

Qualification Information:	Qualification Title	SAQA ID	NQF Level	Credits	
Curriculum Code:	Occupational Certificate: Boiler Maker	93626	4	395	
Knowledge Component		Notional Hours	Implementation Schedule (4 hourly)	Assessment Schedule	Training Venues
651302000-KM-01:	Introduction to Boilermaker Trade – NQF level 4 (9)	90 Hours	23 days	2 days	Main Campus
651302000-KM-02:	Boilermaker Tools, Equipment, Machines and Materials – NQF level 4 (10)	100 hours	25 days	2 days	Main Campus
651302000-KM-03:	Fabrication and Pipework – NQF level 4 (23)	230 hours	58 days	2 days	Main Campus
651302000-KM-04:	Assembling and Joining – NQF level 4 (14)	140 hours	35 days	2 days	Main Campus
651302000-KM-05:	Cutting and Welding – NQF level 4 (20)	200 hours	50 days	2 days	Main Campus
651302000-KM-06:	Boilermaker's Drawings – NQF level 4 (9)	90 hours	23 days	2 days	Main Campus
Practical Component			(6 hourly Training Session)		
651302000-PM-01,	Visualise structures and components and develop templates according to set tolerances and / or standards whilst applying safety measures. NQF Level 4, 18 Credits	180 hours	30 days	7 days	Boiler Maker Workshop
651302000-PM-02,	Maintain and use tools, equipment and machinery., NQF Level 4, 15 Credits	150 hours	25 days	7 days	Boiler Maker Workshop
651302000-PM-03,	Weld and gas cut components required for fabrication of a specific task such as metal pipes, construction and fabricated plate work and conduct visual and mechanical inspections for compliance with legal requirements., NQF Level 4, 28 Credits	280 hours	47 days	7 days	Boiler Maker Workshop
651302000-PM-04,	Accurately manipulate and fabricate profiles and fabricate metal sections using heating and cold bending processes whilst applying safety measures. NQF Level 4, 41 Credits	410 hours	69 days	7 days	Boiler Maker Workshop
651302000-PM-05,	Accurately erect, assemble and repair metal structures whilst applying safety measures. NQF Level 4, 28 Credits	280 hours	47 days	7 days	Boiler Maker Workshop
Workplace Component			( 8 hourly Training Session)		
651302000-WM-01,	Pattern and template development processes. NQF Level 4, Credits 30	300 hours	38 days	7 days	Boiler Maker Workshop
651302000-WM-02,	Tools, equipment and machinery maintenance and operation processes. NQF Level 4, Credits 30	300 hours	38 days	7 days	Boiler Maker Workshop
651302000-WM-03,	Workshop or on-site cutting and welding processes. NQF Level 4, Credits 43	430 hours	54 days	7 days	Boiler Maker Workshop
651302000-WM-04,	Fabrication, assembling and repairing of metal components and structures. NQF Level 4, Credits 43	430 hours	54 days	7 days	Boiler Maker Workshop
651302000-WM-05,	Assembling and erecting of structures and components. NQF Level 4, Credits 34	340 hours	43 days	7 days	Boiler Maker Workshop

## General Information

The QCTO curriculum contents of Knowledge Modules, Practical Modules, and workplace modules, the apprentices in this qualification will be exposed to theory, practice, and workplace exposure during the 3-year program. The Qualification is implemented via a dual system approached, meaning apprentices must rotate from college to workplace every during the learning program.

## What is a Boiler Maker?

Boilermakers are a in demand!

Boilermakers work in the heavy engineering industry and make boilers, engines and pressures-vessels.

They work with large sheets of metal to make parts for machines and equipment. If you image yourself as a metal worker and practically skilled, then a career in Boiler Making is for you !

Boilermakers build or repair containers made with steel plates and pipes which used in many industries ranging from boilers for steam engines. Vats tanks and to pressure vessels like the ones used at power stations and petrochemical plants.

Their work can also be quite varied and Boilermakers can work in factories: making containers, doing repairs or work at power stations, on oil rigs, in petrol refineries, on the mines and in the shipbuilding industry.

In some ways they are like specialist welders and must be very skilled and responsible when they work: reason being- containers they make or repair are used under high pressure or may contain chemicals or poisonous gases, so any fault in the seams and joints can cause accidents and serious injury.

## Entry Requirements

- Grade 9/10/11/12 Or NQF Level 1 with Mathematics, Science.

## Occupational Purpose

Marks off and fabricates structural steel and other metal stock to make or repair metal products and structures which may include pressure vessels and pipes.

*(Note: Metal Products and Structures include but are not limited to: Manufacture or repaired metal structures, vessels, pipe systems, pressure vessels, heavy duty equipment, sheet metals, road tankers, oilrig stations, mechanical chassis, bins, water tanks, yachts, work boats, high speed vessels, square to rounds, cones, boilers, ducting, water tubes, shell boiler, railway trucks, chutes etc.)*

## Output

- Qualified tradesman with a red seal or trade test after 3 years.
- The candidate will pass the new trade test that includes both theory assessment (**Formative Assessments**), **Summative Assessments & Practical Assessments**

## Career

- Plater-boilermaker / Plater-welder / Metal fabricator/ Fabricator / Structural plater / Metal machinist

### **Course Requirements:**

- PPE – ( Purchase from College)
- Safety Boots
- Study Material
- Log Book

### **INTERNAL CONTINUOUS ASSESSMENT (ICASS)**

Our internal Assessments are not limited to the following:

- Workplace tasks (e.g. case studies)
- Briefs • Practical Demonstrations
- Assignments/Tests
- Projects, etc.

Internal **QA** processes must be in place by the **SDP** to ensure these assessments are fit for purpose

### **EXTERNAL ASSESSMENT**

- External assessments are managed and conducted by Quality Partners – a national standard is set.
- Only learners that have enrolled and registered with the **QCTO** may sit for the **EISA**
- Submission of **SoR** to **QCTO** prior to **EISA**
- This is a competency based final assessment
- Approval of Results and Certification by the **QCTO**

### **FINAL ASSESSMENTS**

#### **EISA**

The **External Integrated Summative Assessment** (EISA) is the final assessment managed and conducted by the Quality Partner/Assessment Quality Partner; it is used to assess all learners nationally. In the **EISA** the learner proves his/her competence against the Exit Level Outcomes of the Qualification. Learners qualify for entry into **EISA** via a **Statement of Results (SoR)** issued by the **SDP** or the institution used in the **RPL** route.

The **EISA** is conducted for a particular qualification or part qualification at accredited assessment or trade test centres.

**EISA** Benefits Industry/Employers – by ensuring that learners will be competent workers as they would have had to demonstrate competencies in in work related tasks or scenarios during the **EISA**.

## **CERTIFICATION**

SDPs are not allowed to print their own certificates for occupational qualifications. Certificates are issued by the QCTO's secure CVS certification system.

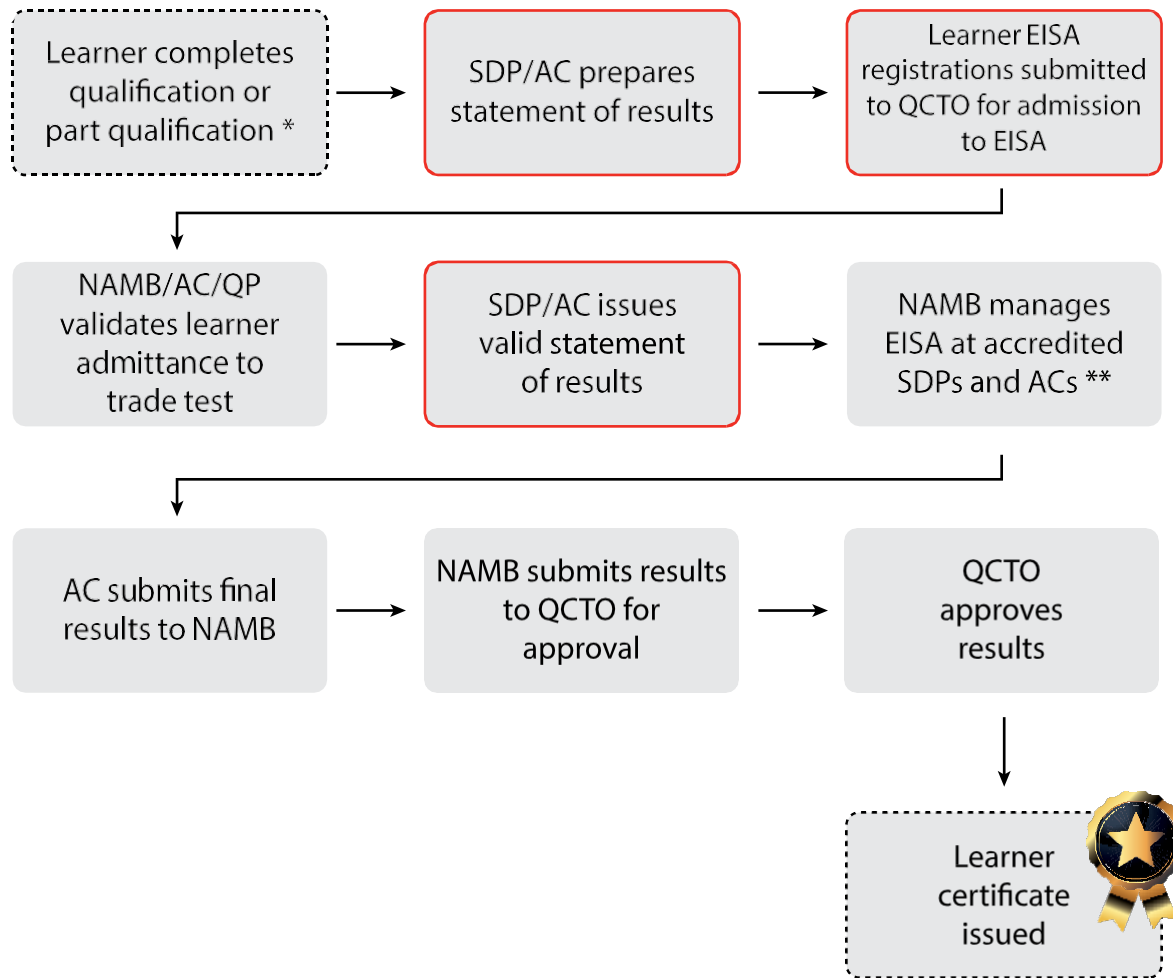
The QAS document specifies the timeline for the EISA assessment and moderation process, but this is usually about 21 days. From there, the QCTO aims to approve the results in 21 days, after which it should take the QCTO 21 days to issue the learner certificates.

## **Fees**

- Registration Fees: **R1000**
- Deposit: **R5000 ( Includes Student Card, Course Material/ Study Material / Assessments Fees)**
- Monthly Instalment: **R3000**
- Duration: **3 Years**

✓ External Integrated Summative Assessment Process

🔧 Trades





\* Either via formal training with SDP or via ARPL with AC



\*\* Learners complete the written component of the EISA at the SDP. The SDP marks & moderates this final assessment and submits results to the AC where the learner will sit for the practical component (trade test). The learner needs to register at an accredited Assessment Centre.