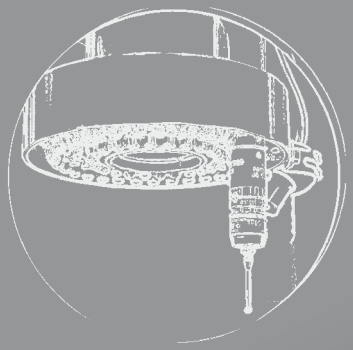
WM1 Series

Workshop Microscope



High Tech – Low Budget!
Featuring an integrated image analysis system or excelling as a basic multi-sensor device, ideal for measuring

stamped parts

plastic parts

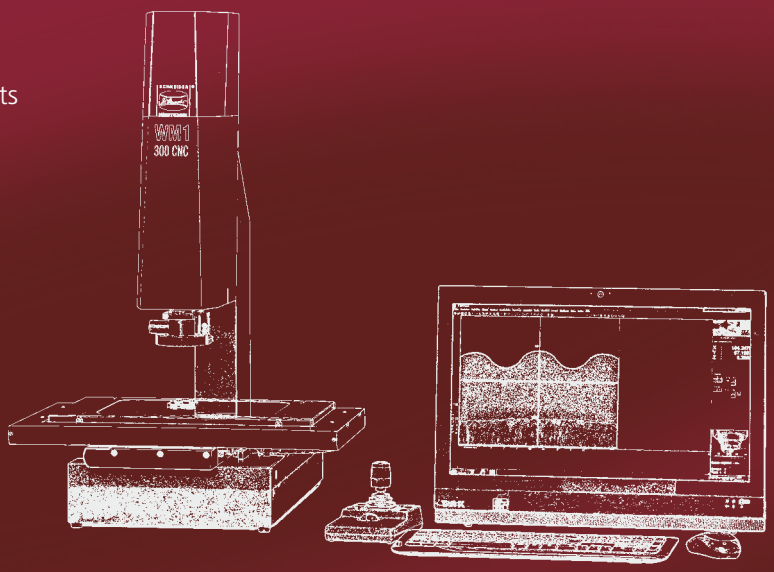
rubber parts

tools

seals

profiles

... and more



SCHNEIDER ®
MESSTECHNIK

SIMPLY PRECISE

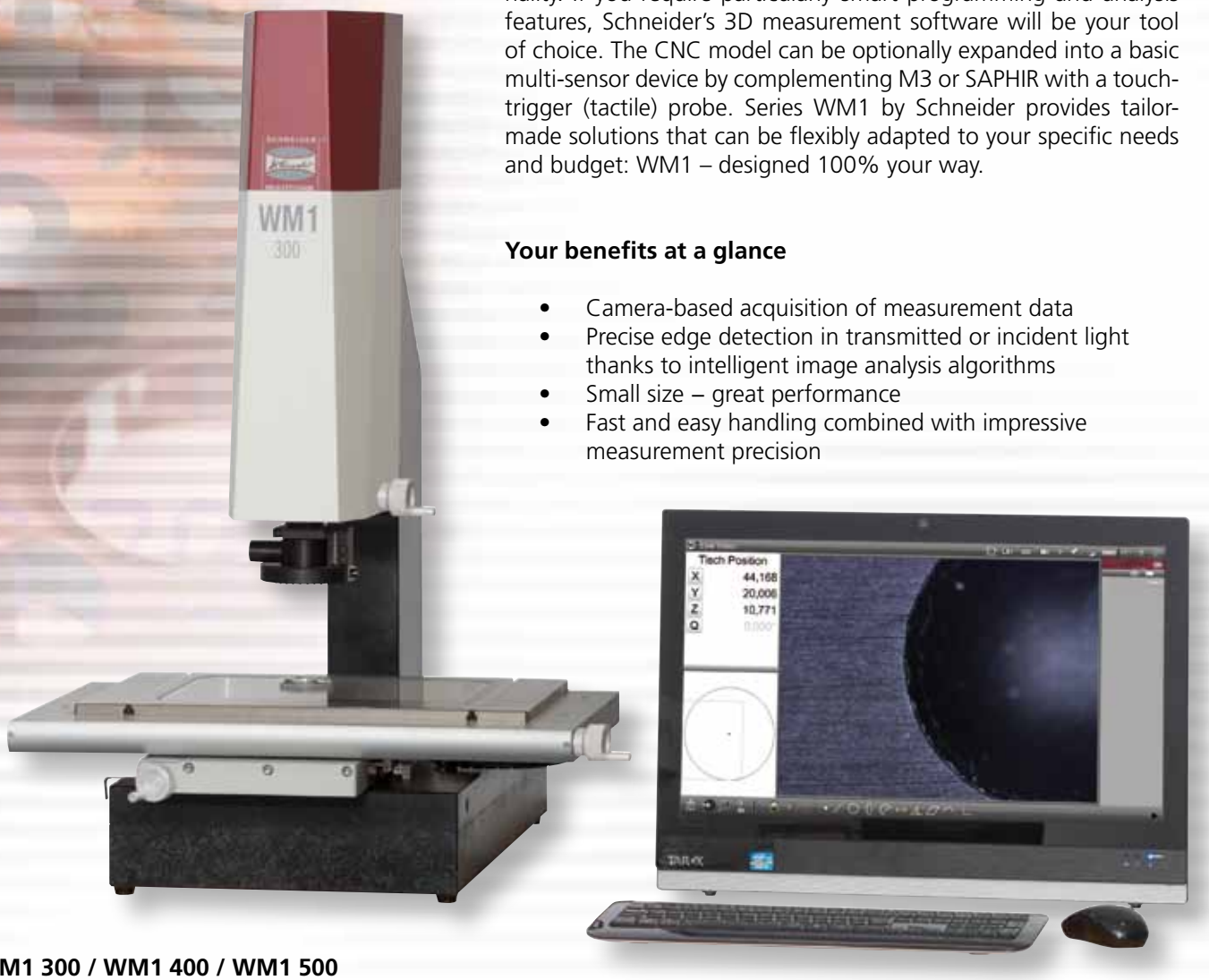
WM1 Series

Three tailor-made solutions for your measurement task.

Whether you have your eye on a manual model or on a CNC-operated model of WM1 – in either case, you can benefit from Schneider's powerful software packages SAPHIR and M3! In the entry-level category, the M3 measurement software sets new standards in terms of intuitive design, user friendliness and functionality. If you require particularly smart programming and analysis features, Schneider's 3D measurement software will be your tool of choice. The CNC model can be optionally expanded into a basic multi-sensor device by complementing M3 or SAPHIR with a touch-trigger (tactile) probe. Series WM1 by Schneider provides tailor-made solutions that can be flexibly adapted to your specific needs and budget: WM1 – designed 100% your way.

Your benefits at a glance

- Camera-based acquisition of measurement data
- Precise edge detection in transmitted or incident light thanks to intelligent image analysis algorithms
- Small size – great performance
- Fast and easy handling combined with impressive measurement precision



WM1 300 / WM1 400 / WM1 500

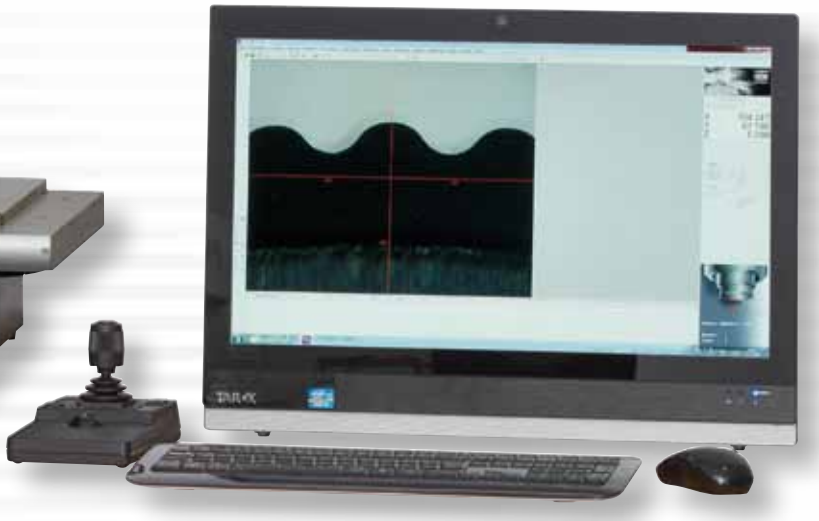
- M3 measurement software
- High-resolution CCD (matrix array) camera
- 1.5x magnification
- Incident light illumination through LED ring light, 4 sectors and 1 ring – separately switchable
- Precision measurement stage with quick-adjustment mechanism for axes X and Y
- Diode laser installed as a positioning aid
- **Optional: manual zoom lens 0.7x-4.5x, 6 steps, incl. coaxial incident light illumination**

A wide range of accessories are available.

For further information, please visit our Website:
www.dr-schneider.de

WM1 200 S
WM1 300 S / WM1 400 S / WM1 500 S

- Measurement and analysis software SAPHIR
- High-resolution CCD (matrix array) camera
- 1.5x magnification
- Incident light illumination through LED ring light 4 sectors and 1 ring – separately switchable
- Precision measurement stage with quick-adjustment mechanism for axes X and Y
- Diode laser installed as a positioning aid
- Colour inkjet printer
- 21.5" TFT flat screen monitor
- **Optional: manual zoom lens 0.7x-4.5x, 6 steps, incl. coaxial incident light illumination**



WM1 200 CNC
WM1 300 CNC / WM1 400 CNC / WM1 500 CNC

- Measurement and analysis software SAPHIR, or measurement software M3
- 3-axis CNC control
- High-resolution CCD (matrix array) camera
- 1.5x magnification
- Incident light illumination through LED ring light, 4 sectors and 1 ring – separately switchable
- Precision measurement stage for axes X and Y
- Diode laser installed as a positioning aid
- Colour inkjet printer
- Joystick and trackball for axis motion control, with fast/slow speed selection
- 21.5" TFT flat screen monitor
- Optional: touch-trigger probe TP200
- **Optional: motorised zoom lens 0.58x-7x, 8 steps, incl. coaxial incident light illumination**

A valuable option:
*Touch-trigger probe **TP200***

Measurement and analysis software SAPHIR
Efficient workflows are essential to successful business operations, and so is smart quality control. The choice of the right machinery with the right software is a key determinant in this regard because nothing works without top-notch inspection equipment! Since "Schneider" is the German word for "tailor", you can rightly conclude that SAPHIR is a truly "tailor-made" measuring software that leaves nothing to be desired: from "A" as in "axis alignment" to "Z" as in "zero-point administration" – SAPHIR is a valuable resource with invaluable features. For further information about this technological gem, please request our free "SAPHIR" brochure.

Measurement software M3 with image processing features
M3 is a measurement software with image processing features designed for use on a touch-screen panel PC. This valuable tool enables accurate and precise manual measurement of geometrical elements by means of an intuitive multi-touch operating system. Among its main strengths are the well-structured user interface as well as its innovative image processing functions ensuring fast and reproducible measurement point acquisition. All element-related reports can be displayed in both graphical and tabular format. The software also includes a tolerance checking feature in accordance with the pertinent DIN/ISO standards.

Technical Specifications of the WM1 Series

Model	M3 manual	–	**WM1 300 M3**	**WM1 400 M3**	–	**WM1 500 M3**
	M3 CNC	**WM1 200 M3 CNC**	**WM1 300 M3 CNC**	**WM1 400 M3 CNC**	**WM1 400 (300) M3 CNC**	**WM1 500 M3 CNC**
	SAPHIR manual	**WM1 200 S**	**WM1 300 S**	**WM1 400 S**	–	**WM1 500 S**
	SAPHIR CNC	**WM1 200 CNC**	**WM1 300 CNC**	**WM1 400 CNC**	**WM1 400 (300) CNC**	**WM1 500 CNC**
Measurement range	**X x Y mm**	200 x 100	300 x 200	400 x 200	400 x 300	500 x 200
	Z mm	100	200	200	200	200
Lens		other lenses available upon request				
Magnification			0.5 x	1.5 x	3.0 x	5.0 x	10.0 x
Field of view	mm		12 x 9	4.3 x 3.2	2.1 x 1.6	1.2 x 0.9	0.6 x 0.45
Working distance	mm		120	77	77	50	24
Manual zoom							
Incl. coaxial incident light		0.7 x - 4.5 x, 6 steps					
Working distance	mm	86					
Motorised zoom (for CNC devices)							
Incl. coaxial incident light		0.58 x - 7.0 x, 8 steps					
Working distance	mm	86					
Resolution	**mm**	0.0002					
Workpiece weight max.							
on glass plate	kg	20					
Length measurement error [1]		Measuring length L in mm					
optical (1D), DIN EN ISO 10360-7 [2]		$E_{UX, MPE}$ = (1.9 + L/100 mm)µm, $E_{UY, MPE}$ = (1.9 + L/100 mm)µm					
optical (2D), DIN EN ISO 10360-7 [2]		$E_{UXY, MPE}$ = (2.9 + L/100 mm)µm					
tactile (1D), DIN EN ISO 10360-2 [3]		$E_{0Z, MPE}$ = (3.9 + L/100 mm)µm					
Dimensions	**mm**	W 780	W 900	W 1000	W 1160	W 1100
		D 570	D 950	D 950	D 1330	D 950
		H 700	H 950	H 950	H 1600	H 950
Weight	**kg**	80	140	160	600	180
Electric power supply		220 - 240 VAC, 50 - 60 Hz, 1 kW					

[1] **Prerequisites: admissible ambient conditions** 20 °C ± 1K, **Temperature gradient** Δ_{th} = 0.5 K/h, Δ_{td} = 4.0 K/d
[2] β **= Magnification factor = 1.5** ≙ Objektiv 1.5x (Bildfeld 4 x 3 mm)
[3] **Applies to optional equipment with** TP200**, standard probing system equipped with a straight probe** length 30 mm, stylus ball Ø 2 mm

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