

Instrument Calibration Bench

CAPABILITY SHEET · OUTRANK IT; SIT BESIDE · A REFERENCE BETTER THAN THE INSTRUMENT AND PLACED BESIDE

THE ONE IDEA

PRINCIPLE	Outrank it; sit beside.
WHY IT MATTERS	A calibration is a comparison. The reference has to be several times better than the instrument it checks, and it has to sit beside the sensor, in the same zone, at the same depth and at the same height.

THE BENCH

FRAME AND WORKTOP	A rigid, level worktop at working height, with cable and tube routing that keeps the instrument and its reference together.
PRESSURE	A pressure controller or a hand pump, a reference gauge or transducer, and a manifold that puts both ports at the same height.
TEMPERATURE	A dry block or a stirred bath with interchangeable inserts, and a calibrated reference thermometer in the same zone as the sensor, at the same depth.
SIGNAL AND RECORD	A precision electrical source and measure with a stable loop supply, and software that waits for the settle and writes the as-found and as-left record.

THE METHOD

ORDER	Specify, size, build, calibrate, run and prove. Showing that the references outrank the instruments and sit where the sensors sit are what a quick order skips.
LIMITS	Temperatures, pressures, signals, times and ratios come from the method the customer names and from the instruments, and are not printed here.

CONFIGURATIONS

LOOP AND SIGNAL BENCH	A pressure source, a precision electrical source and measure and a stable loop supply, for gauges, transmitters, switches and current-loop instruments.
TEMPERATURE STATION	A dry block or a stirred bath with a reference thermometer, for resistance thermometers, thermocouples, temperature transmitters and controllers.
COMBINED BENCH	The loop and signal bench and the temperature station on one worktop, run from one test plan and written to one record.

STANDARDS & SCOPE

STANDARDS	Public references: ISO/IEC 17025 for calibration laboratories, IEC 60751 for platinum resistance thermometers, and ASTM E220 for thermocouples calibrated by comparison.
SCOPE BOUNDARY	It is the instrument calibration bench: not a pressure calibration bench, not a flow calibration rig and not a torque wrench calibrator.
STATUS	Neometrix engineers instrument calibration benches to order, and no delivered instrument calibration bench is claimed.

DEFENCE PROGRAMMES DESK

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