sylvac

English

Quickstart

SYLVAC-SCAN

S25/S25T

Optical measuring machines

SCAN S25T

Original version drafted in French

QUICKSTART

SUMMARY

DESCRIPTION

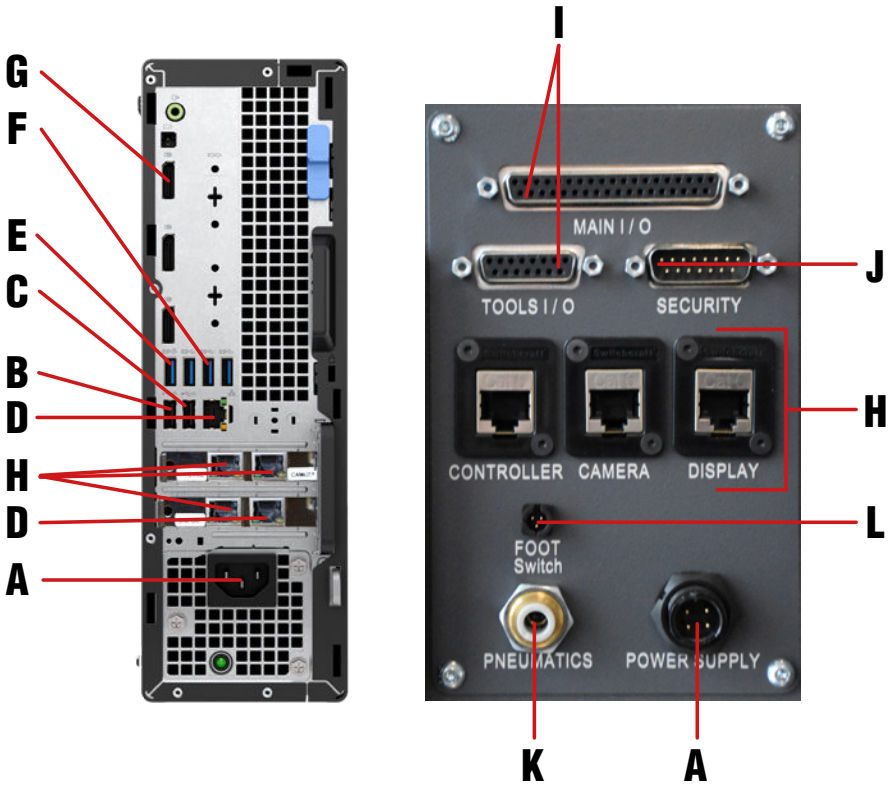
Measuring solution for cylindrical parts up to 200mm in length and 26mm in diameter, using an LED illuminator to project a collimated beam of light onto the part, allowing the collection and processing of the part's contour data through bi-eccentric lenses.

1. ELECTRICAL CONNECTIONS

The machine has to be unplugged to proceed to electrical connections.
The cabling below indicates a typical environment and can vary depending on the computer used. The physical position of every connection depends on the characteristics of the chosen computer.

Check the voltage of the computer and the monitor before plugging them into the mains!

Do not attempt to alter the mains supply voltage of the computer/controller. Contact your SYLVAC agent if the voltage indicated does not match your mains supply.



A. Main power supply
B. Keyboard
C. Mouse
D. Automation Ethernet Plug (OPC/UA or Profinet)
E. Touch screen (if supplied)
F. Dongle
G. Screen (Display port)
H. CTRL, CAMERA and Display Ethernet Plug
I. I/O connector
J. Security connector
K. Pneumatic input
L. Footpedal input

The "MICROSOFT SOFTWARE LICENSE TERMS AND CONDITIONS" are available on the desktop of the PC. If you are using this PC, it means that you have read and accepted this document.

2. SAFETY ADVICE

Sylvac machines have been developed with state of the art technology. However, it is important to understand and comply with a few safety rules.

Read the manual carefully.

Only use the machine in the manner described.

Unqualified or inexperienced people are not authorised to use the machine.

Do not operate the machine without the lateral covers.

Sylvac SA accepts no liability for any unauthorised modifications.

Emergency stop button: Do not block access to the emergency stop button.

Sylvac SA accepts no liability if the user does not comply with the instructions written on the machine and contained in the user manual.

3. OVERVIEW AND CONFIGURATION

A - Motorised tailstock: supports the upper part of the measured part. The motorised tailstock can be moved automatically along the calliper according to the size of the piece to measure through the jog on the touchpad.

B - Part to be measured : allows the user to place the piece to be measured between the stocks.

C - Headstock: supports the bottom part of the measured part.

D - ON/OFF switch : machine main start/stop switch (low voltage)

E - Emergency stop button : Press to stop the machine in the event of a dangerous situation. Pull it out once the danger has been removed.

F - Reflex click button (on touchpad)

G - Touchpad with Reflex Scan+ App

4. QUICKSTART OF THE SYLVAC-REFLEX SCAN+ SOFTWARE

4.1. Software

1 - Turn on the machine using the ON/OFF button

2 - Start up the computer

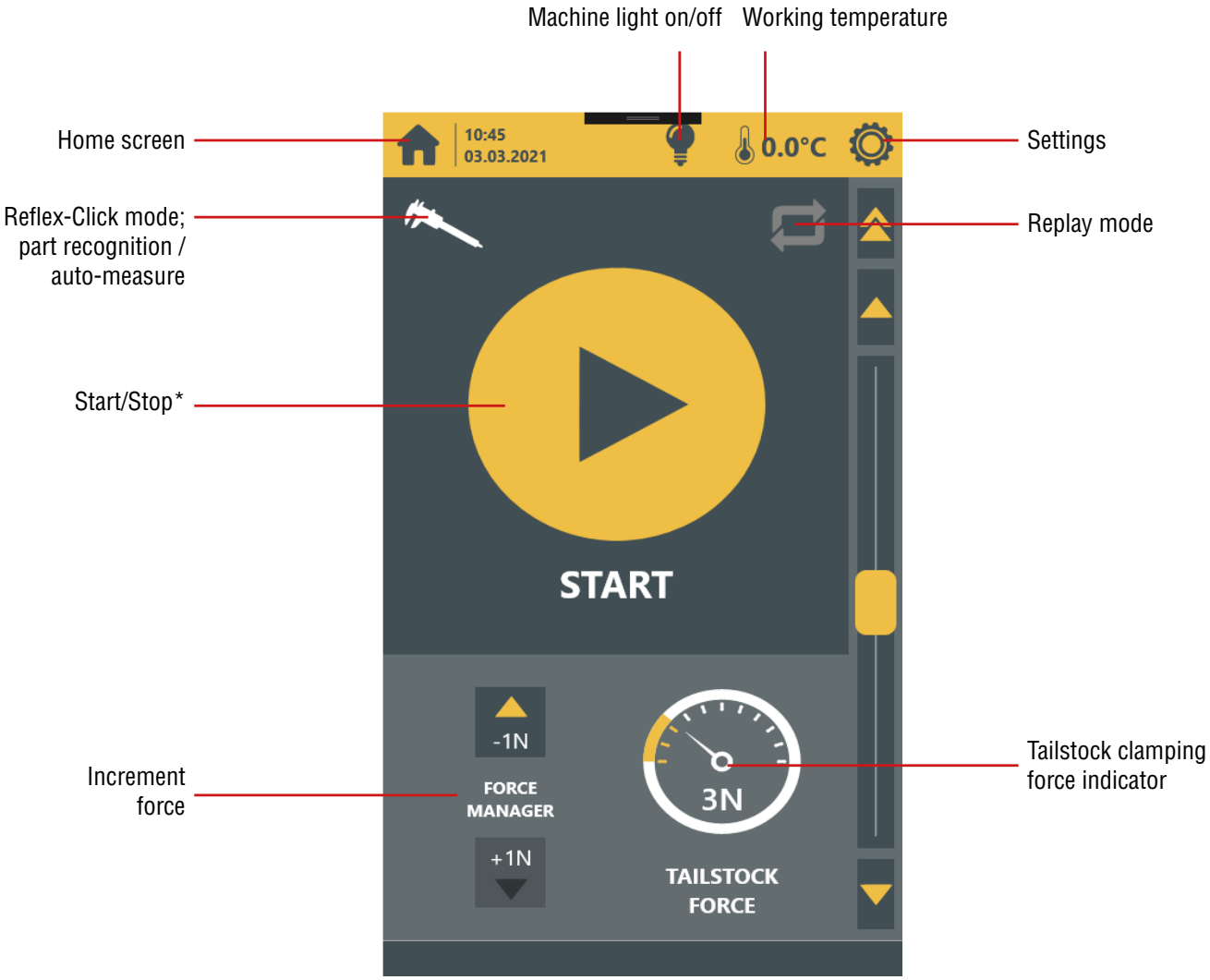
3 - Launch the Sylvac-Reflex Scan+ software by clicking on the icon 

4 - The window (see picture on the right) will be displayed on your screen. Log in as a supervisor using the password “123”.

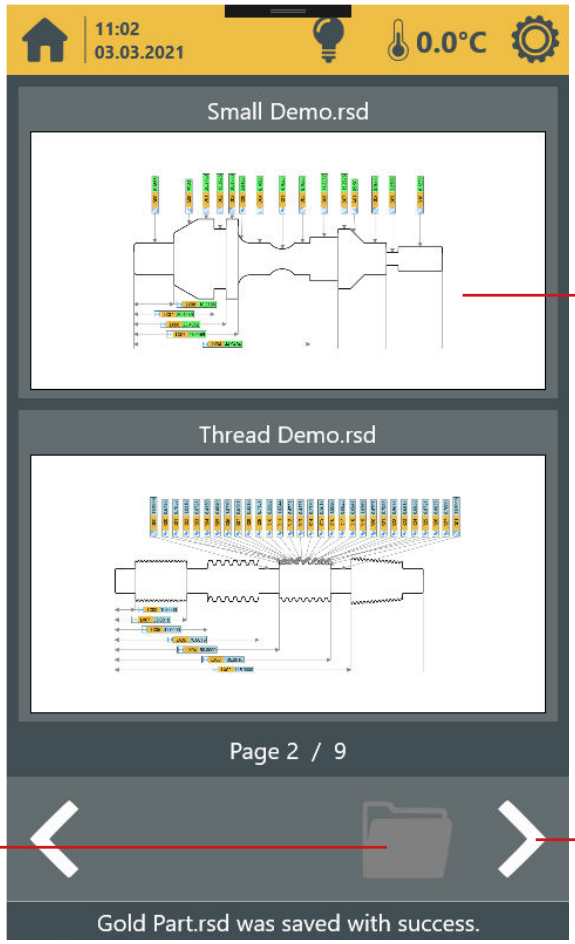
5 - Please refer to Reflex SCAN+’s manual for all features and details.

4.2. Touch panel

4.2.1 Main screen



4.2.2 Part loading

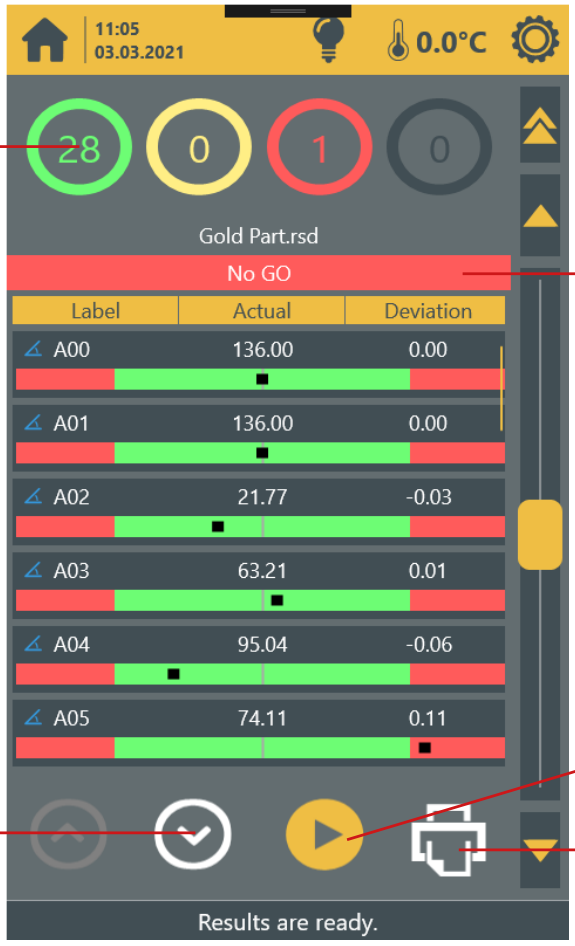


Double click to select program

Open measurement program

Turn page to find program

4.2.3 Operator panel/run & results



Results summary/ select to filter

Part global classification

Play

Scroll page to view results

Print

4.2.4 Tailstock control

5. MAINTENANCE AND SERVICING

The maintenance and servicing of the machines must be performed by people trained and qualified by Sylvac SA or its official agents.

During servicing or maintenance, switch off the machine completely using the main ON/OFF switch (D).

5.1. Cleaning the Daily Cal

The Daily Cal is the thermal compensation unit of the machine. It allows daily calibration of the machine in order to reset it to the original specifications.
The frequency of daily calibration largely depends on the surrounding conditions (dirt, oil, temperature, etc.).

To achieve the best measuring results, the Daily Cal must be cleaned regularly. A surface inspection program for the Daily Cal is included in the ReflexSCAN software*.

We recommend cleaning the Daily Cal with propan-2-ol (C3H80) using a soft cloth, once a week in an oily environment or once a month in clean surroundings.

*Available soon

How to clean the Daily Cal :

1. Remove the cover (Images 1-3)

2. Clean the 3 diameters of the Daily Cal with a soft cloth and Isopropyl alcohol (images 4 and 5)

3. Replace the protective cover (image 6)

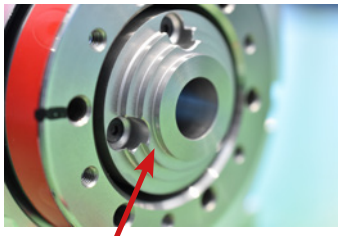
1

2

3

4

5



3 diameters

6

5.2. Replacing the filters

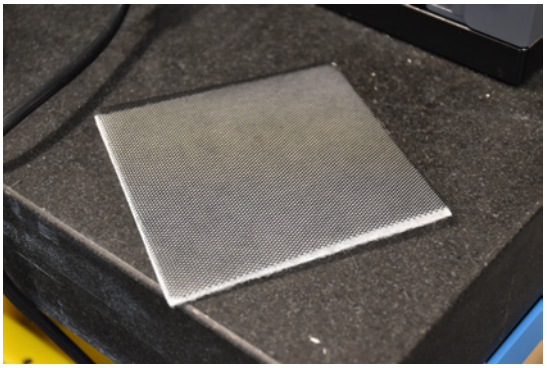
The machine is equipped with two fans that create a stream of air, allowing heat to be exchanged with the outside. To ensure optimal airflow, the air filters must be in good condition and be replaced when necessary.

How often they are replaced very much depends on the surroundings. If the surroundings are particularly oily, humid or dusty, the filter will not last long.

We recommend visual inspect of the filter every month to determine if it needs to be replaced. We recommended replacing the filter at least once a year or earlier depending on its condition.

You can order the air filter from your distributor under the number H057843.

How to access the fan air filters:



5.3. Removing the tips from the tool holder

a. How to avoid injuries

Removal of the tool holder has been designed to make it as easy as possible for the user. However, if the user has not been taught how to remove it, personal injuries and damage to the machine may occur.

How to remove the tool holder from the tailstock :

YES

NO

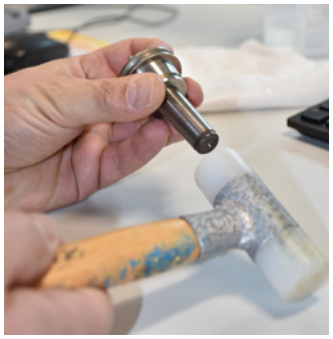
NOTE: This is not to be confused with quick release of the component to be measured using the supporting spring of the tailstock.

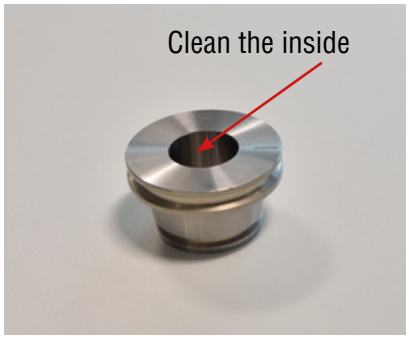
NO

YES

b. Cleaning of the cone inside the tool holder for maximum adhesion when measuring during rotation

For maximum adhesion of the tip in the tool holder, it is strongly recommended to clean the inside of the tool holder using alcohol or acetone to remove any grease. This is necessary to achieve the expected measuring results when the part to be measured is rotating.





6. TECHNICAL DATA

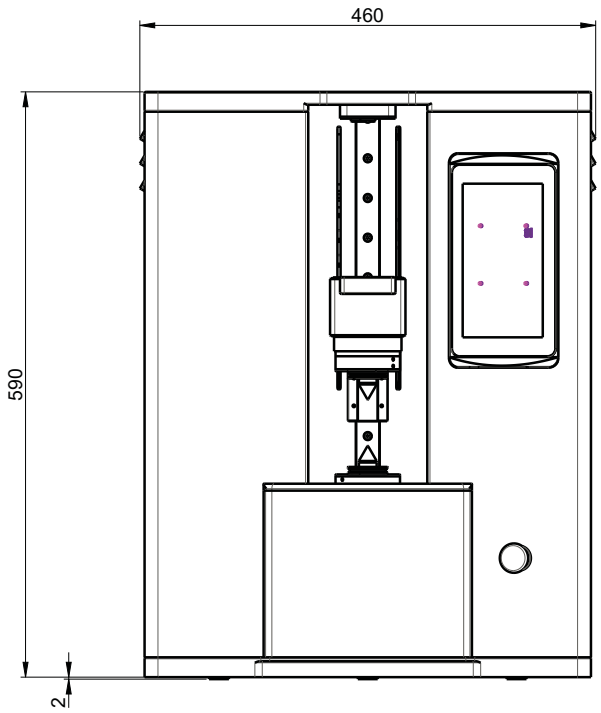
6.1. Machine S25/S25T

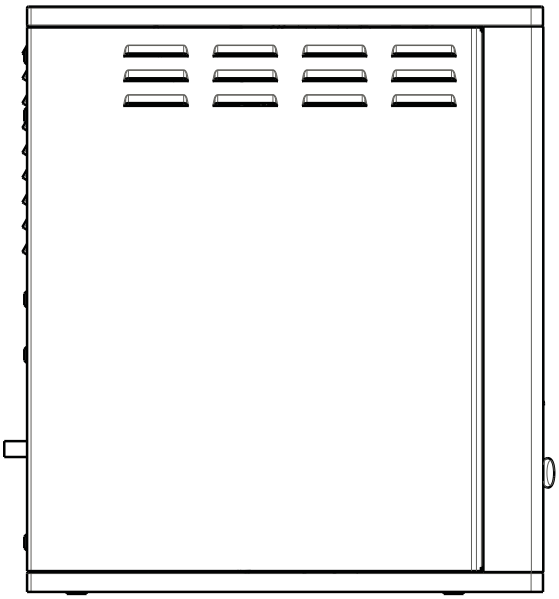
SPECIFICATIONS	Metric	Inches
Overall Dimensions		
Machine (H x L x P)	590 x 460 x 521 mm	23.2 x 18.11 x 20.51 inch
Mass, without table		
Machine with centres	≈ 73 kg	≈ 160.93 lbs
Packed machine		
Operating temperature		
Storage temperature	5 to 45 °C	40 to 115 °F
Relative humidity (storage)	80% max	80% max
Operating temperature	10 to 40 °C	50 to 105 °F
Relative humidity (operating) (non-condensing)	80% max	80% max
Power		
Power-supply	24VDC, 11.67A (external power supply supplied with the machine)	
Power consumption (while scanning)	~ 80W	
Performances (at 20° ±1°C)		
Resolution up to	0,1 µm	4e-6 in
Highest repeatability (2s = 95%)		
Lengths	2**δ**=0.8 µm	2**δ**= 31.49606µin
Diameters	2**δ**=0.5 µm	2**δ**= 19.68504µin
Precision MPE (D and L in mm)		
Lengths	(3 + L[mm]/200) µm	± (0,11+L/5080)/1000 in
Diameters	(0.9 + D[mm]/100) µm	± (0,03+D/2540)/1000 in
Additional data		
Maximum volume of the part (between centres)		
Measuring range	Ø 26 x L 200 mm	Ø 1.2 x L 7.84 in
Weight of the part	3 kg	6.61 lbs
Maximal displacement speed		
Main axis (X-axis)	100 mm/s (measure)	3937,01 in/s (measure)
Rotation	360°/s	
Measurement cycle duration (e.g. static measurement of 20 dimensions)	6s	
Noise level (for maximum capacity part length)	LpA <70 dB (A)	

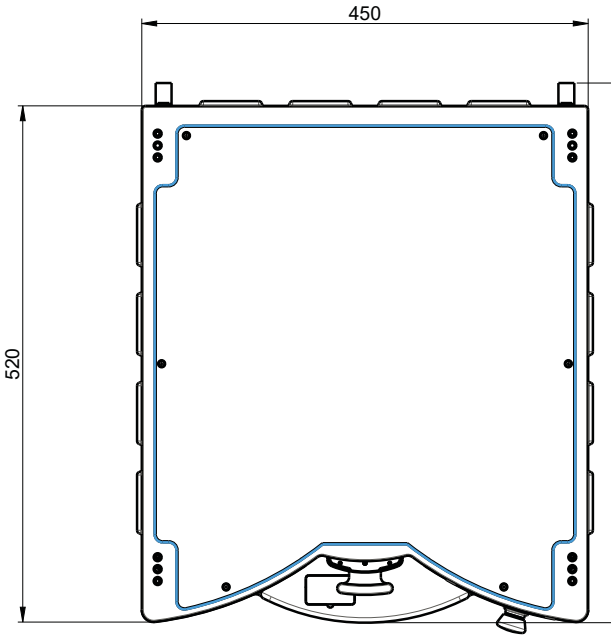
The SCAN S25T includes a tilting for thread measurement (30°).

All indicated values are based on the results obtained from clean and ground components measured at 20°C. They may be altered by the component shape and surface finish.

6.2. Drawings of the machine S25T (in mm)

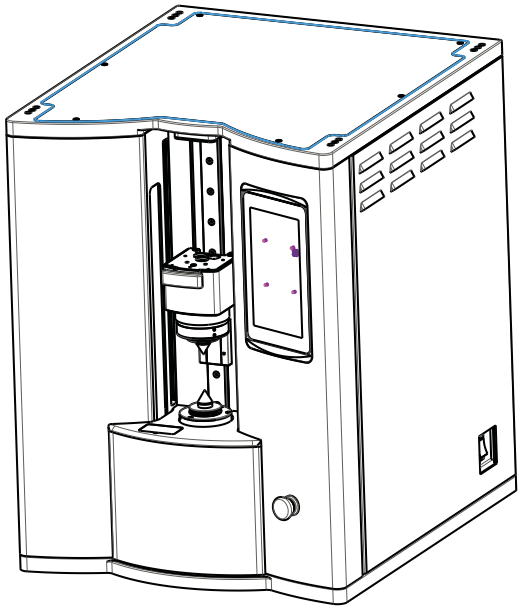






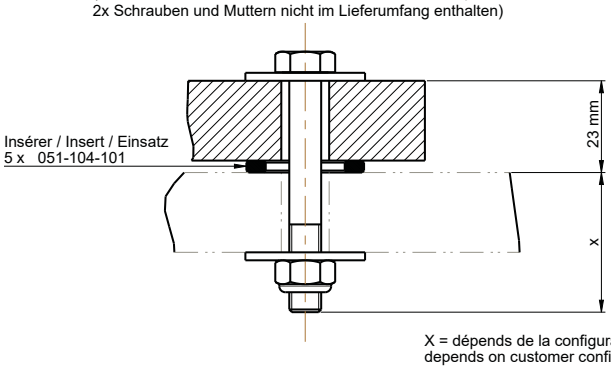
6.3. Attaching the machine on the workbench

If needed e.g. in case of loading the machine with a robot, it is possible to attach the machine on a workbench.



DETAIL A
ECHELLE / SCALE / MASSSTAB 1:1

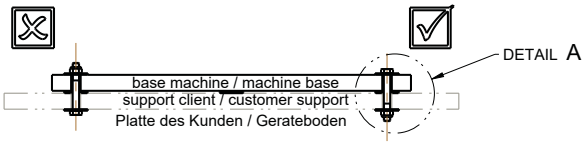
(2x vis et écrous non fournis / 2x screws and nuts not provided /
2x Schrauben und Muttern nicht im Lieferumfang enthalten)



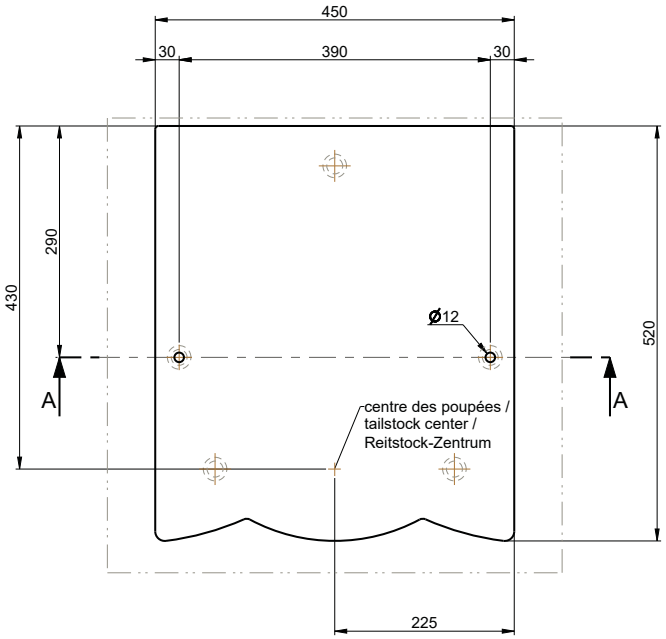
X = dépends de la configuration du client /
depends on customer configuration /
abhängig von der Konfiguration des Kunden

A-A

Montage des vis pour fixation de la machine /
Screw mounting direction for machine fixation /
Anziehen der Schrauben zur Befestigung des Geräts
(2x M8 max.)



empreinte au sol / footsprint / Bodenmasse



6.4. Pictures of the machine S25T

7. CERTIFICATES OF CONFORMITY AND CALIBRATION

7.1 Certificate of conformity

CERTIFICATE OF CONFORMITY
Sylvac certifies that this instrument has been manufactured in accordance with our Quality Standard and tested with reference to masters of certified traceability by the Swiss Federal Office of Metrology.

CERTIFICAT DE CONFORMITE
Sylvac certifie que cet instrument a été fabriqué et contrôlé selon ses normes de Qualité et en référence avec des étalons dont la traçabilité est reconnue par l'office fédéral suisse de métrologie.

QUALITÄTSZEUGNIS
Sylvac bestätigt, dass dieses Gerät gemäss seinen internen Qualitätsnormen hergestellt wurde und mittels Normalen mit anerkannter Rückverfolgbarkeit, kalibriert durch das Schweizerische Bundesamt für Metrologie, geprüft worden ist.

CERTIFICATO DI CONFORMITÀ
Con il presente Sylvac certifica che questo strumento è stato prodotto secondo il nostro standard sulla qualità e controllato rispetto a campioni di riferibilità riconosciuta dall'ufficio federale svizzero di metrologia.

CERTIFICADO DE CONFORMIDAD
Sylvac certifica que este instrumento ha sido fabricado conforme a nuestras normas de calidad y ha sido controlado en relación con patrónes de trazabilidad reconocida por la oficina federal suiza de metrología.

7.2 Certificate of calibration

Calibration certificate
Because we make our Sylvac instruments in batches, you may find that the date on your calibration certificate is not current. Please be assured that your instruments are certified at point of production and then held in stock in our wa-rehouse in accordance with our Quality Management System ISO 9001. Re-calibration cycle should start from date of receipt..

Certificat d'étalonnage
En raison de la fabrication de nos instruments par lots de production, il est possible que la date de votre certificat d'étalonnage ne soit pas actuelle. Nous garantissons que nos instruments sont certifiés au moment de leur fabrication puis stockés conformément à notre système de gestion de la qualité ISO 9001. Le cycle de réétalonnage peut commencer à partir de la date de réception.

Zertificat
Da wir unsere Instrumente in Serien herstellen, kann es sein, dass das Datum auf dem Zertifikat nicht aktuell ist. Die Instrumente sind jedoch ab der Herstellung zertifiziert und werden dann gemäß unserem Qualitätsmanagementsystem ISO 9001 in unserem Lager aufbewahrt. Der Nachkalibrierungszyklus kann ab dem Empfangsdatum beginnen..

Certificado de calibración
Considerata la nostra produzione in serie di strumenti, è possibile verificare che la data di produzione sul rapporto di prova / certificato di taratura non è attuale. Accertarsi che gli strumenti siano correttamente certificati dalla nostra produzione e che sono conservati in stock presso il nostro magazzino secondo il sistema di gestione della qualità ISO 9001. Il ciclo di nuova taratura puo essere avviato dalla data di ricezione..

Certificato di taratura
Puesto que fabricamos nuestros instrumentos por lotes, puede que la fecha de su informe de prueba / certificado de calibración no esté al día. Asegúrese de que los instrumentos estén certificados en nuestro lugar de producción y estén almacenados en nuestro almacén conforme a nuestro sistema de control de calidad ISO 9001. El ciclo de recalibración puede empezar a partir de la fecha de recepción..

Déclaration de conformité
Konformitätserklärung
Conformity declaration

CE

Nom et adresse du fournisseur
Name und adresse des Lieferanten
Name and Address of the supplier

SYLVAC SA
Avenue des Sciences 19
CH 1400 – Yverdon-les-Bains

Nom et adresse de la personne autorisé à constituer le dossier technique
Name und adresse des zuständigen Leiter der technischen Dokumente
Name and Address of the responsible person for the technical folder

M. Daniel Schnyder
Lion d'Or 23
CH 2735 - Malleray

Déclare que le produit : *Erklärt dass das produkt :* Declares that the product :	Système de mesure optique Optisches Messgerät Optical Measuring System	SYLVAC SCAN S25/S25T

Type :
Typ : 902.4020, 902.4025
Type :

Est conforme aux dispositions
Den folgendem Bestimmungen entspricht
Is in conformity with the provisions of

- Des directives Européennes
  Der Richtlinien
  The directive
  2006/42/CE ; 2014/30/EU et 2014/35/EU
- Des normes européennes
  Den Normen
  The standards
  EN 12100:2010 ; EN 60204-1 et EN 61326-1
- Et aux données techniques contenues dans nos documents de vente.
  Sowie den technischen Daten, die in unseren Verkaufsunterlagen angegeben sind.
  And technical data as specified in our sales documents.

Yverdon-les-Bains, le 24.10.2022

QUICKSTART

Changes without prior notice
Sous réserve de toute modification
Änderungen vorbehalten

Edition : 2023.04/ 681-104-02-110