

# OPTICAL MEASURING MACHINES

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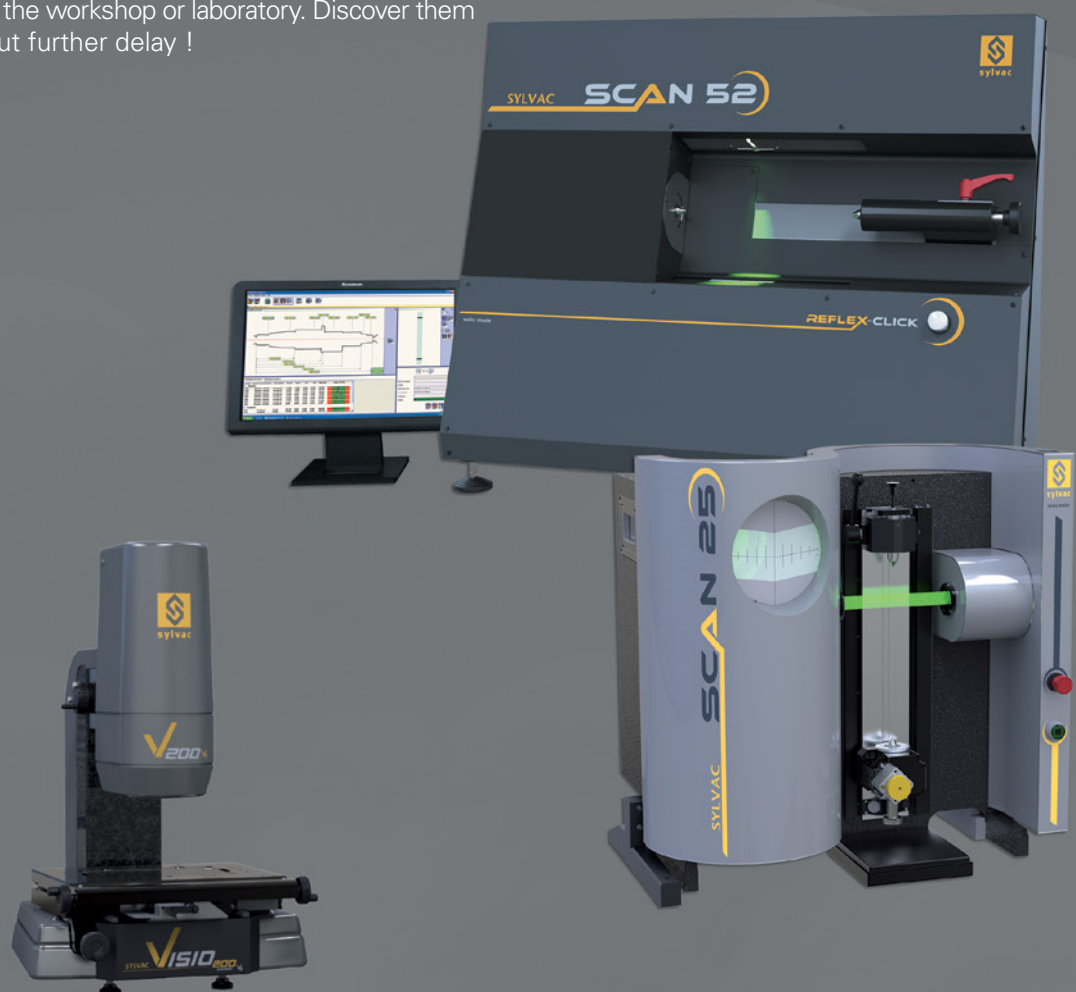
## SYLVAC SCAN

Dedicated to the fast and contactless measuring of cylindrical parts, our new SCAN machines are based on the principle of the scanner. This technique allows to reproduce a high resolution image of the component scanned and thanks to the software, to measure over 150 different type of static and dynamic features.

## SYLVAC VISIO

Our 2.5D video measuring systems equipped with manual XY stage and manual/motorized optical zoom allow to quickly measure most of the industrial components based on the live image of the workpiece displayed on the software.

Our SCAN and VISIO machines are designed for use in the workshop or laboratory. Discover them without further delay !

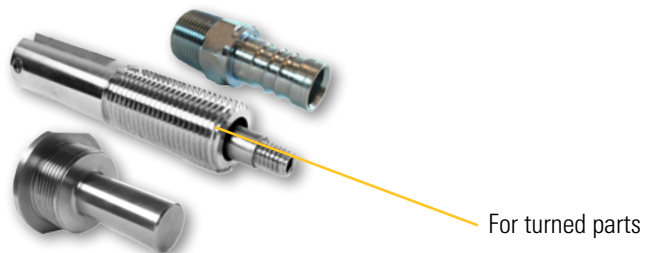


- Horizontal SCAN machine allowing to measure in the same position as the parts have been produced
- Robust construction with granite table for use in workshop or control laboratory
- Concept Reflex SCAN patented for measuring cylindrical workpieces without preprogramming
- Measurements performed in seconds by a single click
- Load the part, click the button and you get all the main values directly!
- Automatic recognition of recorded parts already measured
- Easy daily calibration thanks to the integrated master
- Quick return of investment



Sylvac Reflex SCAN Software

One click measurement



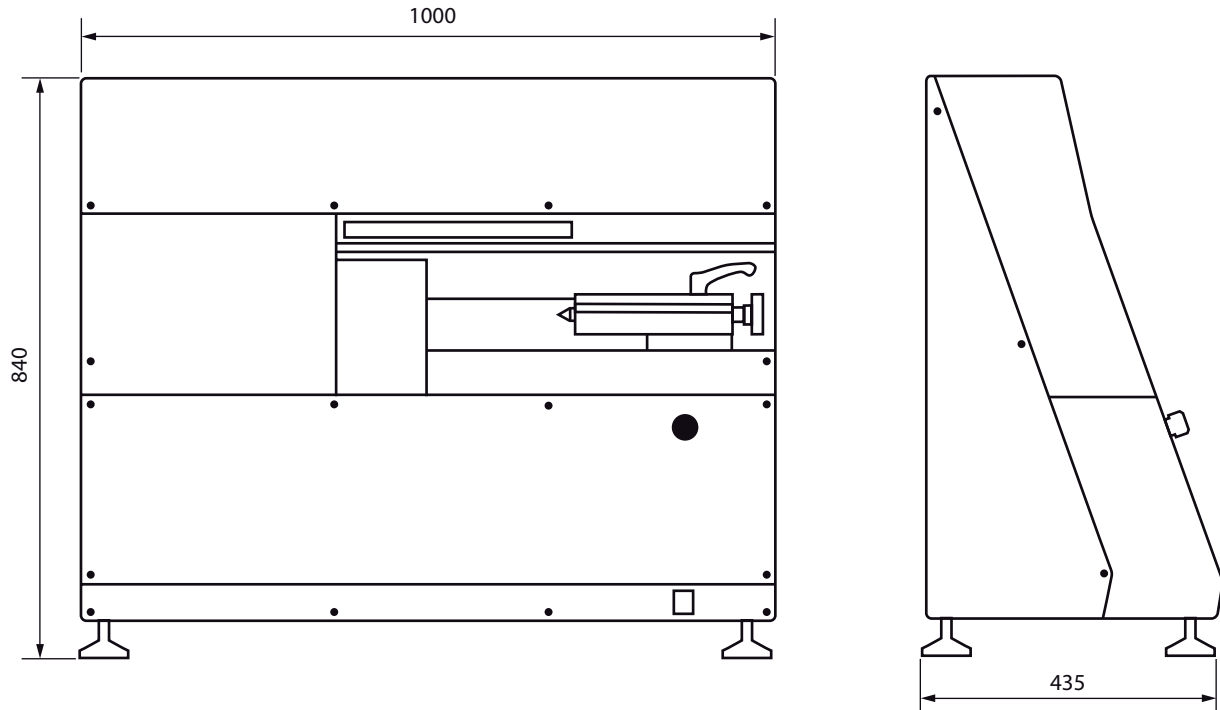
For turned parts

# Optical measurement

# SYLVAC-SCAN

## DIMENSIONAL DRAWINGS

## 52 REFLEX-CLICK



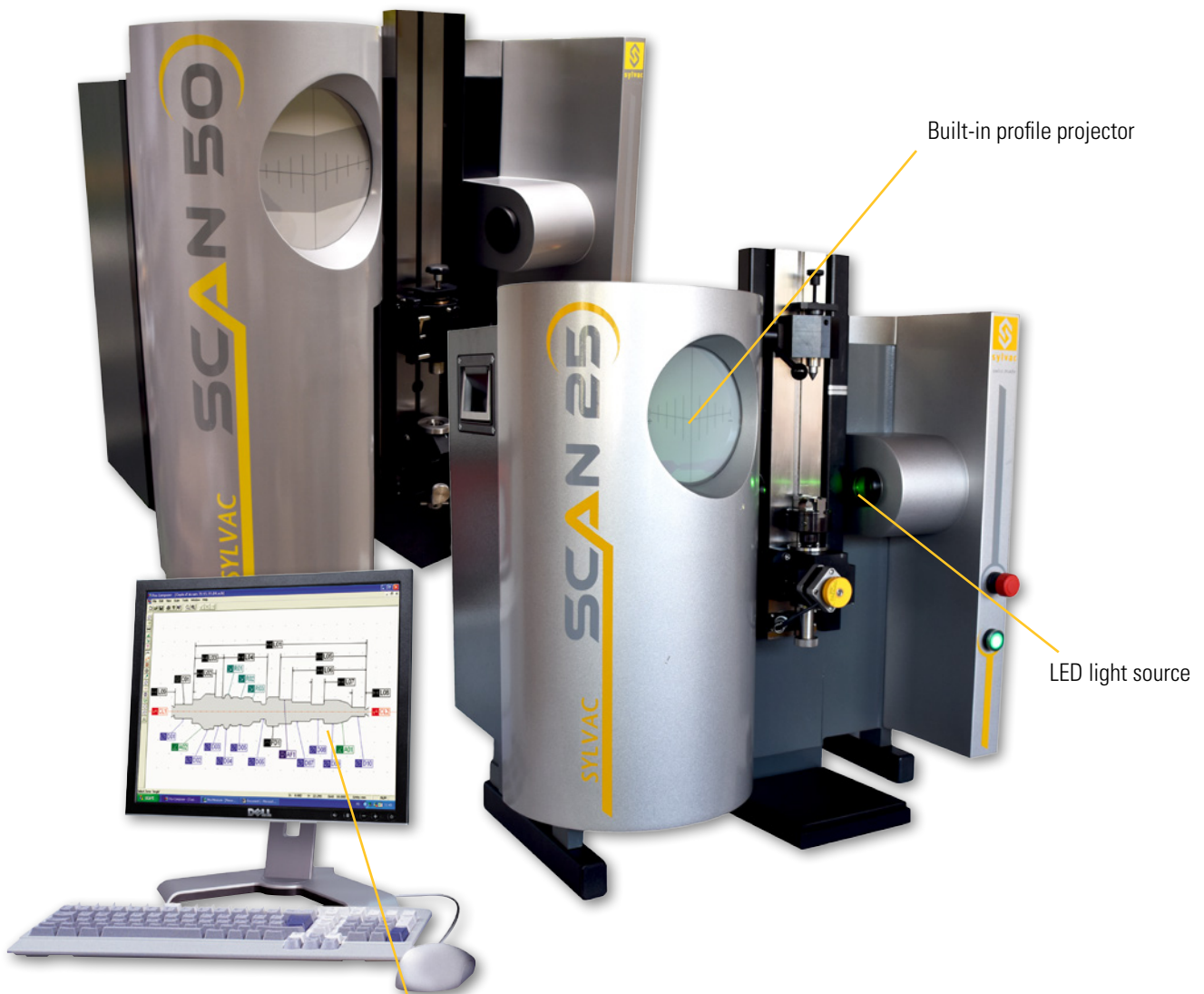
## TECHNICAL SPECIFICATIONS

		902.5520		902.5521	
		Diameter	Length	Diameter	Length
Measuring range	mm	0.5 ÷ 52	300	0.5 ÷ 52	300
Resolution up to	mm	0.0001	0.0005	0.0001	0.0005
Max. error	µm	1.5 + D/100	4 + L/100	1.5 + D/100	4 + L/100
Repeatability	µm	0.6	2.5	0.6	2.5
Headstock		Non-Rotating headstock for static measurements		Rotary headstock for static and dynamic measurements	
Max. weight of part	kg	4			
Machine's weight	kg	103			

## BASIC INSTRUMENT

- Instrument according to technical specifications
- 2 male centers
- Computer with screen, keyboard and mouse
- Windows 7 multilingual operating system
- Sylvac Reflex SCAN Software
- Manual

- Vertical machines with motorized movement of the part through the light source
- Compact and robust construction
- Ideal for the control of small components
- Integrated profile projector for viewing the live measuring position
- Powerful application software with operator and programming modes. Optional off-line software available



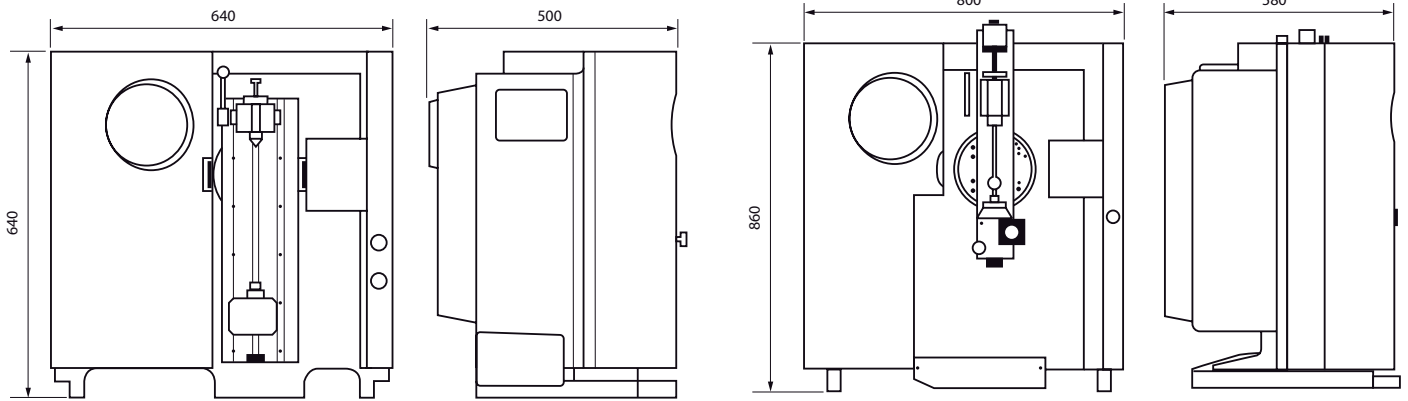
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# Optical measurement

# SYLVAC-SCAN

## DIMENSIONAL DRAWINGS

25 & 50



**Sylvac SCAN 25**

**Sylvac SCAN 50**

## TECHNICAL SPECIFICATIONS

		902.5250		902.5500	
		Diameter	Length	Diameter	Length
Model		Sylvac Scan 25		Sylvac Scan 50	
Measuring range	mm	0.25 ÷ 25	200	0.50 ÷ 50	275
Resolution up to	mm	0.0001	0.0005	0.0001	0.0005
Max. error	µm	1 + D/100	4 + L/100	1 + D/100	4 + L/100
Repeatability	µm	0.5	2	0.5	2
Headstock		Rotary headstock for static and dynamic measurements		Rotary headstock for static and dynamic measurements	
Max. weight of part	kg	2		4	
Machine's weight	kg	67		103	

## BASIC INSTRUMENT

- Instrument according to technical specifications
- 2 male centers (SCAN25 : 902.6201/SCAN50 : 902.6202)
- Computer with screen, keyboard and mouse
- Windows 7 multilingual operating system
- Rotary headstock
- Part rotation
- Softwares Pro-Measure / Pro-Composer
- Manual

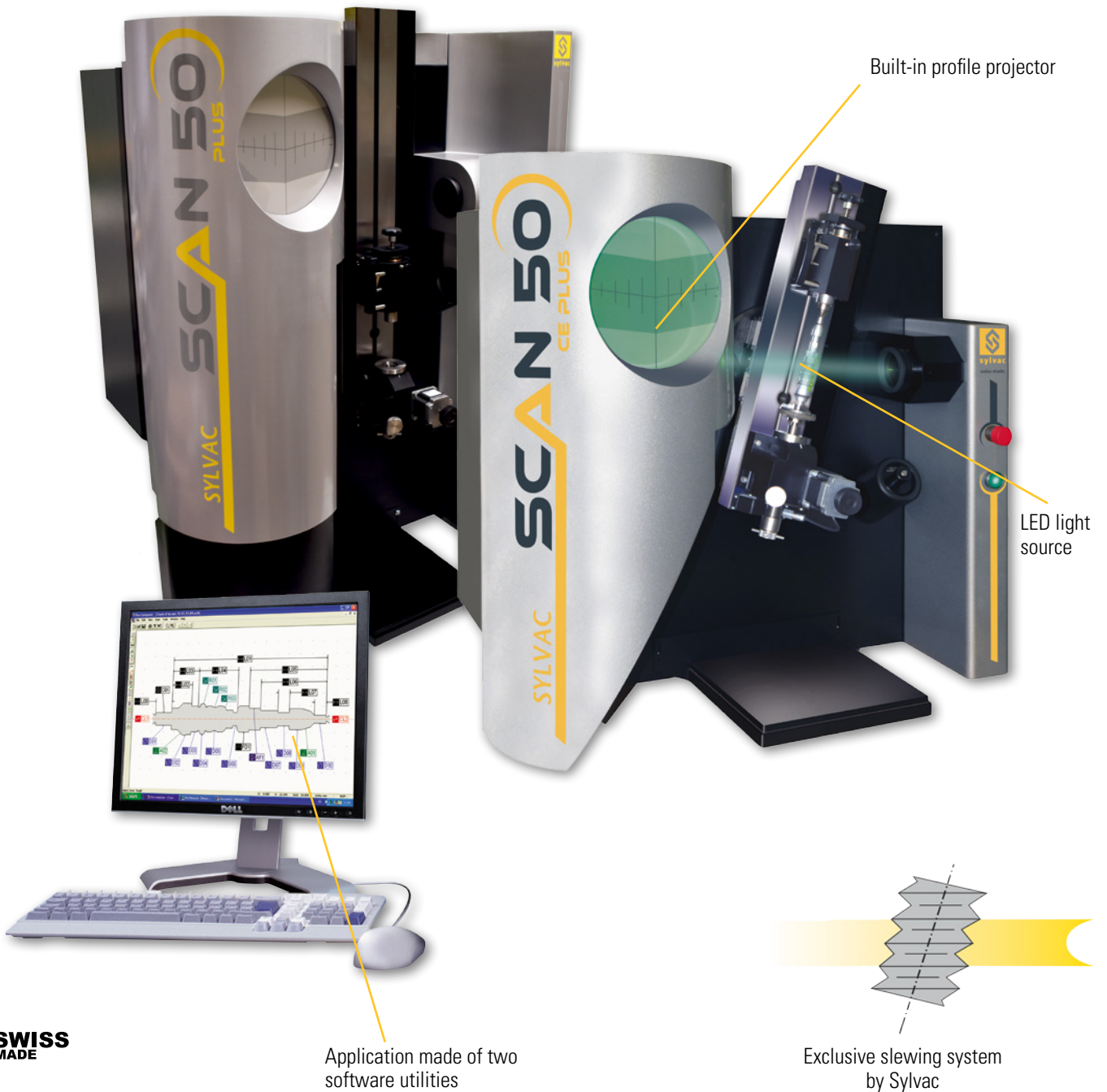
# Optical measurement

# SYLVAC-SCAN

## DESCRIPTION

50 CE PLUS & 50 PLUS

- Vertical machines with motorized movement of the part through the light source
- Compact and robust construction
- Exclusive slewing system, facilitating comprehensive thread measurements aligned to the thread helix
- Integrated profile projector for viewing the live measuring position
- Powerful application software with operator and programming modes. Optional off-line software available

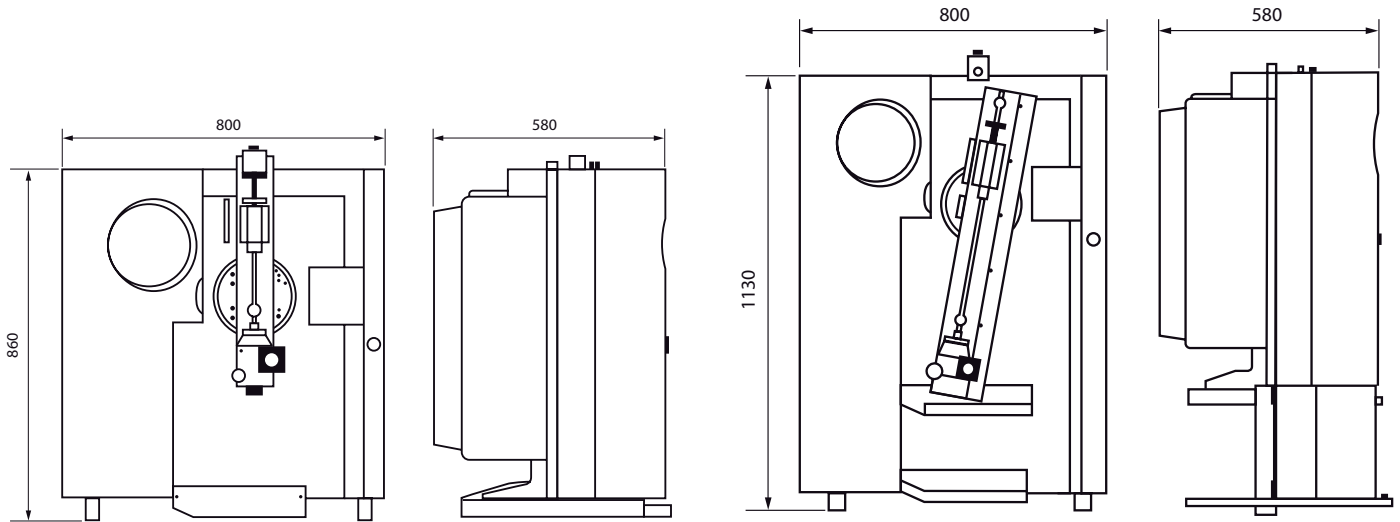


# Optical measurement

# SYLVAC-SCAN

## DIMENSIONAL DRAWINGS

## 50 CE PLUS & 50 PLUS



**Sylvac SCAN 50 CE PLUS**

**Sylvac SCAN 50 PLUS**

## TECHNICAL SPECIFICATIONS

		902.5501		902.5502	
		Diameter	Length	Diameter	Length
Model		Sylvac Scan 50 CE Plus		Sylvac Scan 50 Plus	
Measuring range	mm	0.50 ÷ 50	275	0.50 ÷ 50	500
Resolution up to	mm	0.0001	0.0005	0.0001	0.0005
Max. error	µm	1 + D/100	4 + L/100	1 + D/100	4 + L/100
Tilting for thread meas.	°	30		15	
Repeatability	µm	0.5	2	0.5	2
Headstock		Rotary headstock for static and dynamic measurements		Rotary headstock for static and dynamic measurements	
Slewing mechanism for thread measurement		●		●	
Max. weight of part	kg	4		6	
Machine's weight	kg	140		180	

## BASIC INSTRUMENT

- Instrument according to technical specifications
- 2 male centers
- Computer with screen, keyboard and mouse
- Windows 7 multilingual operating system
- 1 Rotary headstock
- Softwares Pro-Measure / Pro-Composer
- Manual
- Slewing mechanism for thread measurement

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# Optical measurement

# SYLVAC-SCAN

## TECHNICAL SPECIFICATIONS

## SOFTWARES



	FUNCTIONS	
	SYLVAC REFLEX SCAN 52	SYLVAC SCAN 25/50/50CE+/50+
Automatic measurement of the main features (diameters, lengths, angles, radius)	●	
Automatic parts / program recognition	●	
Off-line programming		●
CAD import for programming		●
Reports editor	●	●
Data export	●	●
SPC basic calculations	●	●
SPC software	On request	On request
Access management - security level	1	4



	GEOMETRICAL TOLERANCING - FEATURES SUMMARY	
	SYLVAC REFLEX SCAN 52	SYLVAC SCAN 25/50/50CE+/50+
Diameters	●	●
Lengths, heights, distances	●	●
Angles, chamfers	●	●
Radii	●	●
Threads (parallel)	●	●
Threads (root detail, taper, multi-starts, ball screws, worm screws, special threads)		●
Perpendicularity		●
Form deviation		●
2 and 3D alignment of the parts (axis correction)	●	●
Rotational diameters	Advanced	●
Run out	●	●
Concentricity	●	●
Roundness	●	●
Cylindricity	●	●
Across flats	●	●
Straightness	Advanced	●
Interrupted parts (splines, turbines)		●

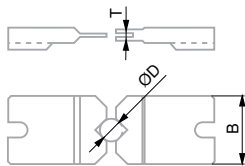
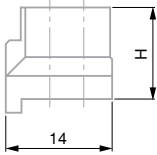
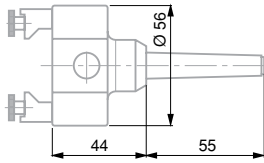
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# Optical measurement

# SYLVAC-SCAN

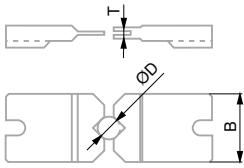
## ACCESSORIES



		Morse 1 SCAN 25	Morse 2 SCAN 50 / 52
<b>902.6220</b>	Two-jaw gripper External clamping for manual use	•	• Requires 902.6360
<b>902.6231</b> H=22	Raising blocks for external jaws, in pairs	• For 902.6220	
<b>902.6141</b> 0-6mm T=1.5	External jaws, in pairs	• For 902.6220	• For 902.6220
<b>902.6142</b> 0-6mm T=3			
<b>902.6143</b> 6-12mm T=3			
<b>902.6144</b> 12-18mm T=6			
<b>902.6145</b> 18-24mm T=9			
<b>902.6152</b> 0-6mm T=6			
<b>902.6153</b> 0-6mm T=15			
<b>902.6140</b> 6-12mm T=15			

Morse 1  
SCAN 25

Morse 2  
SCAN 50 / 52



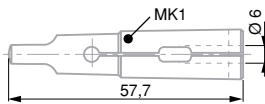
**902.6154**

Set with:  
902.6141  
902.6142  
902.6143  
902.6144  
902.6145

External jaws,  
in pairs

902.6141 : Jaws dia 0-6mm, T1=1.5mm  
902.6142 : Jaws dia 0-6mm, T1=1.3mm  
902.6143 : Jaws dia 6-12mm, T1=3mm  
902.6144 : Jaws dia 12-18mm, T1=6mm  
902.6145 : Jaws dia 18-24mm, T1=9mm

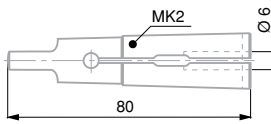
•  
For  
902.6220



**902.6250**

Center  
adapter with  
a 6 mm dia.  
coupling bore

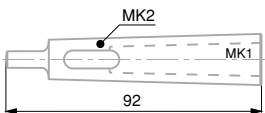
•



**902.6251**

Center adapter  
with a 6 mm dia.  
coupling bore

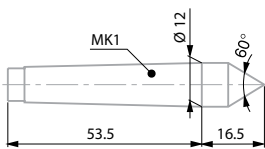
•



**902.6360**

Reduction  
sleeve,  
Morse 2 to 1

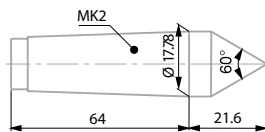
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**902.6201**

Extra male center, 10 mm  
(2 items provided with  
SYLVAC-SCAN 25)

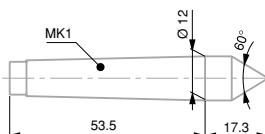
•  
Standard



**902.6202**

Extra male center, 17.78 mm  
(2 items provided with SYLVAC-SCAN 50 and  
SYLVAC-SCAN 52 Reflex-Click)

•  
Standard



**902.6203**

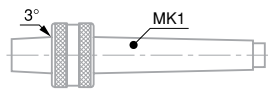
Drive centre  
(Diamond coated 10 mm)

•

# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES



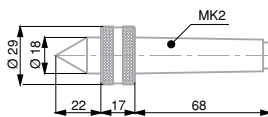
**902.6160**

Rotation center with a B12 male taper plus a Morse 1 taper shank  
(For added sleeves 902.6206/902.6207)

**Morse 1  
SCAN 25**

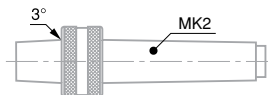


**Morse 2  
SCAN 50 / 52**



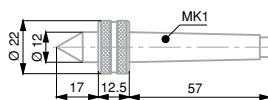
**902.6161**

Rotation center,  
Morse 2



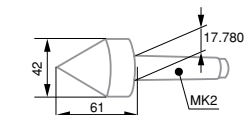
**902.6162**

Rotation center  
with a B18  
male taper plus  
a Morse 1 shank



**902.6163**

Rotation center,  
Morse 1



**902.6380**

Rotation center,  
Morse 2



**902.6204**

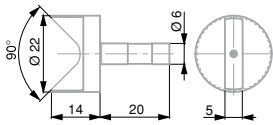
Female center,  
10 mm dia.

Requires  
902.6250

Requires  
902.6251

**Morse 1  
SCAN 25**

**Morse 2  
SCAN 50 / 52**

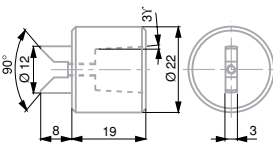


**902.6205**

Female center,  
20 mm dia.

•  
Requires  
902.6250

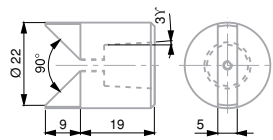
•  
Requires  
902.6251



**902.6206**

Female center,  
10 mm dia.  
Also with internal  
B12 taper

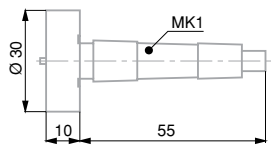
•  
Requires  
902.6160



**902.6207**

Female center,  
12 mm dia.  
Also with internal  
B12 taper

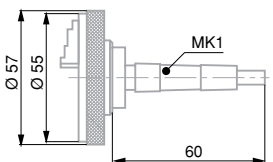
•  
Requires  
902.6160



**902.6208**

Platten,  
30 mm dia.

•

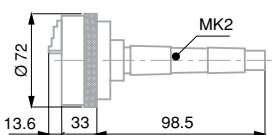


**902.6300**

3-jaw chuck, clamping range 1÷15 mm  
(Clamping capacity: outside 1÷15 mm  
inside 11÷26 mm)

•

•  
Requires  
902.6360



**902.6301**

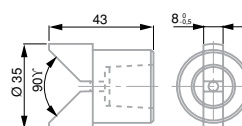
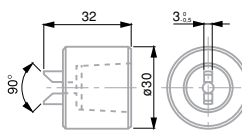
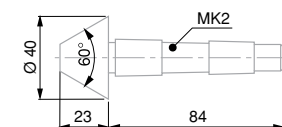
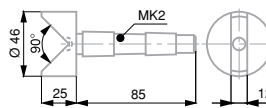
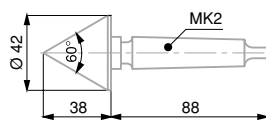
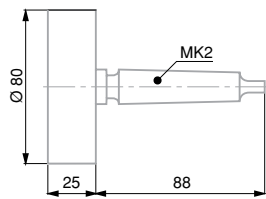
3-jaw chuck with Morse 2  
taper shank, clamping range 2÷50 mm  
(Clamping capacity: outside 2÷50 mm  
inside 23÷50 mm)

•

# Optical measurement

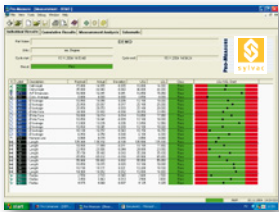
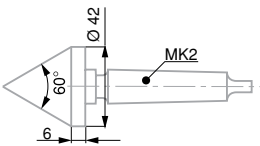
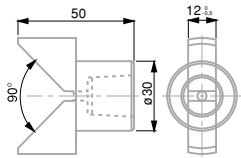
# SYLVAC-SCAN

## ACCESSORIES



		Morse 1 SCAN 25	Morse 2 SCAN 50 / 52
902.6209	Platten, 80 mm dia. with a Morse 2 taper shank		•
902.6210	Drive centre, Ø 40 mm. Diamond coated with a Morse 2 taper shank		•
902.6340	Female centre, 40 mm dia. with a Morse 2 taper shank		•
902.6341	Male centre, 15-40 mm dia. with a Morse 2 taper shank		•
902.6310	Female center, 10 mm dia., with a B18 internal taper		• Requires 902.6162
902.6311	Female center, 30 mm dia., with a B18 internal taper		• Requires 902.6162

## ACCESSORIES



		Morse 1 SCAN 25	Morse 2 SCAN 50 / 52
<b>902.6312</b>	Female center, 45 mm dia., with a B18 internal taper		• Requires 902.6162
<b>902.6410</b>	Drive centre - diamond coated, 42 mm dia. max.		•
<b>902.6006</b>	Pro-Composer off-line programming (not for SCAN 52)		
<b>902.6350</b>	Reflex SCAN Advanced Package		

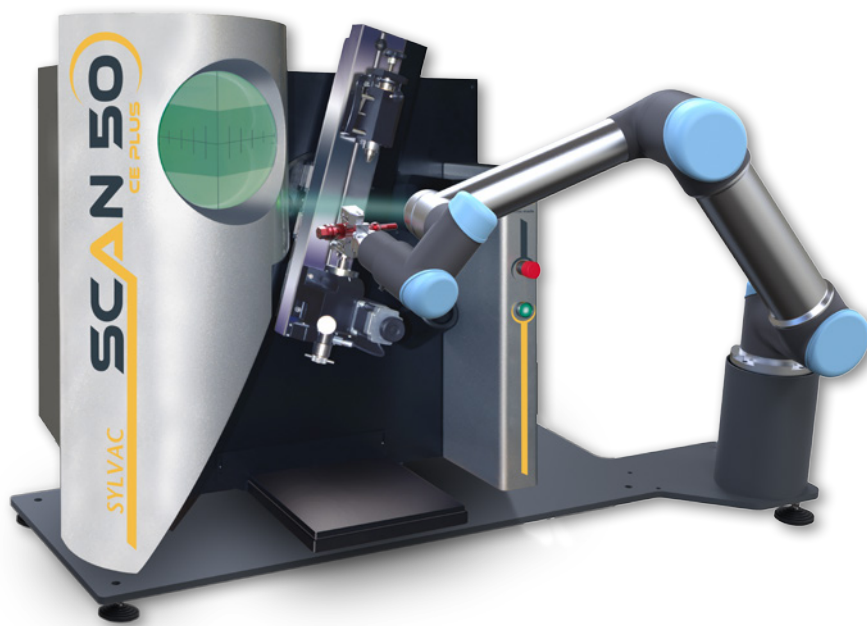
# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES



Our Sylvac Scan range is now fully automated with an universal robot that can load all your workpieces for you directly on the machine for measurement.



# Optical measurement

# SYLVAC-VISIO

## DESCRIPTION

200 & 300 V3

- High quality 2.5D video measuring system with larger field of view up to 30x19mm (standard config 15x9.5mm)
- New software layout with auto toggle screens live/schematic and touch compatible
- Full HD Camera with improved image quality
- Robust construction with stage mounted on granite base and vertical column in granite
- Manual table stage releasable for quick XY movement, fitted with high precision encoders
- High quality bearing guidance for better accuracy
- Optics including CMOS camera and Navitar zoom (manual or motorised)
- Programmable triple lighting: coaxial, ring light programmable by sector and diascope light
- Multilingual Sylvac VISTA software easy to use



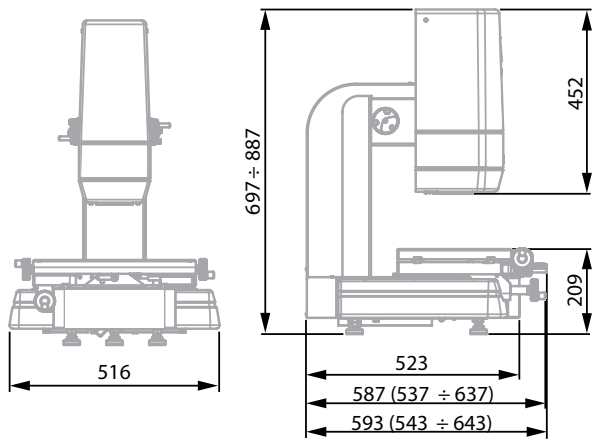


# Optical measurement

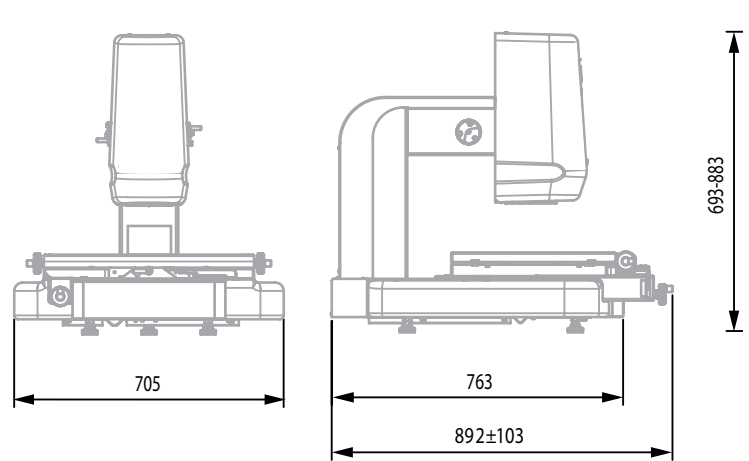
# SYLVAC-VISIO

## DIMENSIONAL DRAWINGS

200 & 300 V3



Sylvac VISIO 200 V3



Sylvac VISIO 300 V3

## TECHNICAL SPECIFICATIONS

		902.2210	902.2211	902.2310
Model		Sylvac Visio 200		Sylvac Visio 300
Measuring volume	mm	200x100x150		300x200x150
X, Y Accuracy ( $E_1, X, Y$ )	$\mu\text{m}$	$1.9 + 10L/1000$ (L = mm) <sup>1) 3)</sup>		$1.9 + 4L/1000$ (L = mm) <sup>1) 3)</sup>
XY Accuracy ( $E_2, XY$ )	$\mu\text{m}$	$2.4 + 10L/1000$ (L = mm) <sup>1) 3)</sup>		$2.4 + 4L/1000$ (L = mm) <sup>1) 3)</sup>
Z Accuracy ( $E_1, Z$ ) <sup>2)</sup>	$\mu\text{m}$	$3.9 + 10L/1000$ (L = mm)		$3.9 + 5L/1000$ (L = mm)
Resolution	mm	0.001		0.001
Max. load capacity	kg	10		16
Magnification		12x - 288x (Standard configuration 24x - 144x)		
Zoom		Manuel 6.5x	Motorised 6.5x	Motorised 6.5x
Weight		98		170
International standards		EN61000-6-2, EN61000-6-4, EN61326-1, EN12100-1, EN12100-2		

<sup>1)</sup>  $m \leq 5$  kg

<sup>2)</sup> mechanical accuracy

<sup>3)</sup> at glass plate level

## BASIC INSTRUMENT

- Instrument according to technical specifications
- Software Sylvac Vista multilingual
- Computer with touchscreen 23", keyboard and mouse
- CAD compare software
- Windows 7 multilingual operating system
- Manual
- Calibration certificate

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## ACCESSORIES

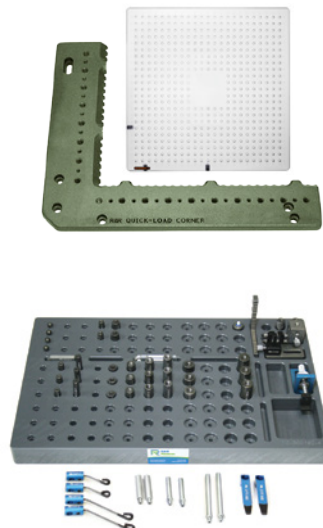






		VISIO 200	VISIO 300
<b>902.7370</b>	Diascopic illumination, parallel light	•	•
<b>902.7100</b>	Additional lens, 0,5x for zoom 6,5x	•	•
<b>902.7101</b>	Additional lens, 0,75x for zoom 6,5x	•	•
<b>902.7102</b>	Additional lens, 1.5x for zoom 6,5x	•	•
<b>902.7103</b>	Additional lens, 2x for zoom 6,5x	•	•
<b>902.7380</b>	Foot switch for value capture	•	•
<b>902.7390</b>	Sylvac - Reflex Vista COMPARE	Standard delivery	Standard delivery

# Optical measurement

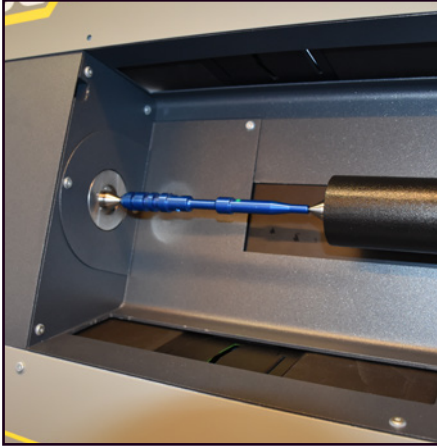
# SYLVAC-VISIO

## ACCESSORIES KITS

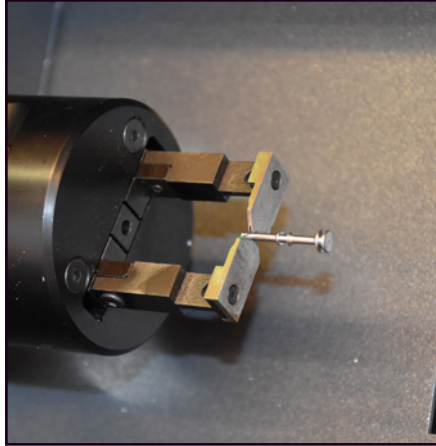
		VISIO 200	VISIO 300
 <p><b>902.7300</b></p>	<p>Basic fixtures Kit :</p> <ul style="list-style-type: none"> <li>• 1x Quick-Load Corner Fixture (QLC)</li> <li>• 1x 13mm x 150mm x 150mm R&amp;R Acrylic Multi-Hole Fixture Plate</li> <li>• 1x (3) Dowel Pins</li> <li>• 3x 6mm Dia. x 10 and x 25mm Standoff</li> <li>• 3x 9mm Dia. x 5, x 10, x 20 and x 25mm Standoff</li> <li>• 3x 12mm Dia. x 10 and x 25mm Standoff</li> <li>• 2x 6mm Dia. x 10mm Pin Standoff</li> <li>• 2x 9mm Dia. x 10mm Pin Standoff</li> <li>• 2x 40mm Tension Clamp with Rubber Coated Tip</li> <li>• 2x 25mm Wire Clamp with Rubber Coated Tip</li> <li>• 2x 50mm Wire Clamp with Rubber Coated Tip</li> <li>• 4x Aluminium Resting Pin with M4 Thread</li> <li>• 1x 50mm x 50mm Corner Viewer for M4</li> <li>• 1x 9mm Dia. Adjustable Jackstand with M4 Thread</li> <li>• 1x M4 Pusher Clamp</li> <li>• 1x 30mm and 1x 45mm Long Adjustable Slide with M4 Thread</li> <li>• 1x M4 Tower Block</li> <li>• 1x Micro-Clamp Vise with Base for M4 Components</li> <li>• 1x 12mm Dia. x10mm Spring Pusher Standoff Clamp</li> <li>• 1x 300mm x 190mm x 25mm Component Tray to Hold M4 Components</li> </ul>	<p>•</p>	<p>•</p>
 <p><b>902.7301</b></p>	<p>Advanced fixtures Kit :</p> <p>All Basic fixtures (acrylic plate 13x200x200mm) kit added with :</p> <ul style="list-style-type: none"> <li>• 3x 6mm Dia. x 5, x 10 and x 25mm Standoff</li> <li>• 3x 9mm Dia. x 10, x 20, x 25mm Standoff</li> <li>• 3x 12mm Dia. x 10, x25mm Standoff</li> <li>• 2x 6mm Dia. x 10mm Pin Standoff</li> <li>• 2x 9mm Dia. x 10mm Pin Standoff</li> <li>• 4x 12mm Dia. x 10mm Pin Standoff</li> <li>• 2x 40mm Tension Clamp with Rubber Coated Tip</li> <li>• 2x 25mm Wire Clamp with Rubber Coated Tip</li> <li>• 2x 50mm Wire Clamp with Rubber Coated Tip with 50mm Post</li> <li>• 1x 9mm Dia. Adjustable Jackstand with M4 Thread</li> <li>• 1x 30mm and 1x 45mm Long Adjustable Slide with M4 Thread</li> <li>• 1x Base 16mm Sq x 19mm (for M4 Tower Block)</li> </ul>	<p>•</p>	<p>•</p>
 <p><b>902.7104</b></p>	<p>Fresnel kit 0.5x Fresnel lens + lens 0.5x + fixation screws (for Ringlight)</p>	<p>•</p>	
 <p><b>902.7105</b></p>	<p>Fresnel kit 0.75x Fresnel lens + lens 0.75x + fixation screws (for Ringlight)</p>	<p>•</p>	
 <p><b>902.7106</b></p>	<p>Fresnel kit 1.5x Fresnel lens + lens 1.5x + fixation screws (for Ringlight)</p>	<p>•</p>	

# Optical measurement

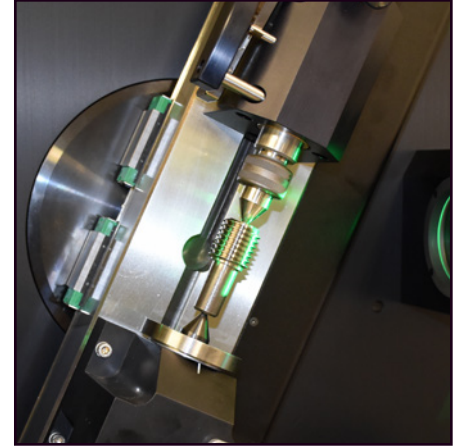
## APPLICATIONS



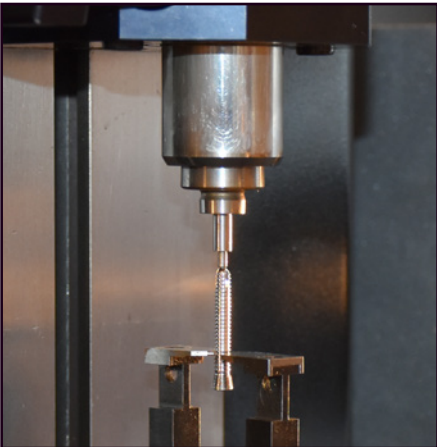
Measurement of a turned part with SCAN 52



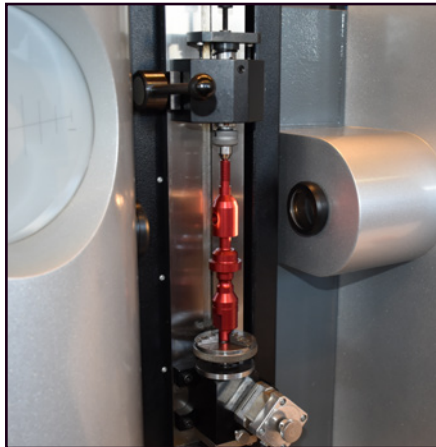
Small turning part held with 2-jaws gripper accessory on SCAN 52



Thread measurement with SCAN 50 CE+



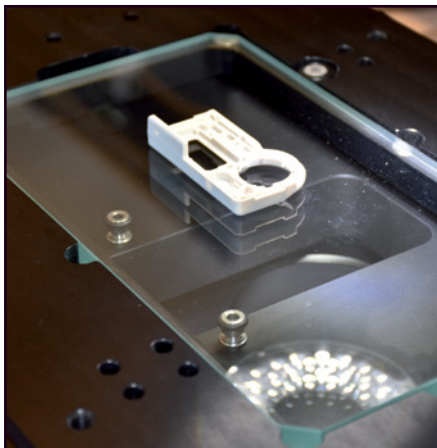
Part measurement with SCAN 50



Part measurement with SCAN 50



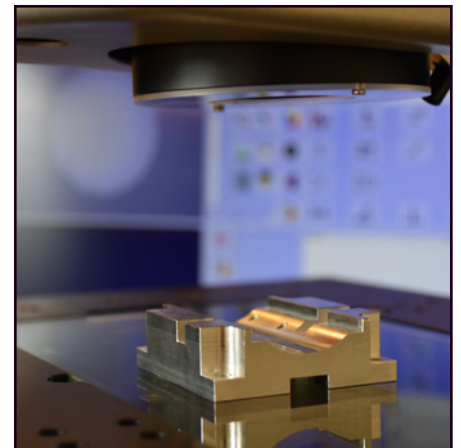
A Large selection of accessories for holding the parts are available for each machine.



Part lit by ring light on VISIO



Part lit by diascopic light on VISIO



Part lit by coaxial light on VISIO

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