



CERTIFICATE OF ACCREDITATION

INSPATECH CALIBRATION LLP

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

J/PAP-158, J-BLOCK, PUNE, MAHARASHTRA, INDIA

in the field of

CALIBRATION

Certificate Number:

CC-3624

Issue Date:

06/07/2023

Valid Until:

05/07/2025

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity: INSPATECH Calibration LLP

Signed for and on behalf of NABL



N. Venkateswaran Chief Executive Officer





SCOPE OF ACCREDITATION

Laboratory Name :

INSPATECH CALIBRATION LLP, J/PAP-158, J-BLOCK, PUNE, MAHARASHTRA, INDIA

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|------|---|---|--|--|--|
| | | 20 | Permanent Facility | | |
| 1 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Angle Gauge / Angle Templet | Using VMM by Comparison Method | 0 to 90 degree | 2.5minute |
| 2 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Bevel Protector / Inclinometer (L.C.: 1 minute) | Using Angle Gauge Block Set by Comparison Method | 0 to 360 degree | 1.1minute |
| 3 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Caliper - Vernier / Dial / Electronic (L.C.: 0.01 mm & coarser) | Using Long Gauge Blocks by Comparison Method | 0 to 1000 mm | 14μm |
| 4 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Caliper - Vernier / Dial / Electronic (L.C.: 0.01 mm & coarser) | Using Long Gauge Block & Gauge Block Set by Comparison Method | 0 to 2000 mm | 22μm |





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| 5 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Caliper - Vernier / Dial / Electronic (L.C.: 0.01 mm & coarser) | Using Caliper Checker by Comparison Method | 0 to 600 mm | 12μm |
| 6 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Coating Thickness Gauge (L.C.: 0.0001 mm & coarser) | Using Thickness Foils by Comparison Method | 0 to 2 mm | 1.4μm |
| 7 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Combination Set / Angle Protractor (L.C.: 1 degree) | Using Angle Gauge Set & Comparison Method | 0 to 180 degree | 37minute |
| 8 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Comparator Stand (Flatness of Base) | Using Optical Flat by Comparison Method | Up to 100 mm | 1μm |
| 9 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Comparator Stand (Flatness of Base) | Using Electronic Probe by Comparison Method | Up to 300 mm x 300 mm | 2.2μm |





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|------|---|---|--|--|--|
| 10 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Cylindrical Setting Master (Concentricity) | Using Electronic Comparator & FCDM by Comparison Method | 3 mm to 100 mm | 1.4μm |
| 11 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Cylindrical Setting Master (Diameter) | Using Electronic Comparator by Comparison Method | 3 mm to 100 mm | 2μm |
| 12 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Depth Gauge - Vernier / Dial / Electronic (L.C.: 0.01 mm & coarser) | Using Gauge Block Set & Surface Plate by Comparison Method | 0 to 300 mm | 9.8μm |
| 13 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Depth Gauge - Vernier / Dial / Electronic (L.C.: 0.01 mm & coarser) | Using Long Gauge Block Set, Caliper Checker & Surface Plate by Comparison Method | 0 to 600 mm | 15μm |
| 14 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Depth Micrometer (L.C.: 0.001 mm & coarser) | Using Gauge Block Set & Surface Plate by Comparison Method | 0 to 300 mm | 8μm |





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| 15 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Dial Bore Gauge (for transmission mechanism) L.C. 0.001 mm & Coarser | Dial Calibration Tester, Master Plunger type Dial Gauge by Comparison method | 0 to 2 mm | 2.0um |
| 16 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Dial Comparator (L.C.: 0.0005 mm & coarser) | Using Gauge Blocks & Comparator Stand by Comparison Method | Up to ± 0.050 mm | 0.5μm |
| 17 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Dial Snap Gauge - Parallelism (L.C.: 0.001 mm & coarser) | Using Gauge Blocks by Comparison Method | 0 to 250 mm | 3.2μm |
| 18 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Dial Thickness Gauge (L.C.: 0.001 mm & coarser) | Using Gauge Block Set by Comparison Method | 0 to 25 mm | 1μm |
| 19 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Electronic Probe with Comparator Stand (L.C.: 0.0001 mm) | Using Gauge Block Set by Comparison Method | 0 to 25 mm | 0.4μm |





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| 20 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Engineers Square - Squareness | Using Granite Squareness by Comparison Method | 0 to 600 mm | 10.5μm |
| 21 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | External Micrometer (L.C.: 0.001 mm & coarser) | Using Micrometer Check Set by Comparison Method | 0 to 100 mm | 2μm |
| 22 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | External Micrometer (L.C.: 0.001 mm & coarser) | Using Micrometer Check Set & Long Gauge Block Set by Comparison Method | 100 mm to 300 mm | 4μm |
| 23 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | External Micrometer (L.C.: 0.001 mm & coarser) | Using Micrometer Check Set & Long Gauge Block by Comparison Method | 300 mm to 500 mm | 7μm |
| 24 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | External Micrometer (L.C.: 0.001 mm & coarser) | Using Micrometer Check Set & Long Gauge Set by Comparison Method | 500 mm to 1000 mm | 11.5μm |





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| 25 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Feeler Gauge | Using Electronic Comparator by Comparison Method | 0.01 mm to 2 mm | 0.7μm |
| 26 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Glass Angle Graticule (L.C.: 1 degree) | Using VMM by Comparison Method | 0 to 360 degree | 17second |
| 27 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Height Gauge - Vernier / Dial / Electronic (L.C.: 0.01 mm & coarser) | Using Long Gauge Blocks & Surface Plate by Comparison Method | 0 to 1000 mm | 15µm |
| 28 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Height Gauge - Vernier / Dial / Electronic (L.C.: 0.01 mm & coarser) | Using Caliper Checker & Surface Plate by Comparison Method | 0 to 600 mm | 13μm |
| 29 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Internal Micrometer (Extension Rods) | Gauge Block Set , Long Gauge Block, Comparator stand by Comparison method | 13 mm to 1000 mm | 8µm |





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| 30 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Internal Micrometer - Micrometer Head (L.C.: 0.001 mm & ccoarser) | Using Gauge Block Set, Long Gauge Block & Comparator Stand by Comparison Method | 50 mm to 100 mm | 3.5µm |
| 31 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Internal Micrometer - Micrometer Head (L.C.: 0.001 mm & coarser) | Using Gauge Block Set & Long Gauge Block & Comparator Stand by Comparison Method | 5 mm to 300 mm | 5.5μm |
| 32 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Lever Type Dial Gauge (L.C.: 0.001 mm & coarser) | Using Dial Calibration Tester by Comparison Method | 0 to 0.14 mm | 1.8µm |
| 33 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Lever Type Dial Gauge (L.C.: 0.002 mm & coarser) | Using Dial Calibration Tester by Comparison Method | 0 to 0.2 mm | 1.8µm |
| 34 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Lever Type Dial Gauge (L.C.: 0.01 mm & coarser) | Using Dial Calibration Tester by Comparison Method | 0 to 1.6 mm | 3.8µm |





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| 35 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Measuring Pins | Using Electronic Comparator & Gauge Block Set by Comparison Method | 0.1 mm to 20 mm | 0.6µm |
| 36 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Measuring Scale (L.C.: 0.5 mm & coarser) | Using Tape & Scale Calibrator by Comparison Method | 0 to 2000 mm | 116 x sqrt (L)μm (L in meter) |
| 37 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Measuring Tape / Pie Tape (L.C.: 1 mm & coarser) | Using Tape & Scale Calibrator by Comparision Method | 0 to 50 meter | 116 x sqrt (L)μm (L in meter) |
| 38 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Micrometer Setting Standard | Using Electronic Comparator & Gauge Block Set by Comparison Method | 100 mm to 300 mm | 2.8µm |
| 39 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Micrometer Setting Standard | Using Electronic Comparator & Long Gauge Block Set by Comparison Method | 300 mm to 500 mm | 4.5μm |





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| 40 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Micrometer Setting Standard | Using Electronic Comparator & Long Slip Gauge Set by Comparison Method | 500 mm to 1000 mm | 8μm |
| 41 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Micrometer Setting Standard | Using Electronic Comparator & Slip Gauge by Comparison Method | Up to 100 mm | 1.5μm |
| 42 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Parallel Thread Plug Gauge, Wear Check Plug Gauge - Diameter (Effective & Major) | Using Universal Length Measuring Machine by Comparison Method | 100 mm to 200 mm | 2.3μm |
| 43 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Parallel Thread Plug Gauge, Wear Check Plug Gauge - Diameter (Effective & Major) | Using Electronic Floating Carriage Diameter Measuring Machine by Comparison Method | 2 mm to 100 mm | 3.6µm |
| 44 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Parallel Thread Plug Gauge, Wear Check Plug Gauge - Diameter (Effective & Major) | Using Universal Length Measuring Machine by Comparison Method | 200 mm to 300 mm | 2.8µm |





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| 45 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Pistol Caliper (L.C.: 0.01 mm & Coarser) | Using Gauge Block Set by Comparison Method | 0 to 100 mm | 10μm |
| 46 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Plain Ring Gauge | Using ULM & Master Ring Gauge by Comparison Method | 1 mm to 100 mm | 1.5µm |
| 47 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Plain Ring Gauge | Using ULM & Master Ring Gauge by Comparison Method | 100 mm to 200 mm | 2μm |
| 48 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Plain Ring Gauge | Using ULM & Master Ring Gauge by Comparison Method | 200 mm to 300 mm | 2.8µm |
| 49 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Plug Gauge | Using Gauge Block Set & Electronic Comparator by Comparison Method | 1 mm to 100 mm | 1.5µm |





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| 50 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Plug Gauge | Using Gauge Block Set & Electronic Comparator by Comparison Method | 100 mm to 250 mm | 2.8µm |
| 51 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Plug Gauge | Using Long Gauge Block & Electronic Comparator by Comparison Method | 250 mm to 500 mm | 4μm |
| 52 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Plunger Type Dial Gauge (L.C.: 0.001 mm & coarser) | Using Dial Calibration Tester by Comparison Method | 0 to 25 mm | 2μm |
| 53 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Plunger Type Dial Gauge (L.C.: 0.001 mm & coarser) | Using Dial Calibration Tester by Comparison Method | 0 to 50 mm | 2.5μm |
| 54 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Radius Gauge | Using VMM by Comparison Method | 0.4 mm to 40 mm | 6.8μm |





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| 55 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Snap Gauge | Using Gauge Block Set by Comparison Method | 100 mm to 250 mm | 2.8µm |
| 56 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Snap Gauge | Using Gauge Block Set By Comparison Method | 2 mm to 100 mm | 1.4μm |
| 57 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Snap Gauge | Using Gauge Block Set & Long Gauge Block by Comparison Method | 250 mm to 500 mm | 3.8µm |
| 58 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Spline Plug Gauge | Using Electronic Floating Carriage Diameter Measuring Machine & Measuring Pin by Comparison Method | 5 mm to 100 mm | 3.7µm |
| 59 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Spline Ring Gauge | Using Gauge Block Set & Measuring Pin by Comparison Method | 10 mm to 100 mm | 1.8µm |





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| 60 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Surface Plate (Flatness) | Using Precision Spirit Level (0.01 mm/m) by Comparison Method | Up to 3000 mm x 3000 mm | 1.49 x sqrt {(L + W) / 125)}μm (L & W in mm) |
| 61 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Surface Roughness Master | Using Surface Roughness Tester by Comparison Method | Ra: up to 6 μm | 7% |
| 62 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Taper Scale (L.C.: 0.01 mm) | Using VMM by Comparison Method | 1 mm to 15 mm | 6.8µm |
| 63 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Taper Thread Plug Gauge | Using Universal Length Measuring Machine by Comparison Method | 100 mm to 200 mm | 3.5µm |
| 64 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Taper Thread Plug Gauge | Using Universal Length Measuring Machine by Comparison Method | 200 mm to 300 mm | 4.2μm |





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| 65 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Taper Thread Plug Gauge | Using Electronic Floating Carriage Diameter Measuring Machine by Comparison Method | 3 mm to 100 mm | 5.1μm |
| 66 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Test Seives (Aperture Size) | Using VMM by Comparison Method | 0.032 mm to 3.35 mm | 6.8µm |
| 67 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Test Seives (Aperture Size) | Using Digital Caliper by Comparison Method | 3.35 mm to 125 mm | 40μm |
| 68 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Thickness Foils | Using Electronic Comparator by Comparison Method | 0.005 mm to 2 mm | 0.7μm |
| 69 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Thread Pitch Gauge - Angular | Using VMM by Comparison Method | 55 Deg & 60 Deg | 2.5minute |





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| 70 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Thread Pitch Gauge - Linear | Using VMM by Comparison Method | 0.17 mm to 6.35 mm | 6.8µm |
| 71 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Thread Ring Gauge, Wear Check Ring Gauge (Effective Diameter) | Using ULM & Master Ring Gauge by Comparison Method | 100 mm to 200 mm | 2.1μm |
| 72 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Thread Ring Gauge, Wear Check Ring Gauge (Effective Diameter) | Using ULM & Master Ring Gauge by Comparison Method | 200 mm to 300 mm | 3.2µm |
| 73 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Thread Ring Gauge, Wear Check Ring Gauge (Effective Diameter) | Using ULM & Master Ring Gauge by Comparison Method | 3 mm to 100 mm | 1.5μm |
| 74 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | V-Block (Parallelism) | Using Straight Mandrel & Electronic Comparator by Comparison Method | Up to 200 mm | 8μm |





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|------|---|---|--|--|--|
| 75 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | V-Block (Squareness) | Using Granite L Square & Gauge Block Set by Comparison Method | Up to 200 mm | 11μm |
| 76 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | V-Block (Symmetricity) | Using Straight Mandrel & Electronic Comparator by Comparison Method | Up to 200 mm | 8μm |
| 77 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Weld Fillet, CAM Gauge, Industrial Gauge, Templet (Angle) | Using VMM by Comparison Method | 0 to 90 degree | 7.1minute |
| 78 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Weld Fillet, CAM Gauge, Industrial Gauge, Templet (Length & Radius) | Using VMM by Comparison Method | 0 to 100 mm | 6.8µm |
| 79 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Articulated Arm CMM - Articulated Location Error (Ldia.) | Using Test Sphere as per ISO 10360-12 by Comparison Method | Up to 30 mm | 4.2μm |





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|------|--|---|---|--|--|
| 80 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Articulated Arm CMM - Length Measurement (Error Unidirectional / Unidirectional - Euni / EBi) | Using Long Slip Gauge as per ISO 10360-12 by Direct Method | 0 to 2.5 meter | 3 + 3.8Lμm (L in meter) |
| 81 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Articulated Arm CMM - Probing Form Error (Pform) | Using Test Sphere as per ISO 10360-12 by Comparison Method | Up to 30 mm | 4μm |
| 82 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Articulated Arm CMM - Probing Size Error (Psize) | Using Test Sphere as per ISO 10360-12 by Comparison Method | Up to 30 mm | 1μm |
| 83 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Co-ordinate Measuring Machine (L.C.: 0.0001 mm & coarser) | Using Long Gauge Block Set & Reference Sphere by Comparison Method | Up to 1100 mm | 0.54 + L/210μm (L in mm) |
| 84 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Co-ordinate Measuring Machine (L.C.: 0.0001 mm & coarser) | Using Combination of Long Gauge Block Set & Reference Sphere by Comparison Method | Up to 2000 mm | 0.54 + L/240μm (L in mm) |
| 85 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Electronic Height Gauge - Linear (L.C.: 0.0001 mm & coarser) | Using Long Gauge Block Set by Comparison Method | 0 to 1000 mm | 8.3µm |





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|------|--|---|--|--|--|
| 86 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Electronic Height Gauge - Squareness (L.C.: 0.0001 mm & coarser) | Using Granite L Square by Comparison Method | 0 to 600 mm | 10.7μm |
| 87 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Profile Projector, Microscope - Magnification | Using Measuring Pin, Digital Caliper & Glass Scale by Comparison Method | 10 X to 1000 X | 0.1% |
| 88 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Profile Projector, Video Measuring Machine (L.C.: 1 second & coarser) | Using Angular Scale by Comparison Method | 0 to 360 degree | 20second |
| 89 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Profile Projector, Video Measuring Machine, Microscope (L.C.: 0.0001 mm & coarser) | Using Glass Scale by Comparison Method | 0 to 200 mm | 2.2μm |
| 90 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Profile Projector, Video Measuring Machine, Microscope (L.C.: 0.0001 mm & coarser) | Using Long Gauge Block Set by Comparison Method | 200 mm to 300 mm | 3.1µm |





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|------|---|---|---|--|--|
| | | 3.5 | Site Facility | | |
| 1 | MECHANICAL- DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.) | Surface Plate (Flatness) | Using Precision Spirit Level (0.01 mm/m) by Comparison Method | Up to 3000 mm x 3000 mm | 1.49 x sqrt {(L + W) / 125)}μm (L & W in mm) |
| 2 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Articulated Arm CMM - Articulated Location Error (Ldia.) | Using Test Sphere as per ISO 10360-12 by Comparison Method | Up to 30 mm | 4.2μm |
| 3 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Articulated Arm CMM - Length Measurement (Error Unidirectional / Unidirectional - Euni / EBi) | Using Long Slip Gauge as per ISO 10360-12 by Direct Method | 0 to 2.5 meter | 3 + 3.8Lμm (L in meter) |
| 4 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Articulated Arm CMM - Probing Form Error (Pform) | Using Test Sphere as per ISO 10360-12 by Comparison Method | Up to 30 mm | 4μm |
| 5 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Articulated Arm CMM - Probing Size Error (Psize) | Using Test Sphere as per ISO 10360-12 by Comparison Method | Up to 30 mm | 1μm |
| 6 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Co-ordinate Measuring Machine (L.C.: 0.0001 mm & coarser) | Using Long Gauge Block Set & Reference Sphere by Comparison Method | Up to 1100 mm | 0.54 + L/210μm (L in mm) |





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|------|--|---|---|--|--|
| 7 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Co-ordinate Measuring Machine (L.C.: 0.0001 mm & coarser) | Using Combination of Long Gauge Block Set & Reference Sphere by Comparison Method | Up to 2000 mm | 0.54 + L/240μm (L in mm) |
| 8 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Electronic Height Gauge - Linear (L.C.: 0.0001 mm & coarser) | Using Long Gauge Block Set by Comparison Method | 0 to 1000 mm | 8.3μm |
| 9 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Electronic Height Gauge - Squareness (L.C.: 0.0001 mm & coarser) | Using Granite L Square by Comparison Method | 0 to 600 mm | 10.7μm |
| 10 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Profile Projector, Microscope - Magnification | Using Measuring Pin, Digital Caliper & Glass Scale by Comparison Method | 10 X to 1000 X | 0.1% |
| 11 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Profile Projector, Video Measuring Machine (L.C.: 1 second & coarser) | Using Angular Scale by Comparison Method | 0 to 360 degree | 20second |
| 12 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Profile Projector, Video Measuring Machine, Microscope (L.C.: 0.0001 mm & coarser) | Using Glass Scale by Comparison Method | 0 to 200 mm | 2.2μm |





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|------|--|---|---|--|--|
| 13 | MECHANICAL- DIMENSION (PRECISION INSTRUMENTS) | Machine, Microscope | Using Long Gauge Block Set by Comparison Method | 200 mm to 300 mm | 3.1µm |

^{*} CMCs represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k = 2.

