

 EXCELLENCE  
SINCE 1929



# 77 SERIES™

CONE CRUSHERS

 EXCEL  
FOUNDRY  
& MACHINE





## THE MARKET DEMANDS IT

For decades, our customers have become increasingly accustomed to the premium quality and support that Excel provides.

Now, the market has once again offered a challenge: the need for a fully-supported cone crusher system based on an established, industry-accepted design.

The Excel 7-Series™ Cone Crusher answers this challenge by making some key design innovations and improvements while retaining

the interchangeability established by previous cone crusher lines. The 7-Series also brings with it innovative equipment such as the Sentinel™ Advanced Hydraulic System - a specially-engineered hydraulic tramp release system that vastly increases safety levels for operation personnel.

## YEARS OF EXPERIENCE

In our 80+ years of experience designing and machining replacement components for the crushing and mining industries, supplying complete cone crusher subassemblies has been an integral part of business at Excel for decades.

From our field technicians and sales team to our design engineers, our roots in cone crusher knowledge and expertise run deep. We pass this knowledge along to our global network of distributors, which is how we ensure that the customer is always taken care of in the highest degree possible.



## SEAMLESS INTEGRATION

Seamless integration into custom, finely-tuned crushing applications is a priority when it comes to maximizing value. Therefore, each and every component within a 7-Series Cone Crusher is 100% compatible with adjacent OEM components within an assembly. This ensures that maintenance options remain open, confidence in replacement stock is retained, and downtime is minimized.

Fundamentals in crusher installation, replacement, and maintenance are also important to keep in mind. Many of today's cone crusher models require thousands of dollars worth of tools and equipment to simply achieve a productive state. This is not the case with the 7-Series Cone Crusher, as its design retains the straightforward, less-complicated aspects that set it apart from other complex, high-speed designs in the market.

## AFTERMARKET SUPPORT

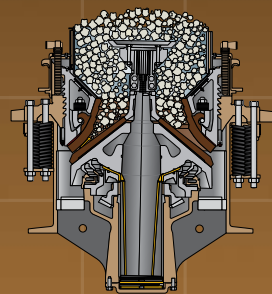
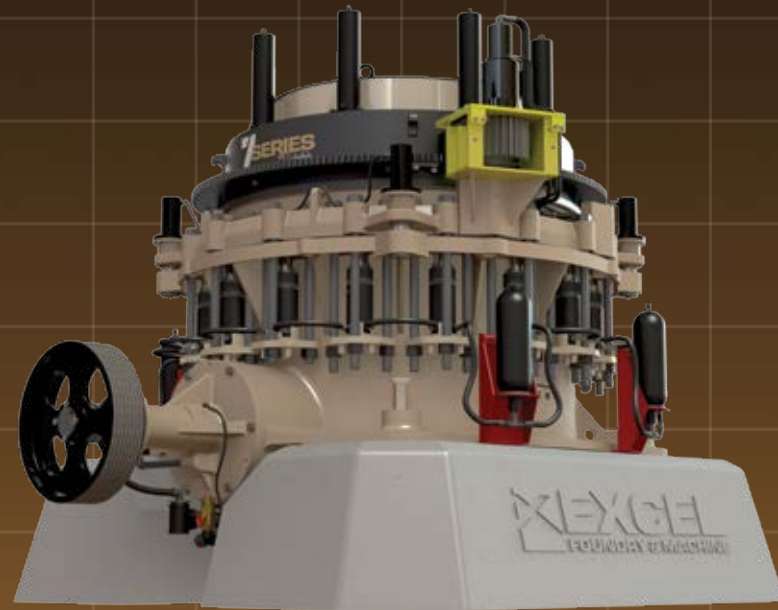
Excel has already set a new standard in aftermarket service and customer support. The advent of the 7-Series Cone Crusher is bolstered by a rock-solid, global network of distributors, logistics, and technical expertise. All of these features are available wherever you are, whenever you need them.

The 7-Series Cone Crusher is not simply just a machine, it is an advanced system designed to immediately add value to your application while minimizing the cost and downtime associated with regular maintenance. The 7-Series system is always backed by components support, technical expertise, and optimization consultation from our in-house design engineers and cone crusher specialists.

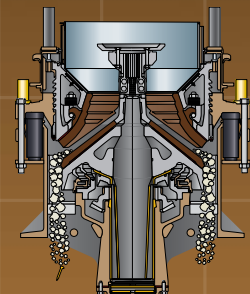




- Greater clearing stroke greatly reduces safety concerns during clearing
- Simplifies crusher cavity clearing with the turn of a switch and push of a button
- Reduces forces on all major components due to greater tramp release travel when compared to spring-type tramp release
- Dramatically reduces costly downtime caused by crusher stalls or shutdowns under load
- Constant, accurate force control allows for maximization of crusher throughput and product gradation
- Bowl adjustment option assist with liner changes and closed side setting



Spring-Pack Clearing



Hydraulic Clearing

Spring-pack cavity clearing can take up to a full shift...

Hydraulic cavity clearing has you back in operation in less than 15 minutes!

### Hydraulic Power Unit

The Sentinel Hydraulic Power Unit (HPU) is PLC-controlled and offers constant monitoring of hydraulic pressures, temperatures, and oil filter conditions. The push-button control panel's functions can be integrated into a higher-level PLC or DCS control system, as can the PLC monitoring functions. An additional integral light tower offers warning lights indicative of faults as monitored by the PLC system.



Hydraulic Power Unit



Tramp Cylinder

## Technical Expertise and Support

### Crusher Assembly and Installation

- Excel Engineers on-hand to lend expertise
- Supervision through crusher commissioning is automatically offered to the customer

### Customer and Technical Support

- Excel Customer Support available 24/7
- All Excel components are fully interchangeable with OEM components
- Global network of distributors for fast and precise replacement component deliveries



## Optional Components

### Ring Bounce Detection System

- Four, uniaxial accelerometers mount to the adjustment ring
- Accelerometers provide analog input to the PLC (programmable logic controller) to measure ring movement

### Remote Adjust and Calibration Sensors

- Integrated with the multi-function Hydraulic Power Unit (HPU)
- Tooth count and direction of rotation is established with two proximity switches
- Remote bowl setting adjustment and calibration is carried out by actuating the PLC in the HPU

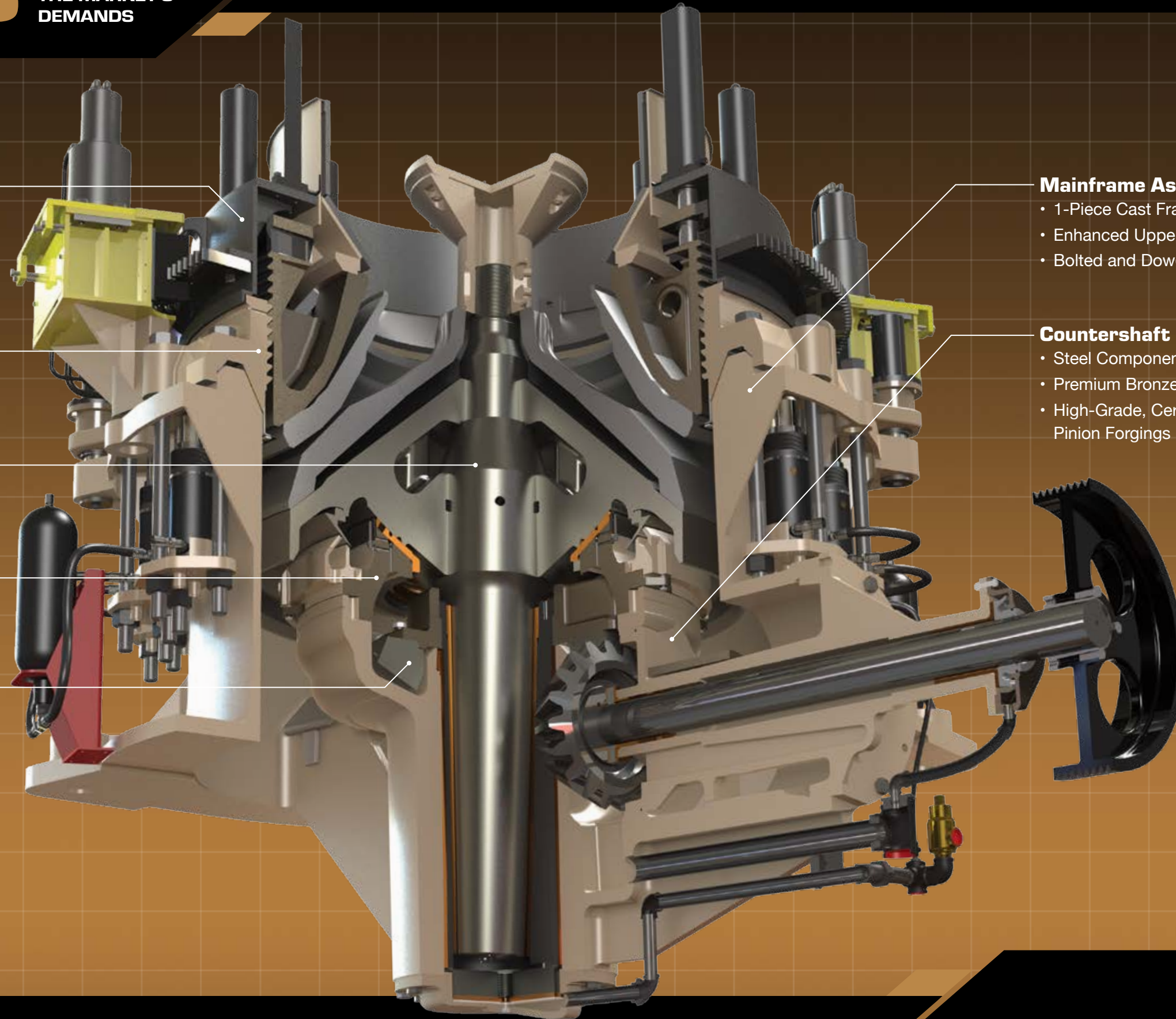
## Optional Systems

- Package Lube Systems
- Air Coolers
- Idler-Tensioners / Jackshaft Assemblies

Package Lube System







### Adjustment Cap Assembly

- Application-Specific Bowls
- XLHST™ Lock Posts
- Rubber-Lined Feed Hoppers
- Drive Ring Mounted to Adjustment Cap

### Adjustment Ring Assembly

- A148 Rebuildable Steel
- Dual-Drive Hydraulic Adjustment

### Mainshaft Assembly

- High-Grade, Certified Mainshaft Forging
- Machined to Exacting Tolerances and Finishes

### Socket Assembly

- CMM-Inspected and Interference-Fit Into the Frame

### Eccentric Assembly

- All Gears Checked Against a Master
- Eccentric Gear is Through or Induction Hardened
- High-Grade, Certified Gear Forging
- Independently Replaceable Counterweight and Gear

### Mainframe Assembly

- 1-Piece Cast Frame
- Enhanced Upper Flanges and Gussets
- Bolted and Doweled Socket Configurations

### Countershaft Box Assembly

- Steel Component, Not Cast Iron
- Premium Bronze Bushings
- High-Grade, Certified Countershaft and Pinion Forgings



# Dedicated to Outstanding Customer Support



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