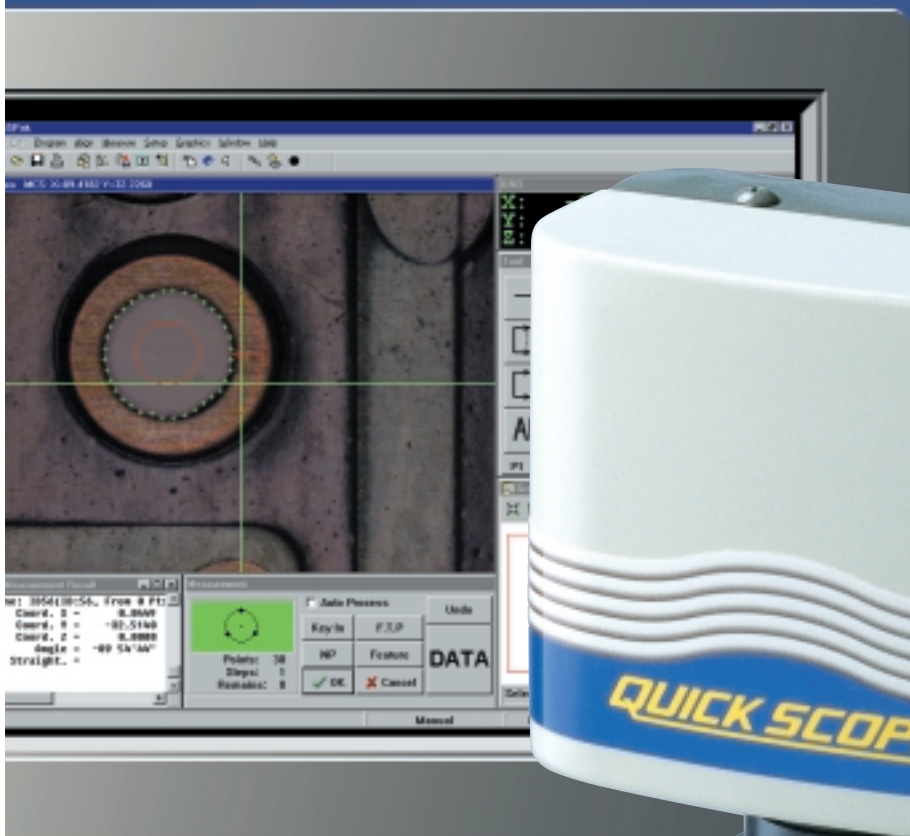


# VISION UNIT

Mitutoyo

SERIES 359  
VISION SYSTEM  
RETROFIT  
FOR MICROSCOPES

**NEW**



- Upgrade your measuring microscope to a vision measuring system by adapting the Mitutoyo Vision Unit to the microscope camera mount.
- Windows95 QSPAK measuring software.
- Enhanced ease-of-operation with one-click edge detection tools and macro icons.
- Graphic Window and Quick Navigation Functions add to user-friendliness.

## FEATURES

- Clear and sharp images with the color CCD camera.
- Increased performance-cost ratio.
- The Navigation function and Graphic window allow easy operation and measurement.
- Single-click Edge-detection and macro icon tools enhance measurement efficiency.
- Wide field of view due to the 0.5X camera adapter.
- Ability to store images.
- Data output of measurement results.



The measuring microscope  
and the PC unit are optional.

**QUICK SCOPE**  
**Vision Unit**  
**SERIES 359**



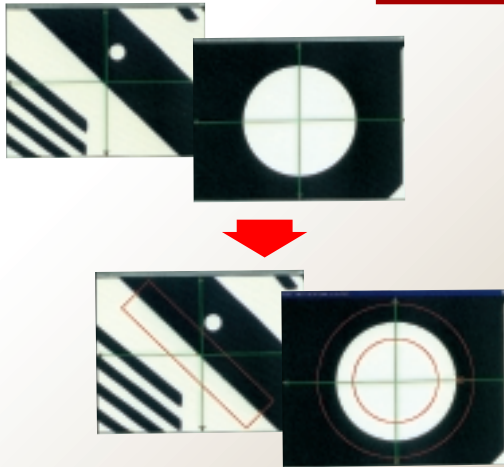
# QSPAK

Mitutoyo's unique vision measuring software meets all diverse requirements such as workpiece surface observation, three-dimensional measurement, and data processing.

- Compatible with Windows95. User-friendly design allows effortless observation and measurement via screen dialog.
- All operation can be performed on the screen including measurement, data processing, printout, tolerance setting, etc.
- Macro functions including the unique single-click tool facilitates distance or angle measurement and circle measurement by simply clicking the mouse on a desired measurement position in the window.
- A reliable navigation function provides instruction at each step for repeat-measurement.
- Template matching function and manual pattern matching function allow comparison of form.

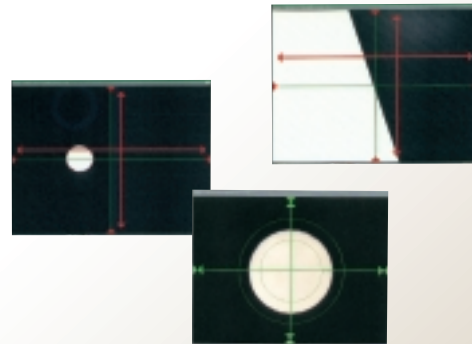


## FUNCTIONS



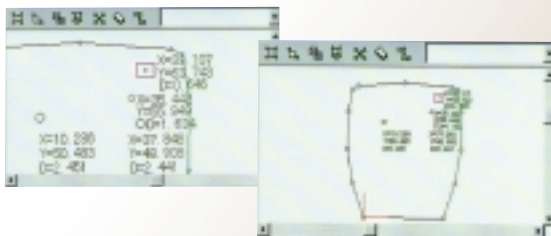
### One-Click Edge-detection

By single-clicking the mouse near the edge, QSPAK automatically selects the appropriate measuring tool (macro command) to detect the edge and calculate the proper feature; diameter, radius, etc. This function is available with Line Tools, Circle Tool, and Smart Tool.



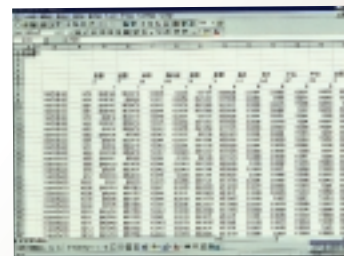
### Repeat-measurement Navigation

QSPAK can repeat the measurement routines set at the Learn mode. The distance from the current position (green cross hair at the center) to the next target point (red cross hair) are indicated by the counter above the screen. When going to the next measurement point, all the operator has to do is move the XY stage until the counter reads zero or overlay the green cross hair upon the red cross hair.



### Graphic Window

The measurement results and measured elements are plotted in the Graphic Window in real-time. By using this function the operator can check the current measuring position at a glance. The Graphic Window can be used for geometrical calculation between features to speed up measurement.

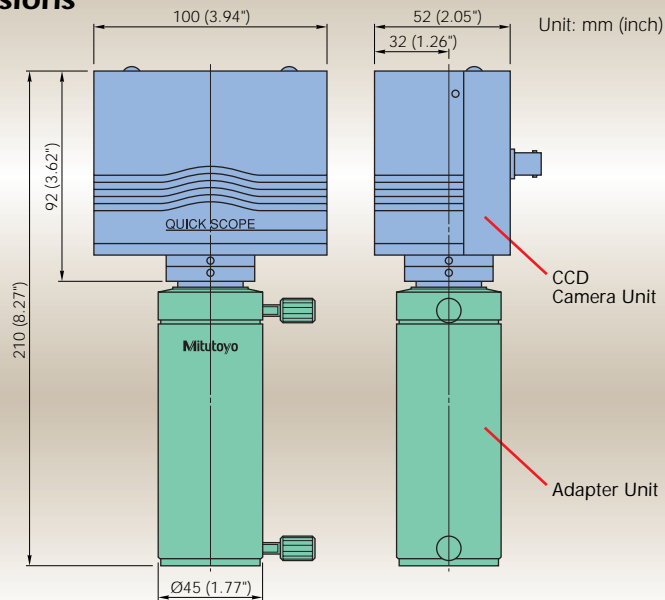


### Output of Measurement Results

The measurement results obtained in the Repeat mode can be output via the CSV format which is compatible with application software such as Microsoft Excel\*. QSPAK can help the operator create an inspection chart.

\*Microsoft Excel is a registered trademark of Microsoft Corporation.

## Dimensions



## SPECIFICATIONS

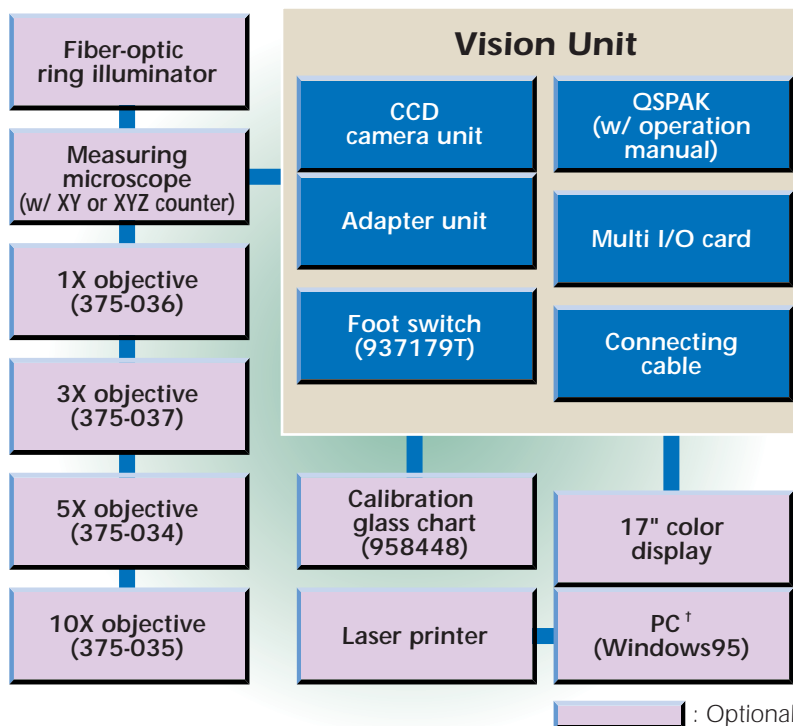
CCD camera unit	<ul style="list-style-type: none"> <li>Image sensor: 1/3" color CCD camera</li> <li>Resolution: 0.0005mm</li> <li>Dimensions (WxDxH): 100x52x92mm</li> <li>Mass: 0.4kg</li> </ul>
Adapter unit	<ul style="list-style-type: none"> <li>Operating software: QSPAK</li> <li>Dimensions: Ø45x123mm</li> <li>Magnification: 0.5X</li> <li>Mass: 0.3kg</li> </ul>
Magnifications on 17" monitor	<ul style="list-style-type: none"> <li>21X, 63X, 105X, 210X (21X when using 1X objective, 63X when using 3X objective, 105X when using 5X objective, 210X when using 10X objective)</li> </ul>
Standard accessory	<ul style="list-style-type: none"> <li>Foot switch (937179T)</li> </ul>
Applicable microscopes*	<ul style="list-style-type: none"> <li>MF Series (all models except MF-H100 and MF-U types)</li> <li>TF-510F/510FW/1020F</li> <li>TM-321**/322**/331**</li> </ul>

\* Counter board and cables supplied with the Vision Unit vary depending on the microscope model. Specify the Model name and Serial No. of your microscope when ordering the Vision Unit.

\*\*The models marked with \*\* have been discontinued.

Note: Table swiveling or rotation of the microscope is not allowed during vision measurement.

## SYSTEM DIAGRAM



Calibration glass chart (958448)



## †PC Operation Environment

PC type	<ul style="list-style-type: none"> <li>IBM PC-Compatible</li> </ul>
CPU	<ul style="list-style-type: none"> <li>Processor: Intel Pentium 133MHz or faster</li> <li>Memory: 24MB or more</li> <li>Hard disk: 500MB or more</li> <li>3.5" floppy disk drive: 1 or more</li> <li>Expansion slot (ISA): 2 or more</li> <li>Expansion slot (PCI): 1 or more</li> <li>OS: Windows95</li> </ul>
Monitor	<ul style="list-style-type: none"> <li>Screen size: 17"</li> <li>Display: SVGA-color (1024x768 dots)</li> </ul>
Peripherals	<ul style="list-style-type: none"> <li>Keyboard</li> <li>Mouse</li> </ul>

**Mitutoyo**

PRECISION IS OUR PROFESSION



JSAQ-052  
ISO 9001

**MTI CORPORATION**

Sole representative in the U.S.A. and Canada for MITUTOYO Corporation

**NEW JERSEY**  
18 Essex Road,  
Paramus, NJ 07652  
Phone (201) 368-0525  
Fax No. 201-343-4969

**MICHIGAN**  
45001 Five Mile Rd.,  
Plymouth, MI 48170  
Phone (734) 459-2810  
Fax No. 734-459-0455

**ILLINOIS**  
965 Corporate Blvd.,  
Aurora, IL 60504  
Phone (630) 978-5385  
Fax No. 630-820-7403

**CALIFORNIA**  
16925 Gale Ave.,  
City of Industry, CA 91745  
Phone (626) 961-9661  
Fax No. 626-333-8019

<http://www.mitutoyo.com>

Specifications are subject to change without notice.