



# Measuring Microscopes

From GX Optical  
www.gxoptical.com

## SERIES 176 Microscopes



### Features

- New optical system for excellent image representation.
- Ideal for challenging industrial use.
- Top performance with high image quality, user-friendly operation and measurement functionality.
- High-quality lens systems with an optimum working distance.
- Optimum device size.
- TV system/micrograph photo: can be connected to any model (C-mount adapter)
- Stage with innovative quick-release mechanism for greater convenience and precision.
- Complete set including binocular eyepiece.

### Accuracy

XY:  $(3+0.02L)\mu\text{m}$  / Z:  $(5+0.04L)\mu\text{m}$  (for B models)  
L = measured length (mm)

### Measurement applications

High-class measuring microscopes with outstanding bright, sharp and high contrast images.

### Series 176 MF Model Measuring Microscopes

No.	176-539E	176-582E
Model.	MF-A1020 (2 Axis Type)	MF-B1010B (3 Axis Type)
XY Adjustment Range of Stage	200 x 170 mm	200 x 170 mm
Focus Adjustment	220 mm rapid and fine setting with hand wheel	220 mm rapid and fine setting with hand wheel
Max. workpiece height	220 mm	220 mm
Max. stage loading	20 kg	20 kg



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### Features

- Highly Rigid Body Design
- Imperial/Metric Conversion
- Eyepieces have a wide field of view to reduce operator fatigue
- Long working distance objective lenses for easy measurement and inspection
- Integrated 3 Axis Digital Readouts allows high resolution inspection
- Built-in X and Y-Axis Zero Set Switches
- Quick release system on stage allows operator to quickly switch from fine to coarse feed for long stroke measurement
- Bright Field Observation
- Infinity correction optical system
- Polarised Light observation
- Differential Interference Contrast Observation
- Bright/Dark Field observation available on THD model derivatives
- Inward type revolver with 4 lens mounts
- Optional Power Revolver and objectives available

### Series 176 MF-UA Measuring Microscopes

Model	MF-UA505TH	MF-UA1010TH	MF-UA1020TH
No	176-551E	176-552E	176-559E
XY Range	50x50mm	100x100mm	200x100mm
Table Top Dimensions	280x280mm	280x280mm	350x280mm
Effective Glass Size	170x170mm	170x170mm	240x140mm
Swivelling	-	-	-
Optical Tube	Siedentoph Type, Pupil Distance Adjustment (51-76mm), 1X tube Lens, Binocular Eyepiece (Depression Angle 20°)	Siedentoph Type, Pupil Distance Adjustment (51-76mm), 1X tube Lens, Binocular Eyepiece (Depression Angle 20°)	Siedentoph Type, Pupil Distance Adjustment (51-76mm), 1X tube Lens, Binocular Eyepiece (Depression Angle 20°)
Image	Erect Image	Erect Image	Erect Image
Eyepiece	10X (Field No 24)	10X (Field No 24)	10X (Field No 24)



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Lens (Optional)	(Std), 15X (Field No 16), 20X (Field No 12)	(Std), 15X (Field No 16), 20X (Field No 12)	(Std), 15X (Field No 16), 20X (Field No 12)
Objective	M Plan Apo, M Plan Apo SL, G Plan Apo	M Plan Apo, M Plan Apo SL, G Plan Apo	M Plan Apo, M Plan Apo SL, G Plan Apo
Revolver	Std BF Revolver (378-018)	Std BF Revolver (378-018)	Std BF Revolver (378-018)
Focusing Method	Manual Focusing (Coarse Focusing: 300mm/rev, fine focusing: 0.2mm/rev)	Manual Focusing (Coarse Focusing: 300mm/rev, fine focusing: 0.2mm/rev)	Manual Focusing (Coarse Focusing: 300mm/rev, fine focusing: 0.2mm/rev)
Reflected Illumination	Telecentric illumination with adjustable aperture diaphragm, 50W Halogen Light Source	Telecentric illumination with adjustable aperture diaphragm, 50W Halogen Light Source	Telecentric illumination with adjustable aperture diaphragm, 50W Halogen Light Source
Transmitted Illumination	Koehler illumination with adjustable aperture diaphragm, 100W halogen lamp light source	Koehler illumination with adjustable aperture diaphragm, 100W halogen lamp light source	Koehler illumination with adjustable aperture diaphragm, 100W halogen lamp light source
Max Workpiece Height	150mm (6")	150mm (6")	150mm (6")
Max Workpiece Weight	5kg	5kg	10kg
Length Standard	Linear Encoder	Linear Encoder	Linear Encoder
Digital Counter Resolution	0.00 1/ 0.0005 / 0.0001mm (0.0001 / 0.00005 / 0.00001") Switchable	0.001 / 0.0005 / 0.0001mm (0.0001 / 0.00005 / 0.00001") Switchable	0.001 / 0.0005 / 0.0001mm (0.0001 / 0.00005 / 0.00001") Switchable
Data Output	Rs-232C	Rs-232C	RS-232C
Measuring Accuracy (at 20°)	(3+0.02L)µm conforming to JIS B 7153	(3+0.02L)µm conforming to JIS B 7153	(3+0.02L)µm conforming to JIS B 7153
Mass	55kg	55kg	59kg

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