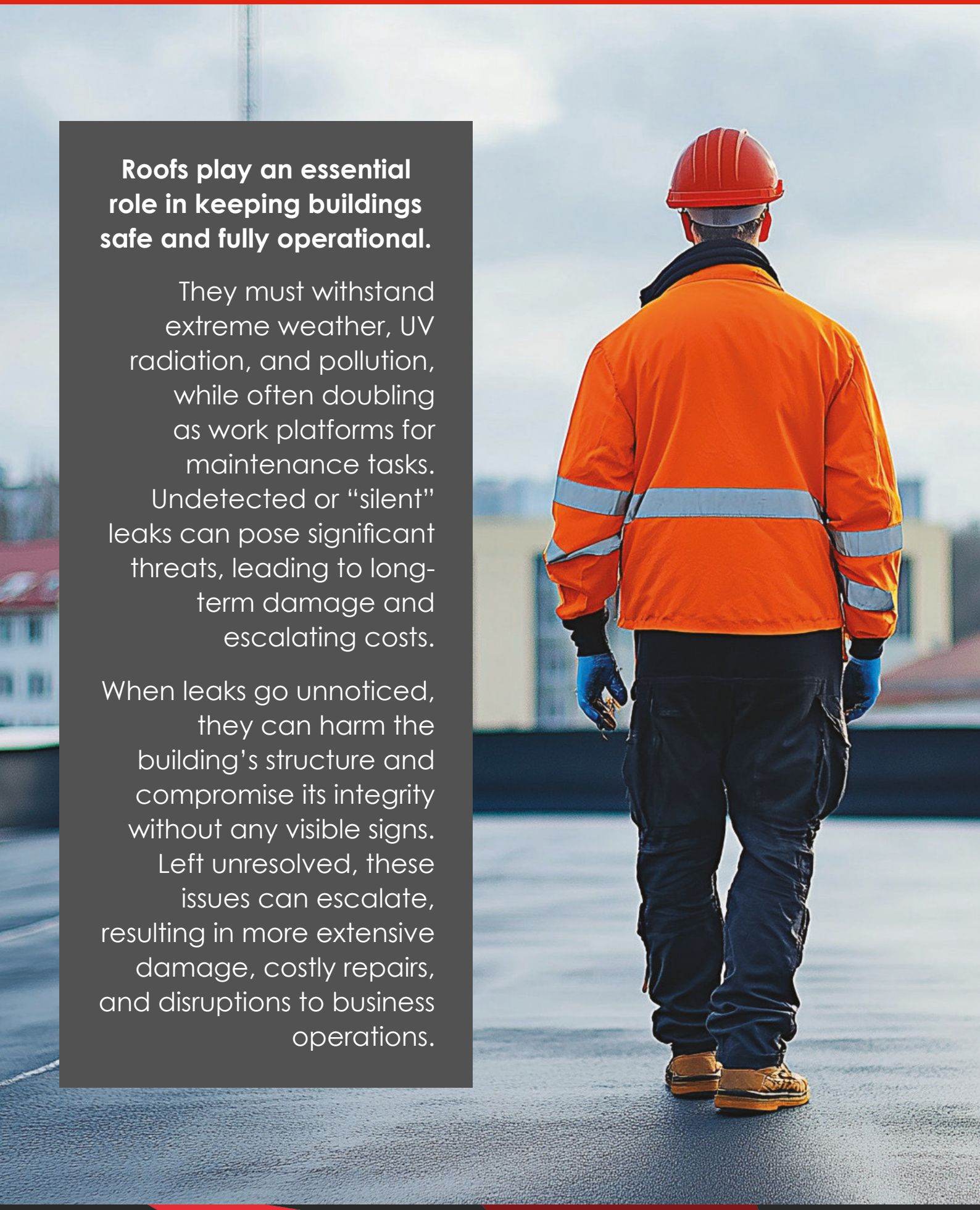
BUCKLEYS

MANUFACTURERS OF SPECIALIST TEST EQUIPMENT

STOP ROOF LEAKS IN THEIR TRACKS

Roof Inspection That Pays for Itself



Roofs play an essential role in keeping buildings safe and fully operational.

They must withstand extreme weather, UV radiation, and pollution, while often doubling as work platforms for maintenance tasks. Undetected or "silent" leaks can pose significant threats, leading to long-term damage and escalating costs.

When leaks go unnoticed, they can harm the building's structure and compromise its integrity without any visible signs. Left unresolved, these issues can escalate, resulting in more extensive damage, costly repairs, and disruptions to business operations.

Detecting leaks early is key - early identification allows for timely fixes, minimising repair costs, preserving goods, and protecting the building's functionality.

Across the world, the roofing industry is experiencing robust growth. In 2023, the global roofing market was valued at approximately $130 billion and is projected to grow at a CAGR of 3.9% from 2024 to 2030.

Flat roofs, in particular, are gaining popularity worldwide thanks to their versatility, ease of installation, and potential for energy-efficient solar panel integration. In North America and Europe, flat roofs account for over 30% of the total market, while in urban centres in Asia, they are quickly becoming the norm for commercial and high-density residential buildings.

For roofing professionals in any part of the world, standing out in this rapidly expanding and highly competitive market is essential. By investing in electronic leak detection, roofers can offer their customers added value, helping them avoid costly repairs and extend the lifespan of their investments.

Ultimately, early detection of leaks not only protects buildings and preserves their value - it positions roofing professionals as trusted advisors who help their clients safeguard their investments. In this global roofing boom, those who innovate and prioritise preventative maintenance will set themselves apart and shape the future of the industry.

Investing in innovative flat roof leak detection equipment is a proven way for roofing professionals to increase profits and customer retention.

Leak detection tools from Buckleys can be used by installers or maintenance technicians to test the roof post-installation, perform ongoing preventive testing, and/or find leaks in a leaking roof. In this eBook, you'll learn more about the benefits of adding roof leak detection equipment to your service offerings and the various leak detection methods available.

The Importance of Regular Preventative Maintenance for Flat Roofing

Without preventative maintenance, it's easy for a small leak in a flat roof to become a significant, costly problem. Since many flat roofing systems are installed on commercial buildings, a leak can have significant financial consequences and result in damage to valuable stock, loss of inventory, roof collapse, or even legal exposure if an accident occurs.

Regular preventive inspections are essential for preserving the structural integrity of a flat roof. By ensuring that the materials, joints, and seams remain in optimal condition, you can protect the roof's performance and safeguard uninterrupted business operations.

For roofing industry professionals, providing leak detection maintenance equipment is a great way to expand your service offerings to your customers, build trust, and increase profits.

Common Types of Roof Leak Detection Methods

Roofing professionals can choose from a variety of leak detection methods, but some methods may have drawbacks for specific applications. Here's an overview of the most common leak detection techniques:

FLOOD OR SPRAY TESTING

This method involves temporarily flooding the roof with a few inches of water to check for leaks. While it can confirm the presence of leaks, it does not pinpoint its exact location. Additionally, it is costly, wasteful of water, and requires follow-up detection methods to locate leaks precisely. For insulated buildings, this method is particularly unsuitable, as it can result in undetected leaks that compromise the insulation without visible signs.

INFRARED SCANNING

Infrared scanning technology looks for leaks by identifying temperature differences across a roof's surface. While time-efficient and non-invasive, this method is easily impacted by weather conditions and requires a highly skilled operator. Again, confirming the presence of a leak, but not its exact location.

GAS/SMOKE DETECTION METHOD

Tracer gas is introduced into the insulation layer. It escapes through any damaged areas in the roof, where it can be detected by optical or acoustical devices.

IMPEDANCE SCANNING

Non-destructive impedance scanners survey roofing structures and measure the depth of any leaks, but not its exact point of entry. This method could be useful alongside other testing methods.

VISUAL INSPECTION

A visual inspection can identify cracks, punctures, and gaps in a roof, particularly around leak-prone areas like vents or HVAC units. However, small punctures may not be visible to the naked eye.

EMBEDDED SYSTEMS

Physical sensors can be integrated into the roofing assembly during construction, allowing real-time monitoring of the roof's integrity. However, this approach comes with a significant limitation: it requires a substantial upfront investment and cannot be retrofitted easily onto existing roofs.

DRY ELECTRONIC LEAK TESTING - THE HIGH VOLTAGE METHOD

In dry electronic leak detection, direct current voltage identifies pinholes with a spark and beeping sound. To successfully conduct the test, the roof surface must be completely free of moisture. This method is non-destructive and will locate the precise location of the fault.

WET ELECTRONIC LEAK TESTING - THE VECTOR MAPPING METHOD

This wet method uses a trace cable that is laid to create an electric field. A Generator unit is used to generate an electrical current within the water on the roof's surface. Leaks in the roof membrane allow water to flow through and contact earthed areas of the structure; completing an electrical circuit. The Detector unit uses two test probes to track the magnitude and direction of current flow to earth and enables the user to locate the precise location of the leak.

The Buckleys dry and wet electronic leak detection systems are able to pinpoint the precise location of the leaks, where many other methods are not. This comprehensive solution eliminates the need for any other leak detection method. If you're ready to provide this all-in-one solution to your clients, contact the team today!

Request a quotation

Electronic Roof Leak Detection Devices From Buckleys

Buckleys offers dry and wet electronic leak detector kits for use with non-conductive flat roofing membranes. Electronic methods - dry or wet - are **the most precise, reliable**, and **non-destructive** way to identify exact leak points. Whether you're proving a job was done right, locating faults in aging roofs, or performing routine inspections, these tools are an essential part of any modern maintenance kit Learn more about these solutions below.

DRY ROOF PRO2

Buckleys' Dry Roof Pro2 is a fast and effective way of electronically detecting leaks in a flat roof. It tests a wide range of non-conductive flat roof materials, covering up to 1000 m² per hour in ideal conditions. Not only is the Dry Roof Pro2 IP65-rated and durable enough for rigorous daily use, but it is also portable and compatible with a wide range of accessories to meet diverse testing requirements.

Watch this short demo video to learn how to set up and use the Dry Roof Pro2:

Watch video

DRY ROOF PRO2

The Dry Roof Pro2 features an intuitive design and easy-to-navigate, multi-color display.

Key product specifications include:

- **Output voltage range:** 0.9kV – 40kV
- **Recommended coating thickness range:** Up to 25.6mm
- **Meter accuracy:** <10kV: +/- 10V: >=10kV +/- 100V
- **Sensitivity threshold range:** 10µA - 450µA (factory-set to 200µA)
- **Battery type:** 4 x D-cell/LR20

Email us today to discover how adding the Dry Roof Pro2 to your portfolio can boost your business.

Find out more

WET ROOF PRO2

The Wet Roof Pro2 is designed for roof leak detection under wet conditions. It works by generating an electric current within the water on the roof. Any leaks will allow the water to flow through and contact earthed areas of the structure, completing an electrical circuit. The kit's detector unit and connected survey poles are used to identify leak locations.

WET ROOF PRO2

The three main components:

GENERATOR UNIT

The generator unit supplies current to the trace wire with positive output to the test area, while the negative output is connected to an earthed point of the structure. If a leak is present, electrical current will flow from the trace wire to the source of the leak.

DETECTOR UNIT

Worn around the operator's neck, the detector is connected to two survey poles used to probe the test area. The operator follows the detector unit to the location of the leak(s).

WET SPONGE ELECTRODE

Used to test painted surfaces, upstands, parapets and other areas where water runs off. The wet sponge electrode offers added leak detection capabilities to the Wet Roof Pro2.

Wet Roof Pro2 video

Wet Sponge video

WET ROOF PRO2

The Wet Roof Pro2 features easy-to-read graphics and a user-friendly interface.

Key product specifications include:

Generator – Wet Roof Mode

- **Output voltage:** 12-32V DC user adjustable
- **Output power:** <10 watts

Generator – Wet Sponge Mode

- **Output voltage:** 9-90V DC user adjustable with 5 presets
- **Alarm Threshold:** 100-1200mA user adjustable

Detector

- **24-bit ADC:** 7V Full-Scale Deflection

Book a demo

Grow Profits with Electronic Roof Leak Detection Equipment From Buckleys

Proactive roof leak detection equipment from Buckleys can introduce new valuable revenue streams for roofing professionals. With our versatile technology, you can help your customers maximise their roof's lifespan and identify or repair leaks before they become a major problem. We offer leak detection equipment that works seamlessly in both dry and wet conditions, without any risk of damage to the roof's membrane. Roof inspectors typically report seeing a full return on their investment within as little as 4 to 6 inspections. Buckleys' tools are trusted by roofing professionals across the world. Designed for use on non-conductive membranes like TPO, PVC, and asphalt-based systems, our tools help you identify issues with confidence.

If you believe this solution could benefit your customers – Let's talk!

Contact Us

Get Trained, Get Equipped, Get Confident

Whether you're in charge of a single facility or manage a roofing crew across multiple properties, Buckleys provides the tools and training to help you:

- Avoid unnecessary repairs
- Verify workmanship
- Build trust with clients or supervisors
- Document compliance for warranties and insurers

Why Maintenance Teams choose Buckleys Equipment

☑ Accurate results, no guesswork
☑ No membrane damage
☑ Fast inspections – cover large areas quickly
☑ Works on most flat roofing types
☑ ROI in as few as 4–6 inspections

Want to See It in Action?

Our team is happy to provide hands-on advice or arrange a demo.

Contact Us

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