

# Workshop Measuring Microscope MarVision MM 200



## Application:

- For measuring distances and angles (with the ocular head 200 w) for example: punched and flexible parts, plastic components, as well as electronic circuit boards

- High quality optics for light intensive and sharp 3D images
- Zoom lens with continuous variable magnification and/or fixed lens
- Focusing with an ergonomic hand wheel, mounted either side, ideal for either a left or right handed operator
- Prism head tilted to 45°; with dioptric adjustment
- LED ring light, dimmable
- LED back light, dimmable
- Robust cast stand
- Stable XY table precision mounted
- **Data interface:** RS232C, USB
- **Scope of delivery:** ocular 10x with cross line reticules, 2 digital micrometer heads, 50 mm, Instruction manual

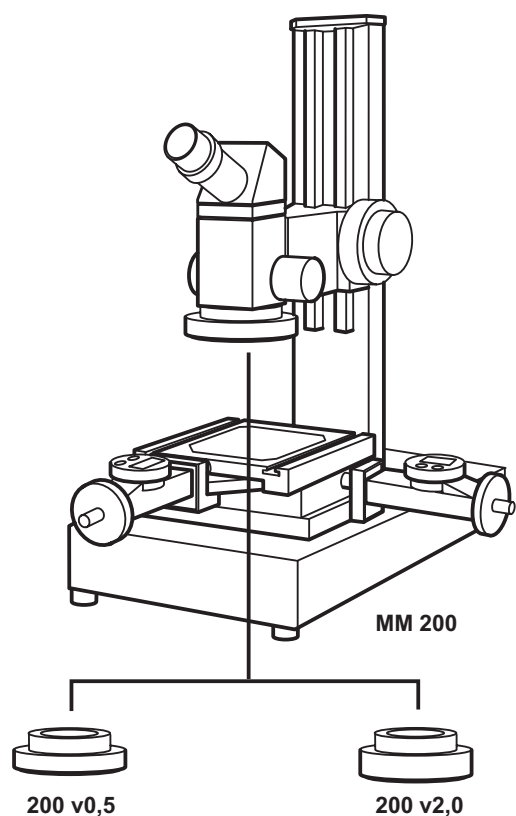
## Technical Data

Order no.		4246000	4246001	4246005	4246006
Product type		MM 200			
Measuring range X/Y	mm	50 / 50			
Table size	mm	150 x 150			
Maximum table load	kg	15			
Measuring system		Micrometer heads			
Measuring system - resolution	mm	0,001			
Measuring system - Error limit	µm	8			
Measuring system - Repeatability	µm	2			
Magnification		fixed lens 32x	Variable zoom 8x-40x	fixed lens 32x	Variable zoom 8x-40x
Field of view	mm	6	23 -4	6	23 -4
Working distance	mm	75			
Max. object height	mm	190			
Illumination		LED Incident and transmitted light, individually adjustable			
Energy supply:		230 V / 50 Hz		110 V / 60 Hz	
H x W x D	mm	535 x 410 x 470			

# Workshop Measuring Microscope MarVision MM 200

## Accessories

Order no.	Product name	Product type
4246010	Optional eyepiece head with angle measuring device	200 w
4246018	Optional eyepiece lens with angle measuring device and holder	200 wk
4246020	Ancillary lens 0.5x	200 v0,5
4246021	Ancillary lens 2.0x	200 v2,0
4245042	Fiber optic gooseneck, 2-Arm, L=500mm D= 40mm	200 fl
4245043	Cold light source 240V	200 fs
4246070	Protective cover for MM200	
4305122	Data Connection Cable RS232C (2 m)	800 EWr
4305121	800 EWu Data Connection Cable USB (2 m) incl. Software MarCom Std.	800 EWu
4102212	Software interface	MarCom Prof. 5.1
4245053	Cold light source 100 –120V	200 fs



# Workshop Measuring Microscope MarVision MM 220



## Application:

- For measuring distances (QC 100); bore holes and angles and determination of geometric elements (points, lines, circles, distances, intersections, etc.) (QC 200) for example: punched and flexible parts, plastic components as well as electronic circuit boards



## Measuring Microscope

- High quality optics for light intensive and sharp images
- Zoom lens with continuous variable magnification
- Focusing with an ergonomic hand wheel, can be mounted either side, ideal for either a left or right handed operator
- Prism head tilted to 45° with dioptic adjustment
- LED ring light, dimmable
- LED back light, dimmable
- Robust cast stand
- Stable XY table precision mounted
- Quick and fine adjustment of all axes
- Excellent accuracy and reliability due to the optical incremental measuring system

## Technical Data

Order no.	4246100 4246105 4246200 4246205 4246101 4246106 4246201 4246202 4246207									
Product type	MM 220									
Operating and display unit	QC 100		QC 200		QC 100		QC 200			
Measuring range X/Y	mm 100 / 100				mm 200 / 100		mm 250 / 170			
Z travel path	mm 200									
Maximum table load	kg 20									
Measuring system	built-in incremental measuring scale									
Measuring system - resolution	mm 0,001									
Measuring system - E1 X/Y	µm 1,9 + (L/100) L in mm									
Measuring system - E2 XY	µm 2,9 + (L/100) L in mm									
Magnification	variable zoom 8x-40x									
Image field - diameter	mm 23 -4									
Max. height of test piece	mm 185									
Max. height of test piece / 0.5-fold	mm 110									
200 extension in Z	mm 385									
200 extension in Z / 0.5-fold	mm 310									
Illumination	LED Incident and transmitted light, individually adjustable									
Energy supply	230 V / 50 Hz	110 V / 60 Hz	230 V / 50 Hz	110 V / 60 Hz	230 V / 50 Hz	110 V / 60 Hz	230 V / 50 Hz	110 V / 60 Hz	230 V / 50 Hz	110 V / 60 Hz
H x W x D	mm 550 x 480 x 430				mm 550 x 650 x 530		mm 550 x 700 x 600			

## Operating and Display Unit QC 100

- Large, high contrast backlit graphic LCD display
- Displays for X and Y axis

## Operating and Display Unit QC 200

- Large, high contrast backlit graphic LCD display
- Measurement and evaluation functions for points, lines, circles, angles, distances and intersecting straight lines
- 'Magic' function is a time saving feature that automatically recognizes the geometric pattern of data points
- Simply create a measuring program with the Teach-In mode
- Easy program sequence due to on screen graphic guidance
- Operator prompts are available in several languages
- RS232 interface for processing measured data
- **Data interface:** RS232C, USB
- **Scope of delivery:** standard stop bar 220 as, operating and display unit QC 100 or operating and display unit QC 200, Instruction manual

# Workshop Measuring Microscope MarVision MM 220

## Accessories

Order no.	Product name	Product type
4246010	Optional eyepiece head with angle measuring device	200 w
4247050	Optional <b>Telecentric LED transmitted light</b> for measuring rotationally symmetric parts	200 ld
4246051	Optional Z axis, extended by 200 mm	320 Zv
4246111	Foot switch for QC 220	200 qcs
4246020	Ancillary lens 0.5x	200 v0,5
4246021	Ancillary lens 2.0x	200 v2,0
4246801	Prisms, Pair, for diameter 5–55 mm (measuring tables 100x100 mm, 200x100 mm)	220 p
4246802	Center support, Pair, center height 40 mm (measuring tables 100x100 mm, 200x100 mm)	220 sp
4246806	Center support, pivoting, Pair, center height 50 mm, distance between centers 130 mm (measuring table 200 x 100 mm)	220 sps
4246920	Pivoting glass plate, D = 100 mm (measuring table 200 x 100 mm)	200 dk
4246921	Pivoting glass plate, D = 100 mm (measuring table 250 x 170 mm)	200 dg
4246821	90° stop for MM 220 / MM 320	220 as90
4245043	Cold light source 240V	200 fs
4245042	Fiber optic gooseneck, 2-Arm, L=500mm D= 40mm	200 fl
4246901	Calibration standard for circles, with calibration certificate	320 nkz
4246071	Protective cover for measuring tables 100x100 and 200x100 mm	
4246850	Clamping elements in wooden case	220 Set 1
4246851	Rack rails for measuring range 200 x 100 mm	220 Set 2/1
4246852	Rack rails for measuring range 250 x 170 mm	220 Set 2/2
4246854	V-supports, jaw chuck and tailstock	220 Set 3
4246855	Rotating swivel holder without jaw chuck and rack rails	220 ds



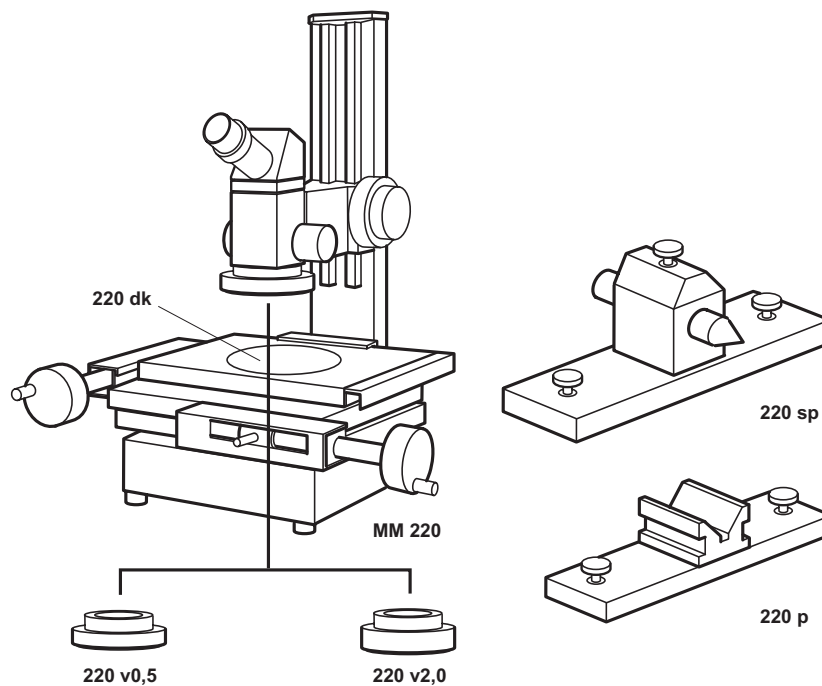
220 p



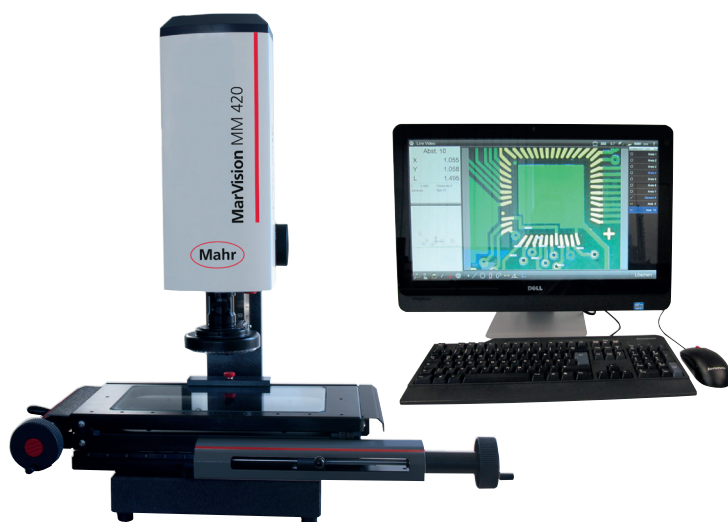
220 sp



220 sps



# Workshop measuring microscope MarVision MM 420



## Application:

- Measurement or determination of geometric elements (point, straight line, circle, distance, intersection point, etc.) by automatic edge detection, e.g. on punched and bent components, plastic components, and circuit boards.

## Technical Data

Order no.	4247600	4247605	4247601	4247606	4247602	4247607	4247603	4247608
Product type	MM 420							
Measuring range X/Y	mm	100 / 100	200 / 100	250 / 170	400 / 250			
Size of table	mm	270 x 210	370 x 210	420 x 280	600 x 480			
Maximum table load	kg	20						
Measuring system	built-in incremental scale							
Measuring system - resolution	mm	0,001						
Measuring system - E1 X/Y	µm	1,9 + (L/100)				3,9 + (L/100)		
Measuring system - E2 XY	µm	2,9 + (L/100)				4,9 + (L/100)		
Magnification	35 – 225x							
Max. height of test piece	mm	115				290		
Max. height of test piece / 0.5-fold	mm	20				200		
Max. height of test piece with coax.	mm	115				260		
200 extension in Z	mm	315						
200 extension in Z / 0.5-fold	mm	220						
Illumination	LED back and front illumination, adjustable							
Energy supply		230 V / 50 Hz	110 V / 60 Hz	230 V / 50 Hz	110 V / 60 Hz	230 V / 50 Hz	110 V / 60 Hz	230 V / 50 Hz
H x W x D	mm	700 x 480 x 430	700 x 650 x 550	700 x 700 x 600	800 x 1000 x 900			

## Measuring microscope

- Integrated color camera
- Zoom lens, optionally motorized
- LED ring light: 1 ring and 4 segments, individually switchable and dimmable
- LED transmitted light: dimmable
- Solid granite base
- Sturdy steel XY table, precision-mounted
- Quick and fine adjustment of axes
- Optical incremental measuring system for outstanding accuracy and reliability
- Laser pointer for position finding
- **Control and display unit with M3 software and touchscreen PC**
- 23" touchscreen with keyboard and mouse
- Windows 10 Pro operating system, further software can be installed
- Operation via the Multi-Touch screen or with a mouse/keyboard
- Large video screen
- Reference/actual evaluation with tolerances
- Record output with company logo
- Graphical display with dimensioning
- Automatic edge detection, even on low contrast parts
- Stitching
- Statistics
- **Scope of delivery:** M3 software with touchscreen PC, standard stop bar 220 as, Instruction manual, Calibration certificate

# Workshop measuring microscope MarVision MM 420

## Accessories

Order no.	Product name	Product type
4246114	Optional DXF file integration for M3 software	
4247028	Optional Navitar zoom 6.5:1, motorized	320 zmo
4247027	Optional TV adapter, 0.67x (instead of 1.0x)	320 tv0,67
4247050	Optional <b>Telecentric LED transmitted light</b> for measuring rotationally symmetric parts	200 ld
4245300	Optional <b>coaxial LED incident light</b> for zoom lens	320 kaz
4246050	Optional Z axis with measuring system	320 zm
4246051	Optional Z axis, extended by 200 mm	320 zv
4246052	Optional Z axis, extended by 200 mm, including measuring system	320 zvm
4247020	Ancillary lens 0.5x (for Navitar objective lens only)	320 v0,5
4247021	Ancillary lens 0.75x (for Navitar objective lens only)	320 v0,75
4247022	Ancillary lens 1.5x (for Navitar objective lens only)	320 v1,5
4247023	Ancillary lens 2.0x (for Navitar objective lens only)	320 v2
4246801	Prisms, Pair, for diameter 5–55 mm (measuring tables 100x100 mm, 200x100 mm)	220 p
4246831	Prisms, Pair, for diameter 5–55 mm (measuring table 250 x 170 mm)	220 p
4246832	Prisms, Pair, for diameter 5–55 mm (measuring table 400 x 250 mm)	220 p
4246802	Center support, Pair, center height 40 mm (measuring tables 100x100 mm, 200x100 mm)	220 sp
4246833	Center support, Pair, center height 40 mm (measuring table 250 x 170 mm)	220 sp
4246834	Center support, Pair, center height 40 mm (measuring table 400 x 250 mm)	220 sp
4246806	Center support, pivoting, Pair, center height 50 mm, distance between centers 130 mm (measuring table 200 x 100 mm)	220 sps
4246807	Center support, pivoting, Pair, center height 50 mm, distance between centers 130 mm (measuring table 250 x 170 mm)	220 sps
4246808	Center support, pivoting, Pair, center height 50 mm, distance between centers 130 mm (measuring table 400 x 250 mm)	220 sps
4246920	Pivoting glass plate, D = 100 mm (measuring table 200 x 100 mm)	200 dk
4246921	Pivoting glass plate, D = 100 mm (measuring table 250 x 170 mm)	200 dg
4246821	90° stop for MM 220 / MM 320	220 as90
4246901	Calibration standard for circles, with calibration certificate	320 nkz
4246071	Protective cover for measuring tables 100x100 and 200x100 mm	
4246072	Protective cover for measuring table 250x170 mm	
4246073	Protective cover for measuring table 400x250 mm	



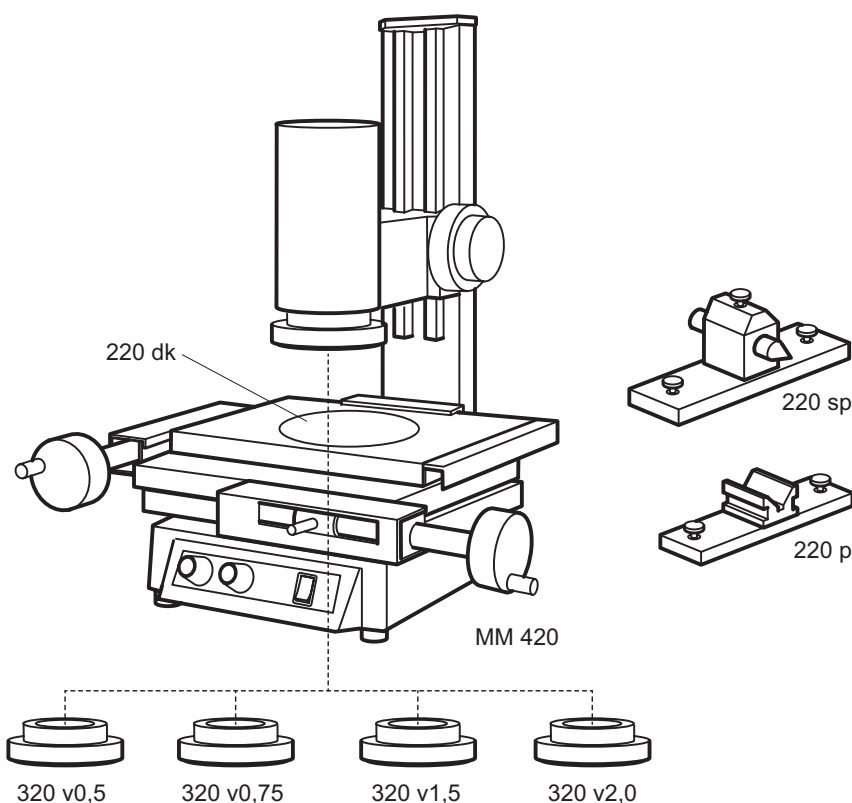
220 p



220 sp



220 sps



# Workshop measuring microscope MarVision MM 420 CNC



## Application:

- Measurement or determination of geometric elements (point, straight line, circle, distance, intersection point, etc.) by automatic edge detection, e.g. on punched and bent components, plastic components, and circuit boards.

## Technical Data

Order no.		4247701	4247702	4247706	4247707
Product type		MM 420 CNC			
Measuring range X/Y	mm	200 / 100	250 / 170	200 / 100	250 / 170
Size of table	mm	370 x 210	420 x 280	370 x 210	420 x 280
Maximum table load	kg	20			
Measuring system		built-in incremental scale			
Measuring system - resolution	mm	0,001			
Measuring system - E1 X/Y	µm	1.9 + (L/100)	1,9 + (L/100)	1.9 + (L/100)	1,9 + (L/100)
Measuring system - E2 XY	µm	2.9 + (L/100)			
Magnification		35 – 225x			
Max. height of test piece	mm	200			
Max. height of test piece / 0.5-fold	mm	110			
Max. height of test piece with coax.	mm	200			
Max. height of test piece with coax. / 0.5-fold	mm	110			
Illumination		LED back and front illumination, adjustable			
Energy supply		230 V / 50 Hz		110 V / 60 Hz	

## Measuring microscope

- 3 axis CNC control with servo motor and joystick
- Axis movement and speed regulation controlled via the joystick
- Integrated color camera
- Mechanical and motorized zoom lens
- LED ring light: 1 ring and 4 segments, individually switchable and dimmable
- LED transmitted light: dimmable
- Solid granite base
- Sturdy steel XY table, precision mounted
- Optical incremental measuring system for outstanding accuracy and reliability
- Laser pointer for position finding
- **Control and display unit with M3 software and touchscreen PC**
- 23" touchscreen with keyboard and mouse
- Windows 10 Pro operating system, further software can be installed
- Operation via the Multi-Touch screen or with a mouse/keyboard
- Large video screen
- Reference/actual evaluation with tolerances
- Record output with company logo
- Graphic display with dimensioning
- Automatic edge detection, even on low contrast parts
- Stitching
- Statistics

**Scope of delivery:** M3 software with touchscreen PC, standard stop bar 220 as, Instruction manual, Calibration certificate

# Workshop measuring microscope MarVision MM 420 CNC

## Accessories

Order no.	Product name	Product type
4246114	Optional DXF file integration for M3 software	
4247027	Optional TV adapter, 0.67x (instead of 1.0x)	320 tv0,67
4247050	Option <b>Telecentric LED transmitted light</b> for measuring rotationally symmetric parts	200 ld
4245302	Optional <b>coaxial LED incident light</b> for zoom lens	320 kac
4247020	Ancillary lens 0.5x (for Navitar objective lens only)	320 v0,5
4247021	Ancillary lens 0.75x (for Navitar objective lens only)	320 v0,75
4247022	Ancillary lens 1.5x (for Navitar objective lens only)	320 v1,5
4247023	Ancillary lens 2.0x (for Navitar objective lens only)	320 v2
4246801	Prisms, Pair, for diameter 5–55 mm (measuring tables 100x100 mm, 200x100 mm)	220 p
4246831	Prisms, Pair, for diameter 5–55 mm (measuring table 250 x 170 mm)	220 p
4246802	Center support, Pair, center height 40 mm (measuring tables 100x100 mm, 200x100 mm)	220 sp
4246833	Center support, Pair, center height 40 mm (measuring table 250 x 170 mm)	220 sp
4246806	Center support, pivoting, Pair, center height 50 mm, distance between centers 130 mm (measuring table 200 x 100 mm)	220 sps
4246807	Center support, pivoting, Pair, center height 50 mm, distance between centers 130 mm (measuring table 250 x 170 mm)	220 sps
4246920	Pivoting glass plate, D = 100 mm (measuring table 200 x 100 mm)	200 dk
4246921	Pivoting glass plate, D = 100 mm (measuring table 250 x 170 mm)	200 dg
4246821	90-degree stop for MM 220 / MM 320	220 as90
4246901	Calibration standard for circles, with calibration certificate	320 nkz
4246071	Protective cover for measuring tables 100x100 and 200x100 mm	
4246072	Protective cover for measuring table 250x170 mm	



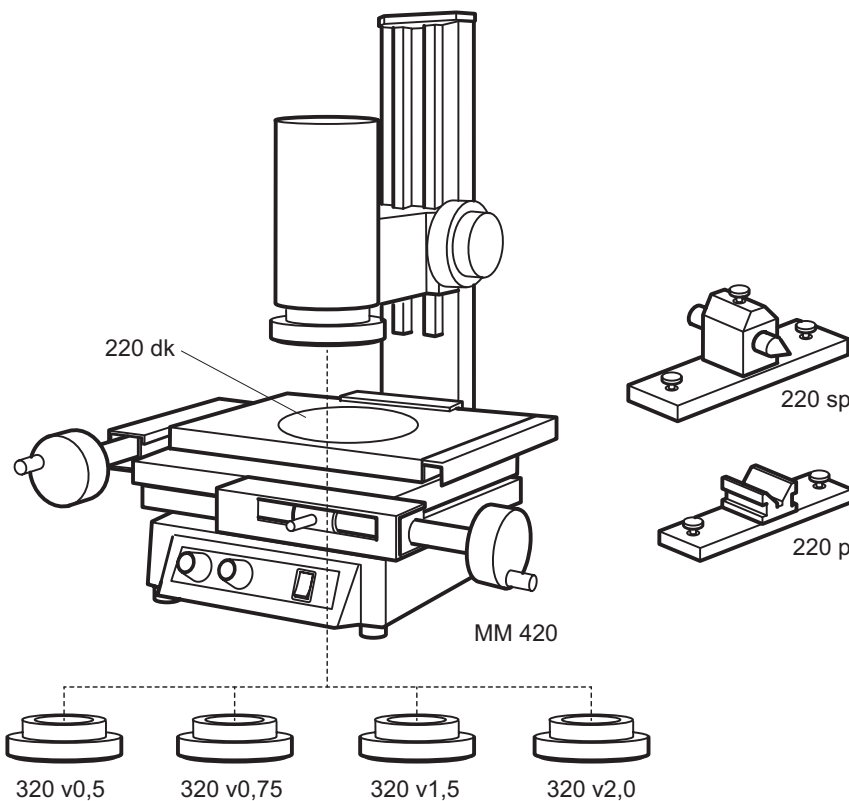
220 p



220 sp

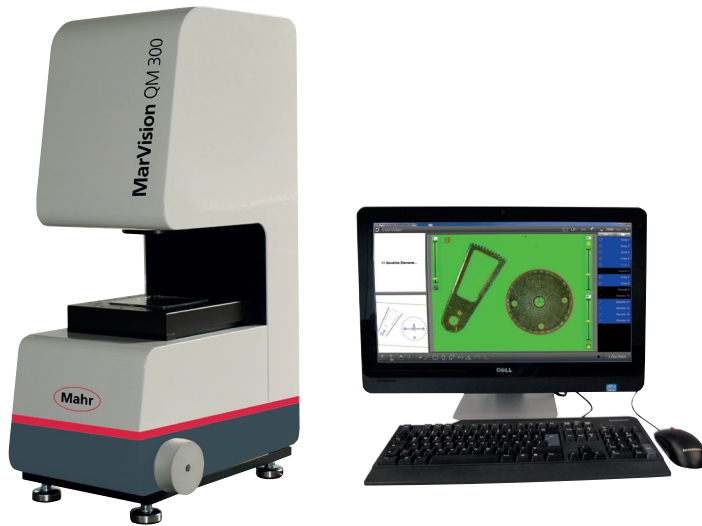


220 sps





# MarVision QM 300



- **Measuring microscope**
- Fixed telecentric lens
- Integrated USB color camera
- LED ring light: switchable and dimmable
- LED transmitted light: switchable and dimmable
- Measuring table with height adjustment
- **Control and display unit with M3 software and touchscreen PC**
- Large, high contrast color LCD display with backlight
- 4 display modes: Video live image, digital display, element display and tolerance display
- Automatic part detection
- Automatic measurement of all features of a part within the image field
- Comparison of measurement with the CAD drawing via DXF function
- Measuring and evaluation functions for point, straight line, circle, angle, distance, intersection point
- 'Magic' function for automatic geometry recognition from the measured measuring points
- Teach-in methods for easy measuring program creation
- Trouble-free program sequence with graphical route guidance
- Lighting control
- Multilingual user guidance
- RS232 interface for measuring data processing
- USB printer port
- USB stick connection
- Updateable via USB stick for a future-proof system
- **Scope of delivery:** M3 software with touchscreen PC, Instruction manual

## Technical Data

Order no.		4247800	4247803	4247801	4247804	4247802	4247805
Product type		QM 300					
Measuring range X/Y	mm	32 x 24		57 x 42		96 x 72	
Z travel path	mm	30					
Measuring system - E2 XY	µm	4 + L/50 (L in mm)		4,5 + L/50 (L in mm)		7,5 + L/50 (L in mm)	
Illumination		Front illumination: LED ring light Back illumination: LED, telecentric					
Energy supply		230 V / 50 Hz	110 V / 60 Hz	230 V / 50 Hz	110 V / 60 Hz	230 V / 50 Hz	110 V / 60 Hz
H x W x D	mm	330 x 230 x 580		330 x 240 x 720		340 x 250 x 820	

Order no.	H x W x D
	mm
4247800	330 x 230 x 580
4247803	330 x 230 x 580
4247801	330 x 240 x 720
4247804	330 x 240 x 720
4247802	340 x 250 x 820
4247805	340 x 250 x 820