



The Future is health, Future is us.

SUTURE PRODUCTION MACHINERY CATALOGUE

SURGY/NIQUE
ENGINEERING SOLUTIONS

SURGYNIQUE
ENGINEERING SOLUTIONS

ABOUT US

Surgynique Engineering Solutions has been established as an Engineering and Consultancy company that provides design, prototyping, product development and manufacturing services in the medical industry. In time, Surgynique has developed its own machinery line which are particularly used in Surgical Sutures manufacturing. Established by engineers with more than 20 years of experience in product design, medical device manufacturing, project management, and business development fields, Surgynique helps customers from Izmir and Manisa offices in Turkey. Since 2020, Surgynique has been a reliable partner for physicians, medical device manufacturers, large medical device OEMs, emerging companies, start-ups, research institutions and universities from all over the world.

Surgynique also provides Technology Transfer and Consultancy services for Investors who are willing to invest in Suture manufacturing facilities. The expertise and know-how in this field makes it able for customers to easily get Feasibility Study, Layout & Clean Room Design, Machinery & Equipment Selection, Standard Operation Procedures Preparation services.

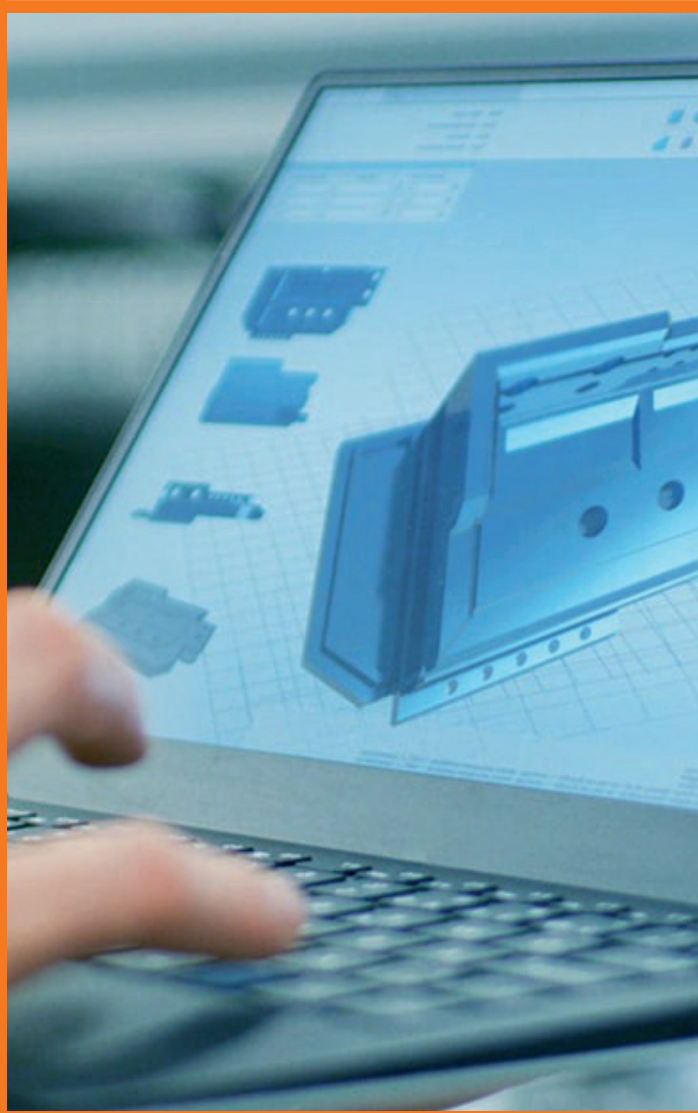
SERVICES & SOLUTIONS

Product Design, Development & Prototyping

Surgynique has the ability to custom design and manufacture the products in its own facility or simply deliver design for clients who choose to manufacture these products at themselves or in a different facility.

Surgynique has the ability to carry out all design processes step by step starting from concept /custom design in line with customers needs and design requirements.

- Research and Development
 - Specification Development
 - Engineering
 - Prototyping
 - Testing
 - Manufacturing
-





Clean Room Design & Construction

Surgynique's experienced in house engineers are dedicated to design Clean Rooms for medical industry in accordance with the specific class of the medical devices to be produced. From determining the need of customers to completion, Surgynique ensures that your Clean Rooms are designed and installed in accordance with local and global regulations. Surgynique also provides air systems, ventilation, pass box, air shower placement and gray area (anteroom), production line and factory layout design services.

Serial Production Solutions & Automatization

Product development drives around 80 percent of the product's cost. Surgynique team provides effective engineering solutions that enable manufacturing process to reach higher efficiency and capacity at lower costs. Our know-how help customers to reduce the risk of time, labor and financial losses.

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SURGYWIND GLUE



MULTIFILAMENT WINDING AND STIFFENING MACHINE (GLUE)

SURGYWIND MONO



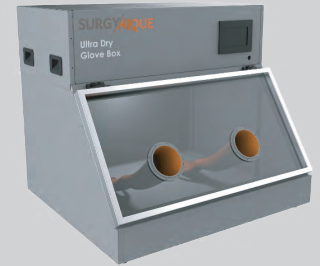
MONOFILAMENT WINDING AND CUTTING MACHINE

SURGYDRY



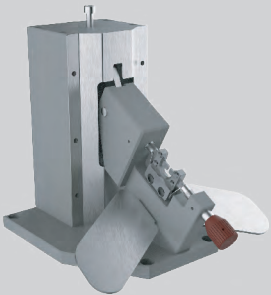
DRY CABINETS

SURGYBOX



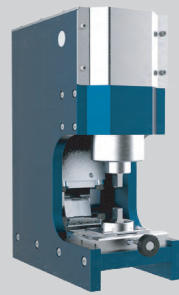
GLOVE BOX

SURGYCRIMP



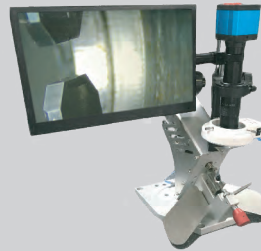
DRILLED END SUTURE CRIMPING MACHINES

SURGYCRIMP CHANNEL



CHANNEL TYPE NEEDLE CRIMPING MACHINE

SURGYCRIMP MICRO



OPHTHALMIC AND MICRO NEEDLE CRIMPING MACHINE

SURGYFORCE



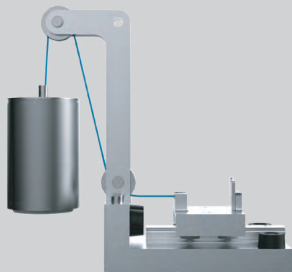
NEEDLE PENETRATION FORCE TESTING DEVICE

SURGYTEST



TENSILE TESTER

SURGYPULL



SUTURE PULL TESTERS

SURGYLEAK



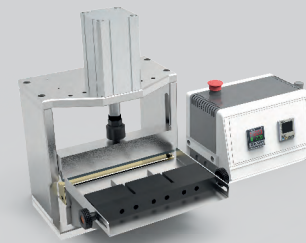
POUCH LEAK TESTER

SURGYSETS



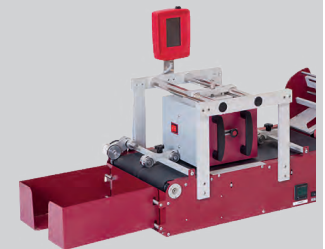
BARBED & CARD WINDING SET

SURGYSEAL



BAR SEALER

SURGYPRINT



SUTURE CARD AUTONOMOUS PRINTING SYSTEMS



SURGYSTER - DRY
**ETHYLENE OXIDE
STERILIZATION &
VACUUM DRYING
COMBINED
MACHINE**

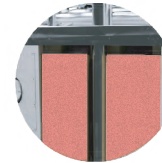
One Chamber, Many Tasks ...



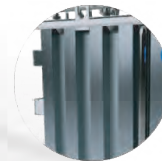
Pneumatically actuated sliding doors with automatic locking system.



Double inflatable gasket system for extra safety



Heat Isolation in chamber walls for Energy efficiency.



Water Jacket Heating System in All surfaces

The sterilization chamber is the heart of the sterilizer system — a precision-engineered, pressure-rated vessel designed to deliver reliable and consistent performance. Products, typically loaded on pallets, are placed inside the chamber to undergo a fully controlled sterilization cycle.

Through advanced regulation of temperature, pressure, and humidity, the chamber ensures thorough and uniform sterilization across every part of the load.

Built from high-grade materials and crafted for durability, it withstands the demanding conditions of industrial sterilization while maintaining maximum product safety and regulatory compliance.

Integrated sensors and intelligent monitoring systems continuously track process parameters, providing real-time feedback and ensuring optimal results in every cycle.

Chamber Volume *m3	Euro Pallet
1,6	-
2,8	-
6	2
10	4
15	6
20	8
27	10
34	12
40	14
44	16
50	18
62,5	24

The chamber is constructed with a sturdy and innovative mechanical design, using 316L stainless steel and reinforced with U-shaped 304 grade stainless steel beams. Its unique feature lies in being designed independently from all other units, allowing it to be kept solely within a clean room environment, thereby optimizing space efficiency.

For thermal efficiency, the chamber is insulated with 20 mm thick rock wool and covered with aluminum panels, topped with an aluminum deck.

The device is designed according to international safety standards with cutting edge technology. All units functioning in the machine are modular. This is important since any maintenance process should be easy and the manufacturers should have continuous operation.

Recirculation System



Unique Closed-Loop
Blower Powered Gas
Recirculation System



Homogenous Gas
and Temperature
Distribution

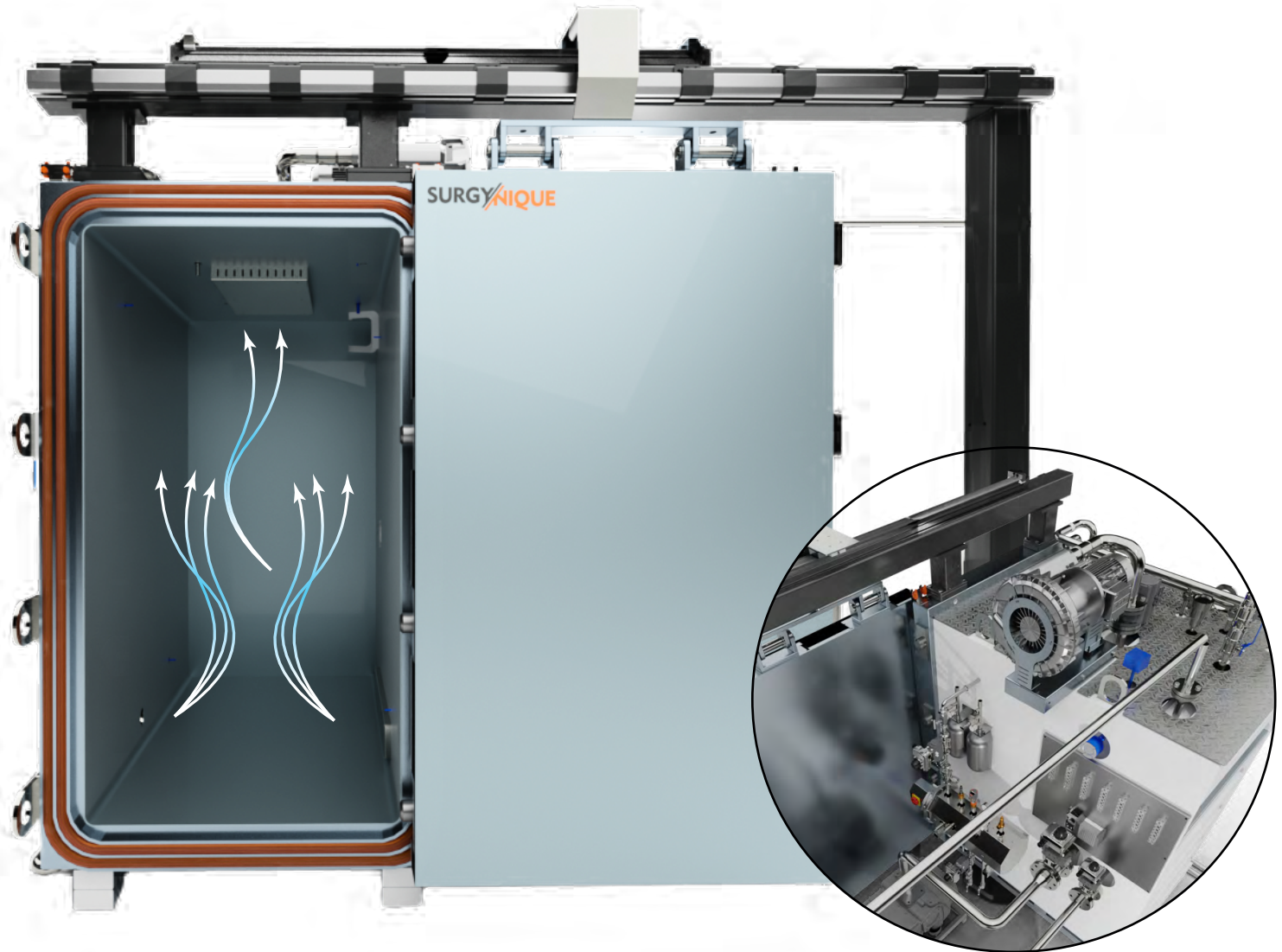


Quicker Heat Transfer
to the products



Better exposure
to EO gas

ethylene oxide



The chamber recirculation system is an integral part of the sterilization chamber, typically consisting of a high-performance fan installed within the chamber. This system draws air or gas from an inlet located at the top of the chamber and redistributes it through one or more outlets positioned at the bottom, generally on the opposite side of the inlet. The primary function of the recirculation system is to ensure continuous and uniform mixing of the sterilizing gas within the chamber. By promoting consistent circulation, the system helps maintain a homogeneous distribution of critical parameters such as temperature, relative humidity, and ethylene oxide (EO) concentration throughout the entire load. This uniformity is essential for achieving effective sterilization results and ensuring process reliability and validation compliance.



- This Unit controls the water jacket temperature according to the sensor feed back from the cabin
- The system Works as closed circuit
- The water temperature is limited for safety
- The resistance power and flow rates are controlled
- Atex certified components



- This Unit heats the EO and Nitrogen gases
- It provides the freezing risk of gases
- It is safe because the heating mechanism
- It provides the freezing risk of gases
- It is safe because the heating mechanism is hot water
- The pressure and temperature is continuously monitored
- Atex certified components

- This Unit is for controlling the humidity in the chamber
- Temperature and water level control
- Pressure relieve valve for safety
- It is equipped with Pressure and Temperature Sensors & Switches
- Automatic level indication and filling
- Atex certified components

Vacuum Units

- A two-stage vacuum system ensures rapid evacuation and deep vacuum performance
- ATEX-compliant pump

for Drying

● *Dry Screw
Vacuum Pump*

for Sterilization

● *Liquid Ring
Vacuum Pump*



SURGYSTER - DRY

SURGYNIQUE
ENGINEERING SOLUTIONS


ETOV4_00 PLC 1 Stat PLC 1 Stat No events received. _SystemUser 4:56:22 PM
11/2/2025

CHAMBER TEMPERATURE C CHAMBER PRESSURE mbar CHAMBER HUMIDITY %Rh **SYSTEM STATUS**

MAIN >
PROCESS MAIN >
CURVE MAIN >
RECIPE VIEW
REPORT MAIN >
DATA HISTORY
ALARM MANAGE >
SETTINGS MAIN >
CALIBRATION
MAINTENANCE ... >

MANAGEMENT
ETO SETUP
RECIPE EDITION

Control Software



ETO_V4_00 PLC 1 Stat TwinCAT PLC 1 Stat TwinCAT No events received. _SystemUser 5:03:42 PM
11/2/2025

CHAMBER TEMPERATURE C CHAMBER PRESSURE mbar CHAMBER HUMIDITY %Rh

SYSTEM STATUS

MAIN >

PROCESS MAIN >

CURVE MAIN >

RECIPE VIEW

REPORT MAIN >

DATA HISTORY

ALARM MANAGE >

SETTINGS MAIN >

CALIBRATION

MAINTENANCE ... >

TEMPERATURE

AVERAGE SET POINT

C C

Graph View

TT100	<input type="text"/>	TT102	<input type="text"/>
TT101	<input type="text"/>	TT103	<input type="text"/>

PRESSURE

AVERAGE SET POINT

mbar mbar

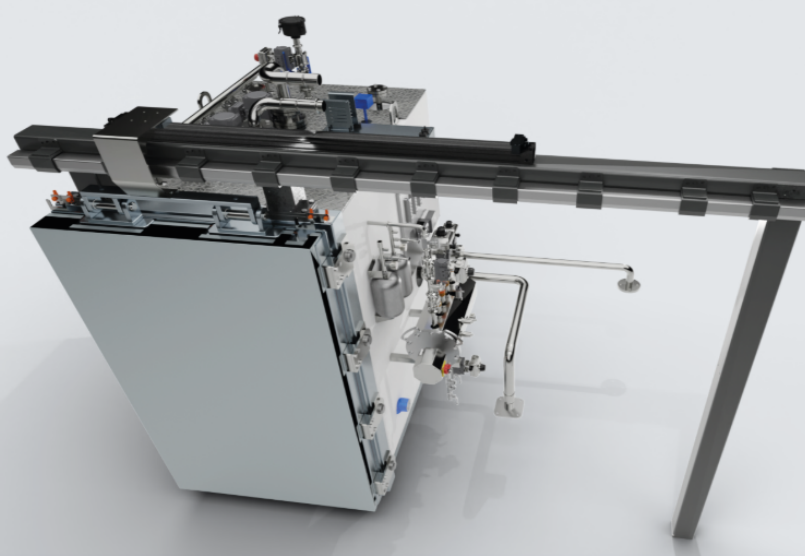
PT100	<input type="text"/>	PT102	<input type="text"/>
PT101	<input type="text"/>	PT103	<input type="text"/>

HUMIDITY

AVERAGE SET POINT

%Rh %Rh

RHT100	<input type="text"/>	RHT102	<input type="text"/>
RHT101	<input type="text"/>	RHT103	<input type="text"/>



LOADING DOOR UNLOADING DOOR

GASKET CONTROL

GASKET-1 (IN) GASKET-2 (OUT)

mbar mbar

GASKET STATUS

INFLATING
DEFLATING

DOOR MOVE CONTROL

DOOR CLOSE
DOOR OPEN

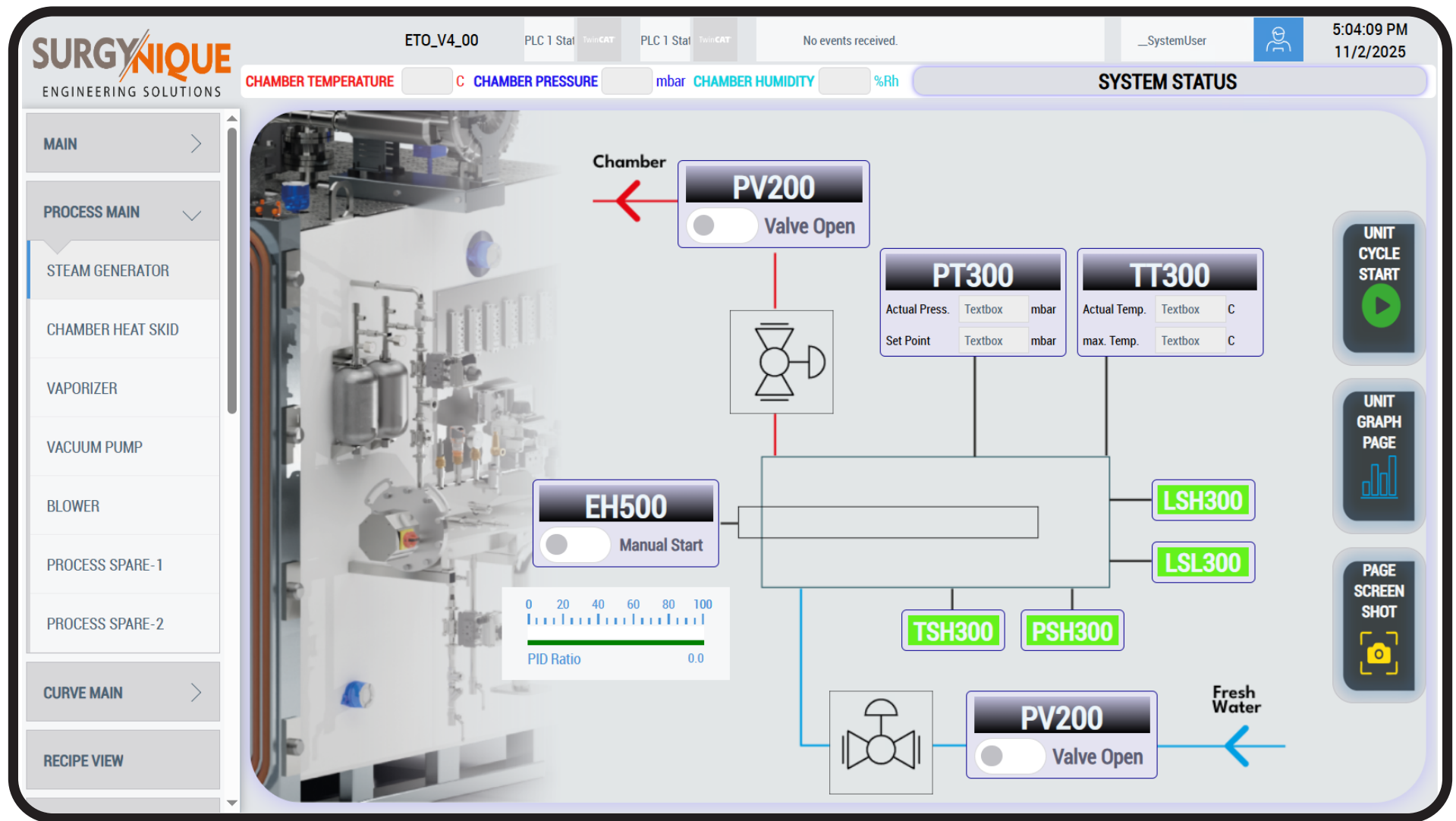
DOOR STATUS

PCB100 PCB101 PCB102 PCB103

Steam Generator	PASSIVE	PV201 - V201 Valve	<input type="text"/>	PV106 - EO-1 Valve	PASSIVE	Loading Door Open Valve	PASSIVE	Loading Door Out Gasket Inf. Valve	PASSIVE
Chamber Heat Skid	PASSIVE	PV200 - V200 Valve	<input type="text"/>	PV106 - EO-2 Valve	PASSIVE	Loading Door Close Valve	PASSIVE	Loading Door Out Gasket Def. Valve	PASSIVE
Vaporizer Heat Skid	PASSIVE	PV102 - Steam Inj. Valve	PASSIVE	PV106 - Nitrogen Valve	PASSIVE	UnLoading Door Open Valve	PASSIVE	UnLoading In Door Gasket Inf. Valve	PASSIVE
Blower	<input type="text"/>	PV103 - Steam Gen. Fresh Water Valve	PASSIVE	PV106 - Vaporizer Out Valve	PASSIVE	UnLoading Door Close Valve	PASSIVE	UnLoading In Door Gasket Def. Valve	PASSIVE
V200 Dry Screw Pump	<input type="text"/>	PV106 - Blower In Valve	PASSIVE	PV106 - Fresh Air Valve	PASSIVE	Loading Door In Gasket Inf. Valve	PASSIVE	UnLoading Door Out Gasket Inf. Valve	PASSIVE
V201 Liquid Ring Pump	<input type="text"/>	PV106 - Blower Out Valve	PASSIVE	NONE	PASSIVE	Loading Door In Gasket Def. Valve	PASSIVE	UnLoading Door Out Gasket Def. Valve	PASSIVE

- Continuous monitoring of temperature, pressure and humidity value for chamber and gaskets

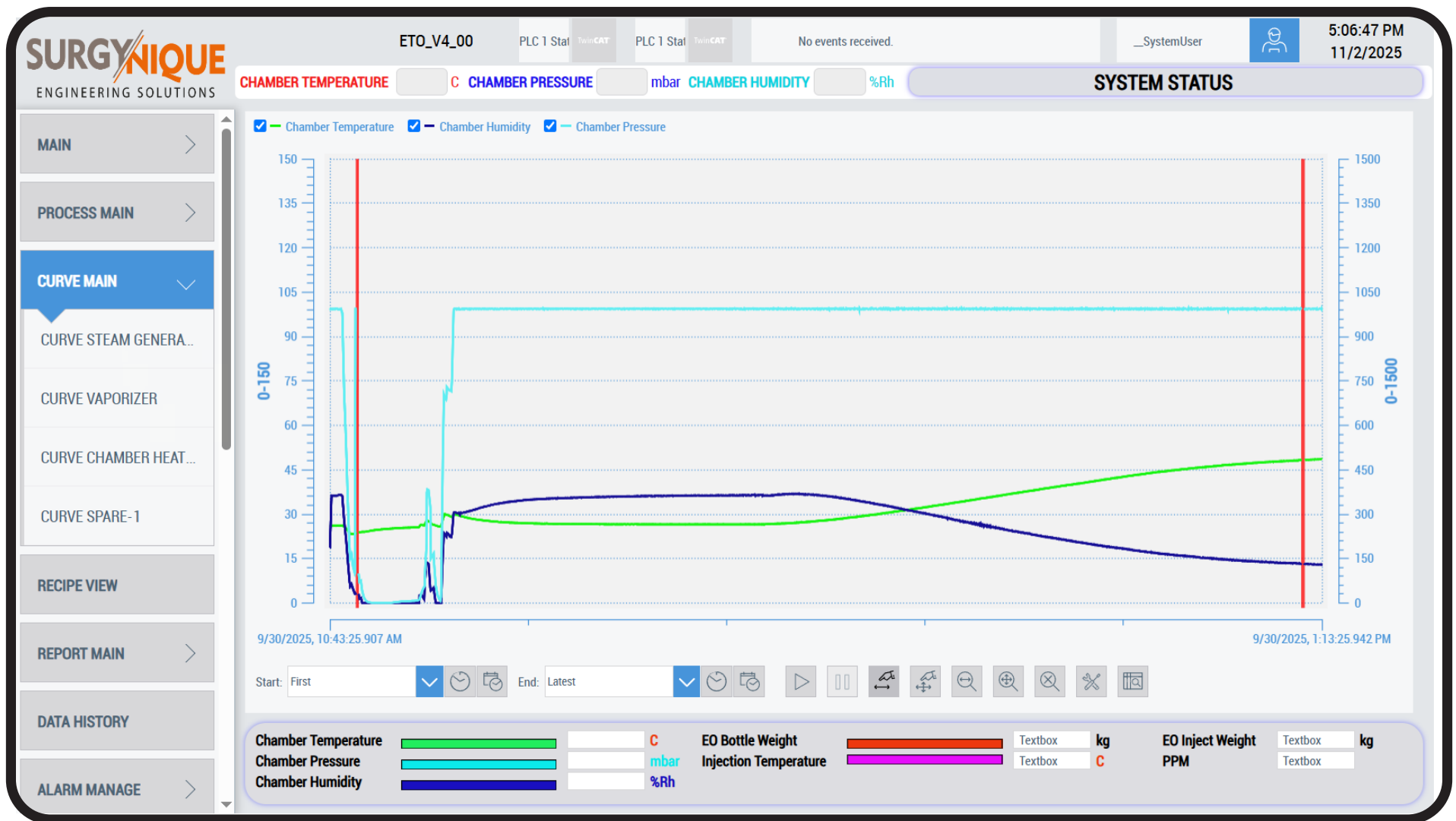
- Manual control options for doors and gaskets



- Windows-Based SCADA Automation system
- Extensive range of alarms and warnings
- Manual control options for serviceability and maintenance
- Non-stop working thanks to UPS integrated to controllers
- Continuous monitoring of valves and actuators status

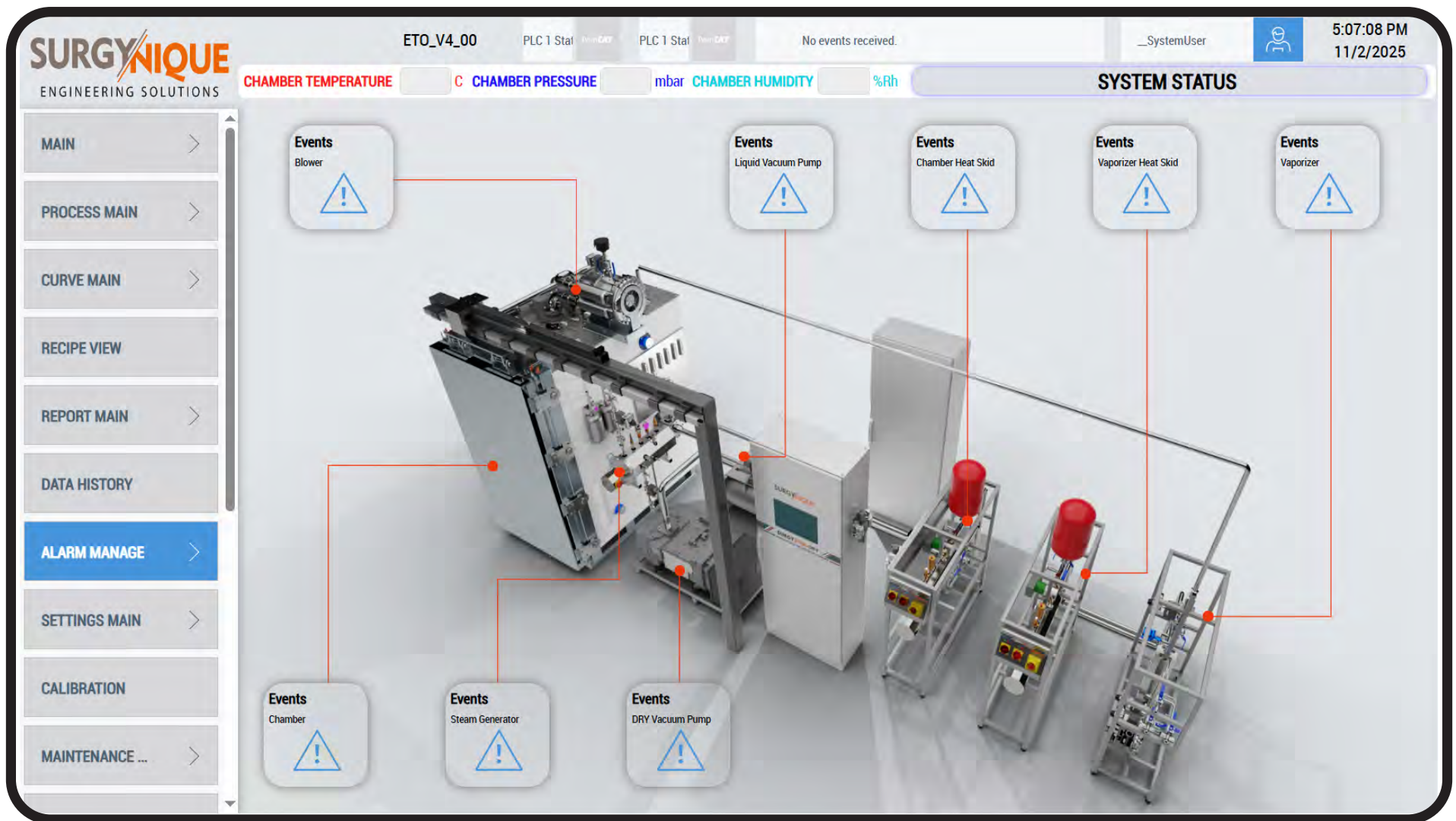
Control Software

- Product information management system
- Detailed recipe management system
- Controlling and checking of all parameters before starting of working cycles



- Graphic demonstration of cycles and automatic report creation.
- Real-time monitoring of physical parameters along side the cabinet
- Configurable report format
- Ability to view graphs individually or all together

Control Software



- Monitoring and control of all regional alarms
- Event & Unit based alarm and warning system
- Different levels of authorization to provide safe and continuous operation
- Location-based alarm display enables easy maintenance and quick intervention

The screenshot displays the SURGYNIQUE ETO SETUP control software interface. At the top, the system title 'ETO_V4_00' is shown alongside PLC status indicators and a 'No events received.' message. The user is identified as '_SystemUser' and the current time is 5:02:57 PM on 11/2/2025. The interface features a sidebar with navigation options: MAIN, PROCESS MAIN, CURVE MAIN, RECIPE VIEW, REPORT MAIN, DATA HISTORY, ALARM MANAGE, SETTINGS MAIN, CALIBRATION, and MAINTENANCE ... The main content area is titled 'ETO SETUP' and is divided into two columns for 'BOTTLE - 1' and 'BOTTLE - 2'. Each bottle section contains input fields for 'Serial Number' (EO bottle serial number), 'Batch Number' (EO bottle batch number), and 'Limit of Use (kg)' (Gas usage limit (kg)). Below these fields are progress bars for 'Bottle-1 Level' and 'Bottle-2 Level', both showing 0.00 kg. At the bottom of each column is a 'Bottle-1 Status Message' and 'Bottle-2 Status Message' field, each with a 'Textbox' input area.

- EO consumption management for uninterrupted sterilization process
- Storage of Bottle information to be used in reports
- Automatic Bottle switch function

Control Software

SURGYNIQUE
ENGINEERING SOLUTIONS

ETO_V4_00 PLC 1 Stat TwinCAT PLC 1 Stat TwinCAT No events received. _SystemUser 9:51:33 AM
11/4/2025

CHAMBER TEMPERATURE C CHAMBER PRESSURE mbar CHAMBER HUMIDITY %Rh **SYSTEM STATUS**

ALARM MANAGE >

SETTINGS MAIN ▾

- GENERAL SETTINGS
- CHAMBER SETTINGS
- EQUIPMENT SETTINGS
- PUMP SETTINGS
- CYCLE SETTINGS
- SAFETY SETTINGS
- SETTINGS SPARE-1
- CALIBRATION
- MAINTENANCE ... >

Sayfa genel açıklaması

	CONTROL	QUALITY	MAINTENANCE	OPERATOR	ADMIN	SYSTEM ADMIN
1	Cycle Start			✓	✓	✓
2	Process	✓	✓	✓	✓	✓
3	Settings		✓		✓	✓
4	Alarms Visualization	✓	✓	✓	✓	✓
5	Alarms Acknowledge				✓	✓
6	Alarms History	✓	✓	✓	✓	✓
7	Cycle Parameters Modification		✓	✓	✓	✓
8	Users Setup				✓	✓
9	Cycle Parameters Viewer	✓	✓	✓	✓	✓
10	Manual Mode		✓	✓	✓	✓
11	Cycle Cancellation			✓	✓	✓
12	End Cycle Validation			✓	✓	✓
13	Printing Of The Last Cycle	✓	✓	✓	✓	✓
14	Transmitters Calibration		✓	✓	✓	✓
15	EO Data			✓	✓	✓
16	Cycle In Progress			✓	✓	✓
17	Exit Runtime			✓	✓	✓
18	Safety Rinsing Parameters				✓	✓

GENERAL SETTINGS CHAMBER SETTINGS EQUIPMENT SETTINGS PUMP SETTINGS CYCLE SETTINGS SAFETY SETTINGS

- Advanced configuration options provide high flexibility and easy customization
- Advanced user control enables flexible management of all levels and settings



SURGYWIND INFRARED

MULTIFILAMENT WINDING & INFRARED STIFFENING MACHINE


*5 times faster than a
conventional heat
stiffening machine.*

SURGYNIQUE
ENGINEERING SOLUTIONS

This device is a cutting edge technology which combines winding, stiffening and cutting operations in a single machine. This unique feature provides excellent productivity and quality for the suture production facilities. It prevents major quality problems caused by human. Thanks to its unique IR heat stiffening system no glue required. And this means huge savings from glue costs. The stiffening system provides excellent dimensional stability which leads to less needle scrap. **The device is 5 times faster than a conventional heat stiffening machine.**

- Servo motor-controlled drive system
- **High Speed Rotary Cutting Blade provides smooth cut**
- **Standard operations ensure the same quality in every suture**
- **No Loctite required.**
- Automatic PLC controlled touch panel User Interface
- Automatic parameter setting according to product time
- Torque adjustable magnetic brake for tension control depending on product type
- Product and operator safety features
- All parts are made of aluminium and stainless steel
- 6 bar work pressure
- Can store production data.
- Industry 4.0 compatibility
- **45 - 50 - 60 - 70- 75 - 90 - 100 - 120 - 150 cm (Any custom size can be added)**

MULTIFILAMENT SUTURES ↘			
PGA	Heat	Wind, Stiff., & Cut	USP 5/0 to 5 *
PGA Rapid (Quick)	Heat	Wind, Stiff., & Cut	USP 5/0 to 5 *
PGLA	Heat	Wind, Stiff., & Cut	USP 5/0 to 5 *
PGLA Rapid (Quick)	Heat	Wind, Stiff., & Cut	USP 5/0 to 5 *
SILK	Glue	Wind, Stiff., & Cut	USP 7/0 to 5 *
UHMWPE	Heat / Glue	Wind, Stiff., & Cut	USP 6/0 to 2 *
POLYESTER	Heat / Glue	Wind, Stiff., & Cut	USP 6/0 to 2 *
MONOFILAMENT SUTURES ↘			
PGCL	N/A	Wind & Cut	USP 6/0 to 2
PDO/PDS	N/A	Wind & Cut	USP 6/0 to 2
PA (Nylon)	N/A	Wind & Cut	USP 6/0 to 2

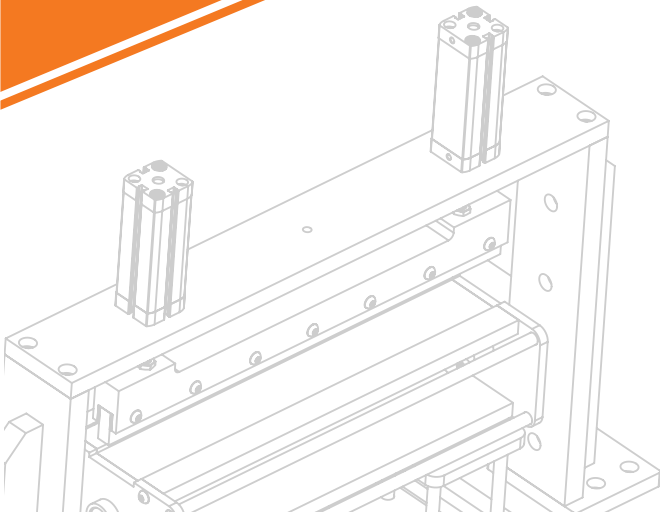


* Multifilament sutures can also be processed in wind & cut mode with glue application in smaller USP sizes like USP 6/0 to USP 8/0.

SURGYWIND GLUE

MULTIFILAMENT WINDING AND STIFFENING MACHINE (GLUE)

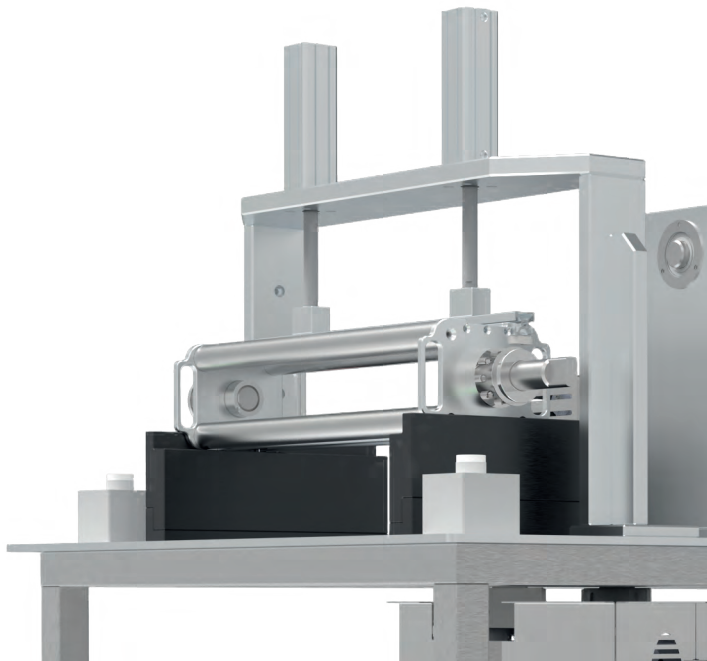
*Low investment cost,
High efficiency*



SURGYNIQUE
ENGINEERING SOLUTIONS

Multifilament Surgical Suture Winding-Glue Stiffening and Cutting Machine; designed and produced by our company. It has low investment cost. The sutures are wended automatically according to the requested number and than stiffened manually with glue by the operator. Then the pulley is transferred manually to cutting station. Cutting station fixes the sutures and the operator cuts the sutures with a rotary blade manually.

- AC motor driven system
- Manual Cutting Station with Manual Cutting Blade
- Automatic PLC controlled touch panel User Interface
- Torque adjustable magnetic brake for tension control depending on product type
- Product and operator safety features
- All parts are made of aluminium and stainless steel
- *45 - 50 - 60 - 70- 75 - 90 - 100 - 120 - 150 cm (Any custom size can be added)*



Automatic Winding- Manual Stiffening & Cutting

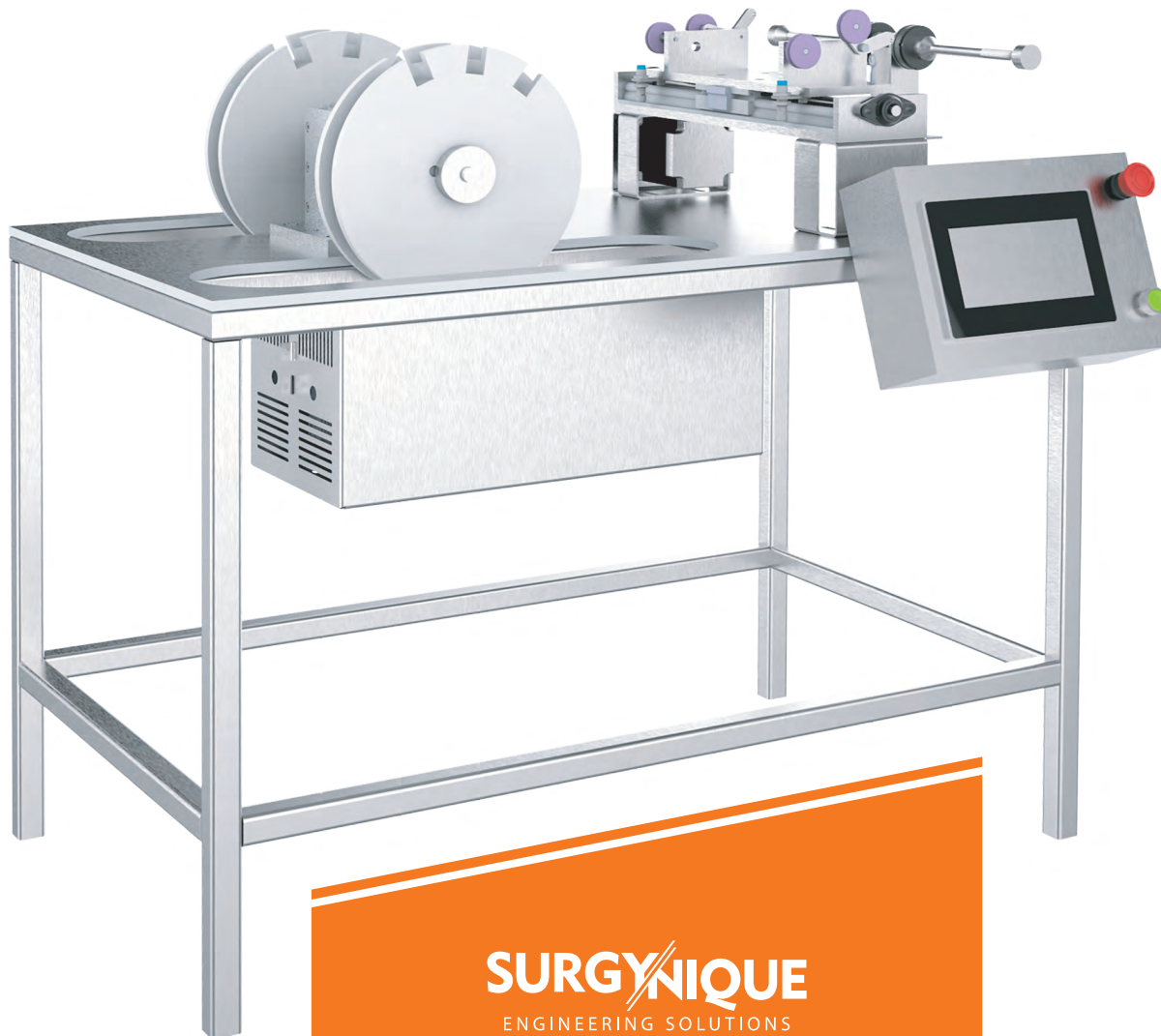
MULTIFILAMENT SUTURES ↘		
PGA	Wind, Stiff with Glue., & Cut	45-150 cm
PGA Rapid (Quick)	Wind, Stiff with Glue., & Cut	45-150 cm
PGLA	Wind, Stiff with Glue., & Cut	45-150 cm
PGLA Rapid (Quick)	Wind, Stiff with Glue., & Cut	45-150 cm
SILK	Wind, Stiff with Glue., & Cut	45-150 cm
UHMWPE	Wind, Stiff with Glue., & Cut	45-150 cm
POLYESTER	Wind, Stiff with Glue., & Cut	45-150 cm

SURGYNIQUE
ENGINEERING SOLUTIONS

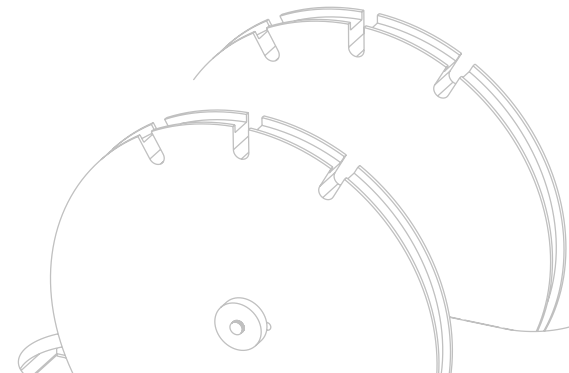
SURGYWIND MONO

MONOFILAMENT WINDING AND CUTTING MACHINE

Easy to use & double capacity

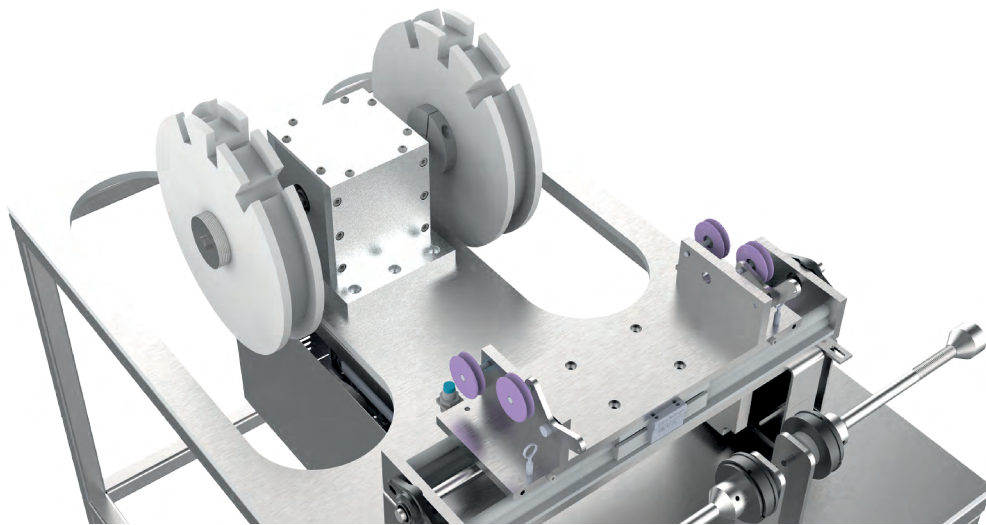
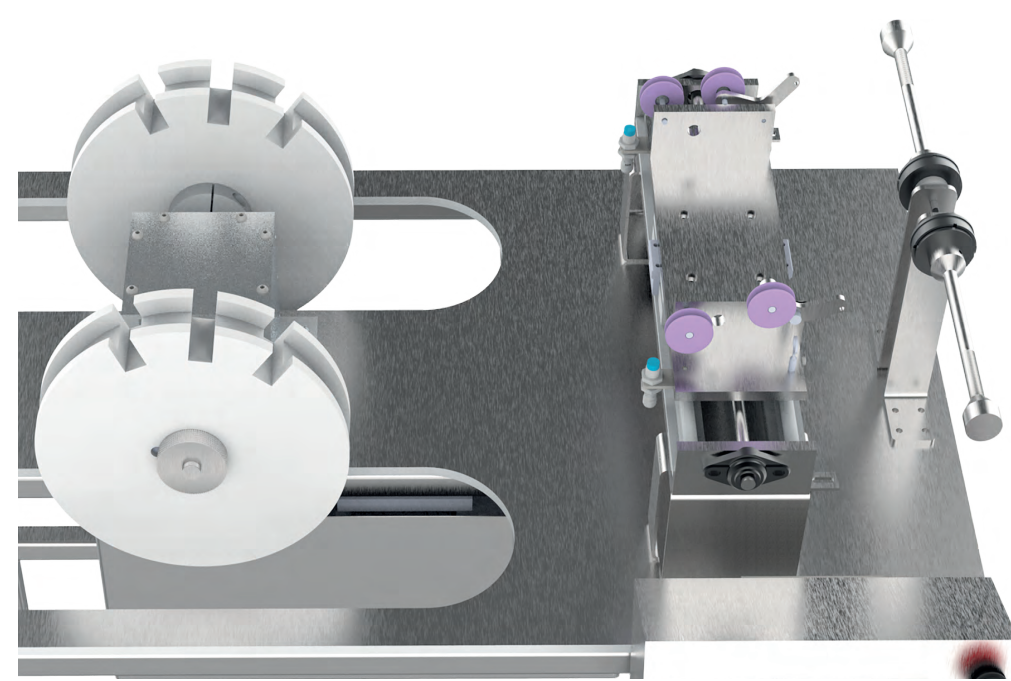


SURGYNIQUE
ENGINEERING SOLUTIONS



Monofilament Winding and Cutting Machine is low cost and effective cut-to-length machine which helps to operator to cut monofilament sutures to desired length. It has unique double pulley system which enables the opportunity to increase cutting speed. The device can also be used in multifilament sutures which does not require stiffening. The required quantity can be adjusted from the user friendly touch panel interface. The delicate tension control provides good length stability which crucial especially in lower diameters.

- AC motor driven system
- Double pulley system allows to increase capacity.
- Manual Cutting Groove for Scissors
- Automatic PLC controlled touch panel User Interface
- Torque adjustable magnetic brake for tension control depending on product type
- Product and operator safety features
- All parts are made of aluminum and stainless steel



SUTURES ↘

PGA (W/O needle)	Wind, & Cut	USP 6/0 to 7
PGLA (W/O needle)	Wind, & Cut	USP 6/0 to 7
PGAR (W/O needle)	Wind, & Cut	USP 6/0 to 7
PGLAR (W/O needle)	Wind, & Cut	USP 6/0 to 7
PGCL	Wind, & Cut	USP 6/0 to 7
PDO	Wind, & Cut	USP 6/0 to 7
PP	Wind, & Cut	USP 6/0 to 7
PA	Wind, & Cut	USP 6/0 to 7
SILK(W/O needle)	Wind, & Cut	USP 6/0 to 7
UHMWPE	Wind, & Cut	USP 6/0 to 7

SURGYNIQUE
ENGINEERING SOLUTIONS

SURGYDRY

DRY CABINETS

Keep your products dry.



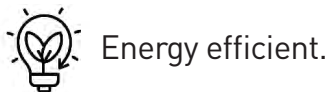
SURGYNIQUE
ENGINEERING SOLUTIONS

SURGYDRY Dry Cabinets are specifically designed to store absorbable surgical sutures under controlled low-humidity conditions. Maintaining such an environment is essential to preserve the physical and mechanical properties of both unfinished and finished sutures, ensuring that their original performance characteristics are retained throughout their shelf life.

These cabinets employ a desiccant-based drying system integrated with a sophisticated electronic control unit for precise and reliable moisture regulation. The system is capable of reducing the ambient humidity to below 1% RH in a very short time, providing exceptional protection for moisture-sensitive materials at all times.

The self-regenerating drying units operate automatically, eliminating the need for external nitrogen or dry-air supplies, which significantly reduces operational costs. Furthermore, the cabinets feature an intuitive and user-friendly interface that allows continuous monitoring of internal conditions. All system parameters and historical data can be logged, stored, and easily exported for quality control and traceability purposes.

SURGYDRY Dry Cabinets are available in two size configurations: 1500 liters and 735 liters. The modular shelving system, supported by slotted rails, allows adjustable shelf heights to accommodate different product sizes and packaging formats.



Energy efficient.



Racks can be customized.



Can be adjusted up to 1 RH.



Different Sizes are available.

SURGYBOX

GLOVE BOX

**Safe and Easy Operation in
Low Humidity Environment**





Easy and safe use with disposable gloves.

The application of glove boxes in the medical device industry can vary depending on the specific requirements of the manufacturing or research processes. Here are some more specific applications of glove boxes in the medical device industry :

Cleanroom Operations, Assembly and Packaging, Testing and Quality Control, Biocompatibility Testing, Material Handling and Processing, Research and Development

These are just a few examples of the applications of glove boxes in the medical device industry. The specific usage will depend on the requirements of the particular device being manufactured, tested, or researched, as well as the need for maintaining sterility, controlling environmental conditions, and ensuring operator safety.

- High Energy Efficiency
- No need for nitrogen, provides rapid drying with the aid of internal drying unit
- Environment humidity adjustable up to 1 RH
- Adjustable and customizable compartment size and number
- Different sizes and capacities available
- Material input compartment option

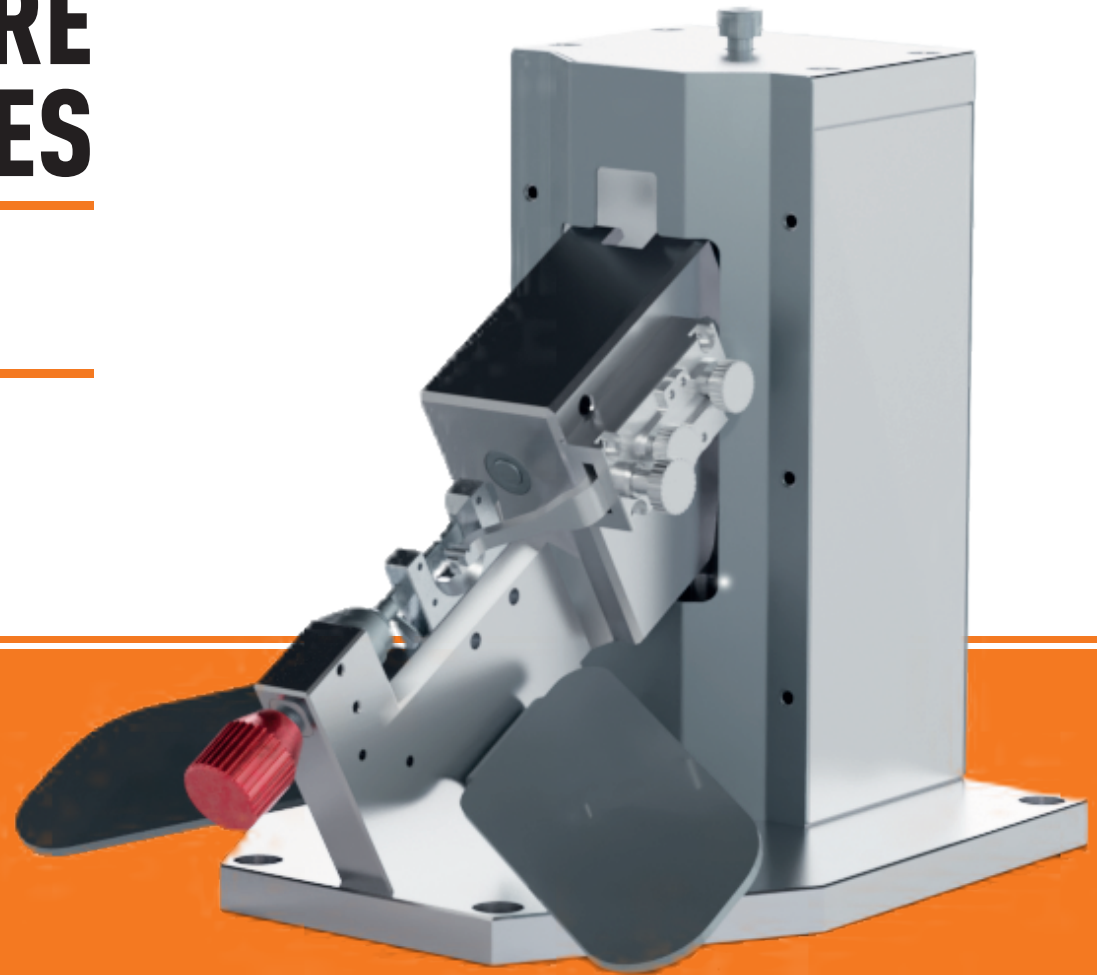
SURGYBOX ↘	Number of Dryers	Number of Operators to Work Simultaneously
Single Compartment	1	1
Double Compartment	2	2
Triple Compartment	2	3

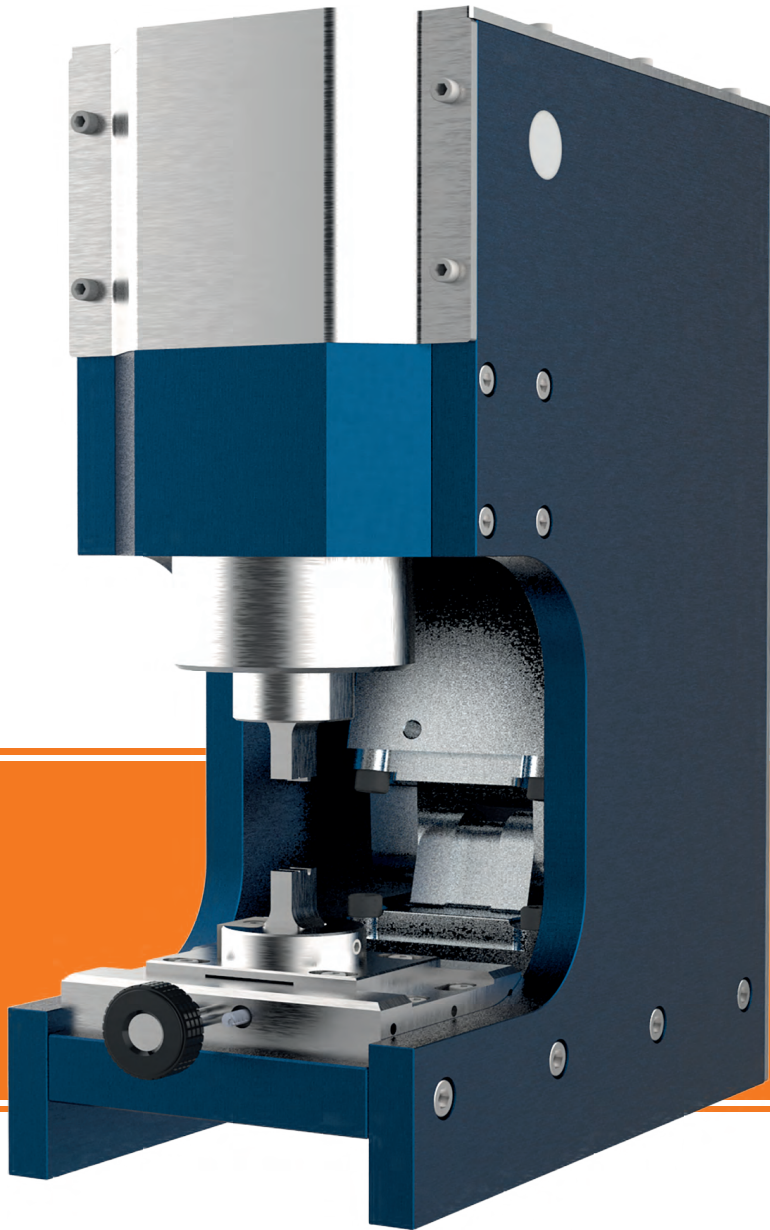
SURGYCRIMP

DRILLED END SUTURE CRIMPING MACHINES

*Precise crimping,
no worries.*

- Precise attachment operation
- Manual and Pneumatic actuation options
- Precise pressure adjustment knob
 - V-Guide option





SURGYCRIMP CHANNEL

CHANNEL TYPE NEEDLE CRIMPING MACHINE

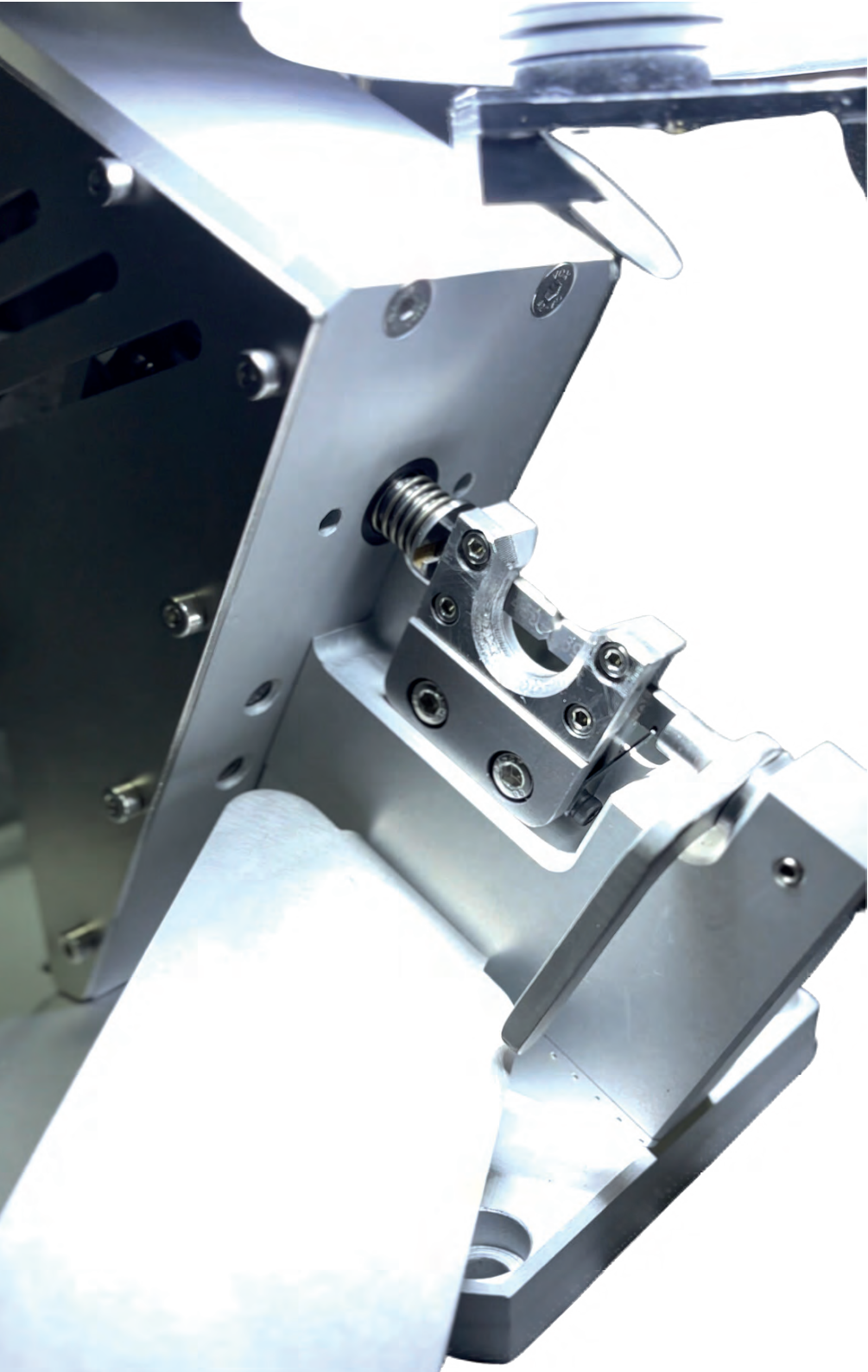
*Reliable crimping for all sizes of
Channel type needles.*

- Precise attachment operation
- Manual and Pneumatic actuation options
- Precise pressure adjustment knob
 - V-Guide option

SURGYCRIMP MICRO
OPHTHALMIC AND
MICRO NEEDLE
CRIMPING
MACHINE



3D Vision, comfortable operators,
more productivity in micro sutures.



Attaching small USP sutures to micro needles is a difficult job. Conventional Microscopes are lacking depth feeling and the Eye Piece might be very uncomfortable for the operator. This leads to fatigue of the operator and eventually the operator makes mistakes and has to take a break. The 3D microscope in this product provides excellent view of the attaching area and a lot of comfort to operator. The operator does not tire out and easily attaches the needle to the suture. The angle of view can easily be adjusted and for the operator and can see the attaching are clearly with the aid of TFT screen.

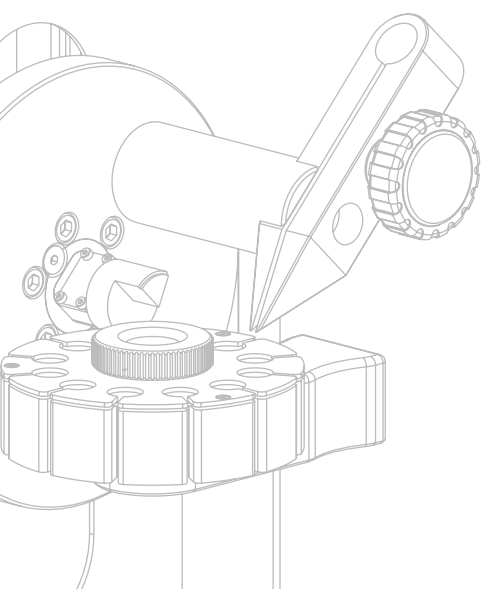
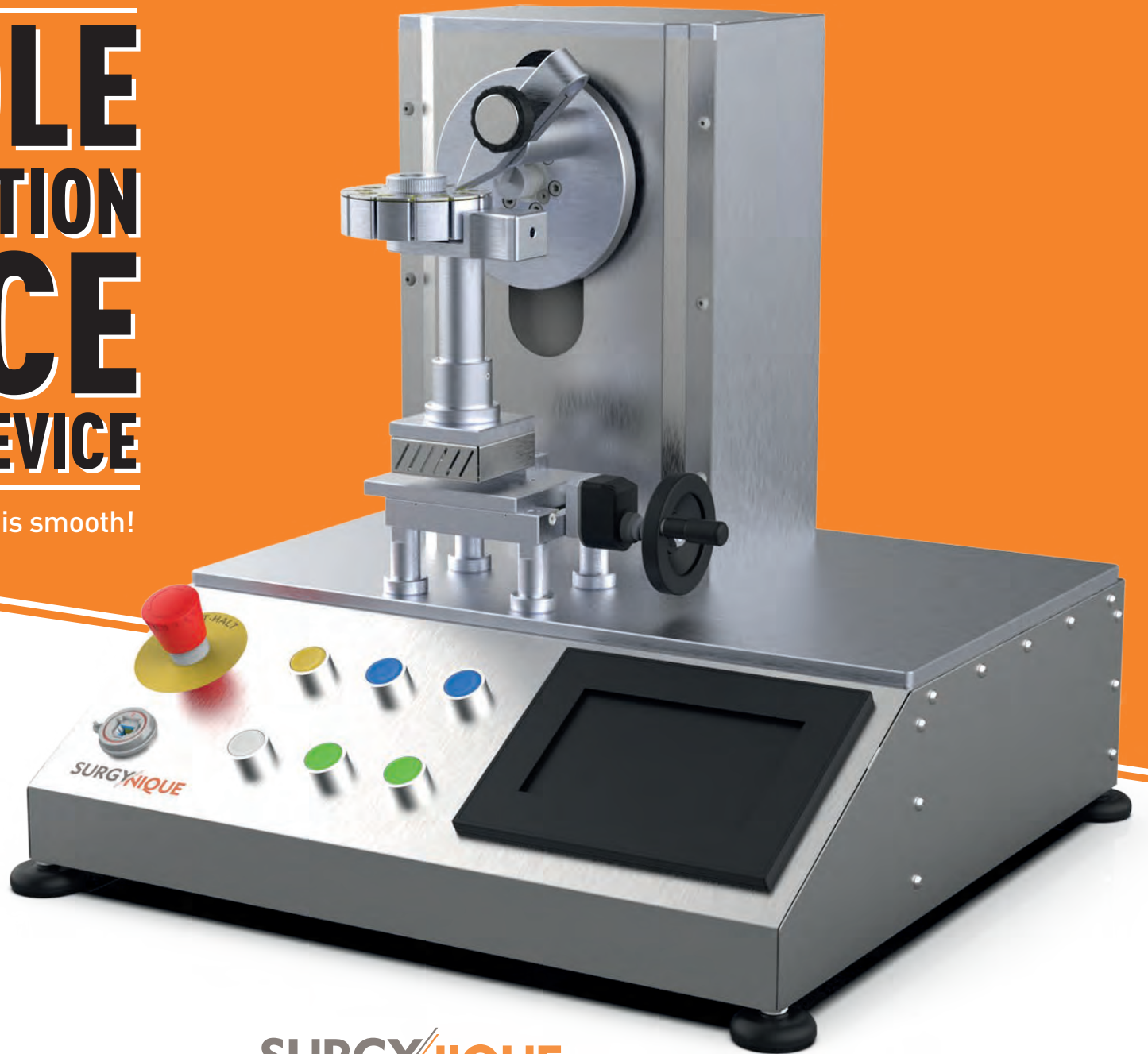
- 100 X optical zoom
- Great 3D view enables easy assembly
- Does not tire out the operator
- Low scrap rates



SURGYFORCE

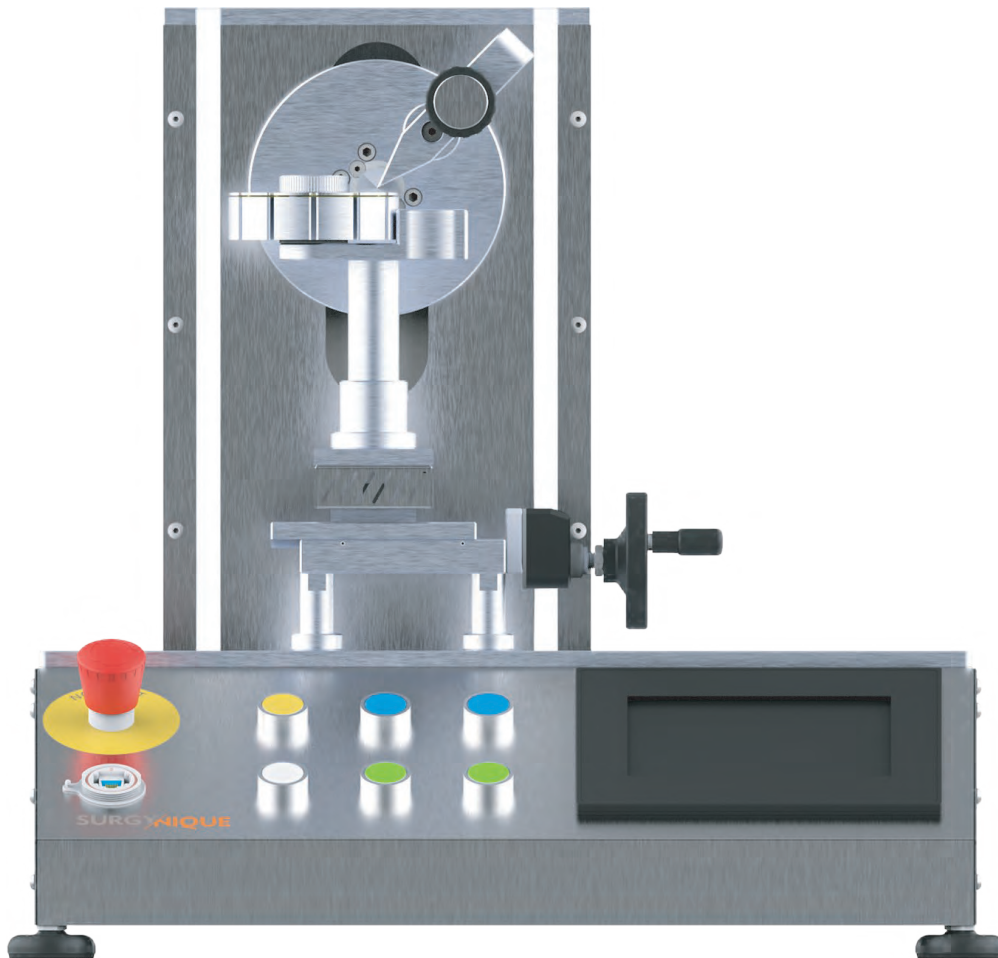
NEEDLE PENETRATION FORCE TESTING DEVICE

Be sure that every pass is smooth!



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ENGINEERING SOLUTIONS

The most important features expected from surgical needles are that they maintain their sharpness during the surgical operation and that the lubricating coating on it preserves its properties throughout the ongoing procedures. During each stitching application, the losses in the sharpness of the needle and the lubricant coating affect the penetration performance and cause undesirable results during the operation. An ideal needle is expected to maintain its performance for at least 10 stitches.



Surgynique needle testing system offers a unique user experience with its unique design and superior features. The system, which allows the testing of curved and straight needles, can perform penetration and bending tests. Penetration test is carried out according to ASTM F3014 standard. The bending test is carried out according to the ASTM F1874 standard.

The touch screen controlled device offers the opportunity to follow the test results on the screen. In addition, the system-integrated test software enables processes such as reporting of tests and comparison.

FEATURES

- Maximum Angular Displacement: 140°
- Minimum Angular Velocity: 0,06 °/sn
- Maximum Angular Velocity: 100 °/sn
- Allowed Curved Needle Length: 3/8 (6 mm – 75 mm) -- 1/2 (8 mm – 100 mm) // R 2,55 – R 31,83 mm (radius)
- Allowed Straight Needle Length: 31g - 14g
- Test Magazine for 12 consequent tests
- PLC and PC controlled System
- Computer software to monitor, compare and save results.

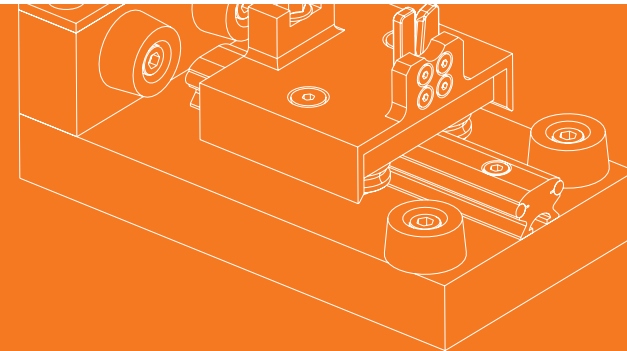
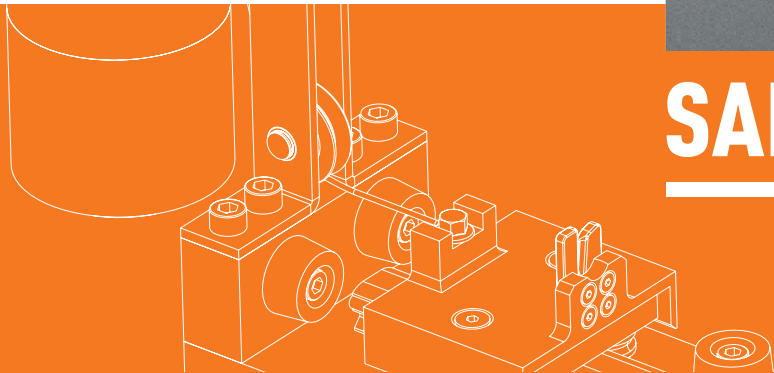
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SURGYPULL

SUTURE PULL TESTERS



SAFE IN EVERY PULL



Surgynique Pull Tester works with dead weights which are provided according to USP standards. The system can easily be validated with dynamometer. The low friction linear guides prevents exceeding forces. The system has a very smooth universal jaw system in order to prevent damage in the sutures. With the aid of low additional forces, the system helps to decrease the scrap rates in the testing process.

- Internal weight set
- Weight set: 2x5gr - 2x10gr - 2X20 gr - 1X50 gr - 1X100 gr - 2X200 gr - 1X500 gr - 1X1000 gr
- Perfectly suitable for all kinds of needle and surgical threads, due to its universal smooth jaw structure.
- Special jaw desing that doesn't damage the surgical suture.,
- All parts are made of aluminium and stainless steel

TECHNICAL DETAILS:

Compatible Surgical Sutures:

PGA - PGLA - PGAR- PGLAR- PGCL - PDO - PP - PA - SILK - UHMWPE - PTFE

Compatible Sizes:

USP 6/0 - 5/0 - 4/0 - 3/0 - 2/0 - 0 - 1 - 2 - 3 - 4 - 5 - 6 - 7



SURGYTEST

TENSILE TESTER

- Automatic stop in case of breakage or exceeding distance
- Robust and reliable construction that does not require special maintenance
- Colored touch screen
- Emergency stop button
- PC Software to visualize graphs, compare and save data
- 2-column, 1-screw system, single body
- Sensitivity: $\pm 0.5\%$.
- In tensile tests, the direction of movement is upwards
- Operating voltage: 220 VAC, 50 Hz
- Electrical Power: max. 1500W
- Force unit: Adjustable

Measure every Detail Easily

- Pneumatically actuated locking system.
- Optional pouch peeling force testing system with a quick-change mechanism.

The device is used to precisely measure the breaking strength of surgical threads, medical packaging, material samples. Thanks to the touch screen on it, it allows to follow the numerical values instantly, transfer them to the PC environment and create a test report. Product tests such as opening/closing, breaking, tearing, compression, breaking, stretching, permanent deformation, puncture, bending, radial loading can be easily performed with this device



SURGYLEAK

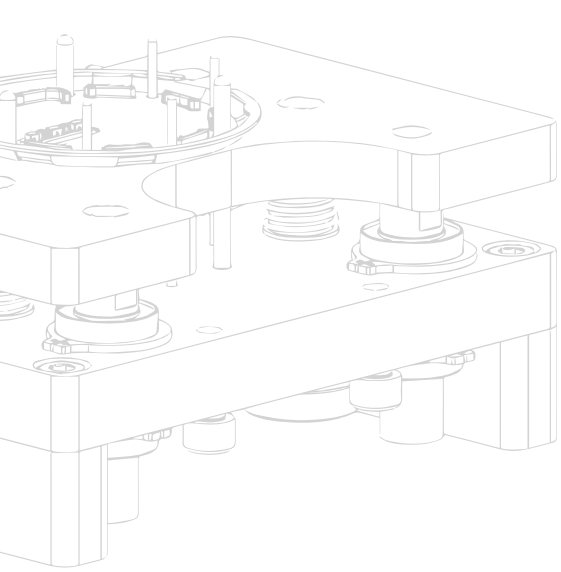
LEAK TEST MACHINE

Make sure every puch is SAFE !



Surgynique Leak Tester is non destructive leak test machine allows you to test your sterile or non sterile Aluminum pouches. System has high precision laser sensors to check for any faults causing the failures in pouches. This unique machine prevents you to detect faulty packages with pin holes or badly sealed sides. Beautiful LED indication lights helps the operators to clearly easily identify the faulty ones.

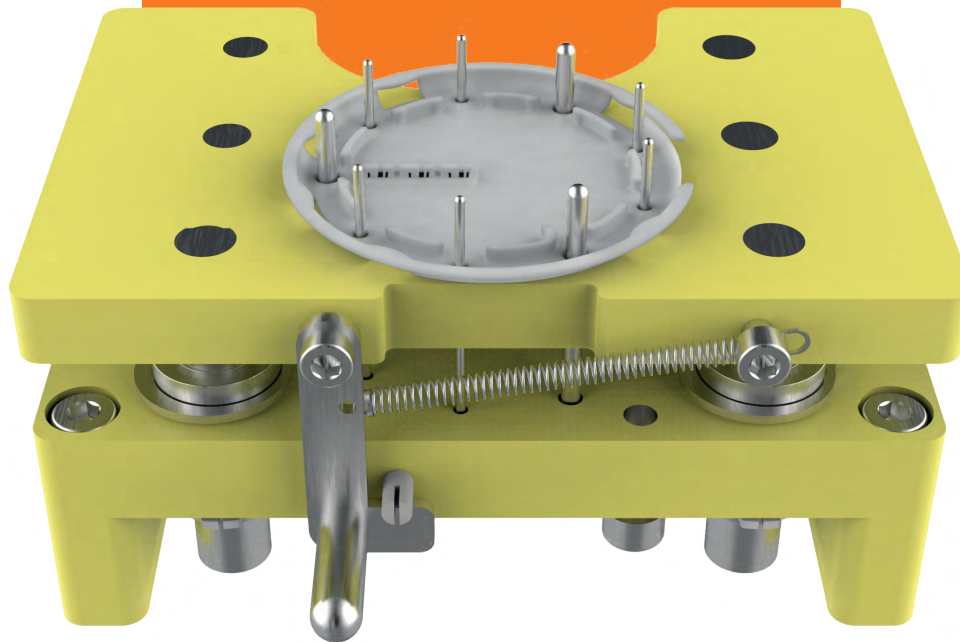
- Dimensions : 500 x 454 x 320 mm
- Applicable pouches: Aluminum Only Tearable or Peelable Pouches
- Supply Voltage: 220 VAC
- Size Options: 4 pouches, 6 pouches
- Calibration Modes: Automatic self calibrating and Manual Calibration Modes



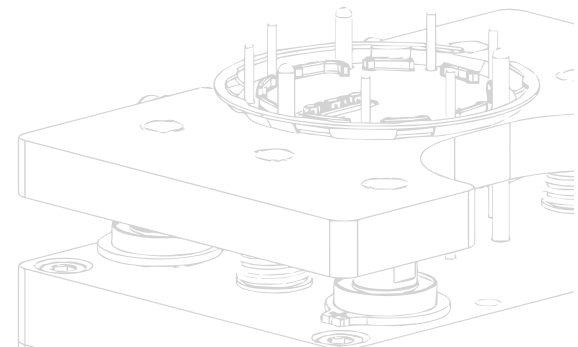
SURGYTRAY SET

BARBED SUTURE WINDING SET

Compatible with plastic trays for barbed sutures
Spring lock system for winding position
User friendly operation
Plastic tray can be supplied
Portable



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SURGYCARD SET

SUTURE CARD MANUAL WINDING SET

Compatible with suture cards surgical sutures
Spring system for fast loading and unloading position

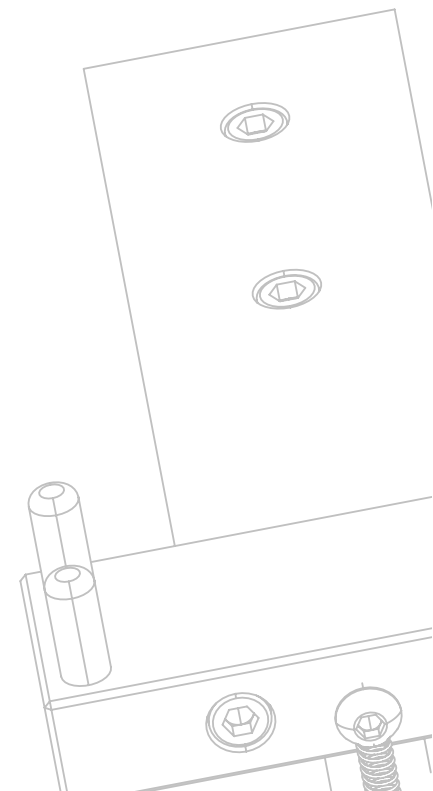
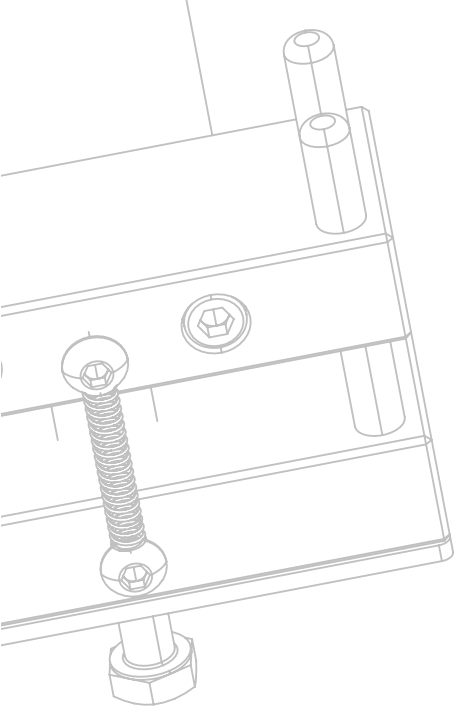
User friendly operation

Low cost

Portable



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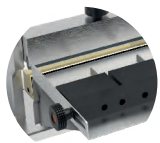
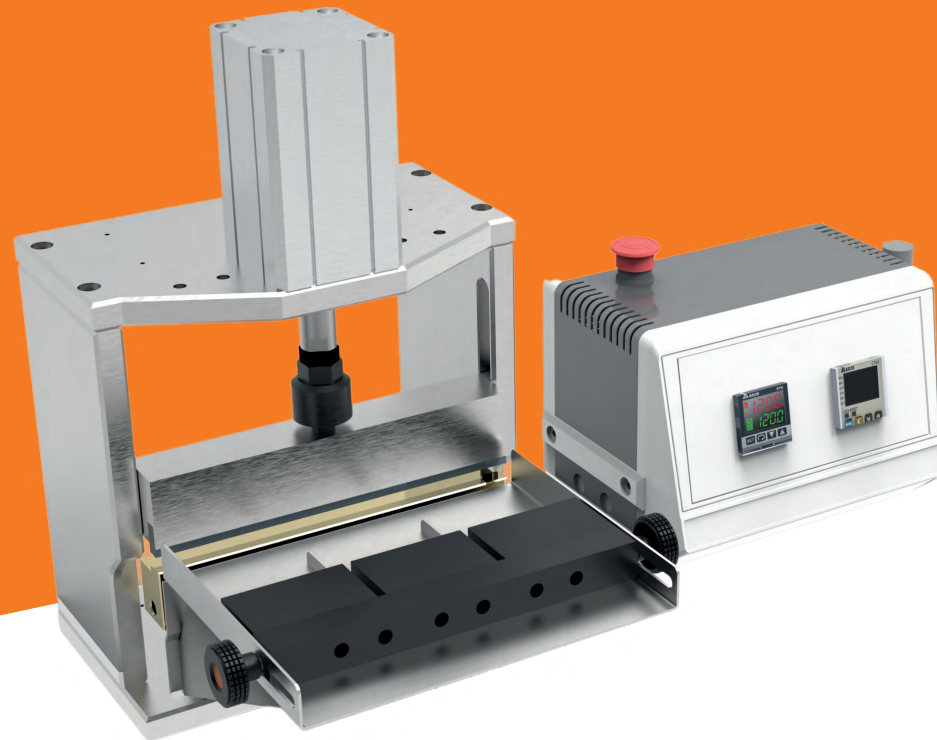
SURGYSEAL

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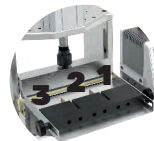
BAR SEALER

The device is compatible with the following products:

- Aluminum Pouches
- Aluminum pouch inside medical pouches
- Medical Pouches
- Tyvek Pouches



Easy operation and adjustment



Sealing 3 pouch at the same time



Customizable design for different size of pouches

Safest way of Sealing

SURGYSEAL-BAR SEALER is a temperature, pressure and time-controlled pouch end sealing machine, specifically designed to seal medical device packaging. The system works with pressurized air and electrical supply. The machine provides perfect sealing especially in Aluminum pouches, Tyvek pouches and other medical device pouches.

SUTURE CARD AUTONOMOUS PRINTING SYSTEMS

- 15 prints/minute capacity
- Automatic feeder and conveyour
- Servo controlled positioning.
- Maximum card width: 300 mm (W) x 320 mm (L)
- Minimum card width: 100mm (G) x 100mm (L)
- Power: 220V 50Hz - 1.5A
- Weight: 14 Kg.

Fast and high quality printing for your suture cards

Suture Card printing is one of the critical operations in Suture Manufacturing process. The variety of the products is so much that most of the companies can not handle to get and stock suture cards preprinted. The autonomous printing system effectively solves the problem. With the aid of its feeder and conveyour system, it can rapidly print Suture Cards according to the given design. The tolerance of positioning system is precise enough to print the design onto the card precisely.

The speed of the conveyor and feeder is adjustable and number of target prints can easily be defined. The thermal transfer printhead can make perfectly good prints and the size of the printhead is up to customers Suture Card size.

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The Future is health, Future is us.

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**SUTURE
PRODUCTION
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CATALOGUE**