

ZOOM

MERSEN DUSTCOLLECTOR

CARBON DUST COLLECTION
SYSTEMS FOR HYDRO
GENERATORS



**DESIGNED TO AVOID SHORT CIRCUITS
CAUSED BY LOW INSULATION RESISTANCE**

A SMART CONCEPT

- ✓ Minimal maintenance
- ✓ Completely integrated and customized with **plug & play concept**
- ✓ Designed for **new, retrofit** and **refurbished** hydro generators (up to 900 MW)

MERSEN PROPERTY

BETTER HYDRO GENERATOR EFFICIENCY

- Over 90 %* of carbon brush dust is suctioned at its source, to avoid dispersion all over the machine
- They offer higher reliability for continuous power production

INCREASED HYDRO GENERATOR RUNNING TIME

- There is less cleaning maintenance

* Efficiency value measured during 5 internal tests on slip ring test benches under specific conditions. This result excludes all brakes applications. For more detail please contact us.

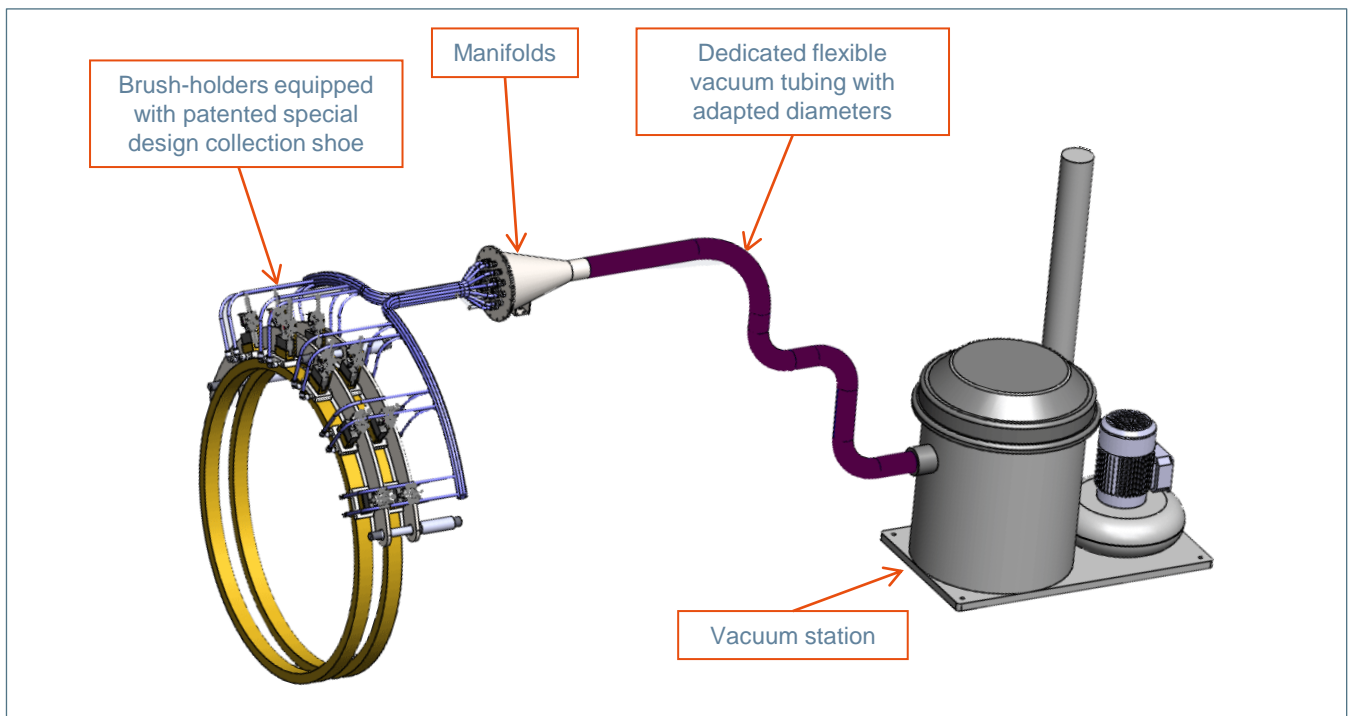
A RELIABLE SOLUTION

- ✓ Studies by Mersen's design offices
- ✓ High quality materials
- ✓ Conformity to CE international standard



If oil vapor is present, it will seriously affect the MERSEN DustCollector's performance.

MERSEN DUSTCOLLECTOR OPERATING BLOCK DIAGRAM



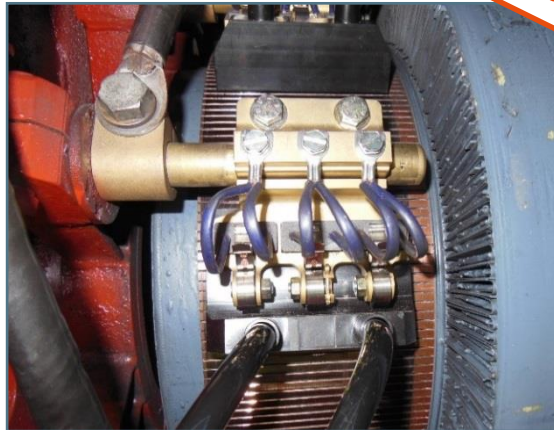
MERSEN DUSTCOLLECTOR OFFERS CONSIDERABLE BENEFITS:

- ✓ Accurate air suction calculation to collect carbon dust **without causing a depression** inside the hydro generator
- ✓ **No effect on carbon brush and slip ring temperatures**
- ✓ **Durability** of components
- ✓ Quick replacement of components with **plug and play concept**
- ✓ Installation and set up by Mersen's experts
- ✓ Optional **monitoring**

MERSEN PROPERTY

DUST SUCTION SHOE

PATENTED BY MERSEN



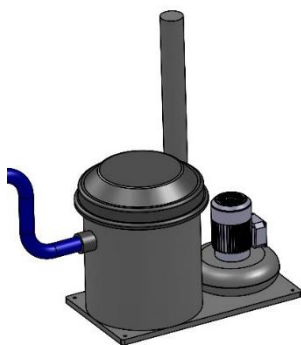
| | |
|-----------------------|--|
| Operating temperature | -40 to 100°C (-40 to 212°F) |
| Material | POM-C |
| Mechanical resistance | Over 50 MPa (exceptional mechanical resistance) |
| Electrical resistance | High insulated |

TUBING



| | |
|-----------------------|---|
| Operating temperature | -40 to 100°C (-40 to 212°F) |
| Material | Polyamide |
| Mechanical resistance | Flexibility and exceptional mechanical resistance |
| Wear resistance | High abrasion resistance |
| Safety | Not flammable |
| Electrical resistance | High insulated (tested under 10 kV) |
| Installation | Quick and easy installation |

INDUSTRIAL VACUUM UNIT



| | |
|-----------------------|---|
| Duty cycle | 24/7 |
| Operating temperature | -10 to 40°C (14 to 104°F) |
| Low noise level | < 85 dB |
| Filter | Removable filter with manual unclogging |
| Dust tank | Removable dust tank |

MERSEN PROPERTY

MAIN BENEFITS FOR THE USERS

SAFETY AND HEALTH FOR THE OPERATORS

- ✓ Over 90 % * of carbon dust is suctioned at its source, to avoid dispersion all over the machine and inhalation by the operators



STRONG REDUCTION OF THE NUMBER OF FLASH-OVER OCCURENCES

- ✓ Cost savings on repairs
- ✓ Maximized performance



MAINTENANCE COST REDUCTION

- ✓ Preventive maintenance
- ✓ No need to perform coil cleaning by dry ice blasting

BETTER RELIABILITY TO MAXIMIZE THE BENEFIT FOR ELECTRICAL PRODUCTION



OVER 400 UNITS ALREADY INSTALLED IN MORE THAN 30 COUNTRIES

Australia, Austria, Brazil, Burundi, Canada, Chile, Colombia, Croatia, Czech Republic, Finland, France, Germany, Guatemala, Hungary, Iceland, India, Ireland, Italy, New Zealand, Norway, Peru, Portugal, Russia, Serbia, Spain, Sweden, Switzerland, Turkey, UK, Ukraine, USA, Vietnam, Zambia.

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MERSEN PROPERTY

Contact: info.ptt@mersen.com

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