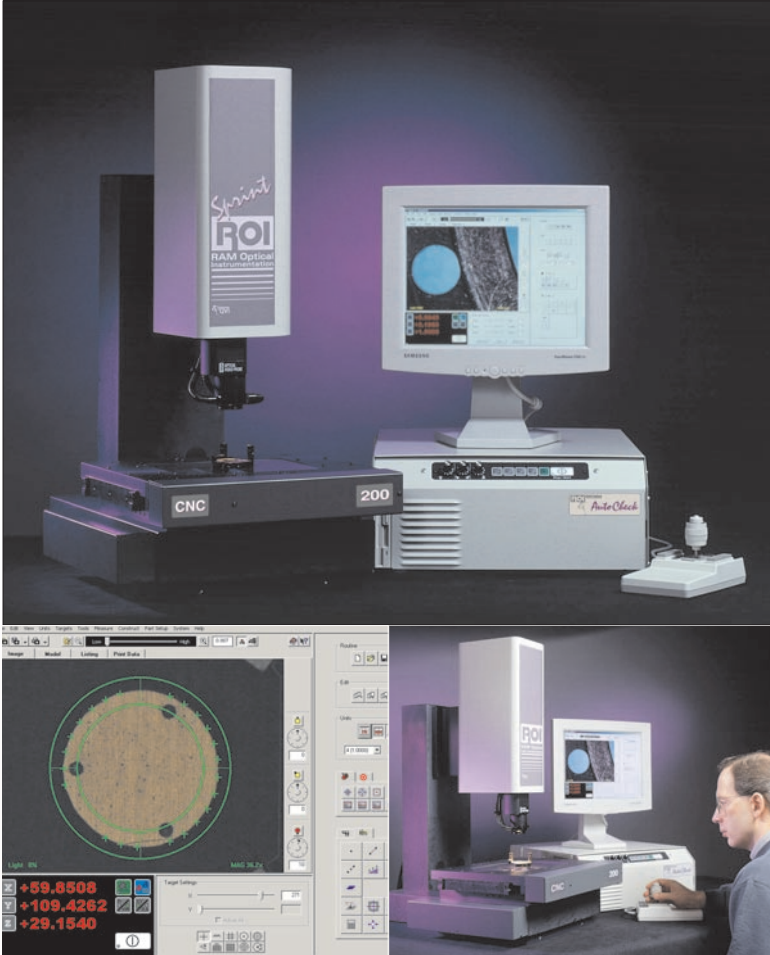


# Sprint CNC

200  
250  
300

## Optical Measurement Systems

The Vision is Simplicity



### Features

- Complete automatic dimensional measurement system - instrument, electronics and software
- Rock-solid granite base and column with precision stages
- High-resolution digital color camera and motorized zoom optics
- Basic-X metrology software with extensive set of measurement capabilities
- Small footprint, large capacity XYZ travels
  - 8 x 6 x 6 in.      200 x 150 x 150 mm
  - 12 x 6 x 6 in.    300 x 150 x 150 mm
  - 12 x 12 x 6 in.   300 x 300 x 150 mm

### Rock-Solid Automatic Measurement System

**S**print™ CNC series of automatic dimensional measurement systems are designed to make it easy for any user to get accurate, repeatable measurements. Compact benchtop designs with large stage travels make Sprint CNCs ideal measurement tools for a wide range of parts.

### Intuitive Metrology Software

Sprint CNCs include Basic-X™ metrology software which provides an extensive set of functions for operation and analysis through an easy-to-use graphical interface. Run measurement routines for all the parts you make to maintain the quality your customers expect.

### Precision Zoom Optics

The standard 6.5 to 1 motorized programmable zoom lens magnifies images as much as 135 times, in full color.

### Structural Integrity

Joystick-controlled precision mechanical bearing XYZ stages with 0.000020 inch linear scales simplify part positioning and focusing. Rock-solid granite base and column assembly ensures repeatable, accurate measurements.

### Video

Sprint CNC systems feature live color imaging and measurement on a single monitor to improve efficiency and save space. Non-contact video measurement of complex geometries is simplified through icons and symbols that initiate powerful algorithms with extensive capabilities - yet are easy to use.

### Illumination

Sprint CNC systems include a fiber optic on-axis light, LED back light and fiber optic ring light to produce high contrast images. The patented VectorLight™ is optional.

Sprint CNC systems increase productivity by making optical measurement easier than ever.

# Sprint 200 250 300 CNC

## Optical Measurement System Technical Specifications

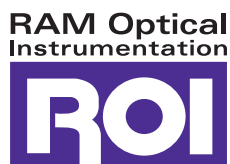
| Optics                                    |   |
|---|---|
| Zoom Lens                                 | 6.5:1 (motorized)   |
| Working Distance (with f/o ring light)    | 3.3"  |
| Working Distance (with f/o on-axis light) | 2.1"  |
| Working Distance (with VectorLight)       | 2.4"  |
| Magnification on 17" monitor              | 25X to 135X   |
| Field of View (FOV), in./mm               | 0.35" to 0.070"/8.9 to 1.8 mm   |
| Optional Auxiliary Lenses                 | 0.5X; 1.5X; 2X  |
| System                                    |   |
| Illumination (standard)                   | Fiber optic on-axis, LED back light, fiber optic ring   |
| Illumination (optional)                   | Patented* VectorLight   |
| Scale Resolution                          | 0.00002"/0.5 $\mu$ m  |
| Maximum Workpiece Weight                  | 50 lbs/23 kg  |
| Camera                                    | High resolution color CCD with 768 x 494 pixel array  |
| Controller                                | Typical configuration: Intel® processor @ 1.7 GHz, 512 MB RAM, 40 GB hard drive, 1.44 MB floppy drive, CD-ROM, parallel, serial and USB ports on board 10/100 LAN |
| Operating System                          | Microsoft® Windows™ 2000  |
| Optional Computer Accessory Packages      | 15 in. flat panel LCD monitor, keyboard, mouse<br>17 in. CRT monitor, keyboard, mouse   |
| Metrology Software                        | 32-bit Basic-X by QVI   |
| Software Options                          | SmartReport™ Plus, GageFit™, QC-Calc™, SmartCAD™  |
| System Options                            | Rotary; Footswitch; Dust Cover; Calibration Grid  |
| Performance**                             |   |
| XY Accuracy (CNC 200, 250)                | $E_2 = \pm(72 + 4L) \mu$ inch   |
| XY Accuracy (CNC 300)                     | $E_2 = \pm(100 + 7L) \mu$ inch  |
| Z Measuring Accuracy                      | $E_1 = \pm(160 + 8L) \mu$ inch  |
| Environmental                             |   |
| Temperature, Safe Operating               | 41°F - 104°F/5°C - 40°C   |
| Temperature to Meet Specifications        | 68°F $\pm$ 2°F/20°C $\pm$ 1°C   |
| Power Requirements                        |   |
|   | 100-240 VAC, $\pm$ 5%, 50/60 Hz, 1 $\phi$   |

\*Patent # 5,690,417

\*\*Where 'L' is travel in inches. 1  $\mu$ inch=0.000001 inches. Applies to thermally stable system in rated environment, maximum zoom lens setting, and evenly distributed 10 lb load. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy. XY axis artifact: QVI 25 intersection grid reticle at standard measuring plane. The standard measuring plane is defined as a plane that is 1" (25 mm) above the work table. Z axis artifact: QVI step gage.

|                                  | 200                  | 250               | 300               |
|----------------------------------|----------------------|-------------------|-------------------|
| Mechanical                       |                      |                   |                   |
| XYZ Travel, in.                  | 8 x 6 x 6            | 12 x 6 x 6        | 12 x 12 x 6       |
| XYZ Travel, mm                   | 200 x 150 x 150      | 300 x 150 x 150   | 300 x 300 x 150   |
| Instrument Weight, approximate   | 243 lbs/110 kg       | 250 lbs/113 kg    | 309 lbs/140 kg    |
| Instrument Dimensions, in. (XYZ) | 22.25 x 21.75 x 31.5 | 28 x 21.75 x 31.5 | 28 x 32.25 x 31.5 |
| Instrument Dimensions, mm (XYZ)  | 560 x 550 x 800      | 710 x 550 x 800   | 710 x 815 x 800   |

NOTE: Specifications apply to Sprint CNC systems configured with AutoCheck and Basic-X software.



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