

Mitutoyo SOUTH ASIA PVT. LTD.

Innovation for the Future

About Mitutoyo Corporation

Mitutoyo, a leading global manufacturer was founded in 1934 by Mr. Yehan Numata in Tokyo with one product – The Micrometer. Mitutoyo's philosophy was to make the best mechanical micrometer in the world. This philosophy was expanded to include the widest product range by one manufacturer.

Today, Mitutoyo has the widest range of Metrology products, offering over 6000+ products as integrated, computer-based metrology systems, where they can be interconnected to form closed-loop-measuring networks.

Mitutoyo is a global company with operations in over 31 countries directly with a network of distributors in 80 countries and 160+ locations overall; in order to provide service and expertise at the customer's doorstep.

Mitutoyo provides the most advanced products under the motto "Quality First", ranging from the sub-micron micrometer to the world's top class accuracy bridge type CNC CMM (LEGEX series)

Nano Technology in Metrology

In the 21st century, from which great technological innovations such as nanotechnology are expected, Mitutoyo will continue in its role as the World-Leading Metrology company devoted to the pursuit of leading technologies that answer the changing needs of industry, providing not just measuring tools but also measurement-related technologies.

About M³ Solution Centres

("M³"=Mitutoyo, Measurement, Metrology)



Mitutoyo's M³ solution centres are specifically designed to address the measurement related challenges from customers. Here, effective solutions to out of the ordinary requirements can be found through the company's products, in combination with consultations with Mitutoyo's metrology experts.

Our Management principles

"To contribute to the well-being of society through precision measurement technologies"

Our Corporate Motto

"Good environment, good people, good technique"

Our Guiding Precepts

'Sincerity, thoughtfulness, determined spirit'

About Mitutoyo South Asia Pvt. Ltd. (MSA)

Mitutoyo started selling small tools in India nearly 50 years ago. In 1989, an M³ solution centre was opened the first of its kind in India; supported by Japanese engineers in order to provide world class sales and service expertise. In 1996 MSA was established a subsidiary in India to look after customers in the SAARC region.

Mitutoyo South Asia Pvt. Ltd. (MSA) has 9 sales and service locations covering all major industrial belts in India. There are 5 M³ Solution Centres, strategically located across India and a world class and calibration laboratory in New Delhi, and a Technical Centre in Gurgaon.

NABL Accredited Calibration Lab

Our calibration facility is NABL certified since 2006, traceable to national and international standards, having the latest advanced equipment. It is augmented by our highly skilled & NABL accredited technical team. Our CMC (Calibration Measurement Capability) in dimensional measurement is recognized as the finest of its kind in India. Our entire product range including CMMs, form products, handheld instruments are covered under the NABL scope. Both in-house as well as on-site calibration lab & services can be availed by our NABL certified engineers.

MSA Technical Centre

Our state of the art Technical centre in Gurgaon, Haryana, built in 2015, operates with a goal to provide timely and suitable metrology solutions to our customers, in a region that is home to the major automotive, aerospace, medical, electronics and other industries. Complete range of Mitutoyo measurement products including CMMs & form products have been showcased for demonstration & application solution requirements.

Mitutoyo Institute of Metrology

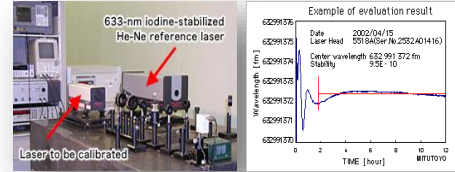
Formed in 2012, our institute works with the objective to develop individuals with right attitude, sound knowledge and sharp skills in the field of dimensional metrology. With a focus on creation of precision measurement engineers and the improvement of measuring technology, we actively promote the importance of metrology in day to day manufacturing.

Mitutoyo Proprietary Technologies & Equipment

MITUTOYO continuously emphasizes on R&D for new technologies and products that meet the needs of today's industries for higher precision, faster processing, and reduced power consumption. MITUTOYO products are manufactured using the company's own specialized machine tools and other high-tech production equipment, while being backed by a thorough-going quality control system.

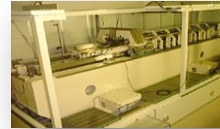
Evaluation Technology

Mitutoyo standard laser
 MITUTOYO maintains a light wavelength calibration system that uses a 633-nm iodine-stabilized He-Ne reference laser, similar to the type used by the Japanese government



Calibration Uncertainty:
 $5.0 \times 10^{-11} (k=2)$

Vacuum laser interferometer
 MITUTOYO has developed ultra-high precision length measuring machines, which it used to measure the molds used for high precision scales and digital scales



Measuring Uncertainty (k=2):
 $9 \text{ nm} + 1.8 \times 10^{-8} L$

Encoder Technology

MITUTOYO's digital scale are made using environmental and production equipment, including MITUTOYO's underground laboratories, that are essential for the production of highly reliable encoders



Integrated Production in the clean room



Underground Laboratory (Kiyohara Manufacturing Department)



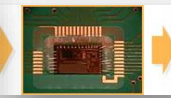
3m vacuum-evaporated scales

Electronics Technology

MITUTOYO not only designs and develops its own custom ICs, but also embeds them in various electronic modules



Design of Customized LSI



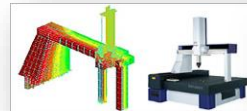
Customized 1-chip IC



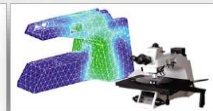
Electronic Modules

Mechanical Technology

CAD and CAE technologies are used with FEM analysis, test model analysis, and thermal analysis to design and develop highly rigid, highly shock-resistant, high-quality measuring instruments noted for their high reliability



CMM



Microscopes

MEMS Technology

MEMS technology is being used to develop various types of sensors



ICP etching equipment for Si-MEMS



Application eg: Micro Acceleration sensor

Software Technology

Mitutoyo develops software for CMMs and many other kinds of measuring instruments

