

Metrology Instruments & Gauging Private Limited

A Group of Skill Gauges

Our Specialisation to leading Total Measurement Solution & Industry 4.0 Solution

We are engaged as the foremost **Manufacturer of Dial-type air gauge units, Air Gauges, Electronic Gauges, Snap Gauge, CD Bend & Twist Checking Air Gauge, Width Gauge, Diameter Gauge, Measuring Pin, Special Gauge, Squareness Checking Gauge, Multigauge Systems, Auto Gauging System, Automated Wear Offset Correction etc.** Our products are high in demand due to their premium quality and affordable prices. Furthermore, we ensure to timely deliver these products to our clients, through this we have gained a huge client base in the market.



SKILL GAUGES & SERVICES

Corporate Office & Works:

Sr. No. 6, Vetalwadi Bhapkar Mala Road, Manjari Bk, Pune - 412307.

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Sales@skillgauges.com

www.skillgauges.com



Website



YouTube Video

Metrology Instruments & Gauging Pvt. Ltd.

Overview:-

- Metrology Instruments & Gauging Pvt Ltd was Established in the 13 October 1989 at Pune
- Metrology Instruments & Gauging Private Limited' are Private Limited Company based firm, engaged as the foremost Manufacturer of Dial-type air gauge units, Air Gauges, Snap Gauge, CD Bend & Twist Checking Air Gauge, Width Gauge, Diameter Gauge, Measuring Pin, Electronic Gauge, Special Gauge, Squareness Checking Gauge etc.
- Our Specialization is only in the field of Dimensional/ Multi-parameters Measurement
- Our mission is to achieve customer satisfaction through excellence in design, supply chain management, manufacturing and repair solutions
- Metrology team which thinks together and thinks ahead. Consistency, Reliability and Precision is gradually taking Skill Gauges to greater heights.



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SKILL GAUGES & SERVICES

Overview:-

- Skill Gauges & Service is a solutions provider for linear dimensional measuring needs of the engineering and metal working industry.
- SKILL GAUGES AND SERVICES was introduced in 1 April 2014.
- We manufacture a wide range of products including precision hand-held measuring instruments (calipers, dial gauges etc.), Air Gauges, thread gauges and multi gauging solutions driven by air-electronic systems and computer software.
- Our mission at Metrology is to provide top quality gauges, at competitive prices with the best delivery possible.
- Skill Gauges & Services has been producing custom system for industrial applications to measure dimensions.
- The equipment is designed and built for a wide range of process applications and for guaranteed performance in the shop floor conditions
- Skill Gauges & service provides a unique answer to customer needs, supplying the metrology equipment in association with a wide variety of specialized machine tool controls.

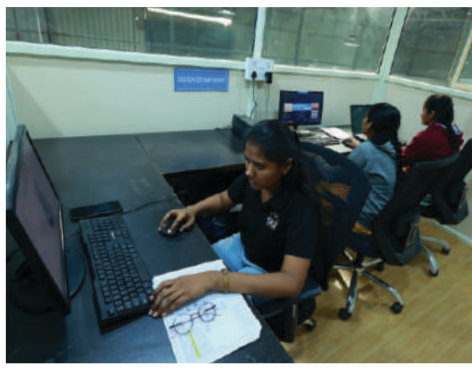
Manufacturing Scope

- **Precision Measuring Instruments** - Dial, Calliper, Bore Gauge, Snape Gauge, Magnetics Stand, Comparator Stand, Universal Gauge
- **Master** - Setting Rings, Setting Discs, Plain Plug, Special Master
- **Measuring Pin, Taper Mandrill**
- **Snap Gauge** - Single Ended, Double Ended, Fixed Type, Carbide
- **Width Gauge/Slip Gauges**
- **Thread** - Ring Gauge, Plug gauge, NTP,
- **Air Gauges** - Air Plug Gauge, Air Ring Gauge, Taper Air Gauge, Air Caliper
- **Electronic Gauges** - BMD Gauge, Depth Gauge,
- **Gear Rolling Teaster**
- **Air - Electronic Units** - Readout Unit, SPC Unit
- **Customized Gauging System** - Auto Gauging, Multi-Gauging, Vision inspection, Spl. Fixture
- **Automation** - Assembly Line, Leak Testing Special Purpose Machine
- **Industry 4.0 Solution** - PQMTS(SPC) Software, Auto Correcation, Real time Data, Machine Interlink
- **AMC Services**
- **Repair Services**

Infrastructure



Company



Design Dept



Standard Room



Raw Material



Machine Shop



Grinding Shop



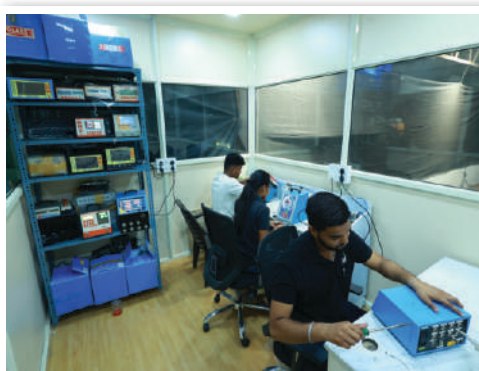
Sub Zero Equipment



Tempering Equipment



Plating Shop



Electronic Dept



Air Gauge Dept



Assembly Dept

Air Gauge Unit

- Ease of use, high magnification and reproducibility makes air gauge a perfect tool of measurement for precise applications.
- Accommodates all Jet Sizes.
- Magnification & Zero control for easy, quick & precise setting. Good filtration, quality connections ensures long life of the units.



Air Electronic Gauge Unit

- Least count 1µm/ 0.1µm
- Measurement display in absolute or comparative form
- Auto calibration
- Available in 1/ 2/ 3/4/5/6/7 or 8 independent channels
- RS232 data output/ USB output available
- Auto Air On-OFF



Online SPC unit (Probe Base & Piezo Base)



- LVDT Probe & Piezo Selection provided with 8 Results
- SPC, CP, CPK, Histogram Facility, pie chart
- SPC sub group
- Data Save Facility, (16GB)
- USB Port data transfer
- Ethernet port data transfer
- USB/Ethernet Port
- RS232 Port
- Grading Facility
- 100 different Programs

Air Calliper with Setting Disc



- Range -5 mm to 250 mm
- V support for perfect cantering and stability
- V support with tungsten carbide pads
- Multi-jet air callipers

Air Plug Gauge



- Range- 3 mm to 250 mm
- 2 Jet/ 3 Jet/ Multi Level Jet Available
- Hard chrome plated for extended life
- Carbide Air Plug Gauge
- Though/ Blind/ Super Bore

Air Ring Gauge



- Range- 5 mm to 250 mm
- 2 Jet/ 3 Jet/ Multi Level Jet Available
- Hard chrome plated for extended life
- Carbide Air Ring Gauge
- Offset/Cener/Super Offset Jet

Taper Air Plug Gauge & Taper Ring Gauge



- Quick and easy checking of diameter & taper angle
- Standard 2 jets for checking size, taper, ovality
- 3 jets at 120 degree for average size & tri-lobed effect (for diameter 6 mm & above)
- Can be supplied to check through or blind bores
- Can be supplied with multiple jets
- Hard chrome plated for extended life

Air Gauging Solution

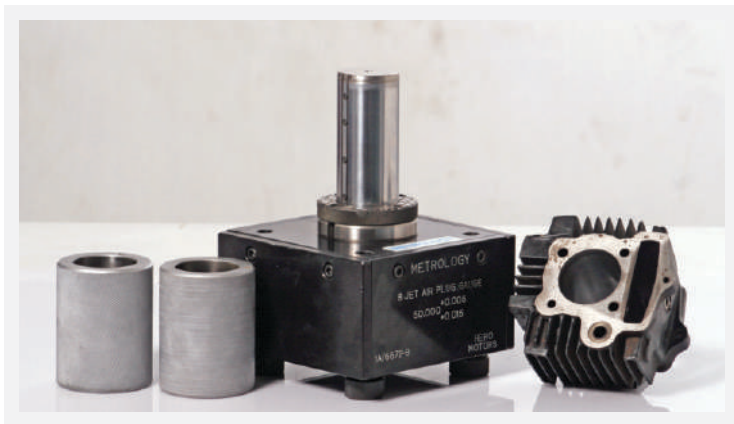
All Diameter • Oval • Bend • Twist • CD

- Checking the multi-parameters, such as, diameter of 2 Bores, Bend, Twist (parallelism in X & Y plain) & Centre distance (pneumatically or mechanically)
- System can be connected with PC based networking SPC system and it can convert specially for Auto grading with marking/printing.



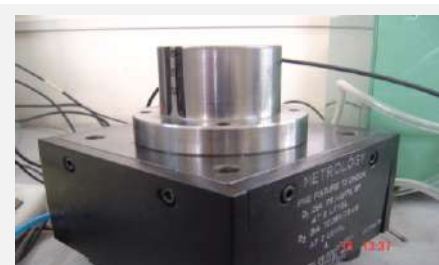
Squareness & Concentricity Fixture

Checking Squareness/ Perpendicularity as well concentricity/Run out w.r.t determined face of the component, ID to face, ID to OD, ID to ID and OD to OD Specially developed LED/LCD based counter with online PC based SPC system for max/min value in X & Y plain. Need not to rotate the component.



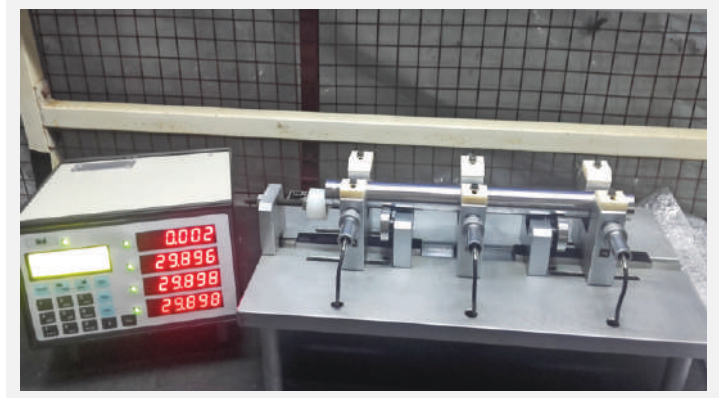
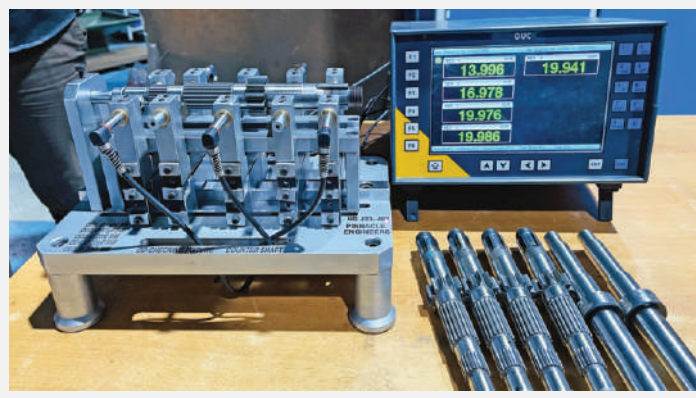
Special/Multi Jet Gauge

- Checking diameter, oval and taper. Specially for compressor components.
- Suitable design to make for online gauging system as required.



Customised Gauge

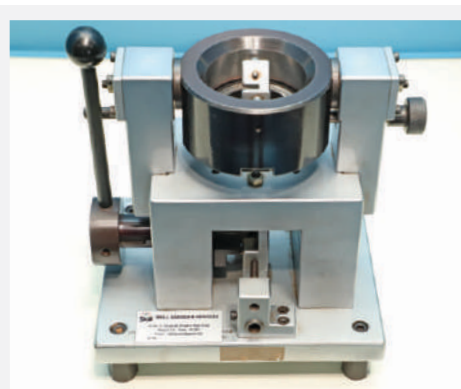
All Diameter • Runout



IBD • OBD • PCD



Sphere Diameter Gauges

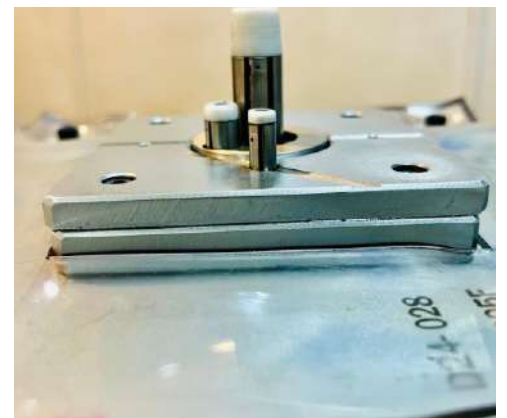


Customised Gauge

Groove ID & Length Checking Gauge



Floating Type Combine Air Gauge



Special Air Gauge



Multi-Gauging System

Camshaft Multi-gauging System

- To Measure all bearing Diameters, bearing od runout, Cylindricity, Length, keyway slot, dowel hole id and depth and base circle od and runout
- Auto/manual load/unload of component
- PLC-PC Based Operating System
- Motorized Component Rotation
- Leaser marking system Integrated
- Online SPC Facility



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Crankshaft Multi-gauging System



- Air Base System to Measure all Journal Diameters, Ovality, Taper, Pin Diameter, Throw Depth
- Probe/Air Base System to Measure all Journal Diameters, Ovality, Taper, Pin Diameter, Throw Depth
- Vision Base System to Measure teeth Run out
- Lease Base System to Measure Diameter & Length
- Semi-Automatic Measuring Machine Only Loading & Unloading Manually
- PLC-PC Based Operating System & Motorized Component Rotation
- Online SPC Facility



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Flywheel Multi Gauging System

- To Measure Thread Presence, Dowel Count, id Multi level, clutch face taper and runout, clutch face height, ring gear od and runout, flatness, parallelism
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- Leaser marking system Integrated
- Auto/manual load/unload of component
- Air Sensor to Control the Air Pressure
- Motorized Component Rotation
- Online SPC Facility



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Diff Case Multi Gauging System

- To Measure ID, OD, Ovality, Taper, Length, Sphere Dia
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- Motorized Component Rotation
- Online SPC Facility



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Brakes Disc Multi Gauging System



- To Measure Inner Diameter, Thickness, Depth, Flatness, Parallelism & Radial Thickness, Circumferential thickness, FFT Analysis
- PC/PLC Base Semi-Automatic Measuring Machine Only Loading & Unloading Manually
- Common gauge for various models
- Leaser marking system Integrated.
- Air Sensor to Control the Air Pressure
- Motorized Component Rotation
- Online SPC Facility



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Nozzle Body Multi Gauging System

- To Measure Inner Diameter, Outer Diameter, Taper, Depth & Height
- PC/PLC Base Semi-Automatic Measuring Machine Only Loading & Unloading Manually
- OK/Not Ok/ Rework Shorting Station
- Common gauge for various models
- Air Sensor to Control the Air Pressure
- Online SPC Facility



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Cylinder Head & Block Multi Gauging System

- To Measure Inner Diameter, Depth, Distance Position
- PC/PLC Base Semi-Automatic Measuring Machine Only Loading & Unloading Manually
- Ok/Not Ok Puch Mark
- Online SPC Facility



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Shaft Multi Gauging System



- To Measure Groove Diameter, Outer Diameter, Taper, Ovality, Depth & Length
- PC/PLC Base Semi-Automatic Measuring Machine Only Loading & Unloading Manually
- OK/Not Ok/ Rework Identification
- Common gauge for various models
- Online SPC Facility



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Pinion & Gear Multi Gauging System

- To Measure Inner Diameter, Outer Diameter, Taper, Ovality, Depth & Taper Angle
- To Measure IBD, OBD, PCD
- Special Poke-Yoke for Safety
- QR Code Sanner

- PC/PLC Base Semi-Automatic Measuring Machine Only Loading & Unloading Manually
- OK/Not Ok/ Rework Shorting Station
- Common gauge for various models
- Air Sensor to Control the Air Pressure
- Online SPC Facility



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Hub/ Outer Ring Multi Gauging System

- To Measure Thread Presence, internal and external diameters, Taper Angle, ID, OD Ovality, Length & Depth, squareness, cylindricity, Raceway height, raceway ID
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- Leaser marking system Integrated.
- Air Sensor to Control the Air Pressure
- Motorized Component Rotation
- Online SPC Facility



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Piston Ring Multi Gauging System

- To Measure Inner Diameter, Outer Diameter, Depth & Concentricity
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- Motorized Component Rotation
- Online SPC Facility



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Cover Gauging System

- To Measure Groove Diameter, Outer Diameter, Inner Diameter, Taper, Ovality, Cylindricity, Runout, Depth, Height, Perpendicular & Length
- PC/PLC Base Semi-Automatic Measuring Machine Only Loading & Unloading Manually
- OK/Not Ok/ Rework Identification
- Common gauge for various models
- Online SPC Facility



Knuckle Multi Gauging System

- To Measure QR Code Marking, Traceability, Internal Diameter, Relation Gauge, visual Checking & Attribute Checking & Packing Traceability.
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- Real Time Date Save



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Stub Axial



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- To Common Gauging Station Auto select part Measure internal and external diameters , Ovality, Length & Depth, squareness ,cylindricity, Concentricity
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- Attribute Gauging like Go-Nogo plug, Depth can be also accommodated in Gauging Cycle
- Leaser marking system Integrated.
- OK/ Not OK Interlink, Rejection Bin
- Online SPC Facility

Vision Base System



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- To Measure Teeth Count, Teeth Bent, Damage, Visual Ok Not Ok, Runout Checking, Burr,
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- Camera Base System
- Motorized Component Rotation
- Online SPC Facility

Robot System with Auto Correction



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- To Measure Thread Presence, internal and external diameters , Taper Angle, ID, OD Ovality, Length & Depth, squareness ,cylindricity.
- Robot Interlink with Machine & Gauging Station
- PC/PLC Base Automatic Measuring Machine Loading & Unloading with Help of Robo.
- CNC Auto Correctionto Fanuc/ Siemens CNC Controller.
- Tool Monitoring
- Rejection Bin Interlock, Next cycle Interlock on Rejection
- Online Gauging & SPC Facility
- Auto Correction data Analysis

Gear Rolling Taster



Parameter: Tooth to Tooth error, Total Runout error, Total composite error, Over Ball Diameter, ID , Length

- Manually loading & Unloading for semi-Automatic GRT
- Measuring Instrument for Testing of geometric deviation of Spur and helical gear i.e. lead profile and pitch error along with run out, base tangent length, dimension over ball etc
- Pick & Place by Gantry/Robot for fully Automation
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- Interfacing with Laser marking system.
- Motorized Component Rotation
- SPC Facility

Common Gauging Station with applying Load

- To Measure Thread Presence, internal and external diameters , Taper Angle, ID, OD Ovality, Length & Depth, squareness , cylindricity, Raceway height, raceway ID
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- N number of Component Common trolley Base gauging station.
- Setup Change time 15 Min
- Vision System/ Optical Sensor for Operation Missing Detection
- Laser marking system Integrated.
- High Precision & Repeatability
- Motorized Component Rotation
- Rejection Bin Interlock, Next cycle Interlock on Rejection
- Online SPC Facility



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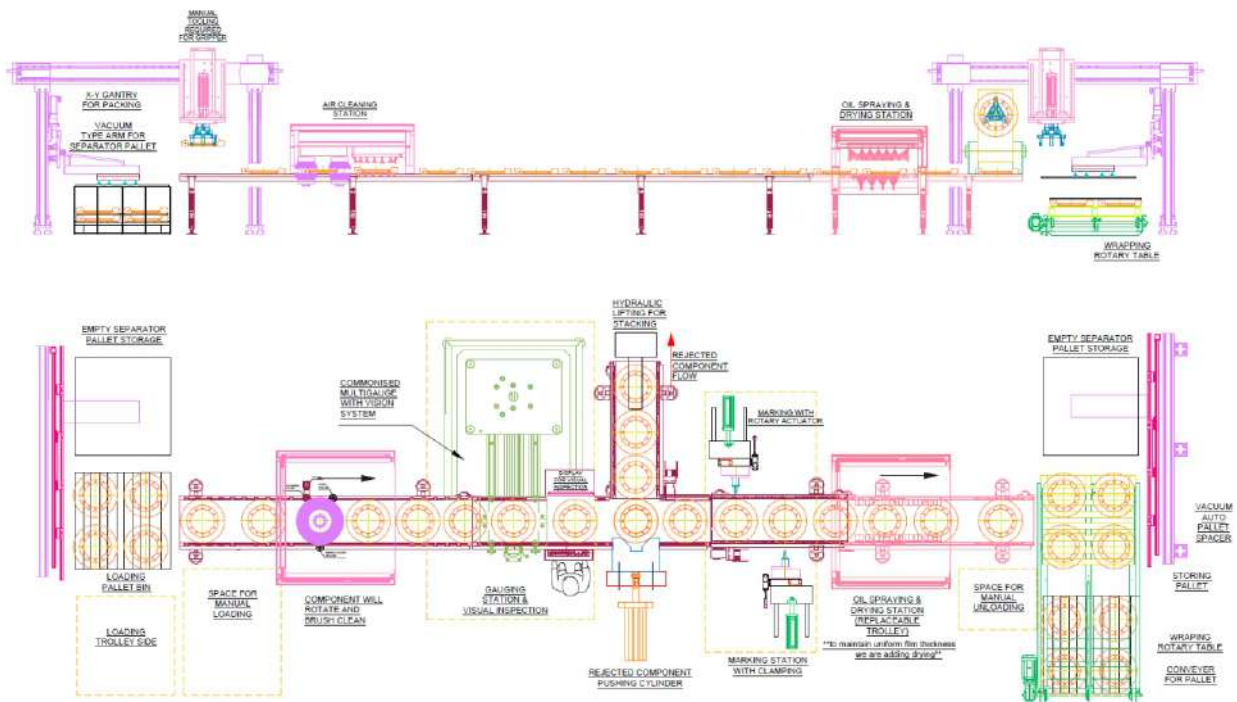
EV Multi-gauging System

- To Measure internal and external diameters , Taper Angle, ID & OD Ovality, Length & Depth, Squareness, Cylindricity, Flatness, Parallelism
- PC/PLC Base Semi-Automatic Measuring Machine only Loading & Unloading Manually
- Electric actuator use, Save Air
- Laser marking system Integrated.
- Vision System/ Optical Sensor for Operation Missing Detection
- Laser marking system Integrated.
- High Precision & Repeatability
- Motorized Component Rotation
- Rejection Bin Interlock, Next cycle Interlock on Rejection
- Online SPC Facility



Automation system

We believe that the best possible automation solution for any given manufacturing process can be configured for modular platform. Connection of several process sequences with demand-oriented intermediate decoupling. Individual processes such as marking, gauging, debarring or assembly tasks are often part of a multi-machine automation system, including the required controls architecture.



Additional integral Station

- Part Orientation Station ● Poke Yoke Station ● Auto Gauge Station ● Brushing Station
- Rotary Indexing Table ● Oil Spray/Dip Station ● De Oiler Station ● Debarring Station
- Vision Checking Station ● Leaser Marking Station ● Dot Pen Marking ● Packing Station

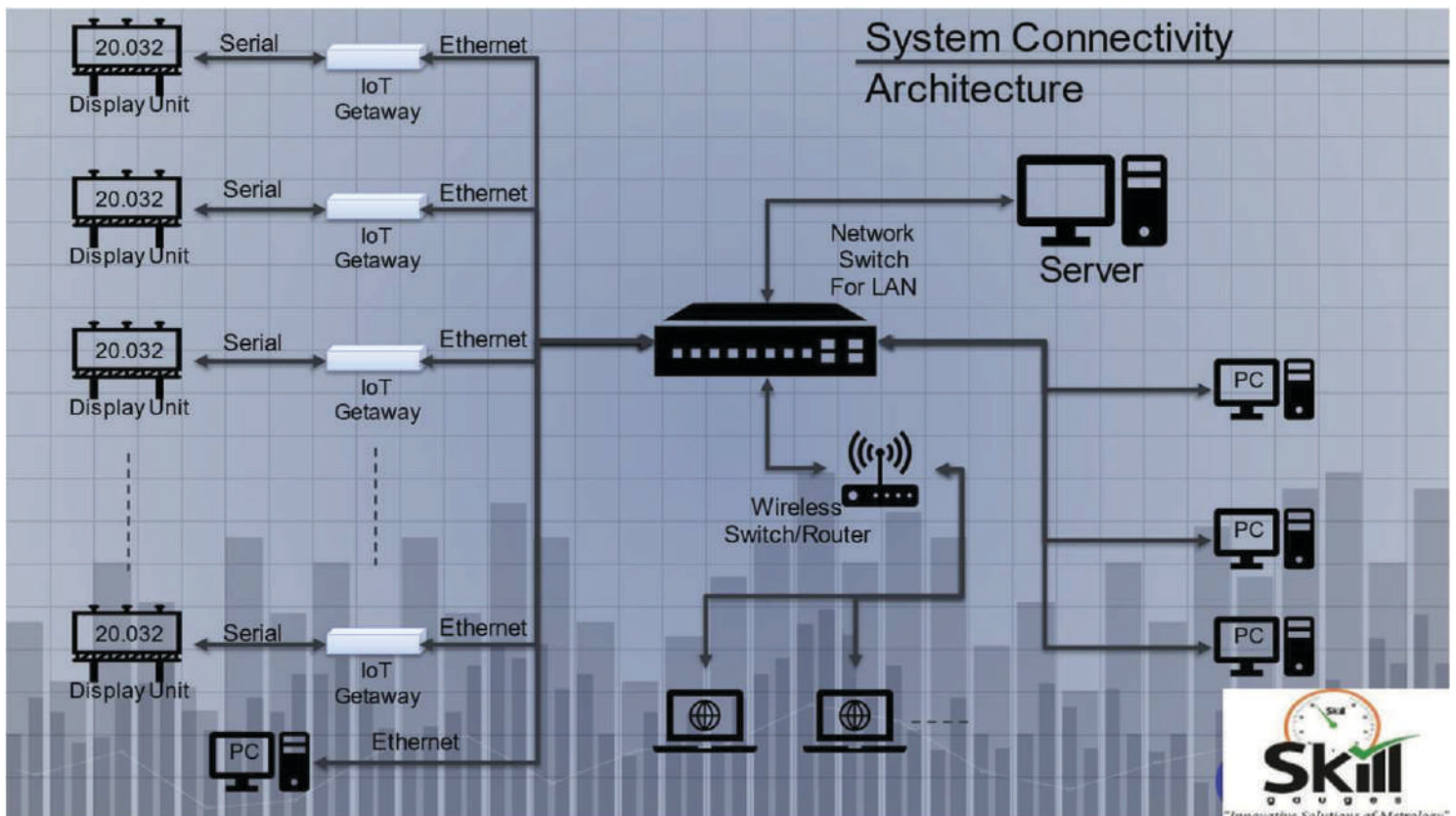
Gauging Automation



- High volume Gauging System
- To Measure internal and external diameters, Taper Angle, ID& OD Ovality, Width, Length & Depth, squareness, cylindricity,
- PC/PLC Base Fully Automated Gauging Machine
- Loading By Gantry Systems/Robots/linear Actuators/ Rotary indexers
- Gauging by Optical/Pneumatic/ Contact type
- Vision System/ Optical Sensor for Operation Missing Detection
- Leaser marking system Integrated.
- High Precision & Repeatability
- Auto Sorting for Rejection/ Accept/ Rework/Grading etc
- Motorized Component Rotation
- Online SPC Facility



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Industry 4.0 Solution

FEATURES

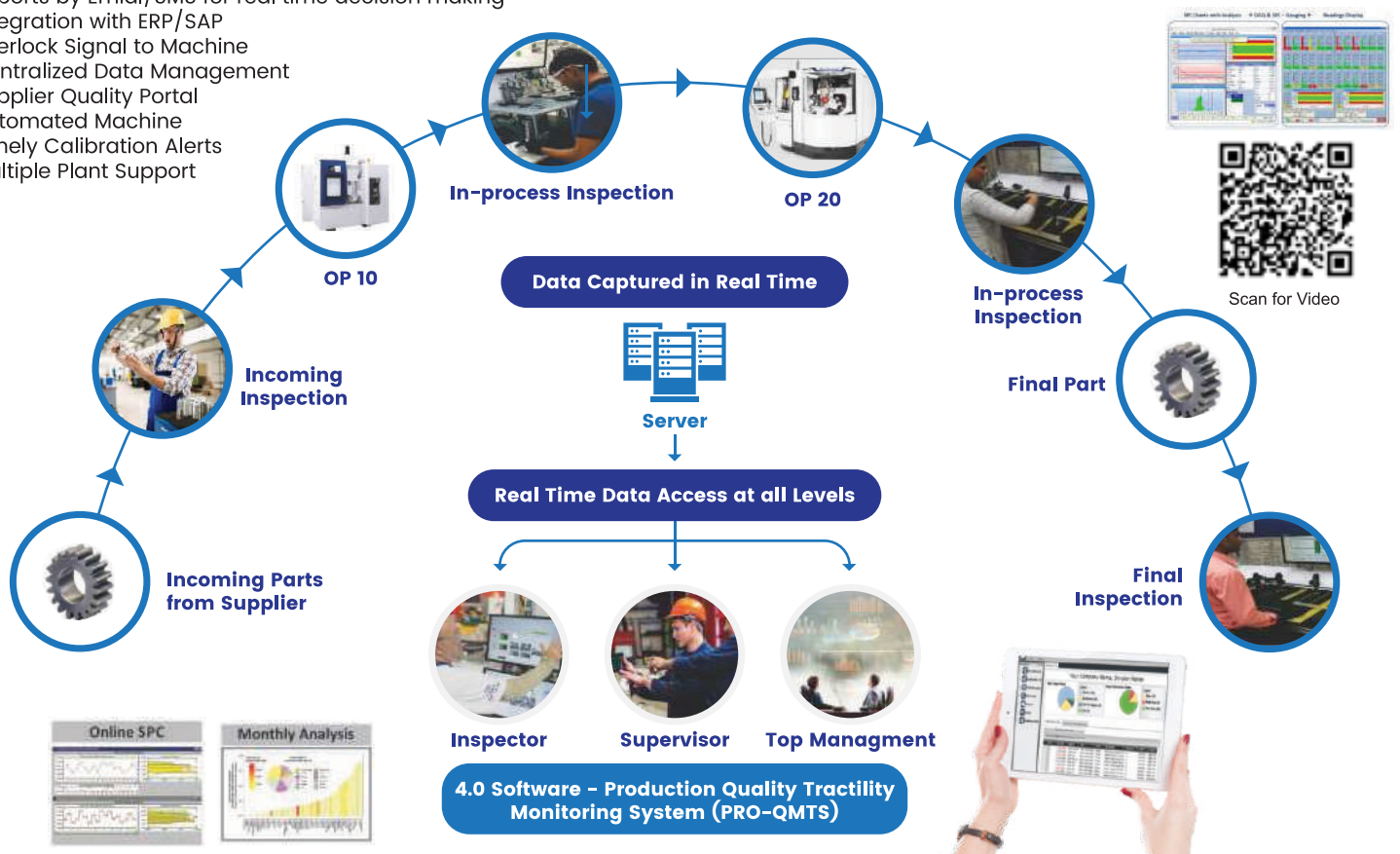
Traceability for Inspection Data

- Calibration & Tool life Monitoring System
- Machine Breakdown History Data
- Real Time remote monitoring of the press & Generation of Alerts
- Reports by Email/SMS for real time decision making
- Integration with ERP/SAP
- Interlock Signal to Machine
- Centralized Data Management
- Supplier Quality Portal
- Automated Machine
- Timely Calibration Alerts
- Multiple Plant Support

REGULATIONS

There will be 3 (three) modules running on the server,

- Web SPC, with Graphs & Reports
- Calibration software with History Card & Alerts
- Machine Breakdown Entry/Restoration & Reports



Our Esteemed Customers



Skill
gauges

Innovative Solutions of Metrology

Skill Gauges & Services

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🌐 www.skillgauges.com



Metrology

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