



## MICHIGAN CUSTOM MACHINES, INC.

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Product Highlight:  
**INJECTOR SPRAY  
ANGLE INSPECTION**

As part of an in process testing machine, MCM was asked to develop an automated spray angle inspection capability to eliminate operator subjectivity when inspecting for correct angles of spray streams produced by an injector nozzle. This machine performs a pressurized inspection of the spray angle on a spray nozzle with two distinct spray angles (pilot and main). To check for a uniform spray cone, the tooling rotates through 360 degrees during the inspection process.

### Background

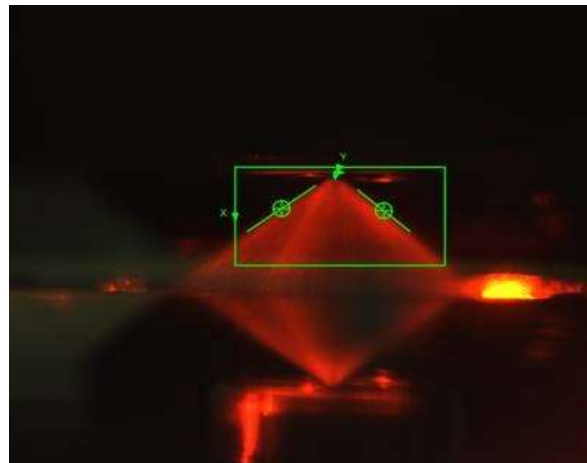
Inspection of the spray quality, angle and/or stream count on fuel injectors has always been difficult to verify with operator observation being the primary method of inspection. This form of inspection is subjective at best. With the improvements in camera and lighting technology MCM has been able to remove the variable from the inspection process and provide traceable inspection of multiple parameters within the spray test inspection record.

### Machine Features:

- Automatic inspection of spray quality without operator involvement.
- Single test head with manual loading and automatic clamping of the DUT
- Spray cone angle measurement to +/- 0.5 Degrees.
- Controlled, programmable test fluid pressure to ensure uniform test conditions.
- Live run screen displays of the inspection in process.
- Fully documented test results with archiving to a central server.

### Ease of Use

We designed our touch screen operator interface to be intuitive to use. The display always shows what you need to know. If you want to know more detail it's available at the touch of a finger.



Please contact us at [sales@mcm1.com](mailto:sales@mcm1.com) for more information.