

A technician in a dark t-shirt is working on a large, complex electrical rotating machine. The machine has a prominent red-painted metal housing with several layers of copper windings visible. The technician is focused on adjusting or inspecting a component. The background shows a well-lit industrial workshop with various tools and equipment.

Worldwide repair
and service for
electrical rotating
equipment



Inhoudsopgave

About Bakker Repair + Services	2
Inpections & Measurements	4
Bakker Motor Circuit Analyzer (BMCA)	5
Vibration measurement	6
Slide bearing inspection	7
Protection relays inspection	8
Diagnostic measurements HV	9
Thermographic measurement	10
Repair in our workshop	11
Overhaul	12
Balancing	12
Rewinding	12
Testing facility	12

Bakker Repair + Services, your partner for worldwide repair and services

Bakker Repair + Services has over 40 years of experience with repair and service of generators, electric motors, and transformers. Our value added services offer you high quality, short delivery time and good pricing. We have comprehensive knowledge on all brands and types and work completely independent. Bakker Repair + Services provides on site services to customers worldwide.

Strategically located for the marine and offshore sector

With less than one hour driving distance to Rotterdam, Antwerp and Amsterdam. Bakker Repair + Services is strategically located near the most important ports of Europe. This enables us to offer quick and agile support to our customers 24/7. We aim to perform work during the time window the ship is already docked. For example when (un)loading. In case more time is needed to perform repairs we offer the possibility to perform work during a trip.

Experience in various industrial branches

We are familiar with the specifics of each branch in the industry, from petro chemistry to paper industry. Therefore you can trust on a reliable partner which is familiar with your specific working methods, such as periodic stops, safety briefings and kick off meetings.

Safety, quality, and environment

Safety, quality, and environmental care are the basis of your business. Bakker Repair + Services believes that safety and environmental care are vital in her services. This is supported by our SCC** certification for safety, our IECEx 03 certification for explosive atmospheres and our level 3 CO2 performance ladder certification for reducing our impact on the environment. Bakker Repair + Services is also ISO 9001:2008 certified.

Inspections and Measurements

What is the current condition of your rotating electrical equipment? Unexpected damage has a great impact on the continuity of the process. Bakker Repair + Services offers the possibility to build up trends and discover potential failures in an early stage by periodically inspecting your generators and electric motors.

Bakker Repair + Services can perform mechanical and electrical inspections. During an inspection predetermined critical parameters are checked. Inspections offer valuable information which enables you to execute preventive maintenance efficiently. This offers the possibility to prevent breakdowns by executing works timely.



Bakker Motor Circuit Analyzer (BMCA)

During the BMCA measurement the condition of the following aspects are measured resulting in an analysis of the power quality and performance:

- ✓ Stator windings
- ✓ Rotor bars
- ✓ Insulation
- ✓ Polarisation index
- ✓ Winding resistance

Features:

- ✓ Online & offline measurements
- ✓ Mobile equipment
- ✓ Quick condition measurement, less than 1 hour per machine
- ✓ Suitable for high and low voltage
- ✓ Report including conclusions and recommendations





Vibration measurement

By measuring and analyzing vibrations, the condition of the following aspects are monitored:

- ✓ Bearings
- ✓ Alignment
- ✓ Coupling
- ✓ Windings
- ✓ Lamination

Features:

- ✓ Periodic measurements to determine machine condition
- ✓ ISO 18436-2 category 2 certified
- ✓ Report including conclusions and recommendations



Slide bearing inspection

A slide bearing inspection is a non destructive test to determine the condition of slide bearings. The following aspects are inspected:

- ✓ Bearing clearance
- ✓ Running surface
- ✓ Axial plane

Features:

- ✓ Non destructive testing (ultrasonic)
- ✓ Oil analysis (optional)
- ✓ Visual inspection
- ✓ Report including conclusions and recommendations





Protection relays inspection

A protection relays inspection inspects all protection systems of a machine, ensuring an automatic safety stop in case of an emergency. Amongst others the following parameters are checked:

- ✓ Over frequency
- ✓ Under frequency
- ✓ Over voltage
- ✓ Under voltage
- ✓ Over current

Features:

- ✓ Ensure the safety of your machine
- ✓ Report including conclusions and recommendations



Diagnostic measurements HV

A diagnostic measurement on high voltage generators and electromotors analyzes the quality of the windings by performing multiple measurements. This diagnostic measurement is especially focused on the windings of electromotors and generators. The following measurements are performed:

- ✓ Isolation resistance measurement
- ✓ Polarization index measurement
- ✓ Partial discharge measurement
- ✓ Tan-delta measurement

Features:

- ✓ Suitable for HV generators and electromotors
- ✓ Option to measure multiple HV machines in one day
- ✓ Combine with visual inspection
- ✓ Report including conclusions and recommendations





Thermographic measurement

During thermographic measuring the different heat levels in a machine are compared in order to detect (possible) damages in an early stage.

Features:

- ✓ Ability to measure complete installation (motors, generators, switchboards, drives)
- ✓ Detect possible bad connections, overload and internal dirt
- ✓ Analysis of aging components
- ✓ Report including thermographic images, conclusions and recommendations

Repair in our workshop

The modern workshop of Bakker Repair + Services measures 5500 m². It includes an impregnation facility, a mechanic workshop, multiple steam cleaning facilities, a welding facility, and a lifting capacity over 100 tons. High quality and short delivery times are our motto.



Overhaul

Bakker Repair + Services overhauls all kinds of high and low voltage AC and DC machines. We are IECEx O3 certified for explosion safety. The overhauling of your generator, electric motor or transformer is oftentimes a great opportunity to carry out additional value adding activities.

Since you want to be aware of the costs upfront, the work scope is determined together and additional work will be discussed.

Balancing

We have four computer controlled balancing machines and can balance all rotating parts conform with ISO 1940, including rotors, couplings, crankshafts and gears.

Rewinding

The winding shop of Bakker Repair + Services is designed to rewind all AC and DC generators and electric motors with a short delivery time. During the rewinding multiple tests are carried out to assure our high quality standard. Our certified and experienced winders can also fabricate coils and restore lamination.

Testing facility

As a quality assurance we test all repaired machines in our own specialized testing facility which consists of three testing fields. Whilst testing different aspects such as temperature, insulation resistance and bearings are measured. In case you have specific needs we are able to create custom testing procedure. Certified testing can be arranged.





We take care of it.

Visiting address

Ringerstraat 2
3364 BA Sliedrecht
The Netherlands

Mail address

P.O. Box 212
3360 AE Sliedrecht
The Netherlands

 +31(0)184 41 05 55

 info@bakker-repair.nl

 www.bakker-repair.nl

 /bakkersliedrecht