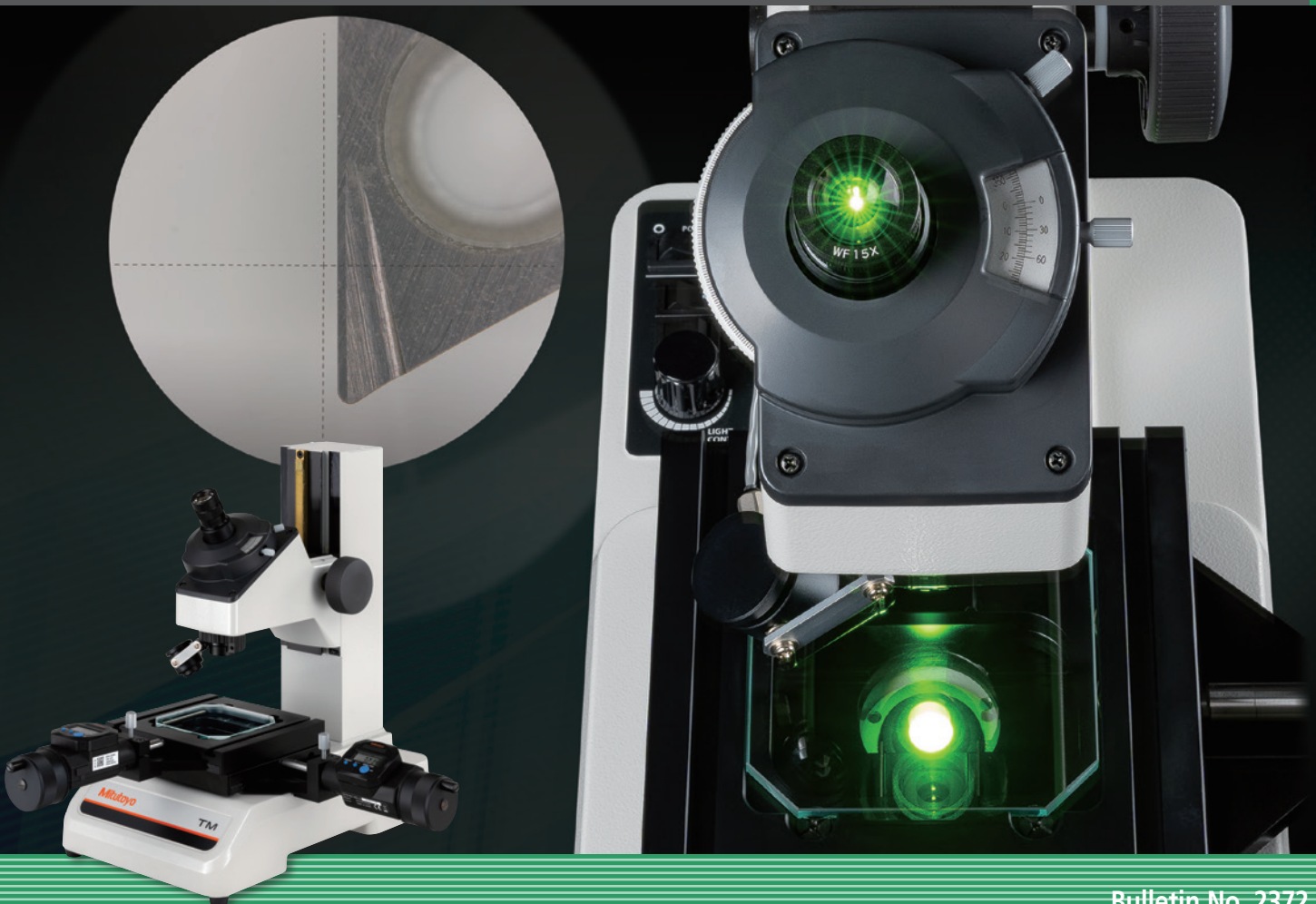


# Mitutoyo

Mitutoyo Quality

## Toolmakers' Microscopes TM Series

Optical Measuring



Bulletin No. 2372



TM-505B  
176-819-11A

\* Shown with optional Digimatic micrometer heads

# Bright and Clear Field of View Superior Performance in Small-model Class

## FEATURES

- Newly designed LED illuminators provide clear observation with outstanding color reproduction.



Conventional illumination



LED illumination

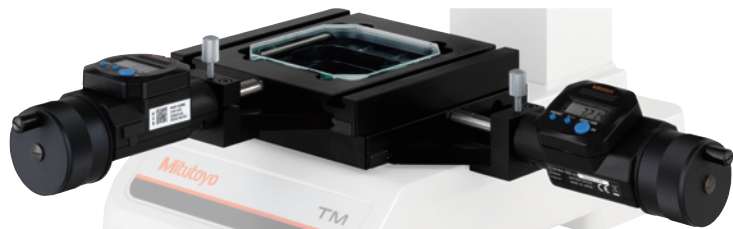
- A Vernier scale mounted outside the eyepiece enables simple angle measurement.



- Optional LED circular illuminator 176-206 available for applications requiring all-round lighting.



- Installation of optional Digimatic micrometer heads (164-164) enables easy digital measurement.



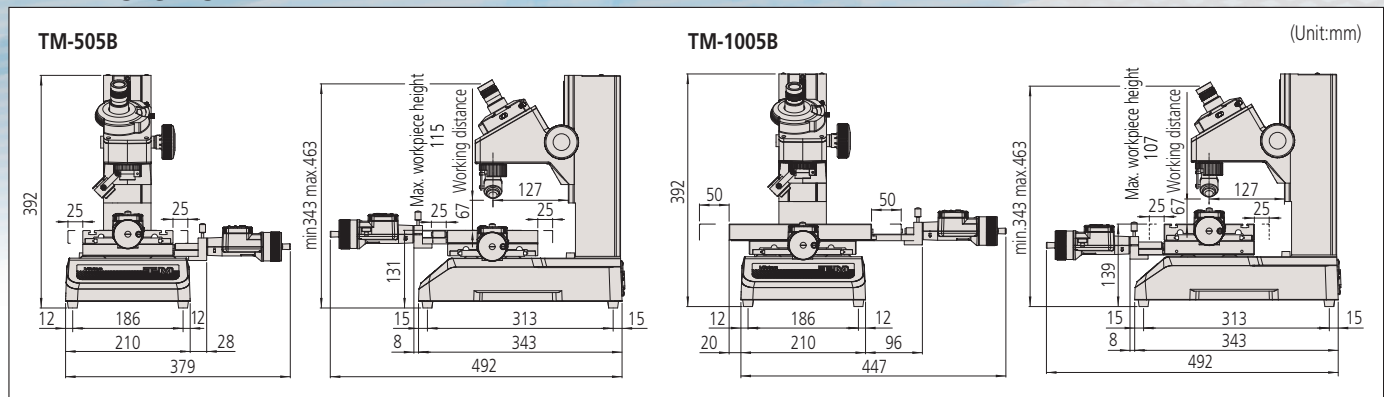


# SPECIFICATIONS

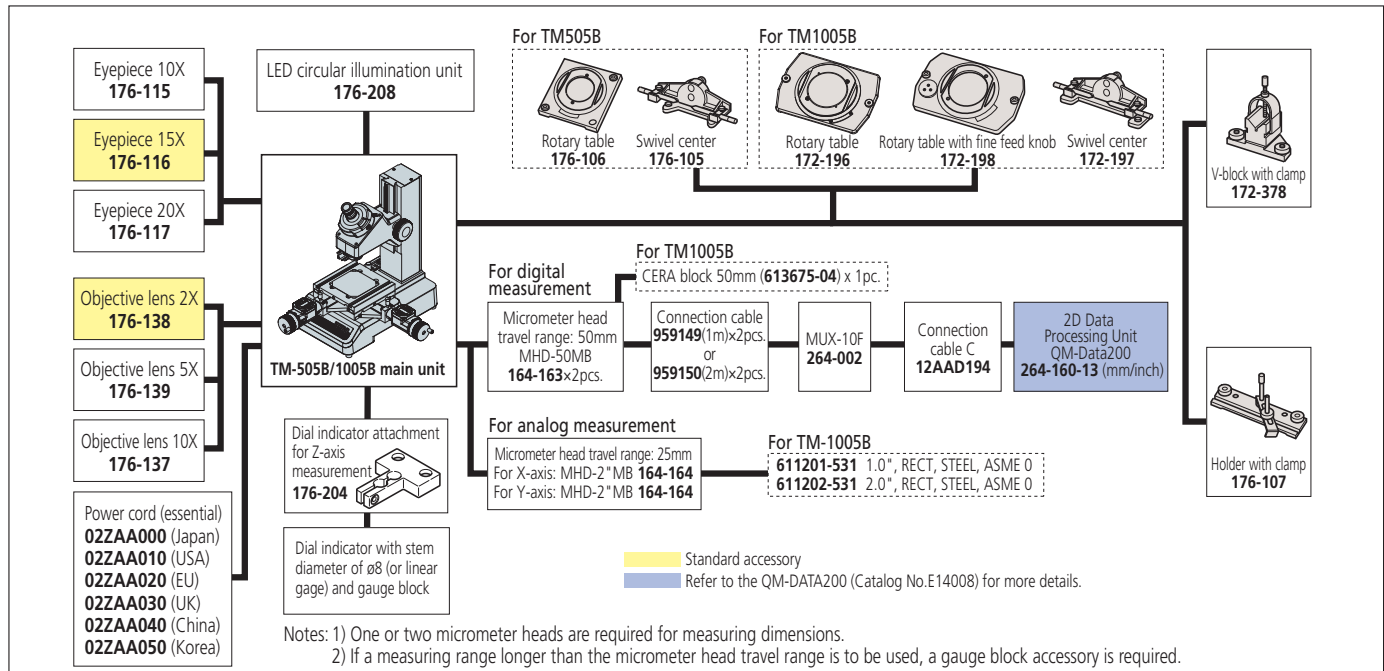
Model No.	TM-505B		TM-1005B
Order No.	176-818-11A		176-819-11A
Optical tube	Monocular type (Depression angle: 60°)		
Observation image	Erect		
Eyepiece protractor	Resolution (graduation) : 1°, Rotation angle: 360°, Minimum reading by Vernier: 0.5°, Adjustable zero point		
Eyepiece	Standard accessory: 15X (field number: 13), Options: 10X, 20X		
Objective lens	Standard accessory: 2X, Options: 5X, 10X		
Microscope head	Maximum height of workpiece	115 mm	107 mm
	Focusing method	Manual (Coarse feed)	
Illumination unit	Transmitted illumination	Stepless brightness adjustment, White LED light source, With green filter	
	Surface illumination	Oblique single-source type, Stepless brightness adjustment, White LED light source	
Cross-travel stage	Measuring range	50x50 mm	100x50 mm (An optional 50 mm gauge block* is required to cover full range. A CERA block is recommended.)
	Table size	152x152 mm	240x152 mm
	Usable area of the stage glass	96x96 mm	154x96 mm
	Maximum stage glass loading	5 kg	
Linear measurement method	Micrometer head*		
Resolution	Depends on the micrometer head specifications* (for MHD-2"MB (164-164): Resolution 0.00005"/0.001mm) (for MHD-2"MB (164-164): 2"/50.8mm)		
Micrometer head travel range	100 to 240 VAC 50/60 Hz Maximum power consumption: 4.2 W		
Power source			
Main unit mass	14 kg	15 kg	
Main Unit with TM-A Series (164-164 Mic Heads Inc.)	172-820-11A	172-821-11A	

\* Micrometer heads and gauge blocks (CERA blocks) are optional.

# DIMENSIONS



# SYSTEM DIAGRAM





**Whatever your challenges are, Mitutoyo supports you from start to finish.**

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



MicroscopeWorld

info@microscopeworld.com | 800-942-0528

# Mitutoyo

**Mitutoyo America Corporation**

www.mitutoyo.com

One Number to Serve You Better

1-888-MITUTOYO (1-888-648-8869)

**M<sup>3</sup> Solution Centers:**

Aurora, Illinois (Headquarters)

Boston, Massachusetts

Charlotte, North Carolina

Cincinnati, Ohio

Detroit, Michigan

Los Angeles, California

Seattle, Washington

Houston, Texas



**Find additional product literature and our product catalog**

[www.mitutoyo.com](http://www.mitutoyo.com)

**Note:** All information regarding our products, and in particular the illustrations, drawings, dimensional and performance data contained in this printed matter as well as other technical data are to be regarded as approximate average values. We therefore reserve the right to make changes to the corresponding designs. The stated standards, similar technical regulations, descriptions and illustrations of the products were valid at the time of printing. In addition, the latest applicable version of our General Trading Conditions will apply. Only quotations submitted by ourselves may be regarded as definitive. Specifications are subject to change without notice.

Mitutoyo products are subject to US Export Administration Regulations (EAR). Re-export or relocation of our products may require prior approval by an appropriate governing authority.

**Trademarks and Registrations**

Designations used by companies to distinguish their products are often claimed as trademarks. In all instances where Mitutoyo America Corporation is aware of a claim, the product names appear in initial capital or all capital letters. The appropriate companies should be contacted for more complete trademark and registration information.