Electrical Fitter interview questions

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What to expect

Interviews for electrical fitter roles usually combine a conversation about your trade background with practical or technical questions. Employers want to know you can work safely, read drawings, fault-find logically and fit into a maintenance team.

- **Technical:** Questions about wiring, motors, switchgear, control panels, testing and reading drawings.
- **Safety:** Questions about lock out tag out, permits, risk assessments and compliance with AS/NZS 3000.
- **Behavioural:** Tell me about a time questions on teamwork, pressure and fault-finding.
- **Scenario:** Hypothetical breakdowns or safety dilemmas to see how you judge and prioritise.
- **Process:** Walk-throughs of how you install, test or isolate equipment.

A typical process starts with a phone screen with a recruiter or supervisor, then a face-to-face interview with a maintenance manager and sometimes a safety representative. You may also complete a practical test, such as wiring a motor circuit or fault-finding on a test board, and a site walkthrough.

1. Walk me through how you would install and wire a new motor and control circuit from a drawing.

Why they ask

This tests your technical knowledge and ability to follow specifications.

How to structure your answer

Use a step-by-step walk-through: isolation, drawing interpretation, component selection, wiring, testing and documentation.

Example answer

“First, I review the drawing and confirm the motor rating, cable size and protection. I isolate the supply, lock out tag out, and prove dead with a multimeter. I mount the motor and control components, then run the cables and terminate them. I check the wiring against the drawing before energising. Once powered, I test direction, current draw and insulation resistance with a Megger. Finally, I document the work and update any as-built drawings. On a recent job, I wired a three-phase motor for a pump, tested it, and it ran without issue before handover.”

2. Tell me about a time you diagnosed a difficult electrical fault on a machine.

Why they ask

Fault-finding is core to the role, and they want to see your logical approach.

How to structure your answer

STAR: situation, task, action, result. Focus on the steps you took and the outcome.

Example answer

“At a food processing plant, a packaging line kept tripping its breaker randomly. I was asked to find the cause. I isolated the circuit, used a Megger to test insulation resistance on each motor, and found a motor with degraded winding insulation. I replaced the motor and retested the circuit. The line ran without tripping for the rest of the week, and I documented the test results for the maintenance log. My supervisor used that record to schedule checks on similar motors.”

3. You arrive at a breakdown and the production manager is pressuring you to bypass a safety interlock to get the line running. What do you do?

Why they ask

Tests your safety judgement and ability to push back under pressure.

How to structure your answer

Show a judgement-under-pressure approach: acknowledge urgency, explain risk, offer safe alternatives, escalate if needed.

Example answer

“I would explain that bypassing a safety interlock is not an option because it puts people at risk and breaches site procedures and AS/NZS 3000. I would acknowledge the pressure and say I understand the production impact. Then I would offer a safe alternative, such as isolating the faulty section and running the rest of the line if possible, or calling for extra support to speed up the repair. If the manager continued to pressure me, I would escalate to my supervisor or the site safety officer. I have done this before: on a night shift, I refused to bypass a guard switch and instead traced the fault to a misaligned actuator, fixed it, and got the line running safely within the hour.”

4. How do you ensure your work complies with AS/NZS 3000 and site safety standards?

Why they ask

Employers need to know you work to the Wiring Rules and not just from experience.

How to structure your answer

Explain your approach: check the standard, use test equipment, follow procedures, document results, stay current with updates.

Example answer

“I start by checking the current AS/NZS 3000 requirements for the installation, including cable sizing, protection and earthing. Before I start, I complete a risk assessment and check the site's isolation procedures. I use a multimeter and insulation resistance tester to verify the work at each stage. I also keep my licence and competency training up to date, including any changes to the Wiring Rules. On every job, I document test results and any variations so the next person has a clear record. If I am unsure, I ask a supervisor or check the standard rather than guess.”

5. Describe a situation where you had to read and interpret a complex electrical drawing to complete a repair.

Why they ask

This probes your ability to work from drawings, which is a daily task.

How to structure your answer

STAR, with emphasis on how you interpreted the drawing and what you did when something did not match.

Example answer

“I was called to a breakdown on a conveyor drive where the control circuit had been modified several times. The drawing did not match the panel. I traced the wiring physically, compared it to the drawing, and found a missing interlock wire that someone had removed. I redrew the circuit as it was, then restored the interlock to the original design. I tested the circuit and the conveyor ran correctly. I then updated the drawing so the next fault-finder would have accurate information. That repair avoided a repeat breakdown two weeks later.”

6. What steps do you take before working on live equipment, and how do you apply lock out tag out?

Why they ask

Safety is critical in this role, and they want to hear your routine.

How to structure your answer

Walk through your isolation and LOTO process: plan, notify, isolate, lock, tag, test, work, restore.

Example answer

“First, I plan the job and check the isolation points on the drawing. I notify the affected operators and get the necessary permits. I isolate the supply, apply my lock and tag, and test for dead with a multimeter. I also test the tester on a known live source before and after to confirm it works. I then complete the work, remove tools, and check the area before removing my lock. I restore the supply and test the equipment. I record the isolation and any test results. I never rely on someone else's lock or assume a circuit is dead without proving it myself.”