

TRS

TRANSFORMERS (PTY) LTD
TRANSFORMERS | REWINDS | SWITCHGEAR

Reg No: 2018/635271/07

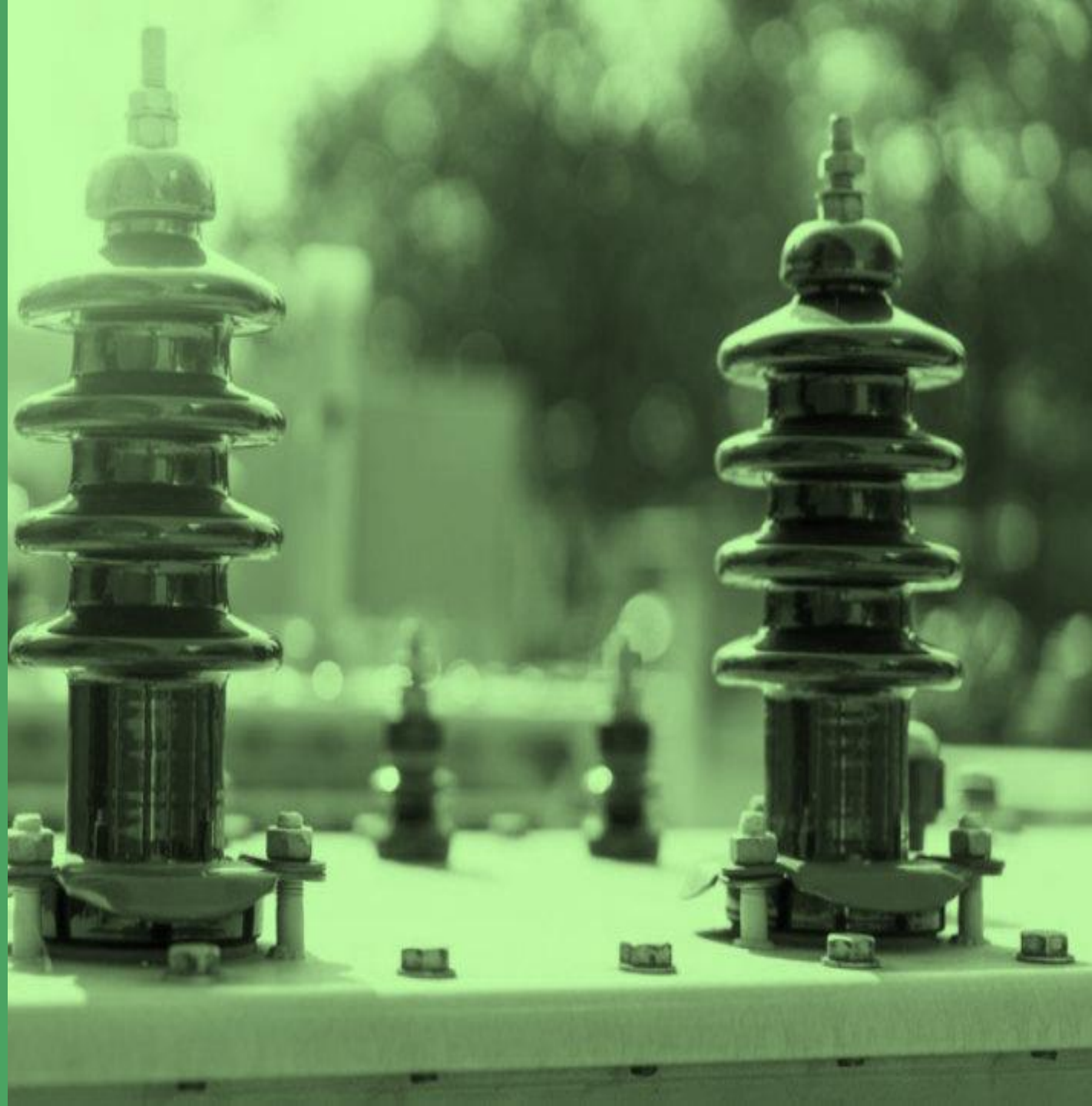


Directors:

Ms RV Walbrugh 0837947707
Mr JA Meintjies 0823586341



Leading the way in service excellence!





About TRRS



TRRS TRANSFORMERS (PTY) LTD:



A power solutions company that strives to be your first-choice, trusted power service provider in the Northern Cape, Free State and North-West, including but not limited to these provinces, by delivering the best customer experience in the industry.

With more than 13 years experience in the industry, we assist in addressing system safety, reliability, operability, and efficiency.

At TRRS Transformers, we provide our customers with reliable and safe power solutions that add value to their everyday operations. Our motto, "Trust, Respect & Serve" signifies the commitment we have, to perform our daily operations with safety, efficiency, and thoroughness. We believe in empowering and enabling our customers to do the same. With TRRS Transformers, you can trust that your power solutions are in good hands.

TRRS Transformers specialize in Transformer and Switchgear Field Services; Supply, Maintenance & Repairs; Supply of Virgin and Regen Oil; Electrical Wholesale incl PPE Wear and Accredited High Voltage Training

COMPANY DETAILS

Name: TRRS Transformers (Pty) Ltd
Reg No: 2018 / 635271 /07
VAT No: 4660308620

Head Office: Cnr Tienie Louw & Pauling Street, Kimberley, NC 8301
NW Branch: 20 Parys Avenue, Baillie Park, Potchefstroom, NW 2521

Directors: Jackie Meintjies & Rhona Walbrugh
Staff: > 30 Employees

www.trstransformers.co.za



VISSION

To be one of the leading transformer & switchgear field service specialists

MISSION

To build long term business relations through dedicated services, providing fit-for-purpose solutions while maintaining the highest ethical and industry standards

MOTTO

Trust, Respect and Serve



Key Services



SPECIALIZED KEY SERVICES INCLUDE:

- ⚡ Complete Transformer Maintenance
- ⚡ Transformer Services, Repairs & Oil Purification up to 80MVA (132kV)
- ⚡ Oil Purification to SANS 555 Specification & IEC 159
- ⚡ Oil Sampling & Analysis
- ⚡ Full Laboratory Service
- ⚡ Oil Regeneration (In-house & On-site)
- ⚡ Transformer Rewinding up to 20MVA (33kV)
- ⚡ Supply of Special- & Power Transformers up to 80MVA (132kV) to SANS 780 (Reg 5.1) Specification
- ⚡ Supply of New and/or Refurbished Switchgear up to 132kV
- ⚡ Switchgear Repairs & Maintenance from 400V up to 132kV, complete with secondary injection testing
- ⚡ Supply of Complete Mini Substations up to 2,5MVA (22kV), PV Ready
- ⚡ Repairs & Maintenance of Surface and Underground Mini Substations
- ⚡ Complete Transformers & Substation Testing (Megger TRAX 280 c/w TSX303)
- ⚡ Complete HV & MV Circuit Breaker & Relay Maintenance & Testing (Megger TM1700 & SVERKER900)
- ⚡ High Voltage Training and supply of PPE Wear, in conjunction with Devoltage Training Centre
- ⚡ Electrical Wholesale

Quality Statement

TRRS Transformers aims to consistently provide the highest quality service and products, at the best possible prices, at the right time and place, according to our customers' needs

Service Commitment

TRRS Transformers is dedicated to provide the best possible service that will make us the first choice when it comes to Transformer and Switchgear Repairs & Maintenance. We strive not only to assist in maintenance, but become partners in maintenance meeting our customers' needs

Our Client Base include, but not limited to :

AfriSam | Anglo American | De Beers | Eskom | GWK Limited | Idwala Lime | KP Lime | Petra Diamonds | Transnet Freight Rail | Scatec and various other Solar Plants and Municipalities throughout the Northern Cape





Transformer Field Services



TRANSFORMER FIELD SERVICES:

TRRS Transformers field services are available 24/7 to diagnose and solve power problems in case of a sudden outage or failure. Our highly skilled technicians can pin-point problems quickly and get you back online soonest. Once the issue is resolved, we can help you implement a plan to prevent future incidents

Transformer Maintenance & Repair

TRRS Transformers provides outstanding Transformer Maintenance and Repairs Services.

Basic services on-site at your chosen location, or off-site at our workshop, include:

Oil Sampling and Analysis:

☞ To establish the condition of transformers and transformer oil

Oil Purification:

☞ To improve the condition and life expectancy of the transformer oil by removing water, dirt and gasses

Transformer Repairs:

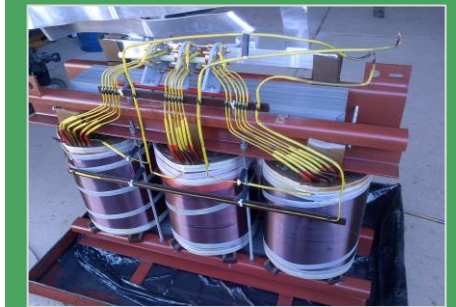
☞ To improve the condition of the transformer by repairing leaks that contaminates the oil through atmospheric conditions

Transformer Oil Regeneration:

☞ To minimize the environmental impact

At TRRS Transformers, we provide our customers with reliable and safe power solutions that add value to their everyday operations. Our motto, "Trust, Respect & Serve" embodies the commitment we have to perform our daily operations with safety, efficiency, and thoroughness. We believe in empowering and enabling our customers to do the same.

When you need an expert power solutions company to handle the servicing of major power distribution and control equipment, choose TRRS Transformers.



Transformer Oil Analysis



Transformer Oil Analysis

TRS Transformers specializes in transformer oil analysis, to maintain and establish the condition of transformer oil. On site oil sampling are done by our professional team and sent to an independent accredited laboratory for analysis.

Routine Tests

- ☞ **Transformer Oil Analysis:** To determine the Water content and Dielectric strength, as these directly affects the insulating capability of the oil
- ☞ **Acidity of Oil:** Indicating the degree of Transformer oil deterioration and possibility of corrosion inducing inside the transformer
- ☞ **Gas Analysis:** An accurate indication of electrical and insulation faults inside the transformer
- ☞ **PCB Testing:** Presence of PCB in the transformer oil, indicating the toxicity and need for classification of hazardous substance
- ☞ **Furan Test:** To assess the paper insulation condition

Special Tests

- ☞ **Corrosive Sulphur:** To determine the presence of sulphur that can cause corrosion damage that leads to failure of apparatus
- ☞ **Interfacial Tension:** Determining the life expectancy of the oil
- ☞ **Tan Delta:** Detection of none-mineral insulation additives that interferes with the quality of the oil

These tests are available to assist in preventative maintenance and long-term planning. TRS Transformers stores data on all analysis to enable us to build a service history for each specific transformer and client.

Purification Plants

- ☞ TRS Transformers has 3 standard purification plants. The plants have the capacity of 3000 & 6000 litres / hour, respectively
- ☞ We also have 1 small 1000-liter plant for working underground and on high building
- ☞ Oil ppm meters on plant & kV tester, 80kV for on-site tests





Transformer Repairs



Transformer Repairs

- The repair and refurbishing of mini-substations, distribution transformers and power transformers
- The purification, regeneration, supply and testing of transformer and light industrial oils
- In-house and on-site refurbishment and repairs include complete rewinds, re-gasket, vacuum treatment and drying of cores and complete testing of units to SANS standards
- The cleaning, sandblasting and spray painting of transformers
- Top-up of oil if the oil is below the recommended level
- The replacement / repairs of leaking gaskets, neoprene cone rubbers, bushings, conservators and valves
- Replacing Buchholz relays, Refurbishing sight glasses, Upgrading of breathers and Repair of leaking inspection covers
- The supply and testing of protective relays
- The supply of silica gel and breathers
- Infrared surveys
- Purifying the transformer oil where the di-electric strength needs to be raised and where moisture content needs to be reduced, with the use of our mobile purification plant
- Replacing of transformer oil where it is indicated that the acid level has reached its recommended limit
- **Replacing of PCB-contaminated oil** which is above the recommended legal limit of 50ppm. The transformer will be isolated, drained, flushed with transformer oil and refilled with non-PCB oil and tested again. The contaminated oil will be legally discarded.

Product Range

- Special & Power Transformers from 1,5 VA to 20MVA
- Programmable Computer Board (PCB) Transformers
- Oil & Air-Cooled Transformers
- Auto Starters
- Battery Chargers & Power Supplies
- Reactors
- Voltage Transformers
- Virgin & Ester Transformer Oil





Transformer & Substation Testing

Megger TRAX
c/w TSX303



TRANSFORMER & SUBSTATION TESTING:

Megger TRAX 280 – The one system for a variety of different tests

TRAX is a multi-functional test set solution for transformer and substation testing. The test system replaces numerous individual testing devices which makes testing with TRAX a time saving and cost-effective alternative to conventional measurements using separate instruments. Therefore, TRS invested in the TRAX 280 for state of art measurement methods and advanced diagnostic testing. TRAX is a unique test system for testing power, distribution and instrument transformers, as well as a variety of other substation components. Providing up to 800 A (TRAX 280) and 2200 V (2000 A and 12 kV with accessories) with a frequency range adjustable from 5 Hz (1 Hz with tan delta unit) to 500 Hz. Our TRAX is used with an integrated computer device.

The variable levels of voltage and current can be generated and measured with high precision, allowing TRAX to be used for a wide range of applications such as turns ratio, excitation current, winding and contact resistance, impedance, tan delta/power factor testing and various primary tests for LV, MV and HV electrical apparatus including but not limited to:

Power & distribution transformers | Instrument transformers | Bushings | LV, MV and HV circuit-breakers | Busbars | Protection relays | Grounding systems

TRAX test capability

- Winding resistance measurements
- Adaptive algorithm for optimized transformer demagnetization
- True dynamic resistance measurements on load tap changers
- 250 V Transformer turns ratio measurements
- 12 kV Dissipation factor and capacitance testing features

Megger TSX303 – Automatic Switch Box

The latest addition to our test equipment, the TSX 303, an accessory to the TRAX that enables automatic testing of all phases and taps of a transformer with only one single connection of test leads.

This eliminates the need for reconnections between tests and greatly reduces the time needed for the full measurement procedure. Safety is also improved as the number of trips up and down the ladder to transformer is reduced to only connection and disconnection of the bushing cables.





Electrical Field Services



ELECTRICAL FIELD SERVICES:

Our Electrical Field Services include a range of essential systems support components. These range from inspections to testing, all focussed at ensuring the health and longevity of electrical systems.

Inspections performed by our qualified electrical field service technicians; help identify potential issues before they become potentially dangerous. Testing services provide accurate electrical system measurements, offering insight into its current state, and identifying weaknesses or faults.

It is essential to have regular field services performed to prevent malfunction or failure of electrical systems - ultimately maintaining safety and minimizing potential downtime in commercial and industrial settings.

Our certified technicians will work to ensure the reliability and integrity of your electrical equipment.

Ongoing, planned maintenance is a vital tool for preventing unnecessary down time. We can help you implement scheduled preventative maintenance

TRRS Transformers offers a variety of electrical field services, from on-site testing to insulation and ground resistance testing, power quality assessment, and ARC flash assessments.

TRRS Transformers Electrical Field Services can service your circuit breakers and relays in our shop or at your location.

Onsite services include:

- 🔧 Circuit Breaker & Relay Testing
- 🔧 Maintenance
- 🔧 Repairs
- 🔧 Supply
- 🔧 Remanufacturing



Circuit Breaker Testing

Megger TM1700



CIRCUIT BREAKER & RELAY TESTING:

TRS Transformers use the following test equipment from Megger to enable us to do the important and required maintenance on HV & MV Circuit Breakers and Relays:

TM1700 - Circuit Breaker Analyzer System

SVERKER900 - Relay and Multifunctional Substation Test System

Megger TM1700 CIRCUIT BREAKER ANALYSER

The robust Megger TM1700 series of Circuit Breaker Analysers offers powerful technology to assist the user in achieving efficient and reliable testing

Megger TM1700 Built for High-Voltage Substations

All inputs and outputs on the instrument are designed to withstand the challenging industrial environments. Galvanically isolated inputs and outputs make it possible to perform all relevant measurements in one test, eliminating the need for new setup and re-connections.

The patented Dual Ground method makes testing fast and safe due to keeping the circuit breaker grounded on both sides throughout the test.

The timing measurement inputs are using a patented an Active Interference Suppression algorithm ensuring correct timing and accurate Pre-Insertion Resistor values, even at high capacitively coupled interference currents.

The adaptive and easy-to-use software allow the user to perform the test by simply turning the test switch - Does not require settings. The operator is only one click away from advanced help functions such as connection diagrams. The 8-inch colour touch-screen, with on-screen keyboard, allows the user to efficiently operate this high-level interface.

Megger TM1700 key features:

- ⚡ Provides reliable and accurate test results in noisy high voltage substations
- ⚡ Ground testing, both sides of breaker grounded
- ⚡ On-screen assistance with connection diagrams and test templates





Circuit Breaker Testing

Megger SVERKER900



CIRCUIT BREAKER & RELAY TESTING :

SVERKER900

Relay and Multifunctional Substation Test System

SVERKER is synonymous with the very best in relay and substation testing and the new SVERKER900 now lifts this success to a higher level.

The SVERKER900 Relay and Substation Test System is the ultimate toolbox that addresses the increasing need for three-phase testing capability in electrical distribution substations, renewable power generation stations and industrial applications. The intuitive user interface is presented on the LCD touch screen. It has a powerful combination of current and voltage sources and a versatility of measurement possibilities.

The SVERKER900 is specifically designed for basic, manual three phase secondary testing of protection devices. In addition, various primary testing can be performed, since the current and voltage sources can be series- and/or parallel connected to allow for up to 105A AC or 900V AC output. All three current and four voltage sources can be individually adjusted with respect to amplitude, phase angle and frequency. The fourth voltage source allows for testing of numerical relays that needs a reference voltage simulating the busbar.

Transformers are a marvel of physics and engineering. Screening and diagnostic tests provide information about all three of the transformer's health indices:

- Dielectric – the ability of the transformers insulating materials to support an electric field and thereby provide electrical isolation of energized parts from other parts that are operating at different voltages or that are maintained at ground potential
- Mechanical – this relates to the ability of a transformer to carry current, and therefore also encompasses magnetic health
- Thermal – the ability of the transformer to dissipate heat safely and effectively





Other Services



OTHER SERVICES:

Electrical Construction

- ☎ Electrical Construction & Installation
- ☎ Electrical Consulting & Wholesale
- ☎ Certificate of Compliance (COC) Certification
- ☎ Cable Installation
- ☎ Cable Fault Finding & Repairs
- ☎ Terminations & Joints
- ☎ HV & LV Electrical Fault Finding & Repairs
- ☎ HV & LV Switchgear Testing, Maintenance & Repairs
- ☎ Thermal Scanning & Fault Analysis
- ☎ Step-up & Step-down System Analysis, Supply & Installation
- ☎ Installation of Main Power Grid Transformer Supply

Construction of Overhead Powerlines

- ☎ Up to 33kV Overhead Power Lines
- ☎ Supply Hardware & Install
- ☎ Overhead Line Inspection, Fault Finding & Maintenance
- ☎ Earthing/Bonding of Railway Tracks
- ☎ Replacement of Copper Overhead Cables with Tiger Wire

Cable Fault Finding

- ☎ Accurately detect location of underground cable faults
- ☎ Pressure testing of cables
- ☎ Repair of damaged cables

Generators

- ☎ Supply, Install & Maintain Generators 5kVA-1600kVA
- ☎ Design according to Customer need, including option with full synchronisation to Grid

Transport

- ☎ Moving of Transformers, Generators and/or Electrical Motors up to 30 Ton
- ☎ Smaller Crain Truck also available





Accredited
Training



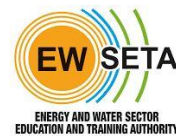
ACCREDITED HIGH VOLTAGE TRAINING:

In association with

DEV  LTAGE TRAINING CENTRE cc

- ⊗ Authorised Person (SAIEE 1868 RV 2) (3 Days)
- ⊗ Practical Switching Assessment – Become an Appointed Operator (1 Day)
- ⊗ Responsible Person (2 Days)
- ⊗ Substation Audit (2 Days)
- ⊗ Overhead Line Inspection and Fault Finding (2 Days)
- ⊗ Power System Protection (2 Days)
- ⊗ Persons for Access Only (1 Day)
- ⊗ Electrical Awareness (1 Day)
- ⊗ Transformers and Transformer Maintenance (SAIEE 0869) (2 Days)
- ⊗ Switching and Switchgear Maintenance (2 Days)

For more information on accredited High Voltage and Medium Voltage courses, please visit www.devoltage.co.za or use the QR code with your mobile phone.



www.devoltage.co.za





SAFETY & IMPORTANCE OF PPE WEAR:



What is a ARC FLASH?

An Arc Flash is a potentially fatal explosion of extreme light and radiant heat as a result of a short circuit on an electrical panel that can be caused by dust, dropping tools, accidental touching, condensation, corrosion or a faulty installation.

An Arc Flash can reach temperatures of up to 20,000°C and can cause permanent injuries or fatalities

What are the hazards and dangers of an ARC FLASH?

For a worker, injuries caused by an Arc Flash can be serious depending on the distance of work, the incident energy and the duration of the Arc Flash.

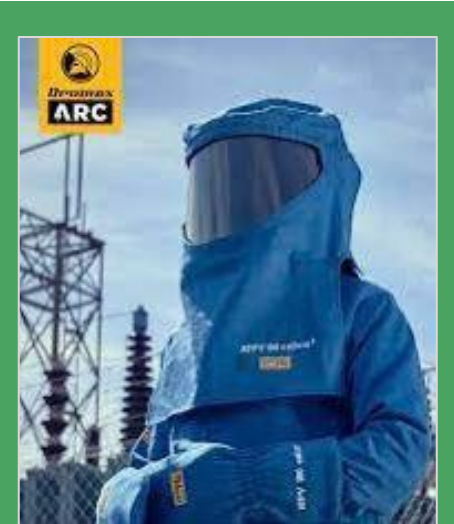
Possible injuries include second and third degree burns from the extreme heat of the blast, burns from airborne molten metal, metal oxides & vaporized copper, concussion, head injuries, hearing impairment and damaged eyesight. An Arc Flash can also cause fire in surrounding areas.

Safety first - WEAR THE CORRECT PPE

TRS Transformers, through Devoltage Training Centre cc, is a reseller for Dromex PPE Products and HellermannTyton High Voltage Testers. Contact us for more information and a quotation to protect your employees and safe lives.

DEV  LTAGE TRAINING CENTRE cc

HellermannTyton





Contact us



CONTACT US:

Serving the Community

“ We are proud to be actively involved in community support and social development.

“ TRS Transformers are committed to serve planet and people.

With TRS Transformers, you can trust that your power solutions are in good hands.

Contact us Today

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