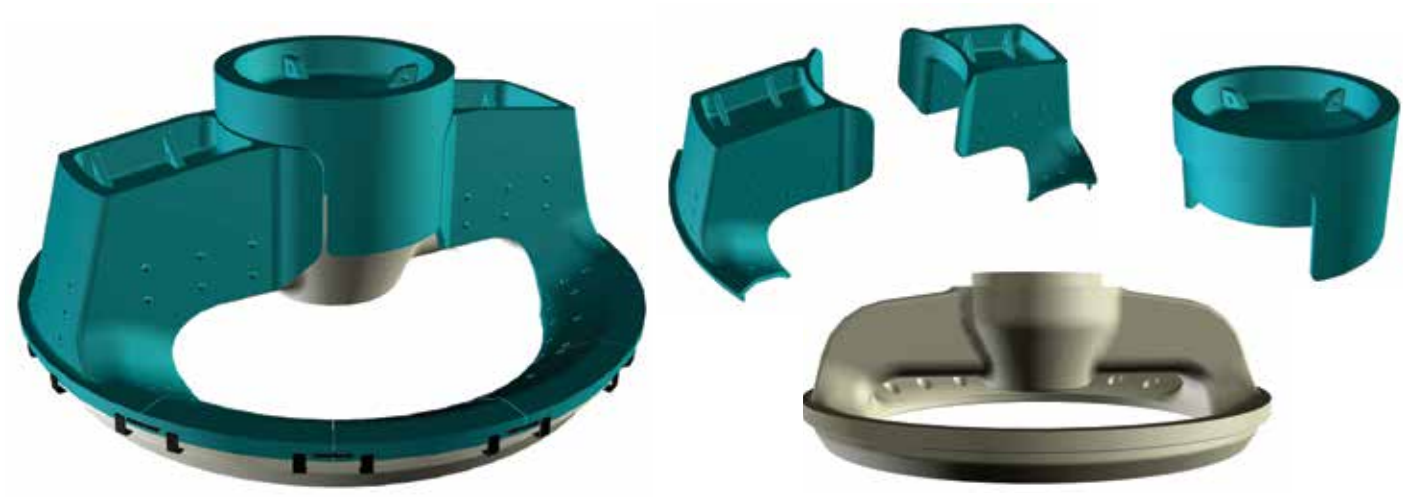
## Primary Gyratory Crushers

# SUPERIOR® 60-110E

metso
Expect results

The new Spider assembly was designed to remove stress risers and concentrations, producing a more reliable design.



Technology at work for you

# the new **SUPERIOR® 60-110E** primary

## Good investment...Better design...SUPERIOR® crusher

### Spider Design

The new Spider was redesigned using the latest computer analysis techniques to improve reliability. Included in the standard offering is an arched Spider to help reduce material bridging. New arm shields and cap, utilizing a Rock Box design, provide protection to the Spider.

- Arched Spider opening
- Redesigned Spider arms reduce twisting (patent pending)
- Wrap-around arm shields
- Secure arm guard fit to rim liners
- Standard Rock Box arm shields
- Extended Spider cap
- Standard Rock Box Spider cap

### Topshell Design

The redesigned Topshells were analyzed with FEA tools to eliminate vertical rib stress risers while utilizing horizontal bands to protect against concentrated loads.

- High strength banded construction provides trouble-free operation and long life
- Tapered flanges simplify construction
- Smaller diameter bolts reduce maintenance effort

### Bottomshell Design

The redesigned single piece Bottomshell reduces components and installation time, saving you money. The new shell was evaluated for high stress areas and new solutions were found, resulting in increased reliability on your investment.

- One piece design
- Raised mounting flange
- Smart design increases strength through smooth sections and transitions
- Additional bracing on internal pinion arm
- Robust four arm concept

### Mainshaft

Patented bearing ring releases the pressure of the headnut for mantle change out. This system offers two benefits:

1. It eliminates the potential for damage to the headnut or mantle.
2. Simple replacement of one less expensive component is all that is required.

### Interchangeability

Spider, Bottomshell, and/or Topshell can be adapted to fit on existing 60-110 MK-II crushers.

Topshell

Bottomshell

## Technical Specifications

**SPEED AND POWER**
- 600 RPM
- 1200 KW (1600 HP)

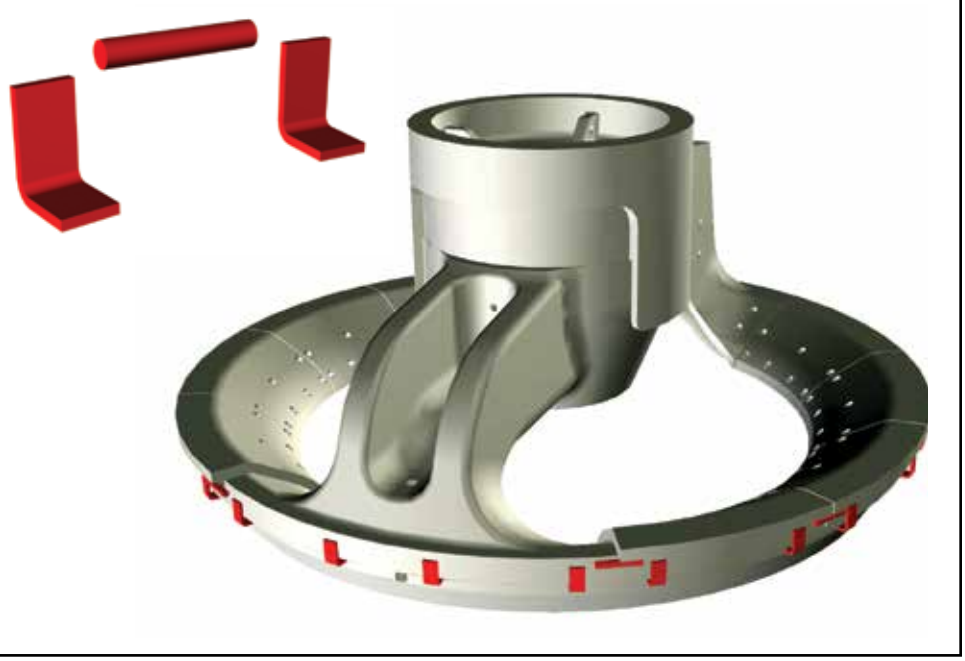
**Crusher Capacity mtph (stph)** — **Open Side Settings of Discharge Opening -- Millimeters (Inches)**

| Machine Size | Feed Opening mm (in) | Pinion RPM | Maximum KW (HP) | 175 mm (7.0") | 190 mm (7.5") | 200 mm (8.0") | 215 mm (8.5") | 230 mm (9.0") | 240 mm (9.5") | 250 mm (10.0") |
|---|---|---|---|---|---|---|---|---|---|---|
| 60-110E | 1525 (60) | **600** | **1200 (1600)** | 5535 (6100) | 6945 (7655) | 7335 (8085) | 7570 (8345) | 8280 (9130) | 8595 (9475) | 8890 (9800) |

The above capacities are based on an assumed feed where 100% of the feed passes 80% of the feed opening, 80% of the feed passes 60% of the feed topsize, and 50% of the feed passes a sieve size that is 10% of the feed topsize. The capacities are for feed materials with a bulk density of 1.6 metric tons per cubic meter (100 pounds per cubic foot). All capacities are calculated at maximum throw for each respective machine. All capacities are relative to individual application. Material characteristics, feed size distribution, work index, percent moisture, and feed method are factors when considering total crusher capacity. Please consult Metso to verify your capacity requirements.

# gyratory crusher

Rim Liner Retention



## Rim Liner Retention

The new Rim Liner Retention system utilizes small bars and clips welded in place. This arrangement connects all of the spider rim liners together. This makes for simple, easily installed components.
- Simplified installation
- No bolts required
- Easily replaceable
- Ties all rim liners together to act as one piece

### HISTORY

With more than a century of experience in crushing techniques, the **SUPERIOR®** primary gyratory crushers continue to provide the features necessary for today's demanding crushing operations.

### PERFORMANCE

**SUPERIOR®** primary gyratory crushers meet the demand for high efficiency and high capacity performance. Long life and reliable operation is provided by an extra-heavy duty frame, large diameter integral mainshaft assembly, and high-performance bearing arrangement.

Optimized production for your application using computer-designed crushing chamber.

Crusher capacity can be matched to plant requirements simply by changing the eccentric bushing.

### MAINTENANCE

- Automatic spider lubrication
- Modular lubrication system
- Mainshaft position indicator system
- Simple backlash adjustment
- Optional hydraulic spider separation
- Patented step bearing wear indicator

## Expect results

Expect results is our promise to our customers and the essence of our strategy. It is the attitude we share globally. Our business is to deliver results to our customers, to help them reach their goals.



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