

WELDER APPRENTICESHIP

Purpose

The purpose of this qualification is to train the learner to operate and qualify as a Welder artisan. The welder joins metal products in accordance with Welding Specifications set by the Industries which is structured around practical cutting and welding activities, including: performing cutting operations using oxy-fuel, carbon arc and plasma processes; producing fillet welds on plate; producing fillet welds on pipe; producing butt or groove welds on plate; and producing butt or groove welds on pipe – with each positional skill having to be developed using Shielded Metal Arc Welding SMAW (MMA), Gas Tungsten Arc Welding GTAW (TIG), Gas Metal Arc Welding GMAW (MIG/MAG) and Flux cored arc welding FCAW processes.

Recommended Entry Criteria

- Minimum age of 16 years
- Grade 9 –
 - English,
 - Second language
 - Maths
 - Science and 2 other subjects OR a four subject National Technical Certificate N1

Course Overview

The learners will attend institutionalised training at our centres which are situated in Cape Town, Kya Sands and Gqeberha (Port Elizabeth). The course is broken up into three sessions of 8 weeks per year over a period of three years. In year 1 they will focus on Hand skills and tools, the setup of the welding machine, for the SMAW, GMAW, and oxy – acetylene welding processes in the Down Hand position and oxy fuel cutting.

In year 2 they focus on the same processes but this time they will focus on all positions and include GTAW in the Down hand positions.

Then in year 3 they will focus on more advanced processes which include Pipe Welding using the SMAW, GMAW and GTAW processes in all positions, the FCAW processes and aluminium welding using the GTAW process in the down hand position.

Modules

Description

- Induction
- Safety
- Hand And Workshop Tools
- Materials
- Drawings and Sketches
- Principles and Techniques of Marking Off
- Thermal Application
- Basic Lifting Techniques
- Trade Related Skills
- Oxy-Fuel Gas Welding and Brazing
- Oxygen-Fuel Gas Cutting
- Shielded Metal Arc Welding (Manual Metal Arc Welding)
- Gas Metal Arc Welding
- Gas Tungsten Arc Welding

