



NGC

Industrial Gearboxes





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Introduction

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

M Series | Industrial Standard Gearboxes

Standard gearbox series are applicable to various mechanical power transmission fields. Products of this series include gearboxes with helical gears and helical-bevel gears, which possess different types and designs and multiple installation methods to meet requirements of all kinds of industrial fields.

Characteristics

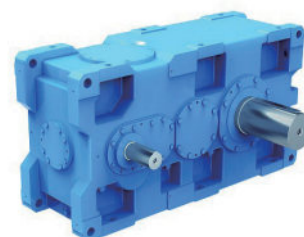
- Modular design with good component interchangeability
- Reasonable torque range distribution and affordable
- Improved bearing capacity and noise reduction performance through tooth flank modification
- Hardened tooth surface design with accuracy above grade 5
- Various sealing forms to meet sealing requirement of different application fields
- Short lead time and reliable quality

Main Technical Parameters

- Specification: 25 types
- Torque Range: 2 – 1,400kN.m
- Speed Ratio: 1.25 ~ 450

Applications

Belt conveyor, bucket conveyor, blender, lifting equipment, travelling machine, paper making machine, drying machine, rotary kiln, powder concentrator, stretch roll and etc



MP Series | Industrial Standard Planetary Gearboxes

Extreme industrial applications require reliable and stable performance of gearboxes 365 days per year. To meet this requirement, the gearbox should possess a longer bearing life and higher power density to extend the products service life. Gearboxes of this series can deliver power durably and reliably under extreme conditions.

Characteristics

- Independent industrial standard planetary gearbox platform
- Advanced modular design technology
- Certified design by ISO, AGMA and DIN standards
- Optimized gear design, high transmission efficiency
- Unique flank modification design, high bearing capacity
- Diverse types of input and output shaft ends

Main Technical Parameters

- Specifications: 20
- Output Torque (kNm): 100 – 5,800 KNm
- Transmission Stages: 2~ 5
- Speed Ratio: 25 ~ 4,000

Applications

Applied to various slewing drives, such as roller crusher drive, sugar mill drive, central drive tube mills, slewing drive of port crane, lifting drive of winch and heavy drives in mining, construction machinery and coal mine industries and etc



MTG Series | High-Speed Gearboxes

The high speed gearbox has special applications and is used in high-rotating speed environments such as energy, metallurgy, test bench, chemical and oil & gas fields. Thus higher requirements are presented to the efficiency, vibration and reliability of the gearbox. The MTG series high speed gearbox independently developed by NGC is highly competitive in efficiency, vibration, reliability and cost-efficiency and has passed the International API certification.

Characteristics

- High rotating speed: Max rotating speed 50,000r/min, max line speed 185m/s
- High standard: Certified design by international and industry leading standards like API, AGMA and ISO
- High accuracy: Gear accuracy ISO grade 3~5
- High efficiency: >98.5% efficiency
- High reliability: Design life no less than 20 years
- High Capacity: advanced lightweight design technology

Main Technical Parameters

- Structure: single stage herringbone tooth
- Speed ratio: 1~10
- Rotating speed range: high speed axis 3,000 – 50,000 r/min
- Rated power: 500 – 100,000kw

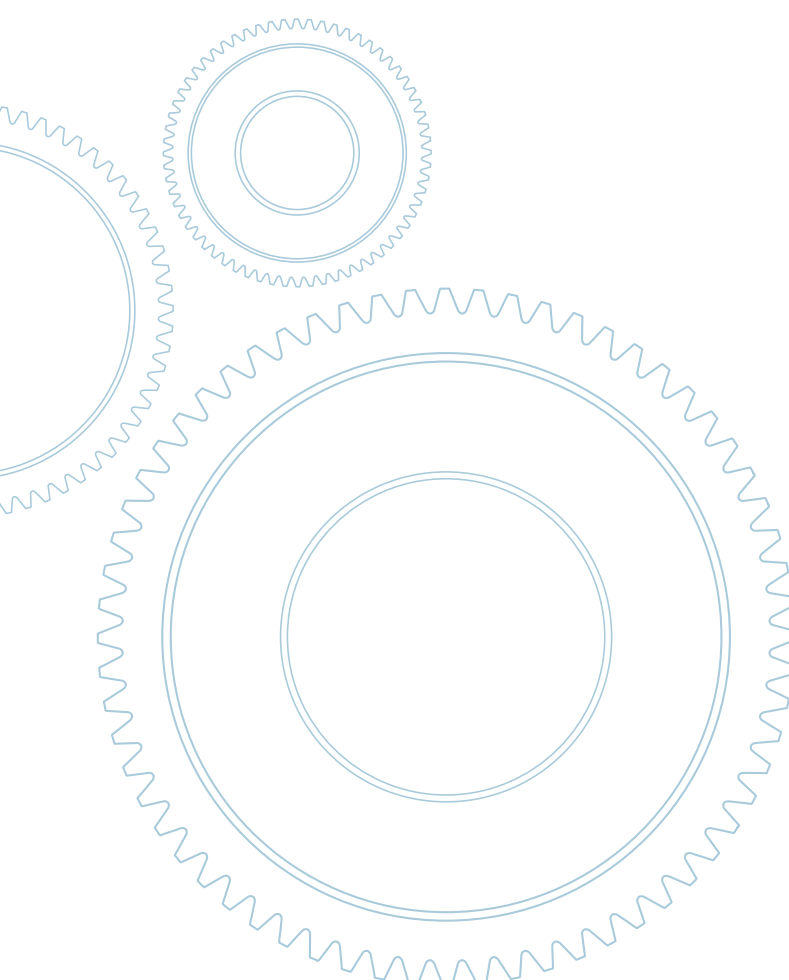
Applications

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





Cement



Vertical Mill Gearboxes

Vertical mill gearboxes require extremely high rated power and availability. Gearboxes, as one of the key components of vertical mills, are used for transmitting power, reducing the rotating speed of the motor to the one required by the mill during operation, and supporting the mill's grinding table. 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

- Modular design, good component interchangeability
- Longer bearing life, more reasonable lubrication distribution
- flank modification to improve the overall bearing capacity and noise reduction performance
- Finite element analysis to improve gearbox operation stability
- Innovated complete thrust bearing device

Main Technical Parameters

- Specification: 3 types
- Transmission stage: 2-stage (one spiral bevel gear drive and one planetary gear drive, 3-stage (one spiral bevel gear drive, one parallel gear drive, one planetary gear drive), 3-stage (one spiral bevel gear drive and two planetary gear drives)
- Speed Ratio: 20 ~ 60
- Rated Power: 80 – 9,000 kW

Applications

Raw material, cement slag, gypsum and coal ash grinding, as well as pre-grinding, in building material industries; coal and limestone mill in power and metallurgical industries and grinding systems in calcite, ceramic powder and mine industries



MFY, MFYT Center Drive Gearboxes

MFY and MFYT central drive gearboxes are a new series of low speed and heavy duty gearbox that we develop combined with our own characteristics after learning from the advanced techniques, summing up the experience of domestic large mill gearbox. MFY series gearbox adopts power double split two stage and concentric transmission in structure. MFYT series gearbox adopts power double split three stage and concentric transmission in structure.

Characteristics

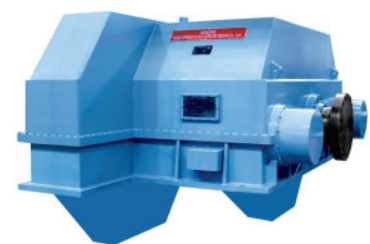
- Hardened tooth surface gear with grinding treatment
- Permanent life design for sliding bearing and gear
- Equipped with electronic control and monitor system to realize real-time operation status monitoring
- Wide application and smooth transmission
- Easy to operate and maintain

Main Technical Parameters

- Specification: 33
- Transmission Stage: two stages, power double split structure; three stages, parallel gears+ power double split structure
- Rated Power: 800 – 8,000 kW

Applications

Applied to industries such as cement processing, coal and mines etc., the gearboxes are used for tube mill to grind materials such as ore, coal sheets or cement clinker



ZX, FZX Planetary Center Drive Gearboxes

Different from forms of MFY, MFYT Center-drive Gearbox, NGC's multiform planetary gearboxes, though applied to tube mill, adopt planetary drive structure. It makes this kind of gearbox work more effectively in special applications because of its large rated power capacity.

Characteristics

- Optimized meshing accuracy of gears with lower noise and higher efficiency
- The housing and planetary carriers are analyzed and optimally designed by FEM, with less deformation during operation process, and more stable operation
- The multiform drive structures of planetary gearbox is nationally inventive patent
- Guaranteed manufacturing quality and higher reliability
- Compact design with the best power/weight ratio
- Smaller spatial arrangement of the device as a whole

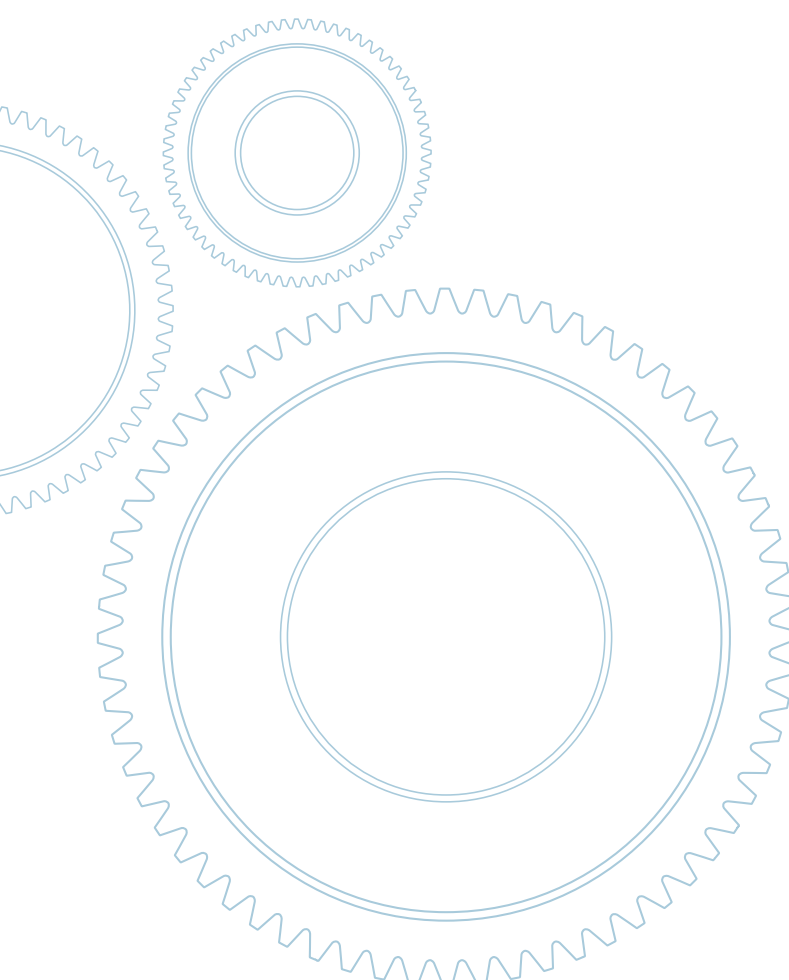
Main Technical Parameters

- Specification: 23 types
- Transmission Stages: 2 or 3, 1st stage: parallel gears (configured according to specific requirements) + 2nd stage: planetary gears + 3rd stage: planetary gears
- Speed Ratio: max. $i_{ex} = 125$
- Rated Power: 1,250 – 10,000 kW

Applications

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





Cement

Roller Press Gearboxes

Between the two grinding roller which rotate in two opposite directions, small dry particles bear extremely high pressure. The fine particle materials 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 roll presses. In the mining industry (copper mine, gold mine, diamond mine, and etc.), mining roll presses are usually utilized before other grinders. NGC always provides reliable drive devices to customers.

Characteristics

- Optimized meshing accuracy of gears with lower noise and higher efficiency
- The housing and planetary carriers are analyzed and optimally designed by FEM, ensuring smaller deformation and more stable operation
- Guaranteed manufacturing quality and higher reliability, and space is saved owing to a compact drive device design
- Providing overall sets of gearbox, torque reactive force arm system, coupler, and oil supply system
- Convenient to install and detach owing to the special design and the shrink disc

Main Technical Parameters

- Specification: MP
- Transmission Stage: 2 or 3, 1st stage, parallel gears (configured according to specific requirements) + 2nd stage, planetary gears + 3rd stage, planetary gears
- Speed Ratio: max. $i_{ex} = 125$
- Rated Output Torque: $P = 200 - 3,200 \text{ kNm}$

Applications

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



MBY (MBYX) Side Drive Gearboxes

For edge-drive device of tube mill, NGC specially configures high performing MBY(MBYX) gearbox as the main drive device. MBY(X) series gearbox adopts modern gear design and manufacturing technology. Based on the harsh working conditions, low speed and heavy load, requirements like safety, reliability and long service life, the side drive gearbox is specially designed for cement and coal grinding.

Characteristics

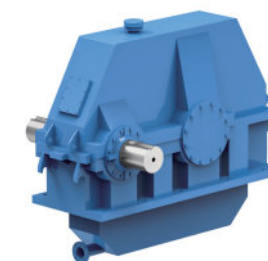
- carburizing and quenching treatment of tooth surface with above grade 6 accuracy
- Easy to maintain
- Both oil-sump and oil-free sump to fully meet requirements
- Symmetrical design for both sides of the gear to be used
- High reliability and long service life

Main Technical Parameters

- Specification: 10 types
- Transmission Stages: 1, parallel gears
- Speed Ratio: max. $i_{ex} = 7.1$
- Rated Power: 200 – 5,000 kW

Applications

Side drive gearbox for cement and coal mil



MSBY Unilateral Double Drive Gearboxes

The directly meshed NGC MSBY girth gearbox has an outstanding innovative design. This gearbox is designed to drive the tube mill through the girth gears. In this application, the gearbox forms a unit with the girth gear, and is directly meshed and driven through the girth gear. The decrease of parts required by the system reduces the requirements for space as well, and the installation and operation costs are reduced accordingly. The main motor is connected to one side of the input shaft of the gearbox, but the auxiliary drive device is connected to the other side.

Characteristics

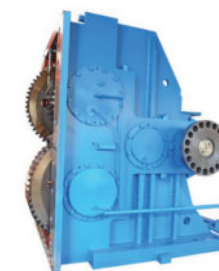
- Optimized meshing accuracy of gears with lower noise and higher efficiency
- The housing is analyzed and optimally designed by FEM, with less deformation during operation process, and more stable operation
- Guaranteed manufacturing quality and higher reliability
- Because of compact drive device, the girth gear can be used more effectively
- Perfect load distribution is realized on the width of the whole girth gear

Main Technical Parameters

- Specification: 23 types
- Transmission Stages: 3, power split structure with parallel gears
- Reducer speed ratio: max. $i_{ex} = 15$
- Rated Power: 1,250 – 10,000 kW

Applications

Cement processing, grinding in mining industry, tube mills





Steel

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
- Great housing stability
- High reliability by using forced lubrication to bearings and transmission efficiency

Main Technical Parameters

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

Applications

Applied to the large, medium and small bar production lines; to the wire and high-speed wire production lines; and to the partial sectional steel production lines



Main Driving Gearboxes for Hot Plate Rolling Mills

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.

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.

Characteristics

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

Main Technical Parameters

- Rated Power: max. 12,000 kW
- Transmission Stages: 1 or 2
- Speed Ratio: 1 ~ 10
- Torque: max. 4,200 kNm

Applications

Applied to the production lines of continuous hot rolling and 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

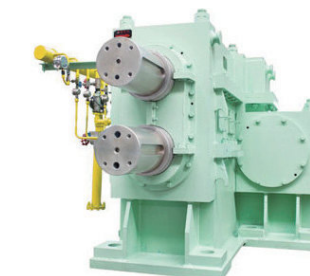
- Optimized flank modification technology
- Optimized body rigidity
- High gear precision and transmission efficiency
- Low noise; low vibration; smooth transmission

Main Technical Parameters

- Rated Power: max. 7,500 kW
- Transmission Stages: 2 or 3
- Speed Ratio: 0.8 ~ 6.8
- Torque: max. 700 kNm

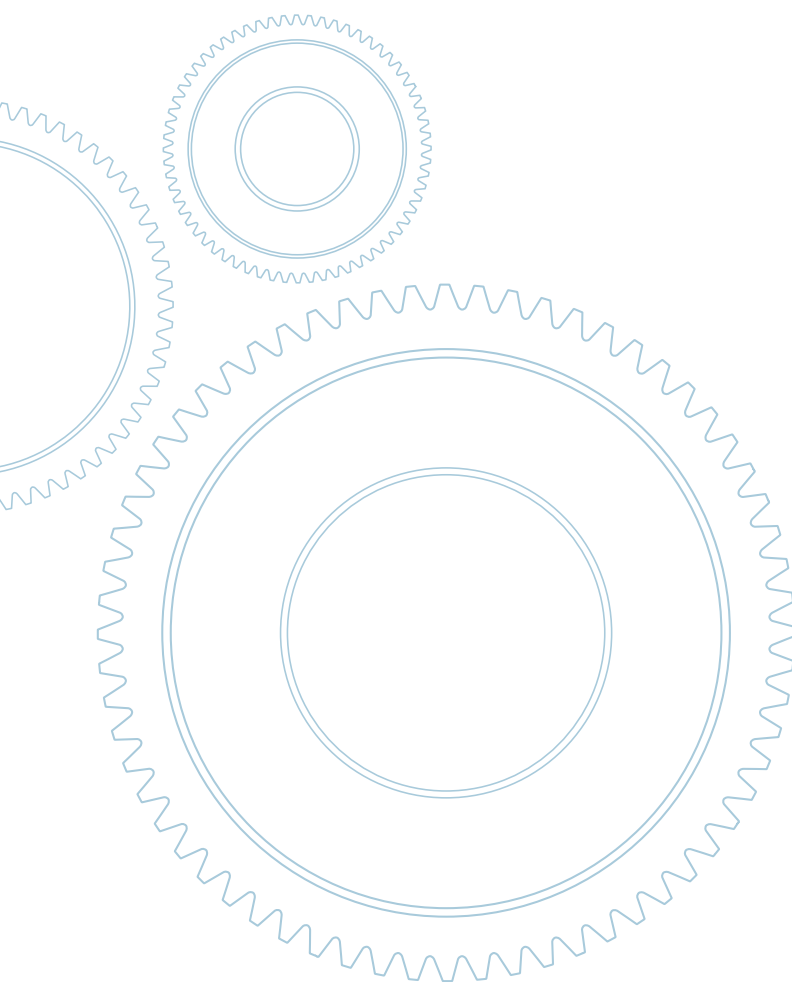
Applications

Production of cold plate rolling and reversible cold plate rolling





Steel



Converter Tilting Devices

Converter tilting devices are used for steadily tilting, accurately positioning furnace bodies in oxygen top-blown converters, in steel-making equipment, finishing a series of technological operations, including adding molten iron into converters, tapping steels, adding materials, and repairing furnaces, etc. NGC's converter tilting devices primarily incorporate an 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. A NGC Converter tilting device is the key piece of the transmission equipment for converters steelmaking production characterized by low speed, heavy load, large speed ratio, and frequent start and stop. It can also bear large dynamic loads and manages poor working conditions.

Characteristics

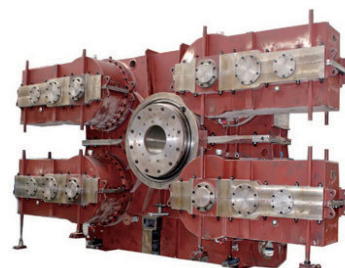
- Large torque transmission
- Fully-suspended flexible structure

Main Technical Parameters

- Specification: 30 – 300 T
- Max. Torque: 6,500 kNm
- Overload Torque: 15,000 kNm
- Speed Ratio: 520 ~ 1,200

Applications

Converter steelmaking equipment



Flying Shears for Section Bars

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

- Max. Shearing Section: 17,600 mm² (ø 150 mm)
- Max. Shearing Speed: 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 environment and working conditions.

Characteristics

- Flexible design available, extended design based on 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

- Normal Center Distance: 200 – 800 mm
- Speed 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

- Product Group: MLX, M, MBY
- Speed Ratio: 5.6 ~ 50
- Max. Power: 6,000 kW

Applications

Coal mill and desulfurization mill



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 series which 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

- Product Group: M
- Speed Ratio: 1.2 ~ 60
- Power: 15 – 1,200 kW

Application Fields

Cooling towers,
desulfurization pumps



High-speed Gearbox for water-feeding Pump and Slurry Circulating Pump----Power generation

After years of technological accumulation and improvement, NGC high speed gearbox for water-feeding pump and slurry circulating pump are adaptable to complex environments in power plants. The gearbox is able to be designed in a flexible or customized way and can meet higher requirements in vibration performance, efficiency and reliability.

Characteristics

- Flexible design available, extended design on the basis of MTG series
- Customized design which can meet requirements of different working conditions
- Multiple accessories available for integrated design according to requirement
- Certified design of gearbox and accessories by international and industry leading standards like API, AGMA and ISO
- Gear accuracy ISO Grade 3~5
- Low noise, smooth operation

Main Technical Parameters

- Center distance: 200 – 600mm
- Speed ratio: 1~10
- Rotating speed: ≤ 20,000 r/min
- Rated power: ≤ 8,000kw

Applications

Water-feeding pump, slurry circulating pump



High-Speed Gearbox for Combustion Turbines

As the core equipment of the combustion turbine, the high speed gearbox must meet the requirements of high efficiency and reliability. NGC's high-speed gearbox for combustion turbines is able to meet all kinds of different requirements of customers 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 design; extended design based on MTG 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

- Center Distance: 200 – 1,000 mm
- Speed Ratio: 1 ~ 10
- Rotating Speed: ≤ 25,000 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 travelling 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 travelling. 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

- Product Group: XCJ
- Speed Ratio: 11.2 ~ 50
- Max. Loading Capacity: 5,000 t/h
- Center Distance of two Output Shafts: 800 – 2,800 mm

Applications

Bridge type grab ship unloaders



Lifting, Mobile, Luffing Crane Gearboxes

Based on our standard gearbox design, MHK Series parallel-shaft gearboxes 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

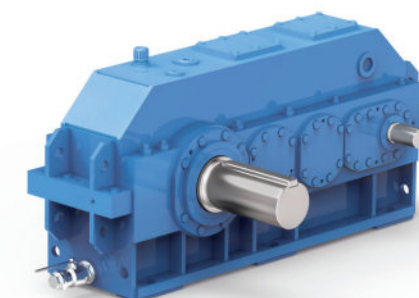
- Based on modular design; customized for different applications
- Compact design; large bearing capacity
- Tooth surface modification; large teeth contact ratio
- Smooth transmission; low noise
- Multiple output mode: flat key, spline key, gear shaft end, hollow shaft
- Rolling bearing

Main Technical Parameters

- Specification: M, PE, QJY, QJYX
- Speed Ratio: 6.3 ~ 400
- Torque: 1,400 kNm
- Center distance: 120 – 2,022 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; customized for different applications
- Compact design; large bearing capacity
- Tooth surface modification; large teeth contact ratio
- Smooth transmission; low noise
- Non-standard design on request

Main Technical Parameters

- Product Group: FDX, MP
- Speed Ratio: 20 ~ 200
- Torque: 40 – 160 kNm

Applications

Stacker-reclaimers, ship loaders, portal cranes





Mining

Conveyor Gearboxes

NGC 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 with its modular design. As main accessories are already included in the standard product list, gearboxes can be adopted to customer requirements without delaying delivery time.

Characteristics

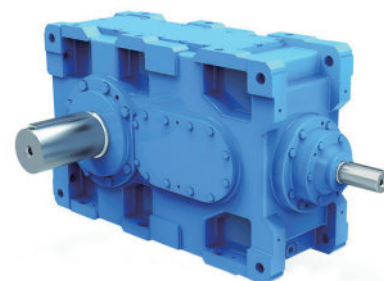
- Compact, modular design
- Large bearing capacity
- Tooth surface modification; large teeth contact ratio
- Smooth transmission; low noise
- Various sealings
- Various accessories

Main Technical Parameters

- Product Group: M, MP, MQ, JS ZY/DY
- Speed Ratio: 6.3 ~ 450
- Power: 3 – 1,200 KW
- Torque: 2 – 1,400 kNm

Applications

Material handling



Chain Conveyor Gearboxes

Chain conveyor gearboxes of JS Series are especially suitable for underground coal mines and other similar poor working conditions. The chain conveyor gearbox can be used with inclination angles up to 30°. The 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. NGC offers a customized design for the chain conveyor gearbox.

Characteristics

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

Main Technical Parameters

- Product Group: JS
- Speed Ratio: 3.5 ~ 40
- Power: 40 – 1,600 kW

Applications

Flexible chain conveyors, loaders, crushers



Hoist Gearbox

NGC's hoist gearboxes derive from NGC's MP Series following the latest technology. They have a hard-surface planetary gears and are available in different configurations.

Configuration example:

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

Main Technical Parameters

- Product Group: MP, M, ZZ, NGW
- Speed Ratio: 20 ~ 400
- Power: 30 – 1,800 kW

Applications

Mine hoists





Construction Machinery

Travelling Machinery Gearbox

Travelling machinery gearboxes are widely used at travelling mechanism of wheels and crawler mobile equipment. With modular design and specific design, NGC travelling machinery gearboxes are fit for all kinds of working conditions. With the compact structure, large bearing capacity, and built-in hydraulic static multiple disk brake, NGC travelling machinery gearboxes have been widely used at large construction machine host plants such as XCMG and Sany and are highly appraised by the customers.

Characteristics

- Modular design
- Compact structure; large bearing capacity
- Smooth transmission with low noise
- Shorter development period
- Lower lifecycle cost
- Built-in hydraulic static multiple disk brake available
- Non-standard design on request

Main Technical Parameters

- Product Group: SCM-T
- Speed Ratio: 20 ~ 460
- Max. Output Torque: 1,300 kNm

Applications

Travelling mechanism of the crawler excavator, rotary drilling rig, crawler crane, aerial work platform, etc



Rotating Machinery Gearbox

Based on the wind pitch and yaw gearbox, NGC rotating machinery gearboxes are designed to fit for the construction machinery applications. They are used at the rotating mechanism of construction crane equipment. With large bearing capacity, compact structure, evenly distributed load, high reliability, and built-in or external hydraulic static multiple disk brake, NGC rotating machinery gearboxes have been widely used at large construction machine host plants such as XCMG and Sany and are highly appraised by the customers.

Characteristics

- Modular design
- Compact structure; large bearing capacity
- Smooth transmission with low noise
- Shorter development period, easy maintenance
- Built-in or external hydraulic multiple disc brake available
- Non-standard design on request

Main Technical Parameters

- Product Group: SYW, SPT, GJX
- Speed Ratio: 4 ~ 2,500
- Max. Output Torque: 270 kNm

Applications

Rotating mechanism of the crane, excavator, rotary drilling rig, horizontal directional driller, deck crane, etc



Winch Gearbox

Winch gearboxes are widely 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 winch gearboxes are easy to install inside the reel to save space. They have been widely used at large construction machine host plants such as XCMG and Sany and are highly appraised by the customers.

Characteristics

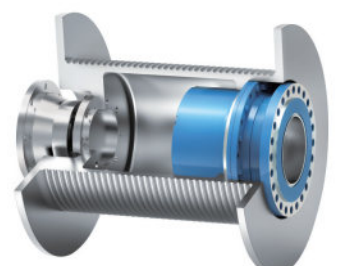
- Modular design
- Compact structure; large bearing capacity
- Smooth transmission with low noise
- Reel and rear-support device available
- Built-in or external hydraulic multiple disc brake available
- Non-standard design on request

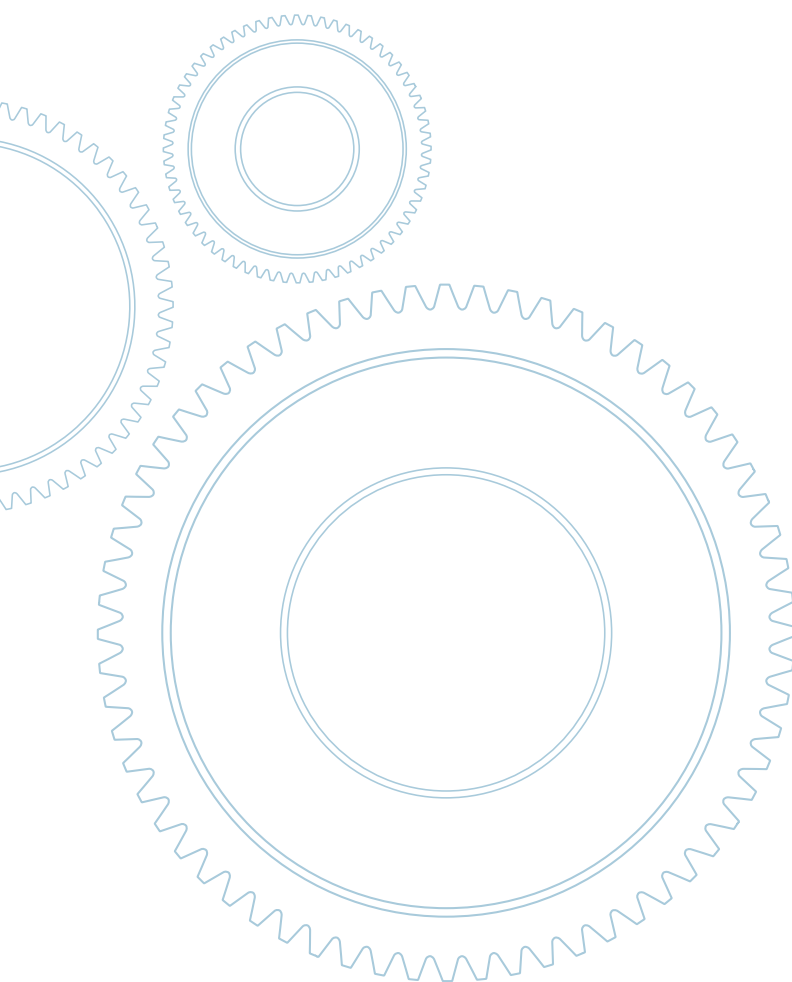
Main Technical Parameters

- Product Group: SCM-W
- Speed Ratio: 45 ~ 450
- Max. Output Torque: 275 kNm

Applications

Winch and hoist mechanism of crane, rotary drilling rig, deck crane, etc





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 the 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

- Product Groups: MP, ZT
- Speed Ratio: 25 ~ 300
- Torque: 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
- Speed Ratio: 1 ~ 50

Applications

Non-ferrous metal production processes



Other Industries

Oil & Gas

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

Characteristics

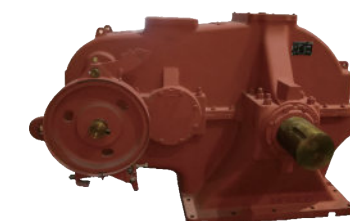
- Meets API 11E safety requirements
- Special design; calculated by KISSsoft, optimized by FEA
- Compact design, large bearing capacity
- High transmission efficiency, high reliability
- Safe layout of rolling and plain bearings
- Tooth surface modification, large teeth contact ratio, low noise
- Stable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

Main Technical Parameters

- Specification: 640, 912, 1280, 1824
- Rated Peak Torque: 640,000; 912,000; 1,280,000; 1,824,000 in-lb

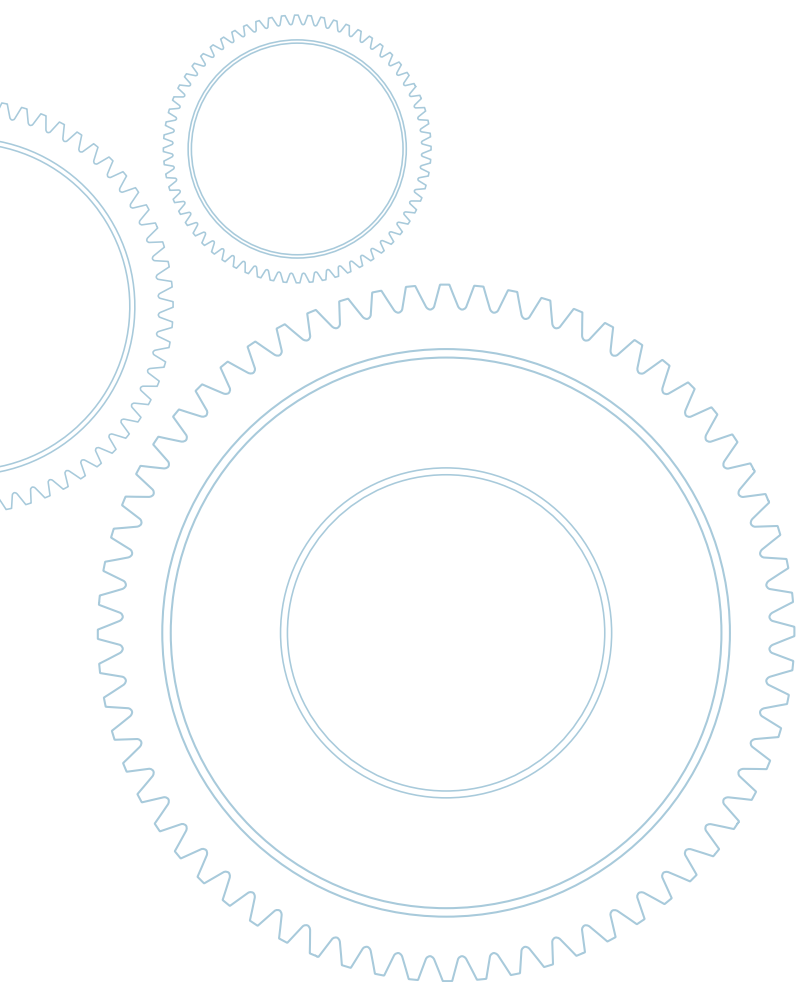
Applications

Pumps





Services



Comprehensive Services

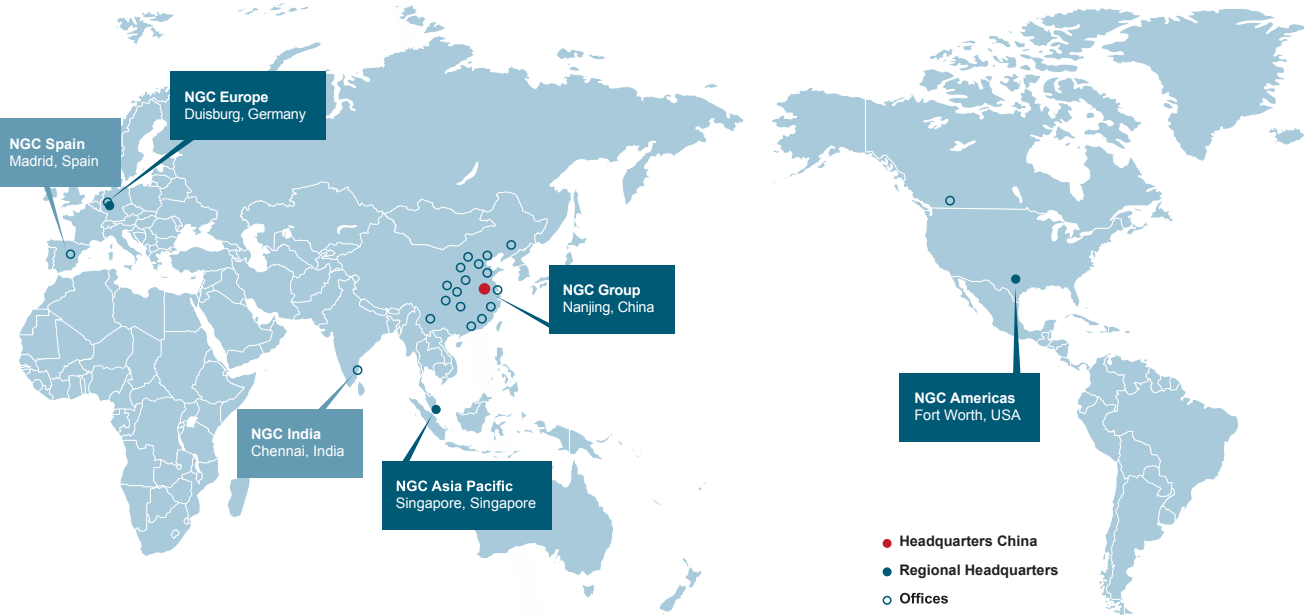
To ensure the technical and economical performance of gearboxes, NGC offers worldwide services throughout the entire product lifecycle.

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

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

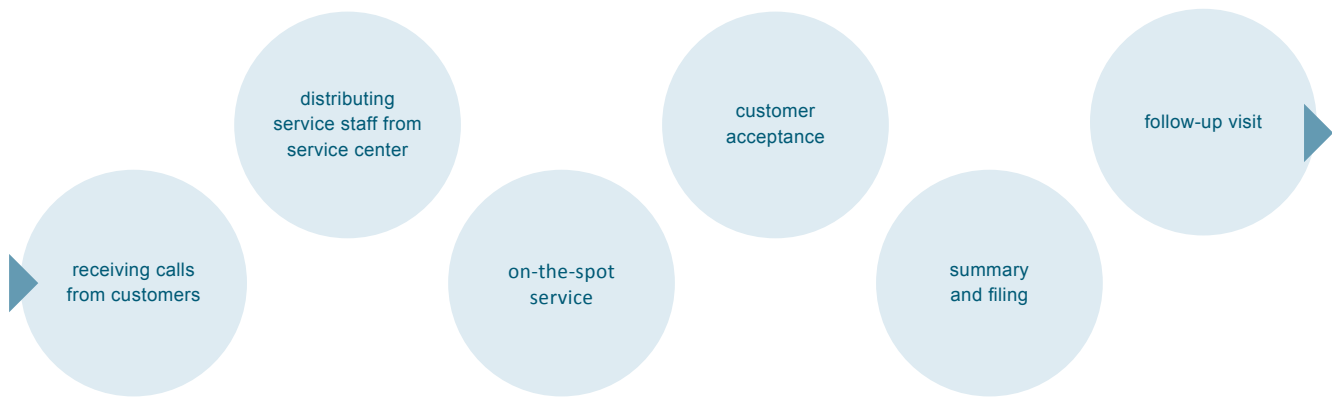
We are Worldwide on Site for You





Typical Cases

Service Procedure



Service Items

- Comprehensive services for new projects including design, manufacturing, assembly, testing and maintenance
- Technical training on product application
- On-site service
- Package solution for upgrading existing applications
- A comprehensive and dedicated assessment service
- Spare parts program
- Repair, overhaul and maintenance service for customers

Service Quality

- NGC has established a sound and comprehensive service system in accordance with documents of ISO9001: 2000;GB/T19001-2000 quality management systems;
- All service staff member in NGC should strictly abide by the requirements of service systems and stick to the theme of “Customer satisfaction is of top priority” ;
- NGC has established return visit by calling to guarantee that we receive feedbacks from our customers after every service with the aim to improve service quality.



Cement Processing

A.O. Smith
China National Heavy Machinery Corporation
Hebei Kuangfeng Cement
Heidelberg Corporation
HOLCIM(the Philippines) Cement Factory
Japan KAWASAKI
Lafarge Group
Loesche GmbH
Nanjing Xipu Mechanical & Electronic Engineering Co., Ltd.
Polysius Co., Ltd.
Shanghai Heavy Machinery Plant Co., Ltd.
Shanxi Weidun Cement Corporation
Sinoma International Engineering Co., Ltd.
Sinoma Technology & Equipment Group Co., Ltd.
Turkey AS Cement Factory
Wuhan Yadong Cement Co., Ltd.
Yatai Group Harbin Cement Factory
Zhejiang Jinshou Cement Co., Ltd.



Port, Crane, and Hoist

Baosteel Co., Ltd
Indonesia TBJ Power Plant Dock
Jiajiang Hydropower Floodgate Lifting Device
Shagang Autonomous Dock
Shanghai Zhenhua Heavy Industries Co., Ltd.
Taiyuan Industry Corporation



Metallurgical Machinery

Anshan Iron and Steel Company
Anshan Iron and Steel Company
Capital Steel Group
Changzhou Zenith Steel Project
Huaian Steel Project
Hualing Valin Project
Jinan Iron and Steel Co., Ltd.
Nanchang Steel Factory Project
Shanghai Baosteel Group Corporation
Shanghai Baosteel Group Corporation
Tonghua Group Third Phase Project
Wuhan Iron and Steel Group Corporation
Xingcheng Special Steel Project
Xinyu Iron and Steel Project



Mining

Henan Energy Project
Sany Heavy Industry CO., Ltd.
Shangdong Energy Group Co., Ltd.
Shangdong Energy Zaozhuang Mining Group Co., Ltd.
Shenhua Group
Shijiazhuang Zhongmei Project
Sichuan Mine Machinery Co., Ltd.
Xinwen Mine Group Material Supply Co., Ltd.
Yongcheng Coal Electricity (Group) Co., Ltd.



Power Generation

China Datang Corporation
China Guodian Corporation
China Huadian Corporation
China Huaneng Group
India Lanco 2x660MW Coal Power Station
Jiajiang Hydropower Station
State Power Investment Corporation



Chemical Environmental Protection

China Petroleum and Chemical Corporation
Jiangxi Soda Ash Industrial Co. Ltd.
Kunming Iron & Steel Holding Co., Ltd.
Shanxi Ruiheng Chemical Co. Ltd.



Sugar Industry

Guyana Skelton Sugar Factory
Guangxi Shangshang Sugar Co., Ltd.
Guangxi Nanhua Sugar Co., Ltd.

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