

No. 451

8 May 2009

**SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)**

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

Engineering

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

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

Comment on the Unit Standards should reach SAQA at the address ***below and no later than 8 June 2009***. All correspondence should be marked **Standards Setting – SGB for Engineering** addressed to

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ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform mass measurements to calibrate mass pieces using equal arm weighing instruments

SAQA US ID	UNIT STANDARD TITLE		
264215	Perform mass measurements to calibrate mass pieces using equal arm weighing instruments		
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	10

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

SPECIFIC OUTCOME 1

Maintain Weights as Mass reference standards.

SPECIFIC OUTCOME 2

Calibrate weights using Equal Arm Weighing Instruments.

SPECIFIC OUTCOME 3

Record, evaluate and report results.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform linear dimensional measurements to calibrate length instruments and standards

SAQA US ID	UNIT STANDARD TITLE		
264216	Perform linear dimensional measurements to calibrate length instruments and standards		
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	20

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

SPECIFIC OUTCOME 1

Maintain linear dimensional instruments and reference standards.

SPECIFIC OUTCOME 2

Perform linear dimensional measurements to calibrate length instruments, end standards, line standards and diameter standards.

SPECIFIC OUTCOME 3

Record, evaluate and report results.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform mass measurements to calibrate weights according to international organisation of legal metrology (OIML) requirements

SAQA US ID	UNIT STANDARD TITLE		
264217	Perform mass measurements to calibrate weights according to international organisation of legal metrology (OIML) requirements		
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	12

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

SPECIFIC OUTCOME 1

Determine the classification of a weight using OIML R111 recommendations.

SPECIFIC OUTCOME 2

Maintain Weights as Mass reference standards.

SPECIFIC OUTCOME 3

Calibrate Weights.

SPECIFIC OUTCOME 4

Record, evaluate and report results.

SPECIFIC OUTCOME 5

Apply OIML R111 recommendations or adjustments of weights.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Perform mass measurements to calibrate mechanical balances***

SAQA US ID		UNIT STANDARD TITLE	
264218		Perform mass measurements to calibrate mechanical balances	
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	12

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

SPECIFIC OUTCOME 1

Maintain Weights as Mass reference standards.

SPECIFIC OUTCOME 2

Calibrate Mechanical Weighing Instruments.

SPECIFIC OUTCOME 3

Record, evaluate and report results.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform force measurements to calibrate weights or transducers using load cell-transducers

SAQA US ID		UNIT STANDARD TITLE	
264219		Perform force measurements to calibrate weights or transducers using load cell-transducers	
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	8

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

SPECIFIC OUTCOME 1

Understand the fundamentals of force, mass and weight.

SPECIFIC OUTCOME 2

Maintain Weights or Load cells as reference standards.

SPECIFIC OUTCOME 3

Calibrate Mass or Force using a load cell or Weights.

SPECIFIC OUTCOME 4

Record, calculate, evaluate and report results.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform mass measurements to calibrate digital self indicating weighing instruments

SAQA US ID	UNIT STANDARD TITLE		
264220	Perform mass measurements to calibrate digital self indicating weighing instruments		
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	12

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

SPECIFIC OUTCOME 1

Maintain Weights as Mass reference standards.

SPECIFIC OUTCOME 2

Calibrate Digital self indicating weighing instrument.

SPECIFIC OUTCOME 3

Record, evaluate and report results.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform mass measurements to calibrate density measuring devices

SAQA US ID	UNIT STANDARD TITLE		
264221	Perform mass measurements to calibrate density measuring devices		
ORIGINATOR	PROVIDER		
SGB Engineering			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Engineering and Related Design		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	8

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

SPECIFIC OUTCOME 1

Maintain density reference standards.

SPECIFIC OUTCOME 2

Perform Mass measurements to calibrate density measuring devices.

SPECIFIC OUTCOME 3

Record, evaluate and report results.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None