

## Superior Precision, Greater Accuracy

Get superior precision, greater accuracy and the ability to measure wire roundness with the Fort Wayne Wire Die CMS420 SmartMic™ Direct Contact Wire Measurement System. The CMS420 comes with Fort Wayne Wire Die's new proprietary contact measurement software that allows for a single-pin calibration reset, automatic temperature compensation and data storage to support your quality documentation requirements.



## New Technology Makes Direct Contact Your Most Accurate Choice

Supported by new proprietary Fort Wayne Wire Die software, the CMS420 SmartMic™ Direct Contact Wire Measurement System enables you to precisely determine the diameter and roundness of a wire sample. As a result, you can verify die conformance to specifications better than ever and greatly improve the quality of your finished wire.

Features of the CMS420 SmartMic™ include controlled anvil pressure settings that minimize the possibility of wire deformation error and help to ensure accurate wire measurements.

Polished polycrystalline diamond anvil surfaces promote exceptional repeatability and minimize wear even when the wire is rotated. The wire pedestal holds the wire in the same position to eliminate cosine error normally found in non-contact measurement systems and provides accurate and repeatable measurement of wire roundness.

The CMS420 SmartMic™ comes factory-calibrated using 50 XXX Class gage pins traceable to the NIST\*. This factory-installed calibration data is then referenced by the software every time you reset the machine using the single calibration pin provided. You may also adjust the linear formula to better correlate with the established measurement system already in use at your workplace.

In addition, a temperature compensation probe continually monitors the temperature of the gage block. The software uses this temperature data to make the calculations required to automatically compensate for measurement changes caused by thermal expansion or contraction of the gage block.

A data acquisition program is included for easy data storage and retrieval, making the CMS420 the perfect tool for meeting ISO9000, UL and CSA quality documentation requirements. With the touch of a button, the measurements are transferred from the SmartMic™ into the computer.

The turnkey system includes an integrated computer with SmartMic™ software and Microsoft Excel already installed and ready for use making setup fast and easy. For more information, contact a Fort Wayne Wire Die representative.

Specifications:		
<b>Measurement Range</b>	0.10mm to 3.65mm	.004" to .144"
<b>Repeatability</b>	±0.3µm	±.000012"
<b>Resolution</b>	0.1µm selectable	.000010" selectable
<b>Dimensions (HxWxD)</b>	18cm x 21cm x 31cm	7" x 8" x 12"
<b>Weight</b>	6.8kg	15 lbs.
<b>Voltage</b>	230V/50Hz	115V/60Hz

**Polycrystalline diamond tip anvils**—wear resistant and flat for accuracy.

**Pedestal**—holds wire in same place consistently to minimize error.

**Temperature compensation probe**—sends temperature readings to computer for linear line adjustment.

**Calibration pin (0.66mm/.026")**—single point calibration adjusts all 50 data points with one setting.

Anvil Pressure Settings		
<b>Wire OD</b>		<b>NIST* Gram Pressure</b>
0.10mm-0.66mm	.004"-.026"	220g±28
0.66mm-3.65mm	.026"-.144"	440g±28

**Tag-out, lock-out cover**—secures the device so it cannot be used when maintenance or recalibration is required.



**Fort Wayne Wire Die, Inc.**

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Installation and operation manuals included.  
 Training available.

\*National Institute of Standards and Technology (U.S.A.)  
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