



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Cut Material With Oxy Fuel Gas Cutting Process Manual Cutting Training

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 119749 · NQF Level 2 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips learners with the knowledge and practical skills to safely and effectively cut ferrous metals using the oxy-fuel gas manual cutting process. It covers setup, operation, and shutdown of equipment, as well as hazard identification and safety precautions. Successful learners will be able to perform manual cutting in accordance with industry standards and workplace procedures.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	119749
Accreditation	SAQA Accredited · NQF Level 2 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate knowledge of oxy-fuel gas cutting principles, equipment, and safety procedures.
- Set up and prepare oxy-fuel gas cutting equipment according to manufacturer specifications and workplace requirements.
- Perform manual cutting operations on ferrous materials of varying thicknesses to specified dimensions and quality standards.
- Monitor cutting parameters and make adjustments to achieve clean, efficient cuts.
- Shut down equipment safely and perform post-cutting inspections and maintenance.
- Apply relevant health, safety, and environmental regulations during all cutting activities.

WHO SHOULD ATTEND

- This course is designed for welders, boilermakers, artisans, and engineering staff who need to perform manual oxy-fuel cutting as part of their duties.
- It is also suitable for apprentices and trainees in the metal fabrication and construction sectors.

COURSE OUTLINE

Day 1: Introduction to Oxy-Fuel Gas Cutting and Safety

- Overview of oxy-fuel gas cutting process and unit standard 119749
- Principles of combustion and metal cutting with oxy-fuel
- Oxygen and fuel gases: characteristics, storage, and hazards
- Components of cutting equipment: cylinders, regulators, hoses, torches, and nozzles
- Safety procedures: PPE, ventilation, fire prevention, and emergency response
- Pre-use inspections and leak testing
- Setting up and adjusting gas pressures
- Practical demonstration: equipment setup and safe shutdown

Day 2: Cutting Techniques and Process Parameters

- Factors affecting cut quality: gas flow, preheat, cutting speed, and torch angle
- Selecting appropriate nozzle size and gas pressures for material thickness
- Techniques for straight line cutting using guides and freehand
- Bevel cutting and edge preparation for welding
- Cutting complex shapes and profiles
- Troubleshooting common cutting problems and adjustments
- Practical exercises: series of cuts with varying parameters
- Inspection and measurement of cut surfaces

Day 3: Advanced Applications, Maintenance, and Assessment

- Cutting thick plates: multiple pass techniques and proper preheat
- Stack cutting and piercing operations
- Maintenance procedures: cleaning nozzles, replacing parts, and cylinder handling
- Troubleshooting equipment faults: regulator issues, flashback, and hose damage
- Reading and interpreting cutting plans and symbols
- Safe storage and transport of gas cylinders
- Final practical assessment: cut a specified shape to tolerance
- Review and feedback session

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **6 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 17,900.00	R 17,900.00
1	In-House	R 23,300.00	R 23,300.00
1	On-Campus (Pretoria)	R 26,800.00	R 26,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
05 Aug 2026	07 Aug 2026	On-Campus	Cape Town, South Africa
05 Aug 2026	07 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	12 Aug 2026	On-Campus	Pretoria, South Africa
10 Aug 2026	12 Aug 2026	On-Campus	Mauritius
11 Aug 2026	13 Aug 2026	On-Campus	Abu Dhabi, UAE
11 Aug 2026	13 Aug 2026	On-Campus	Cape Town, South Africa
12 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
12 Aug 2026	14 Aug 2026	On-Campus	Dubai, UAE

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

- 1. Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 119749) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
- 2. Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
- 3. Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
- 4. Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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