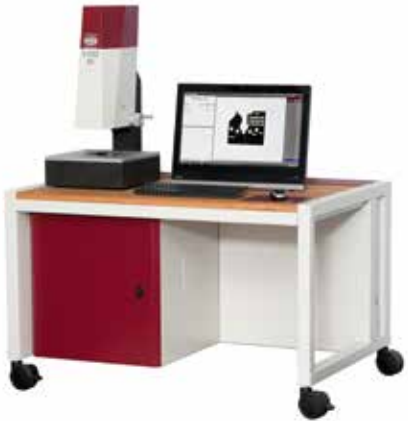
V-CAD series



2D optical measurement devices

- Precise 2D measurements in a matter of seconds
- High-resolution finish
- Simple and intuitive
- Manual or CNC

SIMPLY PRECISE

SCHNEIDER ®
MESSTECHNIK

Compact 2D optical measurement devices for measurement objects up to 500 mm

Intuitive measurements made easy

Measurements do not get much quicker or simpler than this: Choose the single-image field system, or the larger variant with moving table and measuring volume of up to 500 x 200 mm, for a whole host of options when it comes to your 2D measurements. Manual operation is a possibility, however also fully-automatic CNC operation. Personal touches can also be added in other areas. Depending on requirements, you can choose between the high-performance SAPHIR 7 (combination of the SAPHIR and PTB award-winning SAPHIR QD) and M3 measurement software packages.

Can any employee operate your measurement device?

The V-CAD series combines a compact, mobile and precise measurement device with a simple and intuitive software interface: The SAPHIR 7 or M3 measurement software provides measurements at the touch of a finger. Simply position the workpiece anywhere in the image field, touch the screen to start the measurement and, in a matter of seconds, you have the final measurement and related report. Quick, simple and reproducible - and setting the standard for precision in this class of equipment.

The high-resolution optics of all V-CAD measurement devices guarantee calibrated coverage free from distortion, with a large depth of field. Meaning workpieces up to 60 mm high can be measured without a problem.

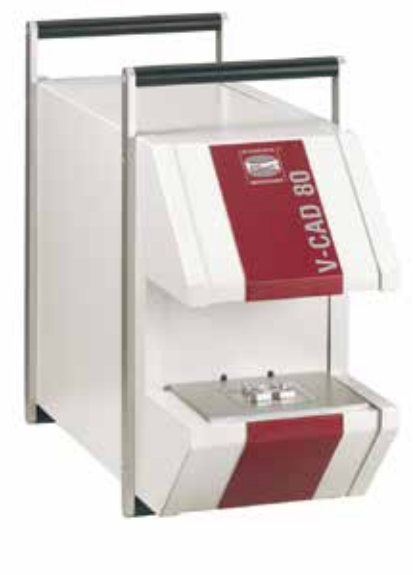
Fields of application

- Accurate and fast measurement of two-dimensional geometries
- Profile made of plastic, aluminium, wood, rubber, rubber/metal or metal
- Any type of stamped parts
- Templates, seals, layouts and many more
- Series production

All of the machines shown in the following may include optional accessories that are not part of the standard scope of delivery.

Standard equipment V-CAD 60 and V-CAD 80

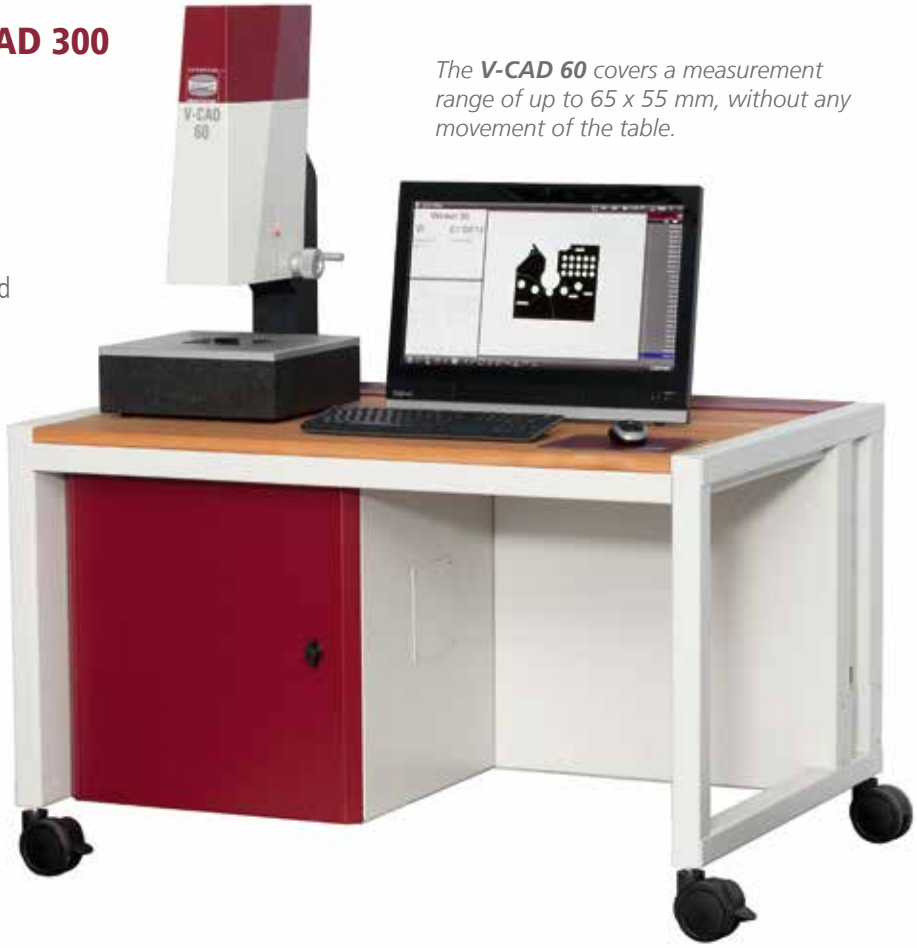
- 5-megapixel CCD B/W camera
- Telecentric 4-stage motor zoom
- 4 different image fields for precise measurements
- Telecentric LED transmitted light illumination
- LED incident light illumination
- Multi-touch panel PC
- LAN and WLAN network connection
- V-CAD 60: SAPHIR or M3 measurement software
- V-CAD 80: SAPHIR measurement software
- Calibration certificate



*The **V-CAD 80** is an optical measurement device for 2D objects up to 76 x 63 mm.*

Highlights of the V-CAD 60, V-CAD 80 and V-CAD 300

- Automatic recognition of control geometries without pre-selection
- Complete capture of 2D geometries in one image field
- No alignment of workpieces in image field
- 4-stage motor zoom for precise measurement of smallest features
- Calibrated coverage free from distortion
- Measurements every second as no axis movement is required
- No wear



*The **V-CAD 60** covers a measurement range of up to 65 x 55 mm, without any movement of the table.*

Optional Features of the V-CAD 60 with M3

- DXF overlays
- CAQ interface
- Profiling

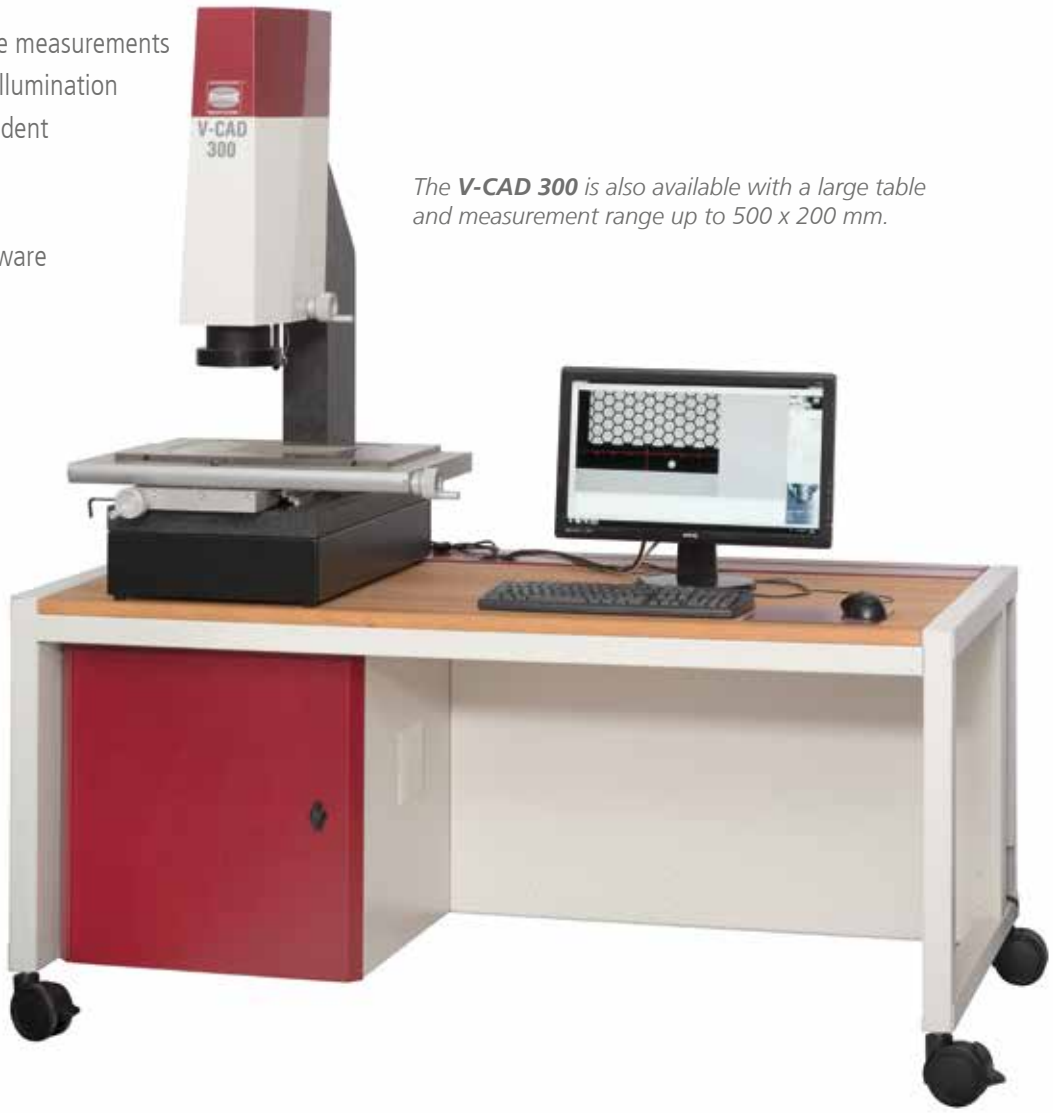
V-CAD 300

Do you have large workpieces?

From a device size of 300 x 200 to 500 x 200, the V-CAD series includes a moveable measurement table, with which you can measure your workpiece manually and via the CNC control system achieving the usual level of precision. Devices of this size have a large measurement range by combining the advantages of a large image field with the functions of a measurement microscope.

Standard equipment of the V-CAD 300 / 400 / 500

- Measurement range X = 300/400/500 mm, Y = 200 mm
- Telecentric 4-stage motor zoom
- 4 different image fields for precise measurements
- Telecentric LED transmitted light illumination
- LED ring light illumination for incident light measurement
- 5-megapixel CCD B/W camera
- SAPHIR or M3 measurement software
- Multi-touch panel PC
- Calibration certificate



*The **V-CAD 300** is also available with a large table and measurement range up to 500 x 200 mm.*

Special solutions

The perfect solution for every task!

Should the scope of the standard V-CAD series machinery prove insufficient, it can be tailored to suit your individual measurement or specific situation at any time. The V-CAD can also be upgraded to a fully-automatic measuring cell for incoming or final inspections. Individual workpiece feeding and discharging can be integrated here to connect one or several measurement stations. Handling can include everything up to customised sorting and packaging. You can trust us with your project. Together, we will find the perfect configuration for your individual measurement!

Measuring cell with two V-CAD modules and adjacent packaging unit.

“Measurement Technology 4.0 is the response to Industry 4.0”

The new **SAPHIR 7** measurement and analysis software represents Measurement Technology 4.0 in all its forms. The workpiece itself is a channel of information and even workpieces for which there is no program yet are also identified within their contour. The measurement program is created by setting the arrow heads at the relevant points of the resulting DXF file.

The latest news and information can also be found on our Facebook page.

Interesting product videos and useful information are available on YouTube.

Technical specifications of the V-CAD series

Model		V-CAD 60	V-CAD 80	V-CAD 300 / 400 / 500
Measurement software		SAPHIR / M3	SAPHIR	SAPHIR / M3
Measurement range	mm	65 x 55	76 x 63.5	300 / 400 / 500 x 200
Object height in Z	mm	50	60	200
Lens		Telecentric special lens		
Image field	mm	65 x 55	76 x 63.5	76 x 63.5
		4-stage motor zoom, telecentric		
Image field	mm	65.5 x 55 32.5 x 27.5 16 x 13.5 8 x 6.5		
Magnification on screen[2]		4.7x 9.5x 19x 38x		
		Other measurement ranges available upon request		
Camera		5-megapixel CCD B/W camera		
Camera position		Top	Bottom	Top
Max. workpiece weight	kg	10		
Repeat accuracy	mm	0.001		
Length measurement error[1]		Measurement length L in mm		
optical (2D) DIN EN ISO 10360-7		$E_{UV, MPE}$ (3.5 + L/50 mm)	$E_{UV, MPE}$ (4.0 + L/50 mm)	$E_{UV, MPE}$ (3.5 + L/50 mm)
Dimensions	mm	W 354	W 290	W 900 / 1000 / 1100
		D 444	D 720	D 950
		H 700	H 550	H 950
Weight	kg	30	50	140 / 150 / 160
Electric power supply		220-240 VAC, 50-60 Hz, 1 kW		

[1] **Admissible ambient conditions** 20°C ± 1 K, **Temperature gradient** Δ_{th} = 0.5 K/h, Δ_{td} = 4.0 K/d, **measured with a calibrated standard**
[2] Relates to standard monitor and default settings

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