

VF7

Field of View Measuring System

- VF7 is a fast, two dimensional, high precision measurement machine.
- Designed to minimize the need for focus adjustment and part positioning.
- Incorporates a touch panel that allows for automatic measurement programs search, execution and measurement results display.
- Includes InSpec Metrology Software.
- Offers high and low image magnification.
- Incorporates advanced LED lighting.
- Features a single USB connection to the workstation computer.



Technical Specifications

Image Magnification	Measurement Capacity	XY Accuracy	Measurement Range
Low	69.3 x 49.6 mm	$(4.5 + L/200) \mu\text{m}$ ^{1,2,3}	30 mm
High	17.3 x 12.4 mm	$3.7 \mu\text{m}$ ^{1,2,3}	3 mm

Machine Dimensions	Stage Position Range	Stage Weight Capacity
290 x 453 x 883 mm	49 mm	3 kg

1. Within operating temperature of 20.0°C ± 1°C at the focal point position.
 2. L is in mm.
 3. Using Micro-Vu Calibration Artifact.

Product information is subject to change without prior notice as a result of ongoing technical development.

Key Features

- Large Measurement Range
 - Minimizes Measurement Error
 - Minimizes Focus Adjustments
- Instant Zoom
 - High Resolution Camera
- Single Snapshot Measurement
- Scratch Resistant Stage Glass
- Advanced Lighting System
 - 8 Channel Ringlight
 - Axial Surface Light
 - Profile Backlight
- Automatic Part Identification
 - Adjusts to Part's Orientation
 - Minimal Part Fixturing Required

Touch Panel

Pass Indicator:

Illuminates green indicating the part passed inspection.

Fail Indicator:

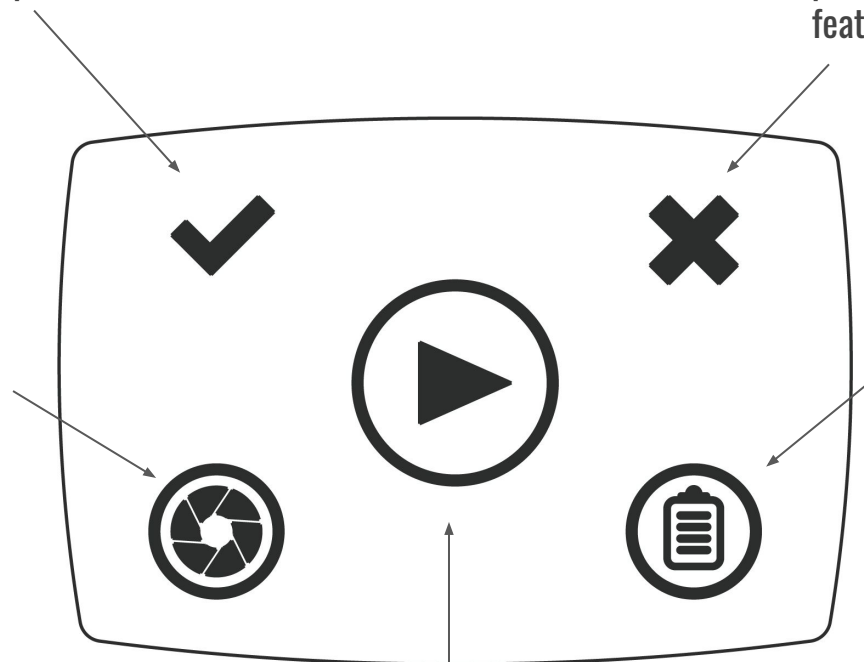
Illuminates red when the part fails inspection or a feature fails to measure.

Live Image:

Press to display a live video image.

Report:

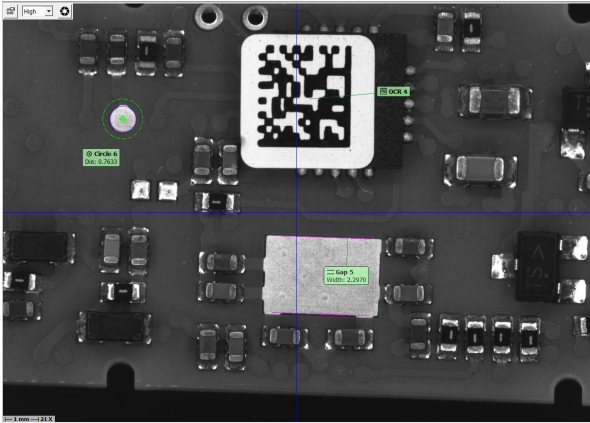
Opens and closes the Reporting page. Prints the report.



Play:

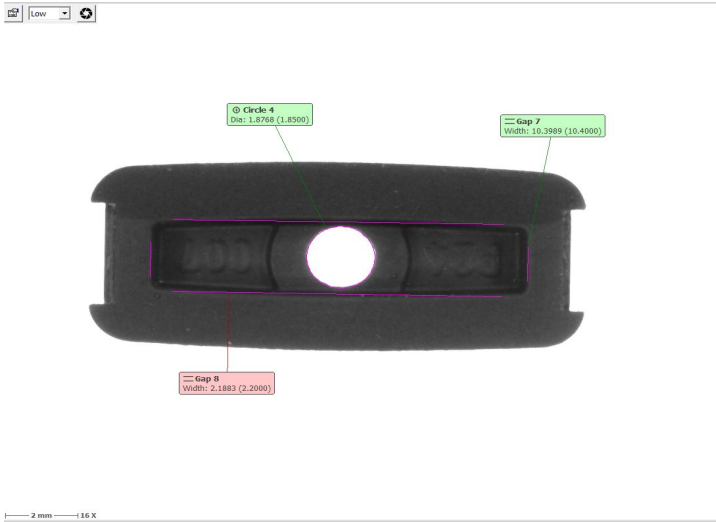
Runs programs. Searches pattern library and runs program. Displays the machine's state.

Applications



Printed circuit board seen at high magnification using ringlight and axial surface light.

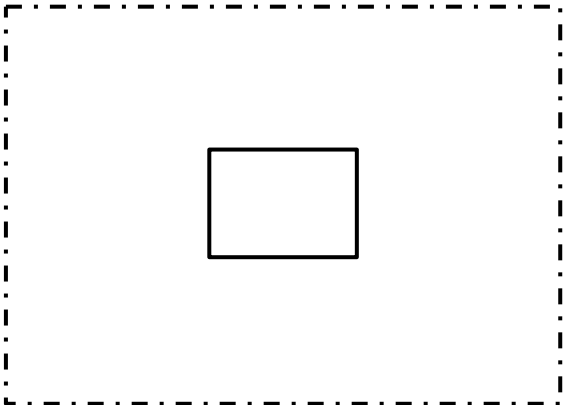
Rubber part seen at Low Magnification using ringlight and axial surface light.



VF7 Measurement Capacity

Measurement capacity at low and high magnification:

Place the parts inside the rectangles to check if they fit on the stage!



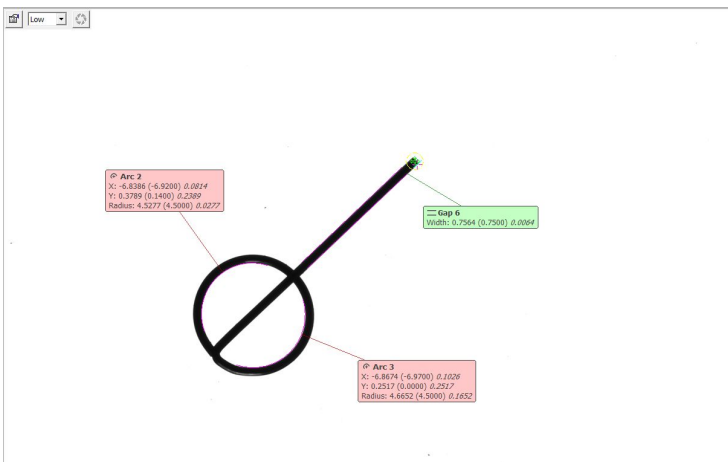
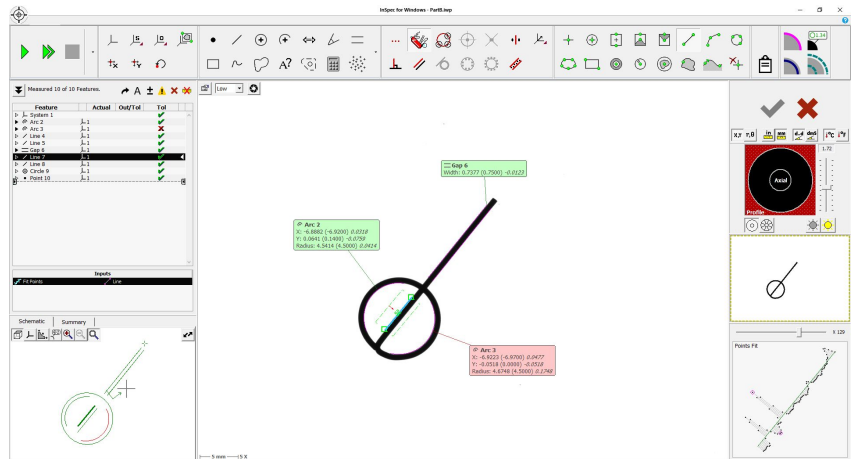
Low Magnification
~69.3 x 49.6 mm

High Magnification
~17.3 x 12.4 mm

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InSpec Software for VF7

- Concise screen layout.
- Advanced focus and edge detection algorithms.
- Sub-pixel accuracy and repeatability.
- Included optics and light calibration routines.



- Programmable labels and geometric overlays display the measurement results on the camera window.
- Color of labels indicate if measurements are in or out of tolerance.

- Automatically record data and print an inspection report.
- Export measurement results and data automatically after completing measurements.
- Advanced geometric dimensioning and tolerancing capability.

MICRO·VU		Program: Part81.insp		7/29/2020 11:36:27 AM			
Units: mm, deg, deg							
System 1	Actual	Nominal	Upper	Lower	Dev/Nom	Out/Tol	✓
Origin X	-0.8773	-0.8773			0.0000		
Origin Y	-1.6487	-1.6487			0.0000		
Slope	24.5247	24.5247			0.0000		
Pitch	0.0000	0.0000			0.0000		
Roll	0.0000	0.0000			0.0000		
Arc 2	Actual	Nominal	Upper	Lower	Dev/Nom	Out/Tol	✓
Center X	-6.8096	-6.8000	0.1000	-0.1000	0.0131		
Center Y	0.2093	0.1400	0.1000	-0.1000	0.0693		
Radius	4.6322	4.6300	0.1000	-0.1000	0.0322		
Arc 3	Actual	Nominal	Upper	Lower	Dev/Nom	Out/Tol	✓
Center X	-6.8395	-6.8700	0.1000	-0.1000	0.0305		
Center Y	0.0980	0.0000	0.1000	-0.1000	0.0980		
Radius	4.6586	4.6500	0.1000	-0.1000	0.1688		
Line 4	Actual	Nominal	Upper	Lower	Dev/Nom	Out/Tol	✓
Direction	13.5919	13.5919			0.0000		
Line 5	Actual	Nominal	Upper	Lower	Dev/Nom	Out/Tol	✓
Direction	-188.4159	-188.4159			0.0000		
Gap 6	Actual	Nominal	Upper	Lower	Dev/Nom	Out/Tol	✓
Center X	5.2774	5.2917			-0.0143		
Center Y	3.0648	3.0303			0.0395		
Width	0.7564	0.7500	0.1000	-0.1000	0.0052		
Line 7	Actual	Nominal	Upper	Lower	Dev/Nom	Out/Tol	✓
Direction	13.3103	13.3103			0.0000		