CNC Machining RFQ Checklist

P&A International — precision CNC milling & turning, prototype to production · www.pa-international.com.au

Share as much of this as you can and we will return a proposed machining approach and indicative pricing, typically within 48 hours. A 3D model or drawing is ideal.

1. Part & material

- Material (aluminium, steel, stainless, titanium, brass, engineering plastics)
- A 3D model (STEP/IGES) and a drawing with critical dimensions
- Tightest tolerances and any GD&T; / datums
- Surface finish (Ra) requirements on key faces

2. Process & volume

- Milling, turning, mill-turn, or 5-axis as the geometry needs
- Prototype quantity and production volume
- Threads, bores, knurls and other features
- Inspection / CMM report requirements

3. Finish & delivery

- Finish: anodise, plating, passivation, bead blast, powder coat
- Deburring, marking, assembly and kitting
- Target cost and call-off pattern
- Compliance: RoHS, REACH, material certs, first-article

Email this with your drawing to **support@pa-international.com.au** or use the quote form on the page.

CNC Machining — Quick Reference

Process and material at a glance

Process

Process	Best for	Notes
3-axis milling	Prismatic parts, plates, housings	Most cost-effective for typical parts
Turning / mill-turn	Round and shaft parts, with milled features	Efficient for cylindrical geometry
5-axis	Complex contours, impellers, aerospace	Fewer set-ups, tighter true position

Design factors

Decision	Rule of thumb
Material	Aluminium for cost and weight; stainless/steel for strength; titanium for aerospace/medical.
Tolerances	Call out only the critical tolerances — blanket-tight tolerancing drives cost.
Radii	Internal corners need a radius (tool diameter) — avoid sharp internal corners where possible.
Finish	Specify Ra only where it matters; anodise/plate needs the right base alloy.
Volume	Prototype pricing differs from production — share both so we can quote the right route.

How we work: P&A International is an engineering-led contract manufacturer. One dedicated engineer engineers your part, free off-tool samples are provided before mass production, and volume is produced through our vetted partner-factory network — every supplier is ISO 9000 certified or better.

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