



Production Readiness Checklist

Twenty-eight honest questions across the seven things that decide whether a design is ready to repeat. Answer them yes or no. "Sort of" is a no.

BLOCKING GAPS

Revision control · Requirements · Validation

EXPENSIVE, NOT BLOCKING

Packaging · Economics · Schedule

SCORING

Yes or no only — "sort of" counts as a no

1 Revision control

- ☐ **Can you name the current revision out loud, and does everyone touching the project use that name?**
If two people say "the latest one" and mean different files, the run is already at risk before anything is cut.
- ☐ **If the CAD model and the PDF drawing disagree, do you know which one wins?**
Someone has to decide, and it's cheaper for that to be you now than the machinist at setup.
- ☐ **Is every change since the last build written down somewhere other than an email?**
An email thread isn't a change history. When a part comes back wrong, the first useful question is which revision it was cut from.
- ☐ **Has any file ever been overwritten rather than superseded?**
Same name, different contents is how the wrong version gets made, and it destroys the evidence that would explain it afterwards.

2 Requirements

- ☐ **Are the few dimensions that control fit or function marked, with everything else left to a general note?**
A drawing that calls out everything equally hides the handful of features that actually decide whether the part works.
- ☐ **Is the material named by grade, or just by "aluminum" or "steel"?**
Alloy and temper change how the part machines, welds and behaves in service. The family name isn't enough to buy stock against.
- ☐ **Is the finish specified, including which surfaces get it and which are masked?**
Finish is a real cost line and a real schedule line, and it's the item most often left off a drawing and then found surprising.
- ☐ **Is what makes a part acceptable written down, or does it live in your head?**
At quantity, someone who has never met you has to apply that judgment. If it isn't written down, it isn't repeatable.

3 Validation

- ☐ **Has a part made the production way been tested in the real use case, not just on a bench?**
Bench conditions are the ones you thought of. The use case includes the ones you didn't.

- ☐ **If the prototype was printed and the production part will be machined, molded or formed, has anything been re-tested since the process changed?**

The same material behaves differently depending on how it was laid down. When the process changes, the old test result doesn't carry over.

- ☐ **Did the test include the assembly, or only the one part?**

Parts fail at their interfaces more often than in the middle. A part that passes alone can still fight everything it bolts to.

- ☐ **Do you know which failure would be most expensive, and have you deliberately tried to cause it?**

Testing that only confirms what you expect isn't testing. Aim at the failure you can least afford.

The first article is the cheapest place to be wrong

A prototype proves the design. A first article proves the process: the fixturing, the program, the material, and the shop's reading of your drawing. That's what you're actually buying when you order a run. The same discovery made mid-run costs the run.

4 Quality

- ☐ **Is there a definition of a good part that someone other than you could apply?**

"I'll know it when I see it" doesn't scale past the parts you personally inspect.

- ☐ **Can that definition be checked with a measurement, or does it rely on judgment?**

Measurable criteria settle disagreements. Judgment criteria need an agreed reference sample instead — so agree one.

- ☐ **Do you know what happens to a failed part: scrapped, reworked, or shipped with a note?**

That decision gets made either way. Deciding it in advance stops it being made under schedule pressure.

- ☐ **Who makes that call?**

Name a person. An unowned decision is the one that stalls the run.

5 Packaging

- ☐ **Has anything shipped and arrived intact, or is that an assumption?**

Parts that survive the shop can still fail the truck, and that failure shows up in front of your customer.

- ☐ **Does the packaging protect the feature most likely to be damaged, or just fill the box?**

Foam that stops rattling isn't the same as foam that protects a threaded boss or a finished face.

- ☐ **Is packaging in your per-unit cost, or a line item you haven't priced?**

It's rarely trivial at quantity, and discovering it late eats the margin you thought you had.

- ☐ **If the product ships through a retail or marketplace channel, do you know that channel's packaging requirements?**

Channel rules are non-negotiable and they change the scope of the job. Say so at quote time, not after.

Packaging performance is testable rather than guessed at. ISTA Procedure 3A and ASTM D4169 are the standard practices for simulating distribution hazards. If your buyer requires qualified packaging, say so at quote time.

6 Economics

☐ **Do you know your per-unit cost at your actual quantity, including finishing, packaging and freight?**

The part price is rarely the whole cost, and the extras are what turn a workable margin into a negative one.

☐ **Does the number still work if the quantity turns out to be half what you hoped?**

Cost per part isn't linear. A hundred is not ten times ten, so a shortfall in demand hits harder than it looks.

☐ **Have you priced the second run as well as the first?**

Material cost moves and quotes are valid 30 days. A plan built on one number assumes a thing that isn't true.

☐ **Are you counting the parts you'll scrap?**

Some fallout is normal on any process. If your unit count assumes none, your cost per good part is wrong.

7 Schedule

☐ **Is your date derived from a real quote, or from a launch you already announced?**

An announced date isn't a plan. Every quote carries its own date, and that's the one the shop can work to.

☐ **Does the schedule contain time for a first article and time to fix what it finds?**

A first article with no repair window built in behind it is the step that gets cut, and it's the wrong thing to cut.

☐ **Is someone waiting on your approval, and do they know it?**

Approval time is real time. Jobs sit still far more often for a missing sign-off than for a missing machine.

☐ **If a revision lands mid-run, do you know what that does to your date?**

Material that's been cut is cut and setup time that's been spent is spent. The cost of a change rises fastest at the end.

Which gaps block, and which are just expensive

Revision control, requirements and validation are blocking — everything downstream is built on them, so a gap there propagates into every part you make. Packaging, economics and schedule gaps are expensive rather than blocking. You can start while you close them, provided you know they're open and you've said so.

If your buyer requires documented validation — T0 samples with a CMM report, EVT/DVT/PVT stage gates, or a PPAP package — it's available on request at additional cost, produced through our partner network. Say so at quote time and it gets priced in from the start.