

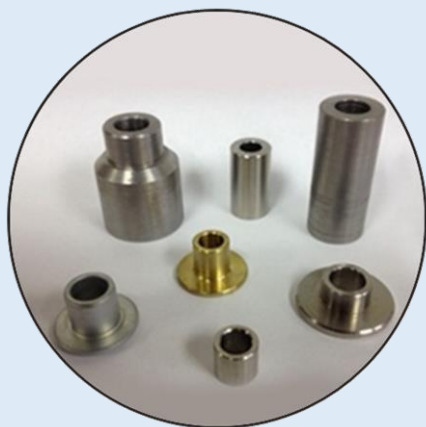


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At PFI Precision Machining, manufacturing close-tolerance stainless steel components is one of our core strengths. Through our years of continued focus on process improvements and lean manufacturing techniques, we have developed an exceptional understanding of all of the factors that influence the quality, productivity, and consistency of machining stainless steel in all of its various grades and tempers.

Request for Quote

RFQ Hotline: 937-845-3081



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Precision Managing: A Case Study

PRECISION TURNING OF STEEL, STAINLESS STEEL & BRASS PARTS FOR POWER SPORTS INDUSTRY APPLICATIONS

At PFI Precision Machining, we consider our customers to be our most important asset. Since our founding in 1966, it has been our goal to cultivate productive business relationships by providing high-quality products supplemented by an elevated level of service and support. When a customer came to us with a challenging situation that threatened to compromise their production line, resolving the issue became one of our top priorities.

A well-known Japanese company in the motor sports industry faced a huge dilemma when one of their suppliers went out of business, leaving them without a source for a family of 13 different parts. The component family consisted of the sleeves and collars that they welded onto a metal stamping as part of a vehicle frame assembly. With only a 4-week supply of these parts in reserve, the client was facing potential shutdown of the production line unless they could quickly source replacements.

We replied to their RFQ, and after passing the rigorous audit required by their supplier approval process, we were awarded the contract. In our proposal, we promised delivery of the seven critical parts in a three week time frame, followed up by delivery of the other six components four weeks later. These terms were remarkably ambitious, but we were confident of our capabilities.

Production required use of stainless, full hard brass, low carbon steel, as well as a non-standard, medium carbon steel grade for which we had to locate a source. Having 4-axis, multi-spindle turning centers allowed us to achieve rapid production times while upholding critical $+0.0000/-0.0007$ " tolerances. Secondary operations consisted of applying a zinc plated finish.

Quality assurance was evident at each stage of production. Our quality toolbox included numerous measurement, inspection, and gauging devices as well as statistical sampling to confirm that we met the requirements of the customer specifications.

Diligent planning in collaboration with the client's production team, combined with our close-tolerance machining capabilities and disciplined, ISO-certified quality assurance, allowed us to deliver all 13 parts within the promised time frame. We helped the client avoid line shutdown, and on their list of machining sources, we climbed to the number one ranking. We continued to produce this family of parts for the next six years without a single defect.

PRECISION TURNING OF STEEL, STAINLESS STEEL & BRASS PARTS FOR POWER SPORTS INDUSTRY APPLICATIONS

Project Name & Description	Family of Parts
Capabilities Applied/Processes	Turning Services
Equipment Used to Manufacture Part	Multi Spindle 4-Axis Turning
Overall Part Dimensions	Diameter- 9/16" to 1 ¼" Lengths- ½" to 1 ¾"
Tightest Tolerances	+0.0000" -0.0007"
Material Used	Stainless 303 Stainless 304 360 Full Hard Brass Low Carbon Steel 1025 Medium Carbon 1030, 1035, 1045
Material Finish	Zinc Plating
Industry for Use	Power Sports ATVs Motorcycles Water Craft
In Process Testing/Inspection Performed	Standard Gauges Drop Indicators Micrometers Pin Gauges
Volume	4,000-200,000
Delivery/Turnaround Time	3-4 Weeks