



PROCESS INDUSTRIES

ELECTRICAL SOLUTIONS FOR STEEL MILLS



- CARBON BRUSHES
- BRUSH-HOLDERS
- SLIP RING ASSEMBLIES
- SERVICES



HIGH QUALITY ENGINEERED SOLUTIONS



- Our solutions are based on over 120 years of experience in the field. Working in different countries, applications and environments, we know what works and how to improve performance. We provide our customers with a large range of solutions, each adapted to a specific need. Our strength is our experience, our knowledge and our ability to design solutions paying attention to detail in every step of the manufacturing process.
- Our solutions for steel mills are carefully selected from high quality materials and are manufactured on cutting-edge equipment (CNC machines, broaching machines, computer aided measuring instruments, high precision microscopes...). They benefit from high precision assembling and respect industrial international standards (IEC, NEMA, ASTM, SAE, DIN...).
- We test our solutions for optimum performance in a variety of load and environmental conditions, helping our customers to reduce their maintenance costs. We have the knowledge to reengineer existing solutions and create new maintenance tools to improve the performance of steel mills equipment.

Aside from electrical solutions, Mersen can provide you with a large range of mechanical, sealing and equipment protection solutions.

WHY MERSEN ?

A WORLD LEADER COMMITTED TO PROCESS INDUSTRIES

A world leading supplier of power and signal transfer solutions, Mersen contributes to the proper functioning of steel mill equipment (grinders, rolling mills, galvanization lines etc.). We provide iron and steel factories, maintenance and repair specialists with high quality engineered solutions tailored to various operating conditions (temperature, dust, corrosive atmosphere, etc.), designed and tested for reliability and optimum performance.

EXPERTISE, KNOWLEDGE AND EXPERIENCE

Our company has been working with electrical rotating machinery for more than 120 years. We are experts in motors and generators and this is the primary reason our customers come to us. They know we provide solutions that aim for the complete product life cycle (development, manufacture of materials, product design, quality control, distribution, technical expertise and training). We offer reliable solutions and the benefit of our extensive knowledge, years of experience and strong expertise.

SOLUTION-ORIENTATED APPROACH AND R&D POLICY

We work in partnership with our suppliers to create the right solution to improve the performance of our customers' applications. This solution-orientated approach motivates our Research & Development facilities and enables us to provide innovative solutions. Our Research & Development teams are international and combined with our comprehensive test facilities work on a wide range of subjects for all our sectors of activity, allowing us to meet today the market requirements of tomorrow.

SERVICES

On the 5 continents, our engineers and technicians provide specific services to optimize the performance of steel mills:

- On site services (cutting, grinding, bevelling and undercutting of commutators, etc.)
- Diagnostics (commutator and slip ring profile analysis, surface roughness and carbon brush pressure measurements, axial and circumferential stagger analysis, carbon brush studies considering the machine and its environment)
- Technical support
- Training
- Specifically designed measuring tools

QUALITY AND ENVIRONMENT

Our 56 manufacturing facilities are registered to ISO quality and environmental standards. This ensures that we can provide our customers with manufacturing sites that implement quality manufacturing processes and respect environmental standards.

SUSTAINABLE DEVELOPMENT

Here at Mersen, we believe it is possible to achieve our company's goals while respecting environmental issues and social progress. This explains why we make sure that an environmental approach is always adopted during the life cycle of every solution. As an example, we have developed lead free carbon brushes and offer recycling programs to our customers.

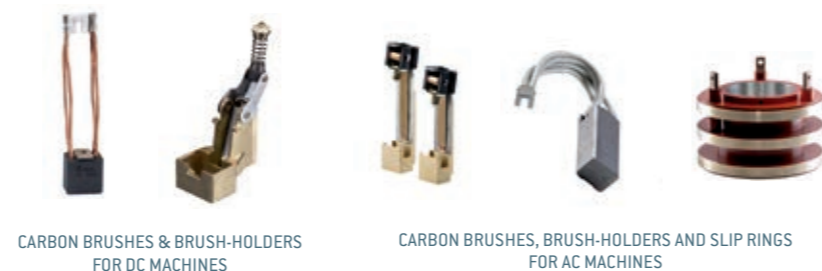
SOLUTIONS & SERVICES FOR STEEL MILLS



Foundry & furnace

01

Various applications for electric machines can be found in this section: conveyor belts, extractors, cranes, grinders. Mersen provides parts for any type of these electric motors or generators.



CARBON BRUSHES & BRUSH-HOLDERS FOR DC MACHINES

CARBON BRUSHES, BRUSH-HOLDERS AND SLIP RINGS FOR AC MACHINES

Hot rolling mills

02

Very large DC machines are used in this application; they are subject to difficult operating conditions: low or excessive humidity, repetitive operations. Your Mersen specialist will recommend to you the most suitable combination of brush-holders and carbon brushes.



CARBON BRUSHES & BRUSH-HOLDERS FOR HOT ROLLING MILLS

Cold rolling mills

03

Operating in extremely corrosive atmospheres, DC machines in cold rolling mills often experience excessive brush wear. To solve this problem, Mersen has developed specific brush grades impregnated with additives that lubricate the commutator and extend brush life.



CARBON BRUSHES

BRUSH-HOLDERS

Galvanic lines

04

This application takes place in an extremely corrosive atmosphere that impacts carbon brush life. Specifically designed for galvanic lines, Mersen's carbon brushes are manufactured with a high copper content to endure corrosion.



POWER TRANSMISSION SYSTEMS WITH CARBON BRUSHES & BRUSH-HOLDERS

CARBON BRUSHES

- Selected materials: graphite, copper, silver...
- Lead free carbon brushes available
- High electrical conductivity
- High quality tamping
- Optimized cable dimensions
- Specific design
- Brush wear warning systems / Monitoring
- Running in different loads
- Respect of commutators & slip ring assemblies
- Good commutation
- Long life

BRUSH-HOLDERS

- Wide range: metric & imperial systems
- Moulded
- Pressure system: wound or coil springs
- Single or multiple boxes
- Side attachment on arms
- Brush-holder attachment arms
- Brush wear warning systems / Monitoring
- Complete brush-holder & rocker rings
- Selected materials: non-ferrous alloys, anti-corrosion...
- Customized designs
- Die casting
- Stamping
- Reinforced plastic injection
- Metal guide rails

SLIP RING ASSEMBLIES

- Selected materials: non-ferrous alloys, stainless steel, dielectric materials...
- Customized designs
- Reinforced plastic injection
- Finished product compliance: balance, dielectric testing

SERVICES

MOTOR & MAINTENANCE SERVICES

- Expertise
- Diagnostics
- On site intervention
- Refurbishing & re-engineering of solutions and components

TRAINING

- Led by technical experts
- According to a defined curriculum or adapted to specific needs
- Transfer of skills
- At either our location or our clients'

TOOLS & MEASURING DEVICES

- CL-Profilor
- ComPro2000™
- Grinding stones
- Mica undercutters
- Dynamometers
- Stroboscopes
- Alarm boxes
- Roughness meters
- Grinders & accessories
- Saws
- Scrapers
- Slotting files



PTT-Process-Steel-EN-1610- Design by HENRY & SIEGLER - Photos : @RicAguilar/Stock - @PhotoAlto sas/Alamy Stock Photo -
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