



THERMAL DUOS

COMPANY PROFILE

THERMAL SCANNING • INSPECTION • REPORTING

15 YEARS OF INDUSTRY EXPERIENCE

**TEMPERATURE TELLS A STORY.
WE HELP YOU READ IT.**

South African thermal scanning solutions for safer,
more reliable electrical, solar and industrial systems.

DThermalD.co.za

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A focused overview of DTD's capabilities,
applications, safety approach and contact details.



COMPANY OVERVIEW

South African thermal scanning and condition-monitoring support

Dynamic Thermal Duos (DTD) is a South African thermal scanning and inspection company based in eMalahleni, Mpumalanga. We support condition monitoring and preventative maintenance by using infrared thermography to reveal abnormal heat patterns in electrical, solar and industrial systems. Our work helps clients detect potential problems earlier, plan maintenance more effectively and improve operational safety and reliability.

With 15 years of industry experience, DTD combines practical field knowledge, responsive service and clear technical reporting.

AT A GLANCE



eMalahleni,
Mpumalanga



Nationwide project
support



15 years industry
experience



Mon-Fri
07:00-18:00



24/7 callout
service



B-BBEE Level 4



VISION, MISSION & VALUES

The principles that guide every inspection



VISION

To become a trailblazing South African thermography partner, assisting clients nationwide with preventative maintenance through accurate, practical and accessible infrared inspections.



MISSION

To deliver innovative, affordable thermal scanning solutions and high-quality service that support client success, equipment reliability and safer operations.



VALUES

- Safety first
- Accuracy and integrity
- Client focus
- Reliability and responsiveness
- Proactive risk management



OUR SERVICES

Thermography inspections, analysis and reporting

DTD provides practical thermal scanning services that support preventative maintenance, fault finding and condition monitoring across electrical, solar, mining and industrial environments.



CORE INSPECTION SERVICES

- Thermography inspections and reporting
- Thermal image capture and anomaly identification
- Report analysis and technical recommendations
- Site-based scanning and inspection support



APPLICATIONS

- Overhead power lines
- Mini substations and HT outdoor yards
- DB boards, switchgear and terminations
- Pump stations and conveyor drives
- Solar PV installations
- Mining and industrial plant



CLEAR DELIVERABLES

- Asset identification and photographic evidence
- Temperature observations and priority findings
- Action-focused inspection report
- Maintenance recommendations and follow-up support

NON-CONTACT INSPECTION • PRACTICAL ANALYSIS • DECISION-READY REPORTING



ELECTRICAL INFRASTRUCTURE

Find abnormal heat patterns before they become costly failures



Infrared thermography provides a non-contact view of temperature differences across electrical systems. DTD inspections can help reveal overheating connections, imbalanced loads, deteriorating components and other abnormal thermal patterns before they lead to failure.

AREAS INSPECTED

- Overhead power lines and connections
- Mini substations and HT outdoor yards
- DB boards, switchgear and panels
- HV and LV terminations
- Transformers, conductors and critical connections

KEY BENEFITS



Early fault detection



Enhanced safety



Non-destructive inspection



Maintenance prioritisation



Cost savings



Improved reliability



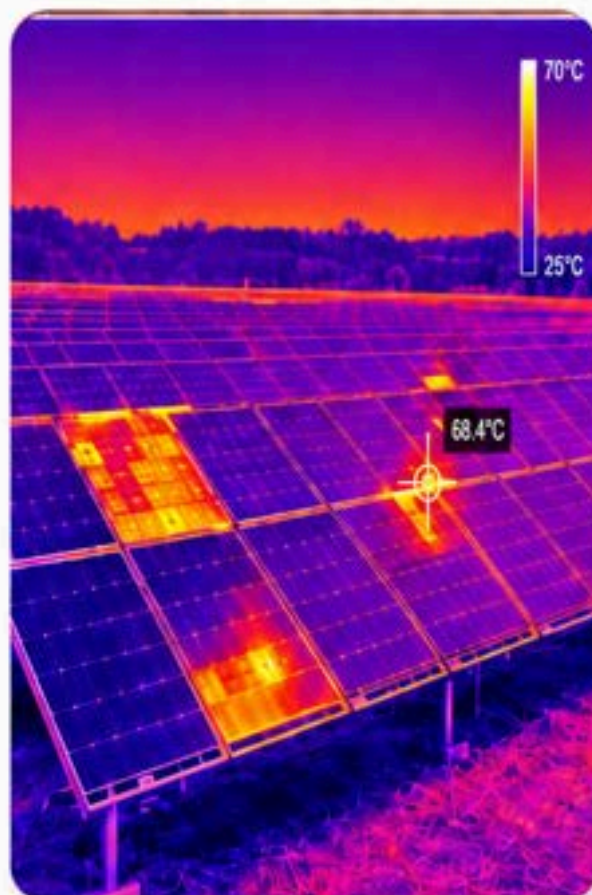
SOLAR PV THERMOGRAPHY

Thermal insight for performance, maintenance and asset life

Thermal scanning supports the performance and maintenance of solar installations by highlighting temperature variations across modules, connections and related electrical components. The results can help maintenance teams locate potential defects and prioritise corrective action.

THERMAL SCANNING CAN HELP IDENTIFY

- Hotspots and abnormal temperature patterns
- Underperforming modules or strings
- Connection and termination defects
- Shading-related stress and uneven performance
- Electrical anomalies in associated equipment



BENEFITS FOR SOLAR INSTALLATIONS

✓ Early detection of issues

✓ Improved efficiency

✓ Cost-effective maintenance

✓ Increased reliability

✓ Enhanced safety

✓ Comprehensive assessment

✓ Extended equipment lifespan

MINING & INDUSTRIAL APPLICATIONS

Condition monitoring for demanding operating environments



Mining and industrial sites depend on high-value equipment operating under demanding conditions. DTD supports condition monitoring across electrical and mechanical assets to help identify developing problems, reduce unplanned downtime and improve maintenance planning.

TYPICAL APPLICATIONS

- Conveyor drives and belt systems
- Pump stations and motors
- Motor control centres and DB boards
- Mine reticulation and power distribution
- Heavy plant electrical systems
- Process equipment and critical connections

OPERATIONAL OUTCOMES



REDUCE UNPLANNED DOWNTIME

Identify problems before failure



PRIORITISE MAINTENANCE

Focus resources on priority findings



IMPROVE ASSET RELIABILITY

Support consistent plant performance



SUPPORT SAFER OPERATIONS

Use safety-led, non-contact inspections

SAFETY, INSPECTION & REPORTING

A controlled process from site briefing to practical recommendations



OUR SAFETY VALUES

- Compliance with site and industry safety standards
- Correct PPE and arc-flash precautions
- Safe distances and insulation when scanning high-voltage or live systems
- Task risk assessment and proactive risk management



REPORTING OUTPUT

- Asset identification and inspection scope
- Thermal images and temperature observations
- Anomaly classification and priority findings
- Clear recommended actions for maintenance teams

OUR INSPECTION PROCESS

01

SCOPE & SITE BRIEFING

Confirm assets, access, hazards and inspection objectives.

02

SCAN & CAPTURE

Conduct safe, systematic thermal image capture.

03

ANALYSE ANOMALIES

Review abnormal patterns, severity and operational context.

04

REPORT & PRIORITISE

Provide clear findings and practical recommendations.

05

REVIEW & FOLLOW UP

Discuss results and support maintenance planning.



CONTACT US

Your thermal scanning partner



**DYNAMIC
THERMAL DUOS**

Registered 2024/684943/07
B-BBEE Level 4

Giulluam van Heerden

Temperature tells a story.
We help you read it.



Scan or click



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WORKING HOURS

Mon-Fri: 07:00-18:00 | Callout: 24/7





THANK YOU

YOUR THERMAL SCANNING PARTNER

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THERMAL IMAGE CREDITS

Electrical and utility thermography: Teledyne FLIR utility resources

Solar PV thermography: Teledyne FLIR technical note - Testing Solar Panels

Mining and industrial thermography: Teledyne FLIR mining resources

Power and transmission thermography: Teledyne FLIR inspection resources