

Super Duty Radial Cutting System

Genuine Joy Service Products



Designed to limit block cracking and dust particles, providing optimal productivity.

Benefits at a glance

Increased productivity

- Computer engineered and uniquely designed for optimum longwall cutting in coal applications
- Features a 127mm (5") effective reach for faster haulage and larger product size
- Provides 5% better material cleanup

Lower total cost of ownership

- Matching drum design to desired output decreases required maintenance
- Improved pick and block design delivers enhanced performance while reducing replacement and maintenance costs caused by block cracking
- Unique pick design results in more than 50% stiffer shank reducing the chance of bending and shanking

Enhanced safety

- Features a patented dust and ignition suppressant system that meets U.K. ITPP (Incendive Temperature Potential Protection) requirements
- Design creates a venturi system that improves dust suppression, all-the-while consuming 33% less water

The genuine Joy seal stands for quality and performance. For longwall mining operations looking to enhance safety and improve system productivity, the genuine Joy super duty radial cutting system is the preferred option.

Limit block cracking and dust particles with our improved block and pick system, designed for Joy machines. This new product provides better material sizing and optimizes conveying operations.

Joy service products are engineered to meet our exacting application and design standards, ensuring optimal system performance. Genuine Joy parts, for Joy machines. They're a perfect fit.











Understanding the system

Shearer drum

- Designed with attention to the pick location in order to optimize cutting
- Engineered for optimal conveyor loading through the vane positioning and provides 5% better material cleanup versus competitors
- Drum design includes additional picks for face cutting to improve sumping and protect the face plate



Pick holder

- Improved block strength due to 100mm width versus the standard competitor 82mm width
- Designed to minimize block cracking by matching block size to drum vane thickness, protecting the bock weld with the vane and reducing pick chatter



100699161 Block/holder

Radial pick

- Unique pick design results in more than 50% stiffer shank reducing the chance of bending and shanking
- Optimized contact surface area prevents bit rotation
- Reshaped heel design creates a venturi effect for the spray system
- Reshaped head allows free flow of water to the tip
- Pick retainer style provides improved pick retention reducing pick chatter with an increased bearing area

100716363 5" Radial pick



100716180 Pick retainer - spring steel



100716181 Pick retainer - nylon

Spray system

- Spray completely protected and enclosed by the pick
- Improves dust suppression while using 33% less water than comparable systems
- Complies with ITPP regulations



100714550 Spray

100714550 Spray blank

100714550

100699182 Spray retainer pin

Transportation block - nylon

Part numbers indicated in red



A genuine Joy radial cutting system...

- ...uses 33% less water. Our spray design creates a venturi system through the heel of the new radial pick, thereby using much less water.
- ...improved productivity allows for faster haulage, approximately 5% improvement in cleanup and larger product size.
- ...reduces maintenance-pick design results in 50% stiffer shank, reducing chance of bending or shanking. Retention style reduces pick chatter with an increased bearing area.

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