





AEROSPACE



AUTOMOTIVE



MILITARY



JET ENGINE FAN BLADES

# **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 Phoenix, Arizona, we are a full-service shot peening facility with numerous OEM and Industry approvals.

### **Design Challenges and Problems Solved**

High-Cycle Metal Fatigue (bending, torsion, vibration) Fretting Fatigue Stress Corrosion Cracking Thermal Fatigue Gear Tooth Flank Fatigue (micro-pitting, rolling-sliding contact fatigue)

### Markets and Industries Served

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

# **Facility Capabilities and Services**

Controlled Shot PeeningGlass Bead Blasting and FinishingGlass Bead PeeningContour Correction PeeningWet Grit/Glass PeeningOn-Site Shot PeeningSurface Preparation with Abrasive BlastingLight Rust Removal

# Customer Approvals/Specifications (Partial List)

Nadcap Accredited FAA Repair Station Bell Helicopter Boeing Commercial Boeing Military & Defense Collins GE Aviation Honeywell Parker Lord Pratt & Whitney Safran Textron

# **Contact Information**

Curtiss-Wright Metal Improvement Company 103 South 41st Avenue Phoenix, Arizona 85225 Telephone: (602) 278-2811



#### TYPICAL APPLICATIONS



HELICOPTER ROTOR



SPRINGS



GEARS





**ENGINE COMPONENTS** 

# **Shot Peening Applications**

### 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

**Power Generation** Fastener Bars Rotor Disc / Wheels

Rotor Blades / Buckets **Rotor Shafts** 

Gears: All designs

Shafts

### Military, Off-Highway Vehicle Components

Suspension Lugs Wheel Bearing Flanges

### Oil & Gas

Drill Collars, Bits and Rods Shovel Buckets and Screens

**Electronic Chassis** Trunk Crankshafts

**Steering Flanges** 

Torsion Bars

### Other Components/Applications

Feedscrews Welded Fabrications Threaded Connections Gears: Industrial and Mining Springs: All designs Tools, Dies, Molds

### **On-Site Shot Peening**

Field crews can shot peen any size part at your facility or on-site to spec: Aircraft Fuselage / Wings Hydro Water Wheels Oil Refinery Coker Structure

Gas or Steam Turbines Mining Ball Mills and Drag Line Gears Weldments - Pipelines & Railcars

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

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