

METAL STAMPING FABRICATION WELDING CNC MACHINING LASER CUTTING ENGINEERING

# EXPERIENCE THE BANNER DIFFERENCE

#### **CERTIFICATIONS:**

- Our Quality Management System is based on ISO 9001, AS9100, and IATF 16949
- Registered to ISO 9001:2015 with AS9100D (Certificate #3629)
- Registered ISO firm since 1998 and AS9100 since 2000
- ITAR Registered (Registration Code:M29125)
- Banner uses NADCAP approved suppliers to perform special processes such as heat treatment, plating, and welding
- Banner is compliant with REACH, RoHS, and ECHA chemical reporting



# 100 Years of Collaborative Partnerships (and Counting)

Founded in 1921 as a family-owned business located in the heart of Ohio, Banner Metals Group has evolved into a recognized global leader in complete metal products for a wide variety of industries, including aerospace, automotive, commercial truck and offhighway, and lawn and garden.

Banner Metal Group embraces the challenges of the industries we serve by providing comprehensive services. This allows us to provide critical assistance with the product design and development, but also to approach the design with an emphasis on economics, manufacturability, and assembly, so that your products will be ready for use when they arrive at your facility.

We proudly supply products and assemblies to 14 aircraft platforms for commercial, regional, business, and military. Annually, over 2,000,000 welded nuts and collars are used on the parts we manufacture across the many heavy-duty industries we serve, especially Tier 1 and Tier 2 automotive companies. We maintain compliance with all regulatory requirements necessary to supply commercial, military, regional, and business class for both fixed wing and rotary wing aircraft.

We are a global company and routinely ship product throughout the US, Canada, Mexico, France, Morocco, and Malaysia.



# **CNC Machining**

Whether it is a secondary operation to a metal stamped part or an entirely machined component, our CNC machines can meet the required accuracy, precision, and repeatability of our customer's needs.

# Coatings

Coatings needs vary by industry. We adhere to strict compliance to all regulatory and environmental requirements, including A2LA lab accreditation, NADCAP, and EAR.

# Deburring

Using high speed flow-through equipment assures that the parts are processed in the most economical way and with a burr-free edge finish. A fine coating of water soluble rust inhibitor is applied to keep the parts from developing surface rust while in storage or in transit.

# **Design Assistance**

Our process design team will review your design and suggest different ways to manufacture based on your needs.

# **Dimensional Inspection Services**

We use a 3D laser scanner, Faro portable CMM, DCC CMM, or traditional layout measurement and can verify the conformance of the part to the design specifications or provide our customers with a CAD file for reverse engineered parts. Dimensional data can also be uploaded to statistical evaluation software (Ppk and Cpk) when measuring multiple parts.

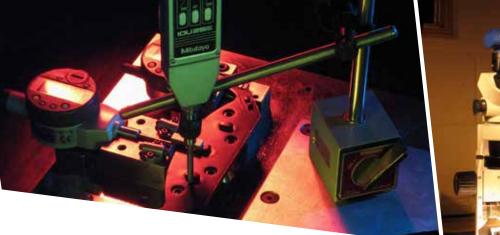
# Fabrication

Fabrications have an economic advantage with low volumes, with low tooling costs. Laser cutting can be achieved on any kind of metal up to 0.75" (19.0mm) thick and CNC Bending for products up to 0.50" (12.7 mm).

# **Heat Treatment**

Heat treat processes vary by industry and our suppliers maintain strict compliance to all regulatory and environmental requirements including ISO 9001, AS 9100, NADCAP, and A2LA accreditation.







#### **Metal Stamping**

Banner's stamping presses range from 60 tons to 1200 tons. We specialize in heavy gauge material up to .750 inches (19.0 mm) in bar and .625 inches (15.8 mm) in coil (up to 70 inches in diameter). We can also produce metal stampings with a thickness as low as .018 inches (.45mm). Additionally, we can provide parts comprised of numerous grades of metal from alloy, cold rolled, hot rolled, stainless, brass, and aluminum to name a few. Our stamping operations include: Blanking, Bending, Coining, Extruding, Forming, In-Die Tapping, Piercing, Shallow to medium depth drawing and Shaving.

#### Packaging

We offer custom labeling, standard bulk packaging, small batch packaging, individual part packaging, and fully customized kitting and support multiple barcode formats to assure that all product is identified internally with a unique barcode for added traceability.

#### **Project Management**

We use a robust Advanced Product Quality Planning process to manage program launches and engineering changes.

#### **Tool and Die Design and Maintenance**

Our entire tool and die design services are performed in-house or by one of our local tool and die partners depending on the complexity of the project.

# Welding

We produce millions of resistance welds and MIG welds per year for a wide variety of industries and use advanced weld monitoring technology such as gas mixture ratios, wire feed speeds, and electrical currents to assure that 100% of all welds meets the designed strength for its demanding application. Robust fail proof methods are also in place for an additional level of quality assurance. We use state-of-the-art Robotic MIG Welding cells. These welders allow us to weld a variety of different metal thicknesses from .025 to .750, and we have the ability to weld carbon and stainless steels. We have projection weld capability from 50 to 200 KVA with a variety of nut feeders and automation.

You can also rely on Banner to understand your industry's operational, safety and regulatory requirements.



# What is the **Banner Difference?**

# DISCOVER

When a Banner representative first meets a new customer or a new person at a current customer, we conduct a discovery with them.

# CONSULT

Once the customer has a product in mind that they would like to have produced, Banner conducts a design review.

# PLAN

Prior to producing the product, we conduct a risk 360 analysis.

# PRODUCE

Prior to the production phase of the product, we verify that we have the capability to manufacture the product to the customer's requirements.

# SERVE

We believe in real-time communication, which is your time.

# CARE

We routinely perform care reviews with our customers.

Our unwavering commitment to understanding and meeting customer needs is the Banner Difference.

Continuous improvement is the cornerstone of our foundation. We have a Six Sigma Master Black Belt on our Leadership Team who champions this effort. Numerous kaizen events occur at Banner each year and value streams are continually reviewed to optimize the flow of the company. These in turn help keep Banner competitive in the markets we serve by allowing us to provide services to our customers in the most economical way.





# **BANNER**METALS**GROUP**

Banner Metals Group, Inc. 1308 Holly Avenue Columbus, OH 43212

bannermetalsgroup.com