

Con-Rod Measurement

Engine Data Sheet

Semi Automatic
Air / Electronic
Inspection



Part characteristics ranging from pitch, bend and twist to pin and crank bore diameters must be held to tight tolerances to meet reliability and increasingly strict pollution standards.

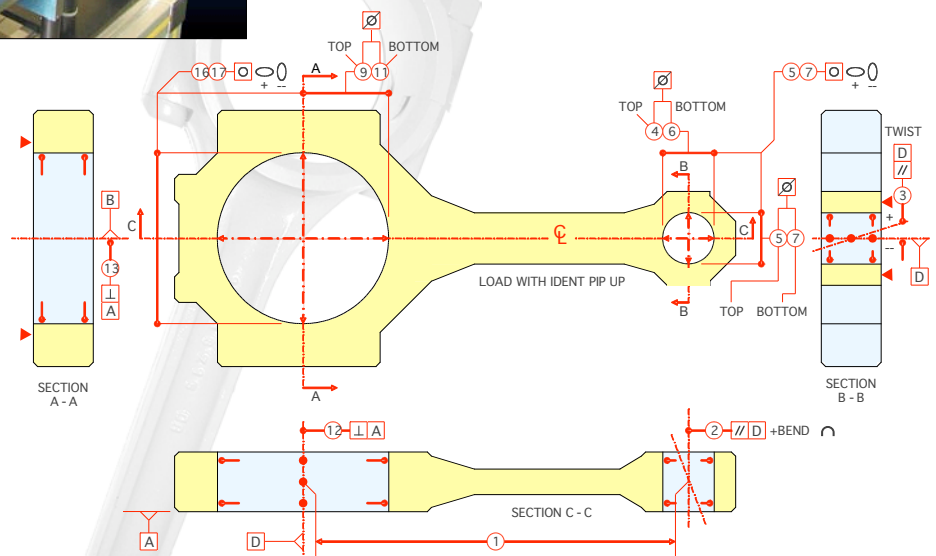
Fully automatic, semi-automatic and manual conrod measurement systems are available to inspect characteristics machined throughout the manufacturing process. Integration with weighing, marking and grading systems for turnkey solutions.

Fast cycle time, detailed part information and easy-to-interpret displays are available to ensure effective control of a difficult process.

Measurement solutions are built on the CRITERION Quality Information System, helping you achieve optimal quality, performance and productivity.

Features

- A cost-effective build approach using standard modular construction.
- Universally applicable, reliable proven designs.
- Multi-dimensions and geometric features gauged simultaneously.
- Excellent accuracy and repeatability.
- Choice of air / electronic or electronic systems to suit customer and process requirements.
- Built on the CRITERION quality information system.
- Automation to suit customer's requirements.



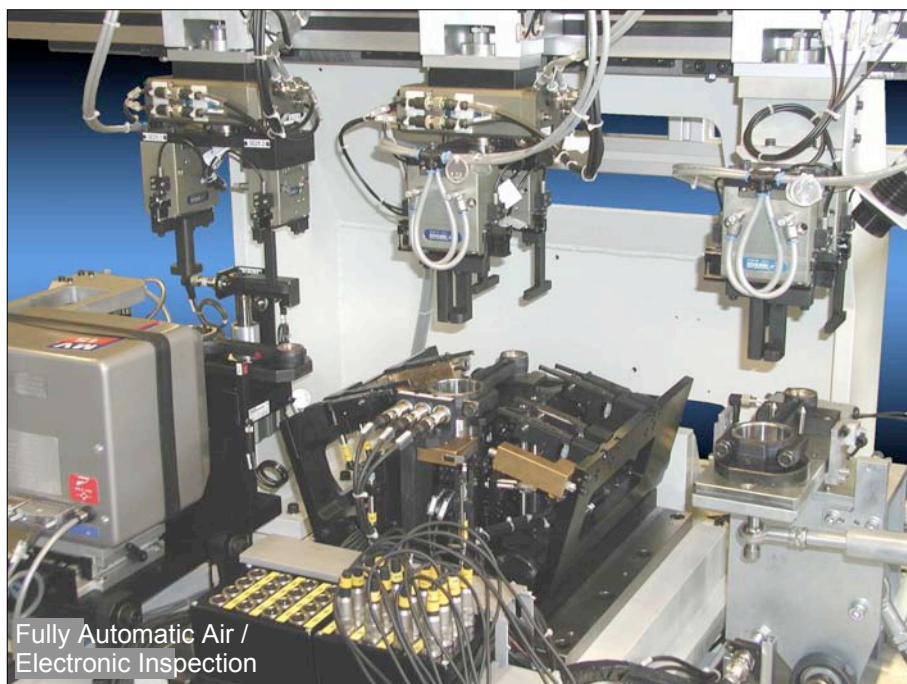
Benefits

- Flexibility in machine configuration.
- Cycle times to meet production needs.
- Designed for use in harsh shop floor environment.
- Highly accurate and responsive resulting in excellent repeatability.
- Laboratory grade results in industrial environment.
- CRITERION optimises part quality and process efficiency



CON-ROD MEASUREMENT

Manual, Semi and Fully Automatic Systems



Fully Automatic Air / Electronic Inspection

Complete manual, semi and fully automatic control:

	Manual	Semi Automatic	Fully Automatic
Location	Bench Top or freestanding	Freestanding	In line, straddling conveyer. Off line robot or gantry pick & place loaded
User Requirements	Operator loaded and cycled	Operator loaded and unloaded. Automatically cycled	No operator attendance required. Part is raised into measure position by elevator
Functionality	Generally used for tooling set up and post process audit	Utilized for high-volume productions or audit inspection	Used for high volume production, typically in conjunction with, weighing, marking & grading systems.
Measuring Elements	Either electronic or pneumatic plug gauges	Generally utilizing standard modular gauging elements. Either electronic or pneumatic	As semi auto plus: Automatic mastering - min and max calibration masters
CRITERION platform	Series 100 to 500	Series 500 or 700	Series 900

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Measured Characteristics:

Crank Bore

- Diameter across 2 axes at 2 levels
- Taper
- Ovality
- Perpendicularity to face

Pin Bore

- Diameter across 2 axes at 2 levels
- Taper
- Ovality

Pin to Crank Bore

- Pitch (Centre Distance)
- Bend (Parallelism)
- Twist (Parallelism)

Options:

- Thickness
- Step
- Temperature Comp
- Weighing
- Marking
- Sorting OK/NOK/by Grade.

