



Job Description for Fabricator/ Welder

JOB SUMMARY

The Fabricator/Welder is responsible for the layout, fit-up, and welding of complex structural steel and hydromechanical assemblies. This role requires a high degree of technical skill to transform raw steel into precision components such as bridge girders, industrial frameworks, and water control gates. The successful candidate must maintain high-quality standards in accordance with AWS and AISC codes while ensuring projects are completed safely and efficiently.

Reports to: Shop Foreman

KEY RESPONSIBILITIES

- **Blueprint Interpretation:** Read and interpret advanced shop drawings, weld symbols, and technical specifications to determine project requirements.
- **Layout & Fit-up:** Perform precise layout of parts, including squaring, aligning, and tacking components together for final welding.
- **Welding Operations:** Execute high-quality welds using various processes (primarily GMAW, FCAW, and SMAW) on heavy-gauge carbon and stainless steel.
- **Material Preparation:** Utilize plasma cutters, oxy-fuel torches, grinders, and saws to prepare materials for fabrication.
- **Equipment Operation:** Safely operate overhead cranes, forklifts, and rigging equipment to move large-scale assemblies throughout the shop.

CORE REQUIREMENTS

1. Technical Certifications & Experience

- 1.1. Minimum of 3–5 years of experience in heavy structural steel fabrication or industrial mechanical manufacturing.
- 1.2. Current or previous AWS D1.1 certification (Structural Steel) is required; AWS D1.5 (Bridge) certification is a significant plus.
- 1.3. Proven experience working with heavy-plate fabrication and thick-walled structural sections.

Fabrication Skills

- 2.1. Advanced proficiency in blueprint reading and the ability to visualize 3D assemblies from 2D drawings.
- 2.2. Expertise in manual layout techniques and the use of precision measuring tools (calipers, squares, micrometers).
- 2.3. Strong understanding of heat distortion control and sequence welding to maintain tight tolerances.

Welding Proficiency

- 3.1. Mastery of **FCAW (Flux-Cored Arc Welding)** and **GMAW (Gas Metal Arc Welding)** in all positions (Flat, Horizontal, Vertical, Overhead).
- 3.2. Ability to pass a multi-pass fillet and groove weld test (UT or X-ray quality).
- 3.3. Experience with stainless steel welding and specialized alloys often used in hydromechanical applications.

Equipment & Safety

- 4.1. Demonstrated competency in the safe operation of shop machinery, including ironworkers, plate rolls, and drill presses.
- 4.2. Deep understanding of rigging and signaling for the movement of oversized structural components.
- 4.3. Strict adherence to PPE requirements and all OSHA/Company safety protocols.

Professional Attributes

- 5.1. Strong mathematical skills, specifically in geometry and trigonometry, as they relate to fabrication.

- 5.2. Ability to work independently with minimal supervision while maintaining high production rates.
- 5.3. A "quality-first" mindset with a focus on producing clean, aesthetically professional finished products.

PHYSICAL DEMANDS & WORK ENVIRONMENT

- Must be able to lift and carry up to 50 lbs. consistently.
- Ability to work in a non-climate-controlled shop environment.
- Must be comfortable working in various positions, including kneeling, crouching, and working at heights or in confined spaces as needed.