

GOVERNMENT NOTICES

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

No. 1307

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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

Mining and Minerals

registered by Organising Field 06 – Manufacturing, Engineering and Technology, publishes the following Qualification and Unit Standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the Qualification and Unit Standards. The full Qualification and Unit Standards can be accessed via the SAQA web-site at www.saqqa.org.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, SAQA House, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the Qualification and Unit Standards should reach SAQA at the address below and **no later than 12 January 2009**. All correspondence should be marked **Standards Setting SGB for Mining and Minerals** and addressed to

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D. MPHUTHING

ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:**Further Education and Training Certificate: Diamond Processing**

SAQA QUAL ID	QUALIFICATION TITLE		
64729	Further Education and Training Certificate: Diamond Processing		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
QUALIFICATION TYPE	FIELD	SUBFIELD	
Further Ed and Training Cert	6 - Manufacturing, Engineering and Technology	Fabrication and Extraction	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	161	Level 4	Regular-Unit Stds Based

This qualification replaces:

Qual ID	Qualification Title	NQF Level	Min Credits	Replacement Status
21843	National Certificate: Diamond Processing: Polisher - Brillianteer	Level 3	323	Will occur as soon as 64729 is registered
21845	National Certificate: Diamond Processing: Polisher - Crossworker	Level 4	351	Will occur as soon as 64729 is registered

PURPOSE AND RATIONALE OF THE QUALIFICATION**Purpose:**

This qualification will equip qualifying learners with the necessary knowledge, understanding and competence to process diamond gemstones according to internationally recognised standards. It is aimed at people who work or intend to work within the diamond processing industry and who seek recognition for skills in processing diamond gemstones.

Recipients of this qualification know about and are able to process rough diamond gemstones into cut and polished diamond gemstones for sale in local and international markets. The ability of the industry to develop its potential in the beneficiation of raw materials is dependent upon the development of processing skills to provide the platform for expansion of the industry and to have a base of skilled workers in the skilled occupations of Crossworkers, Brillianteers, Bruters, Parters and Fancy Stone Makers.

The qualification is designed to be flexible and accessible so that people are able to consistently demonstrate the competencies required to work safely and effectively in processing diamond gemstones. The role of the diamond processing sector in terms of the jewellery manufacturing and diamond distribution system will be understood as well as the importance of their role in the distribution chain.

The candidate can select the stream they wish to specialize in:

- > A: Parting by sawing.
- > B: Bruting.
- > C: Crossworking.
- > D: Brillianteering.

> E: Fancy Stone Making.

Qualified learners will, subject to the elected stream, be able to:

- > Communicate and solve problems by applying mathematical practical applications in a variety of ways, including communication in a secondary language.
- > Understand the role of team leadership in the workplace.
- > Adhere to occupational safety, health and environmental requirements.
- > Describe the structure and properties of diamond gemstones.
- > One of the following:
 - > Part diamond gemstones by sawing.
 - > Brute diamond gemstones for crossworking.
 - > Crosswork diamond gemstones.
 - > Polish crossworked diamond gemstones (Brilliantteering).
 - > Make fancy shaped diamond gemstones.

This qualification develops the understanding of the processing of rough diamonds into cut and polished diamond gemstones which falls in the sub-field Fabrication and Extraction. It will enable learners to be informed workers in the Industry. It provides a balanced learning experience that allows flexible access to life long learning in further or higher education and productive employment in the diamond processing industry.

Rationale:

The processing of diamonds is not a mechanical process, but one which requires understanding of the nature and structure of the diamond crystal, how the processing reveals the qualities of the gemstone and how impurities can affect the ultimate value of the gemstone. The need for this qualification was identified by a number of means.

- > It has been identified as one of the priority areas within the Mining and Minerals Sector by means of the Sector Skills Plan.
- > It has been identified by research commissioned by the Mining Qualifications Authority (MQA) and the German Technical Co-operation (GTZ) which research was published in May 2003 in a work entitled "A Skills Analysis of the Jewellery Manufacturing and Gemstone Processing Industries in South Africa".
- > Employers within the diamond processing industry have indicated the need to give formal recognition to the learning given to the majority of employees in the industry (most of whom are previously disadvantaged).
- > Unions and employers in the industry recognise the need to replace previous "journeyman trades" with structured outcomes based qualifications.
- > The changing technology within the diamond processing industry requires that processors are equipped with recognised skills that are able to be applied under a variety of circumstances caused by the dynamic change in supply of rough stones for processing.
- > The quality standards to enable the South African industry to compete favourably with overseas processing industries demand that stringent quality and operating standards are applied to enable the diamond processing sector to remain viable in South Africa and support the expansion of the wider jewellery manufacturing industry.

This qualification is a revision and combination of the previous National Certificates Diamond Processing: Polisher - Brilliantteering (NLRD 21843); and National Certificates Diamond Processing: Polishing - Crossworking (NLRD 21845); as well as other qualifications previously prepared for Bruters and Sawyers. Changes are incorporated as a result of practical implementation within the sector and reflect the drive towards continual improvement.

The Further Education and Training Certificate: Diamond Processing at NQF Level 4 is designed to meet the needs of learners in or wishing to enter into the diamond processing

industry as well as the needs of employers wishing to promote recognised levels of competence in the workforce. The recognition of journeymen has been by way of a trade test that did not encompass the full extent of theoretical knowledge that this qualification embraces. Previously workers were trained and developed using informal methods and tutelage. The associated status of a nationally recognised qualification will serve as a motivation for high-level learners to enter the career of diamond processing. Current process operators, particularly, will benefit from the opportunities of assessment and subsequent recognition presented by RPL (Recognition of Prior Learning).

This is a key qualification that allows for mobility and portability within the diamond processing sector. It is a step towards obtaining a range of qualifications in diamond processing for learners who:

- > Were previously disadvantaged.
- > Have worked in the diamond processing industry for many years, but have no formal qualification in their area of work.
- > Wish to extend their knowledge and understanding of the diamond processing industry.
- > Have acquired the NQF Level 3 qualification in diamond processing and wish to extend their skills within the industry.
- > Have recently taken up a position in the diamond processing industry.

This qualification will also provide entrants to the industry with a structured framework to develop a measured career path within the diamond processing industry. The majority of the candidates for this qualification are likely to be working in the diamond processing industry already. The qualification will give them the opportunity to have their skills recognised in a structured way between practical experience and theoretical understanding. This qualification would provide a launching pad for development into diamond polishing qualifications at higher levels.

There is a critical need in the industry to convert experienced personnel into qualified practitioners to raise the credibility of the industry and to enhance South Africa's reputation as a centre for diamond processing. This qualification would provide experienced, but unrecognised people in the industry an opportunity to establish and have recognised their skills for further development.

The intention is:

- > To promote the development of knowledge and competencies that are required in the diamond processing industry.
- > To develop the potential of employees in the diamond processing industry.
- > To provide opportunities for life long learning for learners who work in the diamond processing industry where no general formal qualification previously existed, and who have not been given the opportunity to take up the previous qualification yet.

The Further Education and Training Certificate: Diamond Processing will produce knowledgeable workers who are able to contribute to improved productivity within the diamond processing industry. It should provide the means for current workers to receive recognition of prior learning. The qualification is structured in a way that exposes learners to the different aspects of diamond processing. It is anticipated that this qualification will promote the notion of lifelong learning by encouraging entrants to the industry and existing participants to seek recognition for and develop their skills.

This is the second tier of qualification in a learning pathway for Diamond Processing. The learner, once equipped with the competencies of this qualification will be recognised in one of the trades of Sawyer, Bruter, Crossworker, Brillanteer or Fancy Stone Maker. Alternatively the learner may pursue the path of diamond design and examination and ultimately one of

supervision and management in the industry. Qualifying learners will be appointed as Processors according to the elected stream, controlling the complete diamond processing activity by means of technologically advanced processes to create cut and polished diamond gemstones for sale into local or international markets. This qualification will also provide a foundation for learners wishing to advance to the related qualifications of diamond design and evaluation, examination or support services. For some learners this qualification will provide the opportunity for progression into Supervisory, Management and Leadership responsibilities in the workplace.

The qualification is designed to be flexible and accessible so that people are able to demonstrate the competencies in diamond processing across the jewellery manufacturing sector of the mining and minerals sector.

RECOGNIZE PREVIOUS LEARNING?

Y

LEARNING ASSUMED IN PLACE

It is assumed that candidates embarking on learning towards this qualification are already competent in:

> Communication and mathematical literacy at NQF Level 3.

Recognition of Prior Learning:

This qualification can be obtained by completing all the required unit standards in a structured learning programme, or through recognition of prior learning (RPL). The criteria for RPL would need to be in line with the MQA's ETQA requirements.

Evidence can be presented in a variety of forms, including international or previous local qualifications, reports, testimonials mentioning functions performed, work records, portfolios, videos of practice and performance records.

All such evidence would be judged according to the general principles of assessment.

Access to the qualification:

Access is open; however it is preferable that learners have completed the National Certificate: Diamond Processing, NQF Level 3.

QUALIFICATION RULES

Fundamentals:

All 56 credits are compulsory and must be achieved.

Core:

All 33 credits are compulsory.

Electives:

A minimum of 72 elective credits as specified below must be achieved.

There are five specialisations areas:

- > A: Parting by sawing.
- > B: Bruting.
- > C: Crossworking.
- > D: Brilliantteering.
- > E: Fancy Stone Making.

For Specialization area A: Parting by Sawing, the following unit standards (51 credits) are to be achieved:

Title; Level; Credits:

- > Set up diamond gemstones for sawing; Level 4; 2 credits.
- > Kerf diamond gemstones for sawing; Level 4; 10 credits.
- > Part diamond gemstones by sawing; Level 4; 12 credits.
- > Part multiple diamond gemstones; Level 4; 15 credits.
- > Part diamond gemstones by means of laser cutting; Level 4; 12 credits.

Total: 51 credits.

A further 21 credits are to be chosen from the rest of the electives to make up a minimum of 161 credits for the qualification.

For Specialization area B: Bruting, the following unit standards (58 credits) are to be achieved:

Title; Level; Credits:

- > Set sharp for cutting diamond gemstones by hand; Level 4; 4 credits.
- > Brute diamond gemstones by hand; Level 4; 12 credits.
- > Rondist diamond gemstones by hand; Level 4; 12 credits.
- > Operate and maintain a bruting machine; Level 4; 12 credits.
- > Shape diamond gemstones by hand - fancy cut; Level 4; 18 credits.

Total: 58 credits.

A further 14 credits are to be chosen from the rest of the electives to make up a minimum of 161 credits for the qualification.

For Specialization area C: Crossworking, the following unit standards (72 credits) are to be achieved:

Title; Level; Credits:

- > Prepare and set up a bench for polishing diamond gemstones; Level 4; 2 credits.
- > Level tangs for crossworking and brilliantteering diamond gemstones; Level 4; 6 credits.
- > Prepare a scaiffe for crossworking and brilliantteering diamond gemstones; Level 4; 3 credits.
- > Operate adjustable tangs for polishing diamond gemstones; Level 4; 5 credits.
- > Prepare rough diamond gemstones for crossworking; Level 4; 8 credits.
- > Crosswork bottom blocking on diamond gemstones; Level 4; 6 credits.
- > Crosswork top blocking on diamond gemstones; Level 4; 6 credits.
- > Balance naifs on diamond gemstones; Level 4; 8 credits.
- > Work out impurities and gletzes on diamond gemstones; Level 4; 8 credits.
- > Crosswork bottoms on diamond gemstones; Level 4; 10 credits.
- > Crosswork tops on diamond gemstones; Level 4; 10 credits.

Total: 72 credits.

For Specialization area D: Brilliantteering, the following unit standards (56 credits) are to be achieved:

Title; Level; Credits:

- > Prepare and set up a bench for polishing diamond gemstones; Level 4; 2. credits
- > Level tangs for crossworking and brillianteering diamond gemstones; Level 4; 6 credits.
- > Prepare a scaiffe for crossworking and brillianteering diamond gemstones; Level 4; 3 credits.
- > Operate adjustable tangs for polishing diamond gemstones; Level 4; 5 credits.
- > Brillianteer top halves on diamond gemstones; Level 4; 10 credits.
- > Brillianteer bottom halves on diamond gemstones; Level 4; 12 credits.
- > Brillianteer stars on diamond gemstones; Level 4; 6 credits.
- > Work out impurities and naifs on diamond gemstones; Level 4; 12 credits.

Total: 56 credits.

A further 16 credits are to be chosen from the rest of the electives to make up a minimum of 161 credits for the qualification.

For Specialization area E: Fancy Stone Making, the following unit standards (70 credits) are to be achieved:

Title; Level; Credits:

- > Prepare and set up a bench for polishing diamond gemstones; Level 4; 2 credits.
- > Level tangs for crossworking and brillianteering diamond gemstones; Level 4; 6 credits.
- > Prepare a scaiffe for crossworking and brillianteering diamond gemstones; Level 4; 3 credits.
- > Operate adjustable tangs for polishing diamond gemstones; Level 4; 5 credits.
- > Prepare rough diamond gemstones for crossworking; Level 4; 8 credits.
- > Balance naifs on diamond gemstones; Level 4; 8 credits.
- > Work out impurities and gletzes on diamond gemstones; Level 4; 8 credits.
- > Work out impurities and naifs on diamond; Level 4; 12 credits.

PLUS

- > Fancy cut square shaped diamond gemstones; Level 4; 18 credits.

OR

- > Fancy cut irregular shaped diamond gemstones; Level 4; 18 credits.

Total: 70 credits.

A further 2 credits are to be chosen from the rest of the electives to make up a minimum of 161 credits for the qualification.

EXIT LEVEL OUTCOMES

Candidates will be required to achieve the first 3 Exit Level Outcomes plus one additional Exit Level Outcome from Exit Level Outcome 4-8.

1. Communicate and solve problems by applying practical mathematical applications in a variety of ways.
2. Adhere to occupational health, safety and environmental standards in the workplace.
3. Describe the structure and properties of diamond gemstones.
4. Part diamond gemstones by sawing.

OR

5. Brute diamond gemstones by hand for crossworking.

OR

6. Crosswork diamond gemstones.

OR

7. Brillianter diamond gemstones.

OR

8. Make Fancy Cut Diamond Gemstones.

> Range: Fancy Cut Shapes either square shaped diamond gemstones or irregular shaped diamond gemstones.

Critical Cross field Outcomes:

Critical cross-field outcomes have been addressed by the exit level outcomes as follows:

While conducting activities related to diamond processing, learners are able to:

Identify and solve problems in which response displays that responsible decisions, using critical and creative thinking, have been made by:

- > Identifying and using tools and equipment to process diamonds in accordance with the relevant requirements, techniques and best operating practices.
- > Conducting evaluation, design and marking, grading or inspection activities related to diamond processing.
- > Responding to non-conformances in a diamonds processing environment.
- > Apply preventative or remedial action in accordance with operating procedures.

The above is evident in Exit Level Outcomes 3, 4, 5, 6, 7 and 8.

Work effectively with others as a member of a team, group, organisation or community by:

- > Contributing to team goals and achievements by adhering to agreed working methods and processes.
- > Contributing to team efficiency by supporting other team members in the diamonds processing environment.
- > Adhering to team protocols, codes of conduct and generally promoting a positive team spirit.
- > Coordinating one's work with that of others in the direct surrounding area, internal and external operations.

The above is evident in all 8 Exit Level Outcomes.

Organise and manage oneself and one's activities responsibly and effectively by:

- > Applying operating instructions to control and respond to conditions in the diamonds processing field.
- > Taking preventive and remedial action to solve operating problems while processing diamonds.
- > Maintaining product quality with reference to key aspects and critical conditions in a diamonds processing environment.
- > Adhering to strict security and control requirements particular to the diamond industry.

The above is evident in Exit Level Outcomes 3, 4, 5, 6, 7 and 8.

Collect, analyse, organise and critically evaluate information by:

- > Applying the principles related to the properties of diamonds in terms of value and potential.
- > Applying relevant basis and techniques to determine the value of diamonds.
- > Use and interpret instruments such as recognised price lists.

The above is evident in Exit Level Outcome 3.

Communicate effectively by using mathematical and/or language skills in the modes of oral and/or written presentations by:

- > Interpreting, recording and reporting information pertaining to diamonds processing.
- > Preparing and submitting reports, non-conformance reports and other required documentation.

The above is evident in Exit Level Outcomes 1, 4, 5, 6, 7 and 8.

Use science and technology effectively and critically, showing responsibility towards the environment and health of others by:

- > Applying occupational health, safety and environmental requirements in the workplace.
- > Using relevant terminology and adhering to standard protocols such as SI, ISO and international standards applicable in the diamond design and evaluation field.
- > Controlling technologically advanced production equipment according to operating procedures.
- > Deploying computers to assist in the diamond design and evaluation process.

The above is evident in Exit Level Outcomes 3, 4, 5, 6, 7 and 8.

Demonstrate an understanding of the world as a set of related systems by recognising that problem solving contexts do not exist in isolation by:

- > Understanding the impact of diamond processing and evaluation activities in the context of the broader diamond and gemstone industry, and his/her own role in each context.
- > Requesting assistance from other team members and support personnel.
- > Assisting other team members and working together with support personnel to conduct diamond fabrication activities and to investigate and resolve problem areas.

The above is evident in Exit Level Outcomes 3, 4, 5, 6, 7 and 8.

ASSOCIATED ASSESSMENT CRITERIA

Associated Assessment Criteria for Exit Level Outcome 1:

- > Oral communication is maintained and adapted as required to promote effective interaction in a work context.
- > Written communication is conducted at an appropriate level for designated target audiences.
- > Oral and written communication is conducted at an appropriate level in a second language.
- > Mathematical principles and techniques are applied while performing the tasks in the operational context.
- > Problems and solutions are recorded and monitored for reoccurrence.
- > Responsibilities of a team leader are identified and communicated in the workplace.

Associated Assessment Criteria for Exit Level Outcome 2:

- > Occupational Health and Safety legislation applicable to the workplace is understood and applied at all times as per workplace requirements.
- > First aid is administered appropriately in the workplace and reported according to organisational and legislative requirements.
- > Safe, healthy and environmentally related activities are conducted in a diamond processing environment according to the Occupational Health, Safety and Environmental requirements.

Associated Assessment Criteria for Exit Level Outcome 3:

- > The properties of diamonds are explained and the implications on ultimate value of the processed diamond is interpreted against international standards.
- > The structure of diamonds are described and are related to the risks and opportunities for processing to make polished diamond gemstones.
- > The basis of valuation of diamond gemstones is understood and the impact of non compliance with processing procedures is explained in terms of the loss of potential value.
- > The potential impact of proportion on the ultimate value of the diamond gemstone is explained.

Associated Assessment Criteria for Exit Level Outcome 4:

- > Tools and equipment are identified and their applications are explained in terms of their application for processing diamonds.
- > The activities and critical aspects of setting diamond gemstones for sawing are described and the importance to the process demonstrated in terms of the properties and value of the finished gemstone.
- > The importance of accurate kerfing of rough diamond gemstones is explained in relation to the ultimate value and shape of the diamond, weight loss and implication of non-compliance.
- > Diamond gemstones are parted to specification and the implications of non conformance is explained in terms of potential loss of value of the finished gemstones.
- > Multiple numbers of diamond gemstones are sawn simultaneously to meet international standard of parting.

Associated Assessment Criteria for Exit Level Outcome 5:

- > The tools and equipment are identified and their use is explained in terms of their application for processing diamonds.
- > The activities in bruting diamond gemstones by hand for processing are explained and the importance to the process is demonstrated in terms of the properties and value of the finished gemstone.
- > Diamond gemstones and sharps are set and prepared for bruting in accordance with workplace processing standards.
- > Bruting or shaping is carried out according to acceptable international processing standards.
- > Rondisting is carried out by hand according to acceptable international standards.
- > Bruting machines are operated and maintained according to manufacturers specifications.

Associated Assessment Criteria for Exit Level Outcome 6:

- > The tools and equipment are identified and their use is explained in terms of their application for crossworking diamonds.
- > Benches and equipment are prepared, balanced, levelled and set to enable accurate and efficient crossworking or brilliantteering of diamond gemstones.
- > The activities in crossworking diamond gemstones are explained and the importance to the process is demonstrated in terms of the properties and value of the finished gemstone.
- > The importance of communication between Crossworker, Marker, Brillianteer and Manager is explained in terms of clarification of work to be conducted.
- > Diamond gemstones are crossworked according to acceptable international standards.

Associated Assessment Criteria for Exit Level Outcome 7:

- > The tools and equipment are identified and their use is explained in terms of their application for brilliantteering diamonds.
- > Benches and equipment are prepared, balanced, levelled and set to enable accurate and efficient crossworking or brilliantteering of diamond gemstones.
- > The activities in brilliantteering diamond gemstones are explained and the importance to the process is demonstrated in terms of the properties and value of the finished gemstone.
- > The importance of communication between Crossworker, Marker, Brillianteer and Manager is explained in terms of clarification of work to be conducted.
- > Diamond gemstones are brilliantteered according to acceptable international standards.

Associated Assessment Criteria for Exit Level Outcome 8:

- > The tools and equipment are identified and their use is explained in terms of their application for processing diamonds.
- > Benches and equipment are prepared, balanced, levelled and set to enable accurate and efficient crossworking or brilliantteering of diamond gemstones.
- > The activities in fancy stone making of diamond gemstones are explained and the importance to the process is demonstrated in terms of the properties and value of the finished gemstone.
- > The importance of communication between Fancy Stone Maker, Marker and Manager is explained in terms of clarification of work to be conducted.
- > Diamond gemstones are made to fancy shapes according to acceptable international standards.

Integrated Assessment:

Integrated assessment at the level of the qualification provides an opportunity for learners to show they are able to integrate concepts, actions and ideas achieved across a range of unit standards and contexts.

Integrated assessment must evaluate the quality of observable performance as well as the thinking behind the performance, and must be based on a summative assessment guide. The guide will spell out how the assessor will assess different aspects of the performance and will include:

- > Observing the learner at work (both in the primary activity as well as other interactions).
- > Asking questions and initiating short discussions to test understanding.
- > Looking at records and reports in the portfolio and reviewing previous assessments.

In some cases interference will be necessary to determine competence depending on the nature and context within which performance takes place.

It is necessary to ensure that the fundamental part of the qualification is also targeted to ensure that while the competence may have been achieved in a particular context, learners are able to apply it in a range of other contexts and for future learning. The assessment should also ensure that all the critical cross-field outcomes have been achieved.

The learner may choose in which language s/he wants to be assessed. This should be established as part of a process of preparing the learner for assessment and familiarising the learner with the approach being taken.

While this is primarily a workplace-based qualification, evidence from other areas of endeavour may be introduced if pertinent to any of the exit-level outcomes. The assessment process should cover both the explicit tasks required for the qualification as well as the understanding of the concepts and principles that underpin the activities associated with processing diamonds.

INTERNATIONAL COMPARABILITY

The search for internationally comparable qualifications indicates that the qualifications developed in South Africa in respect to diamond processing are the only standards of their kind. The diamond industry is a relatively small industry world-wide with a defined channel of trade which provides a close community of people who are knowledgeable about the industry.

In seeking to establish whether qualifications in diamond processing exist elsewhere the following channels have been pursued:

- > Contact with established players in the South African industry, including leading diamond cutting operations, internationally linked gemstone valuers, internationally linked training institutions, and people with many years established connections to De Beers, the leading role-player in the distribution of diamond gemstones in the world.
- > There are established diamond trading centres in the world and the diamond clubs and employer associations from the following countries were contacted with a view to establish comparable qualifications:
 - > Austria: World Federation of Diamond Clubs: info@worldfed.com.
 - > Belgium: Beurs Voor Diamanthatel: info@diamondbourse.be, Syndikaat Der Belgische Diamantnijverheid (SDB): sdb@sdb.be and HRD Antwerp NV: info@hrd.be.
 - > SIHA which is a trade school in Belgium that offers courses in diamond polishing trades (www.siha.be).
 - > Canada: Canadian Jewellers Institute: cji@canadianjewellers.com.
 - > Robert Ward Industrial & Mine Training Coordinator at Aurora College rward@auroracollege.nt.ca.
 - > Courtenay Keenan Instructor, Diamond Cutting and Polishing at Aurora College rkeen@auroracollege.nt.ca.
 - > China: Shanghai Diamond Exchange: members@cnsde.com.
 - > England: The London Diamond Bourse: Maxime@londonbourse.com.
 - > India: Bharat Diamond Bourse: info@bdbindia.org.
 - > Israel: Israel Diamond Exchange Ltd: irit@isd.co.il and The Israel Manufacturers Association Ltd: besser@isdma.com.
 - > Netherlands: Vereniging Beurs Voor Den Diamonthatel: Diamondbourse.Amsterdam@inter.NL.net and Algemene Juweliersvereniging: royal@asscher.nl.
 - > Sri Lanka: Sri Lanka Diamond Manufacturers Association: nigel.austin@nisol.lk.
 - > Thailand: Bangkok Diamond and Precious Stones Exchange: bdpe@ksc.th.com and The Thai Diamond Diamond Manufacturers Association: tdma@loxinfo.co.th.
 - > USA: New York Diamond Dealers Club: mhochbaum@ddcny.com and Diamond Manufacturers & Importers Association of America: wfdiamonds@aol.com.

These countries were contacted because they are the countries where major diamond processing takes place.

The enquiries reveal that there are centres that offer qualifications in diamond and gemstone valuation in various countries, but the only country that offers a formal qualification for people who process rough diamonds into cut and polished gemstones is through the Belgian Government. The Ministerie van Tewerkstepping en Arbeid, through the Paritair Comité voor de Diamantnijverheid en-handel, do offer tradesman recognition for the traditional occupations of Sawyer, Crossworker, Bruter and Brillanteer which is a vocational education diploma in Diamond Cutting. The programme takes six years to complete. There is an optional seventh year for a higher graded certificate. This qualification is at the level of journeyman and would fit at the same level as this Further Education and Training Certificate qualification. The qualification is offered by SIHA (see above for contact).

Given that this qualification consists of five streams (one of which is not catered for specifically by the Belgian qualification - Fancy Stone Making) the credits would appear to be consistent

with this qualification. The Belgian qualification is supported by the HRD (Belgian Diamond Board equivalent) and the school is a member of a group called Parelemant Lycéen Européen, an international organisation of 11 European countries for schools with departments in gold, jewellery and gemstones.

There is also an American organisation called the American Institute of Diamond Cutting, based in Florida. This institution is licensed by the Florida Department of Education and offers three levels of Diamond Cutting courses: Beginners, Intermediate and Advanced. Each programme operates for three months and the institution issues its own certificate from AIDC Inc. The programmes offered cover the same syllabus as this qualification, but the credits would appear to be significantly less than this qualification and the Belgian equivalent. Local intelligence indicates that the certificate from AIDC would not be well respected internationally, whereas the Belgian certificate would indicate a thoroughly competent journeyman.

Qualifications previously designed in South Africa for the journeymen positions of Sawyer, Bruter, Crossworker and Brillianteer have been assessed by international contacts with South African diamond cutters as superior to the journeyman trade tests that have existed. The same structure as to the qualification at Level 3 has been applied and can be considered to be superior in the application of theory to practical abilities as those that have replaced the journeyman trade tests.

Feedback from associates of South African training and professional service providers from Belgium and Canada has indicated that the unit standards developed in South Africa are of a high standard. Experienced managers and craftsmen in South Africa with international experience have also indicated that the standard of unit standards that make up this qualification are at a level that is comparable to best practices in countries such as Belgium, Israel, China and India. Sources of this information come from experienced people working with international connections from organisations that include:

- > Diamond Education College: Mr. Teinie Barnes.
- > EGL: Mr. Alan Lowe and Mr. Brian Lyle.
- > Harry Oppenheimer Diamond Training School: Mr. Koos Rademeyer.
- > RosyBlue: Mr. Ravi Samarakone and Mr. Collin Sellwood.
- > Safdico: Mr. Derek Henderson.
- > UASA: Mr. John Leenaerts and Mr. Jan Swanpoel.
- > Vancut Diamond Cutting Works: Mr. Ilan Richer.
- > Zlotowskis Diamond Cutting Works: Mr. Daan Royffe and Mr. Howard Bell.

Contact has been made with organisations in SADC countries who are also seeking to establish recognition for the same skills as covered by this qualification. Neither Namibia nor Botswana, who are rapidly developing diamond processing skills, have a formal system and the MQA has been approached to establish qualifications developed in South Africa could be used to establish regional standards through SADC.

In conclusion, it appears that South Africa has been the first country after Belgium to establish formal national qualifications in diamond processing and that Belgium offers the only other comparable international qualifications at this time.

ARTICULATION OPTIONS

This qualification allows for both vertical and horizontal articulation.

Vertical articulation exists with the proposed qualification:

- > National Certificate: Diamond Trading, NQF Level 5.

Horizontal articulation exists between the five specialisation areas contained in this qualification and the proposed qualification:

> Further Education and Training Certificate: Diamond Trading, NQF Level 4.

MODERATION OPTIONS

> Anyone assessing a learner or moderating the assessment of a learner against the qualification must be registered as an assessor with the relevant Education, Training, Quality, Assurance (ETQA) Body, 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) Body, 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) Body, or by an ETQA that has a Memorandum of Understanding with the relevant ETQA, according to the ETQA's policies and guidelines for assessment and moderation.

> Moderation must include both internal and external moderation of assessments, unless ETQA policies specify otherwise. Moderation should also encompass achievement of the competence described in the associated unit standards.

> 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 relevant ETQA.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

Assessors should be in possession of:

> An appropriate qualification above the level of this qualification and preferably relevant workplace practical experience.

> Registration as an assessor with the relevant ETQA.

NOTES

This qualification replaces the following qualifications:

> ID 21843: National Certificate: Diamond Processing: Polisher - Brillianteer, Level 3, 323 credits.

> ID 21845: National Certificate: Diamond Processing: Polisher - Crossworker, Level 4, 351 credits.

UNIT STANDARDS

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	119472	Accommodate audience and context needs in oral/signed communication	Level 3	5
Fundamental	119457	Interpret and use information from texts	Level 3	5
Fundamental	119467	Use language and communication in occupational learning programmes	Level 3	5
Fundamental	119465	Write/present/sign texts for a range of communicative contexts	Level 3	5
Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	Level 4	6
Fundamental	119462	Engage in sustained oral/signed communication and evaluate spoken/signed texts	Level 4	5

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	119469	Read/view, analyse and respond to a variety of texts	Level 4	5
Fundamental	9016	Represent analyse and calculate shape and motion in 2- and 3-dimensional space in different contexts	Level 4	4
Fundamental	119471	Use language and communication in occupational learning programmes	Level 4	5
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	Level 4	6
Fundamental	119459	Write/present/sign for a wide range of contexts	Level 4	5
Core	116534	Carry out basic first aid treatment in the workplace	Level 3	2
Core	242668	Demonstrate knowledge and application of the Occupational Health and Safety Act, 85 of 1993 (OHSA) (as amended) and the responsibilities of management in terms of the Act	Level 4	4
Core	260402	Demonstrate understanding of the implementation of occupational health, safety and environmental legislation in a diamond processing workplace	Level 4	5
Core	259777	Describe the structure and properties of gem diamonds	Level 4	10
Core	242821	Identify responsibilities of a team leader in ensuring that organisational standards are met	Level 4	6
Core	259761	Use a loupe for advanced applications in examining diamond gemstones	Level 4	6
Elective	260403	Balance naifs on diamond gemstones	Level 4	8
Elective	260458	Brillianteer bottom halves on diamond gemstones	Level 4	12
Elective	260461	Brillianteer stars on diamond gemstones	Level 4	6
Elective	260418	Brillianteer top halves on diamond gemstones	Level 4	10
Elective	260557	Brute diamond gemstones by hand	Level 4	12
Elective	260459	Crosswork bottom blocking on diamond gemstones	Level 4	6
Elective	260404	Crosswork bottoms on diamond gemstones	Level 4	10
Elective	260416	Crosswork tables on diamond gemstones	Level 4	5
Elective	260457	Crosswork top blocking on diamond gemstones	Level 4	6
Elective	260398	Crosswork tops on diamond gemstones	Level 4	10
Elective	260408	Facet the girdle by hand	Level 4	18
Elective	260538	Fancy cut irregular shaped diamond gemstones	Level 4	18
Elective	260413	Fancy cut square shaped diamond gemstones	Level 4	18
Elective	260539	Groove diamond gemstones	Level 4	10
Elective	260407	Improve impurities in diamond gemstones through laser drilling	Level 4	6
Elective	260419	Inscribe polished diamond gemstones by laser	Level 4	12
Elective	260400	Kerf diamond gemstones for sawing	Level 4	10
Elective	260464	Level tangs for crossworking and brilliantteering diamond gemstones	Level 4	6
Elective	253808	Operate adjustable tangs for polishing diamond gemstones	Level 4	5
Elective	260411	Operate and Maintain a brutting machine	Level 4	12
Elective	260397	Part diamond gemstones by means of cleaving	Level 4	8
Elective	260518	Part diamond gemstones by means of laser cutting	Level 4	12
Elective	260401	Part diamond gemstones by sawing	Level 4	12
Elective	260405	Part multiple diamond gemstones by sawing	Level 4	15
Elective	260537	Polish the girdle on a brilliantteered diamond gemstone	Level 4	12
Elective	260414	Prepare a scaffe for crossworking or brilliantteering diamond gemstones	Level 4	3
Elective	260417	Prepare and set up a bench for polishing diamond gemstones	Level 4	2
Elective	260415	Prepare rough diamond gemstones for crossworking	Level 4	8
Elective	260409	Remove Impurities in Diamond Gemstones through pressure boiling	Level 4	5
Elective	260438	Repair polished diamond gemstones	Level 4	18
Elective	260410	Rondist diamond gemstones by hand	Level 4	12
Elective	260412	Set sharp for cutting diamond gemstones by hand	Level 4	4
Elective	260399	Set up diamond gemstones for sawing	Level 4	2
Elective	260439	Shape diamond gemstones by hand - fancy cut	Level 4	18
Elective	260517	Shape diamond gemstones by laser cutting	Level 4	10
Elective	260462	Work out impurities and gletzes on diamond gemstones	Level 4	8
Elective	260460	Work out impurities and naifs on diamond gemstones	Level 4	12

LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:*Part diamond gemstones by means of cleaving*

SAQA US ID		UNIT STANDARD TITLE	
260397		Part diamond gemstones by means of cleaving	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	8

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
110222	Part diamond gemstones by means of cleaving	Level 5	6	Will occur as soon as 260397 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools used to part diamond gemstones by means of cleaving and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for cleaving them.

SPECIFIC OUTCOME 3

Prepare to cleave diamond gemstones.

SPECIFIC OUTCOME 4

Part diamond gemstones by means of cleaving.

SPECIFIC OUTCOME 5

Conduct post-cleaving cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Crosswork tops on diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
260398	Crosswork tops on diamond gemstones		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to crosswork tops on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for crossworking diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for crossworking tops.

SPECIFIC OUTCOME 4

Finish the four top corners and bezels on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-crossworking tops cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Set up diamond gemstones for sawing

SAQA US ID	UNIT STANDARD TITLE		
260399	Set up diamond gemstones for sawing		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	2

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Describe the use of the different sizes and depth of pots for sawing.

SPECIFIC OUTCOME 2

Explain the implications for setting up diamond gemstones for sawing.

SPECIFIC OUTCOME 3

Set up diamond gemstones for parting by sawing.

SPECIFIC OUTCOME 4

Conduct post-setting-up cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Kerf diamond gemstones for sawing***

SAQA US ID		UNIT STANDARD TITLE	
260400		Kerf diamond gemstones for sawing	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to kerf diamond gemstones for sawing and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for kerfing.

SPECIFIC OUTCOME 3

Prepare to kerf diamond gemstones.

SPECIFIC OUTCOME 4

Kerf diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-kerfing cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Part diamond gemstones by sawing

SAQA US ID		UNIT STANDARD TITLE	
260401		Part diamond gemstones by sawing	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10508	Part diamond gemstones by means of sawing	Level 3	72	Will occur as soon as 260401 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools used to part diamond gemstones by sawing and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for sawing.

SPECIFIC OUTCOME 3

Prepare to saw diamond gemstones.

SPECIFIC OUTCOME 4

Saw diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-sawing cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Demonstrate understanding of the implementation of occupational health, safety and environmental legislation in a diamond processing workplace

SAQA US ID	UNIT STANDARD TITLE		
260402	Demonstrate understanding of the implementation of occupational health, safety and environmental legislation in a diamond processing workplace		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	5

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
120366	Demonstrate understanding of the implementation of occupational health, safety and environmental legislation in the work place	Level 4	9	Will occur as soon as 260402 is registered

SPECIFIC OUTCOME 1

Explain the legislative framework of occupational health, safety and environmental legislation in a diamond processing workplace.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the requirements of a company's occupational health, safety and environmental policies, procedures and codes.

SPECIFIC OUTCOME 3

Explain the implementation and maintenance of occupational health, safety and environmental legislation in a diamond processing workplace.

SPECIFIC OUTCOME 4

Explain the requirements for handling, storage and prevention of exposure to hazardous substances that may be found in a diamond processing workplace.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Balance naifs on diamond gemstones***

SAQA US ID	UNIT STANDARD TITLE		
260403	Balance naifs on diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to balance naifs on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for balancing naifs on diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for balancing naifs.

SPECIFIC OUTCOME 4

Balance naifs on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-naif-balancing cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Crosswork bottoms on diamond gemstones

SAQA US ID		UNIT STANDARD TITLE	
260404		Crosswork bottoms on diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to crosswork bottoms on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for crossworking diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for crossworking bottoms.

SPECIFIC OUTCOME 4

Finish the four bottom corners and pavilions on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-crossworking bottoms cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Part multiple diamond gemstones by sawing***

SAQA US ID		UNIT STANDARD TITLE	
260405		Part multiple diamond gemstones by sawing	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	15

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to part diamond gemstones by sawing and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for sawing.

SPECIFIC OUTCOME 3

Prepare to saw multiple diamond gemstones.

SPECIFIC OUTCOME 4

Saw multiple diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-multiple-sawing cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Improve impurities in diamond gemstones through laser drilling***

SAQA US ID		UNIT STANDARD TITLE	
260407		Improve impurities in diamond gemstones through laser drilling	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to drill diamond gemstones by means of a laser and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for drilling them with a laser.

SPECIFIC OUTCOME 3

Prepare to laser drill diamond gemstones.

SPECIFIC OUTCOME 4

Drill diamond gemstones by means of a laser.

SPECIFIC OUTCOME 5

Conduct post-laser drilling cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Facet the girdle by hand***

SAQA US ID	UNIT STANDARD TITLE		
260408	Facet the girdle by hand		
ORIGINATOR			PROVIDER
SGB Mining and Minerals			
FIELD			SUBFIELD
6 - Manufacturing, Engineering and Technology			Fabrication and Extraction
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	18

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to facet diamond gemstones by hand and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for faceting by hand.

SPECIFIC OUTCOME 3

Prepare to facet diamond gemstones by hand.

SPECIFIC OUTCOME 4

Carry out faceting by hand on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-faceting-by-hand cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Remove Impurities in Diamond Gemstones through pressure boiling***

SAQA US ID	UNIT STANDARD TITLE		
260409	Remove Impurities in Diamond Gemstones through pressure boiling		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	5

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment, tools and chemicals used to boil diamond gemstones under pressure.

SPECIFIC OUTCOME 2

Prepare to pressure boil diamond gemstones.

SPECIFIC OUTCOME 3

Pressure boil diamond gemstones.

SPECIFIC OUTCOME 4

Conduct post-pressure boiling cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Rondist diamond gemstones by hand

SAQA US ID		UNIT STANDARD TITLE	
260410		Rondist.diamond gemstones by hand	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to rondist diamond gemstones by hand and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for rondisting by hand.

SPECIFIC OUTCOME 3

Prepare to rondist diamond gemstones by hand.

SPECIFIC OUTCOME 4

Carry out rondisting by hand on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-rondisting-by-hand cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Operate and Maintain a bruting machine***

SAQA US ID		UNIT STANDARD TITLE	
260411		Operate and Maintain a bruting machine	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to brute diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for the operating bruting machines.

SPECIFIC OUTCOME 3

Operate a bruting machine.

SPECIFIC OUTCOME 4

Maintain a bruting machine.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Set sharp for cutting diamond gemstones by hand***

SAQA US ID	UNIT STANDARD TITLE		
260412	Set sharp for cutting diamond gemstones by hand		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	4

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to set sharps to brute diamond gemstones by hand and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the impact of cutting diamond gemstones with another diamond and the implications for bruting by hand.

SPECIFIC OUTCOME 3

Set sharps to brute diamond gemstones by hand.

SPECIFIC OUTCOME 4

Conduct post-sharp-setting cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Fancy cut square shaped diamond gemstones***

SAQA US ID		UNIT STANDARD TITLE	
260413		Fancy cut square shaped diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	18

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to make square shaped fancy diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for making square shaped fancy diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into appropriate equipment for making fancy shapes.

SPECIFIC OUTCOME 4

Make fancy square shaped diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-fancy making cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:*Prepare a scaiffe for crossworking or brillianteering diamond gemstones*

SAQA US ID		UNIT STANDARD TITLE	
260414		Prepare a scaiffe for crossworking or brillianteering diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	3

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the material and tools required to prepare a scaiffe for crossworking or brillianteering diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Prepare the surface of a scaiffe.

SPECIFIC OUTCOME 3

Conduct post scaiffe preparation activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Prepare rough diamond gemstones for crossworking

SAQA US ID		UNIT STANDARD TITLE	
260415		Prepare rough diamond gemstones for crossworking	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to prepare rough diamond gemstones for crossworking and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for crossworking diamond gemstones.

SPECIFIC OUTCOME 3

Set and clamp diamond gemstones for preparation for crossworking.

SPECIFIC OUTCOME 4

Prepare rough diamond gemstones for crossworking.

SPECIFIC OUTCOME 5

Conduct post-preparation cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Crosswork tables on diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
260416	Crosswork tables on diamond gemstones		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	5

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to crosswork tables on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for crossworking diamond gemstones.

SPECIFIC OUTCOME 3

Set and clamp diamond gemstones for crossworking tables.

SPECIFIC OUTCOME 4

Prepare and polish table facets on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-crosswork-tables cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Prepare and set up a bench for polishing diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
260417	Prepare and set up a bench for polishing diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	2

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10515	Prepare and set up a bench for polishing diamond gemstones	Level 2	6	Will occur as soon as 260417 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools required to prepare and set up a bench for polishing, crossworking or brilliantteering diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Set up and align a bench and a scaiffe.

SPECIFIC OUTCOME 3

Conduct post prepare and set up activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Brillianteer top halves on diamond gemstones

SAQA US ID		UNIT STANDARD TITLE	
260418		Brillianteer top halves on diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to brillianteer top halves on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for brilliantteering diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for brilliantteering top halves.

SPECIFIC OUTCOME 4

Finish the final sixteen top halves on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-top-half cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Inscribe polished diamond gemstones by laser

SAQA US ID	UNIT STANDARD TITLE		
260419	Inscribe polished diamond gemstones by laser		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
110227	Inscribe polished diamond gemstones by laser	Level 3	22	Will occur as soon as 260419 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools used to inscribe diamond gemstones by laser and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the methodology of laser inscription on diamond gemstones and the implications of use of the laser.

SPECIFIC OUTCOME 3

Prepare to carry out laser inscription on diamond gemstones.

SPECIFIC OUTCOME 4

Perform laser inscription on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-laser inscription cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Repair polished diamond gemstones***

SAQA US ID	UNIT STANDARD TITLE		
260438	Repair polished diamond gemstones		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	18

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
110224	Repair polished diamond gemstones	Level 4	4	Will occur as soon as 260438 is registered

SPECIFIC OUTCOME 1

Assess the dimensions and the make of diamond gemstones.

SPECIFIC OUTCOME 2

Identify and agree the scope of repair.

SPECIFIC OUTCOME 3

Carry out the repair according to instructions.

SPECIFIC OUTCOME 4

Conduct post repair activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Shape diamond gemstones by hand - fancy cut***

SAQA US ID		UNIT STANDARD TITLE	
260439		Shape diamond gemstones by hand - fancy cut	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	18

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
110223	Shape diamond gemstones by hand - fancy cut	Level 3	21	Will occur as soon as 260439 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools used to shape diamond gemstones by hand and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for shaping them by hand.

SPECIFIC OUTCOME 3

Prepare to shape diamond gemstones by hand.

SPECIFIC OUTCOME 4

Shape diamond gemstones by hand - fancy cut.

SPECIFIC OUTCOME 5

Conduct post-shaping cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Crosswork top blocking on diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
260457	Crosswork top blocking on diamond gemstones		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to crosswork top blocking on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for crossworking diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for crossworking top blocking.

SPECIFIC OUTCOME 4

Prepare the four top corners and bezels on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-top blocking cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Brillianteer bottom halves on diamond gemstones***

SAQA US ID		UNIT STANDARD TITLE	
260458		Brillianteer bottom halves on diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to brillianteer bottom halves on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for brillianteeing diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for brillianteeing bottom halves.

SPECIFIC OUTCOME 4

Finish the final sixteen bottom halves on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-bottom-half cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Crosswork bottom blocking on diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
260459	Crosswork bottom blocking on diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to crosswork bottom blocking on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for crossworking diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for crossworking bottom blocking.

SPECIFIC OUTCOME 4

Prepare the four bottom corners and pavilions on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-bottom blocking cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Work out impurities and naifs on diamond gemstones***

SAQA US ID	UNIT STANDARD TITLE		
260460	Work out impurities and naifs on diamond gemstones		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to work out impurities and naifs on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for working out impurities and naifs on diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for working out impurities.

SPECIFIC OUTCOME 4

Work out impurities and naifs on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-working out cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Brillianteer stars on diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
260461	Brillianteer stars on diamond gemstones		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to brillianteer stars on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for brillianteeing stars.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for brillianteeing stars.

SPECIFIC OUTCOME 4

Brillianteer the eight star facets on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-star-making cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Work out impurities and gletzes on diamond gemstones

SAQA US ID		UNIT STANDARD TITLE	
260462		Work out impurities and gletzes on diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to crosswork diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for crossworking diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for working out impurities.

SPECIFIC OUTCOME 4

Work out impurities on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-working out cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Level tangs for crossworking and brilliantteering diamond gemstones***

SAQA US ID	UNIT STANDARD TITLE		
260464	Level tangs for crossworking and brilliantteering diamond gemstones		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools required to level tangs for crossworking or brilliantteering diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Level tangs with a bench and a scaiffe.

SPECIFIC OUTCOME 3

Conduct post tang-levelling activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Shape diamond gemstones by laser cutting

SAQA US ID	UNIT STANDARD TITLE		
260517	Shape diamond gemstones by laser cutting		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	10

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10514	Shape diamond gemstones by laser cutting	Level 3	24	Will occur as soon as 260517 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools used to shape diamond gemstones by laser cutting and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for cutting them by laser.

SPECIFIC OUTCOME 3

Prepare to shape diamond gemstones by laser cutting.

SPECIFIC OUTCOME 4

Shape diamond gemstones by laser cutting.

SPECIFIC OUTCOME 5

Conduct post-laser shaping cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Part diamond gemstones by means of laser cutting

SAQA US ID	UNIT STANDARD TITLE		
260518	Part diamond gemstones by means of laser cutting		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10509	Part diamond gemstones by means of laser cutting	Level 2	16	Will occur as soon as 260518 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools used to part diamond gemstones by means of laser cutting and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for cutting them by laser.

SPECIFIC OUTCOME 3

Prepare to laser cut diamond gemstones.

SPECIFIC OUTCOME 4

Part or kerf diamond gemstones by means of laser cutting.

SPECIFIC OUTCOME 5

Conduct post-laser cutting cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Polish the girdle on a brilliantteered diamond gemstone

SAQA US ID	UNIT STANDARD TITLE		
260537	Polish the girdle on a brilliantteered diamond gemstone		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to polish the girdle on brilliantteered diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing girdles on diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into and set tangs for girdle polishing.

SPECIFIC OUTCOME 4

Polish the girdle on brilliantteered diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-girdle-polishing cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Fancy cut irregular shaped diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
260538	Fancy cut irregular shaped diamond gemstones		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	18

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to make irregular shaped fancy diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for making irregular shaped fancy diamond gemstones.

SPECIFIC OUTCOME 3

Locate diamond gemstones into appropriate equipment for making fancy shapes.

SPECIFIC OUTCOME 4

Make fancy irregular shaped diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-fancy making cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Groove diamond gemstones

SAQA US ID		UNIT STANDARD TITLE	
260539		Groove diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to groove diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for grooving.

SPECIFIC OUTCOME 3

Prepare to groove diamond gemstones.

SPECIFIC OUTCOME 4

Groove diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-grooving cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Brute diamond gemstones by hand

SAQA US ID	UNIT STANDARD TITLE		
260557	Brute diamond gemstones by hand		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10510	Brute diamond gemstones by hand	Level 3	82	Will occur as soon as 260557 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools used to brute diamond gemstones by hand and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for bruting by hand.

SPECIFIC OUTCOME 3

Prepare to brute diamond gemstones by hand.

SPECIFIC OUTCOME 4

Carry out bruting by hand on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-bruting-by-hand cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	64729	Further Education and Training Certificate: Diamond Processing	Level 4