

Metal Machinist interview questions

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What to expect

Metal machinist interviews mix trade knowledge with practical judgement. Expect the panel, often a workshop supervisor or production manager, to check that you can read a drawing correctly, run a machine safely, and catch problems before they become scrap.

- **Technical/process:** Questions asking you to walk through how you'd set up, program or run a specific machine for a job.
- **Scenario/judgement:** A tolerance or equipment problem is described and you're asked how you'd handle it on the spot.
- **Behavioural:** Past-experience questions about quality issues, teamwork or working with limited supervision.
- **Safety:** Questions on pre-start checks, machine guarding and PPE, particularly important given CNC and manual lathe hazards.

Most interviews open with a few questions about your trade background and ticket or certificate, move into technical and scenario questions about machine setup and quality control, and close with safety practice and questions about your availability for shift work.

1. Walk me through how you'd set up a CNC lathe for a new job from a technical drawing.

Why they ask

This checks you understand the full setup sequence, from reading the drawing through to first-piece inspection, not just button-pushing.

How to structure your answer

Answer as a step-by-step process walkthrough: reading the drawing, selecting tooling and material, entering offsets or CAM program, running a test piece, and checking it against tolerance before full production.

Example answer

"I'd start by reading the drawing carefully to identify critical dimensions and tolerances, then check the material and select tooling to suit. I'd load the program in the CAM software, set my work and tool offsets on the machine, and run a single test piece at a conservative feed rate. I'd measure that piece with calipers or a digital readout against the drawing, adjust offsets if needed, then run the full batch with periodic checks to catch tool wear before it drifts out of spec."

2. Tell me about a time you caught a quality issue before it left the shop floor.

Why they ask

Quality control is central to this role, so the panel wants evidence you check your own work rather than relying on someone else to catch mistakes.

How to structure your answer

Use STAR: describe the situation, the task, the action you took to identify and fix the issue, and the result.

Example answer

"On a batch of turned shafts, I noticed the diameter was creeping toward the upper tolerance limit over several parts. I stopped the run, checked the insert for wear and found it was worn beyond its normal life. I swapped the tool, re-set the offset, ran a test piece to confirm it was back within spec, then resumed production. The batch shipped without any rejects, and I flagged the tool life issue to"

the next shift."

3. A component comes off the mill measuring 0.05mm outside tolerance. What do you do?

Why they ask

This tests judgement under pressure and whether you understand root cause before acting, rather than just re-machining blindly.

How to structure your answer

Structure your answer around immediate action, diagnosis, and prevention: what you'd do right now, how you'd find the cause, and how you'd stop it recurring.

Example answer

"First I'd stop the run so I don't produce more out-of-spec parts. I'd check the obvious things: tool wear, the work offset, and whether the fixture had shifted. I'd re-measure the part to confirm the reading wasn't a measurement error. Once I found the cause, I'd correct the offset or swap the tool, run a test piece to confirm it's back in tolerance, and note what happened so the next operator on that job knows to check that setting."

4. How do you manage machine maintenance and troubleshooting when equipment isn't cutting cleanly?

Why they ask

Machinists are expected to do basic fault-finding rather than stop the line for every issue, so this checks practical maintenance knowledge.

How to structure your answer

Answer as a diagnostic process: what you check first, in what order, and when you'd escalate to a fitter or maintenance technician.

Example answer

"If a cut isn't clean, I'd first check the obvious things: tool condition, coolant flow, and feed and speed settings. If that doesn't fix it, I'd check for play in the spindle or tool holder and make sure the workpiece is properly clamped. If I can't isolate the cause with those checks, I'd log it and call maintenance rather than keep running a machine that might be developing a bigger fault."

5. What safety checks do you do before starting a shift on a CNC machine or manual lathe?

Why they ask

Given the hazards of rotating stock, cutting tools and guarding, panels want a clear, practical safety routine rather than a vague answer.

How to structure your answer

List your pre-start routine in order, covering PPE, machine guarding, and any lockout/tagout or isolation checks relevant to the equipment.

Example answer

"I check my PPE first: safety glasses, hearing protection where needed, and no loose clothing or jewellery near rotating stock. Then I check the machine guards are in place and functioning, coolant lines aren't leaking, and the emergency stop works. For any machine I'm not currently running, I confirm it's isolated before I do anything with the chuck or tooling. I also do a quick visual check of the workholding before the first cut of the day."

6. Describe a time you had to solve a problem with limited supervision.

Why they ask

Machinists often work independently on the floor, so this checks whether you can make sound calls without constantly needing a supervisor.

How to structure your answer

Use STAR, with particular focus on the decision you made alone and why you judged it was within your authority to act.

Example answer

“During a night shift, a batch of parts started showing chatter marks partway through the run. My supervisor wasn't on site, so I checked the tool holder and found it had loosened slightly. I re-torqued it, ran a test cut to confirm the finish was back to spec, and continued the job. I documented what happened in the handover notes so day shift knew what to check if it recurred.”