



PRECISION MACHINING

5005 County Rd. 29 ♦ Auburn, IN 46706

o: 260.925.2128 w: www.rathburnmachining.com



PROTOTYPE TO PRODUCTION FOR A DEFENSE INDUSTRY CUSTOMER

A specialty manufacturer of assemblies in the marine defense industry launched a new project with their customer and needed a precision machine partner to work with them from prototype to production.

The project involved multiple components, tight tolerances, and a notoriously challenging material called Inconel 625. The work also required an ITAR-registered supplier capable of supporting the program from early prototypes through full production. These unique requirements led the customer to partner with Rathburn.

EXPERIENCE IN SUPPLYING (DIRECT & PRIME):

- ✓ Aerospace & Aviation
- ✓ Ground Systems
- ✓ Naval & Marine
- ✓ Logistics & Sustainment



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PROTOTYPE TO PRODUCTION



EXPERTISE AND A THOROUGH UNDERSTANDING

As an ITAR-registered, WOSB-certified precision machine shop with decades of machining experience now leveraged to support defense and marine applications, Rathburn was well-positioned to help guide the project. From the outset, Rathburn worked closely with the customer's engineering and production teams to ensure a deep understanding of the application, performance requirements, and downstream assembly needs.

The project began with customer-supplied prints, which the Rathburn team put through a detailed technical review. We asked targeted questions around material certifications, dimensional requirements, surface finishes, and how each component would integrate into the final assembly. This early collaboration helped our team thoroughly understand the customer's needs and identify any potential issues from the start.

COLLABORATING ON COMPLEX APPLICATIONS

During prototyping, Rathburn collaborated directly with the customer's engineering and welding teams to refine key features. One piece required dimensional adjustments from the original print to ensure proper fit

with a mating part. Another required a modified chamfer to improve weldability and assembly efficiency. Our machinists and engineers worked hand-in-hand with the customer to implement these changes, resulting in parts that were easier to assemble, weld, and inspect, without compromising performance.

At the same time, Rathburn developed a new way to machine the Inconel material through the initial samples that reduced the amount of processing and minimized waste for the customer-supplied material. These improvements helped lower overall costs and shortened lead times. As trust in the partnership grew, Rathburn also began procuring the material for the customer, further simplifying the customer's supply chain.

FROM PROTOTYPE SUCCESS TO PRODUCTION CONFIDENCE

Following a successful prototype and first article phase, the customer awarded Rathburn the production work as well. Rathburn was able to collaborate on customer expectations to successfully deliver multiple simultaneous parts for the project. The result was a seamless transition from development to production for our customer, supported by a responsive team and proven processes.

ISO
9001:2015
Certified

IATF
16949:2016
Certified

WOMEN
OWNED

ITAR
Registered

JCP
Certified

CMMC
Level 2
(Self)

Visit our plant in Auburn, Indiana and see for yourself how for 40+ years, we've used the latest technology while applying ingenuity and consistent quality standards to produce an experience our customers call "hard to believe."

