



Calibration Test Benches

Custom Liquid Flow Meter Verification Systems

A Lonetti calibration test bench is a complete closed-loop test rig for verifying liquid flow meters — turbine, positive-displacement, electromagnetic, ultrasonic, and Coriolis. The meter under test is plumbed into the loop; product flows from a reservoir, through the meter, into a certified reference standard, and back to the reservoir.

Each bench is engineered for the client's meter portfolio: flow range, pipe sizes, end connections, accuracy class, and supported meter types.

SPECIFICATIONS

Parameter	Value
Flow range	5 L/min – 1,200 L/min (custom on request)
Pipe sizes	DN15 – DN100 standard (½" – 4"); larger on spec
Reference standard	Lonetti prover tank · master meter · both
Reference accuracy	±0.05% – ±0.02% (configuration-dependent)
Pump	Variable-speed centrifugal or positive-displacement
Reservoir	200 L – 2,000 L (matched to flow range)
Control	PLC with HMI; data export via Modbus, OPC, or CSV
Instrumentation	PT100 RTDs, pressure transducers, density (optional)
Standards	OIML R117 · ISO 4185 · API MPMS
Configuration	Fixed workshop install · skid-mounted · container-mobile

KEY FEATURES

- **Closed-loop flow** — variable-speed pump, surge tank, return line; full recirculation, no product waste



- **Reference choice** — Lonetti prover tank (most accurate) or certified master meter (faster); both options supported
- **DN15 – DN100 standard** — half-inch to 4-inch pipe standard; larger sizes on request
- **Multi-meter support** — turbine, PD, electromagnetic, ultrasonic, and Coriolis with adapter spools
- **PLC control & instrumentation** — HMI, RTDs, pressure transducers, and data-logging output
- **Fixed or mobile** — workshop installation or container-mounted configuration for field meter shops

TYPICAL APPLICATIONS

- **Meter shop workshop** — permanent installation verifying multiple sizes per day
- **OEM production test** — end-of-line test rig for meter manufacturers
- **Field meter shop** — container-mounted mobile bench for service providers at distributed sites
- **Laboratory reference** — research or metrology institute bench with multiple master meters

CERTIFICATIONS & STANDARDS

OIML R117 · ISO 4185 · API MPMS · INTI

All reference standards ship with calibration certificates issued in coordination with INTI, traceable to international metrology references. PLC control system and instrumentation calibrated and documented at commissioning. Third-party inspection available on request.

OPTIONS & CUSTOMIZATION

- Flow range: 5 L/min–1,200 L/min standard; custom for higher or lower flows
- Pipe sizes: DN15–DN100 standard; larger on specification
- Reference: prover tank · master meter · dual reference
- Meter types: turbine · PD · electromagnetic · ultrasonic · Coriolis
- Configuration: fixed · skid-mounted · container-mobile
- Data output: Modbus · OPC · CSV · custom
- Fluid: water · petroleum · chemical (materials selected for fluid compatibility)

Request a quote: lonetti.com.ar/contact · info@lonetti.com.ar · WhatsApp +54 9 11 2788 4190

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