



MORE THAN ORE

## WHAT'S INSIDE DRIVES WHAT'S NEXT

We don't just support the mineral processing industry, we elevate it. At L&H, we provide full lifecycle support, from precision engineering and manufacturing to rebuilds, field services, and ongoing technical support for the components that keep crushing, grinding, handling, and separation systems running at their best. Our expertise transforms high-wear, high-demand equipment into high-performance solutions built to go beyond the expected.

From custom assemblies to precision rebuilds, we design for longer life, tighter tolerances, and greater reliability, advancing every stage of the process with smarter systems and stronger results. Whether you're facing extreme loads, nonstop cycles, or complex challenges, L&H delivers solutions that reduce downtime, increase efficiency, and extend the life of your assets.

This isn't just about keeping machines running, it's about pushing what's possible. This is...

# MORE THAN ORE

**L&H** INDUSTRIAL



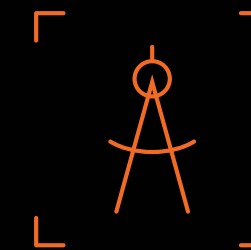
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**FROM FIRST CRUSH TO FINAL RECOVERY,  
WE DON'T JUST REPAIR EQUIPMENT, WE  
BUILD SMARTER, TOUGHER SYSTEMS THAT  
DRIVE THE WHOLE OPERATION FORWARD.**

**Mike Wandler**  
President and CEO / L&H Industrial



# DESIGN & ENGINEERING



## WHERE INNOVATION MEETS DURABILITY

Engineering at L&H is more than design, it's problem-solving in the toughest environments. Our engineers rethink how machines perform, diving deep into geometry, metallurgy, and system dynamics to solve failures before they happen.

We work side by side with our customers to uncover flaws, strengthen performance, and build components that last longer and work smarter. Because better parts mean fewer failures, stronger systems, and more reliable performance.

- **Re-engineered for Tougher Processing** — We deliver custom designs that outperform OEM components in high-impact, high-wear environments.
- **Failure Analysis & Design Optimization** — We identify root causes and redesign for longer life, better fit, and fewer breakdowns.
- **FEA & Simulation-Backed Decisions** — We use advanced modeling to validate strength, stress flow, and fatigue resistance before it's built.
- **Geometry & Load Path Refinement** — We engineer component details to improve alignment, reduce stress, and extend runtime.
- **Purpose-Built Materials & Metallurgy** — We apply material science to every design, selecting the right alloy, treatment, and finish to achieve the right results.
- **Hands-On Collaboration** — We work alongside your team to understand plant conditions and solve real operational challenges.







## NOT JUST REPAIRED, TRANSFORMED

Good enough isn't good enough for us. At L&H, manufacturing and repair is an obsession, executed by the best machinists, welders, and mechanics in the industry using the most advanced technology available. We don't just fix, we perfect.

From precision machining to massive fabrications, every component is built tougher, tested harder, and refined to perform beyond expectations. Because in mining, failure isn't an option and neither is second best.

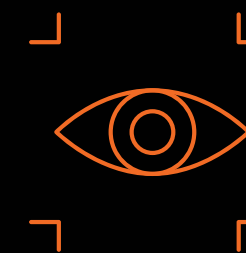
- **State-of-the-Art Technology & Capability** — Our facilities house some of the largest and most advanced machining, welding, and fabrication systems in the industry, purpose-built to manufacture and rebuild the hardest-working components in mining.
- **Built Better. Repaired Stronger** — We go beyond repair. Every rebuild is an opportunity to improve performance, strengthen design, and eliminate failure points.
- **100% In-House Production** — From machining and welding to final assembly and quality control, we handle it all in-house, ensuring speed, precision, and accountability at every step.
- **Extreme Quality Control & In-House Testing** — Before anything leaves our shop, it's tested, inspected, and verified to perform. From gear testing to NDT, we prove it before you run it.
- **Smart Inventory & Supply Chain Advantage** — We stock raw materials and critical spares, manufacture efficiently, and solve delays before they start, keeping your operation ahead of downtime.
- **Proven Field Performance** — L&H manufactures new components engineered to outlast and outperform the original, reducing unplanned downtime and driving greater reliability.

# MANUFACTURING & REPAIR





# MONITORING & CONTROLS



## DATA DECISIONS THAT DRIVE UPTIME

AI-powered intelligence at your fingertips. L&H's advanced monitoring and controls deliver real-time machine data to your operations team, helping them make split-second decisions that drive uptime, efficiency, and reliability. Our smart systems don't just track performance; they predict failures before they happen, optimizing every move, every load, and every hour of operation. From predictive maintenance to live equipment diagnostics, we turn data into action, keeping your machines running stronger, longer, and smarter.

- **AI-Powered Equipment Intelligence** — Ops IQ continuously monitors vibration, temperature, pressure, and power consumption across crushers, mills, conveyors, and pumps, delivering precise, real-time insights to maximize uptime and optimize mineral processing efficiency.
- **Instant Access for Faster Decisions** — Operators and maintenance teams get live insights anytime, anywhere, to stay ahead of downtime.
- **Seamless System Integration** — Our tech plugs into your existing plant systems without disruption, delivering clarity without complexity.
- **Predictive Maintenance Optimization** — Advanced algorithms identify wear patterns and guide smarter maintenance planning.
- **Built for Mining Conditions** — Engineered for vibration, dust, and heat, our systems don't just perform where others fail, they go beyond.







## YOUR CREW'S CREW IN A CRISIS

When equipment goes down, production stops. That's why our field service teams show up ready, with the skill, technology, and precision to install, rebuild, and troubleshoot the biggest, hardest-working machines in mining. From emergency repairs to on-site machining, welding, alignments, and complete overhauls, we move quickly to restore performance and avoid costly delays. No second-guessing. Just the industry's best, working shoulder-to-shoulder with your team to keep your operation on track.

- **On-Site, On-Call, Anytime** — Our technical teams are always ready to respond, whether it's a scheduled install or an unexpected breakdown.
- **Full-Scope Equipment Support** — We handle everything from alignment and installation to complete rebuilds, right at your site.
- **On-Site Machining & Welding** — Our mobile units bring line boring, machining, fabrication, and certified welding straight to your operation.
- **Precision Field Alignment & Commissioning** — We don't just install, we ensure every component is dialed in for peak performance from day one.
- **Unmatched Industry Experience** — Our field service professionals bring decades of hands-on expertise, solving problems others can't.

# FIELD SERVICES







WHEN YOU UNDERSTAND  
THE WHOLE PROCESS, YOU  
ENGINEER BETTER SOLUTIONS.



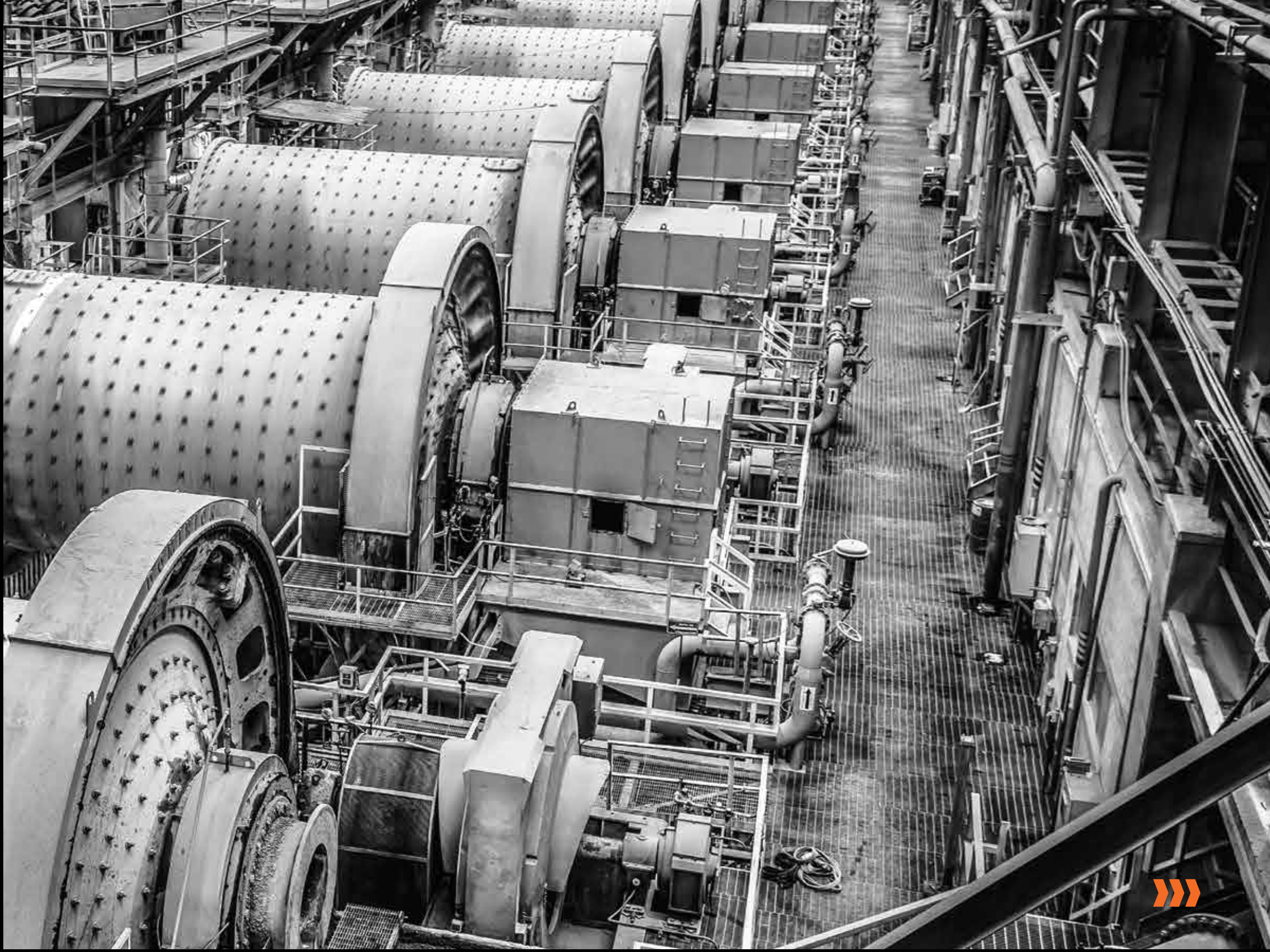


## CRUSHING & GRINDING

Crushers and mills are the backbone of mineral processing, pushing through massive volumes of material under extreme pressure and wear. When this equipment goes down, so does production. That's why L&H goes beyond repair and replacement. We engineer stronger, longer-lasting solutions that withstand the harshest conditions, reducing downtime and increasing throughput. Whether it's upgrading critical components, enhancing durability, or integrating smarter monitoring, we deliver the toughest solutions for the most demanding crushing and grinding operations.

- **Crusher Upgrades & Rebuilds** — Precision-machined, wear-resistant components for gyratory and cone crushers. Available as new, repair, or upgrade, to handle high-impact loads and extend service life.
- **Mill Gear & Pinion Solutions** — Custom mill solutions beyond gearing. New or rebuilt heads, liners, shells, and pedestals, engineered for longer wear life and smoother operation.
- **Custom Wear Components** — Engineered wear parts built to outperform standard materials and boost efficiency across crushing and milling applications.
- **Critical Path Component Repair** — Reinforcing and rebuilding critical structures to eliminate stress fractures and extend equipment lifespan.
- **Smart Monitoring & Predictive Maintenance** — AI-driven analysis to detect early signs of wear and prevent unplanned failures.
- **Field Services for Installation & Alignment** — Expert on-site teams to precisely install, align, and optimize crushing and grinding systems.

# THE GRIND NEVER STOPS







# NOT JUST MOVING MATERIAL, DRIVING RESULTS

## HANDLING & CONVEYING

Material doesn't move itself, conveyors, feeders, and transfer points take the full force of every ton processed. Heavy loads, constant vibration, and abrasive material put relentless stress on critical components, leading to breakdowns that bring entire operations to a halt. L&H designs, manufactures, and repairs material handling systems built to endure. From reinforced conveyor structures to precision-machined drive components and engineered upgrades that eliminate premature wear, we keep your operation moving stronger, smoother, and with fewer interruptions.

- **Conveyor Overhauls & Structural Reinforcement** – We rebuild and reinforce frames, pulleys, idlers, and structural supports to withstand continuous high-load operation.
- **Precision Engineered Gearing & Drives** – We custom-build and upgrade gearboxes, pulleys, and rollers for maximum power transmission and longevity.
- **Wear-Resistant Upgrades for Extended Service Life** – We install high-durability liners, impact beds, and wear parts designed to resist abrasive material flow and reduce replacement cycles.
- **Apron Feeder Rebuilds & Upgrades** – Our proprietary drive shaft assemblies are built for reliable material flow, with chains and flights available to support the entire system.
- **Predictive Monitoring for Preventative Maintenance** – Smart sensors and AI-driven analytics are used to monitor belt health, alignment, and wear, helping prevent unexpected failures.
- **On-Site Installation, Alignment & Emergency Repairs** – L&H field teams ensure proper system alignment, efficient installations, and rapid-response troubleshooting.





## CLASSIFICATION & SCREENING

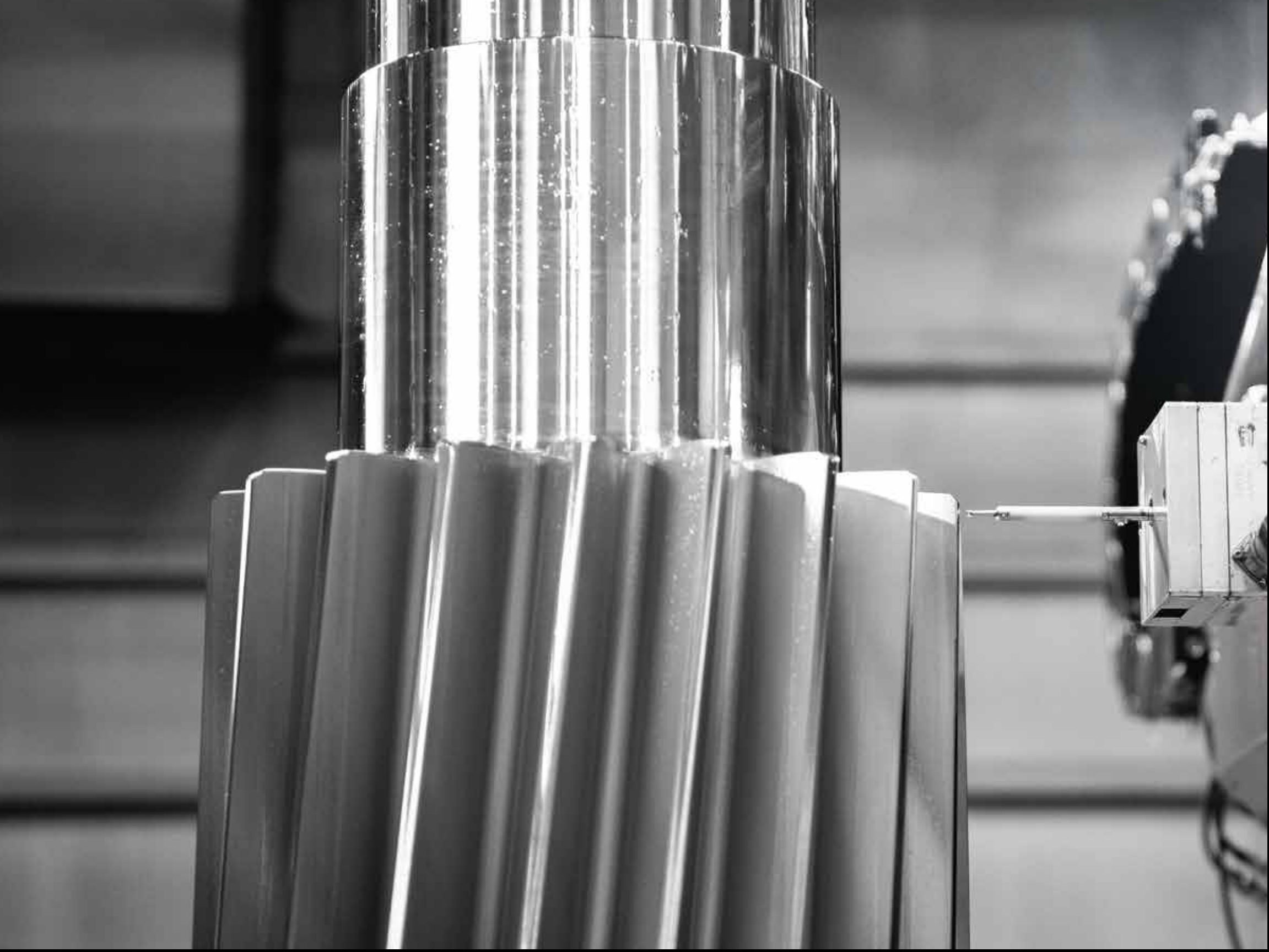
Every ton processed depends on accuracy, classification and screening systems separate valuable material from waste, ensuring efficiency at every stage of the operation. But high vibration, heavy impact, and abrasive material take a toll, leading to misalignment, inefficiencies, and costly downtime. L&H delivers solutions that go beyond maintenance. We engineer stronger, smarter, and more precise screening and classification systems that increase throughput, improve efficiency, and extend service life, keeping your operation running at peak performance.

- **Screen Deck Rebuilds & Reinforcement** – Upgraded frames, structural supports, and vibration systems increase durability and screening accuracy.
- **Hydrocyclone & Classifier Optimization** – Precision tuning, enhanced wear materials, and improved flow dynamics deliver better classification and separation.
- **Vibrating & Rotating Screen Component Upgrades** – Reinforced shafts, bearings, and drive mechanisms withstand high loads and extend service life.
- **Smart Monitoring & Performance Analytics** – AI-powered tracking monitors vibration patterns, material flow, and wear rates to prevent failures and fine-tune efficiency.
- **On-Site Repair, Alignment & Installation** – Expert teams align, calibrate, and optimize classification and screening systems for peak performance.

# FINE TUNED FROM THE FIRST PASS







# WE FILTER OUT MORE THAN ORE

## GEARING & PINIONS

In mineral processing, your entire operation depends on the performance of your gearing systems. Whether it's mill drives, crushers, apron feeders, or conveyors, if the gears fail, production stops. That's why L&H delivers world-class gearing and pinion solutions that are engineered to run stronger, longer, and with absolute precision. From massive mill gears to custom-cut drive pinions and specialized spline arrangements, we manufacture and rebuild the components that keep your operation moving.

- **Massive Mill Gears, Made In-House** – We manufacture and repair large-diameter girth gears and drive assemblies with precise tooth geometry, tight tolerances, and flawless surface finishes—optimized for heavy, continuous-duty loads.
- **Reverse Engineering & Gear Reprofilng** – We analyze wear patterns and OEM flaws, then reengineer gearing profiles for longer life, smoother meshing, and greater reliability under extreme load.
- **Custom Drive & Intermediate Pinions** – From single and double-helical designs to straight-cut and tapered arrangements, we deliver precision-cut pinions for high-torque performance and extended gear life.
- **Heat Treatment & Quality Control** – Every gear and pinion is subjected to rigorous NDT, hardness testing, and verification checks to ensure it's ready for real-world mining conditions.
- **Advanced Spline & Shaft Capabilities** – Internal and external splines, keyways, and specialty shaft configurations, engineered to match exacting specifications and ensure perfect gear-to-gear alignment.
- **Installation & Field Alignment Services** – Our experts deliver and install gears and pinions with precision laser alignment and torque validation for immediate, trouble-free startup.







## WHERE SCALE DRIVES PERFORMANCE

Our horizontal lathe in Gillette, machines and restores large-diameter components for primary gyratory crushers and grinding mills. Tight tolerances and high-load capacity ensure dimensional accuracy and mechanical integrity for critical rotating assemblies.

### › Extensive Size and Load Capacity

Accommodating workpieces up to 10 meters (32.8 ft) in length and exceeding 160,000 lbs (72,600 kg) in weight. This capacity enables machining of main shafts, mill trunnions, and sleeves without sectional assembly, preserving structural integrity.

### › High-Precision Machining Accuracy

Equipped with advanced CNC controls and precision spindle bearings, the lathe achieves tolerances within  $\pm 0.05$  mm ( $\pm 0.002$  in) on diameters and concentricity, critical for balanced rotation and wear reduction.

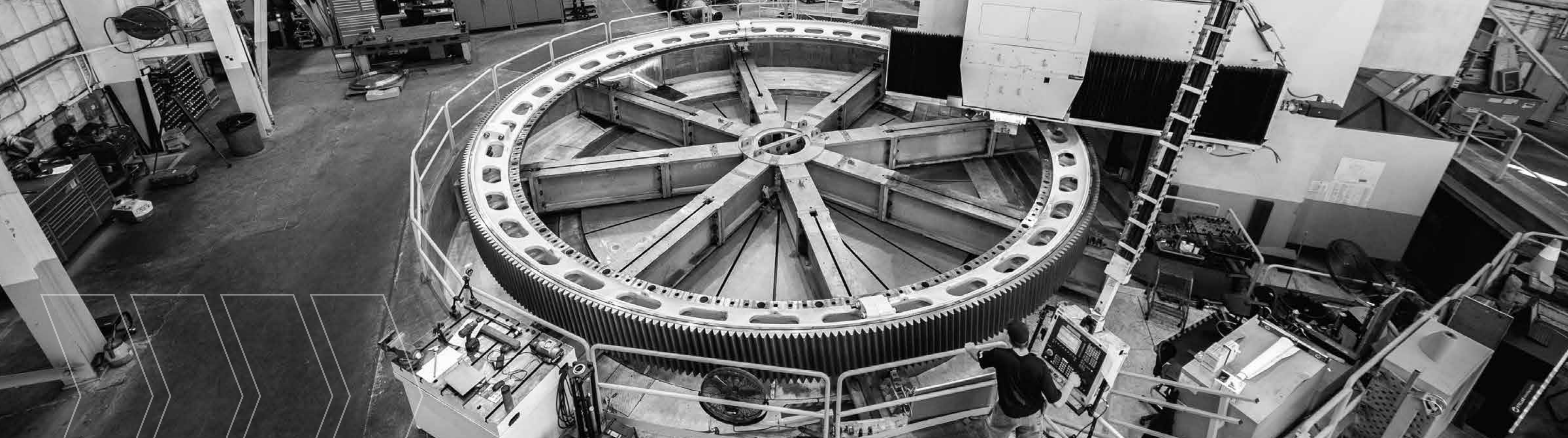
### › New Manufacturing & Repairs

Provides high-precision repair and machining, including shaft journal re-machining, bearing surface restoration, and large-scale welding overlay prep, minimizing lead times compared to full OEM part replacement.

### › Fully Integrated Manufacturing Process

The lathe is integrated with engineering design validation, metallurgical heat treatment, and nondestructive testing (NDT) to guarantee component integrity and compliance with OEM specifications.





## TURNING WHAT NO ONE ELSE CAN

Our vertical turning lathe in Tempe, is built to handle some of the largest and heaviest components in the industry. With extreme load capacity and precision machining, it enables efficient manufacturing and repair of key equipment used in mineral processing.

### › Exceptional Diameter and Weight Capacity

The VTL accommodates parts up to 41.5 feet (12.65 m) in swing diameter, 16.8 feet (5.08 m) in height, and 250 tons (500,000 lbs) in weight—ideal for large bases, housings, and rotating assemblies that require stable, high-accuracy machining.

### › Live Tooling for Multi-Process Machining

Equipped with programmable controls, the machine performs milling, drilling, and tapping in a single setup, reducing handling time and minimizing alignment errors caused by multiple setups on large components.

### › Precision and Stability at Scale

A custom-engineered foundation and reinforced infrastructure provide vibration damping and rigidity, allowing the VTL to maintain tight tolerances even at full load and maximum reach.

### › Integrated Facility Support

As part of L&H's 60,000 ft<sup>2</sup> Tempe facility, the VTL is supported by in-house engineering, fabrication, welding, and inspection, enabling end-to-end control over component quality and performance.



## CRUSHER REBUILD

# 40%

LONGER SERVICE LIFE

A major mining operation faced repeated frame failures and excessive downtime with its primary crusher. L&H engineered a reinforced frame design, precision-machined key components, and upgraded materials, resulting in a 40% increase in service life and reduced unplanned outages.

## GEAR & PINION UPGRADE

# MIL\$

SAVED IN UNPLANNED FAILURES

Excessive wear on an OEM mill drive system was causing unexpected breakdowns, driving up costs and delays. L&H developed a custom gear and pinion solution, incorporating advanced metallurgy and optimized machining. The result? 50% longer wear life, improved load distribution, and millions saved in downtime prevention.

## FIELD SERVICE TEAM

# 48HRS

RESTORED OPERATION

A processing plant experienced a critical conveyor failure, threatening production shutdown. L&H's field service team mobilized, executing a full structural rebuild, on-site machining, and alignment—getting the system back online in under 48 hours.

## AI-POWERED MONITORING

# 67%

OF DOWNTIME MITIGATED

By monitoring lubrication system pressure, flow, and temperature in real time, Ops IQ enabled the team to identify early warning signs and schedule maintenance before failure. What could've caused a full system shutdown was addressed proactively, avoiding costly downtime and extending equipment life.

# BETTER ISN'T JUST PROMISED, IT'S PROVEN.











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