

Graphite Impregnated Bronze Components

Bronze Bearing and Slide Plate Wear Parts Designed for Extended Wear Life



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SELF LUBRICATING CUSTOM SLIDING BRONZE PARTS

Reliable and Customized Bronze Sliding Parts

At Viiplus, we offer self-lubricating bronze slide plate components designed to cater to the diverse needs of our customers across various industries. Our bronze wear parts have been a trusted solution for steel mill equipment for many years, ensuring dependable performance in critical applications.

Versatile Applications

Our bronze alloy wear parts are suitable for a wide range of applications, including:

- Steel manufacturing for automotive tires and pipelines
- Aluminum production for facade structures
- Offshore wind turbine manufacturing
- Dependable Performance

The machines manufacturing these metal products require flawless and reliable performance to maintain productivity and efficiency. Our bronze wear parts, such as steel plate liners and sleeve bushings, are engineered to deliver superior performance and durability, even in the most demanding environments.

Customized Solutions

We understand that each customer has unique requirements, which is why we offer customized bronze sliding parts to meet their specific needs. Our team of experts works closely with clients to design and manufacture parts that fit seamlessly into their production processes.

Global Reach and Commitment

Viiplus is a trusted partner for companies around the world, providing reliable spare parts for every stage of production. We ensure the availability of the right spare parts, allowing production to continue uninterrupted. This commitment to excellence is why some of the country's largest steel mill equipment manufacturers trust us.

Quality and Quick Delivery

Our bronze wear parts are known for their superior performance and quick delivery times. We prioritize quality in every aspect of our manufacturing process, ensuring that our parts meet the highest standards of performance and reliability.

Contact us today to learn more about our self-lubricating custom sliding bronze parts and how we can help optimize your production processes

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Why Choose Bronze Bearing Alloys for Wear Parts?

Bronze, a metal that has stood the test of time, remains a superior material choice for many applications today. One of the key benefits of using bronze components is the availability of numerous bronze alloy options to choose from, allowing for customization to suit specific requirements. Bronze alloys have a wide range of applications, reflecting their versatile physical, mechanical, and chemical properties. By adjusting the composition of the alloy mixture, specific performance characteristics can be obtained to meet the needs of different applications.

Advantages of Bronze Alloys for Wear Applications

The formulation of certain bronze alloys can provide the following advantages for wear applications:

- **Low wear rate:** Bronze alloys exhibit excellent wear resistance, ensuring long-lasting performance in high-friction environments.
- **Ability to run dry:** Many bronze alloys can operate without the need for constant lubrication, making them suitable for applications where lubrication is limited or difficult to maintain.
- **Compatibility with various lubricants:** Bronze wear parts can function effectively with water or process fluids, as well as grease or oil lubrication, providing flexibility in lubrication choices.
- **Tight clearances for shaft stability:** The low coefficient of friction and high compressive strength of bronze alloys allow for tight clearances between components, promoting shaft stability and reducing seal wear.
- **Long wear life under dirty conditions:** Bronze alloys are resistant to contamination and can maintain their performance even in environments with high levels of dirt or debris.
- **Resistance to chemical corrosion:** Certain bronze alloys exhibit excellent resistance to chemical corrosion, making them suitable for applications in harsh environments.
- **Low coefficient of friction:** The inherent properties of bronze alloys result in a low coefficient of friction, reducing heat generation and wear on mating surfaces.

Bronze alloys offer a wide range of customizable properties, making them suitable for various applications that require wear resistance, such as bearings, bushings, gears, and other components in machinery, vehicles, and marine environments.

By choosing bronze bearing alloys for wear parts, manufacturers can benefit from enhanced performance, extended service life, and reduced maintenance costs, ultimately improving the overall efficiency and reliability of their equipment.

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Rolling Mills

Rolling mills wear plate, In these mills, bronze bushing slide plate and wear plates are utilized in various locations, playing a crucial role in achieving the highest quality of the rolled product. To roll any product to precise shape and size, it is essential to maintain the alignment of the rolls and the roll gap with great accuracy. Bronze bearings are employed on multiple wear surfaces throughout the rolling mill, with the primary objective of ensuring that the roll center lines remain in their exact desired positions.

By using the appropriate bronze slide wear plate, not only can the quality of the final product be enhanced, but maintenance costs can also be minimized. Bronze alloy liner systems can be designed to extend the lifespan of the bearing. When engineered effectively, the system allows for the less expensive and easier-to-replace liners to wear out, while protecting the surfaces of the more costly and challenging-to-replace liners from wear.



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ROLLING MILLS CONTINUED

Popular Bronze Alloys for Rolling Mill Liners

Two of the most widely used bronze alloys for rolling mill liners are C93200 SAE 660 Bearing Bronze and C95400 Aluminum Bronze.

C93200 SAE 660 Bearing Bronze

The C932 bronze can be employed in liners that are easier to replace. While this alloy is not as hard as the C954 Aluminum Bronze, it exhibits excellent wear properties. Liners manufactured from this alloy can be used in locations that are easily accessible for replacement. By using the C932 Bearing Bronze Liner, the more expensive and critical components can be protected.

C95400 Aluminum Bronze

C95400 Aluminum Bronze Liners are harder than the C932 Bronze Liners and can be utilized in areas that are more challenging to replace and require longer service life. C95400 Aluminum Bronze liners possess a high resistance to corrosion, making them suitable for use in corrosive environments. Corrosion tends to be more prevalent at higher temperatures and can cause pitting and flaking, leading to liner wear. Water and scale at elevated temperatures can also lead to erosion of the liner surfaces.

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Metal Extrusion Press

Metal extrusion presses are applications that make extensive use of various wear plates. Aluminum bronze wear plates are specifically utilized to support the heavy assemblies as they slide back and forth during operation.

Aluminum bronze is the preferred bronze alloy due to its high tensile strength and low coefficient of friction when paired with moving components made of hardened steel. Additionally, aluminum bronze has the unique ability to accommodate slight misalignments. The wear plates can slightly redistribute themselves to align precisely with the axis of motion, resulting in longer bearing life and reduced downtime for the press.

Furthermore, aluminum bronze wear plates excel in harsh environments and high temperatures, outperforming other alloys in these demanding conditions.



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Industrial Automation

In industrial automation, these bearings are often referred to as guide blocks, wear plates, and sleeve bushing. They come in various sizes and shapes but generally utilize milling machining, as opposed to the turning machining used for manufacturing bronze sleeve bushing products. These bronze bearings leverage the unique properties of bronze alloys, similar to their round counterparts. Typically, they are employed in applications where metal rubs against metal. By incorporating a bronze guide block or slide plate, the bronze serves as a sacrificial component, enhancing the wear properties of the entire assembly. With proper lubrication, these parts can deliver reliable performance over extended operational periods. The key differences among wear plates, liners, and blocks lie in their surface characteristics and the methods by which they bear loads. This factor should be carefully considered during the design process of these components.



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Graphite Impregnated Bronze Components: A Reliable Solution for Lubrication-Free Applications

If your application does not allow for external lubrication, we offer effective alternatives. Our graphite impregnated bronze components are machined from high-quality cast bronze alloy and feature solid lubricant inserts. These graphite-based inserts provide the essential self-lubrication required for various critical applications. The graphite creates a protective film that coats the bearing surface, ensuring smooth operation without the need for additional lubrication.

Commitment to Excellence

At BearingFace.com, our focus is on enhancing the customer experience through every process change, technological advancement, and improvement. This commitment begins with our qualified quoting team. Our experienced technicians leverage advanced computerized modeling software to deliver competitive and reliable pricing tailored to your specific needs.

Why Choose Us?

- **Competence-Based Management:** We prioritize expertise at every level of our operations to ensure the highest quality products.
- **Superior Customer Service:** Our team is dedicated to understanding your requirements and providing personalized support throughout your project.
- **Quality Standards:** We adhere to stringent quality standards to ensure that our graphite impregnated bronze components meet your performance expectations.

Explore our range of graphite impregnated bronze components today and discover how we can help you achieve optimal performance in lubrication-free environments. Contact us for more information or to discuss your specific requirements!