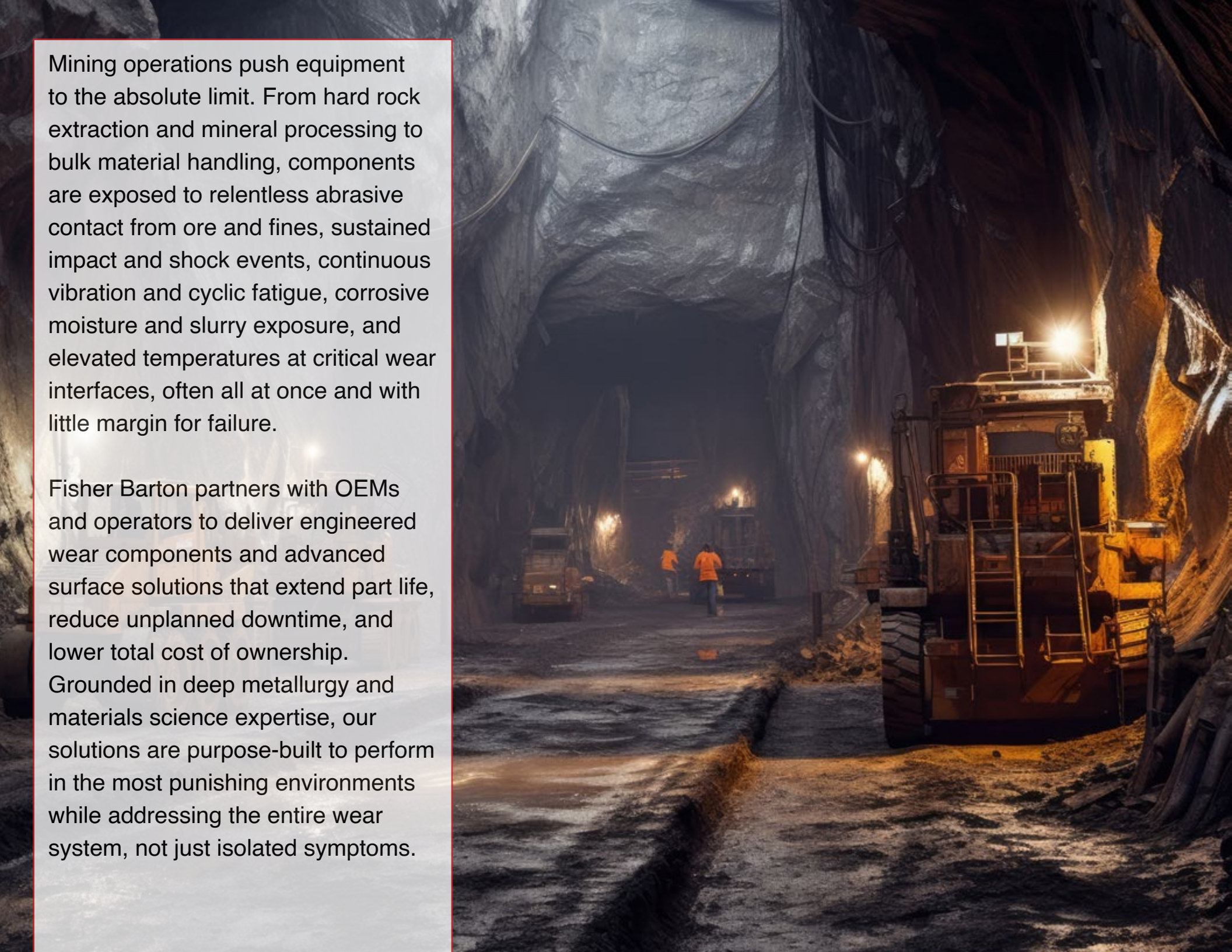
Fisher Barton

Mining

Engineered Wear Components for Extreme Material Handling.



Mining operations push equipment to the absolute limit. From hard rock extraction and mineral processing to bulk material handling, components are exposed to relentless abrasive contact from ore and fines, sustained impact and shock events, continuous vibration and cyclic fatigue, corrosive moisture and slurry exposure, and elevated temperatures at critical wear interfaces, often all at once and with little margin for failure.

Fisher Barton partners with OEMs and operators to deliver engineered wear components and advanced surface solutions that extend part life, reduce unplanned downtime, and lower total cost of ownership. Grounded in deep metallurgy and materials science expertise, our solutions are purpose-built to perform in the most punishing environments while addressing the entire wear system, not just isolated symptoms.

Metallurgy & Material Science: The Foundation of Performance

At the core of every Fisher Barton solution is metallurgy driven engineering. Our Technology Center leverages advanced analytical and testing capabilities to design materials that survive real world mining abuse. **Our capabilities include:**

- Custom alloy development for optimized hardness, toughness, and impact resistance
- Microstructure control through proprietary heat treat processes
- Failure analysis using SEM, EDS, and laboratory wear modeling
- Application specific material pairing (substrate + coating + geometry)
- ASTM abrasion, erosion, fatigue, and impact testing

By understanding why a component fails, we engineer solutions that wear longer—without over engineering or unnecessary cost.

Engineered Surface Solutions for Maximum Wear Life

Mining applications benefit significantly from Fisher Barton's advanced surface technologies, engineered to match specific wear mechanisms:

Thermal Spray Coatings

- HVOF coatings for extremely dense, abrasion and impact resistant surfaces
- Plasma and arc spray for high hardness wear protection
- Flame spray for economical corrosion and wear resistance

Laser Cladding & Hardfacing

- Metallurgically bonded overlays for severe abrasion and impact
- Ideal for wear plates, edges, liners, and high load contact surfaces

Proprietary Wear Improvement Processes

- Surface bonding techniques that increase bond strength and reduce porosity
- Low friction systems to reduce heat, material transfer, and adhesive wear

These technologies allow us to tune wear performance—extending life while controlling cost.

Common Mining Components That Fail from Wear

Mining OEMs and operators frequently experience premature wear or failure in the following areas—each representing a clear opportunity for improvement through metallurgy and surface engineering:

Material Handling & Conveyance

- Chute liners and deflector plates – severe sliding abrasion, impact gouging
- Conveyor wear bars and guides – abrasive wear, deformation
- Skirtboard and transfer point components – erosion and material buildup

Crushing & Processing Equipment

- Crusher liners and hammers – high impact + abrasion
- Mill liners and wear plates – slurry erosion, fatigue cracking
- Screens and grizzlies – abrasion and edge breakdown

Ground Engagement & Structural Wear

- Bucket lips, teeth, and adapters – impact, abrasion, and fracture
- Shovel and loader wear plates – metal loss and deformation
- Dozer blades and cutting edges – severe sliding wear

Rotating & Mechanical Systems

- Shafts, pins, and bushings – fretting, galling, fatigue
- Gears and sprockets – surface fatigue and wear
- Couplings and linkages – abrasive ingress and misalignment wear

Many of these failures trace back to suboptimal alloy selection, inadequate heat treatment, or insufficient surface protection—areas where Fisher Barton delivers measurable improvement.

Advanced Manufacturing for Mining Applications

Fisher Barton's vertically integrated manufacturing capabilities allow mining OEMs to consolidate suppliers, improve consistency, and scale efficiently:

- CNC machining for tight tolerance wear and structural components
- Laser and waterjet cutting for thick, hardened materials
- Robotic welding and joining for repeatable strength
- Grinding, polishing, and finishing for controlled fit and wear behavior
- Integrated prototyping for rapid validation and field testing

From prototype to high volume production, Fisher Barton delivers manufacturing repeatability you can rely on.

Why Mining OEMs Choose Fisher Barton

- Proven expertise in extreme wear environments
- Metallurgy driven solutions that eliminate premature failure
- Advanced coatings and surface technologies tailored to mining conditions
- Vertically integrated manufacturing for quality and cost control
- Longer component life, reduced downtime, and lower lifecycle costs

Fisher Barton is more than a wear parts supplier—we're your engineering partner for durable, cost effective mining solutions.

Fisher Barton

fisherbarton.com

FBC-1050 (4-26)