

Flow Calibration Rig

CAPABILITY SHEET · REFERENCE · METHOD · RECORD · ENGINEERED TO ORDER

THE ONE IDEA

PRINCIPLE	The reference for flow is a scale and a clock. A gravimetric rig collects the fluid, weighs it and times it.
WHY IT MATTERS	The meter is compared with mass and time, not with another meter, so the comparison rests on things that can be measured.

THE RIG

FLOW SOURCE	A pump and control valve that set and hold a steady flow, with pulsation damped.
WEIGHING	A weighing tank on a scale with load cells, and a diverter that swings the stream in and out on a signal.
TEST LINES	Straight pipe runs that hold the meters under test, bled of air, with a master meter for routine work.
RECORD	Data acquisition on one clock for flow, mass, time and temperature, one record for each meter.

THE METHOD

ORDER	Set up, settle, divert, collect, compare and record. A flow still settling and the diverter's delay are what a quick check skips.
LIMITS	Flow range, accuracy class and liquid are set against the customer's own meters at design review.

CONFIGURATIONS

MASTER-METER STAND	A reference meter in line beside the meter under test, sharing the flow.
GRAVIMETRIC RIG	A diverter, weighing tank, scale and clock, for the highest class of comparison.
COMBINED RIG	A weighing tank that proves its own master meters, so a site keeps a traceable reference.

STANDARDS & SCOPE

STANDARDS	ISO 4185 for measuring liquid flow in closed conduits by the weighing method; ISO/IEC 17025 for calibration laboratories.
SCOPE BOUNDARY	This rig calibrates a flow meter or flow sensor. It is not a component flow test bench, not a flow meter, and not a pressure calibration bench.
STATUS	Neometrix has quoted against successive flow calibration rig and flow test rig requirements, and no delivered flow calibration rig is claimed.

DEFENCE PROGRAMMES DESK

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Descriptions define the equipment class Neometrix engineers to order and are not a quotation. Meters, flow range, accuracy class and liquid are established against the customer's own requirements at design review. Liquid flow only; no laboratory accreditation is claimed. ISO 9001 / ISO 14001. © Neometrix Defence Limited.