ESCO

Crusher Wear Parts
and Accessories

Engineered to outperform

Extensive product offering

- Choice of custom-engineered or ready-to-order wear parts
- Range of ESCO alloys
- Inventory on hand
- Competitive lead times

Technical services

- Chamber Drawings + Analysis
- Alloy Selection Assistance
- Chamber Optimization

Crushing expertise

- 100+ years of casting expertise
- In–house engineering
- In–house metallurgy
- Global manufacturing and field support

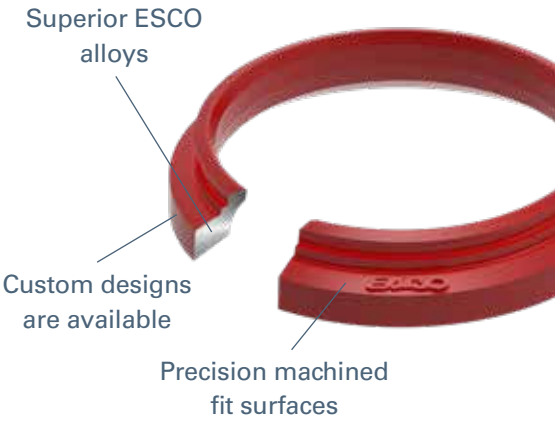
Quality and consistency

- Consistent, accurate lead times
- Regular manufacturing audits
- Serial # on all products for quality traceability

ESCO® crusher upgrades

Looking to take your crusher to the next level? Upgrade to high performance wear parts from ESCO. Built to take a beating and engineered to deliver consistent performance you can rely on.

ESCO is a leading developer of heavy-duty wear parts for all major makes and models of cone, gyratory, and jaw crushers. Our product range is backed by stringent quality control measures, and over 100 years of cast wear parts expertise, coupled with in-house metallurgy and engineering.



Choose from our premium ready-to-order products, or upgrade to an ultra-performance custom solution. The crushing experts at ESCO can assist you in selecting an enhanced replacement part, pre-engineered for your specific crusher. Or, for those seeking a serious boost in productivity, we deploy our engineering group to analyze your crusher setup and engineer fully customized wear parts, built to get the most out of your machine and withstand even the most demanding applications.

ESCO crusher wear parts can be produced in a range of proprietary, field-proven ESCO alloys. Due to the complex interplay between the alloy, wear metal allocation, and your local material conditions, our engineering team will assist you in selecting the optimal alloy for your specific needs and objectives.

Contact us today to learn why the world's most productive operations upgrade to ESCO crusher parts.

Cone

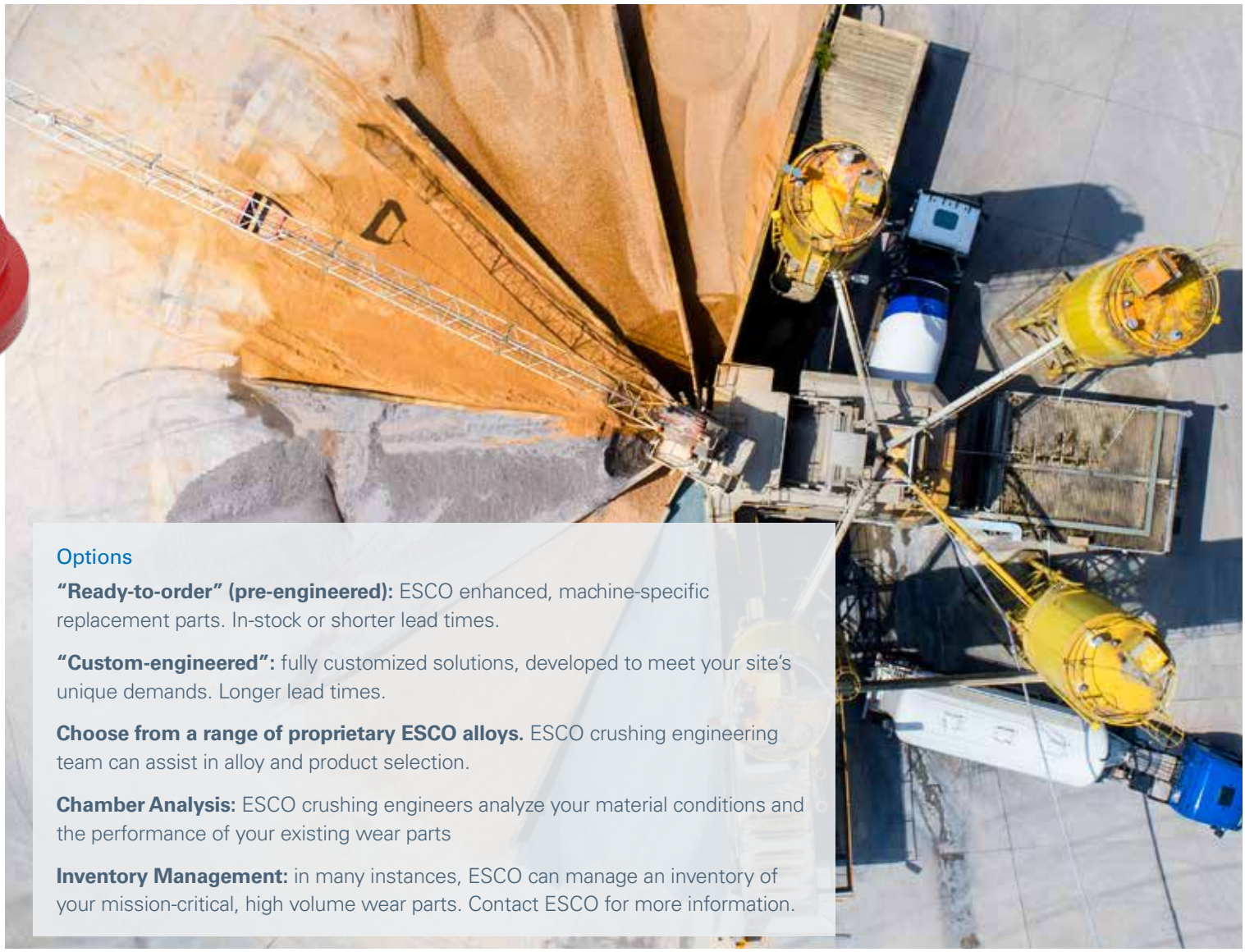
- Mantles and liners: ready-to-order, or custom–engineered
- Torch rings: ready-to-order

Jaw

- Jaws: ready-to-order or custom–engineered (select from Maximum Productivity, Longer Life, or Special Application variants)
- Fabricated Cheek Plates: ready-to-order

Gyratory

- Mantles: ready-to-order or custom–engineered
- Liners (Rim and Spider Arm): custom–engineered
- Caps (Ball and Spider): custom–engineered
- Rock Splitters: custom–engineered



Options

"Ready-to-order" (pre-engineered): ESCO enhanced, machine-specific replacement parts. In-stock or shorter lead times.

"Custom-engineered": fully customized solutions, developed to meet your site's unique demands. Longer lead times.

Choose from a range of proprietary ESCO alloys. ESCO crushing engineering team can assist in alloy and product selection.

Chamber Analysis: ESCO crushing engineers analyze your material conditions and the performance of your existing wear parts

Inventory Management: in many instances, ESCO can manage an inventory of your mission-critical, high volume wear parts. Contact ESCO for more information.

Jaw crusher upgrades

ESCO® offers a wide range of upgraded jaws for all popular jaw crushers – including various tooth, curve and alloy options. ESCO jaws are engineered to last longer, deliver maximum production, crush more efficiently, and reduce crusher wear and tear. Years of field experience – as well as superior engineering and metallurgical expertise – mean ESCO crusher jaws produce more quality rock, more consistently than standard equipment, while reducing the need for rescreening and re-crushing.

ESCO Production Master II Jaws

ESCO Production Master II jaws feature enhanced tooth profiles to boost crusher output and efficiency, with wider valleys for fast discharge of properly sized rock. ESCO jaws are an excellent upgrade for most crushing applications, featuring significantly more wear metal than OEM designs. All ESCO jaws are precision–machined for consistent fit – providing easier installation, less downtime, and even distribution of the working load stresses across the jaw frame.

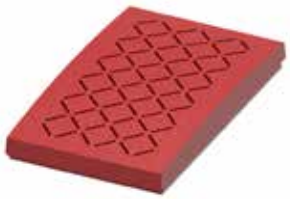
Tooth profile options: optimize service life and performance

Solid End: for high end-wear applications involving feed material contains excessive fines with no provision for removing these before entering the crushing chamber.

Hi-Life: an enhanced version of solid end jaws for maximum performance in high end-wear applications. Featuring a tooth profile engineered for better crusher throughput than the standard solid end design.

Solid Center: for high center-wear applications where the jaw crusher is fed from a conveyor belt and the initial chamber contact point is the center of the jaw plate.

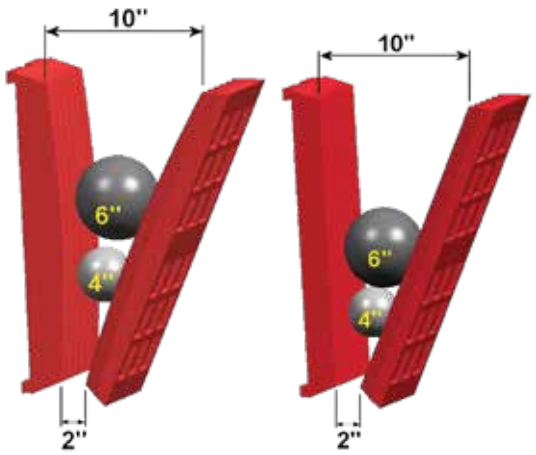
Slab Breaker: for concrete recycling or slabby rock crushing (e.g. shale). The tooth profile is engineered to break up flaky or elongated feed material.



Smooth Peening: for crushers not configured for tooth type jaws. Featuring peening slots to allow movement of the work-hardened manganese. Used in specialty industrial applications and typically installed in double toggle type jaw crushers.

Curve options: adjust the location of the initial crushing zone

ESCO crushing experts assist you in selecting the optimal jaw curve to maximize jaw crusher production. Increasing the curve profile of the jaw teeth raises the material higher in the chamber to even out the wear with the end of the jaws.



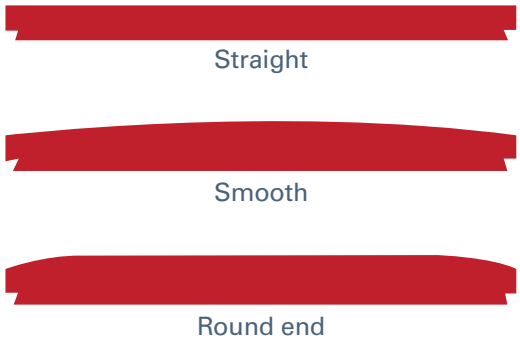
Curved profile

No curve profile

Straight: for general crushing applications

Smooth: engineered to move the initial crushing zone higher on the jaw plates – without compromising the nip angles – increasing wear metal utilization for extended service life.

Round end: for use on longer life jaw plates, creating a wider feed opening



Straight

Smooth

Round end

Jaw crusher cheek plates

ESCO offers a range of fabricated cheek plates engineered for optimal fit and performance.

High-performance gyratory crusher mantles

ESCO's unique combination of engineering, proprietary alloys, and local service results in superior wear parts for your gyratory crusher. ESCO® also offers gyratory crusher accessories, including rim liners, spider caps and spider arm liners.

The pairing of ESCO mantles with ESCO concave segments ensures maximum production, increased wear component life and reduced maintenance. Mantles are available in a variety of styles to match specific applications. Concave segments are designed for easy installation and replacement to reduce maintenance and downtime. There are multiple design options to ensure the best performance.

Configuration options

One-piece

Reduce downtime with a one piece mantle. Ideal for retaining tightness, while providing faster and easier replacement.

Two-piece or three-piece mantles

Reduced throwaway material with a multi-piece design. Provides the ability to replace the lower portion while reusing the mid and/or upper mantle for two to five additional service cycles.

Surface options

Smooth mantles

Used primarily for mining applications, maximizing production and providing long wear life in the most abrasive conditions.

- Increased wear metal
- Can produce more fines
- Increased production

Fully ribbed mantles

Used mainly for aggregate applications and to improve material flow by allowing fine materials to escape the chamber through the channels. Ribbed mantles grip rock better and reduce belching. Valleys provide channels for fine material to escape the chamber – allowing more room for new material and reducing the chance of clogging.

- Crush more efficiently
- Generate less fines
- Increased production

Partially ribbed mantles

Ribbed at the upper half to maximize grip on larger rocks and the smooth lower half provides more wear metal for longer life in severe abrasion.

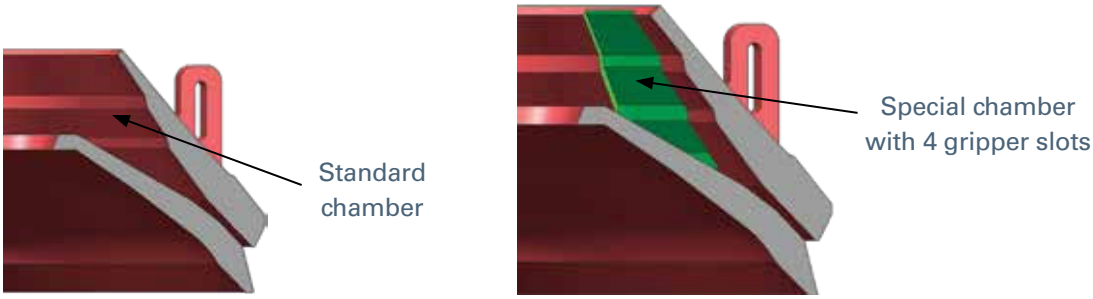
- Wear metal where it is needed
- Efficient crushing where it is needed
- Less throwaway weight

Cone crusher upgrades

ESCO® manufactures high performance wear parts to fit all major cone crusher models. ESCO cone crusher wear parts are designed to maximize production by retaining the feed opening throughout their life, and balancing the mantle and bowl liner wear. Cone parts can be custom fit to match any application.

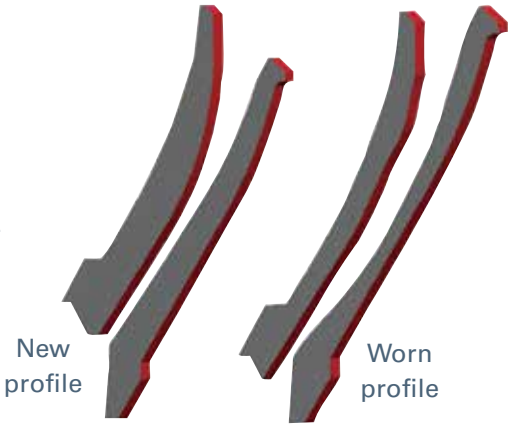
Gripper slot bowl liner

To keep the feed opening clear, ESCO gripper slot bowl liners are designed to allow the occasional oversized rock to travel through to the chamber. The specially ribbed mantle helps the crushing process start higher in the chamber for cobblestone, river rock and other hard to grip materials. The result is improved production and more even wear.



Wear profile analysis

ESCO crusher experts provide wear profile analysis to design mantle and bowl liner parts in combinations that optimize each crusher's performance. ESCO can recommend parts that help increase production, produce more consistent end product, lower recirculation and reduce throwaway metal. The process is simple; just contact your ESCO representative for more details.



Torch rings

ESCO also provides torch rings produced to exacting standards to guarantee maximum performance.

Lower your cost per ton
with high performance
ESCO wear parts

ESCO® alloys: engineered to outlast

ESCO provides a wide range of superior alloys for all types of crushing applications. Nearly a century of metallurgical experience and commitment to unsurpassed quality make ESCO alloys the customer's choice for exceptionally long wear life.

Alloy 14G / 14GM: aluminum bearing manganese

- Highest abrasion-resistant ESCO manganese alloy available
- Parts of light-to-heavy section thickness for heavy-duty applications
- Cone parts, jaw crusher liners, gyradisc liners, gyratory concaves and mantles

Alloy 14R: high manganese chrome bearing alloy

- Parts of light-to-heavy thickness for high-abrasion applications
- Optimized chrome and carbon levels for superior wear resistance and toughness
- Excellent for jaw crusher liners, cone-crusher bowl liners and mantles

Alloy 14HN / 14L: chrome bearing manganese

- Less susceptible to cold flow
- Parts of light-to-heavy section thickness for heavy-duty applications
- Used in large gyratory crusher mantles, concaves, cone and jaw crusher parts – as well as in impact crusher hammers, impeller bars and liners

Alloy 14ZA / 14ZB: molybdenum bearing manganese

- Parts of medium-to-heavy section thickness for good abrasion resistance
- Excellent toughness

ESCO Alloys for Crusher Wear Parts

APPLICATION	14HN	14R	14G	14L	14ZA or 14ZB	14GM
Jaw crusher liner (standard)	■	■	■			
Jaw crusher liner (thick/oversized)				■	■	■
Cone crusher liner (standard)	■	■	■			
Cone crusher liner (thick/oversized)				■	■	■
Gyratory mantle (standard)						
Gyratory mantle (thick/oversized)	■	■	■			
Rim liner				■	■	■
Spider cap	■			■		
Spider arm	■			■		

Epoxy backing for crushers

ESCO provides Epoxy Crusher Backing for the aggregates industry in standard and high-performance kits that are easy to mix and pour. ESCO Crusher Backing is an essential part of any cone crusher to ensure maximum performance from ESCO wear components.

Standard crusher backing

ESCO Crusher Backings for standard applications provide proven performance at an economical price, and is available in two formulas. When cured, ESCO Crusher Backings provide high compressive strength support for wear parts. The two-part compounds can be used for backing liners and wear parts on almost any crusher.

ESCOBAK™ Standard Crusher Backing provides excellent strength and impact resistance. The smooth consistency of the non-settling formula allows for easy pouring and ensures complete backing by eliminating gaps that weaken and shorten wear part life in gyratory crushers and cone crushers.

ECO-BAK™ Standard Crusher Backing is an alternative to our ESCOBAK epoxy that is free of Volatile Organic Compounds, Butyl Glycidyl Ether and Nonyl Phenol. It has been carefully formulated to address environmental and transport concerns.

Severe duty crusher backing

While ESCO's standard crusher backings perform well in most applications, the demand for high-performance backing continues to increase. ESCO offers two High-Performance Crusher Backing formulas that feature a higher compressive strength, excellent resilience and impact resistance, resistance to heat, and a water absorption rate that is about one third that of the standard crusher backing.

MAXBAK™ II Hi-Impact Crusher Backing is a high performance epoxy designed to withstand the most challenging crushing conditions. Whether the application involves gyratory, primary or wet crushing, and hard or excessively abrasive media, MAXBAK II Hi-Impact Crusher Backing offers excellent performance.

ECO-BAK™ II Hi-Impact Crusher Backing is an alternative to MAXBAK II epoxy. ECO-BAK II epoxy will withstand the most demanding crushing applications. The ECO-BAK II formula is free of Volatile Organic Compounds, Butyl Glycidyl Ether and Nonyl Phenol. It has been carefully formulated to address environmental and transport concerns.

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