

**MPE**



# MICROREP PRECISION (M) SDN. BHD.

## To Provide the Best Value for Money Calibration Services

Let our specialists solve your problem now; our MS ISO/IEC 17025 accredited scopes covered the following fields:  
(Please see *SAMM No. 282* for details)

**M**icrorep  
**C**alibration  
**L**aboratory

**2019/2020**

*Calibration fields:-*

**Dimension, Temperature,  
Pressure, Mass, Torque,  
Hardness, Time & Frequency**

A leading national provider of calibration and measurement services, Microrep Calibration Laboratory offers specialized width of capabilities that are essential to major corporations.

Calibration  
Capabilities



**MICROREP**  
*Calibration & Measurement*

*New* sign denotes our new capabilities and services

*LET THE GAUGE SPECIALIST CALIBRATE YOUR GAUGES, CALL US NOW...*

Call 03-777 33 668

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### Our NEW facilities: Vision Metrology Systems



**Mitutoyo's** CNC CMM, CRYSTA-Apex S 7106, an innovative machine structure, providing high motion stability, high accuracy.

Measuring Range: 700mm (X), 1000mm (Y), 600mm (Z)

Accuracy:

E0, MPE =  $(2.2 + 3L/1000) \mu\text{m}$

E150, MPE =  $(2.7 + 3L/1000) \mu\text{m}$

The **Starrett** AVR CNC automatic *vision metrology systems* AVR 300 (Range: X:300mm; Y:200mm, Z:200mm) are ideal for repetitive measurements and automatic comparison. They are available with dedicated zoom optics or a quick-change bayonet lens mount which accepts a choice of telecentric lenses for micron-level resolution and optical distortion down to 0.001% for accurate field-of-view (FOV) measurements.

Accuracy:

$2.5\mu\text{m} + 5L/1000$  for X and Y

$3.5\mu\text{m} + 5L/1000$  for Z



### NOW! We provide Metrology Services

MICROREP PRECISION has experienced personnel and a wide variety of the latest equipment to meet your metrology needs. We offer measuring services and training on a variety of hardware and software platforms. With years of experience in the calibration, inspection, precision measuring instrument, and limit gaging industries, MICROREP PRECISION is ready to support your most demanding projects.



## Dimensional Calibration - Measuring Instruments

<b>3-Point Internal Micrometer (Holtest)</b> 3.5 up to 100mm Above 100 to 200mm*	<b>Angle Meter</b> 0-360 degree(°)*	<b>Angle protractor (single or dual axis)</b> 0-360 degree (°)*	<b>Bevel Protractor</b> 0-360 degree(°)	<b>Bore Gauge (Cylinder Gauge)</b> up to 160mm (or inches equivalent) Above 160 to 500mm*
<b>Caliper (Vernier, Dial, Digital reading)</b> up to 1000mm (or inches equivalent) Above 1000 to 2000mm*	<b>Caliper Checker</b> up to 300mm up to 600mm (or inches equivalent)	<b>Caliper Gauge (internal measurement)</b> 5mm to 150mm (or inches equivalent)	<b>Caliper Gauge (external measurement)</b> up to 200mm	<b>Coating Thickness Gauge (non-destructive)</b> up to 2000µm (Plating, Power Coating, Industrial)
<b>Depth Caliper (Digital, Dial, Vernier)</b> up to 600mm (or inches equivalent)	<b>Depth Micrometer (Digital, Digit, Vernier)</b> up to 150mm (or inches equivalent)	<b>Dial Comparator</b> up to ±10mm (or inches equivalent)	<b>Dial Depth Gauge</b> up to 100mm (or inches equivalent)	<b>Digital Depth Gauge</b> up to 100mm (or inches equivalent)
<b>Dial Indicator (Dial Gauge) - JIS Std</b> up to 50mm	<b>Dial Indicator (Dial Gauge) - ANSI/ASME Std</b> up to 2" / up to 50.8mm	<b>Dial Test Indicator - JIS Std</b> up to 1mm	<b>Dial Test Indicator - ANSI/ASME Std</b> up to 0.08" / up to 2mm	<b>Dial Thickness Gauge</b> up to 25mm (or inches equivalent)
<b>Digital Thickness Gauge</b> Up to 25mm (or inches equivalent)	<b>Digital Thickness Gauge</b> up to 25mm (or inches equivalent)	<b>Digital Indicator</b> up to 100mm (or inches equivalent)	<b>Electronic Comparator/ Mu-Checker</b> up to 10mm (or inches equivalent)	<b>External Micrometer</b> -up to 600mm (or inches equivalent) -above 600 & up to 1000mm (or inches equivalent) *

\* Denote not under SAMM 282 accredited schedule

## Dimensional Calibration - Measuring Instruments (Continues)

				
<b>Gauge Block (Gage Block) – Metric - Grade 0, 1, 2, Workshop</b> 0.5 to 100mm ( 1mm base block/2mm base block )	<b>Gauge Block Comparator</b> up to 100mm *	<b>Glass Scale</b> Up to 300mm * <b>(New)</b>	<b>Granite Surface Table (local flatness)</b> up to 2600mm x 1500mm (L x W, or inches equivalent))	<b>Height Gauge</b> -up to 600mm (or inches equivalent) -Above 600 up to 1000mm (or inches equivalent) *
				
<b>Linear Height Gauge (Precision Linear Height)</b> -up to 750mm (or inches equivalent) -Above 750mm up to 1000mm (or inches equivalent) *	<b>Indicator Calibration Tester</b> up to 25mm up to 50mm (or inches equivalent)	<b>Indicator Tester (precision type)</b> Up to 5 mm (or inches equivalent)	<b>Internal Micrometer - Caliper Type (Digital, Digit, Vernier)</b> up to 500mm (or inches equivalent)	<b>Internal Micrometer (rod type)</b> up to 500mm (or inches equivalent)
				
<b>Measurement Center (New)</b> Up to 1000mm (or inches equivalent) *	<b>Measuring Tape</b> up to 65 meters (or inches equivalent)	<b>Measuring Tape (Pi Tapes)</b> up to 65 meters (New) (or inches equivalent)	<b>Metal Ruler / Steel Ruler</b> -up to 1000mm (or inches equivalent) -Above 1000 up to 2000mm (or inches equivalent) *	<b>Protractor</b> 0-180 degree(°) *
				
<b>Profile Projector (Horizontal Type)</b> up to 300mm	<b>Profile Projector (Vertical Type)</b> up to 300mm	<b>Reticle Scale*</b>	<b>Setting Standard (Setting Rod)</b> up to 600mm - flat end (or inches equivalent)	<b>Surface Profile Gauge</b> up to 2000µm *
				
<b>Surface Roughness Tester * (New)</b>	<b>Tool Maker Measuring Microscope</b> up to 200mm - Site Calibration *	<b>Tubular Inside Micrometer (Digital, Digit, Vernier)</b> up to 25 mm travel (with Solid Rod / Individual Extension Rod up to 500 mm, or inches equivalent)	<b>Ultrasonic Thickness Gauge</b> up to 25.4mm (1") *	<b>Universal Length Measuring Machine</b> up to 60mm (or inches equivalent)

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## Dimensional Calibration - Measuring Instruments (Continues)

<b>V-Anvil Micrometer</b> up to 100mm	<b>Vision Measuring Microscope</b> up to 300mm - Site Calibration*	<b>Welding Gauge (Bridge cam) *</b>	<b>Welding Gauge (Hi-Lo) *</b>	<b>Welding Gauge *</b>

## Dimensional Calibration – Inspection Jigs, Special Gauge & part calibration services

		reserve	reserve	reserve
<b>Inspection Jig &amp; Special Gauge</b> up to 100mm	<b>Jig measuring services *</b> Up to 300mm			



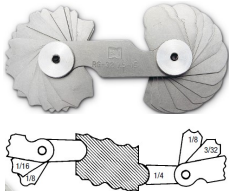


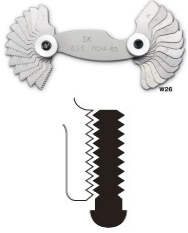











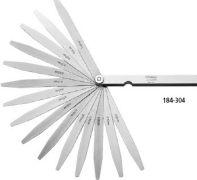



## Dimensional Calibration - Precision Limit Gauges

<b>Angle Blocks</b> up to 60° *	<b>Angle Gauge</b> up to 45° *	<b>Angle Limit Gauge</b> up to 90° *	<b>Chamfer Gauge *</b> Parallelism, straightness, height and thickness	<b>Drill Gauge</b> up to 12.5mm* (or inches equivalent)
<b>Engineering Parallels *</b> Parallelism, straightness, height and thickness	<b>Hex Plug Gauge</b> up to 25mm (or inches equivalent)	<b>Master Setting Disc / Master Plug</b> up to 100mm (or inches equivalent)	<b>Master Ring</b> 1mm to 90mm (or inches equivalent)	<b>Pin Gauge</b> up to 50mm (or inches equivalent)
<b>Plain Plug Gauge</b> up to 120mm (or inches equivalent)	<b>Plain Ring Gauge</b> 1mm to 90mm (or inches equivalent)	<b>Plain Taper Plug Gauge</b> up to 100mm (or inches equivalent)	<b>Plain Taper Plug Gauge (6-steps)</b> up to 100mm (or inches equivalent)	<b>Plain Taper Ring Gauge</b> up to 50mm (or inches equivalent)

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## Dimensional Calibration - Precision Limit Gauges (Continues)




				
<b>Precision Ball</b> up to 50mm (or inches equivalent)	<b>Precision Square</b> up to 600mm* (or inches equivalent)	<b>Radius Gage (178 type)</b> up to 50mm - 1 radiuses/leaf (or inches equivalent)	<b>Radius Gage (272 type)</b> up to 50mm - 2 radiuses/leaf (or inches equivalent)	<b>Radius Gage (L300 type)</b> up to 50mm - 5 radiuses/leaf (or inches equivalent)
				
<b>Screw Pitch Gage *</b> Metric: 0.2 up to 7mm (60°) Unified: 3 to 80 TPI (60°) BSW: 4 to 62 TPI (55°)	<b>Screw Plug Gauge (Parallel)</b> up to 100mm (or inches equivalent)	<b>Screw Plug Gauge (Taper)</b> up to 100mm (or inches equivalent)	<b>Screw Caliper Gauge</b> 5 to 100mm (or inches equivalent)	<b>Screw Ring Gauge (Parallel)</b> M3 to M40 (or inches equivalent) - direct measurement - master check plugs
				
<b>Screw Ring Gauge (Parallel)</b> up to 64mm (or inches equivalent) - master check plug	<b>Screw Ring Gauge (Taper) *</b> up to 64mm (or inches equivalent) - master check plug	<b>Snap Gauge / Gap Gauge</b> 3 to 100mm (or inches equivalent)	<b>Step Calibration Wedge / Step Block</b> up to 100mm (or inches equivalent)	<b>Taper Gauge (Ruler Type) *</b> 1mm to 60mm (or inches equivalent)
				
<b>Thread Measuring Wires</b> up to 6.5mm (or inches equivalent)	<b>Thickness Foils (Film Thickness Standard)</b> up to 5 mm (or inches equivalent)	<b>Thickness Gauge (Feeler Gauge)</b> up to 3 mm (or inches equivalent)	<b>Wire Gage *</b> English standard wire gage American standard wire gage Steel wire gage (mm or inches)	<b>Wet Film Thickness Comb*</b> up to 6mm (or inches equivalent)
	reserve	reserve	reserve	reserve
<b>Roughness Reference Specimen *</b> (New)				

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## Mass Calibration - Weighing Machine & Standard Weight

				
<b>Analytical Balances</b> Up to 1200g	<b>Platform scale</b> up to 200kg	<b>Weighing Machine</b> Up to 200kg	<b>Standard Weight</b> 10mg to 20kg	<b>Standard Weight / Dead Weight (cast iron)</b> 1kg to 20kg

## Force Calibration

				reserve
<b>Dial Tension Gauges</b> up to 10N (1000gf)	<b>Digital Force Gauges</b> up to 500N (50kgf)	<b>Push Pull Gauges</b> up to 500N (50kgf)	<b>Rod Type Tension Gauges</b> up to 500N (50kgf)	

## Torque Calibration







				
<b>Torque Screwdrivers</b> -0.002 up to 8 N.m / 0.02 up to 80 kgf.cm / 0.02 up to 70 lbf.in	<b>Torque Gauges</b> -0.002 up to 8 N.m / 0.02 up to 80 kgf.cm / 0.02 up to 70 lbf.in	<b>Torque Meters/Torque Testers*</b> up to 10N.m (100kgf.cm)	<b>Adjustable Torque Wrenches</b> - 0.02 to 200 N.m / 0.2 to 2000 kgf.cm / 0.2 to 1740 lbf.in - above 200 to 500 N.m (new)*	<b>Indicating Torque Wrenches</b> - 0.02 to 200 N.m / 0.2 to 2000 kgf.cm / 0.2 to 1740 lbf.in - above 200 to 500 N.m (new)*

## Hardness Calibration










				reserve
<b>Digital Durometers (Rubber Hardness Testers)</b> 0-100 degree (up to 45000mN / 4533gf)	<b>Analog Durometers/ (Rubber Hardness Testers)</b> 0-100 degree (up to 45000mN / 4533gf)	<b>Hardness Tester*</b> <u>Rockwell Hardness</u> HRC, HRB	<b>Hardness Block*</b> <u>Rockwell Hardness</u> HRC, HRB	

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## Pressure Calibration

				
<b>Pressure Gauge (Vacuum)</b> -13 psi to 0 psi (-950 mbar to 0)	<b>Pressure Test Gauge (Pneumatic &amp; Hydraulic)</b> up to 15000 psi (1000 bar)	<b>Pressure Gauge (Pneumatic &amp; Hydraulic)</b> up to 15000 psi (1000 bar)	<b>Pressure Recorder (Pneumatic &amp; Hydraulic)</b> up to 15000 psi (1000 bar)	<b>Pressure Sensor (Pneumatic &amp; Hydraulic)</b> up to 15000 psi (1000 bar)
	reserve	reserve	reserve	reserve
<b>Pressure Switch/Pressure Transmitter (Pneumatic &amp; Hydraulic)</b> up to 15000 psi (1000 bar)				

## Temperature Calibration

				
<b>Temperature Calibrator Thermocouple/RTD</b>	<b>Temperature Controller Thermocouple/RTD</b>	<b>Temperature Indicator (hand-held) Thermocouple/RTD</b>	<b>Temperature Indicator Thermocouple/RTD</b>	<b>Temperature Recorder Thermocouple/RTD</b>
				reserve
<b>Temperature Sensor (Thermocouple/RTD)</b> -25 <sup>o</sup> up to 660 <sup>o</sup> C	<b>Thermometer (Dial Type)</b> -25 <sup>o</sup> up to 660 <sup>o</sup> C	<b>Thermometer with Sensor</b> -25 <sup>o</sup> up to 660 <sup>o</sup> C	<b>Thermo hygrometer * (new)</b>	

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## Time Calibration, Tachometer Calibration

				
<p><b>Analog Stopwatch</b> Up to 36000 seconds</p>	<p><b>Digital Stopwatch</b> Up to 36000 seconds</p>	<p><b>Analog Timer</b> Up to 14400 seconds</p>	<p><b>Digital count up/down timer</b> Up to 14400 seconds</p>	<p><b>Digital Industries Timer</b> Up to 14400 seconds</p>
				
<p><b>Digital Contact Tachometer</b> <i>(new)</i> Up to 1500 rpm</p>	<p><b>Analog Contact Tachometer</b> <i>(new)</i> Up to 1500 rpm</p>	<p><b>Digital Non-Contact Tachometer</b> <i>(new)</i> Up to 60000 rpm</p>		

## Introduction

Microrep is a SAMM accredited\* calibration laboratory and we are equipped to perform a wide range of calibrations.

Calibrations are performed in our temperature-controlled laboratory by trained technicians who have met the stringent ISO/IEC 17025 and SAMM policy requirements. Our SAMM accreditation schedule extends to more than 60 items ranging from engineer's rulers to the measurement of gauge blocks using gauge block comparator. All of our equipment are traceable to national or international standards.

Microrep Calibration Laboratory meets management systems or exceed the requirements ISO/IEC 17025. The scope of our quality management system encompasses individual segments of our calibration operations which include our equipment, personnel, calibration procedures and reporting.

ISO/IEC 17025 is the equivalent of ISO 9000 for calibration laboratories. ISO 9000 certification alone does not demonstrate the competence of the lab to produce technically valid data and results, whereas certification to ISO/IEC 17025 does provide that evidence. It assures our clients of precision, accuracy and repeatability of results.

Certain items such as precision linear height gauge, weighing machine, surface plate and others can be calibrated on-site. Our service is efficient and friendly.

Our management team is committed to excellence by maintaining compliance to ISO/IEC 17025. Contact our representative today to learn more about ISO/IEC 17025 calibrations.

All calibrations (unless requested or notified otherwise) are performed in accordance with agreed procedures and by authorized operators in

accordance with SAMM regulations. Results are reported against the relevant International Standard, ISO or customers' standard or specification.

### Note:

\* Under the Scope of Accreditation of **SAMM No. 282** where accredited by Department of Standards Malaysia (DSM), visit [www.microrep.info/calibration](http://www.microrep.info/calibration) to download latest calibration schedule for details.

\* Traceability refers to the completeness of information on every step of the process chain. Examples of traceable standards:

NMIM	: National Metrology Laboratory (Malaysia)
NPL-UK	: National Physical Laboratory (UK)
SPRING	: National Laboratory (Singapore)
PTB-GERMANY	: Physikalisch-Technische Bundesanstalt (Germany)

- A calibrated item is not a guarantee that the item will work for a specified length of time.
- Calibration is not a warranty of any kind.
- Calibration goes beyond the purpose of meeting paper requirements for quality management systems.
- Item might drift out of calibration before the specified calibration interval has expired.
- Microrep does not bear the responsibility for any faults in the calibrated item.

## Why Microrep?

Simply because of we provide the best services to cater your needs.

### Technical Services

MICROREP PRECISION (M) SDN BHD will provide the level of service that will best meet your calibration and quality requirements up to and including supplying a qualified and trained metrology personnel to manage your facility.

### Pick-Up & Return (Quality door-to-door service)

Our Pick-Up & Return Calibration Service offering provides quality door-to-door service (within Klang Valley area).

### Equipment Tracking System (ETS)

Use our Equipment Tracking System. This tool allows us to manage customer calibration needs. Search, view, check and print item status by customer or owner in our labs.

### Value-Added Redemption (VAR)

Our Value-Added Redemption program provides an easy to save money. Reduce your costs for faulty equipment.

### Conclusion! Why Calibrate?

You need calibration to provide you with the confidence that the equipment that you are testing, manufacturing or servicing will meet its original specification or stated performance. It gives your clients the reassurance that you as a company, take the quality of its final product seriously, and that you strive to provide a product to the highest standard, no matter if the unit is new or repaired.

- It gives your company credibility
- It enhances your company's image
- It gives your company the edge over its competitor
- It can reduce your costs
- In some instances, it could give your company a legal edge especially with a SAMM issued certificate.

## Contact us now

Contact a Microrep representative today to learn more about the quantifiable results we're delivering for customers in your marketplace.

## Microrep Precision (M) Sdn Bhd

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Proper maintenance will extend the tool life of the instrument and can ensure the quality on the measuring results.

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E-mail: [sales@microrep.info](mailto:sales@microrep.info); [www.microrep.info/calibration.html](http://www.microrep.info/calibration.html)

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