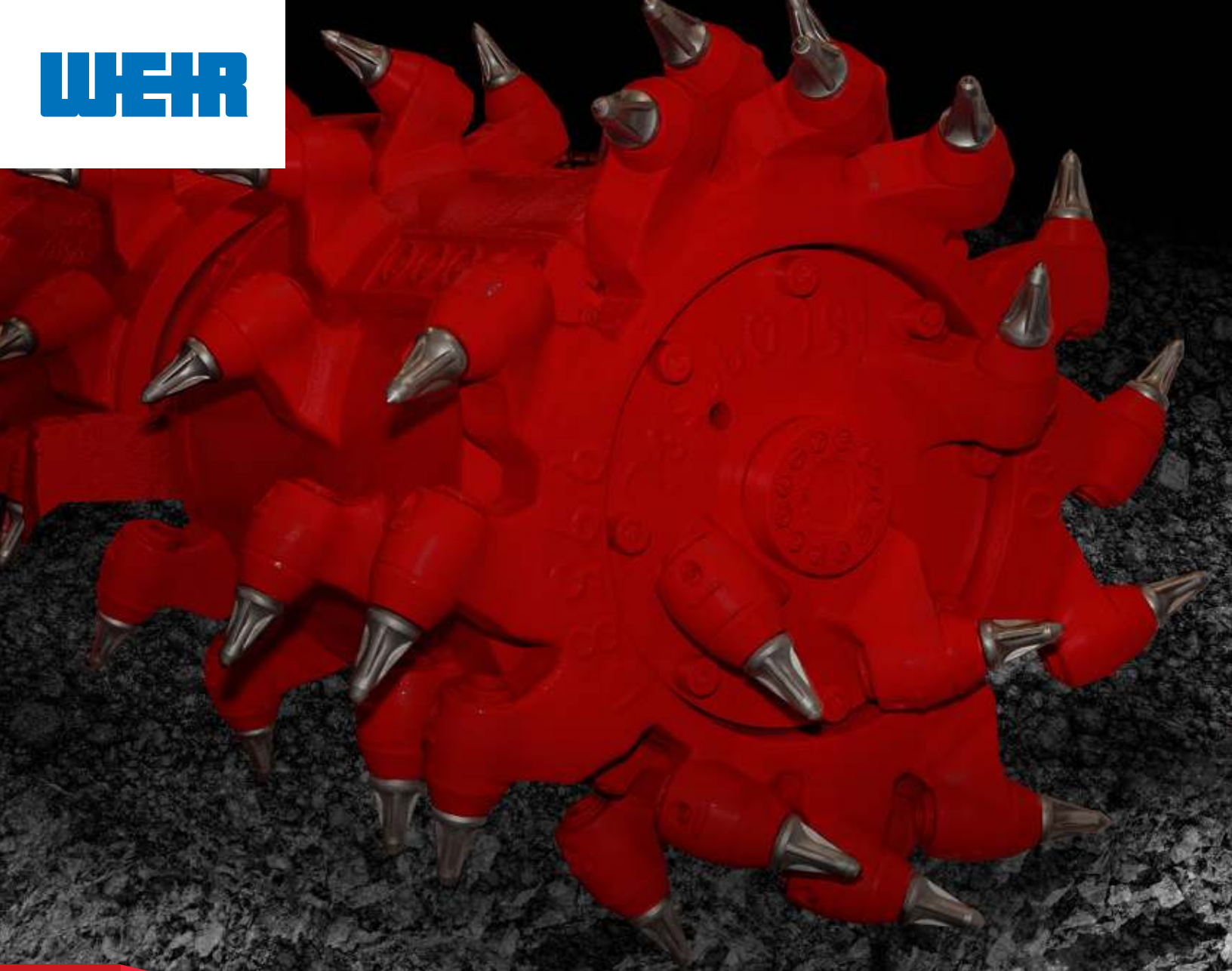


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# **ESCO Continuous Miner Drums and Accessories**



## ESCO Continuous Miner Drums

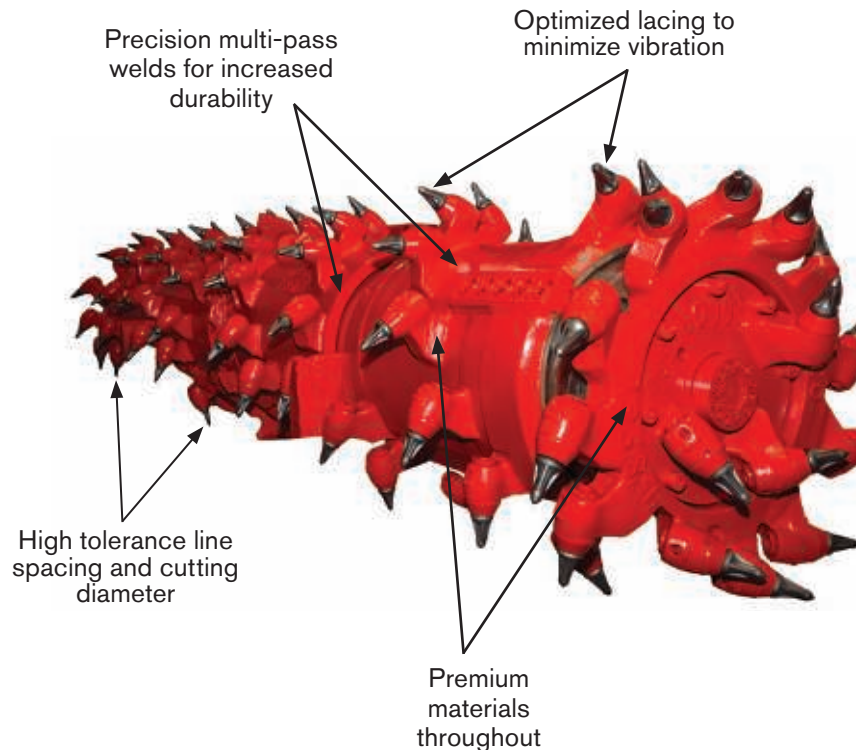


### Designed to Match the Application for Maximum Productivity

The ESCO underground mining team designs, manufactures and supplies a range of cutting equipment for continuous miner machines used in operations worldwide. Our products are individually designed for the application to

provide optimal performance and precision assembled to withstand the demands of today's high performance production and drivage requirements.

Cutting picks may be selected in rotating and nonrotating designs or choose a specialized option for unique applications. All ESCO drums are available with hammerless tool and sleeve replacement for greater site safety and less downtime.



## Features and Benefits

### Greater safety

- Optional hammerless/torchless sleeve removal
- Simplified pick removal for easier replacement
- Greater durability reduces maintenance

### Increased production

- Designed to enhance machine performance
- Optimized and balanced pick lacing minimizes vibration
- Precision line spacing and cutting diameter
- Pick durability and simplified replacement reduces downtime
- Custom manufactured to match the application

### Improved reliability

- Highly engineered to reduce stress
- Precision manufactured with premium materials
- Cutting efficiency minimizes machine wear
- Manufactured and inspected to OEM specifications for optimum fit



## Continuous Miner Drums for Coal



ESCO's continuous miner cutting heads are recognized in the underground coal industry as leading performers, reducing downtime, promoting safety and maximizing production. The drums feature a variety of cutting systems to provide increased production efficiency and longer service life.

Our continuous miner drums are offered with the HRS or Hexbore™ conical systems, and the Riblock™ radial pick system. Conical sleeves can be supplied as press fit, nonrotating or rotating configurations. These tooling options allow mining operations to match the desired features and performance to each application.



## Continuous Miner Heads for Potash

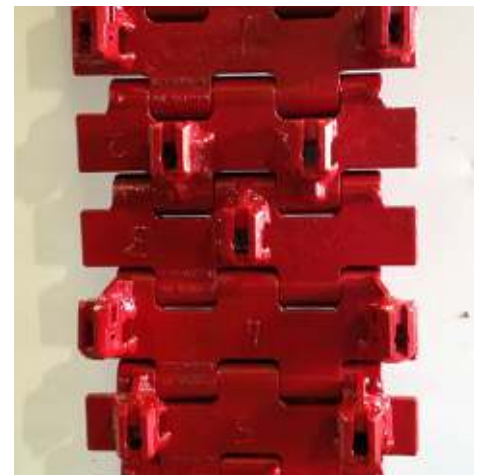
ESCO designs and manufactures precision continuous miner drums for underground potash mining operations. Our drums are developed to meet the unique requirements for potash excavation by reducing the line spacing and increasing the number of picks for a given drum size. The result is increased production and reduced downtime.

ESCO continuous miner drums for potash feature special designed carbide-tipped picks to optimize the cutting efficiency for maximum production and reduced loading on the picks, to limit wear to the equipment. Both rotating and nonrotating systems are available.



## ESCO Chain Systems

Our Underground Mining Product Team offers a comprehensive package of chain for continuous miner machines. The chain can be custom-designed to meet customer and application requirements. ESCO chains are made from premium materials and are assembled to exacting standards to ensure performance and long life.



## HRS Conical Pick Cutting System

ESCO offers the HRS pick system that was specifically developed for underground mining machines. While the Blocksaver system offers advanced features over conventional systems, the welding footprint is within the limits of most systems it replaces. A unique feature of the system is the simple and easy removal of the sleeve by hydraulic pressure, even if the pick is damaged — a true time-saver when the machine is shut down for maintenance. Even if a broken pick is flush with the tool holder, the hydraulic removal feature allows easier and safer removal than standard systems. The result is improved machine availability, greater site safety and reduced maintenance.

- Forged and precision-machined for reliability
- Hydraulic sleeve removal is faster and easier
- Minimizes removal hardware for simplified maintenance



Hydraulic Removal Tool

## Hexbore™ Conical Pick Cutting System

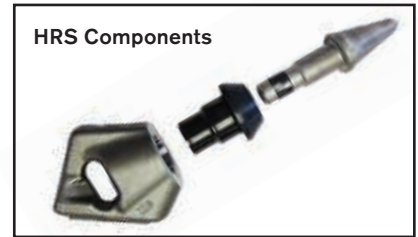
ESCO's Hexbore system was developed to provide conical pick users with a superior performing product. The Hexbore design will fit to shearer and continuous miner drums, and to boom type cutting heads. The unique system features a hexagonal sleeve and tool holder that permits quick replacement but does not allow the sleeve to rotate. Traditional conical systems use static sleeves that are difficult to remove or have unwanted rotation that significantly reduces system life by excessive wear to the internal bore of the tool holder.

- Simplified sleeve replacement for reduced maintenance
- Improved system life for greater productivity and less downtime

## Radial Riblock™ Pick Cutting System

The ESCO radial pick is available in 100mm/4 in and 130mm/5 in reach. The extended reach provides increased product size with fewer fines for improved production rates. The ESCO radial cutting system also features the unique Riblock retainer that enables picks to be easily changed to match cutting conditions. The Riblock retainer is a proven retention device for both continuous miner and shearer drums.

- Extended reach increases product size with fewer fines for improved productivity
- Riblock retainer simplifies replacement for reduced maintenance



HRS Components



HRS Assembly



Hexbore Components



Hexbore Assembly



Radial Components



Radial Assembly

## Carbide-Tipped Conical Pick Options

Conical picks are available in a variety of shank diameters and lengths, reach and tip profiles to match production requirements. Custom lengths and profiles are available for special applications or conditions. Contact your ESCO representative for additional details or to discuss your requirements.



## Radial Picks with Carbide Inserts

Radial picks are available in a variety of reach and tip profiles to match production requirements. Contact your ESCO representative for additional details or to discuss your requirements.

### Standard Pick Options

**F79 Tip** – The latest design, shaped to improve cutting efficiency with added carbide for increased life in high abrasion applications.

**F78 Heavy Duty Tip** – Slotted style carbide insert provides increased support and more brazed surface. Excellent choice for abrasive applications requiring greater impact resistance.

**R88 Heavy Duty Slug Tip with Overlay** – Inserted cylindrical carbide tip. Offers the same impact resistance as the R88 Heavy Duty Slug Tip but with carbide overlay for maximum wear life in highly abrasive applications.



### Pick Removal Tools

As a service to our customers ESCO provides a variety of removal tools for removal of cutting picks. Our engineering staff analyzes available tool options to ensure it meets customer needs for fast and safer pick replacement during machine maintenance cycles.



## Repair and Rebuild Service

ESCO provides professional repair and rebuild service for all makes and models of continuous miner drums. Our facilities are staffed with expert technicians, using state-of-the-art machining and welding equipment to ensure optimum results. Customer visits are welcomed at any time during the repair or rebuild to check the status or review the process.

ESCO offers services ranging from minor repairs to complete overhaul of the drums. Worn drums returned to our facilities are fully assessed for repair or rebuild prior to any work proceeding. Our attention to detail results in like-new performance.

Worn internal and external machined surfaces are restored to OEM specifications, and all surfaces are protected with anti-rust coating. Our machinists are highly skilled and work to exacting standards. Bit blocks are replaced to the original positions with new sleeves installed. Worn and damaged wear parts are removed and replaced. General clean-up and maintenance is also performed.

Premium chromium carbide overlay can be added to drums, tool holders and sleeves in a variety of patterns to match the application. Wear plate may also be fitted to strategic locations to extend the effective service life of the drums.

All repaired and refurbished drums are quality inspected down to the last detail. When available, the drums are mounted to a gear case to verify a precise fit. Completed ready-to-use drums are then painted, packed and shipped back to the customer.

**“ESCO’s expertise in designing and manufacturing drums for underground applications ensures quality work you can trust.”**





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