

As featured in *the 2017*  
**QUEEN'S AWARDS**  
 for ENTERPRISE  
*magazine*



THE QUEEN'S AWARD  
 FOR ENTERPRISE IN  
 INNOVATION

## Isothermal Technology Ltd (ISOTECH)

**ISOTECH was founded by John Tavener in 1980; the company has since developed a range of precision temperature measurement and calibration products becoming a world leader in the field.**

Isotech was awarded its Queen's Award for the co-development of an innovative resistance bridge for use in the highest precision measurement applications and establishing and dissemination of the International Temperature Scale (ITS-90).

The product, called the microK, is now in use in the world's leading national metrology institutes (NMIs) alongside primary standards. Outside of NMIs the client base includes oceanography, aerospace, medicine and astrophysics.

### Innovation

The microK was rapidly accepted by the international metrology community and allows users to measure to a precision of 20 parts per billion (equivalent to 0.00002°C). One unique feature of the microK is that it is drift free in ratio measurement; in contrast the older technology requires periodic adjustment in order to maintain its specification. The world's leading laboratories have welcomed and are choosing the design over earlier instruments that used old technology and relied on obsolete components.

### Collaboration

Isotech cooperated with Paul Bramley at Metrosol Ltd to develop this new device. With Paul's unrivalled experience in thermometry bridges and contributions from the National Physical Laboratory and Metron Designs (John Pickering) the joint collaboration has resulted in this innovative and commercially successful thermometry bridge.

### Complete Temperature Solutions

Isotech also manufacture a full range of equipment for precision temperature measurement and calibration. The microK is used with Isotech primary temperature standards, fixed point cells and standard thermometers used internationally to establish the International Temperature Scale.

Outside of primary laboratories Isotech manufacture and supply equipment for accredited temperature laboratories, research laboratories, pharmaceuticals, and oil and gas companies allowing clients to calibrate a wide range of devices from -200°C to 1300°C.

For industrial calibration outside of laboratories there is a full range of calibration equipment that includes portable dry block calibrators, liquid baths, furnaces, infrared

calibrators and thermocouple referencing systems.

### Calibration Laboratory

Isotech operates an accredited laboratory (ISO/IEC 17025) with world leading uncertainties, better than many national measurement institutes. This not only ensures our customers receive the best possible calibration service but also helps maintain Isotech's position as a global leader in its field as the laboratories form the focal point of Isotech product research and development.

### Trust in Isotech

Isotech have been pioneering the latest developments in temperature metrology for more than 35 years and continue to develop the best temperature standards used by top calibration facilities – our clients range from sole traders to the largest national metrology institutes.

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### DID YOU KNOW?

Temperature is the second most widely measured parameter, the first being time.

### Temperature measurement is vital to:

- Protect human life
- Ensure quality
- Efficient operating
- Pharmaceutical manufacture
- Environmental science
- Facilitate global trade

### Isotech have temperature calibration solutions for:

- Primary temperature laboratories
- ISO 17025 accredited laboratories
- Industrial temperature sensor calibration
- Infrared thermometer calibration
- Thermocouple referencing



*microK is drift-free in ratio measurement in contrast to older technology.*



*Isotech is a global leader in its field.*

*Right: The microK allows users to measure to a precision of 20 parts per billion (equivalent to 0.00002°C).*