



MAXIMIZE YOUR CAMPAIGN

PROPRIETARY PROCESSES. ONE SINGLE SUPPLIER.

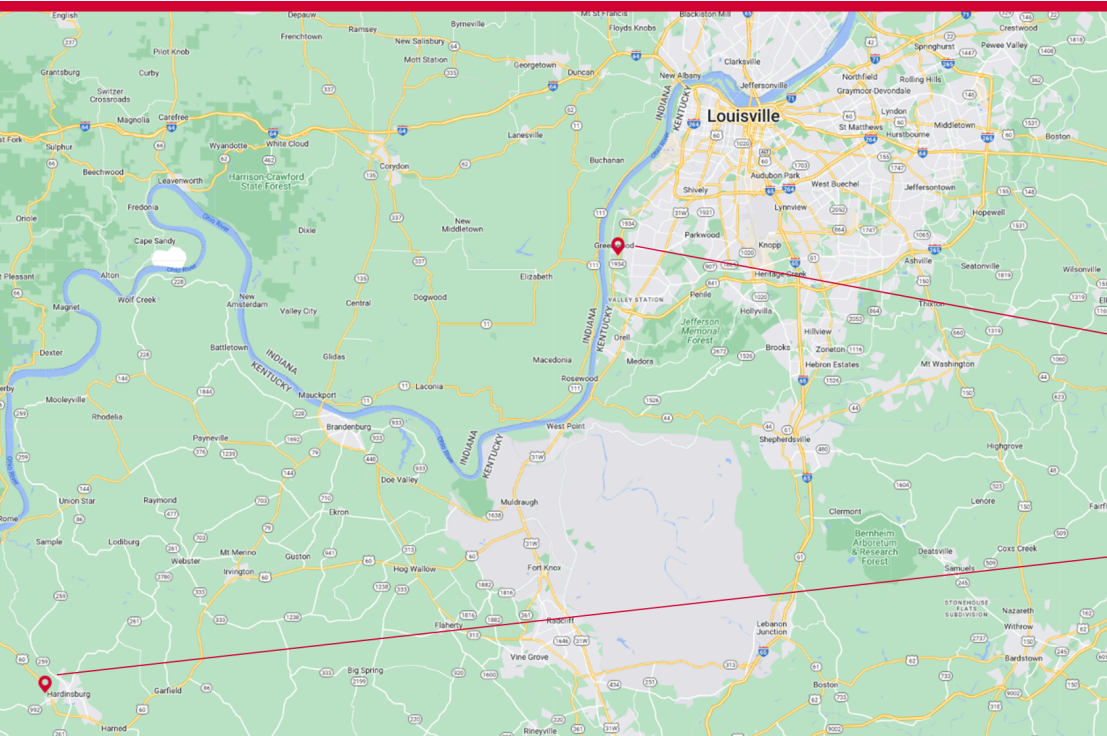


ABOUT ATLAS

SINCE 1907

Atlas Machine & Supply, Inc. is a fourth-generation, century-old, family business renowned for its excellence in the industrial services industry. With a focus on caring for both customers and employees, the company re-engineers, repairs, and manufactures complex manufacturing equipment, and is a leading provider of industrial air compressor solutions, providing services across the nation and the ability to travel worldwide.

- ✓ We provide innovative solutions to industrial equipment problems.
- ✓ A family-owned business established in 1907.
- ✓ 260+ employees.
- ✓ Average employee tenure over 11 years.
- ✓ Headquartered in Louisville, KY.
- ✓ 9 locations throughout the Midwest.
- ✓ 3 shifts allow us to provide 24/7/365 service.



Atlas Machine & Supply has two machining and repair locations, an in-house location and an on-site field machining location. As well as 7 compressed air branches.

**In-House Machining and Repair
Louisville**
7000 Global Drive
Louisville, KY 40258

**On-Site Field Machining
Harned**
122 Industrial Park Lane
Hardinsburg, KY 40143



ABOUT STEEL SERVICES

Being one of the most important industries in North America, Atlas is proud to play an ever-growing role in keeping the steel industry up and running, as well as developing new products to increase efficiencies and reduce downtime. Over the years, we have repaired, resurfaced, reverse-engineered, or manufactured nearly every type of roll utilized in steel mills, all over the world.

We have repaired, modified, and manufactured new expanding mandrels, troubleshot and rebuilt numerous gearboxes, and disassembled, evaluated, redesigned, and rebuilt countless other pieces of machinery in steel plants.

In galvanizing and aluminizing lines, we've developed new ways of refurbishing pot rolls and other zinc tank equipment. We've mastered the art of manufacturing furnace rolls and we can manufacture bridle rolls with a longer life expectancy, courtesy of a hard weld overlay and high-performance thermal spray coating.



YOUR CHOICE FOR STEEL PROJECTS

With over a century of knowledge and expertise, you can count on Atlas to provide the most innovative and comprehensive solutions to any problem, and Atlas's dedication to going above and beyond for its customers is a shining example of excellence in the field. **Atlas has the experience you need to get the job done right the first time.**



Repair and re-engineering of equipment to extend life.



Repair/Make new/Reverse-engineering of OEM parts.



Thermal spray coatings.



Weld claddings and fabrication.



Metrology and alignment.

POT ROLL

REFURBISHMENT, COATING, AND MANUFACTURING

REDUCE COST AND LEADTIME WHILE IMPROVING
COMMUNICATION AND QUALITY

POT ROLL REFURBISHMENT

- Pot Roll Coating
- Pickling, Machining, and Grooving
- Installation of Bushings and Bearings
- Stocking Bushing and Sleeves
- Custom Storage and Shipping Containers

POT ROLLS MANUFACTURED TO PRINT IN ALL MATERIALS INCLUDING

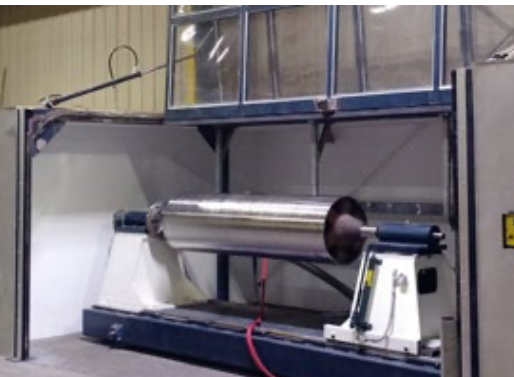
- Ferrite Free CF3M
- 52100
- 1026/1045
- Turnkey

EXTENDED LIFE ROLL COATINGS FOR

- Galvanizing (GI & GA)
- Galvalume (AZ)
- Aluminizing (AL/ALSI)

DEDICATED ENGINEERING TEAM

- Reverse Engineering
- Create Drawings
- Material, Bearing, and Coating Upgrades
- Stress, Heat, and Deflection Analysis
- Onsite Pot Rig Alignment
- Air Knife Improvements



POT EQUIPMENT

REFURBISHMENT AND MANUFACTURING

INCREASE RELIABILITY AND REDUCE COSTS

LOW FRICTION AND LONG-LIFE BUSHINGS AND BEARINGS

- Ceramics
- Laser Cladding and PTA
- Stellite and Cobalt Alloys
- T400 and T800
- Static Cast, Centrifugally Cast and Powder Metal

POT RIGS AND HARDWARE

- Arms
- Bearing Housings
- Scrapers
- Snouts
- Air Knives
- Beams
- Custom Storage and Shipping Containers

DEDICATED ENGINEERING TEAM

- Reverse Engineering
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BRIDLE ROLL

REFURBISHMENT AND MANUFACTURING

ATLAS ROLLS ARE TRUE TO CUSTOMER SPECIFICATIONS

ATLAS MANUFACTURES AND REFURBISHES ROLLS OF ALL SIZES

- Hot Bridle Rolls
- Deflector Rolls
- Tower Rolls
- Backup Rolls
- Water Cooled Rolls

VALVE ENHANCING MATERIALS

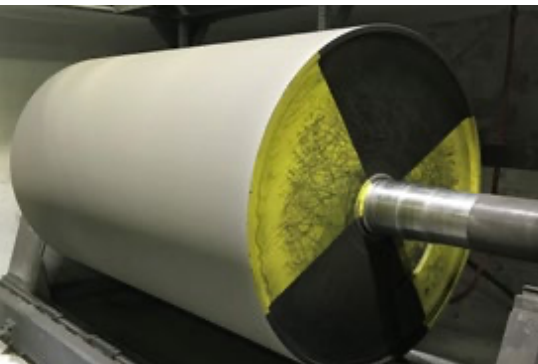
- Cladding and Hardfacing
- 420 SS
- Tungsten Carbide
- Chrome Replacement Coatings
- Proprietary Coatings for All Applications

BUILT TRUE TO DESIGN

- Tightly Control Material Composition
- Verify Material Certifications
- Strictly Follow All Drawing Specifications
- In-House Balancing
- Provide Final Inspection Data and Quality Documentation

PROTECTION FOR TRANSIT AND STORAGE

- Secure New and Newly Refurbished Rolls with Custom Metal or Wooden Crates



FURNACE ROLL MANUFACTURING

INNOVATIONS FOR FURNACE ROLL RELIABILITY

INSPECTIONS

Prevent unplanned roll failure and outages with regular roll inspections.

- Onsite Profile and Roll Roughness Verification
- Proprietary Phased Array Ultra Sonic Testing to Prove Weld Integrity on New and Used Rolls
- Failure Mode Analysis of Used Rolls

REFURBISHMENT

Safely reduce costs with refurbished furnace rolls.

- Restoration of Critical Dimensions to OEM Specifications
- Proprietary Weld Heat Treating and Welding to Repair Heat Damaged Rolls
- Regrinding Profiles to Like-New
- Reapply or Upgrade Coatings for Improved Performance
- Roll Recycling to Offset the Cost of New Roll Construction

MANUFACTURING

We take responsibility for 100% of the manufacturing process from foundry to application of the coating.

- Rigorous Material Quality Specifications and Screenings
- Weld Geometry Optimization
- Automated TIG Welding Methods Developed Specifically for Heat Resistant Stainless-Steel Alloys
- World-Class Machining and Grinding
- Industry-Leading Roll Coatings



THERMAL SPRAY COATING LIST

HVOF

POWDER ID NUMBER

TECHNICAL DETAILS

AM-600 (WC-12Co)	Medium WC Hard, dense coatings resistant to abrasion, erosion and sliding wear Smooth coating with fine micro-structure and high bond strength Low oxidation and high corrosion resistance Used on bridle rolls for environments with high abrasion and limited risk of corrosion Service up to 932°F
(WC-17Co)	Hard, dense coating with low sliding wear and high impact resistance Protection against fretting and abrasion used on parts which may flex in operating conditions Higher cobalt content allows for better ductility of the coating without cracking Lower resistance to abrasion and corrosion (compared to Am-600) service up to 932°F
AM-609	Special blend for parts used in Aluminized (Al/AlSi)
AM-610	Medium WC Alternative to AM-615 Very dense and ductile coating with good acids, abrasion, erosion, and sliding wear resistance Excellent corrosion resistance in sea water, diluted mineral and organic acids Used for parts applied in marine environments, petrochemical, and off-shore applications
AM-611	Homogeneous distributions of fine Al2O3 Excellent build-up resistance Good wear resistance at high temperatures and thermal shock resistance Used on furnace rolls in steel sheet annealing Service up to 1,922°F
AM-615 (WC-10Co-4Cr)	CoCr matrix shows higher corrosion and abrasion resistance than Co matrix Useable in water base solutions and wet corrosive environments General replacement / improvement for hard chrome plating Used on rolls, ball valves, oil field equipment Service up to 932°F
AM-620	Medium carbide Dense oxidation and erosion resistant coating Good cavitation resistance Hot gas corrosion resistant Used for valve stems, turbine components, and fuel rod mandrels Service up to 1,600°F
AM-625	Fine WC Higher oxidation and corrosion resistance than pure WC-Ni based coatings Smooth coating with fine microstructure and high bond strength Service up to 750°F
AM-630	Special blend for parts used in galvalume (AZ) pots
AM-640	Dense, abrasion and oxidation resistant coating for salvage and buildup application Use on carbon and low alloy carbon steel substrates Bond coat to improve the adherence of sprayed ceramic topcoat deposits Service up to 1,830°F
A -650	Machinable, oxidation & abrasion resistant coating Self-bonding Clad products produce exothermic reaction during spraying, excellent bond strength For salvage and build-up on machinable carbon and corrosion-resistant steels Bond coat for thermal sprayed ceramic and abradable materials Service up to 1,470°F
AM-660	Moderately resistant to wear, and fretting resistance Good dry running properties Typically used on pumps and pistons guides
AM-670	Austenitic stainless steel For protection against corrosion, cavitation and low temperature particle erosion Used for salvage and repair Service up to 1,000°F
AM-690	Special blend for parts used in galvanize (GI) pots

LASER CLADDING

POWDER ID NUMBER

TECHNICAL DETAILS

AM-401	60% Macrocrystalline WC Particles (50-150 Microns) Used for hard facing journals of rolls for Galv, Galv Alum, Galv Anneal, and Aluminizing Lines
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PRODUCTS FOR EVERY APPLICATION

DUAL WIRE ARC

POWDER ID NUMBER

TECHNICAL DETAILS

AM-210	Amorphous hard, abrasive and corrosion resistant coating Smooth high chrome-like finishes can be obtained by grinding High wear, anti-skid surfacing applications Service up to 1,700°F
AM-215	Dense, resistant to corrosion and stress cracking in caustic medium Exhibits good abrasion and metal-to-metal wear resistance
AM-216	Lower corrosion rate than C-276 Typically used as a replacement for Hastalloy C-276
AM-250	Corrosion and abrasion resistance Service up to 1,700°F

6P II (FLAME SPRAY)

POWDER ID NUMBER

TECHNICAL DETAILS

AM-300	Ceramic spray **Must be sprayed with bond coat (AM-330) to prevent cracking ** Resists sliding wear and many corrosive medias Not for acidic or alkaline environments Lubricious, good toughness, moderate electrical conductivity with no surface static charge For sputter target manufacture, decorative coatings, mandrels Service up to 1,000°F
AM-310	Self-bonding Moderately resistant to wear, abrasion, and corrosion Good machinability For salvage and build-up, or bond coat on carbon and corrosion resistant steels Service up to 1,400°F
AM-320	Moderate oxidation, wear and fretting resistance Good dry running properties For build-up and repair of copper base alloy parts Typically used on pumps, piston guides, shifter forks, and compressor air seals
AM-330	Produces self-bonding, general purpose, fairly hard coatings for bearing applications Tough resistant to erosion and impact damage For machine elements, bearing seats, valves
AM-340	Hard coatings, good oxidation, and hot corrosion resistance For salvage and restoration of ferrous alloys Service up to 1,500°F
AM-350	Very ductile Formulated for combustion powder spray or atmospheric plasma spray Coarse as-sprayed finish for traction or gripping applications Service up to 930°F
AM-360	Excellent dielectric and thermal insulation characteristics Resists wear, chemically inert, stable at high temperatures For vacuum chamber, furnace linings, corona rolls Service up to 3,000°F

SEALANTS

POWDER ID NUMBER

TECHNICAL DETAILS

AM-701	Primary use for galvanize (GI) applied brush or spray Protect and lubricate metals, ceramics, composites and plastics Service up to 1,560°F
AM-705	Aluminizing Roll Sealant (AL)
AM-720	Nonstick coating, low friction, corrosion resistant Service up to 400°F



ON-SITE FIELD MACHINING DIVISION

»»» WE BRING THE SOLUTION TO YOU

FIELD SERVICES

- ✓ Milling
- ✓ Line Boring
- ✓ Single Point Threading
- ✓ Journal Turning
- ✓ Lapping
- ✓ Pipe Preparation
- ✓ Flange Facing
- ✓ Engineering
- ✓ Balancing
- ✓ Laser Tracking
- ✓ Stud Removal
- ✓ Welding
- ✓ Grinding
- ✓ And more!

APPLICATIONS AND INDUSTRIES

- ✓ Steam Turbines
- ✓ Boiler Feed Pumps
- ✓ Electric Motors
- ✓ Reciprocating Engines
- ✓ Forging Presses
- ✓ Stamping Presses
- ✓ Injection Molding Presses
- ✓ Mining
- ✓ Steel and Aluminum
- ✓ Chemical Processing
- ✓ And more!



24 HOURS PER DAY
7 DAYS PER WEEK
365 DAYS PER YEAR

Atlas understands that machines do not break down according to your schedule.

That is why we are available 24/7/365 via an emergency line that will connect you directly to a real live field technician.

We're here when you need us most.

Eliminate lost production time with much less downtime. Get up and running in no time, with 1-855-4UPTIME (855-487-8463)!





ONE SUPPLIER... ALL THE RESULTS.

Simplify pot equipment repairs with one single partner.
Get one point of contact and all the results you need
with Atlas Machine & Supply, Inc.



Machine & Supply, Inc.

COMPLETE POT EQUIPMENT SOLUTIONS



1.855.GO.ATLAS (462-8527)



ROLLS@ATLASMACHINE.COM



WWW.ATLASMACHINE.COM

POWERED BY PEOPLE