



SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Building Construction

Registered by Organising Field 12, Physical Planning and Construction, publishes the following qualification and unit standards for public comment.

This notice contains the titles, fields, subfields, **NQF** levels, credits, and purpose of the qualification and unit standards. The qualification and unit standards can be accessed via the SAQA web-site at www.saga.org.za. Copies may also be obtained from the Directorate for Standards Setting and Development at the SAQA offices, Hatfield Forum West, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the qualification and unit standards should reach SAQA at the address **below and no later than 3 August 2006**. All correspondence should be marked Standards Setting – SGB for Building Construction and addressed to

The Director: Standards Setting and Development

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S BHIKHA
DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



SAQA QUAL ID		QUALIFICATION TITLE		
57162		National Certificate: Aluminium Work		
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME	
SGB Building Construction		(12		
QUAL TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD	
National Certificate		Physical Planning and Construction	Building Construction	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS	
Undefined	154	Level 2	Regular-Unit Stds Based	

PURPOSE AND RATIONALE OF THE QUALIFICATION

Purpose:

The primary purpose of this qualification is to provide the required competencies in a learner for a career in the operation, installation and maintenance of specialist machinery to manufacture aluminium products.

Qualified learners will be Competent to:

- > Operate specialist machinery used in the manufacturing of aluminium components and systems.
- > Work according to drawings, specifications and building standards relating to the manufacturing and installation of aluminium systems.
- > Perform a range of installations of aluminium systems.
- > Apply safety, health, environmental and quality procedures to installations.

This qualification will develop the competencies for learners to perform aluminium work in the construction industry. The qualification also provides the basis upon which further related learning and career development can take place. Learners are expected to benefit by enhanced career opportunities and earning potential that will also benefit the local community and the economy. Learners will acquire competencies which will form the basis on which further related learning and career development can take place.

The employment of competent Aluminium Work personnel inspires confidence to the industry and also help in the social development and economic transformation of society. High productivity, career development and personal job satisfaction of Aluminium Work construction personnel are facilitated through the learning process used to achieve the competencies specified.

Rationale:

Typical learners are manufacturing and installation personnel working in the aluminium sector of the construction industry. The aluminium industry is well established in South Africa and its success is dependent upon the efficient manufacturing and installing of aluminium products. Achievement of these objectives is largely dependent upon the competence, recognised by this qualification. An adequate number of people with these skills is needed to ensure that the production units in South Africa operate productively.

Competence in manufacturing and installing aluminium systems requires appropriate general, aluminium and glass specific technical and other knowledge and its application; and expertise in manufacturing and installing on a construction site. This knowledge and expertise can form a basis for further learning particularly in the manufacturing, installing and supervisory aspects of aluminium manufacturing and similar industries in the construction and other sectors.

The learners are expected to benefit by enhanced career opportunities and earning potential that will also

benefit the **local** community and the economy.

RECOGNIZE PREVIOUS LEARNING?

N

LEARNING ASSUMED TO BE IN PLACE

It is assumed that learners are already competent in the following:

- > Communication at NQF Level 1.
- > Mathematical Literacy at NQF Level 1.

Access to the qualification:

Access is open bearing in mind learning assumed to be in place.

QUALIFICATION RULES

It is compulsory for learners to complete all Fundamental and Core unit standards. Learners must select a minimum of **13** credits from the Electives to obtain this qualification.

This qualification is made up as follows:

- > Fundamentals: **36** credits.
- > Core: **105** credits.
- > Electives: A minimum of **13** credits.
- > Total: **154** credits.

EXIT LEVEL OUTCOMES

1. Use specialist machinery to manufacture aluminium components and systems.
2. Work according to drawings, specifications and building standards relating to the manufacturing and installation of aluminium systems.
3. Perform a range of installations of aluminium systems.
4. Apply safety, health, environmental and quality procedures to installations.

Critical Cross-Field Outcomes:

This qualification addresses the following Critical Cross-Field Outcomes. The way in which the Critical Cross-Field Outcomes are addressed is presented in detail in the unit standards outlined:

- > Identifying and solving problems in which responses display that responsible decisions using critical and creative thinking have been made.
- > Working effectively with others as a member of a team, group, organisation or community.
- > Organising and managing oneself and one's activities responsibly and effectively.
- > Collecting, analysing, organising and critically evaluating information.
- > Communicating effectively using visual, mathematical and or, language skills in the modes of oral and or written persuasion.
- > Using science and technology effectively and critically, showing responsibility towards the environment and health of others.
- > Using Mathematics to perform a task.
- > Demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.

ASSOCIATED ASSESSMENT CRITERIA

1:

- > The correct handling, lifting, stacking, storage and transportation of aluminium materials is demonstrated without damage to the material.
- > The manufacturing procedures and limitations are interpreted and implemented in accordance with manufacturing and limitations procedures.
- > A range of aluminium components and systems are assembled according to specifications and industry standards.

2:

- > Relevant drawings and specifications are read and interpreted in relation to the manufacturing and installation of aluminium systems.
- > Building standards relating to material, safety and construction methods are interpreted in accordance with specifications requirements.

3:

- > A range of measurements is taken according to specifications.
- > A range of aluminium systems is installed in accordance with specifications and building standards.
- > Servicing of aluminium hardware is demonstrated with practical examples.
- > Good housekeeping skills are demonstrated as defined by workplace standards and norms.

4:

- > Quality Assurance checks are performed on a range of aluminium products and systems.
- > The use of Personal Protection Equipment is demonstrated and factory specific safety mechanisms are implemented in accordance with manufacturer's specifications.
- > Knowledge of safety considerations is demonstrated on a construction site.
- > Awareness of health and safety regulations is displayed pertaining to installation procedures.
- > Environmental protection standards are adhered to according to workplace standards and norms.

Integrated assessment

The applied competence (practical, foundational and reflexive competencies) of this qualification will be achieved if a candidate is able to operate the equipment in an aluminium-manufacturing environment, maintain quality control practices, demonstrate knowledge of assembly and installation procedures and perform basic maintenance and servicing functions.

Appropriate methods and tools must be used to assess practical, foundational and reflexive competence of the learner in all the exit level outcomes listed above, as well as to determine a learner's ability to solve problems, work in a team, organise him/herself, use applied science, and understand the implications of actions and reactions in the world as a set of related systems. Such an assessment process will determine development of the whole person, and the integration of applied knowledge and skills.

Assessors should develop, conduct, and ensure integration of assessment by making use of a range of formative and summative assessment methods against the unit standards that make up the qualification. Combinations of applied, foundational and reflective competencies, including Critical Cross-Field Outcomes, should be assessed wherever possible.

Moderators should ensure that assessment is valid, consistent and integrated into work or learning, and that there is sufficient and authenticated evidence of learner competence against the whole qualification.

INTERNATIONAL COMPARABILITY

Most countries do not have one single Qualification that deals explicitly with 'Aluminium Work'. There are programmes, courses and qualifications in the manufacturing, construction and welding of aluminium but not with its handling and storage.

Countries which are recognised as leaders in aluminium include the United Kingdom, European Countries and the USA. This National Certificate qualification and set of unit standards utilises international and locally recognised best practice and standards in aluminium work as applied in those countries.

Comparisons were done with programmes in the following countries:

The United Kingdom:

Training in Aluminium Application Technologies (TELAT), (Accredited by the European Aluminium Association):

- > Aluminium Materials Technology (AMT):
 - > The programme includes:
 - > Production, Markets, Environment.
 - > Aluminium Metallurgy.
 - > Production and Properties of Semi-finished Products.
 - > Advanced Aluminium Materials.
 - > Aluminium Alloys; Properties and Selection Criteria.

- > Advanced Metallurgical and Material Science Topics.

- > Aluminium Design (AD):

- > The programme includes:

- > Aluminium in Product Development.
 - > Introduction to Structural Design.
 - > Static Design.
 - > Fatigue Design.
 - > Design for Fire Resistance.
 - > Design Examples.

- > Aluminium Machining and Forming (AMF):

- > The programme includes:

- > Machining of Wrought and Cast Aluminium Product.
 - > Aluminium Casting Technology.
 - > Fundamentals of Metal Forming.
 - > Forging of Aluminium.
 - > Impact Extrusion of Aluminium.
 - > Forming Aluminium Sheet Metal Parts.
 - > Superplastic Forming of Aluminium Sheet.

- > Aluminium Joining Technology (AJT):

- > The programme includes:

- > Mechanical Fastening Methods.
 - > Arc Welding of Aluminium and Aluminium Alloys.
 - > Beam Welding Processes of Aluminium.
 - > Resistance Welding.
 - > Brazing, Soldering and Other Bonding Methods.
 - > Adhesive Bonding of Aluminium.

Science, Engineering, Manufacturing Technologies Alliance (SEMTA), (This is the Sector Skills Council for Science, Engineering and Manufacturing Technologies):

- > Performing Manufacturing Operations - Level 1:

- > The programme includes:

- > Contribute to effectiveness in the organisation. (Core)
 - > Develop and maintain working relationships. (Core)
 - > Contribute to health and safety in the workplace. (Core)
 - > Manufacture shaped products. (Elective)
 - > Build assemblies. (Elective)
 - > Process products. (Elective)
 - > Manufacture formed products. (Elective)
 - > Manufacture finished products. (Elective)
 - > Manufacture joined products. (Elective)
 - > Manufacture moulded products. (Elective)
 - > Package products. (Elective)
 - > Move products. (Elective)

- > Performing Manufacturing Operations - Level 2:

- > The programme includes:

- > Organise own work for manufacturing operations. (Core)
 - > Control manufacturing operations. (Core)
 - > Contribute to effectiveness in the organisation. (Core)
 - > Contribute to health and safety in the workplace. (Core)
 - > Produce shaped objects. (Elective)
 - > Produce assemblies. (Elective)

- > Produce processed products. (Elective)
- > Produce formed products. (Elective)
- > Produce finished products. (Elective)
- > Manufacture products using computer controlled equipment. (Elective)
- > Produce products using combined operations. (Elective)
- > Produce joined products. (Elective)
- > Produce moulded products. (Elective)
- > Confirm quality of production. (Elective)
- > Contribute to improvement at work. (Elective)

United States of America:

BOSS International, (Recognised by the American Society of Civil Engineers):

> Designing Aluminium Structures:

> The programme includes:

- > Material designations and specifications.
- > Product forms and finishes.
- > Material properties.
- > Aluminium structural design overview.
- > Tension members.
- > Columns.
- > Local buckling.
- > Beams.
- > Combined stresses.
- > Fatigue.
- > Mechanical connections.
- > Welded connections.
- > Welded members.
- > Recent developments in aluminium structures.

Northland Community and Technical College:

> Manufacturing Training:

> The programme includes:

- > Basic Machine operations.
- > Production Management.
- > Robotics/Robotic Welding.
- > Aluminium and Steel Welding.
- > LEAN Manufacturing.
- > Continuous Improvement
- > Quality Control.
- > Customised Employee Training.

Alcotec Welding School - Michigan:

> Specialised Training and Qualification in Aluminium Welding:

> The programme includes:

- > Welding Equipment Evaluation.
- > Metal Preparation Methods.
- > Welding Procedure Development
- > Weld Discontinuities.
- > Alloy and Temper designation System.
- > Welding Metallurgy.
- > Filler Alloy Selection.
- > Welding Codes and Standards.
- > Design Consideration for Welding Aluminium.

Canada:

TMMMS (The Minerals, Metals & Materials Society) - Quebec:

- > The Theory and Practice of Primary Aluminium Production:
 - > The programme includes:
 - > Aluminium properties.
 - > Anode Carbon.
 - > Bath Chemistry.
 - > Cathode Blocks.
 - > Cell Start-up; Modernisation; Operation and Current Efficiency.
 - > Magnetic Modelling.
 - > Perfluorocarbon Emissions.
 - > Practical application to Operations.
 - > Principles of Aluminium Electrolysis.
 - > Process Control and Simulation.
 - > Producing Quality Products.
 - > Workers Health, Safety and Hygiene.
 - > Smelter Organisational Structure and Management Style.

New Zealand:

- > NZQF - National Certificate in Joinery (Aluminium Fabrication):
 - > The programme includes:
 - > A level 3 qualification with accredit total of 96 credits, which allows the learner to choose Elective unit standards in domains that are comparable to what is required in this qualification:
 - > Health Studies - 2 unit standards.
 - > Joinery Machining - 1 unit standard.
 - > Stairs and Other Joinery - 2 unit standards.
 - > Architectural Aluminium Joinery - 10 unit standards.
 - > Core Construction - 8 unit standards.
 - > Decorating - 1 unit standard.

Australia:

- > Certificate III in Off Site Construction (Joinery-Timber/Aluminium/Glass):

This qualification contains certain elements that may act as reference points for this qualification, although the focus is not altogether on aluminium and glass.

A comparison of the above qualifications was undertaken and the best practice points were highlighted and used in the generation of this qualification.

Conclusion:

In general this qualification and its component unit standards compare well with the training that is offered internationally. The major differences are in formatting and scope of coverage or focus.

ARTICULATION OPTIONS

Horizontal articulation is possible with:

- > **49410**: National Certificate: Construction, NQF Level 2
- > **24198**: National Certificate: Construction Material Manufacturing, NQF Level 2.
- > **49022**: National Certificate: Floor Covering Installation, NQF Level 2.

Vertical articulation is possible with:

- > **22671**: National Certificate: Construction Masonry, NQF Level 3. (This qualification has expired and will be replaced shortly).
- > **24194**: National Certificate: Construction Material Manufacturing, NQF Level 4.
- > **49053**: National Certificate: Supervision of Construction Processes, NQF Level 4.

MODERATION OPTIONS

- > Anyone assessing a learner or moderating the assessment of a learner against this Qualification must be registered as an assessor with the relevant Education, Training, Quality, Assurance (ETQA), or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.
- > Any institution offering learning that will enable the achievement of this Qualification must be accredited as a provider with the relevant Education, Training, Quality, Assurance (ETQA) or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.
- > Assessment and moderation of assessment will be overseen by the relevant Education, Training, Quality, Assurance (ETQA), or by an ETQA that has a Memorandum of Understanding with the relevant ETQA, according to the ETQA policies and guidelines for assessment and moderation.
- > Moderation must include both internal and external moderation of assessments at exit points of the Qualification, unless ETQA policies specify otherwise. Moderation should also encompass achievement of the competence described both in individual Unit Standards as well as the integrated competence described in the Qualification.
- > Anyone wishing to be assessed against this Qualification may apply to be assessed by any assessment agency, assessor or provider institution that is accredited by the ETQA.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

Assessors and moderators wishing to assess candidates against this qualification must be registered as assessors with the relevant ETQA or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.

NOTES

Range of equipment covered:

- > A system is understood to be equipment operated in combination to achieve a desired result in process operation.
- > Operating a system includes the integrated operation of the equipment that makes up the system.

Range statements:

- > This qualification addresses the use and maintenance of specialist machinery to manufacture aluminium components and systems, the installation of a range of aluminium systems and the glasswork for aluminium systems.
- > Technology relating to aluminium work includes communication, mathematics, applied science, and industry specific technology and information technology.
- > This qualification may be applicable to other manufacturing and installation operations. This is subject to its acceptance by appropriate subject matter experts.

UNIT STANDARDS

(Note: A blank space after this line means that the qualification is not based on Unit Standards.)

	UNIT STANDARD ID AND TITLE	LEVEL	CREDITS	STATUS
Core	9876 Operate and monitor machinery	Level 2	12	Reregistered
Core	10255 Select, use and care for power tools	Level 2	5	Reregistered
Core	119744 Select, use and care for engineering hand tools	Level 2	8	Registered
Core	230061 Conduct machining of material and use specialist tools	Level 2	14	Draft - Prep for P Comment
Con,	230062 Use and maintain specialised tools in the manufacturing and installation of aluminium products	Level 2	4	Draft - Prep for P Comment
Core	230063 Interpret relevant documentation	Level 2	12	Draft - Prep for P Comment
Core	230064 Perform assembly of aluminium components	Level 2	12	Draft - Prep for P Comment
Con,	230065 Handle, transport and store aluminium products	Level 2	8	Draft - Prep for P Comment
core	230066 Measure, install and service aluminium systems	Level 2	15	Draft - Prep for P Comment
Core	230067 Prepare for manufacturing of aluminium products	Level 2	15	Draft - Prep for P Comment

Elective	12483 Perform basic first aid	Level 2	4	Reregistered
Elective	113924 Apply basic business ethics in a work environment	Level 2	2	Registered
Elective	230068 Handle glasswork for aluminium systems	Level 2	10	Draft - Prep for P Comment
Fundamental	7469 Use mathematics to investigate and monitor the financial aspects of personal and community life	Level 2	2	Reregistered
Fundamental	7480 Demonstrate understanding of rational and irrational numbers and number systems	Level 2	3	Reregistered
Fundamental	9007 Work with a range of patterns and functions and solve problems	Level 2	5	Reregistered
Fundamental	9009 Apply basic knowledge of statistics and probability to influence the use of data and procedures in order to investigate life related problems	Level 2	3	Reregistered
Fundamental	12444 Measure, estimate and calculate physical quantities and explore, describe and represent geometrical relationships in 2-dimensions in different life or workplace contexts	Level 2	3	Reregistered
Fundamental	119454 Maintain and adapt oral/signaled communication	Level 2	5	Registered
Fundamental	119456 Write/present for a defined context	Level 2	5	Registered
Fundamental	119460 Use language and communication in occupational learning programmes	Level 2	5	Registered
Fundamental	119463 Access and use information from texts	Level 2	5	Registered



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UNIT STANDARD:

SAQA US ID		UNIT STANDARD TITLE	
230061		Conduct machining of material and use specialist tools	
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Building Construction		12	
UNIT	STANDARD TYPE	OF	DESCRIPTION
		12	Material and Machining
BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
	14	Level 2	Regular

SPECIFIC OUTCOME 1

Use Personal Protection Equipment (PPE) according to company specifications.

SPECIFIC OUTCOME 2

Implement factory specific safety mechanisms.

SPECIFIC OUTCOME 3

Prepare aluminium sections for machining.

SPECIFIC OUTCOME 4

Cut aluminium sections to required lengths.

SPECIFIC OUTCOME 5

Perform end milling of aluminium sections.

SPECIFIC OUTCOME 6

Perform punching and cropping of aluminium sections.

SPECIFIC OUTCOME 7

Perform routing of aluminium sections.

SPECIFIC OUTCOME 8

Perform drilling of aluminium sections.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Use and maintain specialised tools in the manufacturing and installation of aluminium products

<i>SAQA US ID</i>	<i>UNIT STANDARD TITLE</i>		
230062	Use and maintain specialised tools in the manufacturing and installation of aluminium products		
<i>SGB NAME</i>		<i>ORGANISING FIELD ID</i>	<i>PROVIDER NAME</i>
SGB Building Construction		12	
<i>UNIT STANDARD TYPE</i>		<i>ORGANISING FIELD DESCRIPTION</i>	<i>SUBFIELD DESCRIPTION</i>
Regular		Physical Planning and Construction	Building Construction
<i>ABET BAND</i>	<i>CREDITS</i>	<i>NQF LEVEL</i>	<i>UNIT STANDARD TYPE</i>
Undefined	4	Level 2	Regular

SPECIFIC OUTCOME 1

Handle and care for specialised tools.

SPECIFIC OUTCOME 2

Use specialised tools in manufacturing aluminium components.



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UNIT STANDARD:

<i>SAQA US ID</i>	<i>UNIT STANDARD TITLE</i>		
230063	Interpret relevant documentation		
<i>SGB NAME</i>		<i>ORGANISING FIELD ID</i>	<i>PROVIDER NAME</i>
SGB Building Construction		12	
<i>UNIT STANDARD TYPE</i>		<i>ORGANISING FIELD DESCRIPTION</i>	<i>SUBFIELD DESCRIPTION</i>
Regular		Physical Planning and Construction	Building Construction
<i>ABET BAND</i>	<i>CREDITS</i>	<i>NQF LEVEL</i>	<i>UNIT STANDARD TYPE</i>
Undefined	12	Level2	Regular

SPECIFIC OUTCOME 1

Read and interpret relevant drawings.

SPECIFIC OUTCOME 2

Read and interpret relevant specifications accurately.

SPECIFIC OUTCOME 3

Apply relevant building regulations.


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<i>SAQA US ID</i>	<i>UNIT STANDARD TITLE</i>		
230064	Perform assembly of aluminium components		
<i>SGB NAME</i>		<i>ORGANISING FIELD ID</i>	<i>PROVIDER NAME</i>
SGB Building Construction		12	
<i>UNIT STANDARD TYPE</i>		<i>ORGANISING FIELD DESCRIPTION</i>	<i>SUBFIELD DESCRIPTION</i>
Regular		Physical Planning and Construction	Building Construction
<i>ABET BAND</i>	<i>CREDITS</i>	<i>NQF LEVEL</i>	<i>UNIT STANDARD TYPE</i>
Undefined	12	Level 2	Regular

SPECIFIC OUTCOME 1

Perform crimping of aluminium sections.

SPECIFIC OUTCOME 2

Perform riveting of aluminium sections.

SPECIFIC OUTCOME 3

Perform the assembly of casement frames.

SPECIFIC OUTCOME 4

Perform the assembly of non-casement frames.

SPECIFIC OUTCOME 5

Perform the final assembly of the aluminium system.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Handle, transport and store aluminium products

SAQA US ID	UNIT STANDARD TITLE		
230065	Handle, transport and store aluminium products		
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Building Construction		12	
UNIT STANDARD TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Physical Planning and Construction	Building Construction
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 2	Regular

SPECIFIC OUTCOME 1

Handle aluminium materials in accordance with company specifications.

SPECIFIC OUTCOME 2

Transport completed aluminium systems with due regard to safety.

SPECIFIC OUTCOME 3

Store completed aluminium products.

SPECIFIC OUTCOME 4

Perform quality assurance checks on raw material and finished products in the aluminium industry.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Measure, install and service aluminium systems

SAQA US ID	UNIT STANDARD TITLE		
230066	Measure, install and service aluminium systems		
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Building Construction		12	
UNIT STANDARD TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Physical Planning and Construction	Building Construction
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	15	Level 2	Regular

SPECIFIC OUTCOME 1

Work safely on a construction site.

SPECIFIC OUTCOME 2

Measure openings on construction sites.

SPECIFIC OUTCOME 3

Perform installation of aluminium systems.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Prepare for manufacturing of aluminium products

SAQA US ID	UNIT STANDARD TITLE		
230067	Prepare for manufacturing of aluminium products		
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Building Construction		12	
UNIT STANDARD TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Physical Planning and Construction	Building Construction
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	15	Level 2	Regular

SPECIFIC OUTCOME 1

Interpret and extract relevant information for manufacturing from the job card.

SPECIFIC OUTCOME 2

Identify relevant aluminium sections as extracted from the job card.

SPECIFIC OUTCOME 3

Use and interpret manufacturing manuals.

SPECIFIC OUTCOME 4

Estimate material requirements.



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UNIT STANDARD:

Handle glasswork for aluminium systems

SAQA US ID	UNIT STANDARD TITLE		
230068	Handle glasswork for aluminium systems		
SGB NAME	ORGANISING I	ID	PROVIDER NAME
SGB Building Construction	12		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Physical Planning and Construction	Building Construction	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	10	Level 2	Regular

SPECIFIC OUTCOME 1

Identify the different types of glass.

SPECIFIC OUTCOME 2

Handle and store glass with care.

SPECIFIC OUTCOME 3

Perform glass cutting, edging and sandblasting.

SPECIFIC OUTCOME 4

Perform glazing of finished aluminium goods.

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