

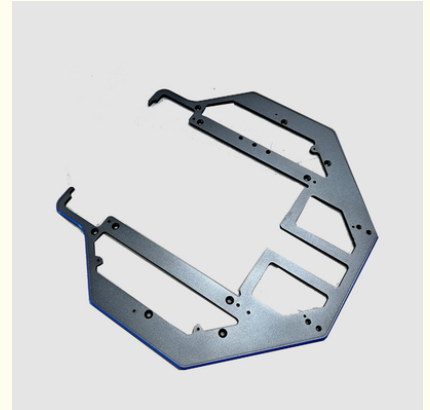


Small Batch Production Prototyping And Low Volume Production Polishing Anodizing

Our Product Introduction

Basic Information

- Place of Origin: China Shenzhen
- Brand Name: Aluminum, Stainless Steel, Brass, Titanium, Plastic
- Certification: Low Volume CNC Machining
- Model Number: Polishing, Anodizing, Painting, Chrome Plating, Silkscreen
- Minimum Order Quantity: 1 piece
- Price: USD 30 piece
- Packaging Details: Carton, Plywood Box
- Delivery Time: 2 - 5 Days
- Payment Terms: T/T, Paypal
- Supply Ability: 1 piece per day



Product Specification

- Machining Processes: CNC Milling, CNC Turning, Drilling, Tapping, Threading
- Machining Type: Low Volume CNC Machining
- Color: As Client's Requested
- Material: Aluminum, Steel, Stainless Steel, Brass, Copper, Titanium, Plastic
- Process Way: CNC Machining/Lathe/milling/Turning
- Delivery Way: Fedex And DHL , UPS And So On
- Leadtime: 3-7 Business Days
- Surface Finish: Anodization, Chrome Plating, Power Coating, Silkscreen, Laser Etching
- Highlight: **prototyping and low volume production polishing**
, polishing low volume prototyping,
anodizing low volume prototyping



for more products please visit us on cncmachining-prototype.com

Product Description

Low-Volume Manufacturing The Ideal Solution for Prototyping and Small Batch Production

What is CNC Low-Volume Manufacturing

CNC Low-volume manufacturing refers to the production of a relatively small quantity of products, typically ranging from a few dozen to a few thousand units. It is an intermediate production scale between prototyping and high-volume mass production. Low-volume manufacturing is often employed for several reasons, including market testing, small-scale production, custom or niche products, and initial product launches.

Here are some key characteristics of low-volume manufacturing:

Quantity: Low-volume manufacturing typically involves producing a limited quantity of units, usually in the range of dozens to thousands. The exact quantity can vary depending on the specific industry, product, and market demand.



Flexibility: Low-volume manufacturing offers greater flexibility compared to high-volume production. It allows for adjustments, iterations, and improvements based on feedback and market response. Manufacturers can respond quickly to changes in design, specifications, or customer requirements.

Cost: While low-volume manufacturing may have higher per-unit costs compared to mass production, it is often more cost-effective than prototyping or one-off custom manufacturing. Economies of scale can be achieved to some extent, leading to reduced costs compared to producing each unit individually.

Speed: Low-volume manufacturing offers faster production times compared to high-volume manufacturing. With a smaller quantity to produce, manufacturers can often complete the production process more quickly, reducing lead times and allowing for faster product launches.

CNC Turning Tolerances

We machine CNC turning lathe parts to meet tight tolerance requirements. Based on your design, our CNC lathes can reach tolerances of up to ± 0.005 ". Our standard tolerances for CNC milled metals is ISO 2768-m and ISO 2768-c for plastics.

Type	CNC Turning Tolerances
Linear dimension	± 0.025 mm- ± 0.001 inch
Hole diameters	± 0.025 mm- ± 0.001 inch

Shaft diameters	±0.025 mm-±0.001 inch
Part size limit	950 * 550 * 480 mm-37.0 * 21.5 * 18.5 inch

Customization: Low-volume manufacturing is well-suited for custom or niche products that require tailored features or specifications. It allows for customization and personalization according to individual customer needs or market segments.



Manufacturing Technologies: Various manufacturing technologies can be utilized in low-volume manufacturing, including CNC machining, 3D printing, vacuum casting, and small-scale injection molding. These technologies offer flexibility, accuracy, and cost-efficiency for producing small batches of parts or products.




In terms of cost, low-volume manufacturing typically has higher per-unit costs compared to high-volume manufacturing. There are several factors that contribute to this cost difference:

Economies of Scale: High-volume manufacturing benefits from economies of scale, where the cost per unit decreases as the production volume increases. With larger production quantities, fixed costs such as tooling, setup, and equipment can be spread over a greater number of units, reducing the per-unit cost. Low-volume manufacturing, on the other hand, does not benefit from the same economies of scale, resulting in higher per-unit costs.

Tooling and Equipment Costs: High-volume manufacturing often involves the use of specialized tooling and equipment that may require significant upfront investment. These costs are distributed over a large production volume, reducing the cost per unit. In low-volume manufacturing, the cost of tooling and equipment is spread over a smaller quantity of units, leading to higher per-unit costs.

Material Costs: Material costs can also differ between low-volume and high-volume manufacturing. In high-volume production, manufacturers may have the advantage of bulk purchasing, negotiating better material prices, and taking advantage of long-term contracts with suppliers. These factors can help reduce material costs per unit compared to low-volume manufacturing.

Surface Finishes for CNC Machining					
CNC machining leaves visible tool marks during the process of removing portions of the block's surface to create desired shapes. If you don't want as-machined parts, select a surface finishing for your custom parts. At Barana Rapid, we offer several common surface finishes that help improve functionality and aesthetics.					
Picture	Name	Description	Materials	Color	Texture
	Anodizing	Anodizing improves corrosion resistance, enhancing wear resistance and hardness, and protecting the metal surface. Widely used in mechanical parts, aircraft, and automobile parts, precision instruments, etc.	Aluminum	Clear, black, grey, red, blue, gold.	Smooth,matte finish
	Sand Blasting	Sand blasting results in parts with a smooth surface with a matte texture. Used mainly for visual applications and can be followed by other surface treatments.	Aluminum, Brass	N/A	matte

	Powder Coating	<p>Powder coating is a type of coating that is applied as a free-flowing, dry powder. Unlike conventional liquid paint which is delivered via an evaporating solvent, powder coating is typically applied electrostatically and then cured under heat or with ultraviolet light.</p>	Aluminum, Stainless Steel, Steel	Black, any RAL code or Pantone number	Gloss or semi-gloss
	Electroplating	<p>Electroplating can be functional, decorative, or corrosion-related. Many industries use the process, including the automotive sector, in which chrome-plating of steel automobile parts is common.</p>	Aluminum, Stainless Steel, Steel	N/A	Smooth, Glossy finish
	Polishing	<p>Polishing is the process of creating a smooth and shiny surface, either through physical rubbing of the part or by chemical interference. The process produces a surface with significant specular reflection, but in some materials is able to reduce diffuse reflection.</p>	Aluminum, Brass, Stainless Steel, Steel	N/A	Glossy

inspections at every step of the product development journey, from incoming material verification to final 3D scanning. You will receive complete digital files and Certificates of Compliance so you can meet your own regulatory and performance goals.

An International Team with Unparalleled Experience

Quality inspection relies not only upon using advanced digital equipment but also having highly trained personnel with years of experience. As parts become more complex and tolerances more demanding for advanced applications, precision measurements conducted by professionals are the only way to ensure perfection.

Inspections and Review for Every Stage of Production

To ensure quality from start to finish, Star Rapid provides the following inspection and review services:

Extensive incoming materials verification

Design for manufacturing reviews for all quotes provided

Contract reviews upon receipt of POs

First article and in-process inspections

Final inspections and testing with reports and certifications as required

Quality Inspection



Packing





Barana Rapid Technology Limited



86 137 2889 6282



baranarm@baranarm.com



cncmachining-prototype.com

RM502 Block B Floor 5th LiTong Semiconductor industrial park ShaPuWei Community SongGang Street Baoan
District Shenzhen, Guangdong, China, ZipCode 518105