

EXTELEC Training (on customer's site)

Customer:

Name:
Email:
Telephone:
Address:

Mersen representative:

Name:
Email:
Telephone:

BASIC OPTION: 1 day

● **Fundamentals of the carbon brush:**

- Carbon brush design and role of its components.
- Grades categories, their characteristics and manufacturing methods.

● **Functions of carbon brushes, brush-holders, slip rings, commutators and their roles:**

Explanation of essential parameters for good operation (functioning) of the carbon brush:

- Electrical parameters: voltage drop, current density, operating cycle, sparking, electrical losses, etc.
- Mechanical parameters: setting up, roughness, out of round, pressure, peripheral speed, vibrations, mechanical losses, etc.
- Environmental parameters: pollutions, hygrometry, temperature etc.
- Commutator's film creation and maintenance, issues related to the environment and solutions.

● **Analyzing motor malfunctions by observing the condition of the carbon brushes, commutators and slip ring assemblies:**

Commutator film and sliding surfaces analysis

Please precise the type of machines:

- DC machines
- Asynchronous motors or generators
- Synchronous motors or alternators

*This part of the training can be presented in class room, or during machines visit.
In case of machines visit, please ensure their availability.*

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PLEASE CHOOSE YOUR OPTIONS:

Reminder of electricity basis (1 h)

Mersen recommends this option as a requirement for Basic option.

Commutation – DC machines (3 h) – available in French only

DC Machine operating parameters, essential elements constituting the machine and their role, commutation basis.

Carbon brush and synchronous machines (1 h)

Basis reminder, essential elements constituting the machine and their role, applications (ghosting effect, polarity inversion, reactive mode functioning).

Using diagnostic and control equipment (1 h)

CL Profiler, dynamometer, roughness meter.

Wind Extelec:

Wind turbine generators (1 day):

Maintenance of carbon brushes, brush-holders and slip rings:

- location and functions of products,
- carbon brushes seating,
- cleaning procedure,
- troubleshooting

If you would like that Mersen provides you a specific training which is not included into options available, please make a request.

Date of the Training:

Mersen reserves the right to change the date requested according to the availability of trainers.

Number of participants:

10 people at maximum.

Electrical machines types:

please precise the type of electrical machines used

For more information: infos.amiens@mersen.com