Brush slip ring: fiber loop (mfb) for the brush

Engineering

B-retaining ring (Diana’s electric ring, continuous transmission of electric power transmission, with the fixed spirals of control and data member rotating is towards the rotation of the rotor through the friction rings.) and the electric rotor through contact contact brushes. We also make brushes with cleaning inserts to reduce the erosion of the collector ring. Saturation and processing brushes can also be used to protect the slippery surface of the ship from contaminated environments.

Applications of high speed turbines

Helwig carbon H702 and H704 are widely used in the offices of Alice Chalmers, ABB, General Electric and Westinghouse around the world with a low coefficient of friction. The brush holder and brush designs provide reliable maintenance and low maintenance. Many popular models of carbon brushes are full. Find the brush you need in our Power Generation catalog

Slow hydroelectric applications

Helwig Carbon has many good materials for use in slow hydraulic applications. We offer solutions that provide a longer service life and less maintenance in the secondary market. Our experienced technical team works closely from the concept to the final design of new projects. It also provides technical assistance to solve problems and present existing projects. Qualified and experienced sales representatives can visit the website to assess your needs.

What is the fiber loop (MFB) for the brush?

The floating electrical connections used to transmit electrical signals or currents between two large surfaces in relative motion can be a significant load for the service. Many suppliers of high-performance graphic brushes

and other large-volume metal brushes to improve the vehicle’s electrical properties are subject to other basic obligations, still known as carbon brushes, although the brush is slippery. Some manufacturers introduced the so-called “ mineral fiber brush”. These brush rings are usually made of expensive gold bars. These brushes indicate some defect based on the carbon brush, but the friction fiber due to the surface fibers easily oriented, because sequentially excessive in the transverse direction, it has a relatively short life and therefore are not particularly suitable for high precision applications high speed and.

Marketing of military equipment

Electrical equipment requires high reliability, which requires little maintenance, since submersibles operate independently in remote areas and remain flooded for long periods of time. , Has developed a new electric toothbrush for sliding makes electric several years the Virginia Armada, Hiperco, LLC, Virginia and MoFlo the (Defense Holding, Inc.) are in a small university company, high reliability, reduce long life and can be carried very low conductivity possess successful efforts new technology – the ends by the spring pressure of work, very thin flexible metal fibers (“ wire-brush”), consisting of thousands, brush that is very light and is currently marketed . Originally developed for submarines, aircraft are being used or tested for power generation, grounding and long-term power transmission and other power transmission applications where data transmission is important.

Mineral fibers (MFB Figure 1) Hyperco in contact with the mineral fiber brush, is quite different from the traditional homogeneous carbon fibers, mineral fibers, silver cross-shaped shapes correspond, and was brush-type graphite.

As you can guess from the address, MFB works with the touch pin on the ends of the fiber.

Each brush contains thousands of fine mineral fibers (50 microns) that can be twisted to remain in contact with the slippery surface (Figure 2). As each limb is attached to the sliding surface, unlike a homogeneous carbon brush with 6 to 12 contacts at a time, there are actually thousands of contacts per brush. Since the carbon brush connects only a few places, the brush is subject to local heating and greater wear of these stains. When these connection points are shown, the energy is transferred to other connection points and then to other connection points. This dispersion of contact points produces a large amount of electrical noise and corrosive conductivity. The hardness of the carbon brushes makes them susceptible to vibrations and vibrations, and adds noise to the signal. Conventional carbon brushes too low or too high humidity, including long distance deviations to work in different conditions is not good for a long time with little or no electricity is available, or if you have to sit for long periods of time without electricity and if none of rotation. Contact MFBs also avoid these problems.

The tip of the MFB can be copper, silver, gold or another metal. The choice of material for slippery brush fibers depends on slippery surface materials, environmental conditions and performance characteristics. The fibers can be conditioned to withstand severe conditions such as <10% relative humidity or to prevent oxidation of the surface of the suspension. After adapting this patented process, you no longer need to reprocess the fibers, so you do not need any residual lubrication oil during maintenance.

The processing fibers are specially formed in a freely packaged MFB bag composition. The brush is usually 1/6 of the fiber and 5/6 of the open area between the fibers. As each fiber sliding surface and fiber with imperfections in the sliding surface contact each pair, very small spring forces can be applied to the brush. The fiber gradually enters the MFB sintering, but if the spring pressure is too low, this wear is very slow. The typical spring pressure MFB is 20 percent of the carbon brush equivalent to carbon. Experiments of fibers that in itself is highly conductive abrasion particles of microscopic particles are pressed together with a non-conductive tip, especially movement MFB-chip and in this way showed a similar curved oak plants. As a result of all these factors, contact and contact MFBs cause less wear and tear than competitive carbon brushes, and most non-conductive deposits cause fewer problems and are easier to pick up and dispose of.

When the MFB is used with a contact, the outer cover (Figure 3) retains the shape of the brush and can be made in any shape or form. This outer wing maintains the same speed as the internal fibers and can be connected or isolated electrically depending on the application. The rigidity and thickness of the sheath can be increased to withstand strong vibrations and overcome conditions of up to 60 miles at a cutting speed of 20 m / s.

Trash transport: the brush reduces maintenance costs for a long time, but the brush used as a result of the brush configuration reduces maintenance costs if these brushes are not exceeded. It does not make sense to create a brush when there are many mucous eruptions that require maintenance and control personnel and cleaning equipment frequently to avoid rules and short circuits. Anyone who has previously worked in a joint assembly knows the

burden of cleaning deposits with a carbon brush. Figure 5 shows the results compared to the erosion of the garbage after an MFB with a cap with 10M turns between a graphite brush and a silver plate on the left and HiPerCon notes on the right.

Electrical properties: Basic resistance of the brush surface HiPerCon 250 amp / 2 of MFB assuming 1000 amp / in2 under certain conditions. You can see that these powerful power capacitors have each contact point with thousands of contacts and each point has a parallel path along the brush. In fact, the factor mentioned in the brush usually does not belong to the brush itself, but extends the brush. These multiple points of contact are also facilitated by the data transfer capabilities. There are 4, 000 connection points instead of just a few HiPerCon connection points with 25 “ x25” MFB connections. This leads to a very low connection drop and little noise. The MFPs in HiPerCon generally show a lower connection volume and noise order compared to a silver graphic brush.

Efficient environment: It would be good if all the coal layers work under pure laboratory conditions, but for the real world it is necessary to operate the brush in less ideal conditions. Anyone who changes carbon brushes in an oil or hydrocarbon environment witnesses the appearance of a carbon brush. The oil destroys the binder material used in the homogeneous carbon brush and transforms the solid brush into a soft resinous mixture. MFB is not energy efficient and is not breakable. Other atmospheric casings that destroy brush brushes, such as silicone and sodium chloride, do not affect the performance of MFB.