

**EXCELLENCE IN ENGINEERED ALLOYS** 

# Machining Solutions

8×\$11

Precision Engineering for Demanding Applications

www.ampcometal.com

### Introduction

AMPCO METAL is a leader in precision machining solutions for industries worldwide. Our expertise in machining high-performance **AMPCO**<sup>®</sup>, **AMPCOLOY**<sup>®</sup> and **HOVADUR**<sup>®</sup> alloys allowing us to offer our customers a seamless, high-quality solution tailored to their specific applications.

With a global network of five specialized machining centers and a commitment to quality, we deliver fully machined components that enhance operational efficiency, reduce downtime, and optimize performance.

As a vertically integrated manufacturer, we offer:

- In-house alloy production for consistent quality
- Advanced CNC machining for tight tolerances
- Rapid delivery and expert technical support

With AMPCO METAL, you get more than materials, you gain a trusted partner fo advanced manufacturing solutions.

### Value-Added Services

At AMPCO METAL, we go beyond machining, we provide comprehensive manufacturing solutions to help our customers maximize efficiency and quality.

- Prototyping & Consulting Expert advice for custom applications.
- Custom Machining & Precision Engineering CNC milling, turning, and EDM for complex geometries.
- Global Technical Support & Rapid Delivery
   5 machining centers ensure fast turnaround times.
- Quality Assurance Stringent quality control and inspection.

### **Technical Capabilities**

- Global Machining Facilities: Germany, France, India, China, Brazil
- CNC milling (3-5 axis), CNC turning, grinding, EDM, wire-cutting
- Precision Tolerances
- Custom dimensions per customer specifications
- Strict compliance with international machining standards
- Quality Control & Certifications
- ISO-certified machining facilities
- Advanced metrology & 3D coordinate measuring systems

### Why Choose AMPCO METAL?

- Consistent quality worldwide
- High-performance alloys for durability, conductivity & resistance
- Fast lead times & responsive customer support
- Customized solutions tailored to industry needs

## **Applications Highlight**

### **Wear Resistance**

AMPCO METAL's wear-resistant AMPCO<sup>®</sup> aluminum bronzes provide unmatched durability for bushings, bearings, wear plates, and sliding components. These alloys reduce friction and withstand high loads and impacts, ensuring extended service life.

#### **Key Components**

- Bushings & Bearings
- Wear Plates & Liners
- Sliding Components



### **Corrosion Resistance**

Our corrosion-resistant AMPCO<sup>®</sup> and HOVADUR<sup>®</sup> alloys offer superior protection against oxidation, chemical exposure, and extreme environments. These materials extend equipment lifespan in marine, oil & gas, and chemical processing industries.

#### **Key Components**

- Marine Shaft Bearings
- Chemical Processing Components



### **Tube Bending**

Our aluminum bronze alloys are engineered for precision tube bending applications. These alloys provide exceptional wear resistance, anti-galling properties, and enhanced sliding properties, ensuring smooth, defect-free bends while reducing tool wear.

#### **Key Components**

- Flexible Ball Mandrels
  - Wiper Dies 

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  - Bending Dies 
    CI
- End Forming Punches Pressure Dies
- Clamping Inserts

### **Tube Forming**

AMPCO<sup>®</sup> aluminum bronze alloys offer exceptional wear resistance, anti-galling properties, and extended tool life for tube forming and end-forming operations such as expansion, reduction, and flaring.

### **Key Components**

- Forming Rolls
- End Forming Tools
- Flaring & Beading Tools
- Mandrels & Plungers

### **Deep Drawing**

Our alloys provide exceptional wear resistance, anti-galling properties, and superior formability, making them ideal for deep drawing applications. Ensure longer tool life, reduced surface defects, and consistent forming results, even in the most demanding production environments.

#### **Key Components**

- Drawing Dies
- Punches
- Blank Holders



### **Steel Industry Solutions**

Key Components

AMPCO METAL provides high-performance copper-based alloys that improve efficiency in hot & cold rolling mills, blast furnaces, arc furnaces and continuous casting operations. Our materials resist high temperatures, extreme pressure, and aggressive environments.

#### Hot & Cold Rolling Mills: Work roll chocks, spindle slipper pads, and pressure plates

- Blast & Electric Arc Furnaces: Arc furnace electrode holders, tuyeres, oxygen lance holders, cooling plates, and continuous casting permanent mold.
- Mandrel Components: Wedges, bushings, and pressure plates.



### **Plastic Injection & Mold Making**

Our AMPCOLOY<sup>®</sup> and HOVADUR<sup>®</sup> K high-performance alloys optimize mold performance by enhancing heat transfer, reducing cycle times, and increasing mold longevity.

#### **Key Components**

- Core Pins & Inserts
- Mold Cavities & Cores
- Sprue Bushings & Nozzle Tips
- Ejector Sleeves & Pins





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### **High-Pressure Die Casting**

HOVADUR<sup>®</sup> alloys provide high thermal conductivity and wear resistance, ensuring faster cycle times, reduced defects, and extended tool life in die casting applications.

#### **Key Components**

- Pistons & Shot Sleeves
- Piston-Adapter Systems
- Cooling Inserts & Cores



### **Die Venting Systems**

HOVAVENT<sup>®</sup> venting systems optimize gas evacuation, improving casting quality and reducing defects. Our materials ensure enhanced thermal conductivity, extended die life, and reduced downtime.

- **Key Components**
- Chill blocks Venting Systems



### **Resistance Welding**

AMPCOLOY<sup>®</sup> and HOVADUR<sup>®</sup> alloys enhance resistance welding performance, ensuring higher weld quality, extended electrode lifespan, and reduced wear.

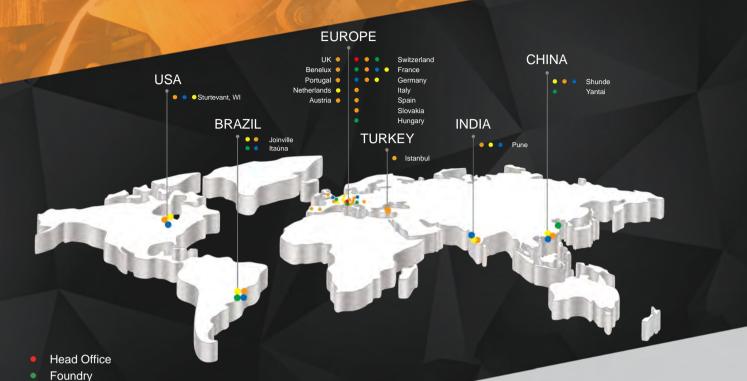
#### **Key Components**

- Welding Electrodes
- Backup Electrodes & Holders
- Seam Welding Wheels





**EXCELLENCE IN ENGINEERED ALLOYS** 



- Machining Facility
- **Distribution Center**
- Sales Office



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