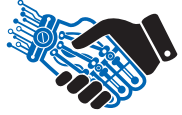
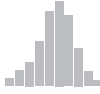
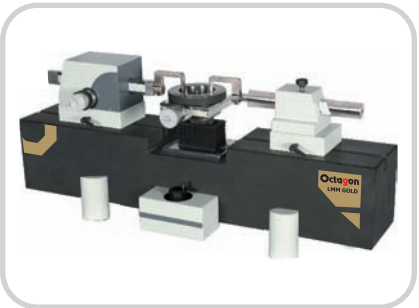




A company for Metrology Solutions



INDUSTRY 4.0



- Automated Gauging Systems
- Customised Multi-Gauging Systems
- Robotic Inline Inspection Systems
- Calibration Laboratory Equipment
- Shaft Measuring Equipment



Global Customers

Major Customers for Calibration laboratory equipments -
ISO / IEC 17025 Accredited Laboratories Worldwide.



Our Esteemed Clients



Award, Recognition & Certification

CODISSA Award



Innovative Product Award for
LMM 300 – Length Measuring Machine
at INTEC 2010 – Coimbatore

FIE Foundation Award



Innovative Technology Product Award
for Metro Form – Crank & Cam Shaft
Metrology System at IMTEX 2011 – Bangalore



Certification : ISO 9001 : 2015

Group Companies :

Octagon[®]
PRECISION

Octagon[®]
Octagon Manufacturing Technology

decima
metrology

Company Profile



Established since 2004.

Octagon has mainly two product verticals..

- Measuring Equipments for Calibration laboratories (Dimensional Calibration)
- Customized automatic gauging machines & multi gauging system for automobile engine components, Aerospace and Precision Machined Components.

ISO/IEC 17025 accredited calibration labs in India (NABL accredited) and similar calibration labs in many other countries in Asia, Europe and USA are our main customers for Measuring Equipments. We offer range of Universal length measuring machines, Measuring Scale and Tape calibration System, Gauge Block Comparators and Floating Carriage Diameter Measuring Machine.

The measuring machines manufactured by Octagon are developed indigenously and mostly are import substitutes. Octagon also provides automatic gauging machines, multi-gauging systems for automobile engine parts like crank shaft, cam shaft, cylinder head, cylinder block, piston etc. We offer gauging systems which are integrated with manufacturing machines for automatic process control. We provide gauging solutions with high

precision inductive probing, air gauging systems, or laser sensor based non-contact type probing systems. The gauging systems provided by Octagon are offered with the latest technology and computerised data analysis for 3D coordinate measurement software. These gauging systems do have ability to communicate with CNC machine tool, robots, gantry and marking machine simultaneously which makes them front runners for **Industrial 4.0**.



Till now we have 300+ installations of Octagon Universal length measuring machines in almost 25 countries out of which 175+ installations are in NABL accredited labs in India. We have installations also in Singapore, Indonesia, Malaysia, Thailand, Philippines, Vietnam, Turkey, Israel, Bulgaria, Hungary, Colombia, Brazil, Mexico, South Korea, China, UAE, Qatar, Saudi Arabia, Sudan, Trinidad & Tobago, Bangladesh and Nepal etc.

In Jan 2011 IMTEX, Octagon won the prestigious **FIE Foundation Award** under category of Innovative Technology for development of Crankshaft Metrology system.

Octagon is **ISO 9001: 2015 certified** organisation with marketing operations from Delhi, Pune and Chennai. Presently we have 70% business in domestic market and about 30% export market.

Further company details you will able to find at our **website www.octagon.co.in**.

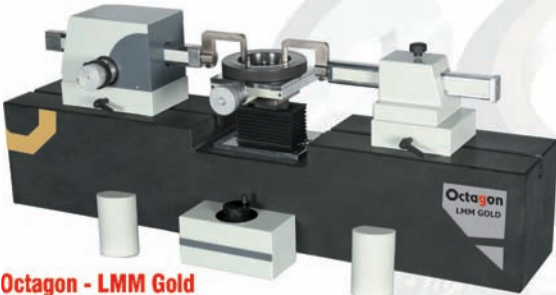
Universal Length Measuring Machines



Octagon - LMM Silver

Universal Length Measuring Machine

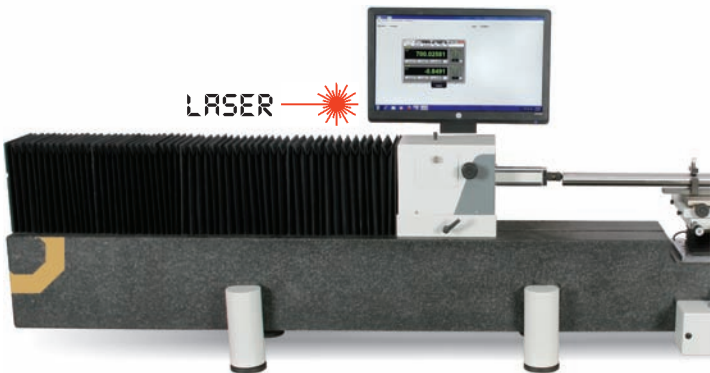
- High precision universal length measuring machine.
- Compliance with Abbe's principle.
- Granite horizontal base for structural stability.



Octagon - LMM Gold

Universal Length Measuring Machine

- Very high precision universal length measuring machine.
- Compliance with Abbe's principle.
- Granite horizontal base for structural stability.
- Air bearing slides for precision rapid movements for measuring head and tail stop.
- Air dampers for minimizing environment vibrations.



Octagon - LMM Gold Plus

Universal Length Measuring Machine with Laser measuring system



Octagon - LMM 40

Universal Length Measuring Machine

- A universal length measuring machine specially designed for high precision parts of Horology, Aerospace & Micro Precision Industries.
- Compliance with Abbe's principle



Octagon - LMM 100

Internal Length Measuring Machine

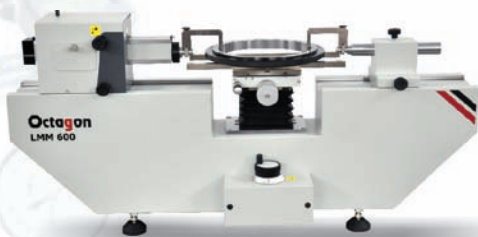
- High precision technology at most affordable price for internal measurements of plain / thread gauges.
- Compliance with Abbe's principle



Octagon - LMM 400

Universal Length Measuring Machine

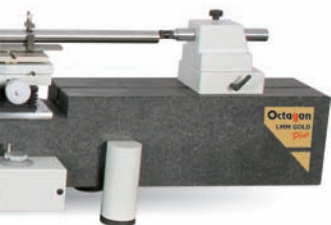
- A single measuring machine completes all laboratory measurement requirements.
- Compliance with Abbe's principle
- Perfect cost effective solution for metrology laboratory.



Octagon - LMM 600

Universal Length Measuring Machine

- High precision universal length measuring machine.
- Compliance with Abbe's principle.
- Cast Iron horizontal base for structural stability.



- Laser measurement system allows large direct measurement with smallest measurement uncertainties.
- Compliance with Abbe's principle.
- Granite horizontal base for structural stability.
- Air dampers for minimizing environment vibrations.
- Air bearing slides for precision rapid movements for Abbe's measuring head and tail stop.

Precision Length Measuring Machines

Octagon DMM 150

Floating Carriage Diameter Measuring Machine

- Length measuring specially designed for Screw thread gauges and cylindrical shafts.
- Measurement axis maintained at absolute right angle to the centre axis to ensure correct alignment.
- Precision Thread measurement by two wire method.
- Compliance with Abbe's principle.
- Designed based on NPL UK Specifications MOY/ SCMI/ 9.
- Resolution $0.1\mu\text{m}$
- Optical scales with absolute and incremental correction.



Octagon - LMM Diamond

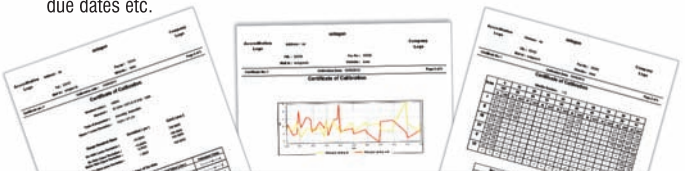
Universal Length Measuring Machine

- A model of Length Measuring Machine for larger direct absolute range.
- Simplest, fastest, most reliable, precise measuring machine for instrument settings.
- Optical scales with absolute and incremental correction
- Wide range of accessories, for a variety of measurement & setting applications

ULM Inspect Software



- Online Data acquisition from ULM
- Operator guided measurement program for plain gauges, thread gauges, spline gauges & inspection / calibration measuring instruments like dial indicators, bore gauges & micrometers.
- Facility for thermal error corrections (Manual / Online)
- Calibration report generation in the format complying to ISO/IEC 17025.
- Gauge record management including calibration date, user details, gauge type, due dates etc.



Scale & Tape Measuring Equipment

MSTC -1000

Measuring Scale & Tape Calibration System

Calibration unit for Precision measuring scales, rules & measuring tapes.



Motorised,
Computer Programmable
Movement available as
an option.

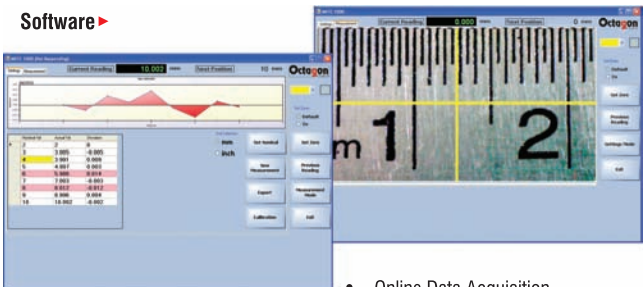
Features

- Cost effective calibration unit.
- Most advance digital Imaging technology
- High Precision digital incremental measuring system with 0.001 mm resolution as reference.
- Stable & Robust measuring structure designed for user friendly operation.
- Powerful Software assisted measurement and evaluation system.

Applications

- For checking scale and measuring tapes.
- Comparison of digital image with 10X Magnification.
- Loading System : Tapes are clamped at their start (or other position) & fixed or counter set. Clamped section of the tape become exposed to a drawer load.
- Steel rules are clamped and counter set against their reference side.

Software ▶



- Online Data Acquisition
- Selectable measuring steps
- Graphical presentation
- Tabulated measurement Results.

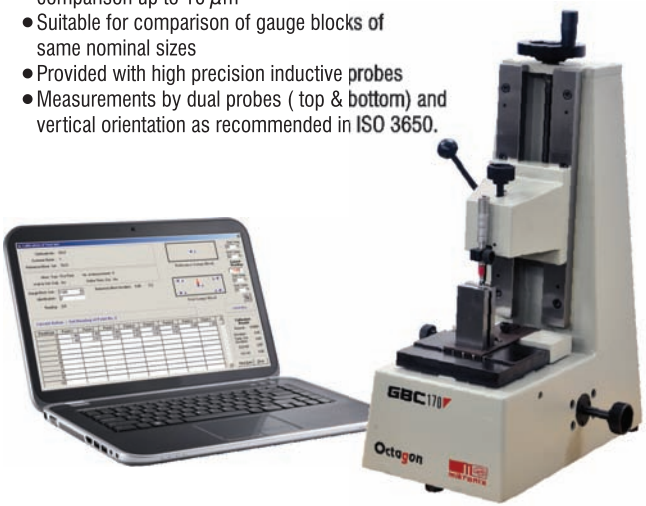
Gauge Block Measuring Machines

Octagon GBC 170

Gauge Block comparator

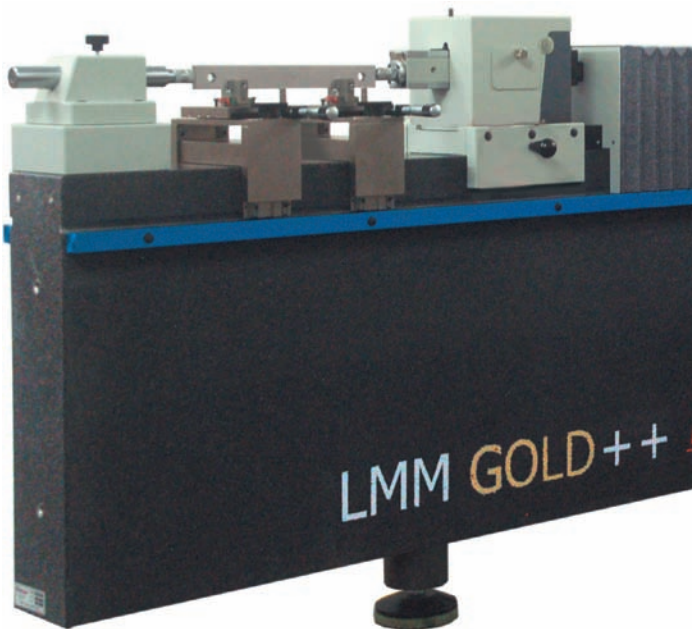
(with high precision inductive probes)

- High precision gauge block comparator with range of comparison up to 10 μm
- Suitable for comparison of gauge blocks of same nominal sizes
- Provided with high precision inductive probes
- Measurements by dual probes (top & bottom) and vertical orientation as recommended in ISO 3650.



Octagon Gauge Block Measurement Software

- ◆ All Models offered with Windows based Octagon Gauge Block Measurement Software which corrects test object & ambient temperature errors.





Octagon GBC 150 Gold

Gauge Block comparator
(with interferometric probe from SIOS Germany)

- High precision gauge block comparator with extra long range of comparison up to 20mm
- Suitable for comparison of gauge blocks of different nominal sizes
- Provided with SIOS interferometric probing system
- Measurements by dual probes (top & bottom) and vertical orientation as recommended in ISO 3650.

Octagon GBC 150 Silver

Gauge Block comparator
(with optical probe from Heidenhain Germany)

- High precision gauge block comparator with extra long range of comparison up to 20mm
- Suitable for comparison of gauge blocks of different nominal sizes
- Provided with Heidenhain high precision optical length Gauge
- Measurements by dual probes (top & bottom) and vertical orientation as recommended in ISO 3650.



Octagon LMM Gold ++

Length measuring machine with LASER interferometer.

- High precision gauge block measuring system with long absolute measuring range
- Designed for customised measuring range up to 1000 mm , 2000 mm and 3000mm.
- Suitable for absolute length measurement of gauge blocks above 100 mm
- Granite horizontal base for very high structural stability.
- Air-Bearing slides for precision movements of the Abbe's measuring head.
- Provided with inbuilt LASER interferometer system from Germany.
- Measurements by holding in horizontal orientation as recommended in ISO 3650.

Gauging Systems

Air Plug Gauge

- Quick , easy and precise measurement of bore
- Possible to check through or blind bores
- 2 jets / 3 jets for checking size, taper, ovality / lobbing.
- Also offered with multiple jets as an option
- With extensions to check deeper bores
- Hard chrome plating for extended life



Air Caliper Gauge



- Most suitable for measuring diameters of jobs held between the centers on machine or interrupted shafts like crankshafts , Ideal for collared diameters i.e. crankshaft pin and journal
- Multi-jet air calipers available for multi-point measurement i.e. to check crowning of crank pins and journal diameters



- "V" support for perfect centering and stability
- Optional bench mounted design for checking small diameters.

Contact Type Plug Gauge

- Reliable , rapid precision measurement of wide verity of bore diameter and form error
- Possible to check through or blind bores
- Standard 2 point / 3 point probing contact
- Repeatability < 0.001 mm
- Can be offered with Tungsten carbide contact points.
- With extensions to check deeper bores
- Hard chrome plated / Titanium coated surface body for extended life



Solotron UK
LVDT Probes

Contact Type Caliper Gauge

- Suitable for measuring dia. of jobs held between the centers on machine or interrupted shafts like crankshafts, Ideal for collared diameters i.e. crankshaft pin & journal
- Built in miniature inductive probes from Knäbel Germany.
- Multi-point measurement i.e. to check crowning of crank pins and journal diameters
- Tungsten carbide probing contacts.
- "V" support for perfect centering and stability



Knäbel
Germany
IET Probes

Knäbel Mandrels for cam bore measurement

Measurement of diameter in Two axes and co-axiality of Cam Bore.

- Contact probing - Inductive built-in transducer for each diameter
- Cylinder form in static way



Dial Snap Gauges

- Indicating snap Gauges , can be used with sensing device mechanical type e.g. dial indicator or electronic probes.
- Ground and lapped carbide measuring anvils Dia 8mm.
- Aluminum frame ensures light weight for easy handling.

Measuring Range in mm

0-25, 25-50, 50-75.....250-275, 275-300.



Adjustable Snap Gauges

- Go/No go Attribute Gauge range setting up to 6 mm
- Go/ Nogo Attribute gauge resetting Facility in the event of wear.
- Available with hardened steel Flat round or grooved type anvil design for the different measuring application

Measuring Range in mm

0-6, 6-13, 13-19.....263-275, 275-288, 288-300.



Customised Multi-Gauging Systems



Multi Gauging System

- Customized design to measure a number of dimensions simultaneously. Also capable of dealing with very large number of interrelated dimensions.
- Built either completely special or built using a series of modular elements.
- The feature gauged could be external / internal diameters, lengths, straightness, Profile, squareness, ovality, run-out of faces etc.
- Part to be gauged are compared with a setting master which simulates the component.
- Dimensional difference between the components and the master are sensed by mechanical contact probes, Air probes or inductive electronic probes and the difference amplified.
- Display of readings may be offered either in the form of simple dial gauges or some form of electronic system, computer based system.
- Displays may be analogue, digital or graphical with clear indication of with-in and out-of tolerance.

Gauging System for Cylinder Head : Valve Seat & Cam bore



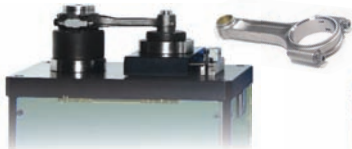
Knäbel Slide Scan

SlideScan (Intake & Exhaust) A common system for Intake and exhaust valve seat – Measurement of following parameters of valve Seat •Valve Seat Angle •Valve seat width •Straightness of cone •Gauge line position / position of gauge line diameter.

Knäbel VSM

VSM - A set of two different equipments VSM (Intake) & VSM (Exhaust) - Measurement of following parameters of valve Seat. •Roundness of valve seats •Concentricity between valve-guide & seat (Run-out).

Multi-Gauging system for Connecting Rod



- Contact type / pneumatic (Non-contact) Measurement system for dimension and geometric measurement of connecting rods.
- Measurement of small end bore diameter, large end bore diameter, centre distance between two bores, axis parallelism in two planes (twist and bend)

Gauge station for shop floor

- Gauge station designed for installation of multi-gauging system on shop floor.
- Computer installed for data acquisition, processing, SPC analysis, process monitoring and result display.
- Data transfer possible with wired LAN / wireless WIFI.
- Gauging station integrated with optional barcode scanner, part marking system.
- With rack / cupboard for safe storing of gauging tools and reference masters.



Automatic Gauging Systems

Automatic Gauging System

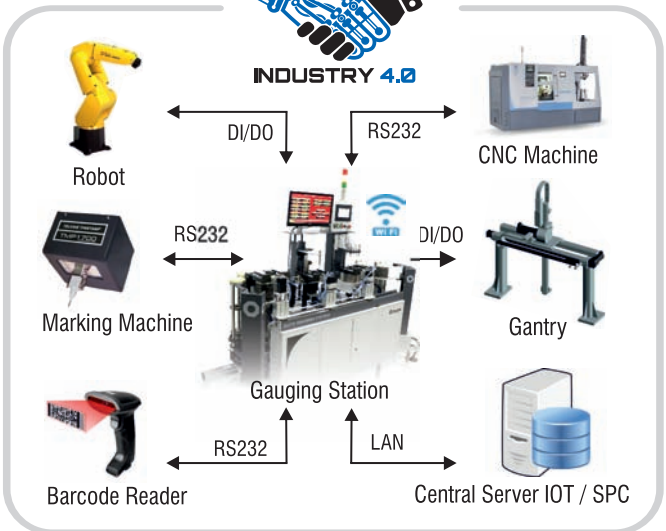
- Automatic Gauging Machines incorporate both automated loading hopper, magazine, pick and place robot and automated segregation of inspected components.
- Autogauging is essential where the complexity of the component is such that manual methods can not achieve the desired levels of accuracy.
- Autogauging with Grading & Marking System

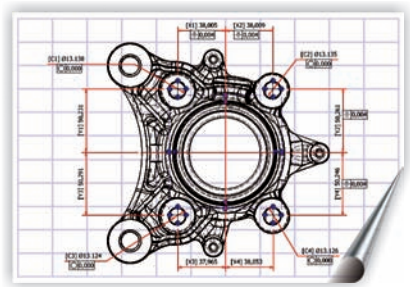


- Contact / non-contact sensors are provided to ensure part presence and to ensure correct part location.
- Possibility to integrate with existing component handling line Gantry or line conveyor .
- Poka-Yoke to avoid wrong loading.
- Safety barrier interlocks in automated cycle to avoid accidents.
- Optimized cycle time to match the production cycle.



INDUSTRY 4.0





Measurement Report
Position tolerance measured by 3D coordinate metrology software



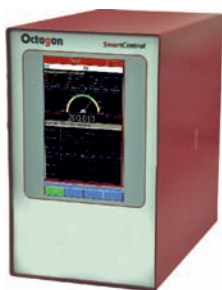
Automated Measurement System
Designed for auto component

- Geometric features derived by using 3D-Coordinate metrology Software enable measurements w.r.t. part coordinate system .
- Multi-probing absolute measurement system makes smart replacement for 3D-CMM application to achieve accuracy and match production cycle time.
- Measuring system for various precision machine parts e.g. Automotive Engine parts like Engine block, cylinder head, crankshaft, camshaft, piston or precision bearing, gear parts.
- PLC / CNC controlled Automatic / Semi automatic cycle for various operations including measurement, loading, un-loading, sorting OK/NG, Grading and component marking.

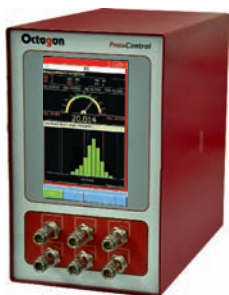


Semi-Automatic Gauging Station
For Auto Components

Gauging Displays & Controllers



SmartControl



PneuControl

PneuControl / Smart Control Controllers

- Specially designed to cater the need of automation of gauging systems and online Statistical Process Control.
- Allows to connect Multi Channel Gauging system suitable for Air gauges or Inductive probe gauging.
- Cater to emerging needs of **Industry 4.0**.
- Compact design ensures space saving on the shop- floor.
- Flexibility of programming & measurement programs storage with part information and dimensional data, program can be recalled easily.
- Data transfer to central server. Data can be collected in Q-DAS.
- Statistical parameters like Cp, Cpk, Run chart.
- Data sorting / Grading up to 25 grades.
- Feed back to CNC Machine Control.



Pneu-Auto Measure



Pneu-Smart Measure

Multi Channel Air-Electronic Gauging Displays

- Octagon 'Pneu Auto Measure' and 'Pneu Smart Measure' are multi channel air gauging display units featured with auto detection of channel input. Both units have built in PIEZO sensor suitable to be used with different pneumatic gauges e.g. Air Plug Gauges, Air Ring Gauges, Air caliper Gauges of various makes.
- Pneu Smart Measure have added feature with graphical display which facilities analogue (Dial type) indication along with graphs for Run Chart .
- Automatic Selection of gauge in use.
- Auto air cut-off
- Input Channels : 2/3/4 air gauge
- Measurement Modes : Current, Min, Max, TIR, AVG
- Indications : Pass, Fail, Warning
- Digital Views : Digital Readout (Pneu auto measure)
- Digital Views : Digital Readout/ Dial/ Bar graph/ Run Chart (Pneu smart measure)

Multi Channel Electronic Gauging Displays

- Octagon's digital displays are single / multi channel digital displays suitable for gauging applications especially for multi gauging systems with Inductive sensors.
- Input Channels : 2/4/6/8 LVDT Channels
- Measurement Modes : Current, Min, Max, TIR, AVG
- Indications : Pass, Fail, Warning
- Digital Views : Digital Readout/ Dial/ Bar graph/ Run Chart



Octa-Gage

Gauging Displays & Controllers

Column Gauge Displays

- Octagon's tri-colour bar graph Air Electronic Column Gauge is an electronic gauge with PIEZO sensors suitable to be used with Pneumatic gauges e.g. Air Plug gauges, Air Ring Gauges, Air Caliper Gauges.
- Octagon also offers tri-colour bar graph Electronic column Gauge suitable for gauging systems provided with inductive (LVDT) sensors.
- The tri-colour bar graph along with the seven segment display is an easy tool for the operator to improve productivity.
- The user can set it for measurements in comparative mode. The tri-colour bar changes colour between green, red and yellow depending on the component status- OK, REJECT or REWORK.



PIEZO sensor based
Air Column Gauge



Electronic
Column Gauge



Pneu-Measure



Single / Multi Channel

Digital Display for Inductive sensors

Multi Channel / Single Channel Electronic Gauging Displays

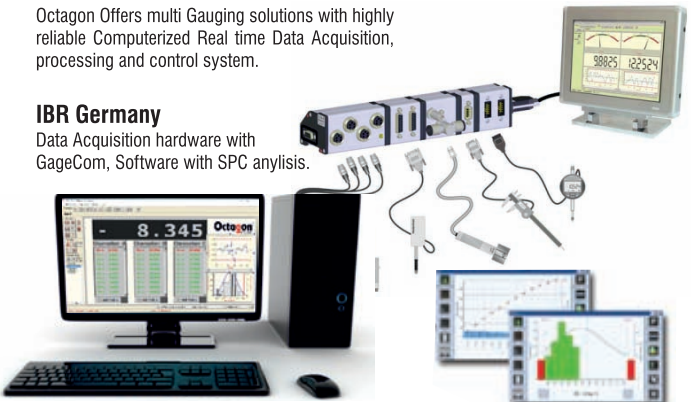
- Octagon **Pneu Measure** a single channel Digital Display with built in PIEZO sensor suitable to be used with different pneumatic gauges e.g. Air Plug Gauges, Air Ring Gauges, Air caliper Gauges of various makes.
- Octagon's digital displays are single / multi channel digital displays suitable for gauging applications especially for multi gauging systems with Inductive senses.
- Seven segment displays, the user can set it for measurements in comparative mode. 2 point auto calibration facility makes calibration easy & quick.
- Flexibility in settings makes the column a real versatile tool for quality checking for mass production of work pieces.

Display, Data Acquisition and SPC Analysis & Machine control

Octagon Offers multi Gauging solutions with highly reliable Computerized Real time Data Acquisition, processing and control system.

IBR Germany

Data Acquisition hardware with GageCom, Software with SPC analysis.

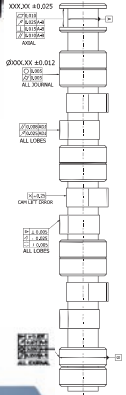


Crankshaft-Camshaft Metrology Systems



Octagon MetroForm Horizon- with MetroLab Software

- Metrology system for analysis of cylindrical parts specifically automobile cam lobe profile.



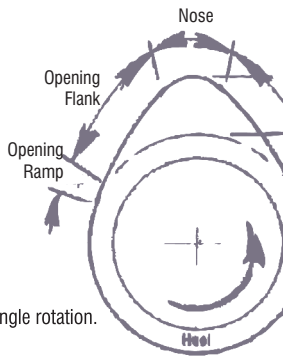
Octagon MetroForm Multi-Scan

- Camshaft measurement with multiple radial measuring heads, for simultaneous measurement of number of cam lobes in just a single rotation.
 - Semi automatic cycle • Cycle time 40 sec/ shaft



Octagon MetroForm Mini

- Cam Profile measurement specially designed for Single Cylinder Engine Camshaft
- Multiple radial measuring heads for simultaneous measurement of number of cam lobes in just a single rotation.



Common Features

- Durable carbide followers (flat and disc)
- High resolution glass encoder system for both rotary and radial axis
- Automatic computerised data acquisition system for complete 360°.
- Mathematical data conversion for different follower geometry.
- Complete lobe measurement, graphical display and analysis of: lift, velocity, acceleration, jerk (3rd derivative), radius of curvature, pressure angle.
- Available in manual, motorised and CNC mode of operations.



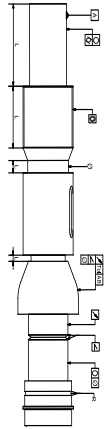
Octagon Metroform 360/660/1060

- High resolution metrology system for evaluation of crankshaft and camshaft geometry.
- Fully CNC - single button operation
- Ultra precision grade liner guides.
- User friendly window based setup and analysis.



- 1) Menu driven and easy to use GUI's
- 2) Single page test setup Polar Representation
- 3) Cam Profile
- 4) Cam Shaft Measurement
- 5) Graphical Analysis of Cam Lobes
- 6) Radial Parameters

Shaft Measuring Machine



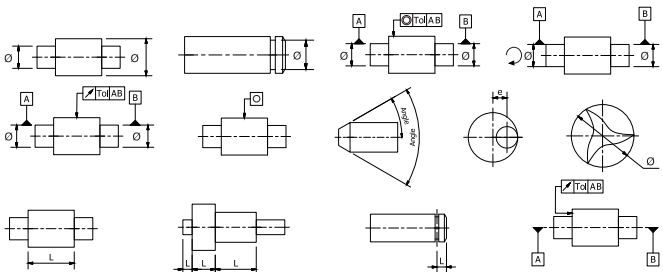
Octagon Metroform LaserScan

- Fully automated optical shaft measurement systems with line scan technology, designed to facilitate precision control of complex turned parts and precision ground shafts.
- Ideal for automotive, aerospace, and medical industry applications.
- High measurement speed, precision and optimum ease of use in a non-contact measurement for diameters, lengths, angles, distances between points and lines, groove widths, fillet radii, or chamfers.
- Machine can provide feedback directly to machine tools facilitates automation of the measurement process.
- Graphical user interfaces for easy-to-understand results.



Octagon MetroForm Horizon

- Manual machines allow quick and easy measurement of a variety of features in an economical package.
- Ideal for automotive, aerospace, and medical industry applications.
- Precision and optimum ease of use in a contact measurement for diameters, lengths, angles, distances between points and lines, groove widths.



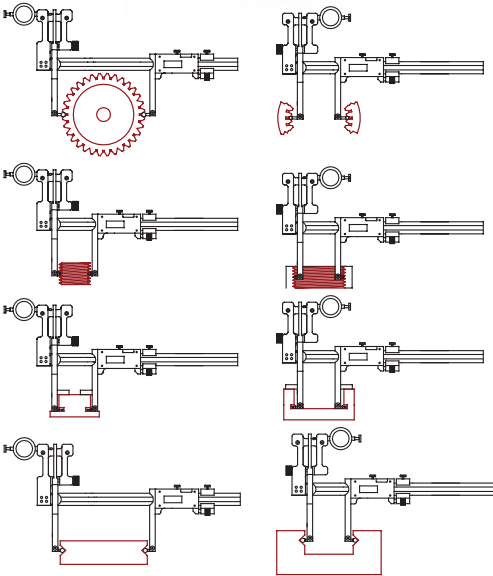
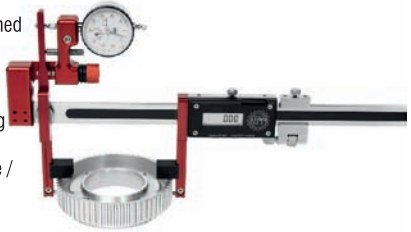
Measuring Instruments



DEMM Italy - DIGI BASCOM

Caliper for Inside/ Outside Measurement

- Light weight caliper in hardened stainless-steel
- Easy to operate
- Interchangeable rods for various applications including plain diameter, Internal / External Threads and Outside / Inside gear tooth.



DEMM Italy - IRIS FE

Electronic Measuring Gauge for External Threads

- Interchangeable measuring anvils for different pitch. 1.0, 1.25, 1.5, 1.75, 2.0, 2.5, 3.0 mm
- Available in different measuring range. 0-24, 20-40, 40-60, 60-80 mm



DEMM Italy - IRIS FI

Electronic Measuring Gauge for Internal Threads

- Interchangeable measuring anvils for different pitch. 1.0, 1.25, 1.5, 1.75, 2.0, 2.5, 3.0 mm
- Available in different measuring range. 13-27, 25-45, 40-65, 60-80 mm



Surface roughness measurements



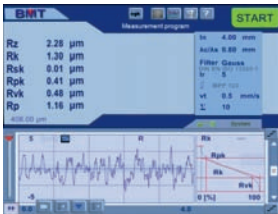
BMT – MiniProfiler

Stylus Based Roughness

Test Equipments (Customized designed)



Computerised Analysis :



- Very small in size & Light weight
- Specially designed for production environment.
- With reference Datum (Skid less).
- Mostly available in Customized design

Measurement uncertainty <0.5%

Evaluation length 12.5, 25, 50, 100 mm

• ISO 25178, DIN 4287

Profile parameters:

Pt; Pc; Pv; Py; Pa; Pp; Pmr

Waviness parameters:

Wt; Wc; Wv; Wy; Wa; Wp

Roughness parameters:

Rt; Rv; Ry; Ra; Rmr; Rp; Rq; Rz; Rmax,

• ISO, DIN 13565

Core roughness parameters:

Rk, Rpk, Rpk*, Rvk, Rvk*, Mr1, Mr2

• JIS B-0601: Rz; Rmax; RzISO

• Daimler N 31007: R3z; R3max



Miniprofiler on CMM

Roughness measurement on CMM.

Fully automatic measurement cycle



Small groove flank



Crankshaft - Bearing surface on journal thrust face fillet radius



Connecting Rod - Small end bore / Large end bore

Roughness and profile measurement at location difficult to access with standard equipment

Surface roughness measurements



BREITMEIER – MiniProfilier- C

Roughness Tester integrated with Mini Camera - Honed surface inspection



Stylus
Camera

Breitmeier MiniProfilier-C for Roughness & Honing Pattern Measurement

- Honing Pattern of Engine cylinder wall with roughness measurement
- Measurement of surface roughness directly inside the cylinder
- Photograph of the crosshatch structure and honing angle calculation

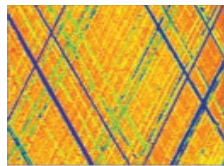


Inspection of Honed surface of engine cylinder wall



Breitmeier GmbH – WLICyl Optical cylinder profilometer

Surface Topography - White light interferometry for Non destructive 3D surface profile measurement of cylinders



3D representation of honed surfaces using identical scaling

- Non-contact high precision measurements
- Vertical resolution max. 1 nm, lateral resolution 1 μm
- Positioning in 3 axis for repetitive measurements
- Suitable for workshops as well as production areas and laboratories

White light interferometry

Laser Interferometer SP-NG Series

- Flexible, ultraprecise length measuring system
- Minimization of alignment errors
- Compact electronics unit for mobil calibration tasks



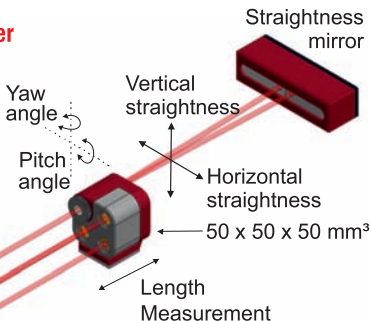
Applications

- Precision length measuring system as a measuring or calibration instrument for installing in measuring tables, microscope stages, positioning tables, measuring machines, machine tools, hardness and material testing instruments

| | |
|----------------------------------|--------------------|
| Measurement range | ≤ 80m |
| Resolution | 5pm |
| Max. tilt of hollow reflector | ± 22.5° |
| Laser wavelength | 632.8nm |
| Frequency Stability (HeNe Laser) | 2.10 ⁻⁸ |

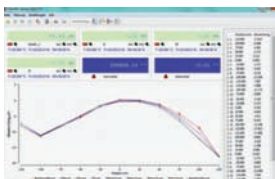
Calibration Laser Interferometer SP 15000 C – Series

- Simultaneous, three-channel length, pitch and yaw angle measurement as well as straightness measurement with highest accuracy
- Laserinterferometric measurements on linear guides and translation stages



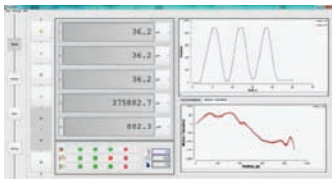
- Calibration of high-precision axes in measuring and machine tools, as well as coordinate measuring instruments

| | | | | |
|---|------------------|--------------------|----------------|-----------------|
| 3 DOF / 5 DOF Simultaneous multi-axis measurement. | Measuring Length | Range | Resolution | Uncertainty |
| | Angle | 15 m* | <20 pm | ± 0.12 ppm |
| | Straightness | ± 5 grad | <0.0004 arcsec | ± 0.0085 arcsec |
| | | ± 4 mm | <10 nm | ± 0.1m |
| | | *(50 m on request) | | |



Calibration software InfasAXIS

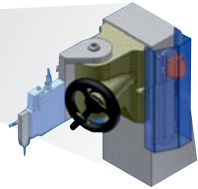
InfasAXIS with SP 15000 C5 allows the calibration of machine tools, positioning tables etc. in 5 degrees of freedom: position, pitch and yaw angle and straightness in horizontal and vertical direction. Selection of the standard: VDI/DGQ 3441, DIN ISO 230 or VDI 2617



Alignment software InfasALIGN

InfasALIGN with SP15000 C becomes measuring tool for highly accurate alignment and adjustment of machine components. The pitch and yaw angles, the straightness derived from the angle measurement and the interferometric straightness can be displayed separately or simultaneously.

Retrofitting & Up-gradation Services



Up-graded Measuring Head

SIP MU 214 Optical measuring machine digitised by Octagon with Heidenhain Electronics

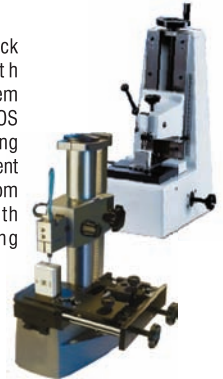


Octagon Gauge management Software

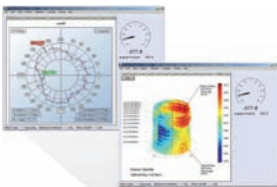
Zeiss ULM Optical measuring machine digitised by Octagon with Heidenhain Electronics



Traditional Gauge Block Compactors with inductive probe system are Upgraded with SIOS Interferometric Probing Facilitating enhancement of comparison range from 10µm to 20mm with improved measuring accuracy.



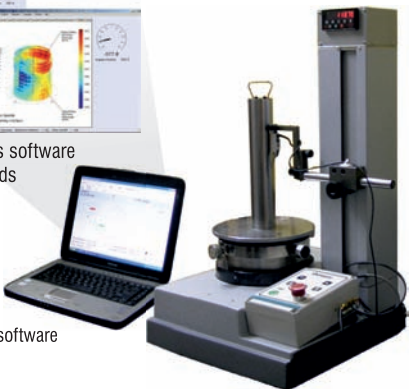
Form measuring machines



OctaForm

Roundness Cylindricity Analysis software complying to latest ISO standards

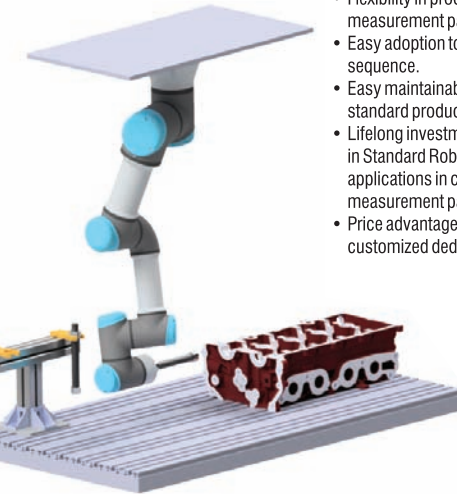
Old Form taster upgraded by **Octagon** Interfaced with **OctaForm** roundness cylindricity software



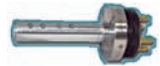
Robotic - Inspection system

Robotic - inspection system

- Inspection systems with various makes robots available in the market, like Universal, Kuka, Fanuc, ABB or any other make.
- The Robotic gauging systems are programable multi-gauging station by which various gauging tool selection is possible for a part program measurement
- Robotic gauging system offered with multiple gauging tools contact type, non-contact type air gauging, camera based optical measurement, stylus based roughness measurement, laser sensors.
- Flexible system - Just by changing the measurement program, system can accommodate any design change.



- Flexibility in process - Addition / deletion in the measurement parameters can be easily introduced.
- Easy adoption to change in the Measurement sequence.
- Easy maintainability - Due to Main Robot will be a standard product.
- Lifelong investment - Major investment cost will be in Standard Robot , can be utilized in any other applications in case the change in design / or measurement parameters.
- Price advantage - Price comparable or lesser to the customized dedicated measurement systems.



Non contact Pneumatic Probe with multiple jets

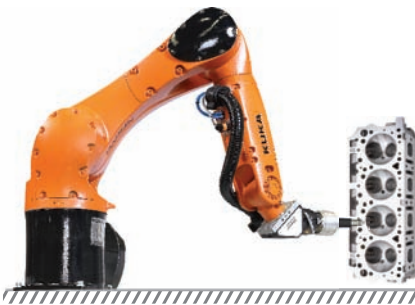


Contact type measuring mandrel **Knaeble GmbH**

Robotic Measurement system designed for automobile cylinder head on Universal collaborative Robot by using Air Plug gauges for Cam bore and Contact plug for valve guide bore diameter.



Laser Triangulation Line sensor **Micro Epsilon GmbH**



Robotic Measurement system designed for automobile cylinder head on KUKA Industrial Robot by using Air Plug gauges for Cam bore and Contact plug for valve guide bore diameter.

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PRECISION

ISO 9001 : 2015
Certified



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