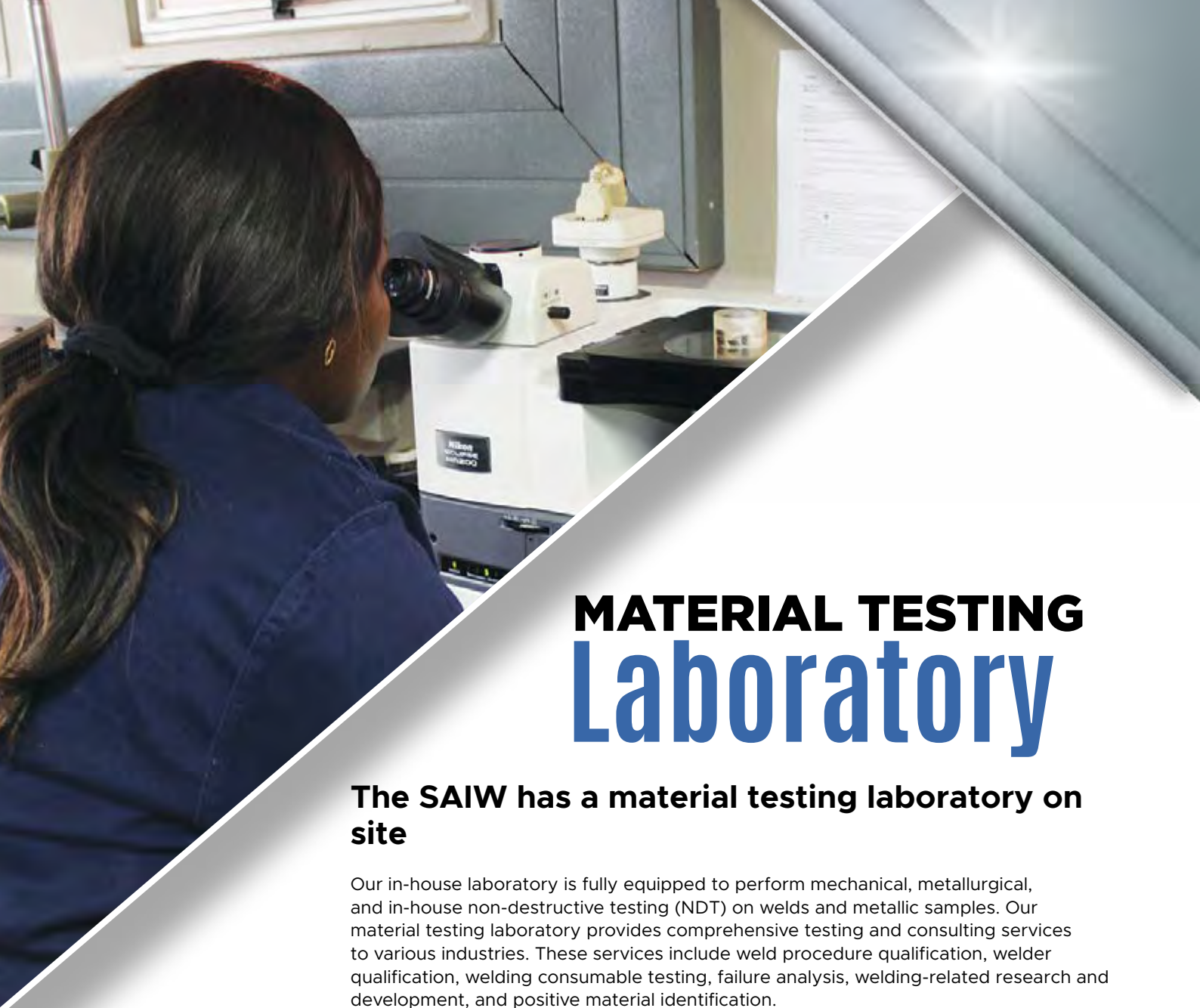




MATERIAL TESTING **Laboratory**

The SAIW has a material testing laboratory on site

Our in-house laboratory 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.

www.saiw.co.za

Please refer to contacts on page 16

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MATERIAL TESTING Laboratory

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	innovatest Fenix (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	
Non-Destructive 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 TO693**, 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 490
Spectrographic analysis (Al, Cu base)	R 551
On-Site Material Analysis (XRF Analysis)	
Call-out Fee (within Gauteng)	R 2 993
Per Material Analysis	R 121
Tensile Test (Cutting, Machining and Testing)	
< 25mm thick specimen	R 723
≥ 25mm thick specimen	R 915
Bend Test (Cutting, Preparation and Testing)	
≤ 10mm thick specimen	R 416
> 10mm thick specimen	R 512
Nick Break Test / Fracture Test	
≤ 10mm thick specimen	R 512
> 10mm thick specimen	R 512
Impact Test (Machining, notching and testing per set of 3)	
Room Temperature (>0°C)	R 832
≥ -100°C to ≤0°C	R 1 037
< -100°C	R 1 441
Impact Test (Machining, notching and testing per set of 5) Consumable/Wire testing	
Room Temperature (> 0°C)	R 1 386
≥ -100°C to ≤0°C	R 1 716
< -100°C	R 2 400
Hardness Testing	
Single Point (3 indents)	R 205
Weld Hardness Traverse (PM,HAZ,WM,HAZ,PM – 15 indents)	R 832
Macro with hi-resolution digital photograph	R 653
Micro- structural analysis	R 1 305
Post Weld Heat Treatment	
short cycle 1-3 hrs temp below 750°C	R 793
long cycle 4-6 hrs temp below 750°C	R 1 037
From 6 Hours (Per hour)	R 210

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

NDT – Weld Test Pieces Only

Tests	Price
Volumetric Testing - Radiography	
Plate	
≤ 25mm thick specimen	R 416
> 25mm thick specimen	R 499
Pipe	
≤ 50mm diameter specimen	R 512
> 50mm diameter specimen	R 723
Volumetric Testing - Ultrasonic Testing	
Plate	
≤ 25mm thick specimen	R 607
> 25mm thick specimen	R 607
Pipe	
≤ 50mm diameter specimen	R 742
> 50mm diameter specimen	R 921
Surface Testing – Liquid Penetrant	R 193
Surface Testing – Magnetic Particle Testing	R 193
Surface Testing – Visual Testing	R 193

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

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Please refer to contacts on page 16

Please contact us
for a quotation for any
other metallurgical work
not detailed here

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