



The new generation ABB Motor and Generator Service

The new generation ABB Motor and Generator Service

ABB Motor and Generator Service now provides major workshop facilities in Queensland, Western Australia and Victoria. This gives customers access to one of the most comprehensive on-site service and workshop facilities in the Southern hemisphere.



Wind Energy

Reliability and performance of wind turbines can be provided through the high level of knowledge and experience ABB possesses within their local and global service centres. This is unparalleled within the industry and ensures optimum local repair and overhaul of wind turbine generators across various applications around Australia.



Rail

ABB's workshops have the capability and experience to refurbish and repair all types of AC and DC traction motors in service around Australia. This includes passenger and heavy freight locomotive applications, traction motors on suburban fleets, including light rail used in most capital cities and also traction motor drill rig applications.

ABB Motor and Generator Service has a singular goal of providing industry with a comprehensive national service offering for the repair and maintenance of high and low voltage motors and generators. In the past 12 months, ABB Motor and Generator Service has come one step closer to achieving this goal by welcoming Bob White Electrix and L.E. Jarvis to its family.

The inclusion of two new workshop facilities and on-site service teams to the ABB Motor and Generator Service network brings extended capabilities for sectors such as power generation, mining, petrochemical, paper manufacturing and steel manufacturing. Along with Australia's largest capacity low and high speed balancing facilities, these additions carry with them the reputation of one of Australia's most well respected family owned businesses, with a wealth of knowledge and experience of local industry.

By mobilising the resources of one of the world's largest engineering companies and Australia's two most knowledgeable and innovative service providers, ABB Motor and Generator Service is ushering in a new era of faster response times and greater strategic alliances with local industry.



Mining

Productivity and reliability drives the mining industry. Through extensive experience and collaboration with all players in this segment, ABB workshops are second to none in providing maintenance and repair of motors and generators for the mining sector. This includes HV slip ring motors, dragline motors, generators, synchronous machines, Eddy current drives used in conveyor applications and explosion protected motors used in underground mining.



Petrochemical

All ABB workshops are accredited to carry out repairs and overhauls to hazardous area motors up to 20MW as set out in AS/NZ 3800:2005 and IEC 60079-19. Our local Queensland service centre is also accredited to complete approved modifications with re-certifications on ABB LV and HV motors.

Your motors and generators

Total life cycle and beyond

ABB Motor and Generator Service's ultimate goal is to provide clients with strategies that eliminate unplanned stoppages all together. In the event that breakdowns do occur, ABB's goal is to use extensive experience and resources to identify faults and repair them with minimal interruption to business. ABB Motor and Generator Service provide warranty and non-warranty maintenance and repair for motors and generators.

Taking the guess work out of motor and generator life expectancy

The ABB Motor and Generator Service provides a solution that informs industry of the life expectancy of motors and generators. By supplying clients with this information, ABB Motor and Generator Service aims to minimise unplanned downtime, extend motor and generator life, improve return on investment and reduce operating risks.

The ABB Motor and Generator Service Life Expectancy Analysis Program (LEAP) assesses the condition of the stator winding insulation in high voltage motors and generators. Among the many benefits of LEAP is comprehensive analysis of electromagnetic and mechanical faults in motors, such as rotor winding defects, installation problems and bearing defects. Trained personnel perform on-site measurements.

Optimal performance 24/7

The reality is that a reliable generator or motor will not break down unexpectedly. Problems begin with poor installation and commissioning. Poorly planned and executed preventative maintenance compounds the problem. ABB Motor and Generator Service work with clients to ensure every stage of the installation, commissioning and preventative maintenance scheme is planned and executed. ABB Motor and Generator Service works with clients to design service contracts that deliver optimal efficiency and measurable returns on investment.

ABB Motor and Generator Service contracts can include engineering and consulting, spares rationalisation, energy appraisals, performance and reliability assessments, upgrade/replacement parts or units, life cycle costing and risk management.

Installation and commissioning

Without proper installation and commissioning, no amount of maintenance will achieve the desired performance. ABB Motor and Generator Service increases reliability, availability and safety of your equipment. ABB Motor and Generator Service deliver fast and accurate turnaround in all aspects of installation and commissioning of new equipment, including:

Electrical work

- Safe and controlled start-up methodology
- Clearly defined procedures for installation and commissioning
- Standard reporting
- Improved process operation and efficiency
- Warranty protection
- Record of parameters

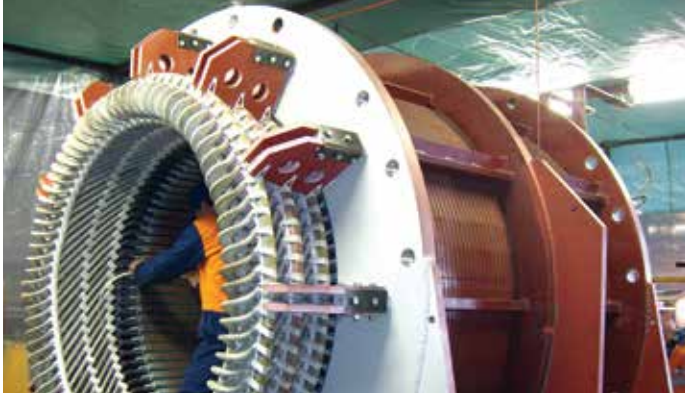
Replacement

As motor and generator technology advances, ABB Motor and Generator Service provide specialist mentoring on how to cost effectively and efficiently adapt your existing equipment or skilfully phase transition to the latest systems.

When motors and generators are in limited support phases, parts may no longer be available or repair cannot be completed within reasonable costs, so replacement is the only solution. In these cases ABB Motor and Generator Service provide the following support:

- Consultation on upgrading to the latest technology motors and generators
- Access to original schematics and specification for ABB motors and generators
- Energy assessments
- Life cycle cost analysis

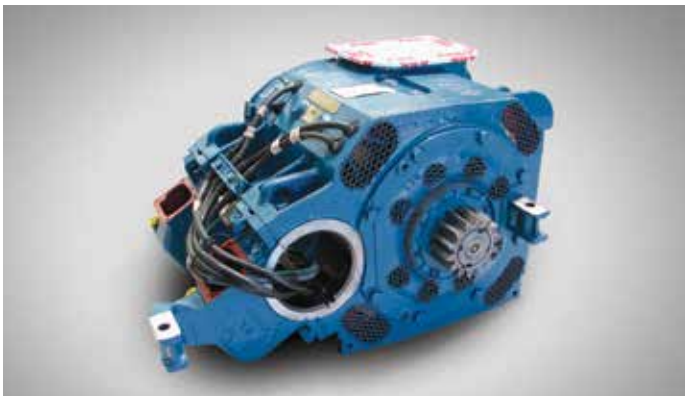
Workshop facilities



AC motor and generator rewinds, overhauls and refurbishment

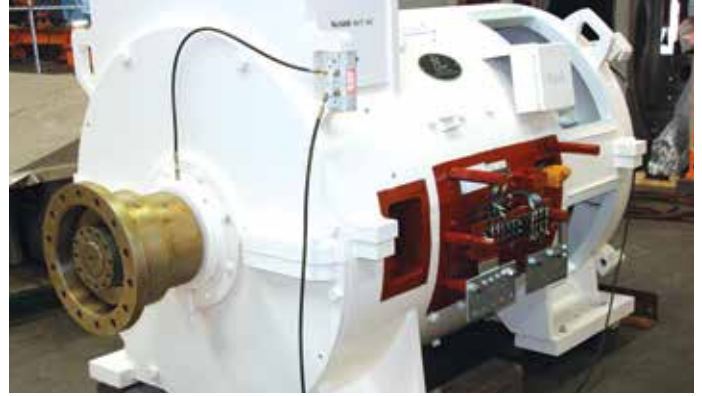
Repairs, rewinds and refurbishment work is carried out on motors and generators from several industrial sectors including power generation, mining, petrochemical, paper manufacturing and steel manufacturing. ABB Motor and Generator Service has the capability to repair some of the largest rotating machines in Australasia, including stators, gas turbine packages up to frame 9 weighing up to 230 tonnes.

In addition, ABB Motor and Generator Service has the capacity and expertise to repair, rewind and balance generator rotors up to 700MW for power generation companies in our region.



Traction motor AC and DC rewinds, overhauls and refurbishment

With more than 25 years collaboration with mineral haulage, freight and passenger train operators in Australia ABB has extensive knowledge of all brands and types of traction motors, alternators, generators and motor alternators used in locomotives and suburban fleets. Expertly providing performance and reliability improvements over and above OEM specifications has gained International recognition. Service activities include load testing of AC and DC machines.



DC motor rewinds, overhauls and refurbishment

Repairs, rewinds and refurbishment work is carried out on all of the various types of DC motors, from the steel and paper manufacturing industry through to general industrial businesses including plastics and packaging. Motor sizes range from small types of motors up to the largest DC mill motors in Australia.

We have the capability and expertise to rewind/repair armatures weighing up to 85 tonnes, low speed balancing of armatures up to 127 tonnes, repair and redesign of associated brush gear and commutators. All DC motors repaired are fully load tested at our work shop facilities.



Coil manufacture

We roll and insulate copper conductor which is used for the manufacture of AC and DC coils for all sizes. We also manufacture high voltage coils ranging from 150 KW to 200MW, voltages up to 13.8 KV.

Workshop facilities



Dynometer load testing

We have a number of Dynometers ranging from 3KW to 250KW and AC generators and DC machines up to 1MW when required.



Hazardous area equipment repair

All our workshop facilities are approved licenced repairers of hazardous area motors up to 20MW. All repairs and overhauls are carried out to relevant standards set out in AS/NZ 3800:2005 and IEC 60079-19.

Our local services centres are also accredited to complete approved modifications with re-certifications on ABB LV and HV motors.



Eddy current couplings and brakes

We have over 30 years' experience in the repairing and rebuilding of Eddy current coupling and brakes up to 2000KW including water cooled units. We are now seen as the experts in this field by mining and power generation companies in Victoria.

Repairs Include:

- Full reclamation of magnetic circuits to original manufactures specifications
- Manufacture of new clutch and brake coils to suit all makes and models
- Slip torque/load testing up to 2000KW



Low and high speed balancing

Our high speed balancing facility is capable of rotor balancing and over speeding of turbo alternator rotors to a size of 700MW 85 tonnes and a maximum speed of 3600 RPM.

This over speed and balancing facility is the only over speed facility in Australia, with nearly all turbo alternators in Australia that require balancing transported to our Geelong Facility during major outages.

Low speed dynamical balancing is performed on all AC squirrel cage rotors, AC wound rotors, DC armatures, turbine rotors and large fans. Capability up to 127 tonne, in house and on-site with the equipment being fully portable.



On-site service

We have extensive experience in the service, maintenance and repair of Rotating Electrical Machines. We offer a comprehensive onsite service and support capability to our customer throughout Australia and South-East Asia.

Services include:

- On-site rewinding to any size
- On-site insitu slip ring and commutator machining
- Trouble shooting, removal and recommissioning of large motors and generators
- Dynamical balancing up to 127 tonne including steam turbine rotors
- DC motor brush maintenance, including commutator profiling
- LEAP
- MACHsense

Condition monitoring

MACHsense

MACHsense continuously monitors key electrical parameters including temperature for establishing the condition of the cage rotor and bearings. Customers can access operating data and trend graphs via the internet. An alarm is triggered if a measured parameter exceeds set limits, giving the plant operator an early warning that maintenance is needed.

LEAP

Lifetime Expectancy Analysis Program is a unique Maintenance Tool for the Stator Winding Insulation of Electric Machines. LEAP provides information on Machine winding and expected life, and will optimise the Machine Maintenance Plans.

Contact us

Victoria - Melbourne

38 Sunline Drive
Truganina, Victoria 3029
Tel (03) 9398 4494
Fax (03) 9398 4830

Victoria - Geelong

79 St Georges Road, Norlane
Geelong, Victoria 3214
PO Box 222, Corio 3214
Tel (03) 5275 1017
Fax (03) 5275 3204

Queensland

1 Lavarack Avenue
Eagle Farm, Queensland 4009
Tel (07) 3632 4800
Fax (07) 3868 2711

Western Australia

11 Glassford Road
Kewdale, Western Australia 6105
Phone (08) 9353 1388
Fax (08) 9353 1106

Service and Support

1800 ABB HELP
(1800 222 435)
www.abbaustralia.com.au/motors&generators