

Die Casting RFQ Checklist

P&A International — aluminium & zinc die castings via a vetted partner-factory network ·
www.pa-international.com.au

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

1. Part & alloy

- Aluminium (e.g. ADC12 / A380) or zinc (Zamak) die casting
- Part size, wall thickness and approximate weight (a STEP/IGES model is ideal)
- Structural, housing, enclosure, bracket or thermal part
- Critical dimensions, tolerances and datums

2. Process & tooling

- Estimated annual volume (drives single vs multi-cavity tooling)
- New tool, or transfer/copy of an existing tool
- Draft, parting line and ejector constraints if known
- Pressure-tightness or porosity requirements (e.g. for fluid/air seal)

3. Secondary operations

- CNC machining of sealing faces, bores and tapped holes
- Surface finish: shot blast, powder coat, painting, anodise (on suitable alloys), plating
- Leak testing, impregnation, assembly, inserts and kitting

4. Project & commercial

- Application and operating environment
- Annual volume / call-off pattern and target unit cost
- Sample quantity — free off-tool samples before mass production
- Compliance / test: RoHS, REACH, dimensional or CMM reports

Email this checklist with your drawing to support@pa-international.com.au or use the quote form on the page. One dedicated engineer reviews every enquiry.

Die Casting Selection — Quick Reference

Alloy, tooling and finishing at a glance

Alloy choice

Alloy	Strengths	Typical use
ADC12 / A380 (Al)	Good castability, strength-to-weight, thermal & EMI shielding	Housings, brackets, thermal & structural parts
A360 / A413 (Al)	Better corrosion resistance and pressure tightness	Sealed enclosures, fluid housings
Zamak 3 / 5 (Zn)	Fine detail, thin walls, excellent platability	Precision components, connectors, decorative parts

Design & cost factors

Decision	Rule of thumb
Wall thickness	Keep walls uniform (typ. 2–4 mm Al); thick sections risk porosity — core them out or add ribs.
Draft & radii	Add draft on all faces and generous radii at corners to protect the tool and improve fill.
Tolerances	Cast to general tolerances; call out only the few critical features for CNC — it controls cost.
Cavities	Higher annual volume justifies multi-cavity or family tooling and lowers piece price.
Porosity	For pressure-tight parts specify the requirement up front — it drives gating, process and impregnation.

How we work: P&A International is an engineering-led contract manufacturer. One dedicated engineer designs your part, free off-tool samples with quality-assessment reports 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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