

## www.sinterfuse.com

# Sinterfuse. The future of sintering.







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Sinterfuse specializes in manufacturing metal-based highly precise sintered parts.

Located in Serbia, Sinterfuse built their reputation by supplying top quality components for automotive, home appliance and other industries.

Sinterfuse was recently acquired by King Engine Bearings, known around the world as a leading engine bearings innovator and manufacturer. King's decades of proven engineering, metallurgic advancements, and quality management processes brings new levels of experience and expertise to Sinterfuse.

Sinterfuse technology and guality processes allow a cost effective production while maintaining high level of precision and metallurgical quality.

## Sinterfuse manufacturing process

Our manufacturing process known as sintering is a technology where metal powders are fused together at the molecular level under very high pressure. Our efficiency in manufacturing comes from our ability to create tooling that allows absolute precision while maintaining maximum accuracy over large production runs.

### **Mechanical Sintering**

Sinterfuse strength lies in producing its bronze metallurgical powder in house. This added ability gives us complete control of product quality from the beginning to the end of the manufacturing lifecycle.

By combining high quality metal composition with Sinterfuse tooling expertise the result is high product quality with outstanding surface finish that achieves highly complex shapes.



## Sinterfuse Quality Process

Sinterfuse current sintering process enables achieving a high level of geometric complexity, while keeping maximum densities for increased strength when required.

This whole process is monitored by the QA Autocheckpoint system, a fully automated monitoring scheme originally developed by King for use on their bearing manufacturing lines. The implementation of this system ensures that superior quality is built into each sintered part throughout the entire production process.

This sophisticated monitoring system conducts fully in-process automated monitoring of each phase of production. It is also directly integrated into Sinterfuse's ERP module allowing it to uncover potential production problems on the spot to allow any issues to be resolved immediately. This results in an unequalled level of end product quality.

### **Sinterfuse Specialization:**

### Gears

Sinterfuse excels at producing the complex tooth geometry often required in gears production. Multiple shapes and sizes can be produced with features such as straight, double and helical teeth. Gears can be made from stainless steel, standard steel or various degrees of alloying. They can be heat-treated, have special coatings applied or can be provided with varying levels of surface finishes. Common applications are fluid transfer gears, gearboxes, oil pumps and fuel pumps.



### **Self-lubricating Bearings**

Sinterfuse is able to produce self-lubricating bearings and bushings designed to work under hydrodynamic conditions, resulting in a very low friction coefficient and high performance with little or no required maintenance for the life of the bearing. Self-lubricating bearings are frequently used in many industrial and home appliance applications. These bushings and bearings are also commonly used in automotive, electrical or mechanical equipment, such as starters, alternators, fuel pumps and more.



#### Sintered metal filters

Sinterfuse produces metal filters that are commonly made of bronze, brass or stainless steel powders. Sintered filters provide a high level of temperature resistance due to their unique filter structure



which is also well suited for filtering gasses and liquids. These sintered filters are ideal for industries such as chemical, mechanical and construction.



#### Mechanical and hydraulic parts

Sinterfuse also has expertise in creating structural components for both mechanical and hydraulic systems in a variety of materials, shapes, finishes, treatments and coatings. These components are most often used in automotive engines, transmissions, brakes, valves, pistons, agricultural machines, trains and more.