



**Perfect current transmission for railway technology**

carbon products & supplies for industry



## Carbon brush

Most modern traction vehicles are equipped with brushless motors, however due to the large percentage of installed motors with carbon brushes the Carbonex continues to search in new developments material. The average usable life expectancy carbon brush in traction vehicle is 30 years.

The high market share that our carbon brushes enjoy is in no small degree due to our competent technical advice and the ambitious implementation of customer demands into new materials.

With Carbonex, you can be sure that you will continue to have a dependable partner and supplier at your side.



*Runs like dockwork. Carbonex carbon brushes and brush holders guarantee the best electric contact, high temperature and heat shock resistance and good mechanical resistance*

## Extensive Production Knowledge

Due to our extensive know-how and our high quality standards, we have earned an outstanding reputation with train designers and railway companies alike, and are considered to be one of the leading suppliers in the world for the parts we manufacture. Hundreds of railway companies is our customers.

## Carbonex Carbon Graphite

CARBONEX manufactured carbon brushes for railway vehicles for several decades. Sliding contacts, in the form of carbon brushes, are an important element of current transmission. Due to their special qualities, our carbon based materials have also excelled in this area. What is particularly impressive about CARBONEX carbon brushes is their wear resiliency, their collector saving operation and their commutation properties.



*Twin carbon brushes for traction motors of Railways*



## Current Transmission – Railways

Carbonex has been developing and manufacturing top quality products for railway technology for more than 37 years. Carbonex products such as carbon brushes, brush holders, brush rockers, earthing contacts, as well as collector strips, pantographs and third rail systems are used worldwide.

Carbonex products you can use:

- high speed trains
- long-distance trains
- electrical trams and traction vehicles

We have 2 production sites in the fields of industrial engineering and railway technology. Our customers profit from our know-how, for example in materials development.

## Grounding Contacts

CARBONEX is one of the market leaders for grounding contacts. The production line CARBONEX produce radial- and axle end-contacts for all applications. Our grounding contact revolutionized the technology of grounding contacts and introduced new dimensions for maintenance intervals. Our grounding contacts are used around the world and almost all railway companies is the number one our customers.

## Carbon Collector Strips

CARBONEX is one of the biggest supplier of carbon collector strips using special bonding technique. All carbon collectors strips are characterized by their high degree of operational reliability outstanding temperature resistance, stable performance throughout the usable lifetime, resilience to corrosion and excellent emergency-running. Other standard features is the reliability under the extreme environmental conditions. In addition to the exceptional electrical load capacity and the long durability of our collector strips, the CARBONEX 's customers appreciate their ease of maintenance and environmental friendliness. Also we have demonstrate innovation, through the multiplex use of components, low noise sliding contacts and lead free metal impregnation.



Conventional and carbon-carbon grounding contacts



Progress and reliability:  
Carbonex grounding contacts



Integral collector strip  
with carbon coated  
run-off horn



Pantograph with the highest  
degree of lateral rigidity,  
individually suspended  
collector strips and  
hydraulic frame damping



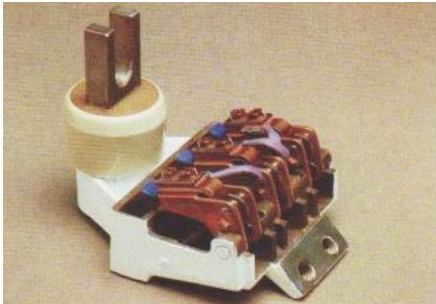
Pantograph for third rail  
systems, self insulated,  
with maintenance-free  
bearings

# Current Transmission Railway

## The largest Product Range on the Market for Traction Brush holders

Although the number of direct current and mixed current traction motors being built today is decreasing, there is still a very large number of such motors in use worldwide. CARBONEX supply some 700 different train brush holder systems as well as complete brush rockers. With this product range we cover the wide range of systems being used today.

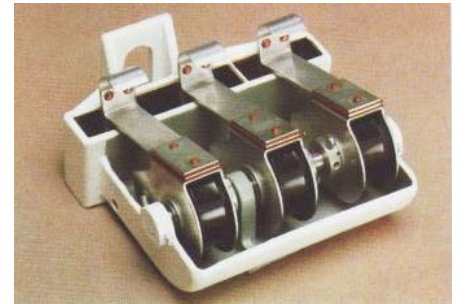
*One of the most important models for locomotives, for traction motor brushes, and holders and ground contacts*



*Brush holder for traction motors. Casting brush holder with three boxes, flange to easily adjustment in the rockers*



*Double brush holder with finger springs. Casting brush holder with two parallel boxes, different design*



*System pressure: KC • Brush Holder design. Three piece Brush Holder mounted: Saw collar*



*Carbonex makes 700 different design brush holders for traction vehicles for new traction motors as well as servicing and maintenance*

# Current Transmission Railway

## Your Global Partner for all Railway Products

If you have new projects in the rail vehicle electric buses, trolleybuses, used brushes, brush holders, rockers, grounding contacts, carbon strips, pantographs and third rail contacts then you should contact us by all means. The CARBONEX will advise you on an international level in the world with the expertise and experience and will offer you a reliable solution.



carbon products & supplies for industry





[www.carbonex.gr](http://www.carbonex.gr)

VASILIADIS BROS  
Carbon Brushes & Trading of Brush Holders

18 Attalias Str. -P.O. 142 31  
N. IONIA, ATHENS, GREECE

Tel: (+30) 210.27.56.961  
Fax: (+30) 210.27.76.637

e-mail: [carbnext@yahoo.gr](mailto:carbnext@yahoo.gr) | [carbonex@carbonex.gr](mailto:carbonex@carbonex.gr)