Pressure Welder interview questions

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What to expect

Pressure welder interviews mix a conversation with a supervisor or fabrication manager, a check of your certification and code knowledge, and almost always a practical weld test. The employer is assessing whether your tickets match the processes they run and whether you'll work safely and to procedure when nobody is watching.

- **Technical and process:** Questions about welding processes, positions, consumables, preheat and interpass control, and why a given procedure calls for one approach over another.
- **Codes and documentation:** Questions about the standards you work to, how you read a WPS, and how you handle inspection and test plan requirements and non-destructive testing outcomes.
- **Safety and compliance:** Questions about hot work permits, confined space, isolation, gas safety and what you do when site conditions don't match the procedure.
- **Behavioural:** Questions asking for a real example, usually about rework, a defect you found, a disagreement over quality, or working under shutdown pressure.
- **Scenario and judgement:** Hypothetical situations testing what you'd do when schedule pressure, inspection requirements and safety pull against each other.
- **Practical weld test:** A supervised weld to the employer's procedures, often followed by visual, dye penetrant or radiographic inspection of your test piece.

Usually a short phone screen first to confirm your tickets, processes and availability, then an interview on site or in the workshop with the fabrication supervisor or welding supervisor. That interview is followed by a weld test in the position and process the job needs, and paperwork verification of your certification, trade qualification and any site inductions. Some larger employers add a second conversation with the production manager or a safety representative.

1. Walk me through how you set up a weld on a pressure pipe to a given WPS, from reading the procedure to striking an arc.

Why they ask

The employer wants to see whether you actually follow a procedure rather than welding from habit, and whether you understand why each step exists.

How to structure your answer

A step-by-step walk-through in sequence. Start with reading the WPS and drawings, then joint preparation and fit-up, then preheat and consumables, then the weld itself and what you check before you start each pass.

Example answer

“First I read the WPS properly, not just the process and position, but the joint detail, consumable spec, preheat and interpass limits and whether it calls for backing gas. Then I check the drawing and isometric to confirm the spool matches the joint I'm about to make. I prepare the bevel, clean back to bright metal and check the root gap and alignment with a gauge rather than by eye, and I tack it so the tacks go in a position that will be consumed by the root run. If preheat is specified I bring it up and check it with a contact thermometer or temp stick, and I keep an eye on interpass temperature between passes. I set the machine to the procedure's parameters, run a test bead on scrap if I'm not sure of the set, then weld. Between passes I wire brush and inspect the toe for undercut or porosity before I lay the next one.”

2. Tell me about a time you found a defect in a weld you'd already finished. What did you do about it?

Why they ask

It tests honesty, self-inspection habits and whether you'll own a problem instead of letting it reach the inspector or the client.

How to structure your answer

STAR. Set the situation and what you were welding, describe the task and what you were responsible for, explain the action you took and how you raised it, then give the result and what changed afterwards.

Example answer

"I was welding a run of stainless spools for a process line and on the third spool I noticed a small area of porosity at the tie-in after I'd finished the cap. It was borderline, the sort of thing that might have passed visual but would probably have failed dye penetrant. I stopped, told the supervisor straight away, and rather than grind the whole cap back I dressed the area out and rewelded it to the procedure with the same consumables and preheat. It went through penetrant testing clean and the spool shipped with the rest. After that I changed how I stored my stainless consumables so they weren't sitting out near the grinder, which is where I think the contamination came from."

3. You're on a shutdown and the inspector is pushing you to move faster, but the procedure calls for controlled interpass temperature. How do you handle that?

Why they ask

It's a judgement-under-pressure question. They want to know whether you'll hold the line on procedure and safety when the schedule gets tight.

How to structure your answer

State your position first, then how you'd communicate it, then what alternatives you'd offer to keep things moving safely. Keep it calm and practical, not defensive.

Example answer

"I'd keep to the procedure, because interpass control is a metallurgical requirement, not a preference, and the finished weld has to meet the code regardless of the schedule. I'd explain that to the inspector directly and without making it personal: if I push the interpass temperature past the limit I risk the test failing and we lose more time doing it again. Then I'd look at what we can do to keep moving, like bringing in a second welder so one joint cools while I weld another, or sequencing the welds so the cooling time overlaps with other work. If the inspection requirement itself is in question, that's a conversation for the welding supervisor, not something I'd resolve by cutting a corner."

4. What welding processes and positions are you currently certified in, and how do you keep those tickets current?

Why they ask

Certification currency is a practical requirement for pressure work, and the answer shows whether you manage your own records or leave it to your employer.

How to structure your answer

Give a clear inventory of process, position and standard, then explain how you maintain currency and what you do when certification is due.

Example answer

"I hold a trade qualification and certification in manual metal arc and TIG for pressure pipe work across positions, tested to a recognised pressure equipment standard, with MIG and flux cored experience on plate and structural work. I keep a folder with my certificates, the test positions and the expiry dates, and I diarise renewals well ahead so I'm not caught out mid-project. When I start with a new employer I give them copies and check whether they need me tested to their own procedures,

which most pressure work does. I also keep a log of the jobs I've done on each process so I can show recent experience if that comes up."

5. How do you approach safety on a live plant site, particularly hot work and confined space?

Why they ask

Pressure welding often happens on operating plant with real consequences, so employers screen hard on whether safety is habit or performance.

How to structure your answer

A structured answer covering preparation, permits and controls, then what you'd do if conditions didn't match the permit.

Example answer

"Before anything starts I check the permit and make sure the isolation, gas test and fire watch are actually in place, not just signed off. I confirm the area is clear of combustibles, set up screens and have the extinguisher and fire blanket where I can reach them, and I check gas leads and torches for leaks before I light up. In confined space I work to the entry permit, with the stand-by person, atmospheric monitoring and the rescue plan already agreed, and I don't go in if any of that isn't right. If conditions change, like gas readings drifting or the isolation not holding, I stop and raise it. Stopping the job is always cheaper than the alternative."

6. How do you decide which process or technique to use on a job, say TIG versus manual metal arc on a given pipe weld?

Why they ask

It shows technical judgement and whether you understand why a procedure specifies one process, rather than just using whatever you're quickest with.

How to structure your answer

Explain the factors you weigh in order: the procedure, the material, the position, the access, then the quality and inspection requirements.

Example answer

"The procedure decides most of it, so I start there. If I have a choice, it comes down to material and quality requirements first. On stainless or thin wall pipe where cleanliness and root quality matter, TIG for the root is usually the right call because I get better control and no slag to trap. On heavier carbon steel wall thickness out in the field, manual metal arc is often more practical and more forgiving of wind and position, and it's usually what the procedure specifies anyway. Access and position matter too, because a joint you can't rotate changes what you can run. If I'm unsure, I ask the welding supervisor rather than assume, because getting it wrong means cutting it out."