

# HF5

## Field of View Measuring System

MICRO·VU

compatible  
with:



InSpec

- HF5 is high precision, two dimensional measurement machine.
- Features a horizontal layout optimized to measure cylindrical parts.
- Compact and lightweight desktop machine.
- Includes a stage with a rotation range of 90° that allows for helical screws to be positioned at an angle.
- Offers a large depth of focus with 30 mm.
- Incorporates a touch panel that allows for automatic measurement programs search, execution and measurement results display.
- Includes the next generation InSpec Metrology Software.
- Advanced LED lighting including axial and profile light.



## Technical Specifications

| Measurement Capacity  | XY Accuracy                             |                                               | Measurement Range |
|-----------------------|-----------------------------------------|-----------------------------------------------|-------------------|
| 69.3 x 49.6 mm, 0-90° | At Calibration Plane                    | 5.0 $\mu\text{m}$ <sup>1,2,3,4</sup>          | 30 mm             |
|                       | Within $\pm 10$ mm of Calibration Plane | (5.9 + L/60) $\mu\text{m}$ <sup>1,2,3,4</sup> |                   |

| Machine Dimensions | Stage Weight Capacity |
|--------------------|-----------------------|
| 282 x 777 x 655 mm | 3 kg                  |

1. Within operating temperature of 20.0°C  $\pm$  1°C.
2. L is in mm.
3. Up to lengths of 75 mm.
4. Using Micro-Vu Calibration Artifact.

## Key Features

- Large Measurement Range
  - Minimizes Measurement Error
  - Minimizes Focus Adjustments
- Single Snapshot Measurement
- Includes fixture kit for horizontal machine layout
- Automatic Part Identification
  - Adjusts to Part's Orientation
  - Minimal Part Fixturing Required
- Stage with 90° rotation range
- Programmable Light Settings

## 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:

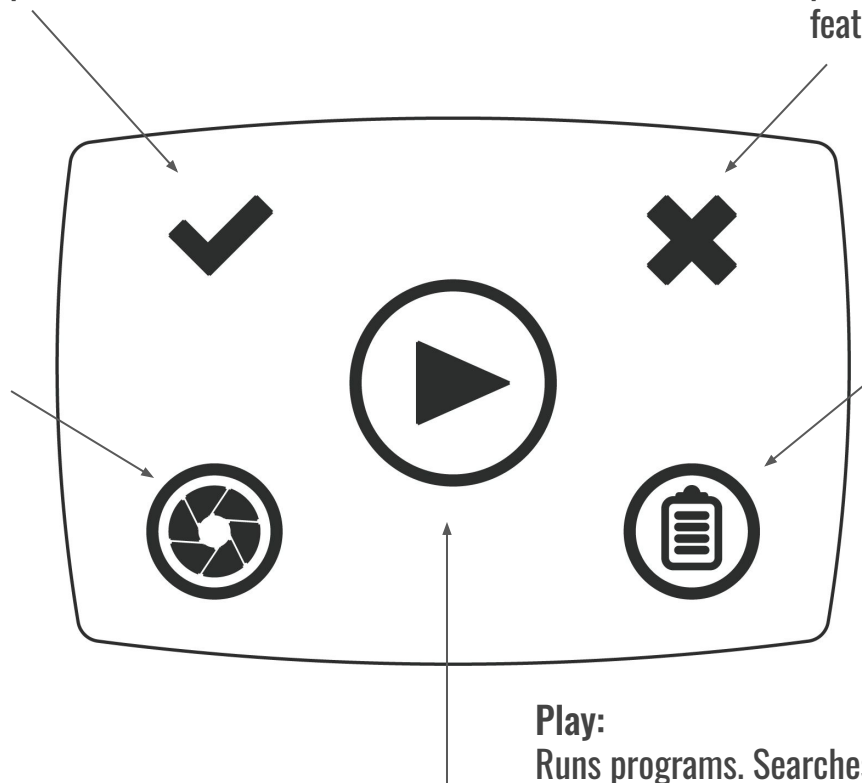
Press to display a live video image.

### Report:

Opens and closes the Reporting page. Prints the report.

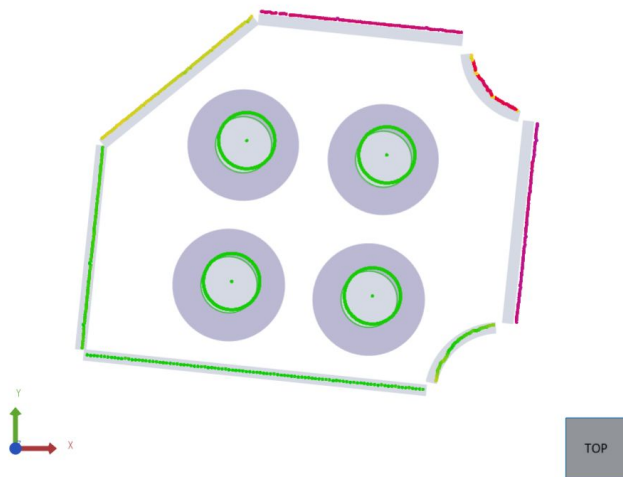
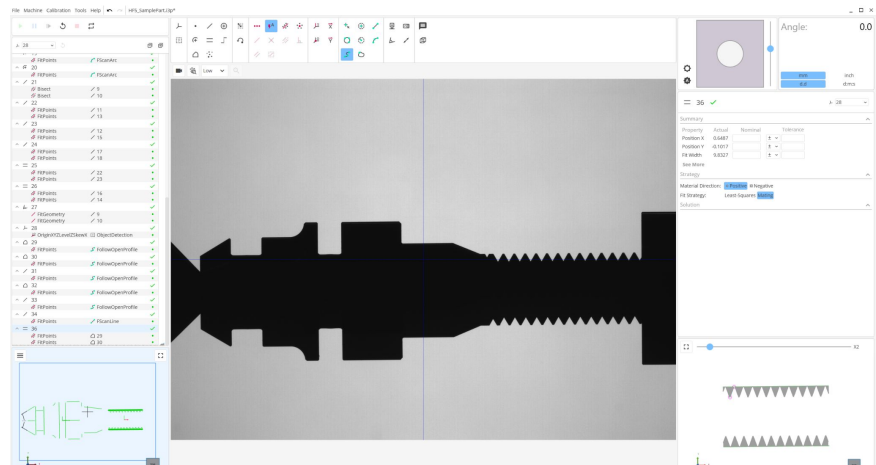
### Play:

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



## InSpec Software

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



- Import nominal values from 3D CAD models or based on reference part measurements.
- Profile Evaluation using advanced fit strategies.
- Colored datapoint indicators provide conclusive results.

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

| Reporting                    |         |               |         |         |  |  |
|------------------------------|---------|---------------|---------|---------|--|--|
| Filter Properties: None      |         |               |         |         |  |  |
| Include Schematic            |         |               |         |         |  |  |
| Date: 2023-04-23 04:30:49 PM |         |               |         |         |  |  |
| 14.2                         | Actual  | Nominal       | Dev/Nom | Out/Tol |  |  |
| Diameter                     | 3.9787  | 4.000 ± 0.500 | -0.0213 | —       |  |  |
| Position X                   | 10.0197 | 10.000 ± —    | —       | —       |  |  |
| Position Y                   | 16.0437 | 16.000 ± —    | —       | —       |  |  |
| Position Z                   | 0.0000  | 0.000 ± —     | —       | —       |  |  |
| Position 23                  | -0.3693 | φ 0.5 A B C   | —       | —       |  |  |
|                              | -0.4618 | φ 0.1 A       | —       | —       |  |  |
| 14.3                         | Actual  | Nominal       | Dev/Nom | Out/Tol |  |  |
| Diameter                     | 3.9712  | 4.000 ± 0.500 | -0.0288 | —       |  |  |
| Position X                   | 20.0300 | 20.000 ± —    | —       | —       |  |  |
| Position Y                   | 16.0445 | 16.000 ± —    | —       | —       |  |  |
| Position Z                   | 0.0000  | 0.000 ± —     | —       | —       |  |  |
| Position 23                  | -0.3496 | φ 0.5 A B C   | —       | —       |  |  |
|                              | -0.4550 | φ 0.1 A       | —       | —       |  |  |
| 16                           | Actual  | Nominal       | Dev/Nom | Out/Tol |  |  |
| Position X                   | -0.0082 | 0.000 ± —     | —       | —       |  |  |
| Position Y                   | 15.0674 | 15.000 ± —    | —       | —       |  |  |
| Position Z                   | 0.0000  | 0.000 ± —     | —       | —       |  |  |
| 17                           | Actual  | Nominal       | Dev/Nom | Out/Tol |  |  |
| Position X                   | 9.9966  | 10.000 ± —    | —       | —       |  |  |
| Position Y                   | 25.0811 | 25.000 ± —    | —       | —       |  |  |

