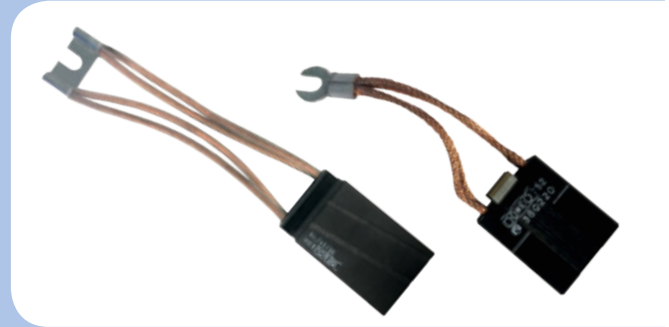


Advanced Electrical Materials for Traction

Traction Overview



Rev I. Eng. 2020

Morgan Advanced Materials is a leading global supplier in the railway industry providing products, services and solutions for electrical motors and current collector systems.

We offer technical support and training to assist you in selecting the optimum solution with respect to performance and life of the motor and current collecting system for your transport vehicles.



Carbon Brushes and Carbon Contacts

Morgan Advanced Materials is a high performance brush manufacturer with over 100 years experience in serving the traction industry, offering National and Morganite products. Experience has ensured that we can advise the correct grade when considering DC traction systems that witness increased levels of vibration and thermal shock as a result of rapidly changing load currents and increased harsh conditions experienced through thyristor control and regenerative braking.

Morgan Advanced Materials, a global leader in the traction brush market, supplier to key OEM's and major railway companies, provides optimisation of brush/commutator performance.



Brush Holders & Insulators

Morgan Advanced Materials design and manufacture brushgear for a wide range of traction applications including mainline, suburban, metro and tramways. The arduous operating conditions are recognised in our design and production criteria.

We also offer end mounted assemblies complete with support and terminal pins, double ended mounting pins, pillars and stand off pillars, moulded in either high strength GRP or mica glass for high temperature requirements.



Earth Return Units

Morgan Advanced Materials have developed Earth return units for traction applications to provide a reliable and safe system to prevent the current from flowing to the bearings and safely earthing the current, which in turn reduces maintenance costs by protecting the bearings.



Auto Coupler Contacts

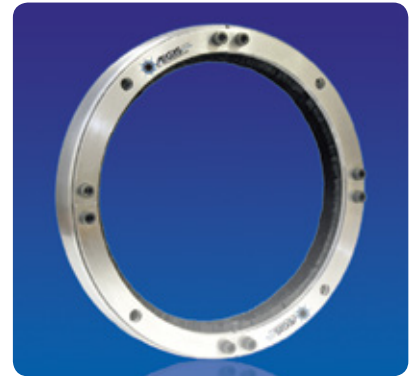
Morgan Advanced Materials manufactures a wide range of high quality contacts used for a variety of coupling systems across the globe.

Morgan are a major OEM supplier of electrical contacts.

We also have the capability to reverse engineer contacts or to re-design existing contacts to improve reliability and ease maintenance.

Aegis SGR™ Shaft Current Grounding System

The Aegis SGR™ shaft current grounding system is used for diverting damaging shaft currents on frequency-controlled machines, thus protecting bearings and other sensitive components. Morgan Advanced Materials has exclusive rights of distribution throughout Europe for the Aegis SGR™ shaft current grounding system.



Collectors

Morgan Advanced Materials offer carbon and metalised current collector strips, and assemblies for pantograph, third rail shoe and trolley bus applications. We cover all your requirements from 600v through to 25KV, whether on mainline rail, light rail systems or tramways, local speed through to high speed we have the current collection solution for your needs. With our material expertise and global application engineering experience we have optimised our materials, ensuring long life and high performance of both the collector and overhead wire or rail.



Wheel Flange Lubrication

Morgan Advanced Materials have developed a range of solid lubrication products for Wheel Flange Lubrication. Through our materials expertise a number of materials have been developed to meet varying requirements of different rolling stock types, and performance improvements have been witnessed in terms of lubrication properties, film retention and product life based on arduous conditions seen in modern day service operation.



Terminal Blocks

Terminal blocks suited to a wide variety of applications including AC/DC motors and conductive jumpers in different dimensions and bolt sizes (M3-M16, rated voltage from 440 to 2000 V). Over 200 standard designs including explosion-proof and UL rated materials. Lead sizes from 2.5mm² to 25mm²



Measuring Equipment and Accessories

For maintenance and inspection Morgan Advanced Materials supply a range of inspection devices for use with rotating electrical machines: Commutator and Slipring Profiler for measuring concentricity, stroboscope and digital spring pressure measurement.

Morgan Advanced Materials also offer an extensive range of products for commutator and motor maintenance including the Martindale brand.



ABOUT MORGAN ADVANCED MATERIALS



Morgan Advanced Materials is a global engineering company offering world-leading competencies in materials science, specialist manufacturing and applications engineering.

We focus our resources on the delivery of products that help our customers to solve technically challenging Problems, enabling them to address global trends such as energy demand, advances in healthcare and environmental sustainability.

What differentiates us?

Advanced material science and processing capabilities. Extensive applications engineering experience. A strong history of innovation and reinvention. Consistent and reliable performance. A truly global footprint. We find and invest in the best people.

For all enquiries, please contact our sales and manufacturing sites:

UK and Ireland

Morgan Advanced Materials
Upper Fforest Way
Swansea, SA6 8PP

T +441 792 763 112
F +44 1792 763 167
medsales@morganplc.com

Hungary & Czech Republic

Morgan Advanced Materials
Morgan Hungary Ltd.
Csillagvirag Str. 7
H-11 06 Budapest

T +36 1 265 0302
F +36 1 505 6776
sales.hungary@morganplc.com

Italy

Morgan Advanced Materials
Morgan Carbon Italia S.r.l.
Via Roma, 338
64014 Martinsicuro (TE)

T +39 0861 798205
F +39 0861 760165
vendite.elettrico@morganplc.com

Germany, Austria & Switzerland

Morgan Advanced Materials
Morgan Electrical Carbon
Deutschland GmbH
Zeppelinstr. 26
D-53424 Remagen

T +49 2642 9040-0
F +49 2642 9040-251
salesde@morganplc.com

Turkey, Middle East & North Africa

Morgan Advanced Materials
MKGS Morgan Karbon Grafit Sanayi A
Osmangazi Mah. 2647. Sok. No:27/3
Kıraç 34522, Esenyurt, Istanbul
Turkey

T +90 212 671 3287
F +90 212 549 4872
MorganKGS@morganplc.com

Poland

Morgan Advanced Materials
Morgan Carbon Polska sp. z o.o.
Ul. Topolowa 4, Blizne
Laszczynskiego
05-082 Stare Babice

T +48 22 722 0393
F +48 22 722 0238
biuro@morganplc.com

Spain & Portugal

Morgan Advanced Materials
Morganite Española S.A.
c/ Juan Pablo 11, num 6, 2ª-A
12003 - Castellón

T +34 9366 22404
F +34 9366 26687
spainsales@morganplc.com

France

Morgan Advanced Materials
Morgan Carbon France
6, Rue du Reservoir
68420 Eguisheim

T +33 389 210960
F +33 389 412417
commercial-france@morganplc.com

BeNeLux & Scandinavia

Morgan Advanced Materials
Morgan AM&T B.V.
De Oude Veiling 3
1689 AA Zwaag

T +31 229 2555-55
F +31 229 2555-41
salesNL@morganplc.com

India

Morgan Advanced Materials
Morgan Advanced Materials India Private Ltd
C116, Sector 2, Noida - 201301,
Uttar Pradesh

T +91 120 497 3747
F +91 120 497 3740
morgan.india@morganplc.com

Morgan Advanced Materials plc
Upper Fforest Way,
Morrison, Swansea, SA6 8PP United Kingdom

www.morgancarbon.com
www.morganadvancedmaterials.com