sylvac

Experts in connected metrology !



SCAN MACHINES

The ultimate measurement solution for cylindrical parts

SWISS MADE

Easy to use

Super fast

Very quick ROI

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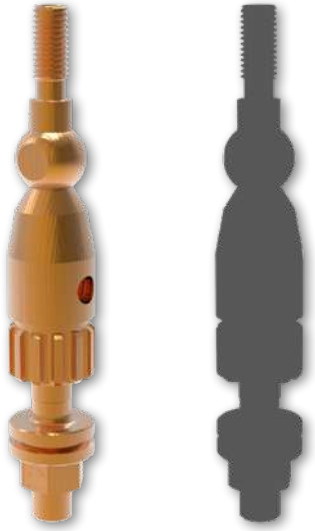
General features

APPLICATIONS

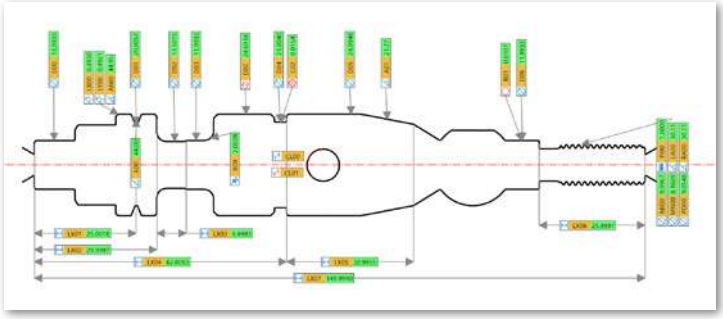
Our range of SYLVAC machines are designed to measure round parts with diameters up to 185 mm and up to 1'800 mm long. Most cylindrical parts, such as aerospace and automotive shafts and components, connectors, bone screws and dental implants, hydraulic parts, metal packaging for food and cosmetics, rollers, turbines parts, CNC turned parts, etc. can be measured in a few seconds. Various thread types and features can be measured and analyzed with our machines.



Workpiece *Shadow image*

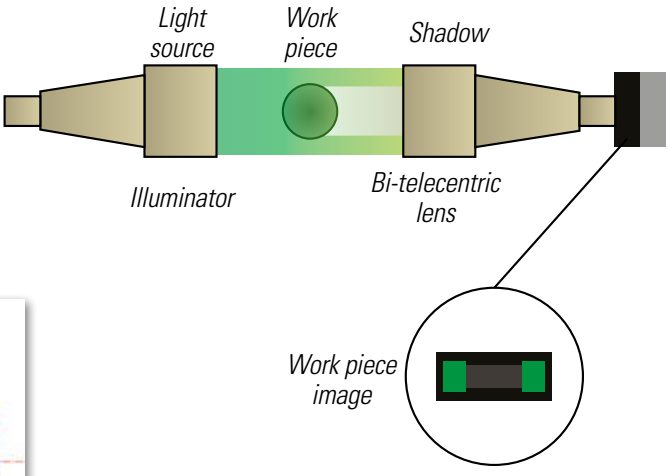


The contour of the workpiece is reproduced on the software and all the various elements shown can be measured in static (without part rotation) or in dynamic (with part rotation) when geometrical features such as run-out or concentricity must be measured.



MEASURING PRINCIPLE

All Sylvac-Scan machines incorporate high resolution line-scan cameras. Using the green LED illuminator to project a collimated beam of light across the part, the part is scanned at speeds up to 160mm/s, whilst the contour of the part is collected through the high precision bi-telecentric lens system and the projected image is detected and processed using the latest line-scan camera technology.



Optical machines

SYLVAC SCAN

Optical machine specially designed for workshop measurement close to the machine-tool.

Suitable for first-off part, control in process (SPC), sampling or 100% inspection, our Sylvac SCAN machines are set to revolutionize the control in workshop.

SHOP HARDENED

Sylvac SCAN machines are Swiss made, quality, robust, precision measuring machines designed to work in even the harshest workshop environments. Our machines come with built in calibration masters which are used to keep the machines accuracy and performance within the required specification, compensating for temperature variations.

The S25/S65/S76/S145/S185L ranges, comes with the added value of temperature sensors, used to detect temperature variation and trigger an automatic calibration, which only takes a short moment. Ensuring the highest precision at all times.



Operating principle

SYLVAC-REFLEX SCAN

The SYLVAC-SCAN's are equipped with Reflex SCAN software. These make them robust and easy to use, allowing perfect integration in workshops. Adjacent to operators, it advantageously replaces conventional measuring systems including multi-gauging thanks to unsurpassed flexibility and time saving.





«Reflex-Click technology»
for one-click measurement !
The cutting edge REFLEX-Click mode measures your parts with a simple click.

PROGRAMMING MADE EASY

1
Place part

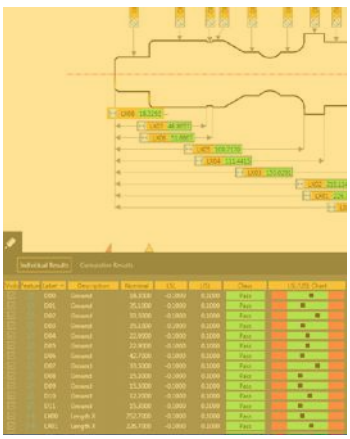




2
Push the start button

3
Part profile is scanned in just a few seconds





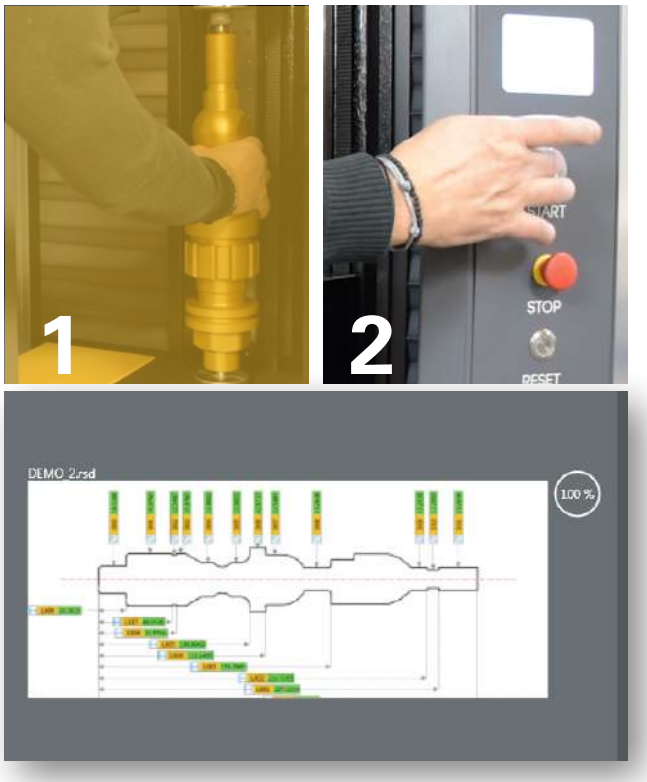
4
Main features automatically measured. Edit and save program for repeat work.

These four operations only take a few minutes.

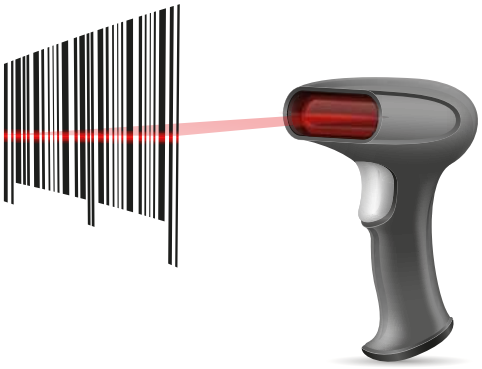
MEASUREMENT MADE EASY

Step 1: load the part, Step 2: push the button!

The part will be automatically recognised and measured by the machine, displaying classified results in just a few seconds.



Intelligent automatic part recognizion

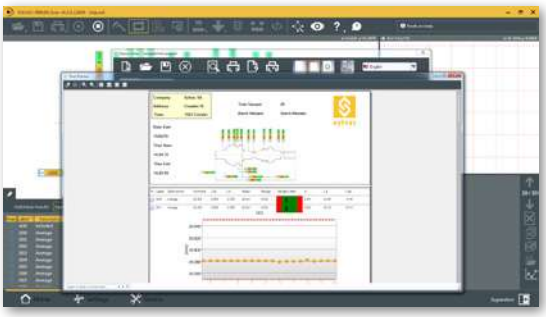


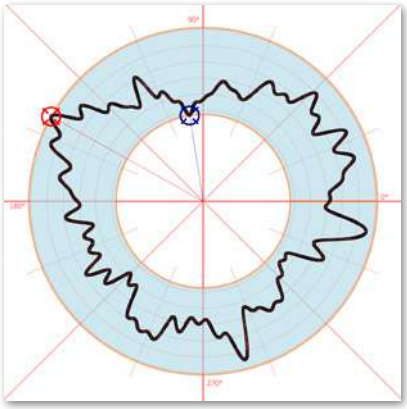
BARCODE READER

Optionally a barcode reader can be used to instantly recall part programs.

FLEXIBLE REPORT EDITOR

A flexible report editor is also available, enabling you to customize the presentation of your measuring reports by adding information through a drag & drop method.



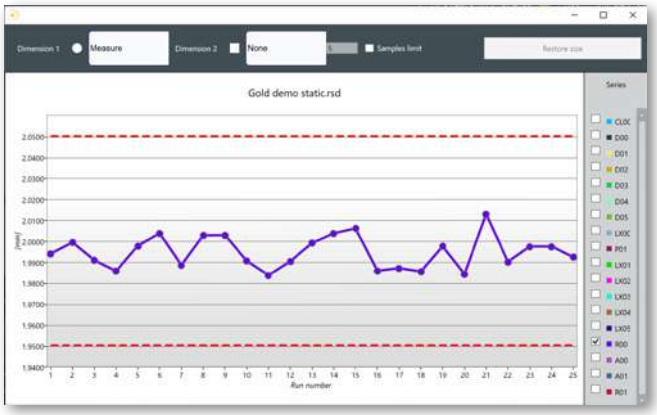


MEASUREMENT ANALYSIS

Once the part is scanned and measured, it is possible to review the scanned data in the measurement analysis window. Allowing the operator to make a visual check of the part in precise detail, whether it is a root radius on a thread or a form measurement of a diameter.

DATA EXPORT AND STATISTICS

The main statistical calculations are included as a standard feature in our RS+ software, along with a statistical view.
Results data can be exported in a variety of formats such as CSV, XML for the purpose of archiving and traceability. Or can be exported as specific formats directly into 3rd party SPC software.
Optionally you can take advantage of the Data Monitoring included with RS+ 'PRO' level software, facilitating live and historical result trends, evolution and distribution charts, statistics such as, CP/CPK, sigma, range and variance.





INTEGRATED MEASUREMENT

For additional measurements not covered by our SCAN machine, such as an internal diameter, Sylvac can provide a selection of instrument, such as calipers, indicators and internal micrometers.

These Sylvac instruments can be linked to the SCAN machine via our renowned *Bluetooth®* technology, providing a complete part measurement all in one report and sequence.







Bluetooth®

Exclusive Tilt system

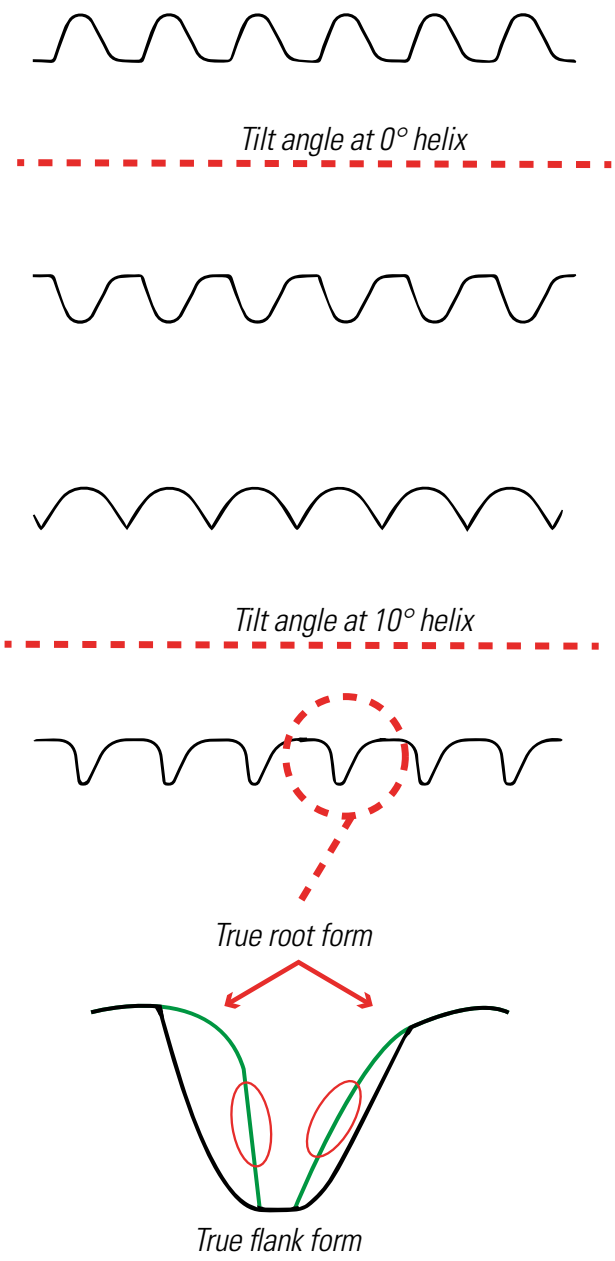
FOR MORE COMPREHENSIVE THREAD MEASUREMENTS

The Sylvac-Scan machines equipped with the additional tilt 'T' axis (S25T/S65T/S76T) offer the ultimate measurement solution for threaded parts.

Thanks to our unique tilting optics, the thread can be scanned according to the helix angle, revealing elements of the thread which would otherwise be hidden. Sylvac-Scan offers true thread measurement.

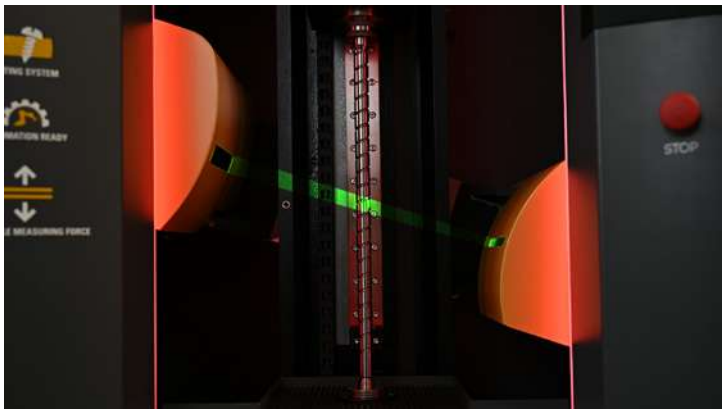






TYPICAL MEASUREMENT REQUIREMENTS:

- Major diameter
- Minor diameter
- Pitch
- Pitch diameter
- Flank angles
- Root & Crest radius
- Taper angle
- Circularity
- Run-out
- Concentricity



Axis inclination on S65T

Sylvac SCAN S25 & S25T



- Bench top machine for smaller parts
- Integrated operator touch screen control panel
- Integrated calibration master & temperature sensors for environmental control
- Quick and easy accessory changing system
- High definition optics suited to micro parts
- Reflex click technology
- Tilt axis for advanced thread measurement
- Advanced software features
- Fully equipped «Automation Ready»
- Motorised tailstock
- High resolution sensor for intricate features

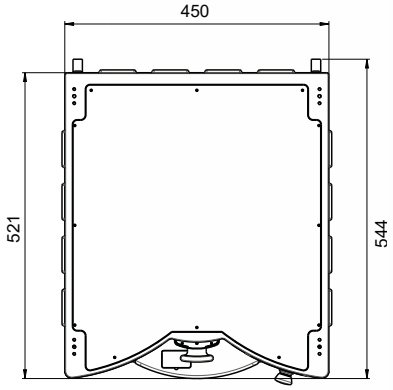
Automation Ready



TILTING SYSTEM

TECHNICAL SPECIFICATIONS

		902-4020 - SCAN S25		902-4025 - SCAN S25T	
		Diameter	Length	Diameter	Length
Measuring range	mm	26	200	26	200
Resolution	mm	0.0001			
Accuracy	µm	Diameter : 0.9 + (D[mm]/100) / Length : 2.5 + (L[mm]/200)			
Repeatability 2δ	µm	Diameter : 0.5 / Length : 0.8			
Holding capacity	mm	51	200	51	200
Tilting for thread measurement		-		✓ 30°	
Axial move speed up to	mm/s	100			
Max. part weight	kg	3			
Machine weight	kg	73			



DELIVERY

- Machine according to technical specifications
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Accessories : 2x 902-6259 ISO / MK2 adapter, 2x 902-6202, 902-6161 & 902-6212
- Manual

Sylvac SCAN S65(T), S65L(T)

- Optical machine for cylindrical parts up to Ø65mm
- Integrated operator touch screen control panel
- integrated calibration master & temperature sensors for environmental control
- Retractable roof for heavy parts loading
- Next generation of optical technology
- Reflex click technology
- Optional tilt axis for advanced thread measurement
- Advanced software features
- Fully equipped «Automation Ready»
- Motorised tailstock
- Quick release tooling



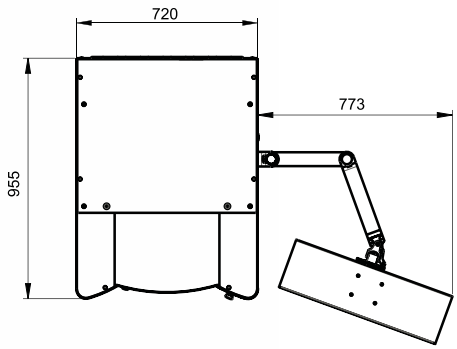
TECHNICAL SPECIFICATIONS

Automation Ready

		902-4260 - SCAN S65		902-4265 - SCAN S65T		902-4262 - SCAN S65L		902-4267 - SCAN S65LT	
		Diameter	Length	Diameter	Length	Diameter	Length	Diameter	Length
Measuring range	mm	65	350	65	350	65	700	65	700
Resolution	mm	0.0001							
Accuracy	µm	Diameter : 1.0 + (D[mm]/100) / Length : 3 + (L[mm]/200)							
Repeatability 2δ	µm	Diameter : 0.5 / Length : < 1							
Holding capacity	mm	200	360	200	360	200	710	200	710
Tilting for thread measurement		-		✔ 30°		-		✔ 30°	
Axial move speed up to	mm/s	160							
Max. part weight	kg	30							
Machine weight	kg	420				500			

DELIVERY

- Machine according to technical specifications delivered with screen support
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Accessories : 2x 902-6259 ISO / MK2 adapter, 2x 902-6202, 902-6161 & 902-6212
- Manual



Sylvac SCAN S76(T), S76L(T)



- Optical machine for cylindrical parts up to Ø76mm
- Integrated operator touch screen control panel
- integrated calibration master & temperature sensors for environmental control
- Retractable roof for heavy parts loading
- Next generation of optical technology
- Reflex click technology
- Optional tilt axis for advanced thread measurement
- Advanced software features
- Fully equipped «Automation Ready»
- Motorised tailstock
- Quick release tooling

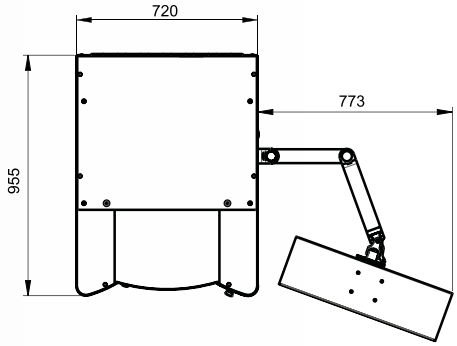
TECHNICAL SPECIFICATIONS

Automation Ready

		902-4270 - SCAN S76		902-4275 - SCAN S76T		902-4272 - SCAN S76L		902-4277 - SCAN S76LT	
		Diameter	Length	Diameter	Length	Diameter	Length	Diameter	Length
Measuring range	mm	76	350	76	350	76	700	76	700
Resolution	mm	0.0001							
Accuracy	µm	Diameter : 1.0 + (D[mm]/100) / Length : 3 + (L[mm]/200)							
Repeatability 2δ	µm	Diameter : 0.5 / Length : < 1							
Holding capacity	mm	200	360	200	360	200	710	200	710
Tilting for thread measurement		-		✔ 30°		-		✔ 30°	
Axial move speed up to	mm/s	160							
Max. part weight	kg	30							
Machine weight	kg	420				500			

DELIVERY

- Machine according to technical specifications delivered with screen support
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Accessories : 2x 902-6259 ISO / MK2 adapter, 2x 902-6202, 902-6161 & 902-6212
- Manual



Sylvac SCAN S145, S145L & S145XL

- Free standing machine for larger parts with heavy weight loads
- Automation ready
- Removable roof for heavy part loading
- Motorised tailstock
- Quick release tooling
- LED status light
- Safety light curtain
- Integrated calibration master & temperature sensors for environmental control
- Reflex click technology
- Advanced software features
- Optional custom scripts



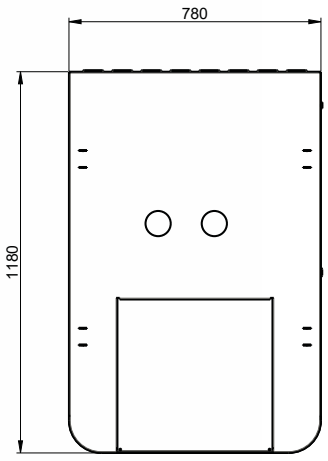
TECHNICAL SPECIFICATIONS

Automation Ready

		902-4145 - SCAN S145		902-4147 - SCAN S145L		902-4148 - SCAN S145XL	
		Diameter	Length	Diameter	Length	Diameter	Length
Measuring range	mm	145	615	145	1280	145	1800
Resolution	mm	Diameter : 0.0001 / Length : 0.0001					
Accuracy	µm	Diameter : 1.5 + (D[mm]/100) / Length : 4 + (L[mm]/200)					
Repeatability 2δ	µm	Diameter : 0.5 / Length : 1.0					
Holding capacity	mm	254	615	254	1280	254	1800
Rotary headstock		✔					
Axial move speed up to	mm/s	160					
Max. part weight	kg	100					
Machine weight	kg	530		650		797	

DELIVERY

- Machine according to technical specifications
- Adaptor for Morse 2 (902-6260) and accessories 902-6210 and 902-6380
- Table 350mm, 700mm optional, 902-6611 (not on XL)
- Windows multilingual operating system
- Sylvac Reflex SCAN+ Software
- Machine stand with screen and keyboard holder
- Manual



Sylvac SCAN 185L

AVAILABILITY Q1 2027



- Optical machine for cylindrical parts up to Ø185mm
- Integrated operator touch screen control panel
- integrated calibration master & temperature sensors for environmental control
- Retractable roof for heavy parts loading
- Next generation of optical technology
- Reflex click technology
- Advanced software features
- Fully equipped «Automation Ready»
- Motorised tailstock
- Quick release tooling

TECHNICAL SPECIFICATIONS

Automation Ready

		902-4150 - SCAN S185L	
		Diameter	Length
Measuring range	mm	185	1280
Resolution	mm	0.0001	
Accuracy	µm	Diameter : 1.5 + (D[mm]/100) / Length : 4 + (L[mm]/200)	
Repeatability 2**δ**	µm	Diameter : 0.5 / Length : < 1	
Holding capacity	mm	254	1280
Axial move speed up to	mm/s	160	
Max. part weight	kg	100	
Machine weight	kg	TBD	

Provisional technical specifications, availability Q1 2027

DELIVERY

- Machine according to technical specifications delivered with screen support
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Manual

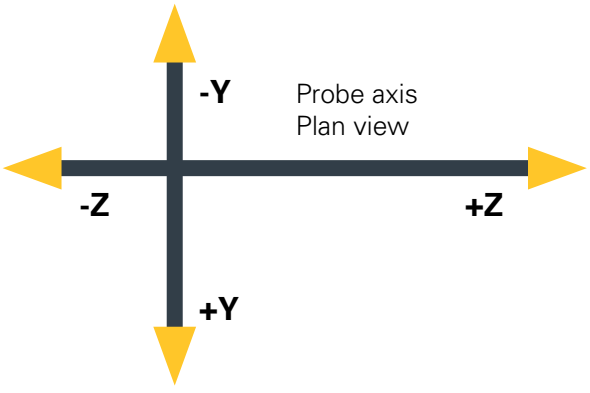
Sylvac SCAN S145-P, S145L-P & S145XL-P

- Complete measurement with a single system
- Seamless integration with combined sensor measurements
- Easy programming thanks to user-friendly functions
- Full touch probe scanning capability for measuring form
- Interchangeable probe stylus for increased access
- Automated probe qualification routine
- Typical measurements include : hole and slot size, location and form, roundness, radial and axial runout



TECHNICAL SPECIFICATIONS

		902-4145-05 - SCAN S145-P		902-4147-05 - SCAN S145L-P		902-4148-05 - SCAN S145XL-P	
		Diameter	Length	Diameter	Length	Diameter	Length
Measuring range	mm	145	615	145	1230	145	1750
Resolution	mm	Diameter : 0.0001 / Length : 0.0001					
Accuracy	µm	Diameter : 1.5 + (D[mm]/100) / Length : 4 + (L[mm]/200)					
Repeatability 2δ	µm	Diameter : 0.5 / Length : 1.0					
Holding capacity	mm	200	615	200	1280	200	1800
Axial move speed up to	mm/s	160					
Max. part weight	kg	100					
Machine weight	kg	550		670		817	



Touch probe measuring volume			
Axis	**S145-P**	**S145L-P**	**S145XL-P**
PX	615mm	1230mm	1750mm
PY	+60mm / -40mm		
PZ	130mm / -15mm		

Investment

SYLVAC SCAN MACHINES QUICK ROI

Because the return on investment is essential data to make sensible decisions, SYLVAC can help you calculate your estimated payback time. It will directly depend on the profile of your company and the expected use of the machine.

You can see for yourself that your return on investment will be less than than 6 months in most cases. Moreover, the quality of your measurements will be improved!



TRADITIONAL MANUAL METHODS USING MULTIPLE GAUGES :



10-30 min

INSPECTION TIME

SYLVAC-SCAN SERIES :





30-60 sec

INSPECTION TIME

Tailor-made solutions

Automation Ready

CLAMPING SOLUTIONS FOR AUTOMATED SOLUTION

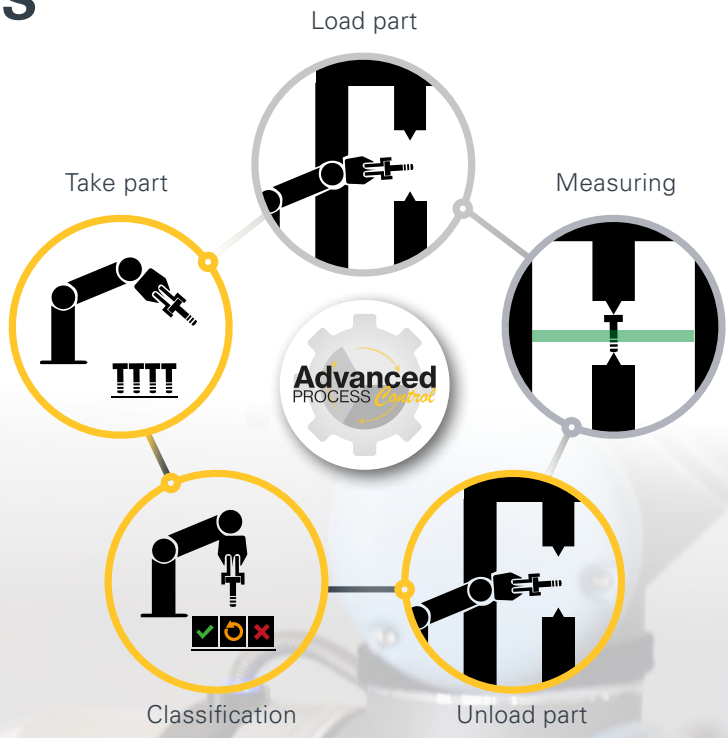
Apart from our standard range of fixtures, customised solutions can be developed to optimise your measuring process.

SOFTWARE

Thanks to the Reflex SCAN+ and its flexible open script option, custom software features and macros can be created.

MEASURING TURNED PARTS HAS NEVER BEEN SO EASY !

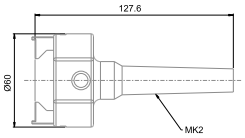
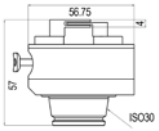
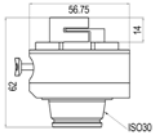
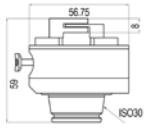
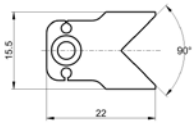
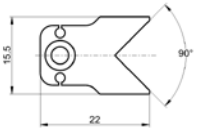
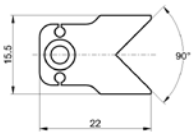
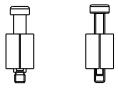
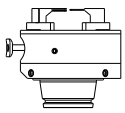
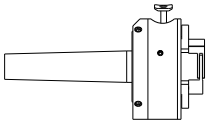
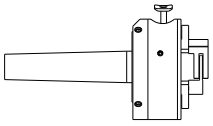
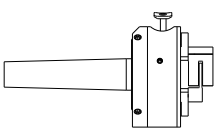
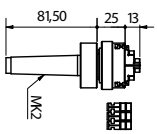
- Quality control for your shafts just got easier !
- The Sylvac-Scan range of optical measuring centres, now available fully automated
- Rapid automatic part loading/unloading by a robot, classification feedback for specified drop location
- Machine tool feedback for part correction / offsets with APC





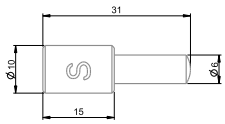
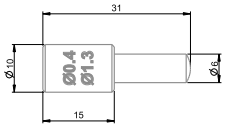
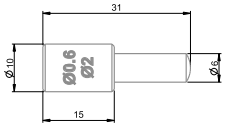
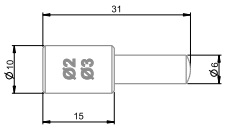
Example of SCAN S25T with robot

MANUAL CHUCKS

			S25/S65 / S76	Morse 2 F60	S145
	**902-6222**	External 2-jaw gripper MK2		●	● Requires 902-6260
	**902-6270**	Two-jaw pliers Ø 0-20 m with H=4mm jaws (only the left jaw is exchangeable)	●		
	**902-6271**	Two-jaw pliers Ø 0-20mm with H=8mm jaws (only the left jaw is exchangeable)	●		
	**902-6272**	Two-jaw pliers Ø 0-20mm with jaws H=14mm (only the left jaw is exchangeable)	●		
	**902-6273**	Left external jaws Ø 0-20mm H=4mm	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278
	**902-6274**	Left external jaws Ø 0-20mm H=8mm	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278
	**902-6275**	Left external jaws Ø 0-20mm H=14mm	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278
	**902-6276**	Jaw raiser, H=10mm Stackable, maximum 2x10mm (for gripper 902-6270, 902-6271, 902-6272)	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278
 IMAGE SOON AVAILABLE	**902-6288**	Jaw raiser, H=50mm (for gripper 902-6270, 902-6271, 902-6272)	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278	For 902-6267, 902-6268, 902-6269 902-6270, 902-6271, 902-6272 and 902-6278
	**902-6278** [1]	Two-jaw pliers Ø 0-7mm with H=1.5mm jaws	●		
	**902-6267**	Two-jaw pliers Ø 0-20mm MK2 with H=4mm jaws (only the left jaw is exchangeable, delivered in pairs)		●	● Requires 902-6260
	**902-6268**	Two-jaw pliers Ø 0-20mm MK2 with H=8mm jaws (only the left jaw is exchangeable)		●	● Requires 902-6260
	**902-6269**	Two-jaw pliers Ø 0-20mm MK2 with jaws H=14mm (only the left jaw is exchangeable)		●	● Requires 902-6260
	**902-6306**	3-jaw chuck MK2 External clamping Ø 0.5mm - 41mm Internal clamping Ø 12mm - 36mm Step Height : 5mm	●	●	● Requires 902-6260

[1] 902-6278, supplied with factory preset jaws. Any jaw change requires realignment.

GRIPPING OF SMALL PARTS

			F60	S145	S25/S65 / S76
	**902-6330**	Centered magnetic plate, magnetized - SUD for the headstock			● Requires 902-6251
	**902-6335**	Magnetic gripper with V for parts with Ø0.4mm - 1.3mm tip, magnetized - NORD			● Requires 902-6251
	**902-6336**	Magnetic gripper with V for parts with Ø0.6mm - 2.0mm tip, magnetized - NORD			● Requires 902-6251
	**902-6337**	Magnetic gripper with V for parts with Ø2.0mm - 3.0mm tip, magnetized - NORD			● Requires 902-6251
	**902-6339**	Set of 3 NORTH magnetic plates (902-6335, 902-6336, 902-6337) and 1 SOUTH magnet (602-6330)			● Requires 902-6251

Modular Fixture for micro parts

- Discover our brand-new modular Fixture micro-parts for our **Sylvac-SCAN S25 and S25T machines**, for static and dynamic measurements on cylindrical parts. No special settings are required. Parts can be loaded on a horizontal work surface or directly onto the machine.

- Easy loading of small parts
- Pre-loading saves time
- Inter-tip force reduced to almost zero



TECHNICAL SPECIFICATIONS

		902-6242
Length measurement capacity	mm	0-25
Diameter measurement capacity	mm	Ø0 -> Ø20
Static measurement		✔
Dynamic measurement		✔
Repeatability (magnetized part)	mm	< 0.010 (dynamic measurement)
Repeatability (non-magnetic part)	mm	< 0.0025 (dynamic measurement)

EXAMPLES OF PARTS TO BE MEASURED



L=7.8mm
Ø max= 2mm
Ø min= 0.3mm



L=3.3mm
Ø max=3.3mm
Ø min=0.2mm



L=8mm
Ø max=0.8mm
Ø min=0.25mm

FIXTURES

- Customizable to your needs
- Interchangeable tips
- Magnetic and non-magnetic tips



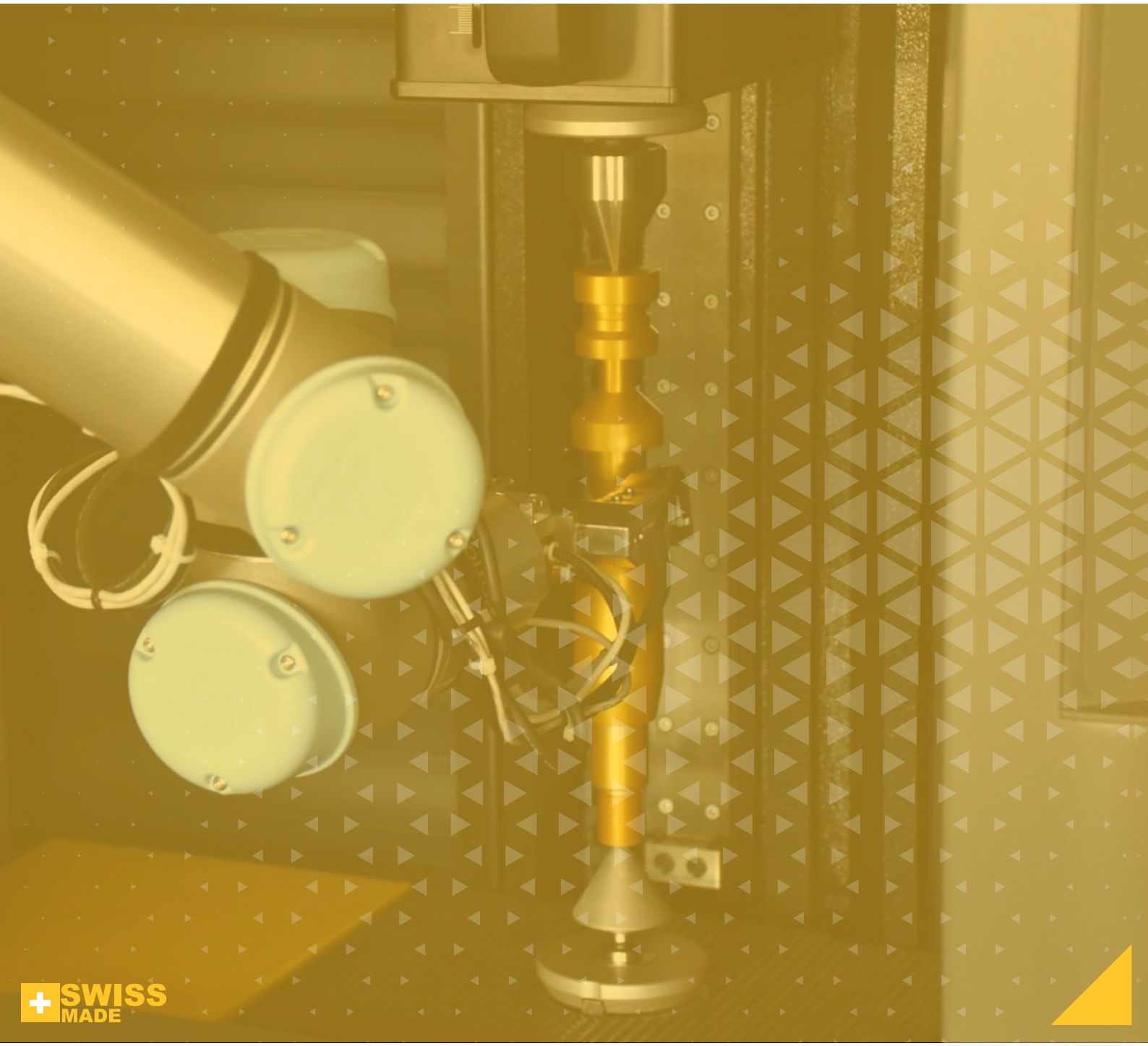
OTHER ACCESSORIES

			F60	S145	S25/S65 / S76
	**902-6012**	Gold demo part	●	●	●
	**902-6013**	Gold demo part for threads	●	●	●
	**902-6014**	Gold demo part XL		●	
	**902-6601**	Furniture for Sylvac SCAN F60 storage for PC, drawer with lock and arm for keyboard and screen	●		
	**902-6602**	Table for Sylvac-Scan S25T (75cmx75cm) selectable height 75cm or 105cm			● S25(T) series only
	**902-6605**	Height-adjustable table (71-1140mm) for keyboard, screen and mouse (80x60mm)	●		●

sylvac

Experts in connected metrology !

Automation Ready



SYL2106-L-SCAN-E / 02.07.2026

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DECLARATION OF CONFORMITY

DIRECTIVE (EU) N° 244/2009 (March 18th 2009), 1194/2012 (December 12th 2012) & 2015/1428 (August 25th 2015)

« ecodesign requirements for non-directional household lamps» & « ecodesign requirements for directional lamps»

Products :

Articles N°	Name	Applications
H068524	Philips 5995 EJM 150W GX5.3 21V	Visio 1
HZ173-3007EX/ HLP00-0004	LMP-HALOGEN JC12.V-20W/G4 C-6	Scan 25 & 50
HZ178-3007EX/ HLP00-0004	LMP-HALOGEN JC12.V-20W/G4 C-6	Scan 80

The producer confirms that the articles, which are placed on the market :

- Are conform to ecodesign requirements
- Are for image projection in defined applications, they are not intended for use in other applications.

Crissier, September 28th 2018

Sylvac SA
E. Schnyder

