



ENERGY

SOLUTIONS
& SERVICES FOR
HYDRO POWER



- CARBON BRUSHES
- BRUSH-HOLDERS
- SLIP RING ASSEMBLIES
- DUST COLLECTION SYSTEMS
- MONITORING
- CARBON SEALS
- SERVICES

HIGH QUALITY ENGINEERED SOLUTIONS

Our solutions for hydro power plants are made of carefully chosen quality materials, manufactured on cutting-edge equipment (CNC machines, broaching machines, computer aided measuring instruments, high precision microscopes...). They benefit from high precision assembling and conform to industrial international standards (IEC, NEMA, ASTM, SAE, DIN...).

We test our solutions for optimum performance under all loads and environmental conditions, thereby helping our customers to reduce maintenance costs. We have the knowledge to reengineer existing solutions and create maintenance tools to improve the performance of hydro power plants.



CARBON BRUSHES

- Renowned grades (e.g. CG651, EG34D, EG389P, L1, M44A)
- Selected materials: graphite, copper...
- High electrical conductivity
- Good mechanical stability
- Low friction coefficient
- Low resistivity material
- Wide speed range (15 to 55 m/s)
- Specific design



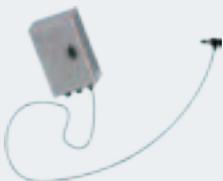
BRUSH-HOLDERS & BRUSH GEAR

- Wide range: metric & imperial systems
- Selected materials: non-ferrous alloys, anti-corrosion...
- Molded, machined, die-cast, stamped
- Single or multiple boxes
- Fitted with independent pressure system: tension or coil springs
- Brush-rocker assemblies
- Brush-holders with Mersen DustCollector systems are available
- Customized designs



SLIP RING ASSEMBLIES

- Selected materials: non-ferrous alloys, stainless steel, insulation dielectric materials...
- Plain or helically-grooved rings
- Finished product compliance
- Customized designs



MONITORING

- Carbon brush wear warning systems
- Alarm boxes
- Stop & Go for Mersen DustCollector

SERVICES

- Motor maintenance services
- Training
- Tools & measuring devices

POWER INTERCONNECTION (UTILITY)

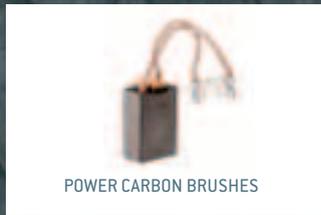
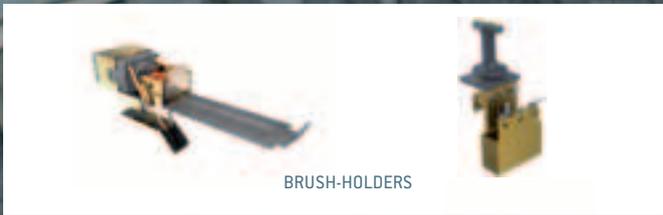
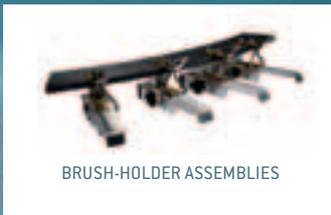
- High power switches

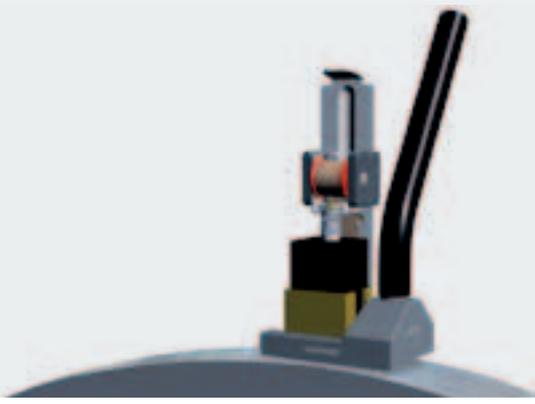
STATIC SEALING (FLUID HANDLING)

- Papyex® gaskets
- DC switches

WATER

SOLUTIONS & SERVICES FOR HYDRO POWER





MERSEN DUSTCOLLECTOR CARBON DUST COLLECTION SYSTEMS

A SMART CONCEPT DESIGNED TO PREVENT SHORT CIRCUITS CAUSED BY LOW INSULATION RESISTANCE BETWEEN ACTIVE COILS AND GROUND

- Requires minimal maintenance
- Completely integrated and customized with plug & play concept
- Designed for new, retrofit and refurbished hydro generators (up to 900 MW)
- Annual preventive maintenance service
- Monitoring (an option)

A RELIABLE SOLUTION FOR BETTER HYDRO GENERATOR EFFICIENCY AND INCREASED HYDRO GENERATOR RUNNING TIME

- Studies performed by Mersen design offices
- Selection of high quality materials
- Tested on our test benches
- Conforming to international standards (HEPA, CE, UL, CSA)
- Installation and set up by Mersen experts



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



CARBON SEALS

- Adjustable orientation of segmented seals
- Designed with overlapping to improve sealing performance
- Customized design and material for ease of fitment
- Self lubricating properties / Linear speeds up to 50 m/s
- Extended life solutions / Suitable in abrasive conditions
- Proven solutions on this application for over 40 years



PTT-Energy-Hydro-EN-1605 - Design by HENRY & SIEGLER - Photos : Photothèque Mersen - @Sily K./Fotolia



GLOBAL EXPERT IN ELECTRICAL
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