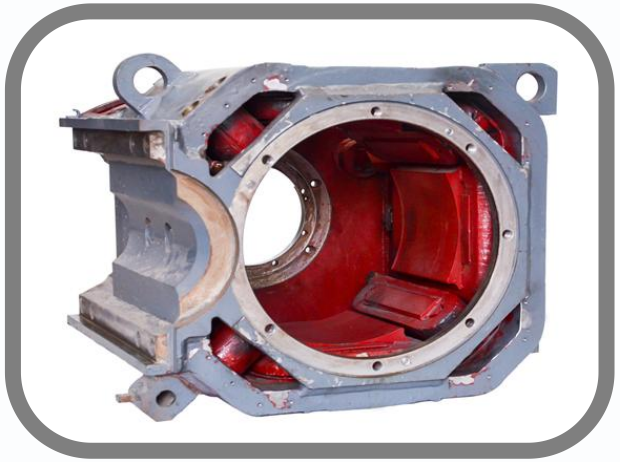
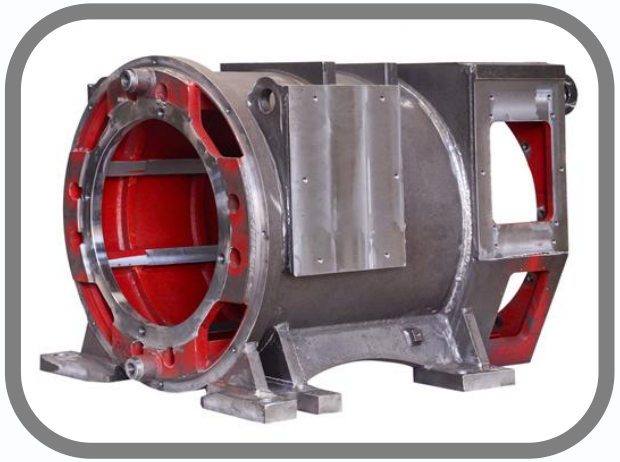
Motor Parts
OEM ODM

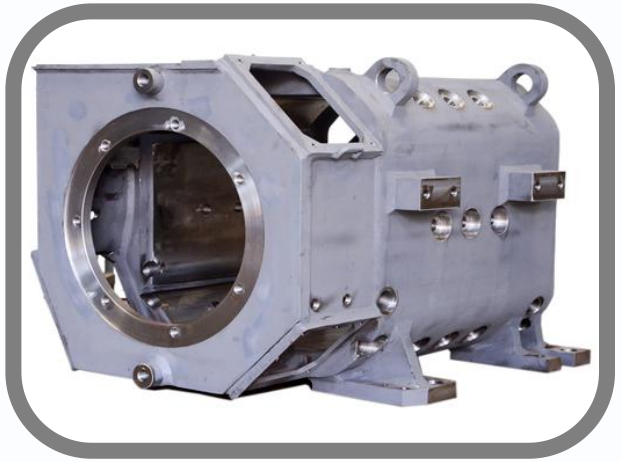
Motor Base



Motor Base



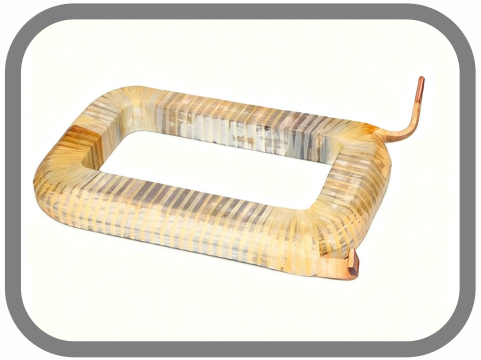
Mining Motor Base



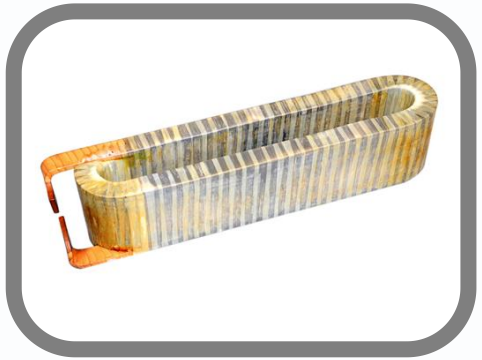
Oilfield Motor Base

The motor base, serving as the core load-bearing and positioning component for motor operation, is specifically designed for various AC/DC motors and variable-frequency motors. Featuring a high-strength structure, precise positioning performance, and full-scenario adaptability, it provides a solid foundation for stable motor operation. Widely applied in industrial manufacturing, petrochemicals, rail transit, mining, and metallurgy, it accommodates motor equipment ranging from 0.75 kW to 2000 kW.

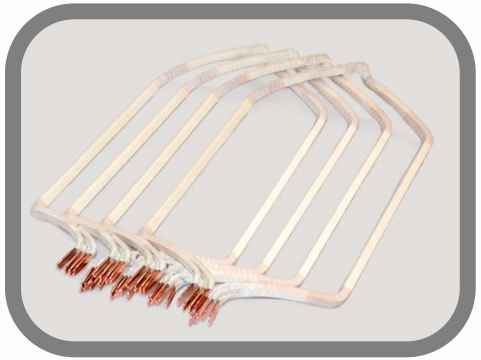
Coil



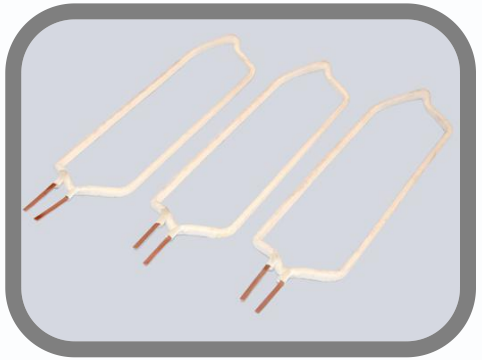
Main pole coil



Anchor coil



Armature coil



Stator coil

- Main Pole Coil: The core component of the main magnetic field in DC motors, wound with copper wire and insulated. When energized with direct current, it generates the main magnetic flux, determining the motor's fundamental output torque.

- Auxiliary Pole Coil: Also known as the commutating pole coil, it works in conjunction with the main pole coil to counteract armature reaction, reduce commutation sparking, and enhance motor operational stability.

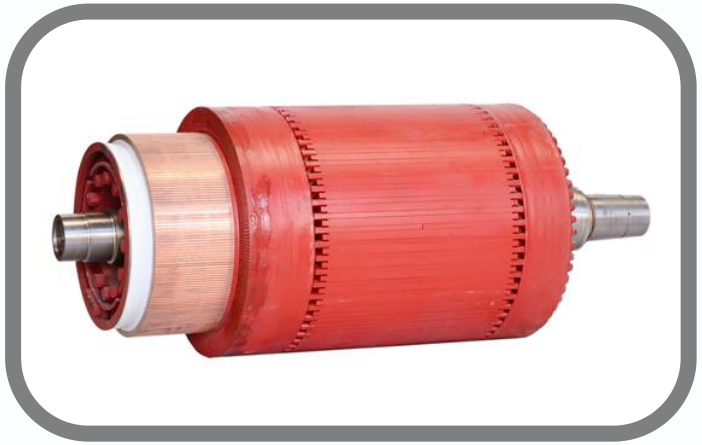
- Armature Coil: The core component of the DC motor's rotor, embedded within the armature core slots. It converts electrical energy into mechanical energy through electromagnetic induction, directly influencing the motor's output power.

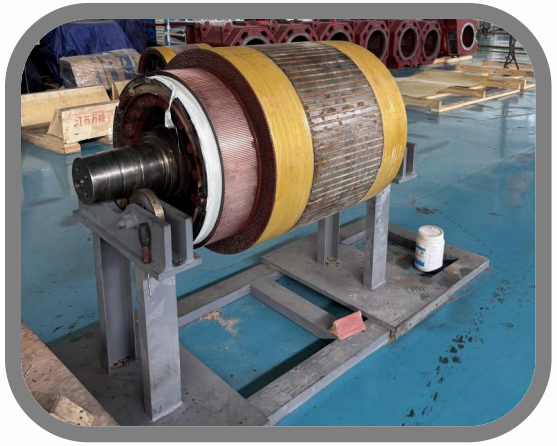
- Stator Coil: Windings on the stator core of an AC motor. When energized with alternating current, they generate a rotating magnetic field that drives the rotor. Based on winding configuration, they can be categorized as concentrated or distributed, accommodating different speed requirements.

Commutator

The commutator is the core commutation component of a DC motor, typically a copper cylindrical structure with commutator segments embedded in its surface and separated by insulating plates. These segments connect to the ends of the armature windings. Its primary function is to convert the alternating current (AC) generated in the armature windings into direct current (DC) for the external circuit. Working in conjunction with carbon brushes to transmit current, it minimizes sparking through precise commutation, ensuring stable motor operation. Adaptable to varying speeds and load conditions, it is widely used in various DC motors and certain AC commutator motors.

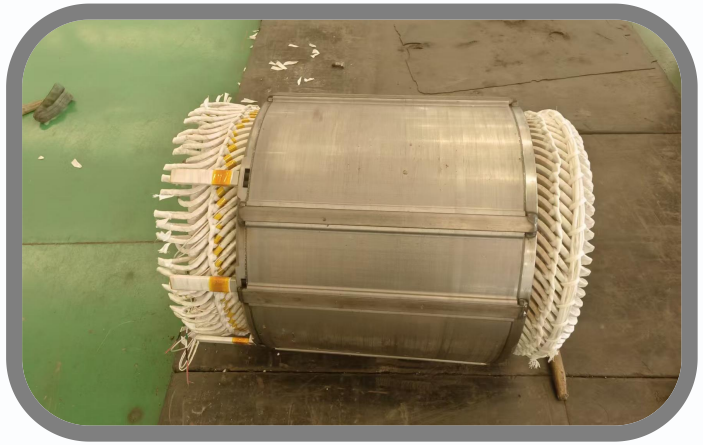
Rotor





The rotor is the rotating core component of an electric motor, primarily consisting of the armature core, armature windings, rotor shaft, and commutator (in DC motors). It achieves energy conversion through electromagnetic induction interacting with the stator magnetic field. Its core function is to convert electrical energy into mechanical energy, driving external equipment. Rotational speed and torque directly determine the motor's output performance. Constructed from high-strength laminated silicon steel sheets with precision dynamic balancing, it minimizes operational vibration and noise. Designed for heavy-duty, high-speed, and harsh environmental conditions, it is widely used in various AC/DC motors and variable-frequency drives.

Stator and stator windings



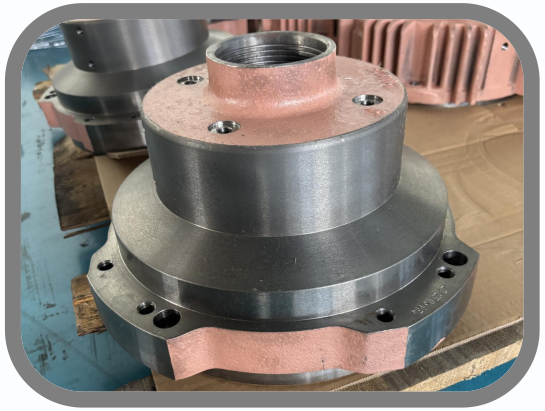
Stator

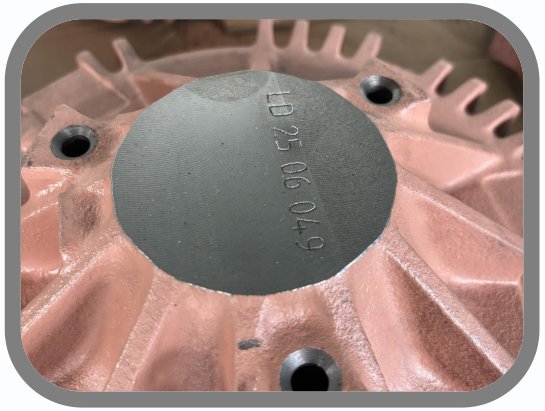
The stator is the fixed core component of an electric motor, primarily consisting of the stator core, stator windings, and frame. It serves as the fundamental carrier for generating the motor's magnetic field and facilitating energy conversion. Its core function is to generate a stable magnetic field (in DC motors) or a rotating magnetic field (in AC motors) by passing current through the stator windings. This field interacts with the rotor to drive its rotation while providing structural support and protection for the motor's internal components. Constructed from laminated high-permeability silicon steel sheets with enclosed or semi-enclosed designs, it offers excellent heat dissipation and electromagnetic interference resistance, accommodating diverse power output requirements across motor types.

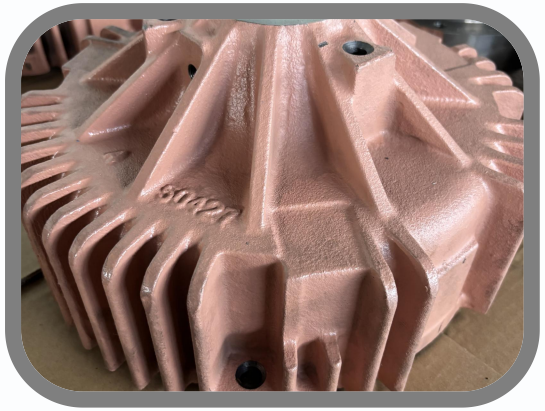
Stator Windings

The stator windings constitute the core electromagnetic component of the stator. Wound from high-strength enameled copper or aluminum wire, they are categorized as concentrated or distributed based on winding configuration. Their primary function is to generate a magnetic field when energized, enabling energy transfer with the rotor through electromagnetic induction. The number of turns, wire gauge, and winding technique directly influence the motor's power, speed, and efficiency. After insulation treatment, the coils are embedded into the slots of the stator core. They exhibit high-temperature resistance, wear resistance, and electrical breakdown resistance, ensuring stable operation under varying voltages and load conditions. As the key components for energy conversion in the motor, they play a crucial role in its performance.

Motor End Cover







Motor end caps serve as critical protective and structural components, mounted at both ends of the motor frame. Primarily fabricated from high-strength materials such as cast iron and aluminum alloy, their core functions include securing the rotor shaft bearings, sealing the internal motor cavity, and providing precise support for the rotor to ensure stable high-speed rotation. With rust-proof and corrosion-resistant surface treatments combined with sealed structural designs, they effectively prevent dust, water, and foreign object ingress, making them suitable for complex and harsh environments such as outdoor settings, mines, and oil fields. Some end covers integrate heat sinks or inspection windows, serving dual functions of auxiliary heat dissipation and operational monitoring. They are a critical safeguard for the overall protection and structural stability of the motor.

Carbon brush

Carbon brushes serve as the core conductive and commutation components of electric motors, also known as brushes. Primarily composed of conductive and wear-resistant materials such as graphite and carbon graphite, they are mounted on the motor brush holder and maintain sliding contact with the commutator (in DC motors) or slip rings (in AC motors). Their primary function is to transmit external current to the rotating rotor windings while coordinating with the commutator to reverse the current direction, ensuring continuous and stable motor operation. They exhibit excellent electrical conductivity, wear resistance, and lubricity. After impregnation treatment, their high-temperature resistance and arc-striking capability are enhanced, reducing commutation sparks and wear. Adaptable to varying speeds, loads, and harsh environmental conditions, they are indispensable, easily worn components in all types of rotating motors. Regular inspection and replacement are essential to maintain motor performance.