



Quickparts

SURFACE FINISHES FOR CNC MACHINING: WHAT ARE YOUR OPTIONS?

CNC machining offers a wide range of surface finishes to suit any of your specific design requirements. Know your options to make the right choice for your project.

CNC Machining Surface Finishes

The right surface finish for your CNC machined part will depend on its intended design and function as well as your project timeline and budget.

By understanding the different types of finishes available for CNC machining and the applications they are best suited for, you can make an informed decision that maximizes your part's performance. Here are the most common types of surface finishing to consider for your CNC machining project.

Surface finishes	Features	Applications
Standard	<ul style="list-style-type: none">• Default finish for all CNC machined parts after cleaning and deburring.• May have visible milling and tool marks depending on the roughness level.• The standard surface finish is 63-125 RMS, but we can grind or polish the part to 4-8 RMS	<ul style="list-style-type: none">• Available for all machined materials
Bead Blast	<ul style="list-style-type: none">• Provides an exceptional matt surface finish.• Carefully smoothes the surface without damaging it.• Eco-friendly finishing option.• A good option if paint adherence isn't required.	<ul style="list-style-type: none">• Available for all machined materials
Anodize-Standard	<ul style="list-style-type: none">• This finish is not electrically conductive.• It functions as a base to increase resistance to corrosion.• Available in clear, black, or colored finish.	<ul style="list-style-type: none">• Available for aluminum and titanium parts.• Widely used for household appliances.
Anodize - Hardcoat	<ul style="list-style-type: none">• The thicker coating provides more durability than standard anodized finishes.	<ul style="list-style-type: none">• Available for aluminum and titanium parts.• Suitable for applications with extreme stresses and environmental conditions.

continued on next page...

CNC Machining Surface Finishes (continued)

Surface finishes	Features	Applications
Electropolishing	<ul style="list-style-type: none">• This finish brightens the metal, improving appearances.• Effective at preventing corrosion.	<ul style="list-style-type: none">• Available for conductive metals.• Widely used in the medical, pharmaceutical, and semiconductor industry.
Heat Treatment	<ul style="list-style-type: none">• Heat treatments include Rockwell heat treatment and annealing.• Improves durability and wear resistance.	<ul style="list-style-type: none">• Available for steel and stainless steel• Widely used in the automotive and aerospace industries.
Chem Film	<ul style="list-style-type: none">• Fast and cost-effective process.• Improves corrosion resistance.• Protects the electrical conductivity of the part.• Helps paint, adhesives, and topcoats stick to the part.	<ul style="list-style-type: none">• Available for aluminum parts.• Widely used in the automotive and aerospace industries.
Vapor Polishing	<ul style="list-style-type: none">• Improves transparency of plastic parts.• Quicker and more cost-effective than machine polishing.• Will often require additional surface finishing to smoothen the surface beforehand.	<ul style="list-style-type: none">• Available for certain plastic materials.• Widely used in the medical industry

Need expert advice on selecting a surface finish for your CNC machining project?
Contact us today at contact@quickparts.com or +1 931 766 7290.
If you would like to request a quote, please [submit your project here](#).



About Quickparts

Quickparts offers a complete range of on-demand manufacturing services, from 3D printing to traditional manufacturing processes.

Quickparts empowers its customers with the tools to reduce production times, speed up design iterations, and shorten product development lifecycles with high-quality 3D printed and machined parts from one of our seven global design and production centers. Quickparts' U.S. facilities are ISO 9001:2015 certified and ITAR registered, with expert teams that have been producing parts for more than 20 years.

[GET A QUOTE](#) | [TALK TO AN EXPERT](#) | [QUICKPARTS.COM](https://www.quickparts.com) | +1 931 766 7290