Model: Manufacture:	VM30XP I-Stir A Par System Technology	Friction stir Welding of different metal plates (e.g. copper, aluminium)
Supplier:	Jezreel	Location
		Euclid Building Mechanical Engineering Laboratory Block J J-G 061 Contact Person Name: Tshepo Phone: 011 471 2526 Email: gaonnt@unisa.ac.za Estimated costs and availability Internal: R350 per sample External: R500 per sample External: R500 per sample Private Sector: R750 per sample Time Spend Researching: Time Spend Teaching: Time Spend Other: Funding Information
		Equipment Price: Year of Acquisition: 2018

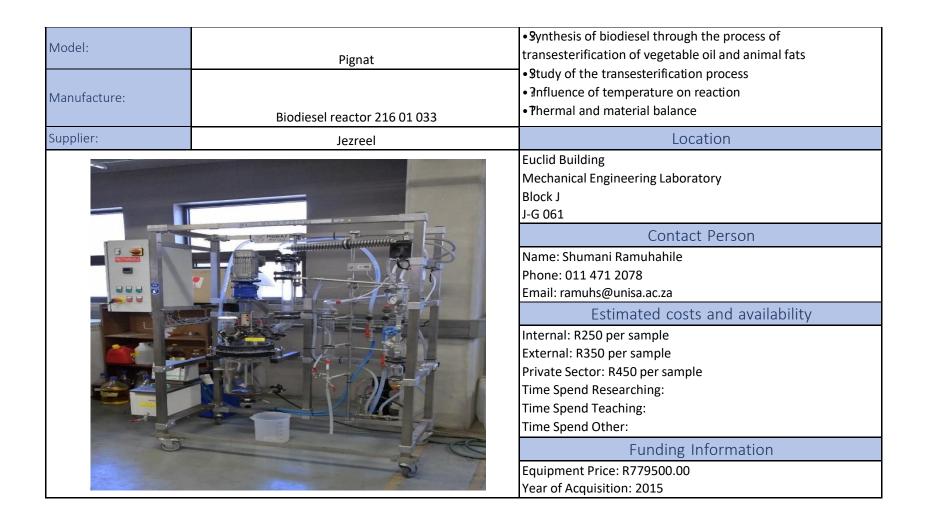


Model:	Duravision 30	Vickers, Brinel, Rockwell, and Knoop hardness tests of
Manufacture:	Emcotest	different material
Supplier:	IMP/SPS	Location
P		Euclid Building Mechanical Engineering Laboratory Block J J-G 061
		Contact Person Name: Tshepo Phases 044 474 2526
		Phone: 011 471 2526 Email <u>: gaonnt@unisa.ac.za</u>
		Estimated costs and availability
		Internal: R200 External: R250
	Private Sector: R400	
		Time Spend Researching:
		Time Spend Teaching:
		Time Spend Other:
		Funding Information
		Equipment Price (X2): R 1263602,56
		Year of Acquisition: 2015



Model:	Biodiesel engine test bed	Test biodiesel produced from biodiesel reactor
Manufacture:	JDD Systems	
Supplier:	Jezreel	Location
		Euclid Building Mechanical Engineering Laboratory Block J J-G 061 Contact Person Name: Shumani Ramuhahile Phone: 011 471 2078 Email: ramuhs@unisa.ac.za Estimated costs and availability Internal: R250 External: R350 Private Sector: R450 Time Spend Researching: Time Spend Researching: Time Spend Teaching: Time Spend Teaching: Time Spend Other: Equipment Price: R2407024,50 Year of Acquisition: 2015







Model:	Biogas/Biomass process unit [With Automated Methane Potential test system & Bioprocess Control Bioreactor]	Enables users to conduct anaerobic toxicity assaysDetermine the true biochemical methane potential	
Manufacture:	Bioprocess control	 Determine dynamic degradation profile of any biomass substrate 	
Supplier:	Jezreel	Location	
		Euclid Building Mechanical Engineering Laboratory Block J J-G 061	
		Contact Person	
		Name: Enweremadu Christopher Phone: 011 471 2057 Email <u>: enwercc@unisa.ac.za</u>	
		Estimated costs and availability	
		Internal: R450 External: R550	
		Private Sector:	
		Time Spend Researching:	
		Time Spend Teaching: Time Spend Other:	
		Funding Information	
		Equipment Price: R1842462.30 Year of Acquisition: 2015	

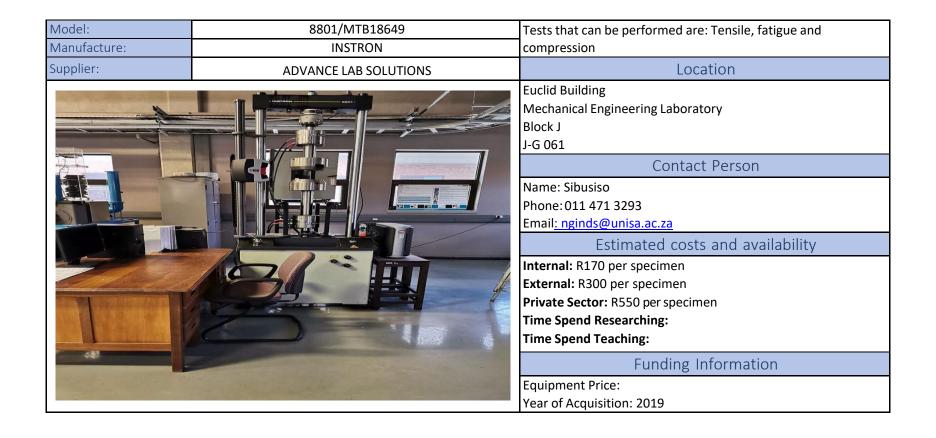


Model:	LSM 900	 Characterize topographic structures and evaluate surface roughness with non-contact confocal imaging Determine the thickness of coatings and thin films non- destructively
Manufacture:	Carl Ziess X-ray Microscopy, Inc	 Use a range of imaging techniques including polarization and fluorescence in optical contrast or in confocal mode Characterize metallographic specimens in reflected light or thin section of rock or polymer in transmitted light
Supplier:	ZIESS	Location
		Euclid Building Mechanical Engineering Laboratory Block J J-G 061
		Contact Person
		Name: Rabelani Phone: 011 471 3188 Email <u>: murward@unisa.ac.za</u>
		Estimated costs and availability
		Internal: R500 per specimen
		External: R800 per specimen
		Private Sector: R1200 specimen
		Time Spend Researching:
		Time Spend Teaching:
		Time Spend Other:
		Funding Information
		Equipment Price: R3559819.48
		Year of Acquisition: 2020



Model:	AG-X PLUS,250KN-300KN	Tensile and bending tests
Manufacture:	SHIMADZU	
Supplier:	WIRSAM SCIENTIFIC	Location
		Euclid Building Mechanical Engineering Laboratory Block J J-G 061
	RetainACZU	Contact Person
		Name: Tshepo Phone: 011 471 2526 Email <u>: gaonnt@unisa.ac.za</u>
		Estimated costs and availability
	Internal:100 per specimen External:200 per specimen Private Sector:350 per specimen	
		Time Spend Researching:
		Time Spend Teaching: Time Spend Other:
	Funding Information	
	Equipment Price: R1995617,74 Year of Acquisition: 2015	







Model:	Crossbeam 340	•For more info on cross beam 340 visit: https://mikroskopiadlaprzemyslu.pl/images/doc/microscope-
Manufacture:		zeiss-crossbeam-eng.pdf
	Carl Ziess X-ray Microscopy, Inc	
Supplier:	Carl Ziess	Location
	Euclid Building Mechanical Engineering Laboratory Block J J-G 061	
	×	Contact Person
		Name: Rabelani
		Phone: 0114713188
	Email: <u>murward@unisa.ac.za</u>	
	Estimated costs and availability	
	Internal: R100 per hr.	
1 -		External: R200 per hr.
		Private Sector: R440 per hr.
		Time Spend Researching:
		Time Spend Teaching: Time Spend Other:
		Funding Information
		Equipment Price: R5894655.00
		Year of Acquisition :2018



Model: Manufacture:	DY1838/EMPYREAN PANalytical	 For more info about PANalytical Empyrean X-Ray diffractometer visit: https://www.malvernpanalytical.com/en/products/product- range/empyrean-range/empyrean
Supplier:		Location
The second se	PANalytical	Euclid Building Mechanical Engineering Laboratory Block J J-G 061
-		Contact Person
		Name: Rao Phone: 011 670 9420 Email <u>: vasudvr@unisa.ac.za</u>
		Estimated costs and availability
		Internal: R350 per hour External: R 500 per hour Private Sector: R 750 per hour Time Spend Researching: Time Spend Teaching: Time Spend Other: Funding Information
		Equipment Price: Year of Acquisition:



Model:	Xradia 510 Versa	Perform 3D Imaging for soft or low-Z materials. For moreinformation visit: https://www.zeiss.com/microscopy/int/products/x-ray-
Manufacture:	Carl Ziess X-ray Microscopy, Inc	microscopy/zeiss-xradia-510-versa.html
Supplier:	Carl Ziess X-ray	Location
	Xradia 510 Versa	Euclid Building Mechanical Engineering Laboratory Block J J-G 061 Contact Person Name: Rabelani Phone: 011 471 3188 Email <u>: murward@unisa.ac.za</u> Estimated costs and availability Internal: R120 per hr External: R350 per hr
		Private Sector: R700 per hr Time Spend Researching: Time Spend Teaching: Time Spend Other:
ID		Funding Information
		Equipment Price: R10674504.00 Year of Acquisition: 2018



Model: Manufacture:	Cell Scale bi-axial CellScale Biomaterials Testing	Biaxial testing is critical for understanding the mechanical properties of biomaterials due to their directionally oriented microstructures. For more information visit : https://www.cellscale.com/products/biotester/?gclid=EAIaIQo bChMIi_yTniQ9wIVj7rtCh1w4AvBEAAYASAAEgLX_vD_BwE
Supplier:	IMP/SPS	Location
Supplier: IMP/SPS		Euclid Building Mechanical Engineering Laboratory Block J J-G 061 Contact Person Name: Mabuda Email: mabudi@unisa.ac.za Estimated costs and availability Internal: R350 per hr External: R420 per hr Private Sector: R470 per hrTime Spend Researching: Time Spend Teaching: Time Spend Other:
		Funding Information
		Equipment Price: R149777.00 Year of Acquisition: 2015



Model:	Cell Scale bio-uniaxial	A versatile uniaxial benchtop mechanical tester for
Manufacture:	CellScale Biomaterials Testing	biomaterials
Supplier:	IMP/SPS	Location
		Euclid Building Mechanical Engineering Laboratory Block J J-G 061
	RE	Contact Person
		Name: mabudi
E Contraction of the second se		Email:mabudi@unisa.ac.za
	E B	Estimated costs and availability
		Internal: R250 per hr
		External: R315 per hr Private
		Sector: R460 per hrTime
		Spend Researching: Time
		Spend Teaching :
		Time Spend Other:
		Funding Information
		Equipment Price:
		Year of Acquisition :2015

