



# INSTRUMENTATION SERVICE AND CALIBRATION

## INTRODUCTION

Entec operates nationwide providing instrumentation and electrical project and service solutions, backed by our quality system which is accredited by IANZ against the standard ISO 17025. We focus on achieving compliance and assurance for our customers – getting you running and keeping you safe.

Our large team of instrumentation technicians, and dual-trade I&E technicians, deliver trouble-shooting, repair and preventative maintenance and calibrations on your site, or in our IANZ accredited calibration laboratory.

## WHY DOES INSTRUMENTATION REQUIRE CALIBRATION?

All instrumentation will develop measurement drift over time. This may be due to harsh process conditions, environmental factors such as temperature or vibration, wear and tear, or the inherent instability of the instrument's principle of measurement. When an instrument drifts it is no longer able to measure the process with the accuracy that it could when new.

All process critical instrumentation will require periodic calibration. The frequency of calibration should be determined by assessing the risk or consequences of a failed calibration.

The benefits of calibration are:

- Assurance of accuracy
- Traceability of measurement
- Compliance with regulatory conditions
- Compliance with quality assurance systems, and internal/external audits
- Improved process safety and efficiency
- Improved reliability of process measurement and control

## WHY CHOOSE ENTEC?

Entec's overall quality management system is accredited to ISO 9001, and Entec's specific testing and calibration quality management system is IANZ accredited against ISO 17025 – the global standard for the competence of testing and calibration laboratories. Entec's team is equipped with the correct analysers and calibrators in order to provide consistent and repeatable service and calibrations, and we are set up to work on your site and in our own workshops; whatever fits the need best. And crucially – Entec's instrument technicians operate under the umbrella of Entec's IANZ accreditation.

The key to delivering excellent I&E service is to have a questioning mind. If something's not working, our techs want to discover why it's not working. They are interested to look upstream and downstream in the process for clues or evidence. And then they'll come and talk to you to share their findings, so that you can collaboratively work on a solution.

## WHAT DOES IANZ ACCREDITATION MEAN?

IANZ stands for International Accreditation New Zealand. The IANZ stamp is an assurance that an organisation such as Entec has correct procedures in place, and that it passes regular compliance audits to show that it follows these procedures every time.

The IANZ audit covers the competence and experience of staff, the integrity and traceability of equipment and materials, the technical validity of methods and the validity and suitability of results. It boils down to this; an IANZ accreditation gives a customer confidence. Confidence that its service provider is following the correct processes, using appropriate equipment, and with the work conducted by suitably trained and competent people.

An IANZ accreditation adds traceability to a calibration. What does that mean? It means that the key aspects of the calibration which is performed are recorded and can be traced back to New Zealand and international standards; while referencing who performed the calibration, what test equipment was used, and the results of the calibration. This adds an extra layer of assurance in terms of the quality of the client's finished product.

Entec's IANZ accreditation encompasses the following service activities for pressure, temperature, and electrical measurement classes of equipment:

- Pipes, Hoses, Valves and Fittings: Pressure Range - 98 kPa to 65,900 kPa
- Pressure and Vacuum Measurement: Pressure Range -98 kPa to 65,900 kPa
- Temperature Measuring Equipment: Temperature Range -35°C to 550°C or -270°C to 1372°C by electrical simulation
- Temperature Controlled Enclosures: Temperature Range -35°C to 200°C
- Calibrators for Instruments: DC volts, AC volts, DC current, Resistance, Frequency.
- Indicating Instruments and Recording Instruments DC volts, AC volts, DC current, Resistance, Frequency.
- Signal Sources: DC volts, AC volts, DC current, Resistance, Frequency.

## KEY INDUSTRIES AND APPLICATIONS

- Food and beverage
- Dairy processing
- Chemical processing
- Pharmaceutical manufacture
- Oil, gas and petrochemical; upstream, midstream, downstream
- Storage silos and bulk storage facilities
- Heavy manufacturing
- Power generation
- Utilities and infrastructure
- Timber processing, pulp and paper

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