

METROLOGY LAB SERVICES

Instruments:

| Sl. No. | Particulars | Specifications |
|---------|--|----------------------------------|
| B1 | Steel Tapes | Up to 5m |
| B1 | Steel Tapes | Above 5m (per every extra metre) |
| B2 | PI Tapes | Up to 2m Circ Length |
| B2 | PI Tapes | 2-3m Circ Length |
| B2 | PI Tapes | 3-4m Circ Length |
| B2 | PI Tapes | 4-5m Circ Length |
| B2 | PI Tapes | 5-6m Circ Length |
| B2 | PI Tapes | 6-7m Circ Length |
| B2 | PI Tapes | 7-8m Circ Length |
| B3 | Steel Scales | Up to 600mm |
| B3 | Steel Scales | 600-1000mm |
| B3 | Steel Scales | Above 1000mm (for every metre) |
| B4 | Vernier Calipers | 150mm |
| B4 | Vernier Calipers | 200mm |
| B4 | Vernier Calipers | 300mm |
| B4 | Vernier Calipers | 450mm |
| B4 | Vernier Calipers | 600mm |
| B4 | Vernier Calipers | 1000mm |
| B4 | Vernier Calipers | Above 1000mm (for every metre) |
| B5 | Dial Caliper Gauges | 10-35mm |
| B5 | Dial Caliper Gauges | 30-55mm |
| B5 | Dial Caliper Gauges | 50-75mm |
| B6 | Inside Dial Caliper | 10-35mm |
| B6 | Inside Dial Caliper | 30-55mm |
| B6 | Inside Dial Caliper | 50-75mm |
| B7 | Gear tooth Vernier | 0-150mm |
| B8 | Caliper for Groove Measurement | Dia 10-200mm |
| B9 | Pistol Type Caliper - External | |
| B9 | Pistol Type Caliper - Internal | |
| B10 | Caliper Checker/ Depth Micro Checker/ Inside Micro Checker | 150mm |
| B10 | Caliper Checker | 300mm |
| B10 | Caliper Checker | 450mm |
| B10 | Caliper Checker | 600mm |
| B10 | Caliper Checker | 1000mm |
| B10 | Caliper Checker | 1500mm |
| B11 | Check Master | 300mm |

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| B11 | Check Master | 450mm |
| B11 | Check Master | 600mm |
| B11 | Check Master | 1000mm |
| B11 | Check Master | 1500mm |
| B12 | Step Gauge | 420mm |
| B12 | Step Gauge | 620mm |
| B12 | Step Gauge | 1020mm |
| B12 | Step Gauge | 1520mm |
| B13 | Centrimeter | 0-300mm |
| B13 | Centrimeter | 0-600mm |
| B13 | Centrimeter | 0-1000mm |
| B14 | Micrometer Head | 0-25mm/ Res 0.01mm |
| B14 | Micrometer Head | 0-25mm/ Res 0.002mm |
| B14 | Micrometer Head | 0-25mm/ Res 0.001mm |
| B14 | Micrometer Head | 0-25mm/ Res 0.0002/ 0.0001mm |
| B14 | Micrometer Head | 0-50mm/ Res 0.001mm |
| B15 | Micrometer - External Res. 0.1 micron | Up to 50mm |
| B15 | Micrometer - External & Flange | Up to 150mm |
| B15 | Micrometer - External & Flange | 150-300mm |
| B15 | Micrometer - External & Flange | 300-500mm |
| B15 | Micrometer - External & Flange | 500-800mm |
| B15 | Micrometer - External & Flange | 800-1000mm |
| B15 | Micrometer - External & Flange | 1000-1200mm |
| B15 | Micrometer - External & Flange | 1200-1400mm |
| B15 | Micrometer - External & Flange | 1400mm Above (for every extra 25mm) |
| B16 | Stick Micrometer- Travel 12/ 25 mm | 50 - 300mm |
| B16 | Stick Micrometer- Travel 25 mm | 300-500mm |
| | Stick Micrometer- Travel 50 mm | |
| B16 | Stick Micrometer- Travel 25 mm | 500-1000mm |
| | Stick Micrometer- Travel 50 mm | |
| B16 | Stick Micrometer- Travel 25 mm | 1000-1500mm |

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| | Stick Micrometer- Travel 50 mm | |
| B16 | Stick Micrometer- Travel 25 mm | 1500-2000mm |
| | Stick Micrometer- Travel 50 mm | |
| B16 | Stick Micrometer- Travel 25 mm | 2000-3000mm |
| | Stick Micrometer- Travel 50 mm | |
| B17 | Floating Carriage Micrometer | up to 25 mm |
| B17 | Floating Carriage Micrometer | 25 - 50 mm |
| B18 | Bench Micrometer - Travel 25mm | |
| B18 | Bench Micrometer - Travel 50mm | |
| B19 | Indicating Snap Gauge (Passameter) | 25-150mm |
| B20 | Groove Micrometer | 0-25mm |
| B20 | Groove Micrometer | 25-50mm |
| B20 | Groove Micrometer | 50-75mm |
| B20 | Groove Micrometer | 75-100mm |
| B21 | Inside Micrometer (Jaw Type) | 5-30mm |
| B21 | Inside Micrometer (Jaw Type) | 25-50mm |
| B21 | Inside Micrometer (Jaw Type) | 50-75mm |
| B21 | Inside Micrometer (Jaw Type) | 75-100mm |
| B21 | Inside Micrometer (Jaw Type) | 100-150mm |
| B21 | Inside Micrometer (Jaw Type) | 150-200mm |
| B22 | V-Anvil Micrometer | 1-15mm |
| B22 | V-Anvil Micrometer | 10-25mm |
| B22 | V-Anvil Micrometer | 25-50mm |
| B23 | Thread Pitch Micrometer | Refer B15 |
| B23 | Thread Pitch Micrometer | |
| B23 | Thread Pitch Micrometer | |
| B24 | Laser Micrometer | |

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| B25 | Dial Gauges | 0-10mm - Res 0.01mm |
| B25 | Dial Gauges | 0-12.5mm - Res 0.01mm |
| B25 | Dial Gauges | 0-20mm - Res 0.01mm |
| B25 | Dial Gauges | 0-25mm - Res 0.01mm |
| B25 | Dial Gauges | 0-50mm - Res 0.01mm |
| B25 | Dial Gauges | 0-70mm - Res 0.01mm |
| B25 | Dial Gauges | 0-100mm - Res 0.01mm |
| B25 | Dial Gauges | 0-150mm - Res 0.01mm |
| B26 | Dial Gauges | 0-10mm - Res 2/ 1 μm |
| B26 | Dial Gauges | 0-12.5mm - Res 2/ 1 μm |
| B26 | Dial Gauges | 0-50mm- Res 2/ 1 μm |
| B26 | Dial Thickness Gauge | |
| B26 | | |
| B26 | Dial Gauge with Stand | 0-10 mm/ 1 μm |
| B27 | Electronic Dial Gauge | 10mm/ Res 1 $\square\text{m}$ |
| B27 | Electronic Dial Gauge | 25mm/ Res 1 $\square\text{m}$ |
| B27 | Electronic Dial Gauge | 50mm/ Res 1 $\square\text{m}$ |
| B27 | Electronic Dial Gauge | 15mm/ Res 0.1 $\square\text{m}$ |
| B27 | Extramess | Upto 10mm/ Res 1 $\square\text{m}$ |
| B27 | Extramess | Upto 10mm/ Res 0.5 $\square\text{m}$ |
| B27 | Extramess | Upto 10mm/ Res 0.2 $\square\text{m}$ |
| B27 | Extramess | Upto 10mm/ All Res |
| B28 | Lever Type Dial Indicator | Res 0.01 mm |
| B28 | Lever Type Dial Indicator | Res 2/ 1 $\square\text{m}$ |
| B29 | Microkators/ Mykators | Res 0.1 $\square\text{m}$ |
| B30 | Millimess | Res 1 $\square\text{m}$ |
| B31 | Supramess | Res 0.5 $\square\text{m}$ |
| B32 | Mech. Comparator - Sigma | |
| B33 | Elect. Comparator - TESA - With one Probe | |
| B33 | Elect. Comparator - TESA - Additional Probe | |

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| B34 | Dial Gauge Tester/ Calibrator | Res 1 mm / 25mm |
| B34 | Dial Gauge Tester/ Calibrator | Res 1 mm / 50mm |
| B34 | Dial Gauge Tester/ Calibrator | Res 0.2 mm / 25mm |
| B34 | Dial Gauge Tester/ Calibrator | Res 0.1 mm / 25mm |
| B34 | Dial Gauge Tester/ Calibrator | Res 0.1 mm / 50mm |
| B35 | Unimaster | Indicator Unit |
| B35 | Unimaster | Setting Gauge |
| B35 | Unimaster - Length Element | Up to 500mm |
| B35 | Unimaster - Length Element | 501-1000mm |
| B35 | Unimaster - Length Element | 1001-1500mm |
| B35 | Unimaster - Length Element | 1501-2000mm |
| B35 | Unimaster - Length Element | 2001-2700mm |
| B36 | Test Sieves | |
| B37 | Dial Bore Gauge Set | Up to 150mm |
| B37 | Dial Bore Gauge Set | 151-400mm |
| B37 | Dial Bore Gauge Set | 401-800mm |
| B38 | Depth Gauge/ Depth Vernier | 0-200mm |
| B38 | Depth Gauge/ Depth Vernier | 0-300mm |
| B38 | Depth Gauge/ Depth Vernier | 0-600mm |
| B38 | Depth Gauge/ Depth Vernier | 0-1000mm |
| B39 | Depth Micrometer | 0-25mm |
| B39 | Depth Micrometer | 0-50mm |
| B40 | Height gauge - Mechanical | 0-300mm |
| B40 | Height gauge - Mechanical | 0-450mm |
| B40 | Height gauge - Mechanical | 0-600mm |
| B40 | Height gauge - Mechanical | 0-700mm |
| B40 | Height gauge - Mechanical | 0-1000mm |
| B40 | Height gauge - Mechanical | 0-1500mm |

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| B40 | Height gauge - Mechanical | 0-2000mm |
| B41 | Height gauge - Electronic | 0-300mm Res 10/ 1/ 0.1 micron |
| B41 | Height gauge - Electronic Res 10/ 1/ 0.1 □□□□□□ | 0-600mm |
| B41 | Height gauge - Electronic Res 10/ 1/ 0.1 □□□□□□ | 0-850mm |
| B41 | Height gauge - Electronic Res 10/ 1/ 0.1 micron | 0-1000mm |
| B41 | Height gauge - Electronic Res 10/ 1/ 0.1 □□□□□□ | 0-1300mm |
| B41 | Height gauge - Electronic Res 10/ 1/ 0.1 □□□□□□ | 0-1500mm |
| B41 | Height gauge - Electronic Res 10/ 1/ 0.1 □□□□□□ | 0-2000mm |
| B42 | Setting Master for Electronic Height Gauge | |
| B43 | Height Master | 5-310mm |
| B43 | Height Master | 5-450mm |
| B43 | Height Master | 5-610mm |
| B43 | Height Master | 5-1000mm |
| B44 | Bevel Protractor | Res. 1 arc min |
| B44 | Bevel Protractor | Res. 10 arc sec |
| B45 | Combination Set | 12 in |
| B45 | Combination Set | 24 in |
| B46 | Protractor | |
| B47 | Optical Dividing Head | Res 1 arc sec |
| B47 | Optical Dividing Head | Res 30 arc sec |
| B48 | Rotary table | Res 1 arc sec |
| B48 | Rotary table | Res 30 arc sec |
| B49 | Spirit Level | 0.03mm/m & above |
| B49 | Spirit Level | 0.02mm/m |
| B49 | Spirit Level | 0.01mm/m |
| B50 | Frame Level | 0.03mm/m & above |

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| B50 | Frame Level | 0.02mm/m |
| B50 | Frame Level | 0.01mm/m |
| B50 | L- Type Frame Level | 0.03mm/m & above |
| B50 | L- Type Frame Level | 0.02mm/m |
| B50 | L- Type Frame Level | 0.01mm/m |
| B51 | Coincidence Level | |
| B52 | Electronic Level | One Sensing Head |
| B52 | Electronic Level | Additional Sensing Head |
| B53 | Autocollimator/ Angle Dekkor | Res 1 arc sec |
| B53 | Autocollimator/ Angle Dekkor | Res 0.5 arc sec |
| B53 | Autocollimator/ Angle Dekkor | Res 0.2 arc sec |
| B53 | Autocollimator/ Angle Dekkor | Res 0.1 arc sec |
| B54 | Polygon Mirror | 6 sided |
| B54 | Polygon Mirror | 8 sided |
| B54 | Polygon Mirror | 12 sided |
| B55 | Optical Square/ Penta Prism | |
| B56 | Clinometer | 1min |
| B56 | Clinometer | 10 arc sec |
| B56 | Clinometer | 1 arc sec |
| B56 | Inclinometer | |
| B57 | Extensometer - Electronic | as per IS12872 |
| | | as per ASTM E 83 |
| B58 | Extensometer - Mechanical | Single Dial |
| | | Double Dial |

Standards/ Masters:

| Sl. No. | Particulars | Specifications | Scope of Calibration |
|----------------|--|--|--|
| C1 | Slip gauges | Up to 100mm Metric/ Inch Grade I & II | Central length, Variation in Length |
| C1 | Slip gauges | Up to 100mm Metric/ Inch Grade 0 & 00/ K | Central length, Variation in Length |
| | | | By Interferometry Method |
| C1 | 11 Gauge Block set for Comparator | | By Interferometry Method |
| C1 | Length Bars | up to 100 mm | Central Length/ Variation in Length |
| C1 | Slip gauges Long/ Length Bars | 125-500mm | Central Length/ Variation in Length |
| | | 125-300 | By Interferometry Method |
| C1 | Slip gauges Long/ Length Bars | 501-1000mm | Central Length/ Variation in Length |
| C2 | Angle Gauge Blocks - Gauge Blocks | | Angle |
| C2 | Angle Gauge Blocks - True Square | | Angle |
| C3 | Roundness Master - Steel | | Roundness |
| C3 | Roundness Master - Glass Hemisphere | | Roundness |
| C4 | Flick Standard/ Magnification Standard | | |
| C5 | Master Cylinder / Cylindrical Square | up to 300mm | |
| C5 | Master Cylinder / Cylindrical Square | 301-450mm | |
| C6 | Surface Roughness Master | | SR Parameter per Parameter |
| C6 | Surface Roughness Master | | Groove Depth |
| C7 | Surface Roughness Specimen | | SR Parameter per Parameter |
| C8 | Spherical Master for CMM | | Dim + Circularity |
| C9 | Cubical master for CMM | | Dim on 3 Pairs of faces |
| C10 | Master Steel Balls | up to 100mm | Dim only |

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|-----|--------------------------------|----------------------|--|
| C11 | Master Steel Balls | up to 100mm | Dim + Circularity |
| C12 | Master Gears - Spur | | Profile, Alignment, Pitch, Runout, Base Tangent Length |
| C13 | Master Gears - Helical | | Profile, Alignment, Pitch, Runout, Base Tangent Length |
| C14 | Involute & Lead Master | per parameter/ tooth | |
| C15 | Master Base Circle Disc | up to 100mm | Dim (ID & OD), Roundness & Concentricity |
| C15 | Master Base Circle Disc | 101-200mm | Dim (ID & OD), Roundness & Concentricity |
| C16 | Glass Scales/ Stage Micrometer | 0-1mm/ Res 0.01 mm | |
| C16 | Glass Scales/ Stage Micrometer | 0-5mm/ Res 0.01 mm | |
| C16 | Glass Scales | 0-10mm/ Res 0.1 mm | |
| C16 | Glass Scales | 0-20mm/ Res 0.1 mm | |
| C16 | Glass Scales | 0-20mm/ Res 1 mm | |
| C16 | Glass Scales | 50mm/ Res 1 mm | |
| C16 | Glass Scales | 50mm/ Res 0.5 mm | |
| C16 | Glass Scales | 50mm/ Res 0.1 mm | |
| C16 | Glass Scales | 100mm/ Res 1 mm | |
| C16 | Glass Scales | 100mm/ Res 0.5 mm | |
| C16 | Glass Scales | 100mm/ Res 0.1 mm | |
| C16 | Glass Scales | 150mm/ Res 1 mm | |
| C16 | Glass Scales | 150mm/ Res 0.5 mm | |
| C16 | Glass Scales | 150mm/ Res 0.1 mm | |
| C16 | Glass Scales | 200mm/ Res 1 mm | |
| C16 | Glass Scales | 200mm/ Res 0.5 mm | |
| C16 | Glass Scales | 200mm/ Res 0.1 mm | |
| C16 | Glass Scales | 300mm/ Res 1 mm | |
| C16 | Glass Scales | 300mm/ Res 0.5 mm | |
| C16 | Glass Scales | 300mm/ Res 0.1 mm | |
| C16 | Glass Scales | 400mm/ Res 1 mm | |

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| C16 | Glass Scales | 400mm/ Res 0.5 mm | |
| C16 | Glass Scales | 400mm/ Res 0.1 mm | |
| C16 | Glass Scales | 500mm/ Res 1 mm | |
| C16 | Glass Scales | 500mm/ Res 0.5 mm | |
| C16 | Glass Scales | 500mm/ Res 0.1 mm | |
| C16 | Glass Scales | 600mm/ Res 1 mm | |
| C16 | Glass Scales | 600mm/ Res 0.5 mm | |
| C16 | Glass Scales | 600mm/ Res 0.1 mm | |
| C17 | Glass Grid | 5x5 mm | |
| C17 | Glass Grid | 10x10mm | |
| C17 | Glass Grid | 100x100mm | |
| C17 | Glass Grid | 300x300mm | |
| C17 | Angular Graticule | | 0-90 degree / 1degree |
| C17 | Angular Graticule | | 0-90 degree / 5degree |
| C17 | Angular Graticule | | 0-180 degree / 1degree |
| C17 | Angular Graticule | | 0-180 degree / 5degree |
| C17 | Angular Graticule | | 0-360 degree / 1degree |
| C17 | Angular Graticule | | 0-360 degree / 1min |
| C18 | Radius Standard | | Radius only |
| C18 | Radius Standard | | Radius, Circularity & Surface Finish |
| C18 | Radius Standard | | Radius, Circularity, Surface Finish & Step Height |
| C18 | Radius Standard | | Radius, Circularity, Surface Finish, Step Height, 3 step Flatness |
| C18 | Radius Standard | | Radius, Circularity, Surface Finish, Step Height & Roller dimn |
| C18 | Contour/ Contracer Master | | Radius, Step Height, Pitch, Angle etc |
| C19 | Thickness Standards/ Coating Thickness (Plastic Foils) | | |
| C20 | Standards Wire Gauge Plate | | |
| C21 | Optical Flats | Up to 50mm dia - per face | |
| C21 | Optical Flats | 51-100mm dia - per face | |
| C21 | Optical Flats | 101-150mm dia - per face | |
| C21 | Optical Flats | 151-200mm dia - per face | |

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| C21 | Optical Flats | 201-250mm dia - per face | |
| C21 | Optical Flats | 251-300mm dia - per face | |
| C21 | Optical Flats | 301-350mm dia - per face | |
| C22 | Optical Parallels | Set of 4 or 3 Nos. | |
| C22 | Optical Parallels | Set of 2 Nos. | |
| C22 | Optical Parallels | 1 No. | |

Measuring Aids:

| Sl. No. | Particulars | Specifications | Scope of Calibration |
|---------|---|--|------------------------------------|
| D1 | Straight Edge | Up to 400mm | Straightness |
| D1 | Straight Edge | Above 400mm (for every 100mm length) | Straightness |
| D1 | Parallel | Up to 400mm | Straightness & Parallelism |
| D1 | Parallel | Above 400mm (for every 100mm length) | Straightness & Parallelism |
| D2 | Surface Plates | 400x400mm | Flatness |
| D2 | Surface Plates | 400x630mm | Flatness |
| D2 | Surface Plates | 630x630mm | Flatness |
| D2 | Surface Plates | 630x1000mm | Flatness |
| D2 | Surface Plates | 1000x1000mm | Flatness |
| D2 | Surface Plates | 1000x1600mm | Flatness |
| D2 | Surface Plates | 1200x1800mm | Flatness |
| D2 | Surface Plates | 2000x1000mm | Flatness |
| D2 | Surface Plates | 2000x1500mm | Flatness |
| D2 | Surface Plates | 2000x2000mm | Flatness |
| D2 | Surface Plates | Above 2000mm | Flatness |
| D3 | Granite Square (L) | 150x150mm | Flatness & Squareness |
| D3 | Granite Square (L) | 300x300mm | Flatness & Squareness |
| D3 | Granite Square (L) | 500x500mm | Flatness & Squareness |
| D3 | Granite Square (L) | 650x200mm | Flatness & Squareness |
| D3 | Granite Square (L) | 650x300mm | Flatness & Squareness |
| D3 | Granite Square (L) | 650x400mm | Flatness & Squareness |
| D3 | Granite Square (L) | 800x800mm | Flatness & Squareness |
| D3 | Granite Square (L) | 1000x1000mm | Flatness & Squareness |
| D3 | Granite Column (Square / Rectangular) | 150x150mm | Flatness, Parallelism & Squareness |

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| D3 | Granite Column (Square / Rectangular) | 300x300mm | Flatness, Parallelism & Squareness |
| D3 | Granite Column (Square / Rectangular) | 500x500mm | Flatness, Parallelism & Squareness |
| D3 | Granite Column (Square / Rectangular) | 800x800mm | Flatness, Parallelism & Squareness |
| D3 | Granite Column (Square / Rectangular) | 1000x1000mm | Flatness, Parallelism & Squareness |
| D4 | Granite Cube | 150x150mm | Flatness, Parallelism & Squareness |
| D4 | Granite Cube | 300x300mm | Flatness, Parallelism & Squareness |
| D4 | Granite Cube | 500x500mm | Flatness, Parallelism & Squareness |
| D4 | Granite Cube | 800x800mm | Flatness, Parallelism & Squareness |
| D4 | Granite Cube | 1000x1000mm | Flatness, Parallelism & Squareness |
| D5 | Angle Plates | Up to 300x300x500mm | |
| D5 | Angle Plates | Up to 600x400x450mm | |
| D5 | Angle Plates | Up to 750x600x450mm | |
| D6 | Box Angle Plates | Up to 350x200x250mm | Flatness & Squareness & Parallelity |
| D6 | Box Angle Plates | Up to 450x350x300mm | Flatness & Squareness & Parallelity |
| D7 | Try Square - Up to | 150x150mm | |
| D7 | Try Square - Up to | 300x150mm | |
| D7 | Try Square - Up to | 500x150mm | |
| D7 | Try Square - Up to | 500x500mm | |
| D7 | Try Square - Up to | 600x300mm | |
| D7 | Try Square - Up to | 600x400mm | |
| D8 | Test mandrel - Straight | Up to 300mm | Circularity, Cylindricity, Run Out & Straightness (By Conventional Methods) |
| D8 | Test mandrel - Straight | 301-600mm | |
| D8 | Test mandrel - Straight | 601-800mm | |
| D8 | Test mandrel - Straight | 801-1000mm | |
| D9 | Test mandrel - Taper | | Taper & Runout |
| D9 | Test mandrel - Taper | | Circularity, Cylindricity& Straightness |

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|-----|------------------------------------|----------------|---|
| D9 | Test mandrel - Taper | | Surface Finish |
| D10 | Cylindrical Rollers | Up to 10mm dia | Dimension |
| D10 | Cylindrical Rollers | Above 10mm dia | Dimension |
| D11 | Prisms | | Angle |
| D12 | Sine Bar | Up to 300mm | Calibration |
| D13 | Sine Centre | 300mm | |
| D13 | Sine Centre | 500mm | |
| D14 | Sine Table | 300x300mm | |
| D15 | Sine table-Compound | 300x300mm | |
| D16 | Steel Balls | | Dim 1µm res |
| D17 | Thread Measuring Wire/ Cyl/ Pin | | Diameter |
| D17 | T Probe | | Diameter @ two ends |
| D18 | V - Block | | |
| D19 | Comparator Stand/ Heavy Base Stand | | Flatness & Perpendicularity of Bore to Base |
| D19 | Comparator Stand/ Heavy Base Stand | | Carbide Jaws |
| D20 | Bench Centre | | Parallelity of Axis to Base & Co-axiality of Axes |

Machine Elements & Cutting Tools:

| Sl. No. | Particulars | Specs | Scope |
|---------|--------------------------------|-----------------|---|
| E1 | Ball & Thrust Bearings | Up to 100mm dia | ID, OD, Width, Clearance, Run Out of OD w.r.t ID |
| E1 | Ball & Thrust Bearings | Above 100mm dia | ID, OD, Width, Clearance, Run Out of OD w.r.t ID |
| E1 | Ball & Thrust Bearings | Surface Finish | On OD & ID |
| E2 | Taper Roller Bearings | Up to 100mm dia | ID, OD, Width, Clearance, Taper, Run Out of OD w.r.t ID |
| E2 | Taper Roller Bearings | Above 100mm dia | ID, OD, Width, Clearance, Taper, Run Out of OD w.r.t ID |
| E2 | Taper Roller Bearings | Surface Finish | On OD & ID |
| E3 | Spur/ Helical Gears - External | Up to 200mm dia | Profile |
| E3 | Spur/ Helical Gears - External | Up to 200mm dia | Tooth Alignment/ Helix Angle |
| E3 | Spur/ Helical Gears - External | Up to 200mm dia | Pitch/ Run Out |
| E3 | Spur/ Helical Gears - External | Up to 200mm dia | All Above Parameters + BTL + Base Pitch |

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|-----|------------------------------------|--|--|
| E3 | Spur/ Helical Gears - External | Up to 200mm dia | Surface Finish on Gear Teeth |
| E4 | Spur/ Helical Gears - External | 200-500mm dia | Profile |
| E4 | Spur/ Helical Gears - External | 200-500mm dia | Tooth Alignment/ Helix Angle |
| E4 | Spur/ Helical Gears - External | 200-500mm dia | Pitch/ Run Out |
| E4 | Spur/ Helical Gears - External | 200-500mm dia | All Above Parameters + BTL + Base Pitch |
| E4 | Spur/ Helical Gears - External | 200-500mm dia | Surface Finish on Gear Teeth |
| E5 | Spur/ Helical Gears - External | Above 500mm dia | Profile |
| E5 | Spur/ Helical Gears - External | Above 500mm dia | Tooth Alignment/ Helix Angle |
| E5 | Spur/ Helical Gears - External | Above 500mm dia | Pitch/ Run Out |
| E5 | Spur/ Helical Gears - External | Above 500mm dia | All Above Parameters + BTL + Base Pitch |
| E5 | Spur/ Helical Gears - External | Above 500mm dia | Surface Finish on Gear Teeth |
| E6 | Spur/ Helical Gears - Internal | Up to 200mm dia | Profile & Alignment |
| E7 | Spur/ Helical Gears - Internal | 200-500mm dia | Profile & Alignment |
| E8 | Spur/ Helical Gears - Internal | Above 500mm dia | Profile & Alignment |
| E9 | Spur Gears-Unknown Parameters | Up to 200mm dia | All Above Parameters |
| E9 | Spur Gears-Unknown Parameters | 200-500mm dia | All Above Parameters |
| E10 | Helical Gears - Unknown Parameters | Up to 200mm dia | All Above Parameters |
| E10 | Helical Gears - Unknown Parameters | 200-500mm dia | All Above Parameters |
| E11 | Worm Wheel | Up to 200mm dia | Pitch, Run Out Tooth Depth & Profile |
| E12 | Worm Wheel | 200-500mm dia | Pitch, Run Out Tooth Depth |
| E13 | Worm Wheel | Above 500mm dia | Pitch Error, Run Out & Tooth Depth |
| E14 | Lead Screw | Up to 300mm Long | Pitch , Cumulative Pitch ,Profile, Dim Over Roller |
| E14 | Lead Screw | Above 300mm Long (for every 100 mm extra length) | Pitch , Cumulative Pitch ,Profile, Dim Over Roller |
| E15 | HOBS (Standard) | | All Parameters |

Hourly rate for Equipment:

| Sl. No. | Machine/ Equipment |
|----------------|---|
| F1 | Autocollimator and Accessories DA 400 Elcomat 3000/ 2000 |
| F2 | Alignment Telescope |
| F3 | Co-ordinate Measuring Machine - Zeiss UPMC 850 |
| F4 | Digital Height Gauge |
| F5 | Electronic & Digital Levels |
| F6 | Gauge Measuring Centre -DMS 680 |
| F7 | Gear Testing Machine - Klingelnberg PFSU 640 |
| F8 | Metroscope |
| F9 | Unimaster (Large diameter Measuring Instrument) |
| F10 | Length Measuring Machine - Hilger- Watts |
| F11 | Rotary Table - Moore |
| F12 | Index Table - Moore 1440 |
| F13 | Profile Projector - Nikon/ Video Measuring System |
| F14 | Precision Sine Table |
| F15 | Roundness Measuring Machine Talyrond 585 H/ 290 Talyrond 2 |
| F16 | Surface Roughness Tester - Form Talysurf PGI 1500 S/ Series 2 Perthen S8P Surtronic (Portable) |
| F17 | Universal Measuring Microscope |
| F18 | Vertical Metroscope |
| F19 | General Instruments |
| F20 | Gauge Block Comparator, Federal |
| F20 | Portable Arm CMM |

Metrology – Software:

| Sl. No. | Machine/ Equipment |
|---------|---------------------------------------|
| G1 | Flatness Software |
| | New Software |
| | Up-gradation for after 2004 software |
| | Up-gradation for before 2004 software |

Parameter wise Inspection Charges:

| Sl. No. | Particulars | Specs | Scope |
|---------|--------------------------|-------|--|
| H1 | Roughness | - | Per section/ measurement |
| H2 | Roundness | - | Per section/ measurement |
| H3 | Roundness & Cylindricity | - | Per section/ measurement for length up to 150 mm |
| H3 | Roundness & Cylindricity | - | Per section/ measurement for length up to 450 mm |
| H4 | Roundness & Runout | - | Per section/ measurement |

Miscellaneous Items:

| Sl. No. | Particulars | Specs | Scope |
|---------|-------------------------|----------|-----------------------|
| I 1 | Milk Can with Lid | | Parameters: As per IS |
| I 2 | Lid | | Parameters: As per IS |
| I 3 | Milk Can with Handle | | Parameters: As per IS |
| I 4 | Milk Can | | Parameters: As per IS |
| I 5 | Angular Encoder | | |
| I 6 | Theodolite (Universal) | | |
| I 7 | Gauge Block Accessories | | Set |
| I 8 | Rint Master (TKAP) | | |
| I 9 | Lever Arm | ± 100 mm | Length/ Distance |
| | | ± 200 mm | Length/ Distance |
| | | ± 300 mm | Length/ Distance |

| | | | |
|------|----------------|-------------|---|
| | | ± 500 mm | Length/ Distance |
| | | ± 1000 mm | Length/ Distance |
| I10 | Internal Audit | Local | Part of the Day Local Travel has to be arranged by the customer/ at actuals |
| I 10 | | | Per Day Local Travel has to be arranged by the customer/ at actuals |
| | | Out Station | Per Day Travel (Air/Train/Road & Local) has to be arranged by the customer/ at actuals |