Symons® Cone Crushers

2FT | 3FT | 4FT | 4¼ FT | 5½ FT | 7FT

Standard & Shorthead
Excel Premium Components
Symons® Cone Crushers

2FT | 3FT | 4FT | 4½ FT | 5½ FT | 7FT

- Countershaft Assembly
- Socket Assembly
- Head Assembly
- Feed Distributor Assembly
- Miscellaneous Components
**Excel Specialty Components**

**Symons® Cone Crushers**

2FT | 3FT | 4FT | 4¼ FT | 5½ FT | 7FT

---

**Duplex Oil Filter**

- Compatible with Symons® 4¼ FT, 5½ FT, and 7FT cone crushers
- Shipped pre-assembled to save time and eliminate hassle
- Easy installation - simply connect the discharge line from the oil pump to the “In” port and connect the “Out” port to the crusher

**Application-Specific Options**

- Single filter systems are available for applications without need for duplex filter systems

---

**Excel Certified Eye Bolts**

Introducing the new Excel Eye Bolt specifically engineered for the Symons® 7FT cone crusher. Manufactured using swivel hoist rings, the new Excel Eye Bolts are certified to handle the special loads of a head and shaft as they are maneuvered for various maintenance procedures. When lifting from an angle, this design is much safer than the previous technology typically offered on the market today.

- Certifed load rating
- 5 to 1 safety factor for designed loads
- Swivel hoist ring

---

**Symons® Lock Posts**

**Completely Sealed Top**
Prevents dust and water from entering the cylinder and damaging the seals and all critical components. Also increases reliability and durability of the design.

**Large Wearbands in the Piston and Rod Bearing**
Wearbands prevent side loading from damaging the cylinder ID and the outer rod, extending the life of the seals and all critical parts.

**100% Interchangeable with Conventional Design**
No additional fittings or hoses required.

**Available for Symons® Cone Crushers**
Excel stocks hydraulic lock posts for Symons: 4¼ FT, 5½ FT & 7FT for both standard and short head designs.

---

**Clamping Cylinders for HP®, MP®, & Omnicone®**

Excel also stocks clamping cylinders for the HP®, MP®, and Omnicone® Series crushers. Call your sales representative or inside sales support person for details.
Excel Specialty Components

Symons® Cone Crushers

Feed Distributor Options
When it comes to crusher operation and feed plates, Excel understands that ONE SIZE DOES NOT FIT ALL! Every application has unique requirements, so Excel developed Feed Distributor Options and Main Shaft Extension Kits to improve productivity and reduce unnecessary cost.

Although larger feed plates typically do a better job of evenly distributing feed with minimum segregation, smaller feed plates and spherical nuts allow a more open view of the feed zone, which better facilitates monitoring via camera, laser, etc. Smaller feed plates and spherical nuts also reduce the damaging effects of feed that falls long distances (5’ or more) crashing onto the outer edge of the feed plate.

Main Shaft Extension Options
Excel has developed Main Shaft Extension Conversion components available for Symons® 4ft, 4½ ft and 5½ ft shorthead crushers. The advantages of a main shaft extension combined with a main shaft nut arrangement include faster, easier and safer removal of old liners. This benefit is made possible by the addition of a torch ring. While burning the torch ring is not completely risk-free, our torch ring can be cut quicker and safer than most conventional methods. For special applications, a spherical main shaft nut can be utilized on shorthead crushers with this arrangement.

Learn More:
For our complete offering of feed distributor and main shaft extension options, download the brochure from our website.
www.ExcelFoundry.com/brochure-library

Symons® Tune Up Kits
Available in Three Different Configurations

Vacuum-heat packaged on oil impregnated boards leaving parts identifiable, sealed and protected.

Standard
• Compression Springs
• Spring Housings
• Dowel Pins
• Guide Babbitt
• Locating Keys

Basic
• Compression Springs
• Spring Housings
• Felt Strip

Deluxe
• Spring Housings
• Compression Springs
• Felt Strip
• Dowel Pins
• Guide Babbitt
• Locating Keys
• Cap Screws

Templates for Symons® Socket & Head Sealing Ring
Excel offers a full range of templates to check critical seal and bearing areas in your Symons® cone crusher.

Checking your head sealing ring and socket sealing ring at each liner change (or at least once a year if liner life exceeds twelve months) ensures that the socket sealing ring is not changed more or less frequently than necessary. This check will also give advance warning of head sealing ring and/or spherical bearing seats which need to be rebuilt or replaced. Proper maintenance of these two areas will reduce oil contamination and thereby increase the life of the spherical bearing seat (head ball) and all internal parts of the crusher.

Worn Head Ball and Head Sealing Ring
Excel Premium Components

Symons’ Cone Crushers

Excel Bronze Bushings... Simply the Best!

Fit, Form, and Function - that’s what we guarantee in every replacement part we deliver. 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. Less expensive than the OEM, with the highest quality in the business... sounds too good to be true, doesn’t it?

Higher Tensile Strength
Metallurgical Consistency Yields High-Strength Components

In order to maximize tensile strength, Excel certifies our crusher bronze to the top end of the CDA specification for tin. Tougher bushings mean less down-time and fewer replacement cycles. Tin is the most expensive ingredient in the metallurgy of crusher bronze alloys.

Uniform Lead Dispersion
Unique Chilling Process Stops Migration

Our foundry utilizes a unique chilling process that assures even dispersion of lead throughout the casting. Standard foundry molding techniques allow uneven, non-directional cooling that can cause lead migration. Even dispersion of lead provides consistent lubricity and heat dissipation which increase bushing life and reduce unexpected failures.

Optimum Concentricity
Simultaneous “4-Axis” Turning Ensures Concentricity

Extensive investment in our equipment, our people, and our process gives Excel many unique capabilities, including a special “pinch turning” method in the machining of our crusher bushings which simultaneously cuts the OD and ID. Using this technology guarantees absolute concentricity.

Porosity-Free/
Uniform Grain Structure
Centrifugal Casting Technique Ensures Alloy Integrity

The purity of our raw materials, coupled with controlled, directional solidification during the casting process creates a tighter, denser grain structure in our alloys while eliminating 99.9% of the gas pockets that produce porosity. The integrity of Excel’s grain structure ensure strong, long lasting replacement parts.

Excel Gears and Pinions
Excel Uses the Latest Technology

From straight bevel teeth to spiral bevel teeth, Excel offers direct replacement gearing that exceeds OEM quality, starting with the highest quality steel forgings. Our gear “gashers” mill at the beginning of the process and the gear checking center at the end of the process help ensure that Excel delivers high quality gears and pinions efficiently and consistently.

It’s All About the Contact Pattern

The contact pattern is the single most important factor to control when manufacturing crusher gears. Without good tooth-to-tooth contact, the load transfer can point-load the tooth face and result in premature or uneven wear or tooth breakage. Poor contact also creates excessive noise. The load must be distributed properly on the tooth face, and Excel rigorously assures this condition is met through contact-testing with our master gears.

Master Gears and Bluing Process

We ensure field performance and wear life when it comes to gear manufacturing by retaining a high quality set of “master gears” to be used in the production process. Each gear or pinion made is contact-tested against the master and must meet the precise specifications of the gear’s contact criteria. Simply put, the benefit to our customer is consistency.
Manual cavity clearing can take up to 5 hours and is very dangerous...

Automated cavity clearing is absolutely safe and has you back in operation in less than 15 minutes!

Keeps your employees safer... and your operation more profitable!

- Simplifies crusher cavity clearing with the turn of a switch and push of a button
- Drastically reduces costly downtime with virtually instantaneous cavity clearing
- Constant clamping force reduces “ring-bounce” and cuts down on related maintenance/repair costs
- Requires little or no modification to your existing Symons’ frame
- Maximize tonnage - adjust the crusher to smaller setting without risk of stalling

Hydraulic Power Unit

The Sentinel’s Hydraulic Power Unit (HPU) offers constant monitoring of hydraulic pressures, temperature and filter conditions.

Indicator and warning lights advise the operator of reservoir oil level, oil temperature, oil pressure in the tramp and lock post hydraulic circuits and filter status.

The Sentinel Advanced Hydraulic System also offers options for remote bowl adjustment that allow for quick changes to the closed-side setting (CSS), and simplifies the process of turning the bowl for liner changes.
Dedicated to Outstanding Customer Support

+1.309.419.8800
Toll Free 800.523.9129
sales@ExcelFoundry.com

1 Excel Way  |  Pekin, Illinois  |  USA
ExcelFoundry.com

For emergency after-hours support, call +1.309.202.8300 to speak to an Excel Professional at any time.

ENGINEERED INNOVATION
Excel’s engineering and technical experts work directly with customers to solve problems in innovative ways. We partner with operations around the world to develop customized solutions for lasting performance in mission-critical equipment. We get our hands dirty, and spend the time needed to fully understand the issue our customer is facing.

Symons® and Gyradisc® are marks of Metso Minerals Industries, Inc. or its affiliates. Excel Foundry & Machine is not an authorized repair facility nor does it have an affiliation with Metso. These terms are used for identification purposes only and are not intended to indicate affiliation with or approval by Metso of Excel. All parts are manufactured by, for and warranted by Excel Foundry & Machine and are not manufactured by, purchased from or warranted by the original equipment manufacturer.

©2018 FLSmidth A/S. All rights reserved.  EXPR139 - REV3