

Innovative Gauging
Best Practice – Best Value
Robust. 2D/3D. Flexible. Reliable. Exact.

**In-line
Non-laser
Non-contact**

ISRA
VISION

3D Quality In-line Gauging

Precise - fast - robust - flexible

Modern production processes of manufacturing automation are very complex. Extremely precise gauging and fit, as well as flexibility are in question – the most diverse product variations must be manufactured in the shortest time on an assembly line.

An exact 3D measurement is necessary for the most precise fit, to inspect the dimensional accuracy of individual parts or the assemblies that have already been mounted. Quality control occurs in hard-to-access positions with the widest range of features as well as surfaces with the most diverse reflective characteristics. The items being manufactured are not only in an undefined position, but they are also moving. The measuring data acquired is used directly for quality optimization in production. The Geometry Gauging Sensors (GGS) family is an easy, compact tool that meets these requirements.

A sophisticated sensor family

As quality gauging systems sensors are stationary or mounted on a robot and can be combined into a multi-sensor system for complex tasks. The measurement principle is based on sophisticated procedures and algorithms which use significant object features or the surface profile as gauging information.

Applications:

- In-line quality gauging
- Integrated quality check
- Gap and flush measurement

Your benefits:

The highest precision

- Multiple-line 3D area matching
- Combination of 2D/3D gauging technology in one sensor
- Gauging precision up to 0.05 mm

Maximum speed

- Direct measurement with a high-speed algorithm
- Shortest cycle times

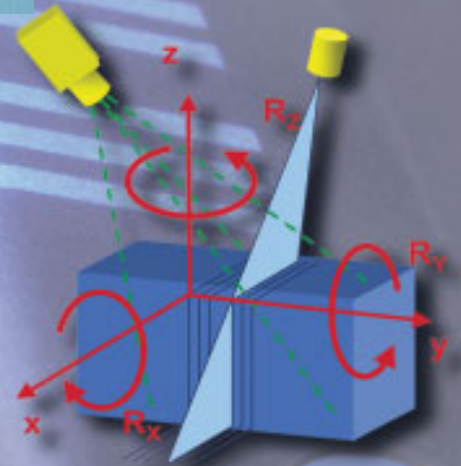
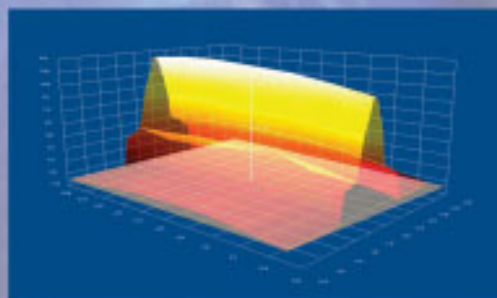
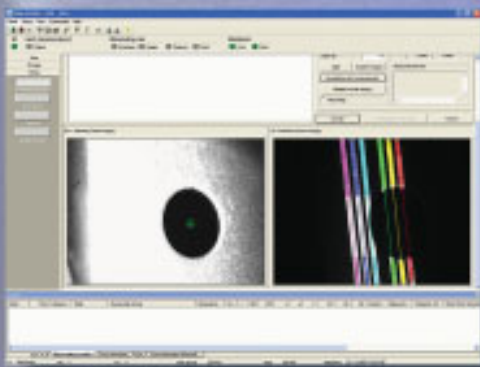
Wide flexibility and availability

- Narrow band LED light with camera filter
- Flexible sensor arrangement
- Independent of component part colors
- Multiple gauging features: Edges, holes, surfaces, radii, angles, etc.
- Variable application possibilities: Stationary or mobile e.g. on robot arm

Easy to use

- Simple user interface
- Automatic stripe recognition
- Automatic calibration

Geometry Gauging Sensor Family



Sensor - Robot - Software

A team with the highest precision

Everything in one package

We deliver a compact and flexible system that offers complete quality management for all process levels.

A quick and targeted reaction

Measurement deviations are recognized quickly and reliably by the measurement data presented in real time.

The optimum combination

Our gauging equipment components are optimally tuned to each other to meet the highest demands:

- The measurement data is comparative and collected in a precise, objective and reproducible way.
- The measurement data has a uniform presentation so the results can be interpreted in a comprehensive way.

Flexibly expandable

The in-line gauging package offers a highly precise, local acquisition and saving of individual measurement data as well as its visualization and a first analysis.

This package makes up the basis for establishing a gauging cell network with connection to a central data server. It may be expanded for the purpose of process optimization to the in-process analysis software Q-VIS at any time.

With Q-VIS, you will be capable of analyzing and comparing all gauging cells at the plant, cross-company wide, regionally or worldwide.

Integrated sensor calibration, robotic temperature compensation,

Environmental influences and deterioration change the measurement characteristics of sensors. Careful calibration protects from measurement mistakes and

guarantees the utmost precision of the data measured. For that reason, all sensors are individually calibrated, metrically and thermally.

The same holds for robots:

They warm up while operating, which has an influence on the measurement results. Our solution creates an integrated robotic temperature compensation that can be implemented directly in the production line in only a few minutes and guarantees the utmost precision.

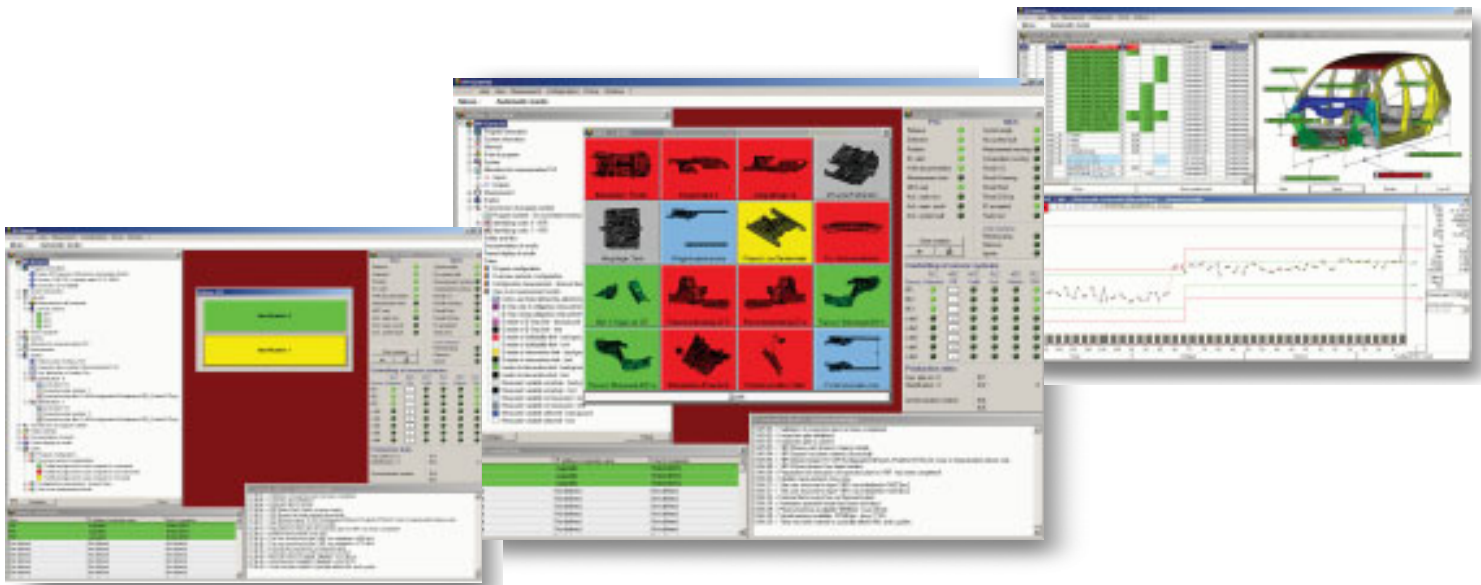
Compact and economical

The combination of calibrated robots and sensors guarantees the utmost precision and exactness as required by your needs. Our system is distinguished by its availability as well as by its minimized maintenance and downtime.



Gauging Cell Details at a Glance

All-in-One process monitoring



Intelligent integration of in-line gauging technology

One software for production
100% stable, secure and researched

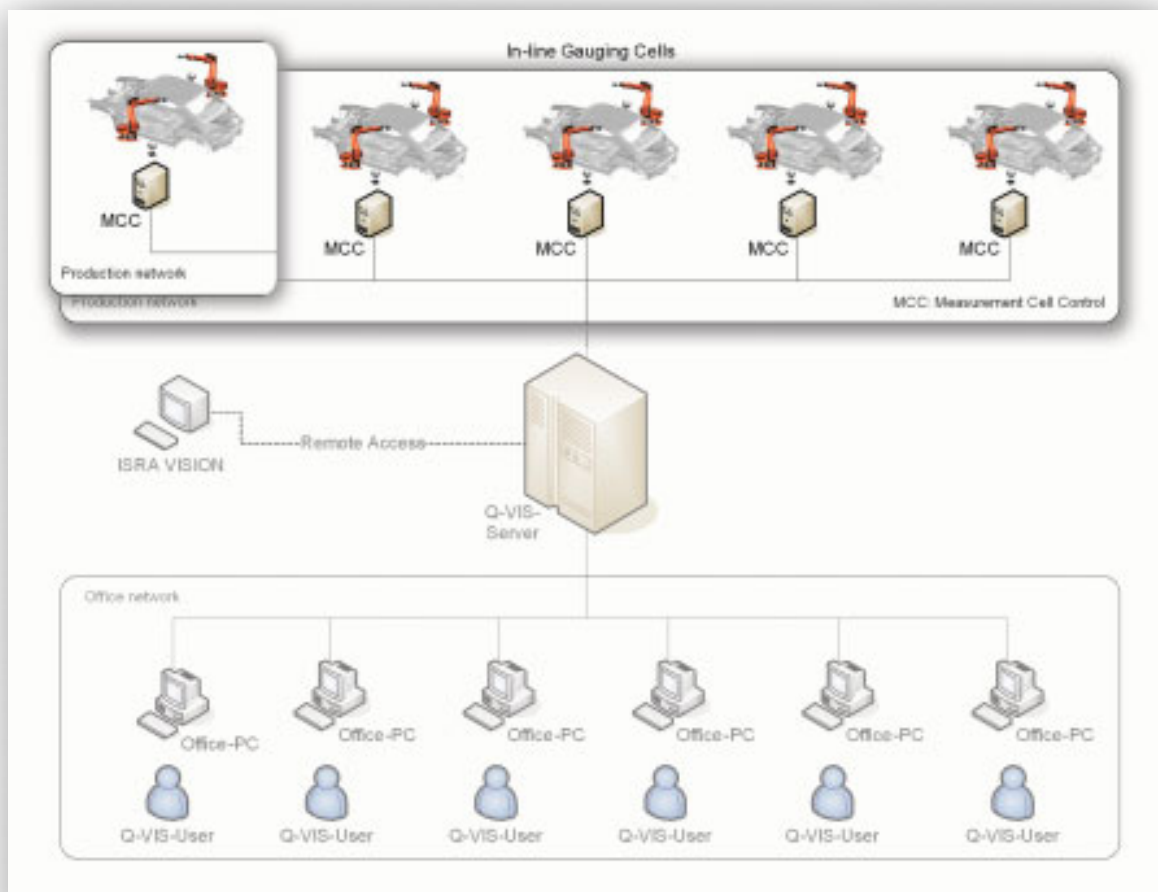
Easy to use
Clear and structured user interface

Immediate visualization of the quality conditions
Easily understood graphics

Quick causal analysis
Just three clicks to the problem

Versatile data interfaces for transfer of results

Quick start up with off-line configuration



Measure - Visualize - Analyze - Optimize

In-line. On-line. Global.

The right mix for the best quality

Best quality, widest flexibility and low costs have long been the request of automotive manufacturers. Interlocking new and complex process chains with each other is valuable for producing top-class vehi-

cles. As a supplier to the automotive industry, ISRA VISION focuses on highly efficient systems that provide the manufacturer with a long-term competitive advantage. An intelligent tool box made of in-line measurement technology and in-process analysis software is available for measurement tasks on the body in

white. It enables a complete quality inspection and evaluation locally, per measurement cell as well as for the whole car body – detailed, exact and accessible everywhere.

Quality auto body manufacturing at a glance!

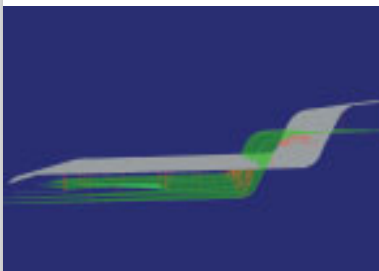
Geometry Gauging Sensor
For efficient 2D/3D measurement



Robotic Temperature Compensation
For highest stability



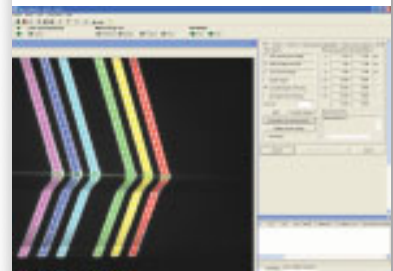
3D Area Matching
For highest precision



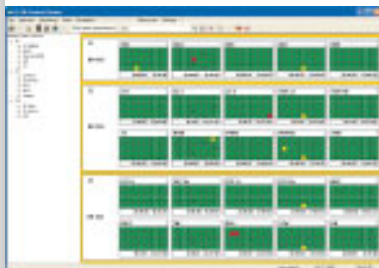
Quality

Measure...
Visualize...
Analyze...
Optimize...

Multiple-line Projection
For highest reliability



Production Quality Data Base
The whole process line on-line at a glance



On-line display for every gauging point



Process Monitoring
Interface with all robots and sensors



Innovations for Robot Automation



World class automation

ISRA VISION has been a leading supplier of high-performance quality inspection, robot guidance and production logistics systems for more than 20 years.

These systems are used all over the world in such industries as automotive, tier 1 automotive suppliers, packaging, aerospace, food, logistics, mechanical & plant engineering, and robotics. Our goal is to offer a complete portfolio of standard solutions which meet the full spectrum of requirements along the entire process chain.

Thousands of successful installations worldwide demonstrate ISRA's experience and technological expertise in machine vision.

The advantages at a glance

Customers choose ISRA over the competition for the following reasons:

- Our development activities are fully focused on the needs of our customers.
- We consistently invest in our own know-how in all of the core areas of machine vision.
- At our company, the customer relationship does not end when a new system leaves our shipping dock. The Customer Support Center operates a range of services including a telephone hot line, teleservice, on-site service and maintenance to support our customers during operation of their systems and equipment and to help them increase their productivity.
- More than 400 team members at our locations in Europe, North America and Asia are committed to helping you achieve success.

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Optimize your ROI - with the technology leader **ISRA**

www.isravision.com

The More You See...

