

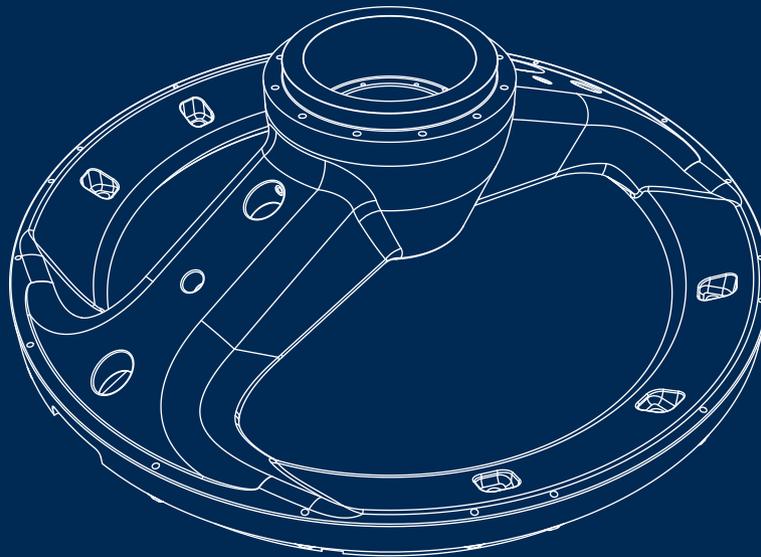
# EXCEL™ Replacement parts for Gyratory style crushers



**FLS**

# Quality and innovation

Our compression crusher spare parts are designed to offer increased durability, smoother operation and reduced maintenance expenses, so that you can get your essential equipment up and running as quickly and effectively as possible.



## Key benefits

- Increase durability
- Increase longevity
- Better lubricity
- Reduce maintenance and downtime

# Extraordinary components do not happen by accident

EXCEL™ bronze bushings and components perform better because our standards are higher.

## Higher tensile strength

Tin is the most expensive ingredient in the metallurgy of bronze alloys, but it creates tougher bushings that last longer. We use the maximum percentage of tin to increase your profits. We certify our crusher bronze to the top end of the CDA specification for tin.

## Uniform lead distribution

During casting, we use an innovative technique that distributes lead and other alloy grains uniformly. We then use a unique chilling process that ensures the uniform distribution is locked in. Our dedication to lead distribution means that when you use EXCEL™ cast alloys, there is less friction and more defense against heat build-up. In short, our bushings and other cast parts last longer and have fewer problems.



Standard bronze pour from furnace to ladle in our foundry for EXCEL parts, located in Pekin, Illinois, USA

## Optimum concentricity

Our competitors are content with bushings that are close enough to concentric. We create perfectly concentric bushings using a unique pinch turning method during machining and cut the inside and outside diameters simultaneously. This process guarantees that your bushings are concentric with no weak spots or deformities and lowers the risk of hot spots.

## Porosity-free/uniform grain structure

We begin preparing for casting by selecting the highest grade pure raw materials. The unique centrifugal casting technique that we use produces a tighter, denser grain structure in the alloy and eliminates nearly all gas pockets. What does this mean to you? The cast alloys you buy from us last longer and have significantly fewer defects.



XL40 bronze components.

# Gyratory Style Crushers

Allis-Chalmers®, Thyssenkrupp®, Metso®, Nordberg®, Sandvik®, Svedala®

## Component identification

### Topshell assembly

- Mainshaft Sleeve
- Mainshaft
- Head Nut
- Mantle
- Splash Curtain
- Dust Seal
- Upper Dust Seal Retainer
- Lower Dust Seal Retainer
- Topshell

### Eccentric assembly

- Eccentric Bushing
- Eccentric
- Key
- Bottom Shell Bushing
- Gear
- Eccentric Wear Plate
- Mainshaft Step Plate
- Step Washer
- Piston Wear Plate

### Hydroset™ assembly

- Eccentric Support Plate
- Upper Hydroset™ Bushing
- Lower Hydroset™ Bushing
- Hydroset™ Cylinder
- Hydroset™ Piston
- Hydroset™ Seal

### Spider assembly

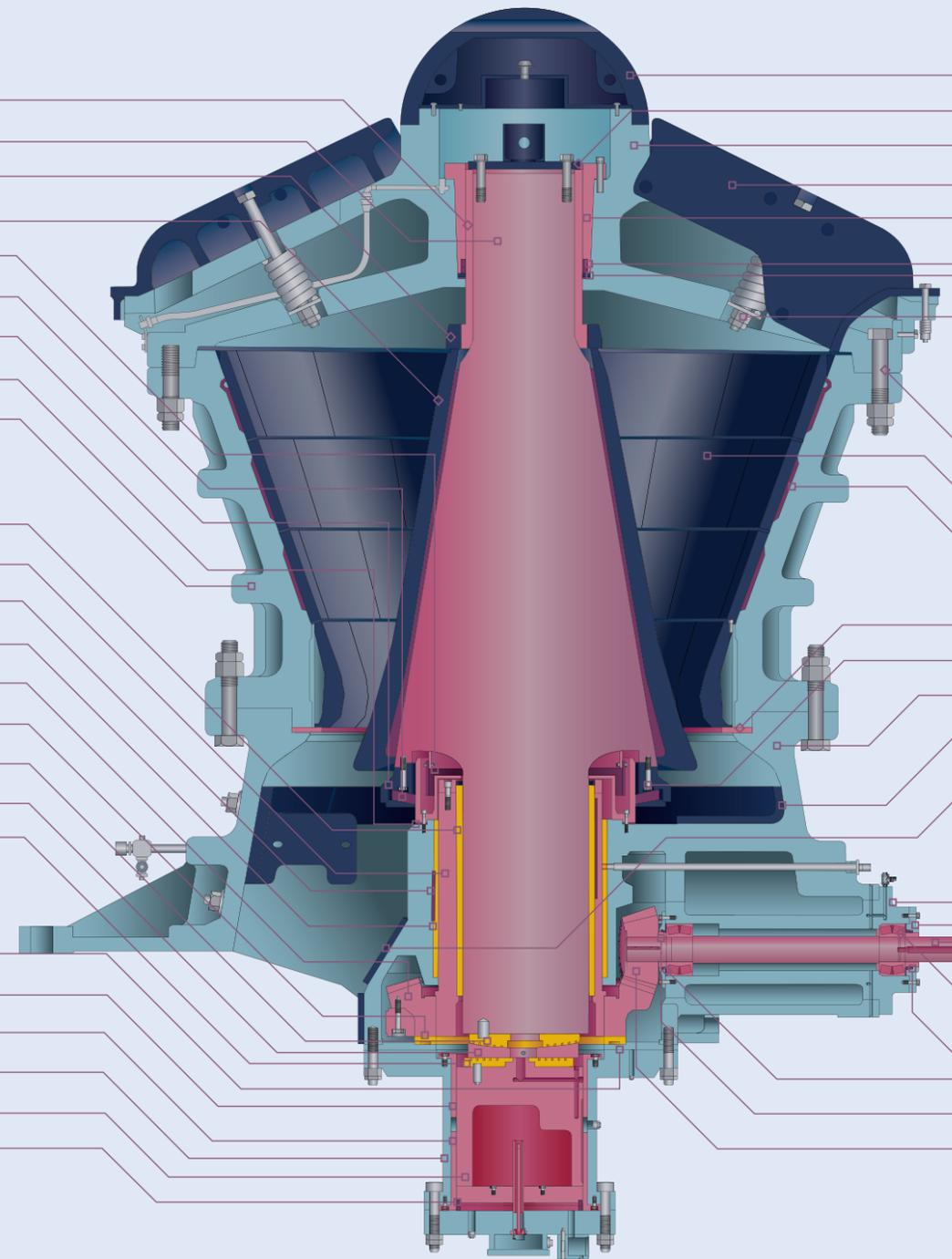
- Spider Cap
- Clamping Plate
- Spider
- Spider Arm Shield
- Spider Bushing
- Spider Bushing Oil Seal
- Scraper

### Miscellaneous components

- Spider Arm Shield Bolt
- Shell Bolt
- Concaves
- Backing Compound
- Concave Support Ring
- Dust Collar
- Bottom Shell
- Pinionshaft Arm Liner
- Hub Liner

### Pinionshaft assembly

- Pinionshaft Housing
- Pinionshaft Housing Seal Plate
- Pinionshaft
- Pinionshaft Bearings
- Pinionshaft Seals
- Spacer
- Pinion



# Invest in the right spare parts for your gyratory crusher

These improved parts provide better throughput and increased revenue for your business. Better replacement parts mean longer periods of operation between maintenance downtimes.



**Mainshaft assembly**



**Eccentric assembly**



**Spider assembly**



**Hydroset™ assembly**



**Pinionshaft assembly**

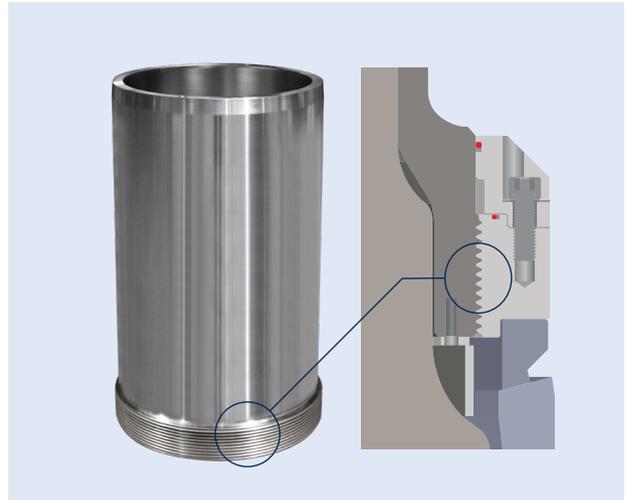


**Miscellaneous components**

All brand names, model names or marks are owned by their respective manufacturers. FLSmith/FLS has no affiliation with the original equipment manufacturer. These terms are used for identification purposes only and are not intended to indicate affiliation with or approval by the OEM. All parts are manufactured by, for and warranted by FLSmith/FLS and are not manufactured by, purchased from or warranted by the original equipment manufacturer.

### Custom threaded mainshaft sleeve

We create customised threaded mainshaft sleeves to protect your mainshaft. With the threads on the sleeve instead of the mainshaft, removing and installing the inner head nut no longer risks damaging the expensive mainshaft.



### Excel bronze bushings... Simply the best!

A bushing may seem like a simple part, but we have earned our reputation for superior bronze bushings because of our innovative manufacturing process and dedication to providing the highest quality components.

Our Quality Assurance Department scrutinizes every dimension with exacting tolerances to be sure your bushing is perfect in every way, giving your operation an unbelievable value. Our bushings are less expensive than the OEM, and the highest quality in the business.

### Custom throw eccentric bushing

We offer not only direct replacements for your OEM products, but can deliver premium engineered solutions. The OEM eccentric bushing suddenly seems inefficient when compared with the customised throw eccentric bushings that we manufacture. Our innovative design includes a modified bore offset and angle so you get the machine throw that you need. With this eccentric bushing, you have more control over your power draw, giving you better control of your crusher. Discover the improved production that one simple bushing can give.



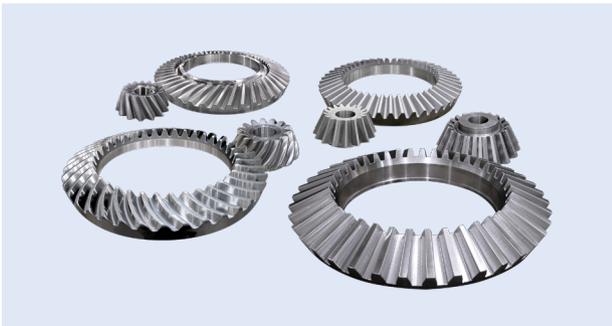


# Innovating across industries; offering you world-class products

We are continually innovating and improving our technology to provide the best solutions for quality optimisation. For example, our gear contact testing process ensures Excel gears are manufactured to a level above the OEM.

## Consistent and reliable precision gears

The contact pattern is the most important feature of crusher gears and pinions. Our manufacturing expertise and attention to quality creates gears with better field performance and longer wear life. We keep a high-quality set of master gears, and every gear and pinion that we produce is contact-tested against the master. No gear leaves our foundry unless it meets our exacting contact specifications.



## Enhanced performance

Improve your existing rock crusher by using our high quality EXCEL replacement parts. Our parts provide better, more efficient performance to keep your business going strong.



## Quality redefined

We know that your success depends on our quality control so we dedicate more time and people to our inspections than any of our competitors. From our strict metallurgical standards and precision machining processes to our exacting inspections, our quality assurance protocols align our processes to produce quality and dependable results. We are ISO 9001 certified, and our program is managed here along with our traceability and record retention. Our procedures allow us to trace any part that we produce, even years later. For each part, we manufacture we can confirm all possible production details that are needed.



"Our customers need replacement parts that operate in harsh environments. For this reason, we demand metallurgically sound castings produced through the careful control of chemistry and processing parameters for our replacement parts.

Our promise is to provide our customers with the highest quality components."

**MIKE BERGERHOUSE**  
Senior Metallurgical Engineer  
FLSmidth Inc. - Pekin Operations

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