

MECTRON

Means Quality



Qualifier® Specifications:

Length to 6" (150mm)
 Diameters .060" (1.5mm) to 1.180" (30mm)
 Enclosure NEMA 12
 Operating Temperature 32-110° F (0-43° C)
 Rates up to 300 parts per minute

System Protection:

Sola Constant Voltage Transformer
 Uninterruptible Power Supply

System Dimensions:

Length 42.0" (1067mm) x Width 42.0" (1067mm) x Height 65.5" (1664mm)

Power Available:

3KVA Multiple Tap Transformer
 208-220-230-240-416-460-480V
 Single Phase 50HZ-60HZ

Weight:

1550 lbs (703 kilos)

Q-Series Fastener Inspection Systems

Q-5000 Qualifier® 6 Laser Array and Magnetic Imagery™ System—provides complete dimensional and metallurgical inspection.

Q-5000 Qualifier® 8 Laser Array and Magnetic Imagery™ System—provides complete dimensional and metallurgical inspection.

Q-2500 Qualifier® 6 Laser Array—provides complete dimensional inspection.

Q-2500 Qualifier® 8 Laser Array—provides complete dimensional inspection.

Note: Q-2500 systems can be upgraded to a Q-5000.



CORPORATE HEADQUARTERS

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Global Offices

N. America: Eastern Midwest Southern Western Canada	European: England Germany Eastern Block France Italy Spain	Asia: Japan China South Korea Taiwan	S. America: Brazil	Australia
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Global office information available on our website.



High Speed Inspection Systems

Qualify, by definition, means to reach the required standard, and therefore, all specifications provided by your customer...

If you're going to put your name on the box of parts that need to meet ISO-9000, QS-9000 and the Fastener Quality Act, your parts need to be **Qualified by a proven high speed system that has inspected billions of fasteners worldwide. The Qualifier® Q-Series Inspection Machines have proven to be the systems that help achieve zero defects per million (DPM's).**

100% Laser Measurement

The most advanced inspection systems available on the market today, the Qualifier® Q-Series deliver high speed gauging and inspection for an unlimited variety of parts in a wide range of materials. Utilizing MECTRON's patented laser array, the Qualifier® provides 360° inspection of each piece, displays its dimensions on the computer touch screen, and automatically inspects the part features and measurements.

The Qualifier® also automatically inspects and discards any part that does not meet customer specifications such as deformed, bent, damaged, thread defects (spiral, drunken, roll-ups, etc.), feature deviations, and foreign material. Parts which pose special challenges due to part orientation from piece to piece such as Sems products, patched products, and flanged hex shapes can be inspected and gauged utilizing the Qualifier's® extensive software capabilities.

Metallurgical Inspection

Qualifier® Inspection Systems may include the MECTRON MI-9000 Magnetic Imagery™ instrument. Magnetic Imagery™ is an advanced eddy current technique which provides the most complete on-the-fly metallurgical inspection available on the market today. The instrument develops a magnetic image of each part as it passes through the Qualifier® to create the part's signature. This full signature provides the opportunity to detect the most critical metallurgical defects such as cracks, material mixes, conductive platings, and hardness by a visual deviation in the magnetic display. The percentage of deviation is also displayed, and acceptable limits can be quickly defined using the touch screen programming capabilities.

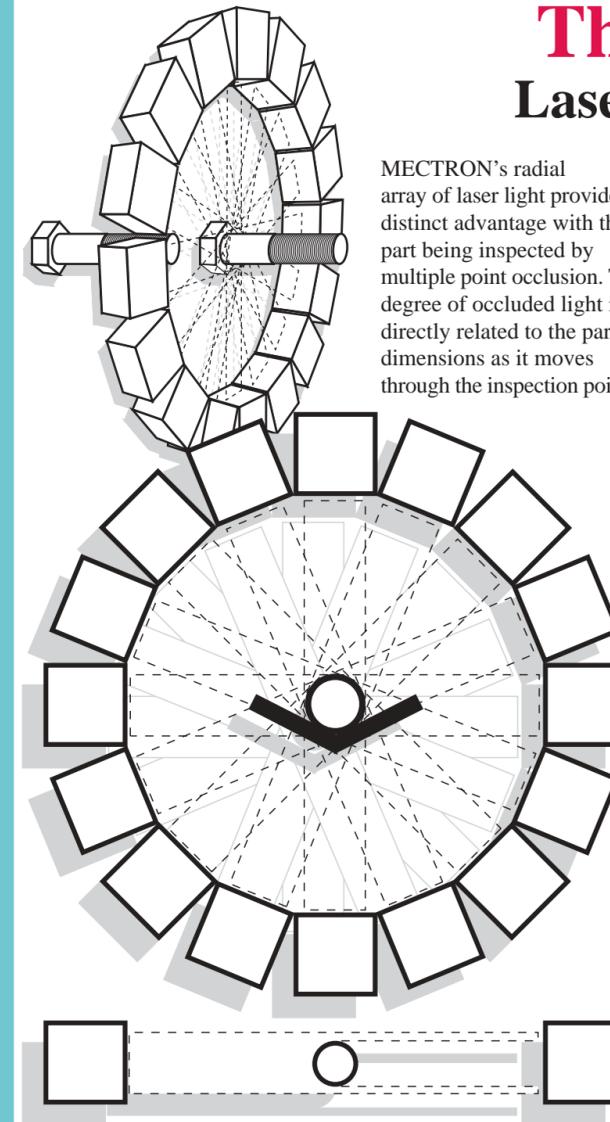
Quality You Can Count On

Since 1968, Mectron Engineering Company, Inc. has designed and manufactured systems for automatic testing of industrial parts. The MECTRON name has been built on technology, customer service, and inspection systems that provide capabilities for supplying zero defect products.

Mectron Inspection Systems have become an integral part of providing manufacturers the means by which they can consistently supply and satisfy their customers with 100% inspected and certified parts. The Mectron Qualifier® Q-Series Inspection Systems—Systems you can count on for Quality Assurance.

The MECTRON Advantage

- The laser array provides up to 16 points of inspection through 360° over the entire length of the part.
- Advanced software allows you to customize your part feature name to part print for each gauge zone.
- Touch screen operation lets you quickly define or modify inspection instructions including tolerances and critical dimensions.
- Pareto chart format of part defects and their printouts can be obtained to provide feedback to the manufacturing process.
- Measurement and testing information for an unlimited number of parts can be stored on the hard drive or floppy disk and accessed by simply calling up the part number.
- Step-by-step instructions and simple terminology make The Qualifier® easy to learn and use, even for first time operators.
- Parts made of ferrous and nonferrous metals, plastics, and many other materials can all be inspected.
- The Qualifier® is equipped with a quick disconnect for the optional MECTRON Packaging System.
- NEMA 12 enclosure to protect electronic instruments from harsh shop environments.
- Positive air flow in laser housing helps to keep lasers clean.
- The Magnetic Imagery™ (eddy current) system utilizes low frequency coils specifically designed for fastener applications. Consequently, the signal is very stable, does not drift, and does not require constant re-teaching.
- The Magnetic Imagery™ system uses an "envelope" rather than a "peak" monitoring technique which gives much more accurate and repeatable test results as the whole of the magnetic signal is verified.
- The MECTRON is built to endure the usual industrial environment associated with the fastener industry and is not affected by temperature fluctuations.
- Full back up, training, spare parts, and service support are available in your plant within 24 hours from trained service technicians.



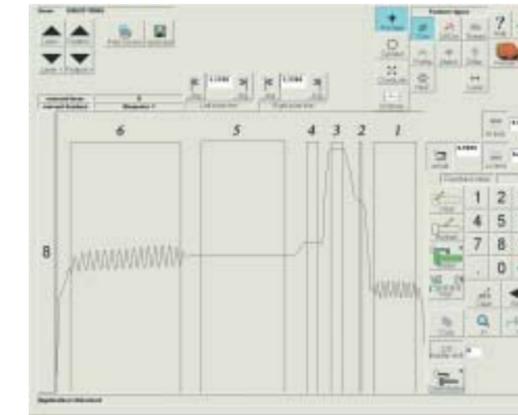
MECTRON's radial array of laser light provides a distinct advantage with the part being inspected by multiple point occlusion. The degree of occluded light is directly related to the part's dimensions as it moves through the inspection points.

The laser array provides up to 16 points of inspection through 360° over the entire length of the part, which allows gauging dimensional discrepancies anywhere on the part. This patented technology separates MECTRON from all other inspection equipment companies.

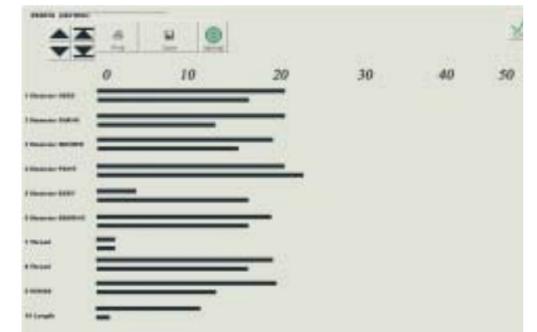
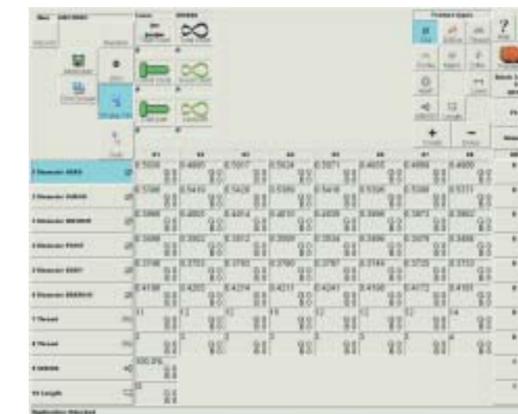
Patent No's. : 5,383,021 and 5,568,263

The MECTRON SYSTEM Laser Gauging and Magnetic Imagery™

Simply pass a good part down the track to automatically display the part outline on the instrument's touch screen. Utilizing your part print, you can set up to 14 gauge zones for each of the 8 lasers for a total of 112 gauge zones to inspect the product. Each gauge zone can be custom labeled by it's part print feature name. All setups can be saved and retrieved by part number either on floppy disk or on the instrument's hard drive storage.



Tabulation of gauge zones helps you determine where the manufacturing process has varied from the part print. Data collected for each gauge zone can then be downloaded into a Pareto chart format and printouts can be obtained to provide feedback to the manufacturing process.



Part print terminology can be selected from the setup screen or simply use the character display to customize your feature name, for each gauge zone.



Magnetic Imagery™ provides a means to define a part's distinct metallurgical signature. This signature is used to develop a Shadow Gate™. Parts that do not conform to the Shadow Gate™ are rejected by the system.



MECTRON
We Deliver More Than Quality
We Deliver *Peace of Mind*

