

# PROFESSIONAL GRADE TOOLS

## COMPANY OVERVIEW

The reliability of Lincoln Industries' solutions has been proven over 65 years of service to some of the world's most recognizable brands. Headquartered in Lincoln, Nebraska, Lincoln Industries is the largest and most diverse, privately held metal finishing company in North America. With over 900,000 square feet of facilities in 10 locations across the Midwest, Lincoln Industries has over 1,200 people working every day providing quality, efficiency, service, and expertise.

Lincoln Industries works with brand leaders in the professional tool industry to increase performance, address wear and corrosion concerns, and improve cosmetic styling of products. We have built a reputation for providing the best cosmetic plating and functional coating options and are always evolving to outpace competition and set the bar for performance. From tube bending, polishing, stampings and forgings, cosmetics to thermal coatings to high wear corrosion resistant coatings, zinc and aluminum die casting and tool design, we do it all when it comes to solving the most difficult challenges.

Lincoln Industries — making great brands better.

## QUALITY CERTIFICATIONS

- ▶ IATF 16949
- ▶ ISO 9001
- ▶ ISO 14001

## INDUSTRY SPECIFIC CAPABILITIES

- ▶ Metal finishing
- ▶ Supply chain management
- ▶ Speciality and performance coatings
- ▶ Assembly
- ▶ Zinc and aluminum die casting
- ▶ Tube fabrication and polishing

## TARGET PRODUCTS

- ▶ Ratchets, sockets, wrenches
- ▶ Cosmetic trim pieces
- ▶ Drill bits, chisels, punches
- ▶ Screwdrivers, pliers, channel locks
- ▶ Specialty tools
- ▶ Industrial saws
- ▶ Cordless tools
- ▶ Accessory items
- ▶ Impact guns

## INDUSTRIES

- ▶ Aerospace
- ▶ Automotive
- ▶ Construction
- ▶ Trade school
- ▶ Energy and natural resources
- ▶ Military, defense, and government
- ▶ Maintenance
- ▶ Manufacturing and assembly

PREMIUM PROVEN QUALITY SOLUTIONS

CAPABILITIES	SUBSTRATE MATERIALS	FEATURES & BENEFITS
<b>PLATINGS</b>		
Anodizing Type II	Aluminum	Corrosion resistance, durability, electrical insulation, can be dyed various colors
Anodizing Type III (Hardcoat)	Aluminum	Corrosion resistance, high durability, electrical insulation
Black Chrome	Steel, Aluminum, Brass, Stainless	Decorative parts and corrosion resistance, offered in variations
Black Oxide	Steel	Anti-galling properties, dimensional stability, improved corrosion protection when followed by appropriate after treatment
Bright Nickel	Steel, Brass	Corrosion protection, appearance
Cadmium	Steel	Corrosion resistance, low coefficient of friction, lubricity, electrical conductivity
Chromate Conversion Coatings	Zinc, Cad, Aluminum	Improves salt spray, makes a good paint base
Decorative Nickel Chrome	Steel, Aluminum, Brass, Stainless	Decorative parts and corrosion resistance, offered in variations
Electropolishing	Stainless	Corrosion protection, and coverage industrial reflective surface
Electroless Nickel	Brass, Aluminum, Steel, Copper	Uniform thickness, corrosion resistance, wear resistance
Gold	Nickel Barrier	Excellent corrosion resistance, bright gold appearance
Hard Chrome	Aluminum, Steel	Wear resistance lubricity
Manganese Phosphate	Steel	Porous for oil retention
Metal polishing	Steel, Stainless, Aluminum	Deburring, highly cosmetic surface, improved base for corrosion protection
Nickel/Silicon Carbide	Aluminum	Weight reduction, increased wear resistance, improved lubrication
Passivation	Stainless	Improved corrosion protection
Physical Vapor Deposition (PVD)	Decorative Chrome	Excellent wear resistance, multiple color options
Satin Nickel	Steel, Brass, Aluminum	Corrosion protection, appearance
Sulfamate Nickel Hard Chrome	Steel	Corrosion protection and wear resistance
Thin Dense Chrome (TDC)	Steel	Corrosion protection and wear resistance
Tin	Steel, Brass	Corrosion protection
Zinc (alkaline and chloride)	Steel, Zinc Die Cast	Corrosion protection, identification of parts
Zinc Nickel	Steel	High corrosion protection replacement for Cadmium
<b>FABRICATION</b>		
Tube Bending	3/8" to 8"	Thin wall, mandrel bend, minimal welds, multi bend/small radius
Secondary Operations	3/8" to 8"	Manual and robotic welding, end forming, punching, swedging
Sheet Metal	Steel, Stainless, Aluminum	Laser cutting up to 1" steel, 1/2" stainless, 1/4" aluminum, press brake forming up to 1/2" steel, PEM insertion
Automation/Machine Build		Full machine design, in house build, engineering
CNC/Tool Room Machining		Prototyping, fixtures, tooling, finished parts
<b>DESIGN/TOOLING/DIE CAST</b>		
Tool Design, Build, Repair	Zinc/Aluminum	Assist in development of product, mold flow simulation, tooling built in house
Multi-Slide and Hot Zinc Die Casting	Zamak 2, 3, 5, ZA-8	Single or multi-cavity die casting aluminum and die casting machines from 80-500 tons
Cold Chamber Aluminum Die Casting	Aluminum 380	Single or multi-cavity aluminum die casting in conventional machines from 500-800 tons
Secondary Operations/Machinery	Zinc/Aluminum	Shot blast, tumble/deburr, hand degate, manual tap, CNC tapping, drilling, machining
<b>COATINGS</b>		
ArmorLinc® Vault Series	Aluminum, Steel	Fluoropolymer base, friction reduction, chemical protection
Ceramics	Steel, Stainless, Aluminum	Corrosion and thermal fatigue protection
NeverBlue®	Nickle Chrome, Stainless	Color retention at high temperature
Powder	Variety	Cosmetic, impact resistance, high temperature
Silicones	Variety	Impact resistance, color retention, high temperature
<b>THERMAL INSULATION</b>		
ThermoLinc® Elite	Variety	Advanced insulation system for high heat applications
ThermoLinc® Genesis	Variety	Thermal, corrosion and durability protection