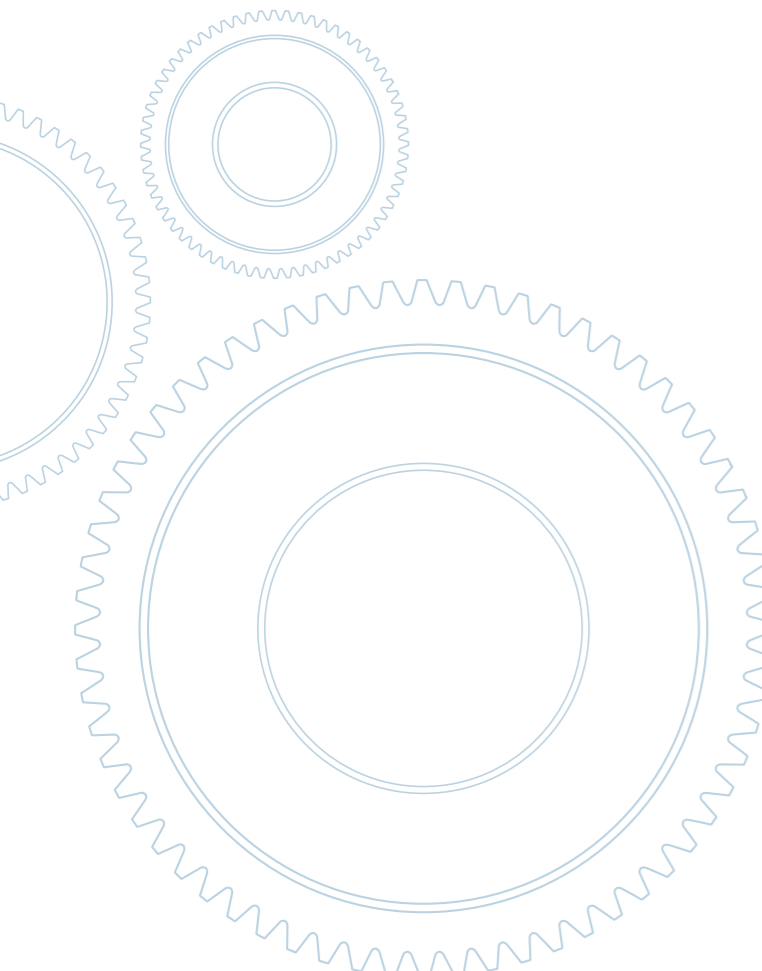
### Applications

Cement processing, grinding in mining and coal industry, tube mills





# Cement



## Roller Press Gearboxes

NGC always provides reliable drive devices to customers, thus also with roller press gearboxes. Between two grinding rollers rotating in opposite directions, small dry particles bear extremely high pressure. The fine particles are crushed into powder or uniform shapes. In the cement industry, this type of gearboxes can be applied to raw materials, pre-grinding, and final-cement grinding roller presses.

### Characteristics

- Optimized meshing accuracy of gears with low noise and high efficiency
- Housing and planetary carriers are analyzed and optimally designed by FEM, ensuring that the deformation during operation is small and stable
- Guaranteed manufacturing quality and high reliability
- Saved space due to compact drive device design
- Gearbox set provided: torque reactive force arm system, coupling and oil supply system
- Easy to install and detach

### Main Technical Parameters

- Series: MP
- Transmission Stages: 2 or 3  
1st stage: parallel gears (configuration according to specific requirements + 2nd stage: planetary gears + 3rd stage: planetary gears
- Range of Ratio: up to 125
- Torque Range: 200 – 3,200 kNm

### Applications

Crushing ore and cement at different stages of production processes in mining and cement industries



## Side Drive Gearboxes

For a tube mill side drive device, NGC especially configured the high-performing MBY gearbox as the main drive. The main motor is connected to one side of the input shaft of the gearbox, and the auxiliary drive is connected to the other side. The pinion, which drives the girth gear of the tube mill is connected through a dual connection coupler to ensure the adjustment of the pinion. The small single gear drive has a fixed and auto-alignment design.

### Characteristics

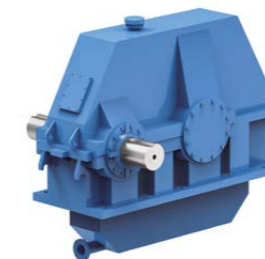
- Optimized meshing accuracy of gears with low noise and high efficiency
- Housing and planetary carriers are analyzed and optimally designed by FEM, ensuring that the deformation during operation is small and stable
- Guaranteed manufacturing quality and high reliability
- Modular design
- Various accessories
- Short delivery time
- Excellent cost-performance ratio

### Main Technical Parameters

- Series: MBY, MBYX
- Design: 2 types
- Transmission Stages: 1, parallel gears
- Range of Ratio: up to 7.1
- Rated Power: 200 – 5,000 kW

### Applications

Cement processing, grinding in mining industry, tube mills



## Single-Side Double Drive Gearboxes

NGC's MSBY single-side double drive gearboxes have an outstanding innovative design. A gearbox of this kind is directly meshed and driven through girth gears. The reduction of drive train components results in reduced space requirements. Installation and operation costs are reduced accordingly. The main motor is connected to one side of the input shaft of the gearbox, whereas the auxiliary drive is connected to the other side.

### Characteristics

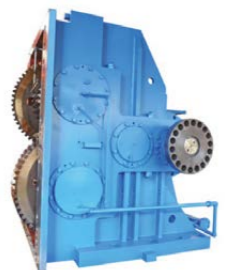
- Optimized meshing accuracy of gears with low noise and high efficiency
- Housing and planetary carriers are analyzed and optimally designed by FEM, ensuring that the deformation during operation is small and stable
- Guaranteed manufacturing quality and high reliability
- Compact design ensures an effective use of the girth gear
- Perfect load distribution, realized by the width of the girth gear

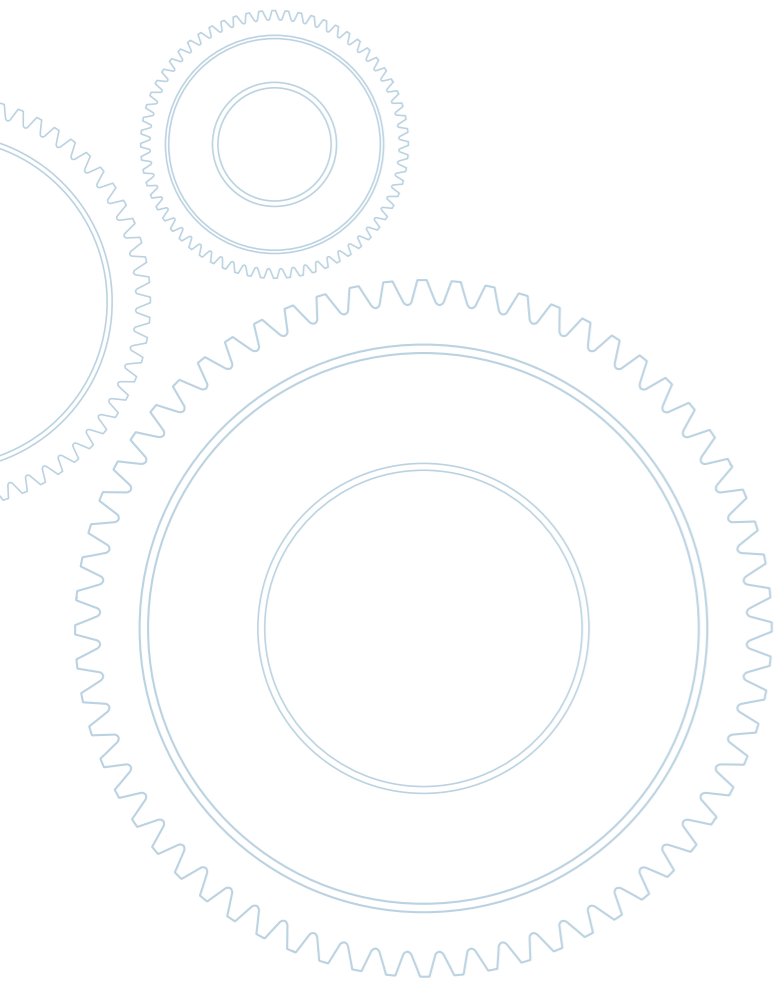
### Main Technical Parameters

- Series: MSBY
- Design: 1 types
- Transmission Stages: 3, power split structure with parallel gears
- Range of Ratio: up to 15
- Rated Power: 1,250 – 10,000 kW

### Applications

Cement processing, grinding in mining industry, tube mills





**Main Driving Gearboxes for Bar and Wire Rolling**

To ensure different shapes and sizes of rolling products, NGC's gearboxes for bar and wire rolling are designed to be arranged vertically and horizontally. The horizontal gearboxes are driven by parallel shafts. The vertical gearboxes are driven by bevel gears and parallel shafts. They follow a single input double output structure or a triple output structure to transmit and distribute the power of the motor to two or three rollers and to reach the torque and speed required by rolling through reduction ratio.

**Characteristics**

- Compact design structure
- Low noise, low vibration, smooth transmission
- Improved housing rigidity
- High reliability by using forced lubrication to bearings and transmission efficiency

**Main Technical Parameters**

- Mid-Range of Output Shaft: up to 1,100 mm
- Range of Ratio: up to 120
- Torque Range: up to 1,200 kNm

**Applications**

Large, medium and small bar production lines, wire and high-speed wire production lines, partial sectional steel production lines



**Main Driving Gearboxes for Hot Plate Rolling Mills**

The production line of a hot plate rolling mill has a large rolling reduction and a large roll force, so that the driving system must provide a large rolling torque. Plus, the requirements for reliability and stability of the design and manufacturing of the gearbox in the main driving system are rigid. NGC's main driving gearboxes for hot plate rolling mills completely meet all driving requirements.

The power and torque of the main motor can be transmitted to two rollers of the hot plate through this reducer. The gear housing is connected and driven serially. Both rolling the mill via speed reduction and distribution.

**Characteristics**

- Optimized flank modification technology
- High housing rigidity
- Large torque transmission
- Weight reduction by gear hardening

**Main Technical Parameters**

- Rated Power: up to 12,000 kNm
- Transmission Stages: 1 or 2
- Range of Ratio: 1 - 10
- Torque Range: up to 4,200 kNm

**Applications**

Production of hot plate rolling, continuous plate casting and rolling



**Main Driving Gearboxes for Cold Plate Rolling Mills**

NGC's main driving gearboxes for Cold Plate Rolling Mills are running in production lines of cold plate rolling mills or reversible plate rolling mills. They are utilized for transmitting and distributing the nominal torque of the motor to the rollers of the rolling mill. To meet the demands for high rotating speed and high stability, this kind of gearbox is specifically designed to assure driving requirements, high precision and high reliability. The reliability of these gearboxes has been proven in many projects.

**Characteristics**

- Optimized flank modification technology
- Optimized body rigidity
- High gear precision and transmission efficiency
- Low noise, low vibration, smooth transmission

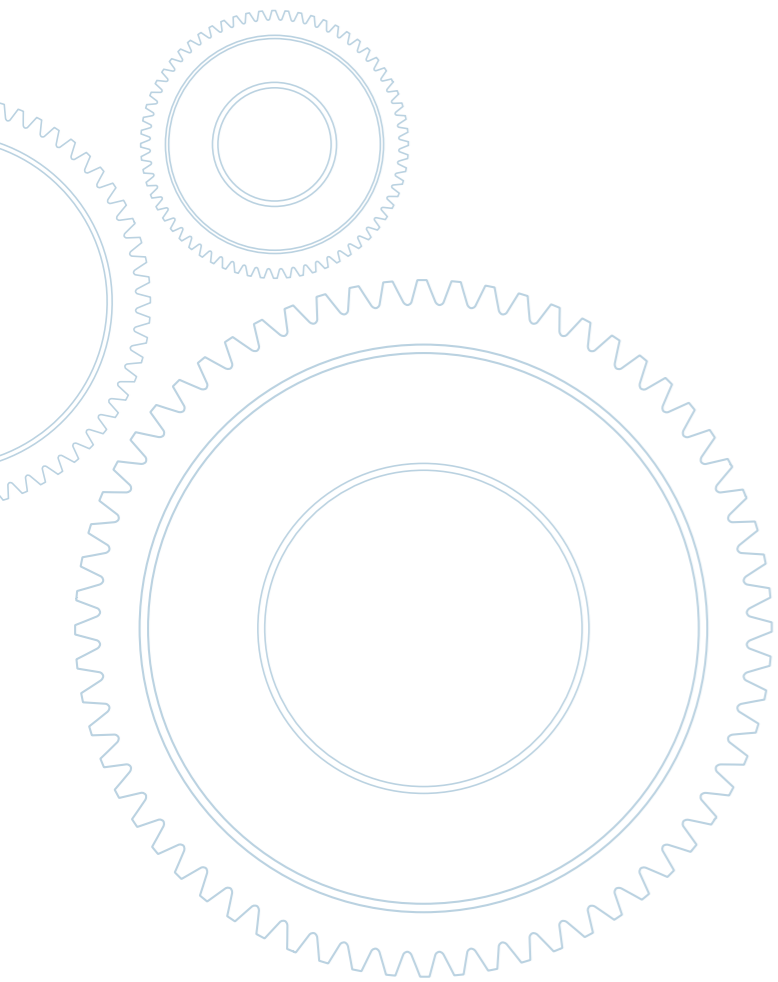
**Main Technical Parameters**

- Rated Power: up to 7,500 kNm
- Transmission Stages: 2 or 3
- Range of Ratio: 0.8 - 6.8
- Torque Range: up to 700 kNm

**Applications**

Production of cold plate rolling, reversible cold plate rolling





## Converter Tilting Devices

A converter tilting device is the key piece of the transmission equipment for converters in steelmaking production.

NGC's converter tilting devices are characterized by low speed, heavy load, large speed ratio, and frequent start and stop. They can also bear large dynamic loads and manage poor working conditions. They feature a built-in AC variable frequency motor, a primary reducer, a secondary reducer, and a torque arm balancing device. They adopt a fully-suspended flexible four-point meshed driving type, and a torque-arm movement balancing mechanism.

### Characteristics

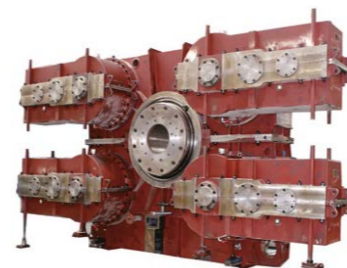
- Large torque transmission
- Fully-suspended flexible structure

### Main Technical Parameters

- Weight: 30 – 300 t
- Torque Range: up to 6,500 kNm
- Overload Torque: 15,000 kNm
- Range of Ratio: 520 - 1,200

### Applications

Converter steelmaking equipment



## Flying Shears for Bar & Wire Rolling

To meet the requirements of different rolling lines NGC provides different types of flying shears designs, such as crank connecting rod type flying shears, rotary flying shears, and crank connecting rod plus rotary combined flying shears. Besides, NGC also provides various shearing speeds and shearing forces for different structures in different working conditions. Frequently carried out starting and braking on rolling lines are controlled by an integrated mechanical and electrical control system with shears at a large inertia.

NGC's low-temperature flying shears can shear bar and wire rolling products at low temperature after being cooled in water with large shearing force and high precision.

### Characteristics

- Large shearing section, large shearing force
- High shearing precision
- Optimized housing and operational stability

### Main Technical Parameters

- Shearing Section: up to 17,600 mm<sup>2</sup> (ø 150 mm)
- Shearing Speed: up to 22 m/s

### Applications

Continuous rolling production lines for bars, wires and section bars



## High-Speed Gearbox for Blowers

Being an important equipment in the metallurgy industry, high-speed gearboxes need to meet complex working condition requirements. NGC's high-speed gearboxes for blowers are offered as standard series product but can also be customized according to specific operational environments and working conditions.

### Characteristics

- Flexible design available, extended design based on NGGS and MTG Series
- Customization for different working conditions on request
- Integration accessories
- Certified gearbox design and accessories by international and industry leading standards such as API, AGMA, and ISO
- Gear accuracy grade 3–5 according to ISO
- Smooth operation, low noise

### Main Technical Parameters

- Regular Center Distance: 200 - 1,000 mm
- Range of Ratio: 1 - 8
- Rotating Speed: ≤ 20,000 r/min
- Rated Output: ≤ 25,000 kW

### Applications

Blowers





# Power Generation

## Coal Mill Gearboxes

NGC offers two types of coal mill gearboxes: gearboxes for vertical mills and side drive gearboxes for tube mills. NGC's coal mill gearboxes utilize a special housing design and a planet carrier to transmit power, reduce rotating speeds, and support the millstone.

### Characteristics

- Special designs for different applications
- Tooth surface modification, large teeth contact ratio
- Low noise emissions
- Patented thrust bearing and journal bearing with large load capacity
- Optimally designed housing and planet carriers to reduce deformation during operation and provide reliable performance

### Main Technical Parameters

- Series: ML, MLX, MBY
- Range of Ratio: 5.6 - 50
- Power: up to 6,000 kW

### Applications

Coal mills



## Gearboxes for Cooling Tower and Desulfurization Pumps

NGC's gearboxes for cooling towers are designed to meet special working conditions. They are based on a modular gearbox design and can be equipped with a large number of optional accessories.

Single-stage gearboxes for desulfurization pumps impose strict requirements on output shaft stress and lubrication. NGC has optimized desulfurization pump gearboxes by using special design software to ensure a stable and reliable operation.

### Characteristics

- Special design for different applications
- Compact design
- Thrust bearing, large bearing capacity
- Tooth surface modification, large teeth contact ratio
- Smooth transmission
- Low noise emission
- Special sealing structure
- Various accessories

### Main Technical Parameters

- Series: PV, RV, MHC
- Range of Ratio: 1.2 - 60
- Power: 15 - 1,200 kW

### Application Fields

Cooling towers, desulfurization pumps



## High-Speed Gearbox for Feed Water and Slurry Pump

NGC's high speed gearboxes for power industry fulfill the critical requirements regarding gear strength and bearing service life, which are due to high-impact working loads. They feature high load capacities, volume, quality and cost performance. Gearboxes of this kind guarantee smooth operations, low temperatures, low noise emission and high efficiency.

### Characteristics

- Special designs for different applications
- Compact design, large bearing capacity
- High gear accuracy
- Low vibration, low noise emission
- Special bearing and bearing shell designs
- Various accessories
- Non-standard design on request
- Gear Machining Accuracy: up to ISO grade-3

### Main Technical Parameters

- Series: NGGS, MTG
- Power: up to 55,000 kW
- Rotation Speed: up to 67,000 r/min
- Tangential Speed of Pitch: up to 176 m/s

### Applications

Feed water and slurry pumps, power generation by steam and gas turbine



## High-Speed Gearbox for Combustion Turbines

Being the core equipment of a combustion turbine, a high speed gearbox must meet the requirements of high efficiency and reliability. NGC's high-speed gearbox for combustion turbines meets all kinds of different requirements with its large-range center distance, rotating speed, speed ratio and power available for choice. It has also passed strict tests in customer applications in terms of efficiency, reliability and operational performance.

### Characteristics

- Flexible extended design based on NGGS Series
- Customization for different combustion turbines
- Multiple accessories, such as turning gear and oil pump
- Certified gearbox design and accessories according to international standards such as API, AGMA and ISO
- Gear accuracy: grade 3-5 according to ISO
- Efficiency: > 98.5%
- Smooth operation, low noise, high-accuracy
- Vibration and temperature monitoring, ensuring reliable operation

### Main Technical Parameters

- Series: NGGS, MTG
- Range of Center Distance: 200 - 1,000 mm
- Range of Ratio: 1 - 10
- Rotating Speed: ≤ 20,000 r/min
- Rated Output: ≤ 100,000 kW

### Applications

Power generation of steam turbines, combustion turbines and distributed power generation







## Port, Crane, and Hoist

### Planetary Differential Gearboxes

NGC's ship unloader gearboxes are based on a planetary differential design, which is adapted to a four-reel drive system of bridge type grab ship unloaders. The internal optimal-designed planetary differential motion system of the gearbox converts and decomposes input motions of the lifting motor, open-close motor, and traveling motor into motion with different rotating directions and rotating speeds of the four reels. This helps to control lifting operations, such as opening, closing, and traveling. Thus, it is a key piece equipment for bridge grab ship unloaders.

#### Characteristics

- Special design for different applications
- Compact design
- Large bearing capacity
- Tooth surface modification, large teeth contact ratio
- Smooth transmission
- Low noise
- Mechanical sealing, convenient to use and maintain
- Large center distance range

#### Main Technical Parameters

- Series: XCJ
- Range of Ratio: 11.2 - 50
- Loading Capacity: up to 5,000 t/h
- Range of Center Distance of two Output Shafts: 800 – 2,800 mm

#### Applications

Bridge type grab ship unloaders



### Lifting, Mobile, Luffing Crane Gearboxes

Gearboxes for crane applications are based on our standard design parallel shaft gearboxes of the MHK Series with extended center distance for transmission devices of the conveyor and transmission equipment are developed by NGC for both, domestic and international markets. Most of the components originate from the MHB-Series platform. Some components are developed for special industrial applications.

#### Characteristics

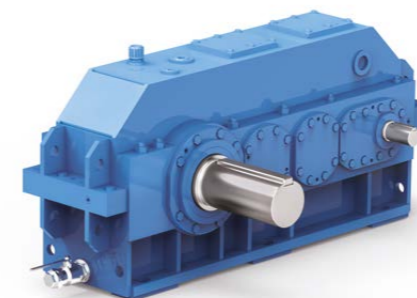
- Based on modular design, customized for different applications
- Compact design; large bearing capacity
- Variable mounting structure with three-point housing
- Special tooth surface modification to improve stress distribution and reduce noise

#### Main Technical Parameters

- Series: MHK
- Range of Ratio: 14 - 250
- Torque Range: 11 – 470 kNm
- Range of Center Distance: 472 – 1,990 mm

#### Applications

Gantry cranes, bridge cranes, portal cranes, frame cranes



### Rotating Machinery Gearboxes

Based on the success of wind turbine pitch and yaw drives, NGC has developed rotating machinery gearboxes for slewing applications. The compact gearboxes offer large bearing capacity and high stability with the load being shared evenly among planetary gears. The output shaft can bear high instantaneous shock and radial force.

#### Characteristics

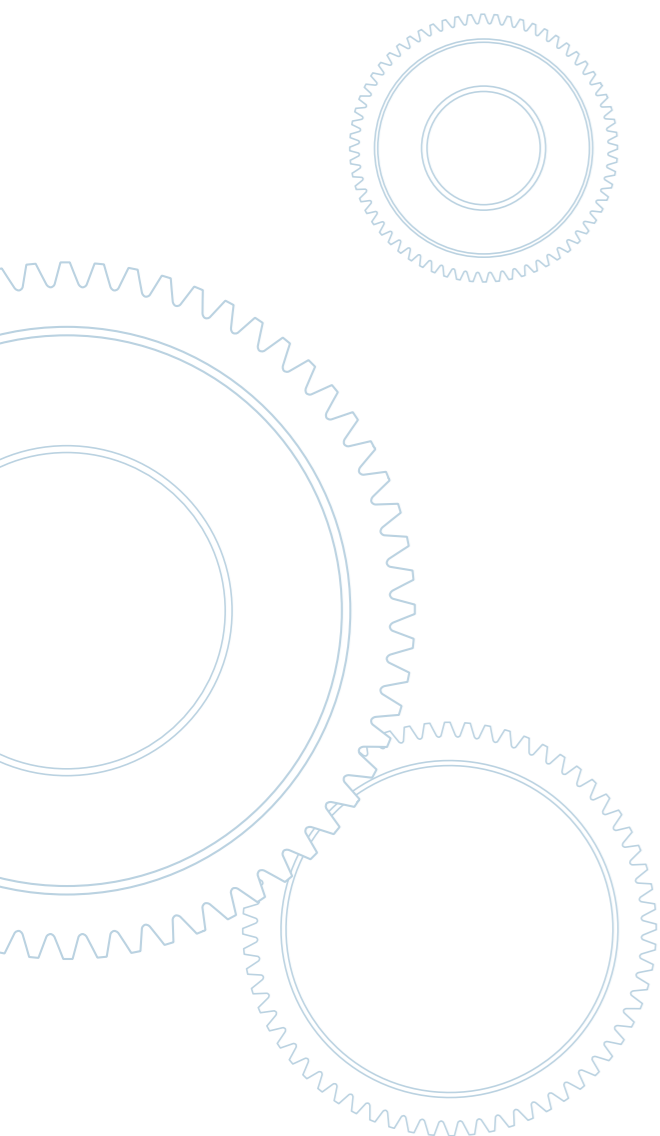
- Based on modular design
- Non-standard design on request
- Customized for different applications
- Compact design
- Large bearing capacity
- Tooth surface modification
- Large teeth contact ratio
- Smooth transmission
- Low noise

#### Main Technical Parameters

- Series: FDX, MP
- Range of Ratio: 20 - 200
- Torque Range: 40 – 160 kNm

#### Applications

Stacker reclaimers, ship loaders, portal cranes





# Mining

## Conveyor Gearboxes

NGC's standard gearboxes, featuring advantages of high efficiency, fast and flexible delivery, and high cost performance, can be used for all kinds of conveying applications. Products of this series include helical and helical-bevel gearboxes. The applications are virtually unlimited due to the large torque ranges and comprehensive types.

Fast and flexible delivery is achieved by its modular design. Main accessories are already included in the standard product list. Thus, gearboxes can be adapted to customer requirements without delaying the delivery time.

### Characteristics

- Compact, modular design
- Large bearing capacity
- Tooth surface modification; large teeth contact ratio
- Smooth transmission; low noise
- Various sealings
- Various accessories

### Main Technical Parameters

- Series: MHB, MP, MQ, JS ZY/DY
- Range of Ratio: 6.3 - 450
- Power Range: 3 – 1,200 kW
- Torque Range: 2 – 1,400 kNm

### Applications

Material handling



## Chain Conveyor Gearboxes

Chain conveyor gearboxes are especially suitable for underground coal mines and other similar poor working conditions. NGC's chain conveyor gearboxes can be used with inclination angles up to 30°. NGC's large-power chain conveyor gearbox is lubricated by an oil pump to ensure safe lubrication on inclines. This gearbox can be installed horizontally, using a three-level structure of bevel, cylindrical and planetary gear. Vertical installation is achieved by using a two-level planetary gear structure.

### Characteristics

- Customized design for different applications
- Compact design
- Special shaft seal design
- Large bearing capacity
- Tooth surface modification, large teeth contact ratio
- Smooth transmission
- Low noise
- Critical load test to ensure high gearbox reliability
- Design of large inclination and walking angle

### Main Technical Parameters

- Series: JS, MP
- Range of Ratio: 3.5 - 40
- Power Range: 40 – 1,600 kW

### Applications

Flexible chain conveyors, loaders, crushers



## Hoist Gearbox

NGC's hoist gearboxes derive from NGC's latest gearbox series MP. They have hard-surface planetary gears and are available in different configurations.

Configuration examples:

- 1-stage parallel axis + 1-stage planetary structure (ZZDP)
- 1-stage parallel axis + 2-stage planetary structure (ZZLP)

NGC offers the gearbox in different sizes, with large transmission ratio, big output torque and good applicability.

### Characteristics

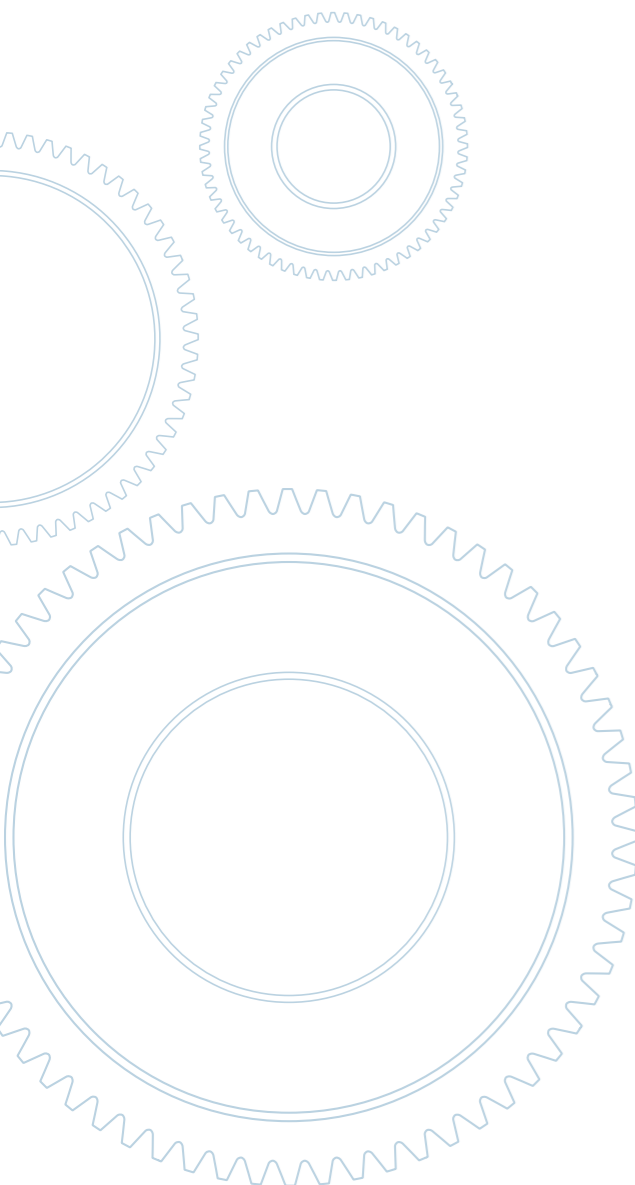
- Modular, compact design
- Non-standard design on request
- Reasonable, cost saving torque design
- Large bearing capacity
- Tooth surface modification, large teeth contact ratio
- Smooth transmission
- Low noise
- Applied to the condition of frequent starts and stops

### Main Technical Parameters

- Series: MP, MHB, ZZ, NGW
- Range of Ratio: 20 - 400
- Power Range: 30 – 1,800 kW

### Applications

Mine hoists





# Construction Machinery

## Traveling Gearboxes

NGC's traveling gearboxes are widely used in the market for traveling mechanisms of wheels and crawler mobile equipment. Due to the modular and compact design, NGC's traveling gearboxes are fit for all kinds of working conditions. The products feature a large bearing capacity, and a built-in hydraulic static multiple disk brake.

### Characteristics

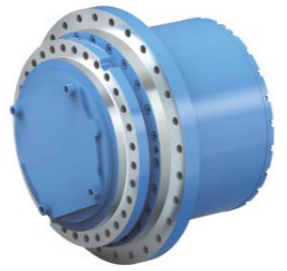
- Modular design
- Non-standard design on request
- Compact structure
- Large bearing capacity
- Smooth transmission
- Low noise
- Short development period
- Low lifecycle cost
- Built-in hydraulic static multiple disk brake

### Main Technical Parameters

- Series: SCM-T
- Range of Ratio: 20 - 460
- Torque Range: up to 1,300 kNm

### Applications

Crawler excavators, rotary drilling rigs, crawler cranes



## Rotating Machinery Gearboxes

Based on the success of wind turbine pitch and yaw drives, NGC's rotating machinery gearboxes are designed for construction machinery applications, specifically for the rotating mechanism of construction cranes. With large bearing capacity, compact structure, evenly distributed load, high reliability, and built-in or external hydraulic static multiple disk brake, NGC's rotating machinery gearboxes are in operation of construction machines in large numbers.

### Characteristics

- Modular design
- Compact structure
- Large bearing capacity
- Smooth transmission
- Low noise
- Short development period
- Easy to maintain
- Built-in or external hydraulic multiple disc brake
- Non-standard design on request

### Main Technical Parameters

- Series: SYW, SPT, GJX
- Range of Ratio: 4 - 2,500
- Torque Range: up to 270 kNm

### Applications

Rotating mechanism of cranes, excavators, rotary drilling rigs, horizontal directional drillers, deck cranes



## Winch Gearboxes

Winch gearboxes are used at all kinds of hoisting mechanisms. With compact design, large bearing capacity, high reliability, and built-in or external hydraulic static multiple disk brake, NGC's winch gearboxes have a compact design and are easy to install inside the reel.

### Characteristics

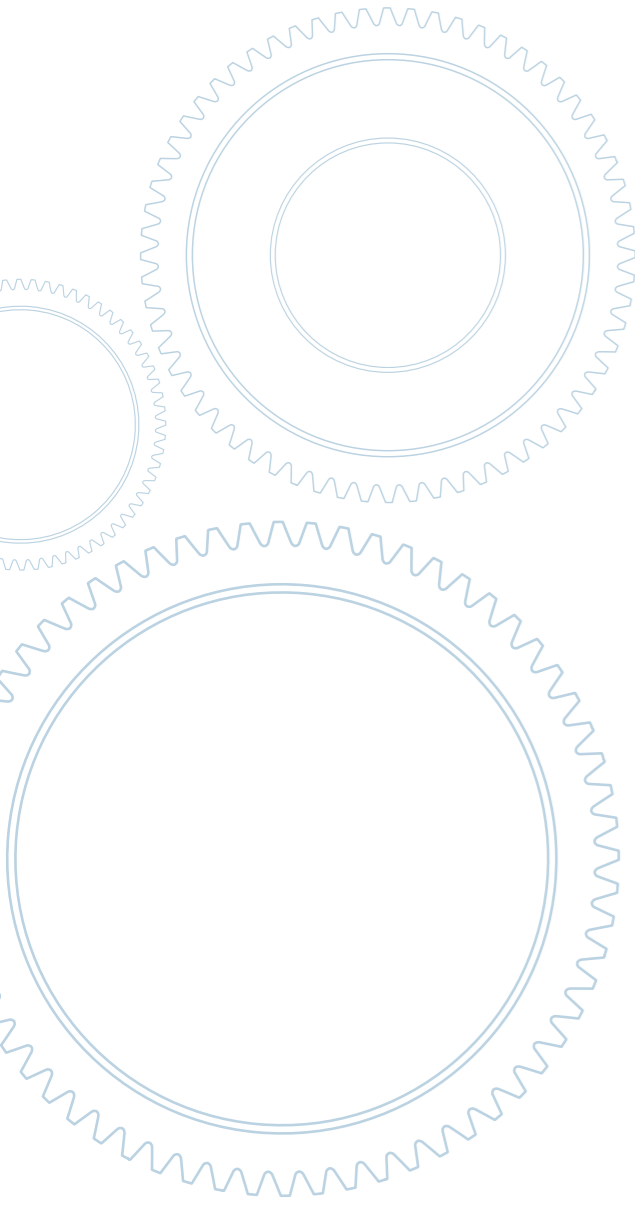
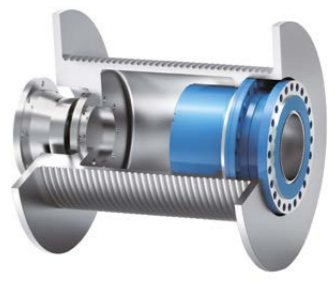
- Modular design
- Compact structure
- Large bearing capacity
- Smooth transmission
- Low noise
- Reel and rear-support device
- Built-in or external hydraulic multiple disc brake
- Non-standard design on request

### Main Technical Parameters

- Series: SCM-W
- Range of Ratio: 45 - 450
- Max. Output Torque: 275 kNm

### Applications

Winch and hoist mechanism of cranes, drilling rigs, deck cranes





## Other Industries

### Sugar

NGC's gearbox for sugar pressing machinery is optimally designed for high efficiency. Its size is optimized to save space.

Aiming at the driving device of core presses of sugar mills, NGC provides ZT series double shunting gearboxes or MP series planetary gearboxes.

#### Characteristics

- Special design
- Compact design, large bearing capacity
- High transmission efficiency, high reliability, low noise
- Tooth surface modification, large teeth contact ratio
- Excellent cost-performance ratio

#### Main Technical Parameters

- Series: MP, ZT
- Range of Ratio: 25 - 300
- Torque Range: 100 - 5,800 kNm

#### Applications

Sugar cane pressing



### Non-Ferrous Metals

NGC gearboxes are widely used in copper, aluminum and molybdenum production processes for single stand hot rolling and hot/cold rolling mills as well as for uncoilers and recoilers. In addition, NGC gearboxes are also used for cast rolling, straightening and finishing applications.

#### Characteristics

- High transmission efficiency
- Compact design
- Low noise
- Large bearing capacity
- High reliability

#### Main Technical Parameters

- Transmission Power: 30 – 9,000 kW
- Range of Ratio: 1 - 50

#### Applications

Non-ferrous metal production processes



### Oil & Gas

NGC's gear reducers continuously bear the force produced via cyclical torques from both directions, work stable in the long run and are designed according to API standard. Additionally, NGC gear reducers feature compact internal design and low weight.

#### Characteristics

- Meets API 11E safety requirements
- Special design
- Calculated by KISSsoft, optimized by FEA
- Compact design
- Large bearing capacity
- High transmission efficiency
- High reliability
- Safe layout of rolling and plain bearings
- Tooth surface modification, large teeth contact ratio
- Low noise
- Stable lubrication
- Excellent cost-performance ratio

#### Main Technical Parameters

- Specification: 640, 912, 1280, 18244
- Rated Peak Torque: 72, 103, 145, 206 kNm

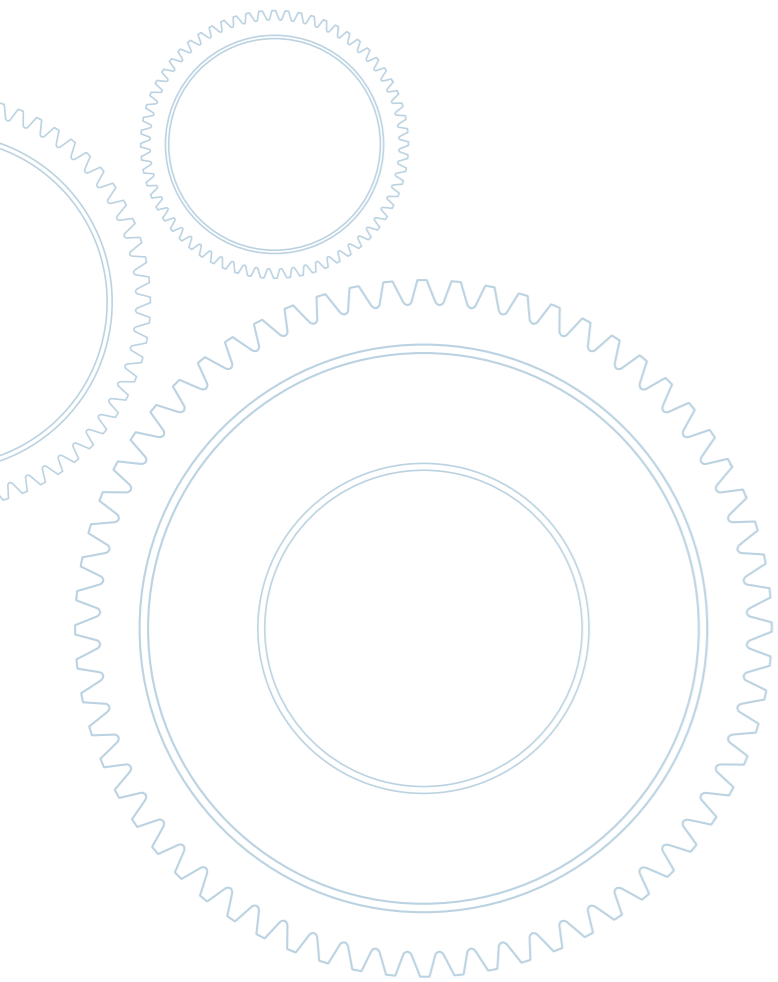
#### Applications

- Pumps





# Services



## Comprehensive Services

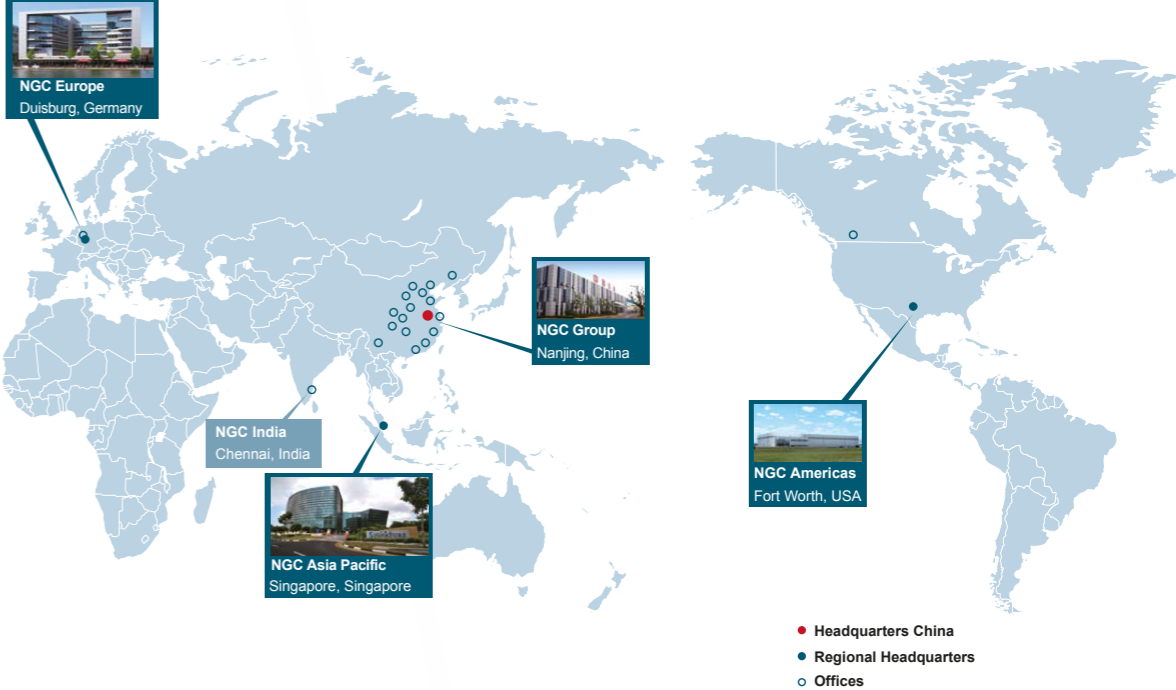
To ensure the technical and economical performance of our gearboxes, NGC offers worldwide services throughout the entire product lifecycle.

Whether it's a routine check, troubleshooting, repair or maintenance – our experienced service teams, application and field engineers as well as our authorized service partners are available in every step with competent advice and support.

### Our Services at a Glance

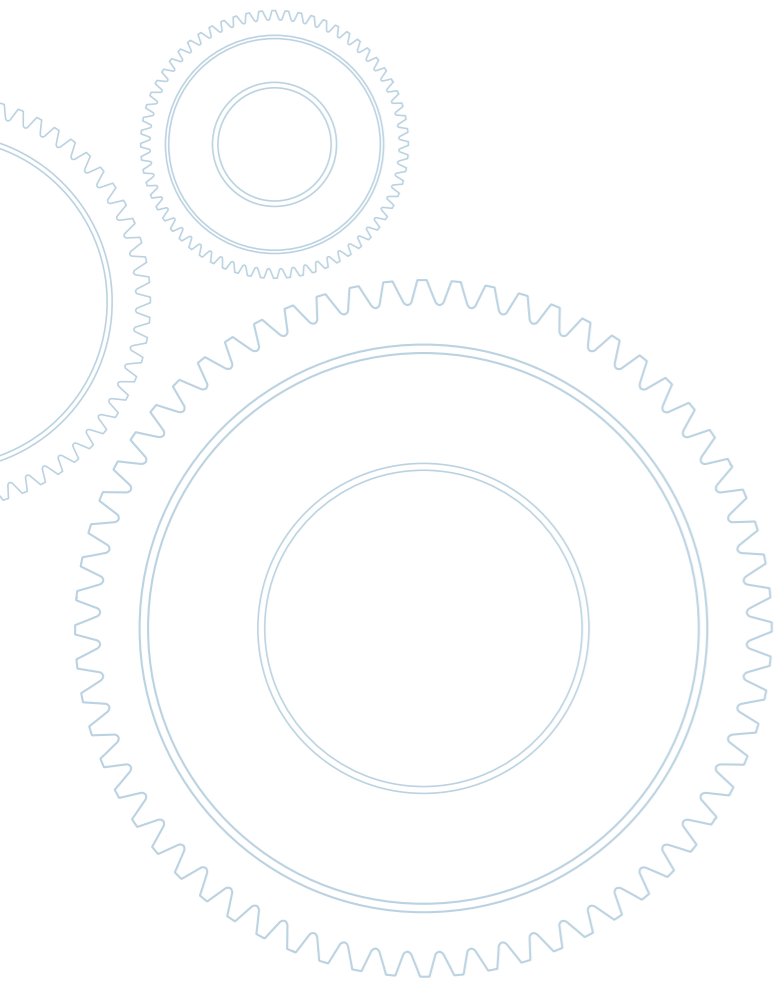
- Consultancy
- Installation and implementation
- Inspection, maintenance, repairs
- Product upgrades
- On-site service
- Spare-parts supply
- Technical training

## Worldwide on Site for You





# Notes



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