

MATERIAL TESTING LABORATORY



SAIW HAS A MATERIAL TESTING LABORATORY ON SITE

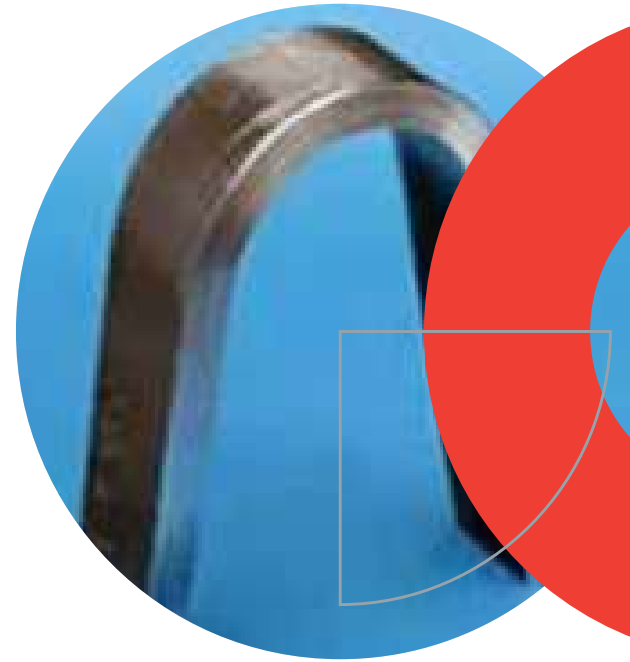
The facility is fully equipped to perform mechanical, metallurgical, and in-house non-destructive testing (NDT) on welds and metallic samples. Our material testing laboratory provides comprehensive testing and consulting services to various industries. These services include weld procedure qualification, welder qualification, welding consumable testing, failure analysis, welding-related research and development, and positive material identification.

Services	Equipment
Mechanical testing	
Tensile & Bend testing	MTS Criterion 64.305 (300 kN)
Charpy V notch impact testing	450 joule SANS Charpy impact test machine
Vickers Hardness Testing	emcoTEST Durascan 70 (10 grams to 10 kg load)
Chemical Testing	
Spectrophic Analysis	Bruker Q2 Ion spectrometer
X-Ray fluorescence analysis (XRF)	Bruker S1 Titan XRF analyser
Metallurgical Testing	
Microstructural Evaluation	Visual Examination
Macrostructural Evaluation	Radiographic Testing
	Liquid Penetrant Testing
	Magnetic Particle Testing

All equipment needed for test sample preparation is available in house.

The SAIW material testing laboratory, **laboratory number T0693**, is accredited by SANAS to comply with ISO 17025. The SAIW material testing laboratory is managed by a team of qualified and experienced metallurgists.

For more information, please contact the administrator on mat.lab@saiw.co.za or on 011 298 2104



MATERIAL TESTING LABORATORY

Tests	Price
Chemical Analysis	
Spectrographic analysis (Fe base)	R 445
Spectrographic analysis (Al, Cu base)	R 501
On-Site Material Analysis (XRF Analysis)	
Call-out Fee (within Gauteng)	R 2 721
Per Material Analysis	R 110
Tensile Test (Cutting, Machining and Testing)	
< 25mm thick specimen	R 657
≥ 25mm thick specimen	R 831
Bend Test (Cutting, Preparation and Testing)	
≤ 10mm thick specimen	R 378
> 10mm thick specimen	R 465
Nick Break Test / Fracture Test	
≤ 10mm thick specimen	R 465
> 10mm thick specimen	R 465
Impact Test (Machining, notching and testing per set of 3)	
Room Temperature (>0°C)	R 756
≥ -100°C to ≤0°C	R 942
< -100°C	R 1 309
Impact Test (Machining, notching and testing per set of 5)	
Consumable/Wire testing	
Room Temperature (> 0°C)	R 1 260
≥ -100°C to ≤0°C	R 1 560
< -100°C	R 2 181

Tests	Price
Hardness Testing	
Single Point (3 indents)	R 186
Weld Hardness Traverse (PM,HAZ,WM,HAZ,PM - 15 indents)	R 756
Macro with hi-resolution digital photograph	R 593
Micro- structural analysis	R 1 186
Post Weld Heat Treatment	
≤ 25mm thick specimen(1-6 hours at temp below 750°C)	R 721
> 25mm thick specimen(1-6 hours at temperature 750°C)	R 942
From 6 Hours (Per hour)	R 191



www.saiw.co.za

Please refer to contacts on page 28

MATERIAL TESTING LABORATORY

NDT - Weld Test Pieces Only

Tests	Price
Volumetric Testing - Radiography	
Plate	
≤ 25mm thick specimen	R 378
> 25mm thick specimen	R 454
Pipe	
≤ 50mm diameter specimen	R 465
> 50mm diameter specimen	R 657
Volumetric Testing - Ultrasonic Testing	
Plate	
≤ 25mm thick specimen	R 552
> 25mm thick specimen	R 552
Pipe	
≤ 50mm diameter specimen	R 674
> 50mm diameter specimen	R 837
Surface Testing – Liquid Penetrant	R 175
Surface Testing – Magnetic Particle Testing	R 175
Surface Testing – Visual Testing	R 175

PLEASE CONTACT US FOR A QUOTATION FOR ANY OTHER
METALLURGICAL WORK NOT DETAILED ABOVE

All prices above are exclusive of VAT. Prices may be revised without notice.

www.saiw.co.za

Please refer to contacts on page 28

