

PITOT-STATIC TEST SET



Unlike the FAA, SACAA requires NTCA annual calibrated pitot static testing. The word calibrated turns a simple check into an expensive requirement for the aircraft owner and approved person.

Checking the calibration of an airspeed indicator might be accomplished using a water manometer, but it's a bit unwieldy out in the field. But it's the altimeter that's the real problem. You need an absolute local pressure reference. Yes, you could call the local ATC, if you are close enough and you can trust his readout. But you still need a big manometer rig.



Imported test sets are available, but today a new one will run at a couple of hundred thousand Rand.

So, we decided to employ two Kanardia Indu instruments to produce a more affordable test box. These electronic instruments have both analogue and digital readouts. A normal mechanical instrument can't be used for calibration, due to its inherent friction, hysteresis and lack of precision.

The analogue pointers of the Kanardia indicators are driven by smooth stepper motors. These help the user to reach a setpoint smoothly without overshoot, whilst the digital reading provides the required precision reading of airspeed or altitude.

The Indu altimeter has an integral rechargeable battery, and this supplies power to the Indu airspeed indicator via a CANBUS cable. This makes the test set totally portable. There is an integral mains charger. QNH/altitude offset and airspeed zero can be adjusted at annual calibration.

The test set is provided with altimeter and airspeed ports. Tubing and large and small syringes are provided for altimeter and airspeed simulation. Instructions to meet CATS tests are included.

Specifications:

Altitude calibrated range	-500 to 20 000 ft
QNH range	390 to 1080 hPa
Altitude resolution	10ft
Airspeed range	0 – 205Kt (analogue scale can be specified)
Airspeed resolution	1Kt
Battery operating time	Approximately 1 hr (level indicator on screen)
Case dimensions	330 x 210 x 112 mm.

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