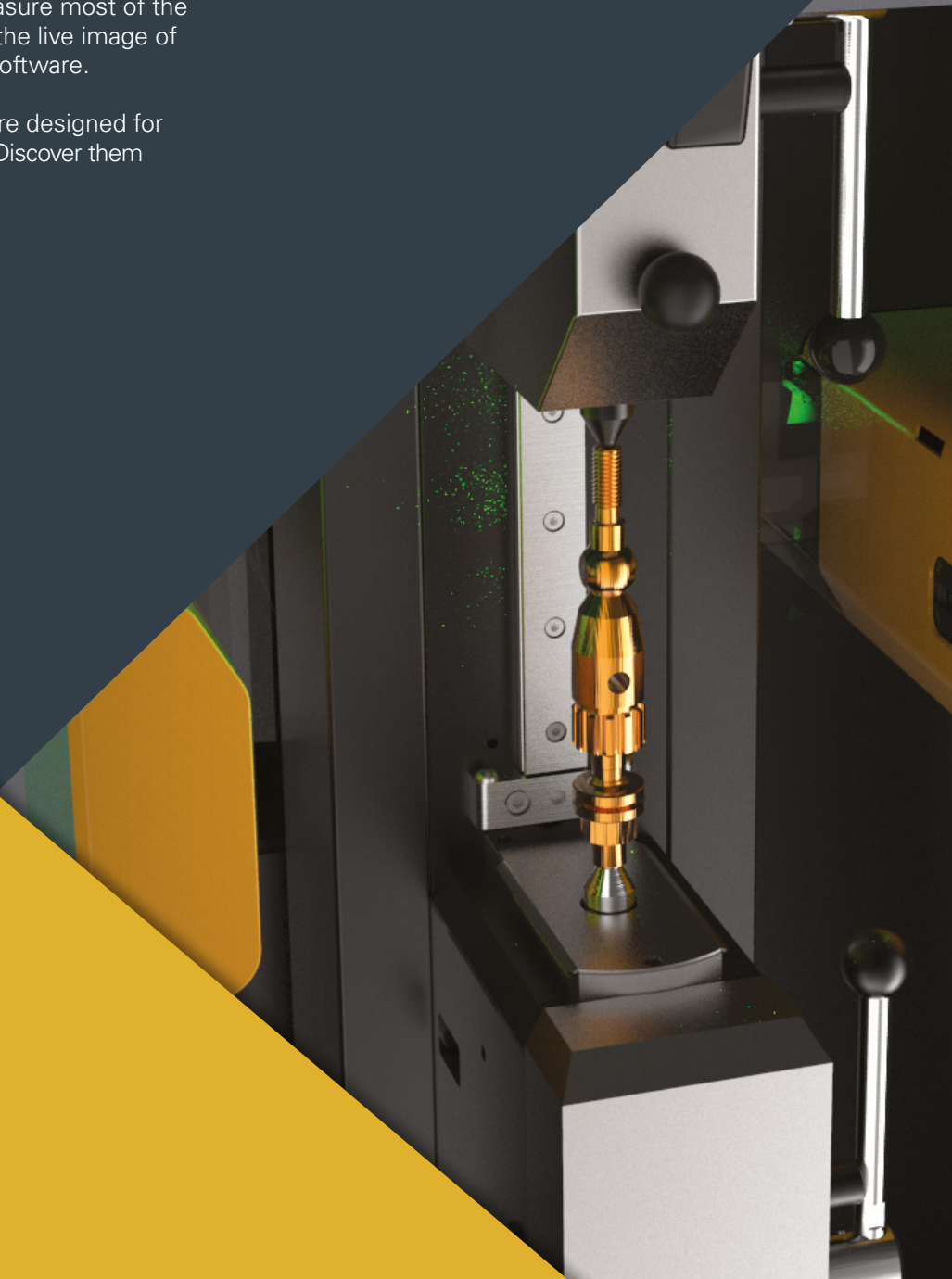# OPTICAL
MEASURING
MACHINES

SYLVAC SCAN

Dedicated to fast, precise, non-contact measurement of cylindrical parts. Our new SCAN machines reproduce high resolution images of the components profile in just a few seconds. Thanks to the easy to use REFLEX-SCAN software, parts can be measured with just a click of a button, offering over 150 different types of measurement 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.

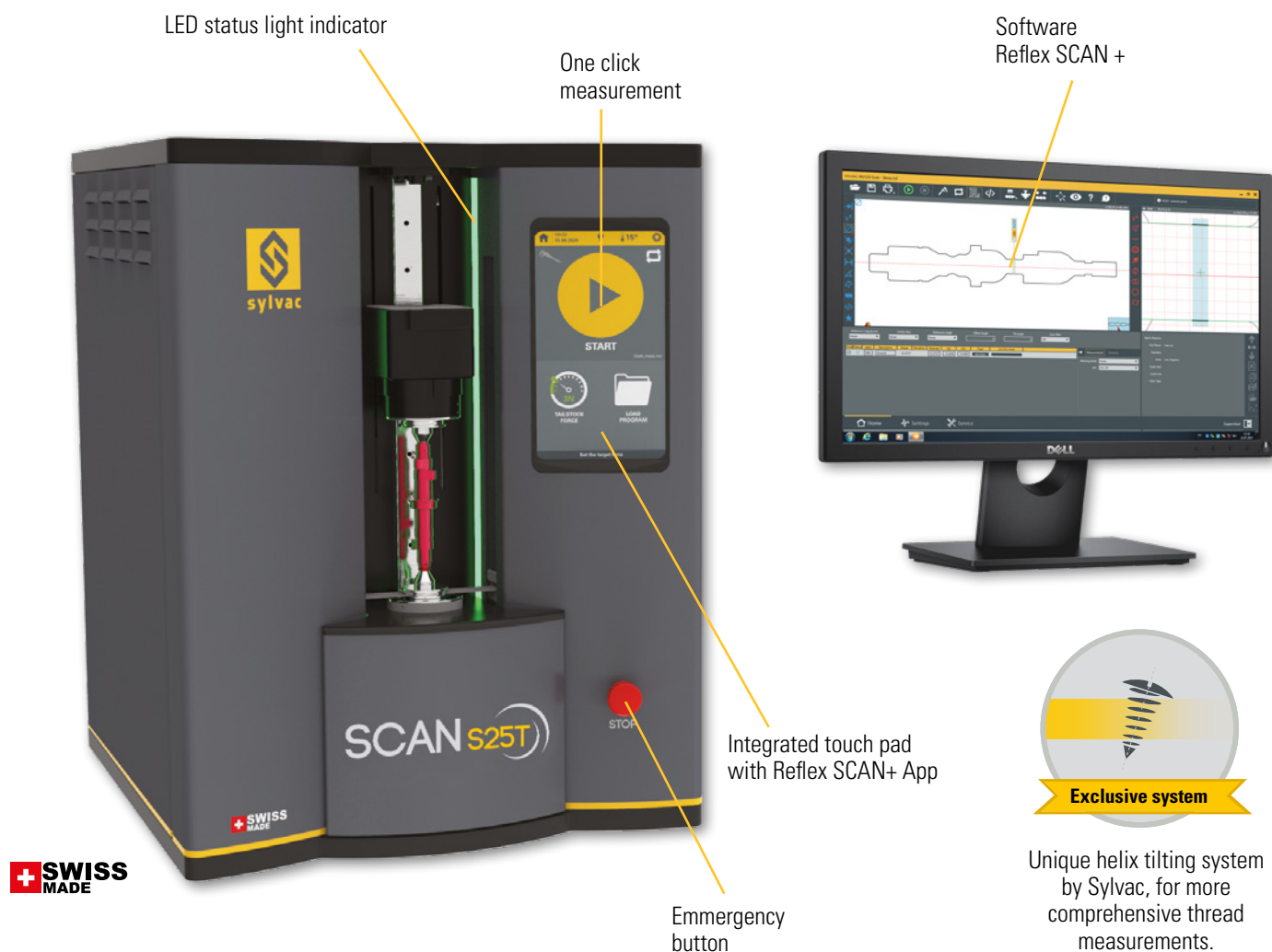Our SCAN and VISIO machines are designed for use in the workshop or laboratory. Discover them without further delay !

Optical measurement

SYLVAC-SCAN

- Vertical optical measuring machine for static and dynamic measurement of various elements on small cylindrical parts.

- The parts can be mounted between two centres or held in place using various accessories. Attractive design and robust construction with many new features: New touch screen control panel for easy operation directly at the workplace, bi-telecentric optical system, high resolution CMOS camera, precision sliding headstock with integrated and protected daily standard, quick and easy accessory changing system, integrated temperature sensors, dynamic LED indicator of the general status of the measured part (GO/NG) and operator messages. Equipped with an exclusive optics tilting system.

- Machines specially designed to measure threads such as, parallel, trapezoidal, conical, round, square, conical, worms, ball screws, bone screws, dental implants, etc.

- Reflex SCAN+ concept for measuring parts without prior programming at the touch of a button

- Delivered complete with a PC and the Reflex SCAN+ software, which allows a multitude of elements to be measured easily and intuitively.

- The machine is delivered fully equipped «Automation Ready» as standard.
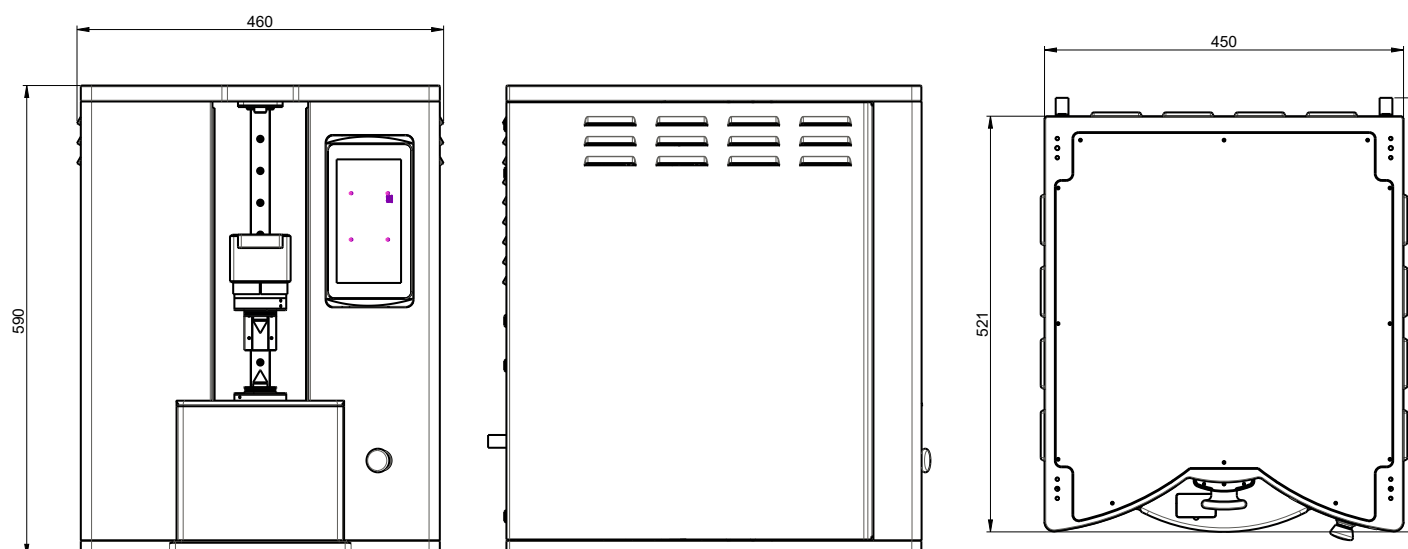
LED status light indicator

One click measurement

Software
Reflex SCAN +

Integrated touch pad
with Reflex SCAN+ App

Emmergency
button

SWISS MADE

Exclusive system

Unique helix tilting system
by Sylvac, for more
comprehensive thread
measurements.

TECHNICAL SPECIFICATIONS

		902-4020		902-4025	
		Sylvac SCAN S25		Sylvac SCAN S25T	
		Diameter	Length	Diameter	Length
Measuring range	mm	26	200	26	200
Resolution up to	mm	0.0001	0.0001	0.0001	0.0001
Max. error	µm	0.9 +D[mm]/100) µm	(2.5 +D[mm]/200) µm	0.9 +D[mm]/100) µm	(2.5 +D[mm]/200) µm
Repeatability 2δ	µm	0.4	0.8	0.4	0.8
Holding capacity diameter	mm	51	200	51	200
Headstock		High precision rotary			
Tilting for thread measurement		-		● 30°	
Max. weigth of part	kg	2			
Machine's weight	kg	60			

STANDARD DELIVERY

- Instrument 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

J

Optical measurement

DESCRIPTION

- Horizontal SCAN machine, measuring in landscape format, the same as the parts are produced

- Robust construction with granite column 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
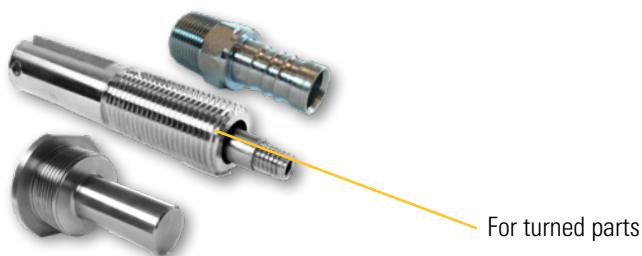
One click measurement

Sylvac Reflex SCAN Software

For turned parts

SWISS MADE

Optical measurement

SYLVAC-SCAN
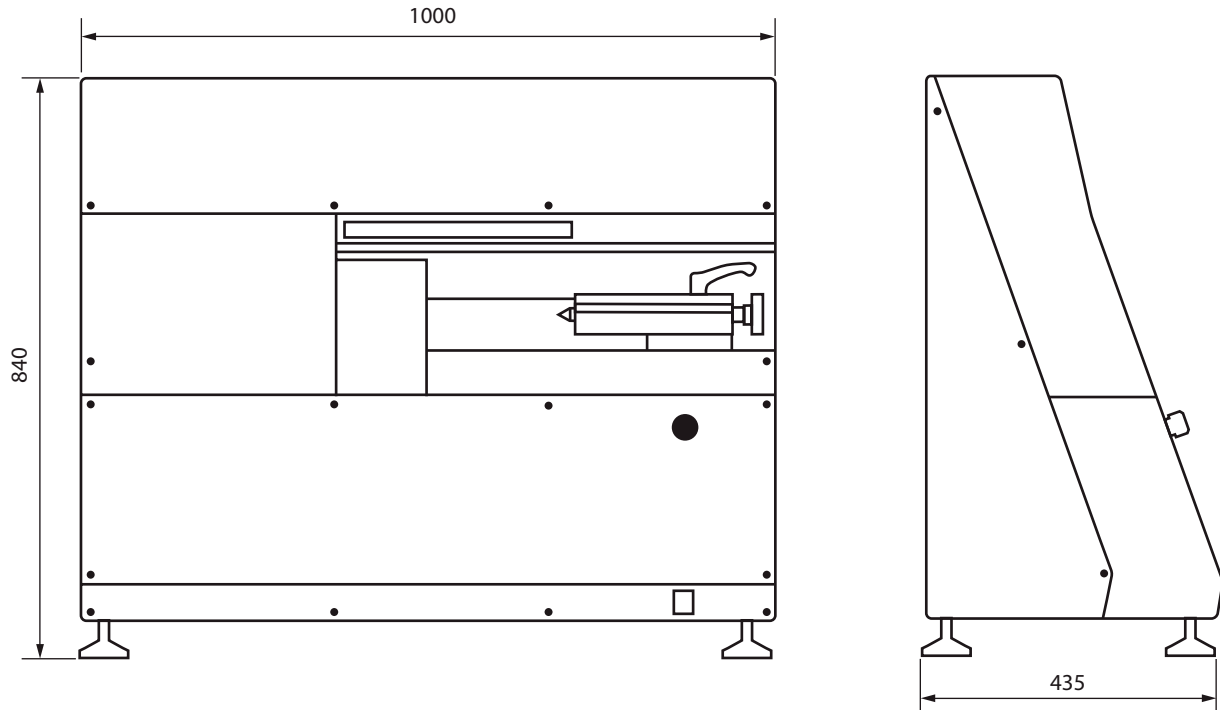
TECHNICAL SPECIFICATIONS

		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. weigth of part	kg	4			
Machine's weight	kg	103			

BASIC INSTRUMENT

- Instrument according to technical specifications
- Accessories : 2x 902.6202, 902.6161, 902.6212
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software
- Manual
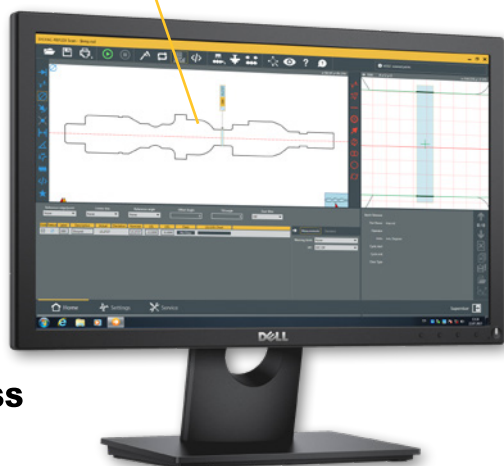
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Optical measurement

SYLVAC-SCAN

DESCRIPTION

- Concept Reflex SCAN patented for measuring cylindrical workpieces without preprogramming
- Part measurement from **0.2 to 64mm diameter and up to 300mm** length
- Complete 2D part scan in <3 seconds !
- Reduce inspection time, scrap and increase productivity
- Exclusive helix tilting system for thread measurements (only on T models)
- Quick return of investment, typically < 6 months
- New software Reflex SCAN + : advanced programming and functions
- Quick release tooling

LED status light indicator

New software Reflex SCAN +

Emmergency button

Start button

One click measurement

Door for dust protection

Exclusive system

Exclusive helix tilting system by Sylvac, for more comprehensive thread measurements.

SWISS MADE

J

Optical measurement

DIMENSIONAL DRAWINGS
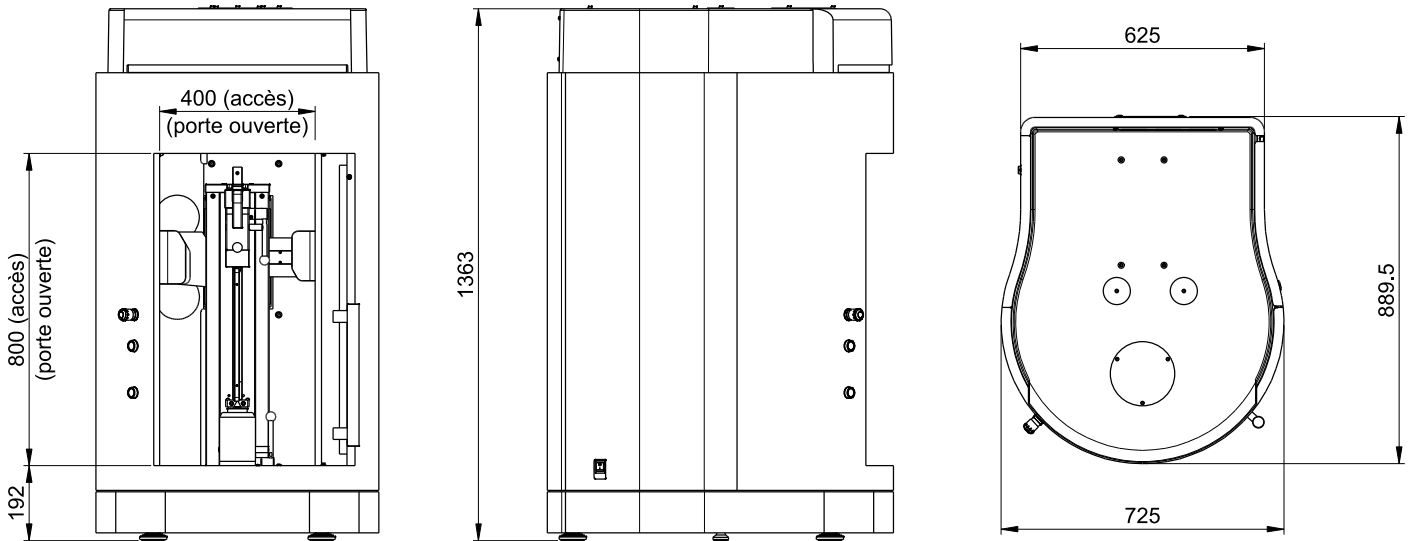
TECHNICAL SPECIFICATIONS

		902.4060		902.4065	
		Sylvac SCAN F60		Sylvac SCAN F60T	
		Diameter	Length	Diameter	Length
Measuring range	mm	64	300	64	300
Resolution up to	mm	0.0001	0.0001	0.0001	0.0001
Max. error	µm	$(1 + D[mm]/100)$ µm	$(3 + L[mm]/200)$ µm	$(1 + D[mm]/100)$ µm	$(3 + L[mm]/200)$ µm
Repeatability	µm	0.5	1.0	0.5	1.0
Holding capacity diameter	mm	120	315	120	315
Headstock		Rotary headstock for static and dynamic measurements			
Tilting for thread measurement		-		● 30°	
Max. weigth of part	kg	10			
Machine's weight	kg	265			

BASIC INSTRUMENT

- ● Instrument according to technical specifications
- ● Accessories : 2x 902.6202, 902.6161, 902.6212
- ● Computer with screen, keyboard and mouse
- ● Windows multilingual operating system
- ● Sylvac Reflex SCAN Software +
- ● Manual

Optical measurement

SYLVAC-SCAN

DESCRIPTION

F60L & F60LT

- Concept Reflex SCAN patented for measuring cylindrical workpieces without preprogramming

- Part measurement from **0.2 to 64mm diameter and up to 500mm** length

- Complete 2D part scan (500mm) in <5 seconds !

- Reduce inspection time, scrap and increase productivity

- Exclusive helix tilting system for thread measurements (only on T models)

- Quick return of investment, typically < 6 months

- New software Reflex SCAN + : advanced programming and functions

- Quick release tooling

Exclusive system

Exclusive helix tilting system by Sylvac, for more comprehensive thread measurements.

New software Reflex SCAN +

One click measurement

LED status light indicator

SCAN F60LT

Door for dust protection

SWISS MADE

Optical measurement

DIMENSIONAL DRAWINGS

400 (accès)
(porte ouverte)

1000 (accès)
(porte ouverte)

192

1763

625

889.5

725
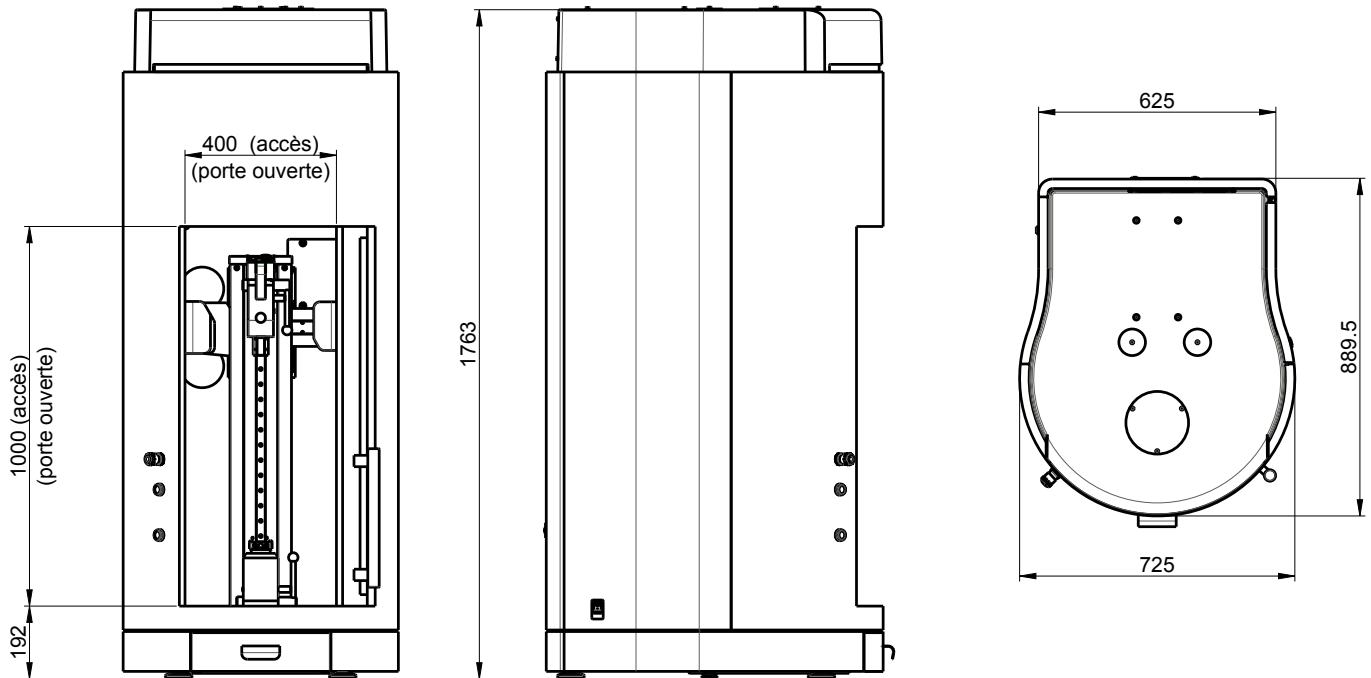
TECHNICAL SPECIFICATIONS

		902.4062		902.4067	
		Sylvac SCAN F60L		Sylvac SCAN F60LT	
		Diameter	Length	Diameter	Length
Measuring range	mm	64	500	64	500
Resolution up to	mm	0.0001	0.0001	0.0001	0.0001
Max. error	µm	(1 + D[mm]/100) µm	(3 + L[mm]/200) µm	(1 + D[mm]/100) µm	(3 + L[mm]/200) µm
Repeatability	µm	0.5	1.0	0.5	1.0
Holding capacity diameter	mm	120	500	120	500
Headstock		Rotary headstock for static and dynamic measurements			
Tilting for thread measurement		-		● 30°	
Max. weigth of part	kg	10			
Machine's weight	kg	330			

BASIC INSTRUMENT

- Instrument according to technical specifications
- Accessories : 2x 902.6202, 902.6161, 902.6212
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Manual

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FUNCTIONS		
	SYLVAC REFLEX SCAN	**SYLVAC REFLEX SCAN+**
Automatic measurement of the main features (diameters, lenghts, angles, radius)	●	●
Automatic parts / program recognition	●	●
Off-line programming		option
Advanced dust filtering		●
Statistic view		●
CAD import		●
Reports editor	●	●
Data export	●	●
SPC basic calculations	●	●
Script function		option
SPC software	On request	On request
Access management - security lever	1	multiple

GEOMETRICAL TOLERANCING - FEATURES SUMMARY		
	SYLVAC REFLEX SCAN	**SYLVAC REFLEX SCAN+**
Diameters	●	●
Lenghts, 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	●	● advanced
Concentricity	●	●
Roundness	●	●
Cylindricity	●	●
Across flats	●	●
Straightness	●	●
Interrupted parts (splines, turbines)		●

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Optical measurement

SYLVAC-SCAN

		Morse 2 SCAN 52 / F60
902.6220	Two-jaw gripper External clamping for manual use	● Requires 902.6360
902.6231 H=22	Raising blocks for external jaws, in pairs	● (*Morse 1 requires 902.6220*)
902.6141 0÷6 mm T = 1.5 **902.6142** 0÷6 mm T = 3 **902.6143** 6÷12mm T = 3 **902.6144** 12÷18mm T = 6 **902.6145** 18÷24mm T = 9 **902.6152** 0÷6mm T = 6 **902.6153** 0÷6mm T = 15 **902.6140** 6÷12mm T = 15	External jaws, in pairs	● For 902.6220 (*also for Morse 1*)

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ACCESSORIES

			Morse 2 SCAN 52 / F60
	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	●
	902.6250	Center adapter with a 6 mm dia. coupling bore	*Only for Morse 1*
	902.6251	Center adapter with a 6 mm dia. coupling bore	●
	902.6360	Reduction sleeve, Morse 2 to 1	●
	902.6000	Extra male center, 10 mm (2 items provided with SYLVAC-SCAN 25)	*Only for Morse 1*
	902.6202	Extra male center, 17.78 mm (2 items provided with SYLVAC-SCAN F60 and SYLVAC-SCAN 52 Reflex-Click)	● Standard
	902.6203	Drive centre (Diamond coated 10 mm)	*Only for Morse 1*
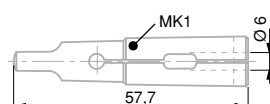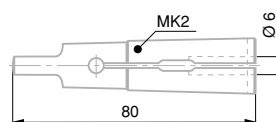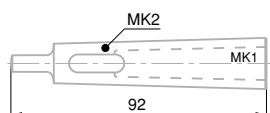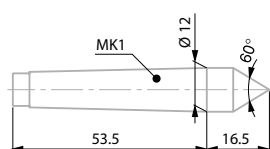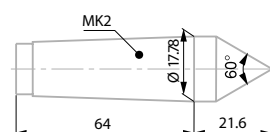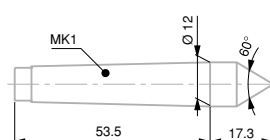
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Optical measurement

SYLVAC-SCAN

ACCESSORIES
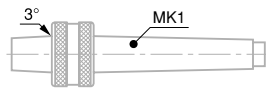
			Morse 2 SCAN 52 / F60
	902.6160	Rotation center with a B12 male taper plus a Morse 1 taper shank (For added sleaves 902.6206/902.6207)	*Only for Morse 1*
	902.6161	Rotation center, Morse 2 (1 item provided with SYLVAC-SCAN F60 and SYLVAC-SCAN 52 Reflex-Click)	● Standard
	902.6162	Rotation center with a B18 male taper plus a Morse 2 shank	●
	902.6163	Rotation center, Morse 1	*Only for Morse 1*
	902.6380	Rotation center, Morse 2	●
	902.6204	Female center, 10 mm dia.	● Requires 902.6251 (*also for Morse 1, with 902.6250*)
	902.6212	Extra male center, 17.78 mm, diamond coated (1 item provided with SYLVAC-SCAN F60 and SYLVAC-SCAN 52 Reflex-Click)	● Standard
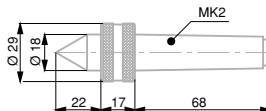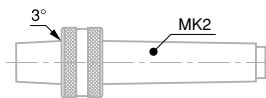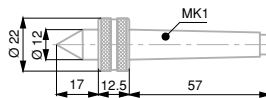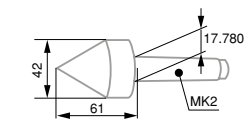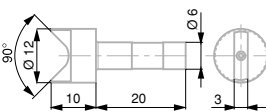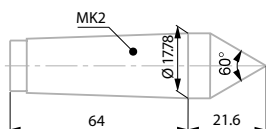
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ACCESSORIES

			Morse 2 SCAN 52 / F60
	902.6205	Female center, 20 mm dia.	● Requires 902.6251 (*Morse 1 requires 902.6250*)
	902.6206	Female center, 10 mm dia. Also with internal B12 taper	*Only for Morse 1* *(requires 902.6160)*
	902.6207	Female center, 12 mm dia. Also with internal B12 taper	*Only for Morse 1* *(requires 902.6160)*
	902.6208	Platten, 30 mm dia.	*Only for Morse 1*
	902.6300	3-jaw chuck, clamping range 1÷15 mm (Clamping capacity: outside 1÷15 mm inside 11÷26 mm)	● Requires 902.6360 (*also for Morse 1*)
	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)	●
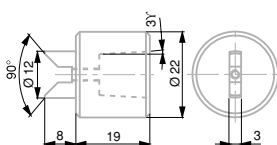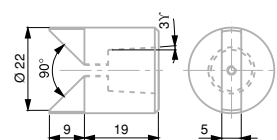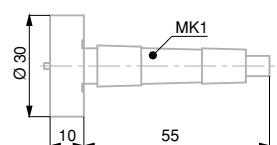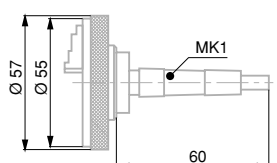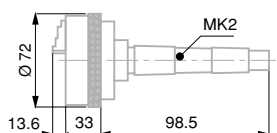
			Morse 2 SCAN 52 / F60
	902.6209	Platten, 80 mm dia. with a Morse 2 taper shank	●
	902.6210	Drive centre, Ø 40 mm. Diamond coated with a Morse 2 taper shank	●
	902.6340	Female centre, 40 mm dia. with a Morse 2 taper shank	●
	902.6341	Male centre, 15÷40 mm dia. with a Morse 2 taper shank	●
	902.6310	Female 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
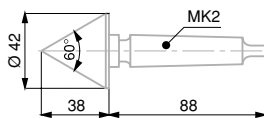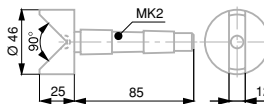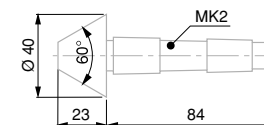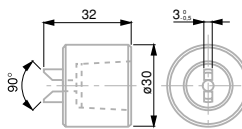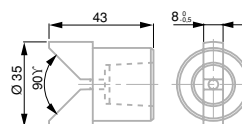
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SYLVAC-SCAN

			Morse 2 SCAN 52 / F60
	902.6312	Female center, 45 mm dia., with a B18 internal taper	● Requires 902.6162
	902.6410	Drive centre - diamond coated, 42 mm dia. max.	●
	902.7015	Reflex SCAN+ Offline Software	
	902.7016	Reflex SCAN+ Script programming	
	902.7017	REFLEX-SCAN+ Automation software module	
	902.7018	REFLEX-SCAN+ CAD compare software	
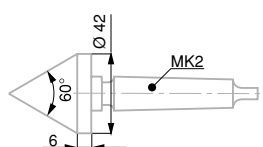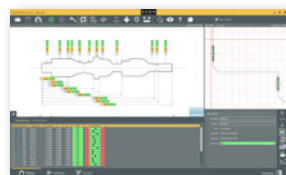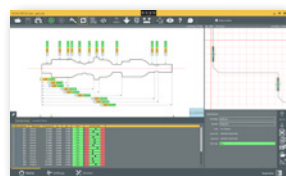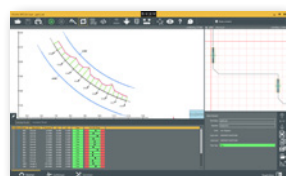
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ACCESSORIES

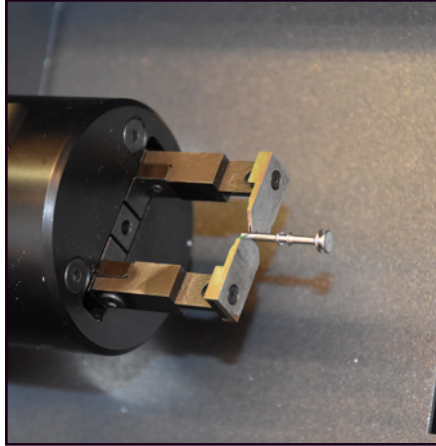|			SCAN 52	SCAN F60
	902.6012	Gold demo part	●	●
	902.6013	Gold demo part for threads	●	●
	902.6600	Table for Sylvac SCAN F60 (85x85x70mm)		●
	902.6601	Furniture for Sylvac SCAN F60 storage for PC, drawer with lock and arm for keyboard and screen.		●
	902.6605	Height-adjustable table (71-1140mm) for keyboard, screen and mouse (80x60)		●
	902.6607	Accessories tidy insert for drawer (combined with 902.6601)		●
	902.6608	Pneumatic tailstock		●

Our Sylvac Scan range can be fully automated with a robot that can load all your workpieces for you directly on the machine for measurement. Available on request.
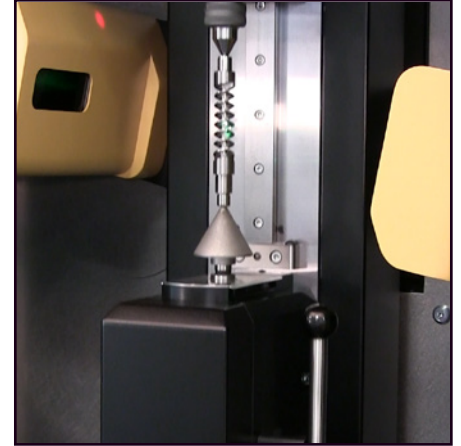
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Optical measurement

APPLICATIONS
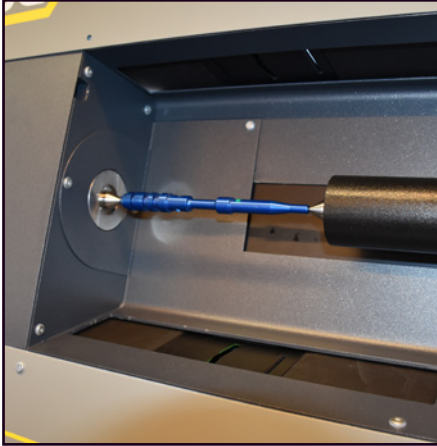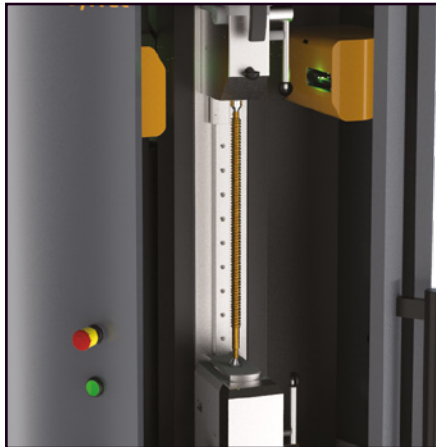

Measurement of a turned part with SCAN 52

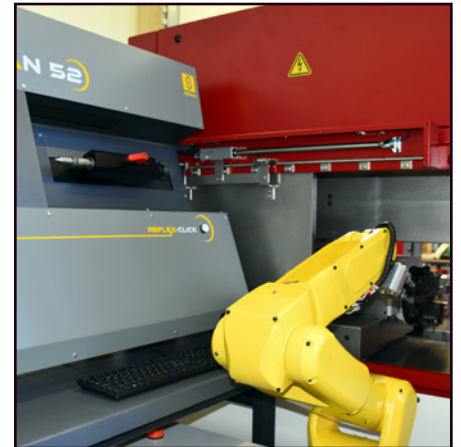Small turning part holded with 2-jaws gripper accessory on SCAN 52

Thread measurement with SCAN F60T

Part measurement with SCAN F60

Part measurement with SCAN F60L

SCAN 52 and robot : closed loop with automatic correction of the part