

# National Apprenticeship - Occupational Profile

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**Craft Occupation** Metal Fabrication

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**Industry Served** The Metal Fabrication Industry

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**Profile of Craft** The Metal Fabricator's job includes the reading of drawings, working with materials such as low carbon steel, stainless steel, alloy steel and aluminium. The fabricator is involved in such industries as constructional steel, pressure vessel, tank and boiler manufacture, ship building and ship repair also general engineering. The skills required are wide and varied. They include skills such as measuring, marking out, cutting and welding materials using different processes and assembly techniques. The Metal Fabricator will spend some time outdoors and may be required to work on heights.

At the end of the apprenticeship, the craftsperson will be able to demonstrate competence in the following skills:

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**Core Skills** Use, care and safety on the following machines and equipment:

- Guillotine
- Press brake
- Rolls
- Ironworker
- Mechanical saws
- Drills
- Cutting
- Forming
- Welding

Operations involve mechanical and thermal cutting, marking, drilling, notching, bending, rolling, forming and welding using various materials

Pattern development

Parallel line, radial line and triangulation methods

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**Specialist Skills**

- Oxy-fuel gas cutting and plasma cutting
- Welding processes using: Oxy-fuel; MMA; MIG/MAG; TIG/TAG
- Rolling, bending and forming various materials

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**Generic Skills** Workshop practice including:

- Safe use and maintenance of tools and equipment
- Marking out
- Drilling
- Tapping
- Riveting

Technical drawing:

- Interpretation of first and third angle projections
- Isometric, oblique and free hand sketching

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## Personal Skills

- Communications
- Customer relations
- Adaptability
- Ability to work as a team member
- Ability to work independently
- Initiative
- Problem solving
- Planning
- Information gathering
- Quality systems
- Safety

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**NOTE: Integrated curriculum includes maths, science and theory, drawing and computer applications**

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