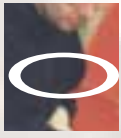




# Motor Maintenance



*Diagnostic  
On site rectification*



# Our Motor Maintenance Service

## Your needs

- To increase availability of machines
- To reduce maintenance costs
- To improve quality

## Our Motor Maintenance Service

- A national network of advisers
- Expertise in the field of commutators, brushes, brush holders
- Tested and patented technology for on site machining of commutators and slip-rings
- Training of engineers for maintenance of electrical machines and commutation (brochure ref. BE 23).

## Our means for your benefit

- Know how
- A patented technology
- Specialists

- Complete dimensional measurements
- On site refurbishment of your commutators, slip-rings and brush holders

- Fast refurbishment
- Complete quality control of the work done
- Submission of a written report containing work sheets

Using CARBONE LORRAINE's specific technology can reduce global monitoring and reconditioning costs.

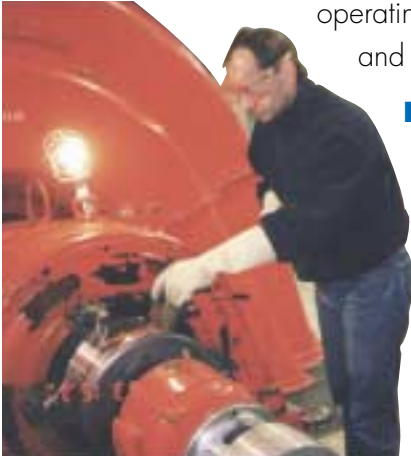
**We can work with you to study all possible means of reducing the downtime of your machines related to brushes.**



# For your maintenance

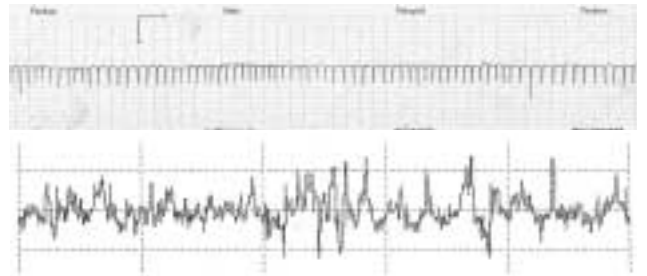
## Measurement and diagnostic

- Brush diagnostic (matching with the mechanical and electrical characteristics of the motor, operating conditions and application)



- Out-of-round measurements
- Commutator profile measurements
- Spring pressure measurements

- Inspection on brush holders
- Inspection and dynamic adjustment of the neutral
- Roughness measurements



## On site rectification

When a motor malfunction is limited to the commutator or the slip-ring condition, there is no need to remove the motor which introduces risks; it is expensive and takes a

long time. Our on site rectification technique optimises the conditions under which the



commutator or the slip-ring operates, without needing to remove the motor.

- Feasibility study on rectification of the commutator or slip-ring (safety, drive, tooling required, etc.)
- Motor driver by our special power suppliers
- Undercutting commutator bars
- Final dimensional checks (roughness, out-of-round and profile).

We are using a patented technology which can quickly rectify the machine without polluting inside the machine with debris.



The Motor Maintenance Service works on all types of machines; alternators, generators, industrial DC motors, traction motors, motors with rings.

**Please refer to our technical guide (ref. BE 2) if you would like any further information about the use of brushes.**

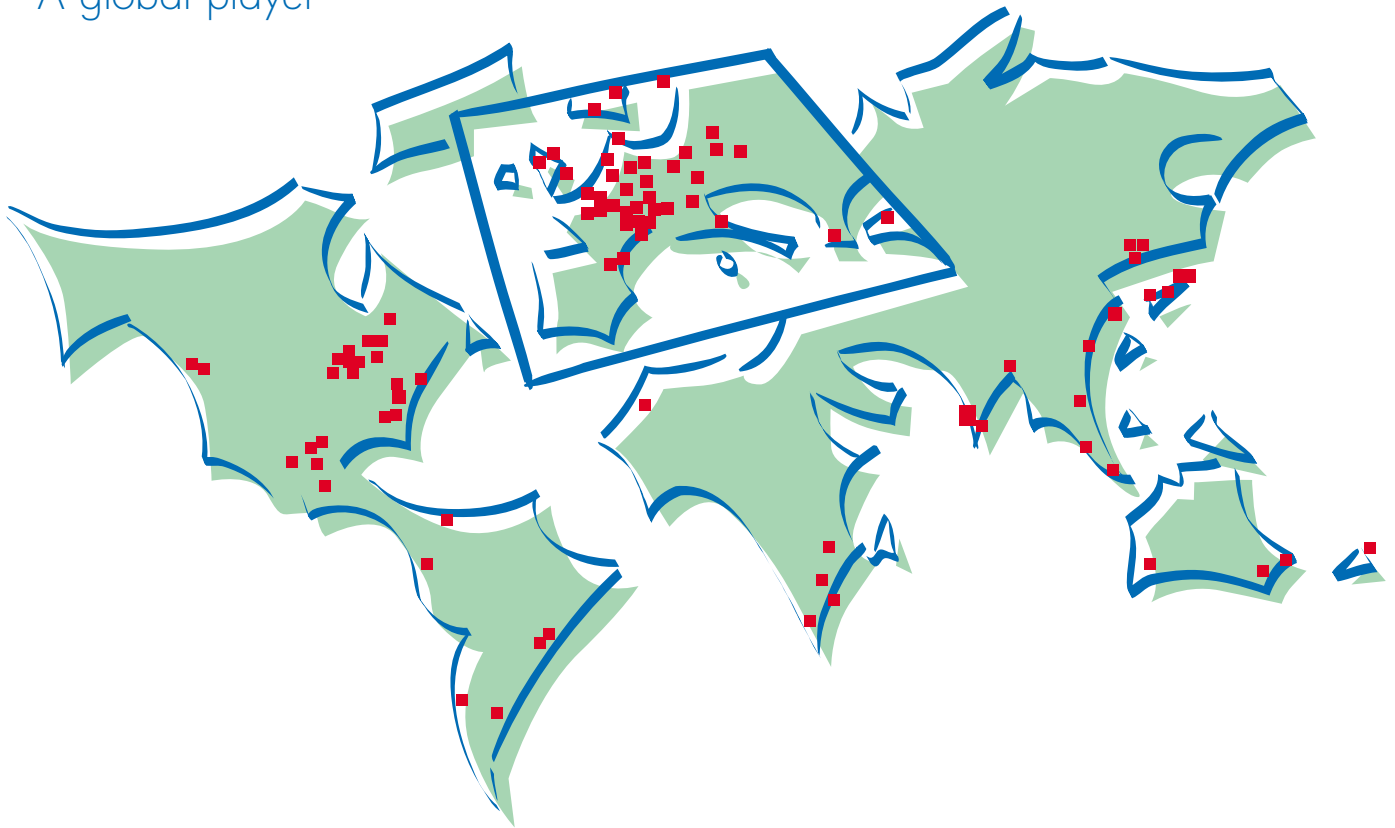
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## A WORLD LEADER in the field of brushes for electric motors

Since its founding in 1892, CARBONE LORRAINE has built up an international reputation by creating subsidiaries on all continents. Today with industrial and commercial plants scattered in more than 30 countries, agencies and representatives in more

than 70 countries and 250 commercial contacts throughout the world, CARBONE LORRAINE offers its customers everywhere reliable high technology products and the service of its experienced technicians.

## A global player



RCS Nanterre B 572 060 333

HEADQUARTERS: Immeuble La Fayette - La Défense 5  
TSA 38001  
F-92919 PARIS LA DÉFENSE CEDEX  
FRANCE

CARBONE LORRAINE  
APPLICATIONS ELECTRIQUES  
10, rue Roger Dumoulin  
F-80084 AMIENS Cedex 2  
FRANCE

Tel. : +33 (0) 3 22 54 46 62  
Fax : +33 (0) 3 22 54 47 84

[www.ELEC.CARBONELORRAINE.com](http://www.ELEC.CARBONELORRAINE.com)  
[www.CARBONELORRAINE.com](http://www.CARBONELORRAINE.com)