

ELECTRIFICATION SERVICE

AC Motor Repair Services

Improve performance and reduce costs



AC Motor Repair Services can help you improve performance, reduce maintenance costs, and maximize productivity.

The demands on AC motors are greater than ever. Total plant output may depend on them. AC motors require a high level of repair and service expertise to maximize their output and uptime. Trust your AC motors to ABB and the many years of knowledge and expertise we bring to their manufacture and repair.

Servicing all types Of AC motors

ABB Service Centers have the expertise to service all types of AC motors. These include induction (squirrel-cage or wound-rotor motors) and synchronous (slip rings with brushes or brushless type excitation systems). You can trust ABB's engineering knowledge and craft expertise to help solve any issues.

Design enhancements

The ABB Service Center will inspect your machine, identify opportunities to increase efficiency, output or reliability, and may recommend replacing older style electrical connections. In addition, ABB Service Centers will make recommendations for additional repairs and upgrades.

Failure analysis – the valid approach to the repair of AC motors

Knowing when and how a motor failed, coupled with the ability to implement well-qualified solutions, leads to greater life expectancy and improved performance. Onsite, ABB will study operating requirements, environmental conditions, original motor installation, and maintenance and operator practices.

Often ABB can solve problems with corrective redesign or modernization of the motor to better equip it for its application and environment. ABB's knowledge of failure patterns and definitive diagnostic techniques can help pinpoint root-failure cause and help reduce the chance of a repeat of the motor failure.

Customer benefits

- Greater life expectancy
- Improved performance
- Peace of mind gained from ABB's AC motor expertise



Motor performance

Critical to the longevity of AC motors are the Stator Coils and Rotor bars/coils. Our expert knowledge and service keep these two items at their highest levels.

Stator coils

Quality begins in the coils themselves. In modern AC motors, insulation materials must be very thin to provide the most room for copper within the slot and maximize the motor's rating. The wrong insulation or improper installation techniques will compromise the coil — and therefore the motor performance and life. Coil shape and fit are very important:

- Only one shape will fit uniformly and tightly within the specific motor's slot dimensions and available end winding space
- Proper coil fit reduces the amount of flexing and distortion during installation, blocking, and bracing, which prevents damage to the winding that can lead to later turn-to-turn failure.
- A tight fit is also critical because during operation, movement can lead to turn-to-turn failure. In addition, heat transfer from coil to core iron is an important element in long winding life, and it is enhanced by tight coils.
- Our own Inspection & Repair services group sources coils using the latest materials and methods.

Rotor

Although the stator is the heart of a AC motor, the rotor is also critical to long motor life. ABB has all the technical resources and tooling in place for the care that AC rotors and components need. Service, repair, and refurbishment standards at ABB, along with industrial manufacturing standards, are utilized so you receive quality comparable to a new machine.

Services provided

- Basic overhaul service
- Failure analysis
- Stator rewinds and rotor rebar or rewinds
- Upgrades, modifications, retrofits, and exchange
- Parts stocking programs
- Component design and custom-made components
- Long term storage maintenance programs
- Installation and commissioning support
- On-site cleaning (dry ice)
- Motor Condition Diagnostics (MCD)

The ABB advantage

Trust ABB for top-quality reliable service, including:

- Experienced engineering and technical support
- Predictive Analysis Tools
- Advanced on-line monitoring and failure analysis
- Industry-specific application expertise
- Global service center network
- Emergency Service Available

Contact us

For more information, call toll free +1 888 434 7378 or visit electrification.us.abb.com/services.