



Company Overview

Curtiss-Wright Surface Technologies, also known as Metal Improvement Company, operates the world's largest network of shot peening facilities to meet today's challenging requirements. Located in Santa Ana, California, we are a full-service shot peening facility with numerous OEM and Industry approvals.

INDUSTRIES SERVED



AEROSPACE



AUTOMOTIVE



MILITARY



JET ENGINE FAN BLADES

Design Challenges and Problems Solved

- High-Cycle Metal Fatigue (bending, torsion, vibration)
- Stress Corrosion Cracking
- Thermal Fatigue
- Gear Tooth Flank Fatigue (micro-pitting, rolling-sliding contact fatigue)
- Contour Correction of titanium and aluminum aircraft structures

Markets and Industries Served

- | | |
|----------------------------|-----------------------|
| Aerospace | Mining |
| Automotive | Power Generation |
| Chemical & Food Processing | Off-Highway Vehicles |
| Construction | Oil & Gas |
| Industrial | Railroad |
| Military | Recreational Vehicles |

Facility Capabilities and Services

- | | |
|-------------------------|--|
| Controlled Shot Peening | Dual-Controlled Shot Peening |
| Glass Bead Peening | Glass Bead Blasting and Finishing |
| Peenforming | Contour Correction (peen straightening) |
| On-Site Shot Peening | Surface Preparation with Abrasive Blasting |
| Light Rust Removal | Precision Texturing to a specified finish |

Customer Approvals/Specifications (Partial List)

- | | |
|--------------------------|---------------------|
| AS 9100D registered | FAA repair station |
| ISO 9001:2008 registered | Nadcap accredited |
| Bell Helicopter | Boeing Commercial |
| General Electric | Boeing Mesa |
| Lockheed Martin | Boeing Philadelphia |
| Northrop Grumman | Boeing St. Louis |
| Bombardier | Airbus |
| Safran | Goodrich |
| Parker | |

Contact Information

Curtiss-Wright Metal Improvement Company
 2151 South Hathaway Street
 Santa Ana, CA 92705
 Telephone: (714) 546-4160
 Fax: (714) 546-8643



Shot Peening Applications

TYPICAL APPLICATIONS



HELICOPTER ROTOR



SPRINGS



GEARS



DRIVE SHAFTS



ENGINE COMPONENTS

Aerospace and Rotorcraft Components

Engine Main Shaft
Propellers and Rotors
Wings and Fuselage
Landing Gear (all MLG, NLG)
Blades and Hubs
Bearing Cages
Structures (spars and struts)
Transmission Gears: All designs

Auto Power Train Components

Flex Plates
Parking Pawls
Gears: All designs
Shafts

Auto Engine Components

Connecting Rods
Rocker Arms
Crankshafts
Valve Springs

Military, Off-Highway Vehicle Components

Suspension Lugs
Wheel Bearing Flanges
Torsion Bars
Steering Flanges

Oil & Gas

Drill Collars, Bits and Rods
Shovel Buckets and Screens
Electronic Chassis
Trunk Crankshafts

Other Components/Applications

Feedscrews
Precision Texturing (architectural)
Springs: Auto – Door and Seat
Threaded Connections
Gears: Large Industrial and Mining
Saw Blade Holder
Ship – Winch Tension Transducers 5 ft. lg.
Tools, Dies, Moulds and Welded Fabrications

On-Site Shot Peening

Field crews can shot peen any size part at your facility or on-site to Mil Spec:
Aircraft Fuselage / Wings
Hydro Water Wheels
Oil Refinery Coker Structure
Gas or Steam Turbines
Mining Ball Mills and Drag Line Gears
Wellments – Pipelines, Railcars, Ships

Curtiss-Wright operates a network of about 65 business units in 10 countries, including North America, Asia and Europe, performing the following surface treatment technologies:

- Controlled Shot Peening
- Peen Forming
- Laser Peening
- CASE super finishing
- Engineered Coatings (including CARC and Solid Film Lubricants)
- Materials Testing / Analytical Services
- Thermal Spray (including HVOF)
- Sale of Coating Products under the Everlube brand