ACCURATE
Metrology & Automation
Since 1984

DIAL CALIBRATION TESTER (DCT-100)

Description

CNC dial calibration tester is ideal for high volume calibration of inductive and incremental probes and long length, dial indicators, comparators, lever type dials, plunger type dials, digital dial indicators & bore gauges. It saves the inspection time by 80% as compared to manual dial calibration tester. CNC DCT is software controlled user-friendly machine having high resolution measuring system along with motorized drive for fast calibration.

Features

- Machine complies with Abbe's principle thus ensuring high accuracy
- Motorized measuring spindle drive for analog dial indicators with automation pre positioning Electronic handwheel for manual positioning of measuring spindle.
- Fully automatic calibration cycle for digital dials
- CNC-100 DCT can also be used horizontally for bore gauge (Stick Type) measurement
- Rigid and ergonomic design
- High accuracy optical scale encoder system with error compensation facility.
- User friendly software for easy operation and Capable of maintaining Gauge History of Calibration.

Technical Specification

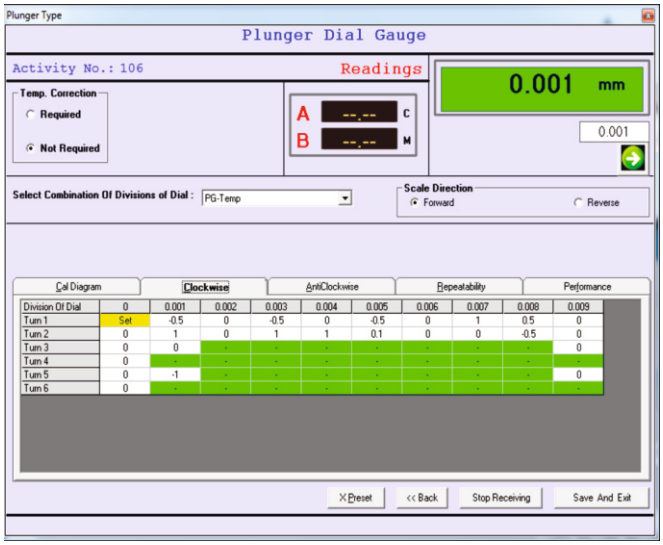
Measuring Range (mm)	100
Resolution mm	0.0001
Accuracy (at 20°C) (µm)	± (0.2 + L/200)
Drive Method	Electronic Motor
Measuring Unit	Numeric Jena Metallic Scale
Measurement	Semi Automatic / Fully
Speed	Max. 2 mm / s
Method	Automatic* / Fine Electonic Knob
Dimension	235 x 216 x 480 mm
Operating emperature (20°C)	20°C ± 0.5
Power Supply	110/230V/9V AC, 18 VA

Software : CNC DCT 100 V 1.0.0.

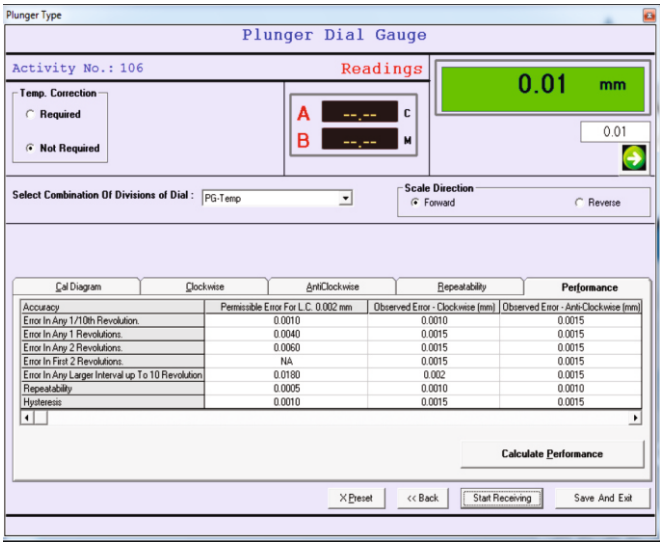
- For Lever Type Dial As Per IS 11498 : 1985
- For Plunger Type Dial As Per IS 2092 : 1983

Accessories

- Standard accessory for lever type dial, microkators with 28 mm dia stem and bore gauge calibration
- Holders for lever dial, digital dial and probes
- Analog and digital dial gauges.
- Faster by new technology easier to handle.



Measurement Screen for Clockwise Direction of Plunger Dial Gauge

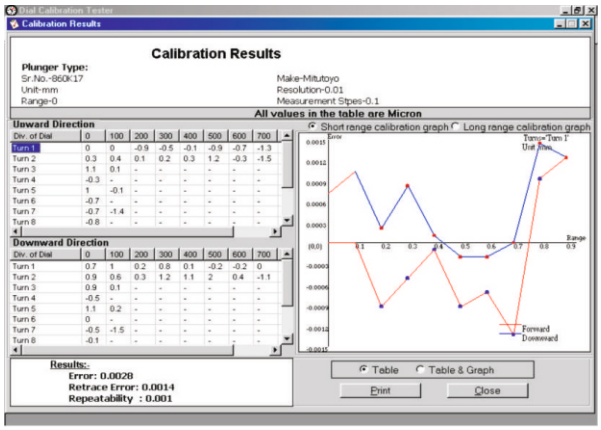


Parameter calculation as per IS: 2092-1983 of Measured Data for Plunger Dial Gauge

DIAL CALIBRATION TESTER

With Sylvac DRO & PROBE

CERTI.NO. CC- 2082



Features

- Precise and sensitve micrometer drum with non rotating anvil Robust construction with virtual stand for easy operation and clear visibility.
- Replaceable probe - No need of dedicated probe as a master Design based on Abbe's principle
- Direct comparative measurement for required accuracy
- Horizontally it accommodates the Lever Type Dials & Dial bore gauges (Stick Type) for calibration
- Used in two different combinations with Digital Dial Gauge with 0.001mm resolution for calibration of 0.01mm least count dial gauges.
- Digital Display Unit and Probe with 0.0001mm resolution for 0.001 and 0.002mm least count dial gauges.
- Inch resolutions dial gauges can also be checked
- RS 232 Port for interface with computer and Software for recording and evaluation
- The DG Cal software provides calibration results. Accessories such as clamp, magnifying lens and holders are provided.

Technical Specification

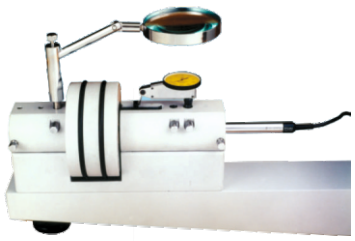
Features	Model DCT1	Model DCT2
Measuring System	Digital Display Unit & 10 mm to 25 mm Stroke Probe	Digital Dial
Calibration Range	0-25mm / 1"	0-25 mm / 1"
Repeatability	0.0003mm	0.001 mm
Displacement Error Over Full Range	0.0025mm	0.005 mm
Resolution	0.0001mm	0.001 mm

Features of DG Cal Software

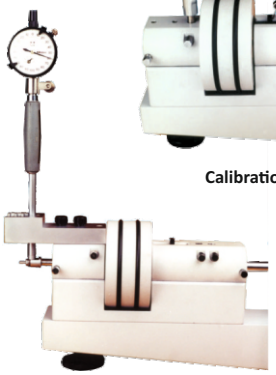
- Direct data acquisition to computer
- Windows based and user friendly softare
- Graphical presentaton of Dial Indicator errors in forward and backward directions.
- Software is capable of maintaining Gauge history
- Plunger type dial as per IS 2092 : 1983
- Lever type dial as per IS 11498 : 1985
- Hysteresis result

Application

- Calibraton of Plunger / Lever Type Dial of shank dia 8 mm
- Calibraton of Dial Bore Gauge (single point) up to 150 mm on std. accessories
- By using optional accessories bore gauge can be checked up to 450 mm
- Calibration of microkators



Calibration of lever type dial



Calibration of dial bore gauges

Calibration of Microkators

ACCURATE
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Since 1984

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Note : Due to continuous Improvements at our end, Specifications are subject to change without prior notice.