Sterilmed®
TIBBİ CİHAZLAR

STEAM STERILIZER
LOW TEMPERATURE STERILIZER

Sterilmed Medical

ElektrikElektronikOtom.İnş.GıdaSan.veDışTic.Ltd.Şti.

About us

Sterilmed Medical was established in 2009 in Ankara to proved services in the medical device sector. It has aimed advancement since the day of its establishment by also taking growth and compliance with the contemporary technologies and protecting the environmental conditions.

Our Firm is following the innovations in its sector and in abroad through its research and development unit and its application staff with a strong infrastructure of engineers, and is continuing to produce devices it had developed in computer environment based on such innovations with high technology and to contribute their development so as to be most beneficial for the Turkish medicine.

With this purpose, our Firm is strictly following the “Quality Management” principles and rules from design of the products to the after sale servicing.

Our Firm has been currently certificated for compliance with ISO 9001 quality management system, ISO 13485 medical device quality management system certificate and ISO 14001 environment management system certificate and with product certificates under MDD 93/42/EEC Medical Devices Directive and PED 97/23/EEC Pressurized Equipment certificate. Furthermore, our steam sterilizers and washing disinfection devices have been certificated by the UK accredited body.

Our Firm is successfully implementing several projects supported by National organizations.

Sterilmed Medical has been awarded with the following:
Our Firm possesses the following certificates;

CE Certificates under the following directives:
ISO 9001,
ISO 13485,
ISO 14001 Quality Management System,
MDD 93/42/EEC Medical Devices Directive,
PED 97/23/EEC Pressure Equipment Directive

Our Vision

To make the Serilmed brand a global brand to make our Firm remembered first in the sector.

Our Mission

Our main task is to create designs with competition power in the global sense by taking the priorities of the sector into consideration and being respectful to the environment and people and giving the first priority to the wishes and expectations of customers, and also to produce innovative technological medical products by meeting all the national and international legal requirements.

Our Basic Values

We are bound up with the Medical Ethical Rules,

We are people-oriented,

We respect environment,

We are creative,

We are customer-oriented,

We are innovative,

We are pro-active,

We believe in the team spirit.

Steam Sterilizers

Sterilmed Medical SMA and SMB series steam sterilizers are able to sterilize all materials that are heat and moisture resistant, packaged and unpatterned, which can be sterilized by pressurized saturated steam.

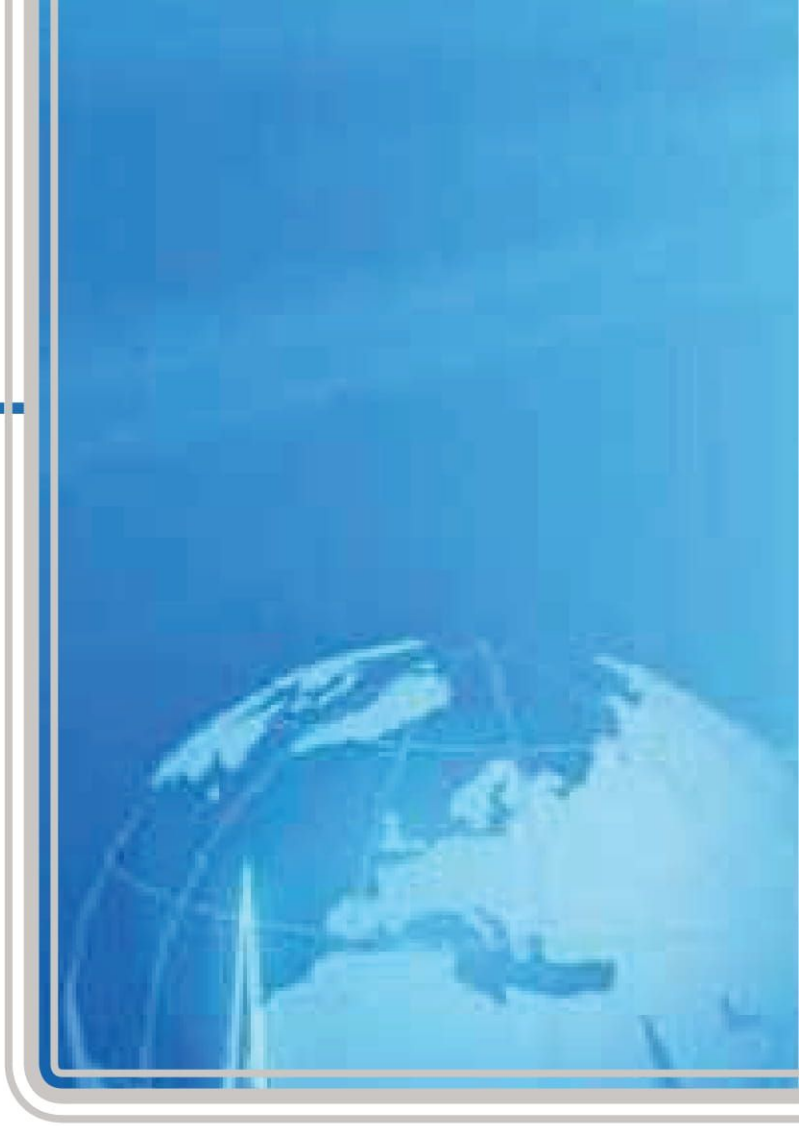
General Features

Materials :Sterilization chamber, jacket, generator AISI 316L chamber 6mm.
Jacket and generator Min. 3mm.
Doors :AISI 304 L or 316L 10 mm.
Inner surface chamber cleanning against collosion danger; Glass shered sandblasting or elektropolisaj method.
Outer covering:AISI 304L or 316 L
Gasket channel monoblock groove and cover hinge-pin bracket, minimum thickness 50 mm AISI 304L or 316L stainless steel.

Usage areas:

- Operating theaters and laboratories of hospitals,
- Universities are required to attend faculties of science,
- Veterinary medicine, agriculture, dentistry and pharmacy,
- Medical waste treatment plants,
- Microbiology and research laboratories of industrial establishments
- Food, medicine, cosmetics etc.

Cover and Safety System



Implemented Quality Management System, Standards and Directives:

- ISO 9001: 2008
- ISO 13485:2003
- EN ISO 14971:2012
- MDD 93/42AT
- EN 61010-1
- EN 285+A2
- EN 61010-2-040
- 2014/68/EU
- EN 62366

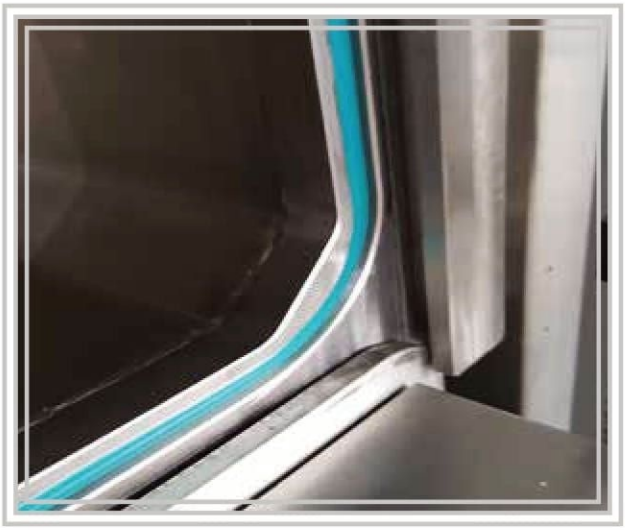
Steam Generator

Door and Safety System

The door is resistant to extreme pressure.

Heat insulation materials needed for heat losses are covered.

The movement of the door is a vertical axis (down-up) and it works extremely quietly with the pneumatic system.



When the door is closed, there is a safety system that prevents any hands injuring and allows the door to move in the opposite direction. Pressure and vacuum sealing of the door is provided by silicon based seal which is resistant to the temperature of the device and door sealing is provided by applying vapor pressure to the gasket channel.

The door sealing gasket can be easily replaced without having to remove any part of the device and the gasket is a maintenance-free type. The door seal's replacement time is automatically displayed on the 7 "video graphic touch screen LCD. In addition, the sterilization room can not open the door without the pressure of the press.
On both sides it is equipped with mechanical control manometers for pressure visualization and LCD screens.

Easy loading and unloading operations are carried out with the door which leaves the whole of the sterilization chamber of rectangular shape prism open. In addition, with the safety system preventing sudden opening of the door, the door is prevented from operating without closing the door.

Control Panel

Full automatic, micropocessor controlled with PLC

Visual, written and audio warning system monitoring

Preasure error (vacum), steam error (heat)

Power cut (audio and visula warning)

UPS or Batery System

Alarms: power failure, low/high temperature, sterilization cycle failure

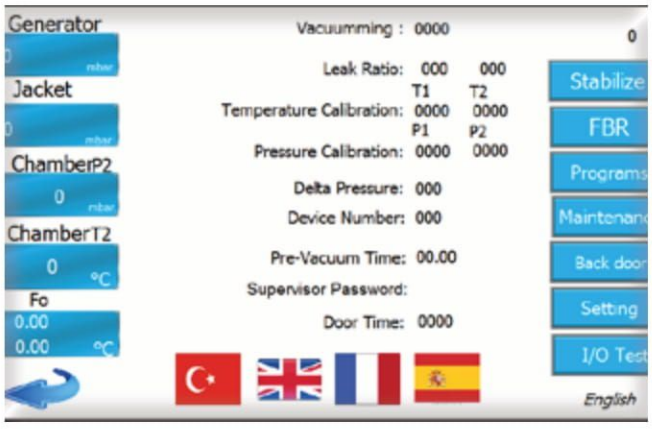
Otherheating temperature protection

Programme name and number
Sterilization phases and graphics
Chamber, jacket, generator pressures
Chamber temperature
Total sterilization time and remaining time
Sterilization preasure and heat measurements
Sterilization counter
Sterilization steps
Errors and cause of error
Full automatic, PLC control
Optional remote access via ethernet
USB port RS232 /RS485 ETHERNET module
Emergency stop button rotary Switch 2 Positions with lock

PLC Micro computer

Programme Phases

Touch Panel USB and Ethernet



Languages: English, Russian, Romanian

The device can be started manually after the password is entered
Manual Vaccum, Steam, Air etc..

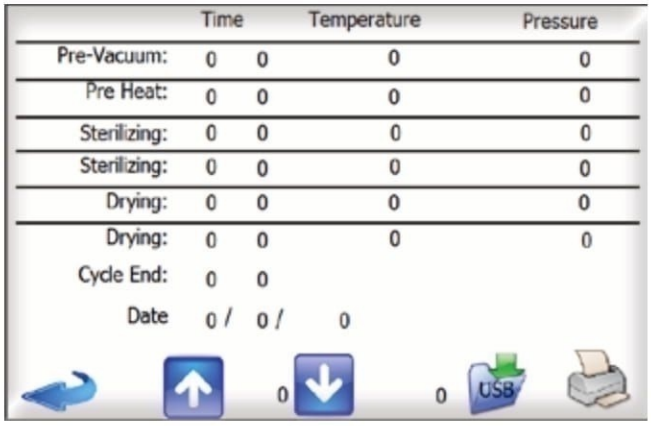
All pressure and temperature values can be seen from touch panel

Touch Panel and Software

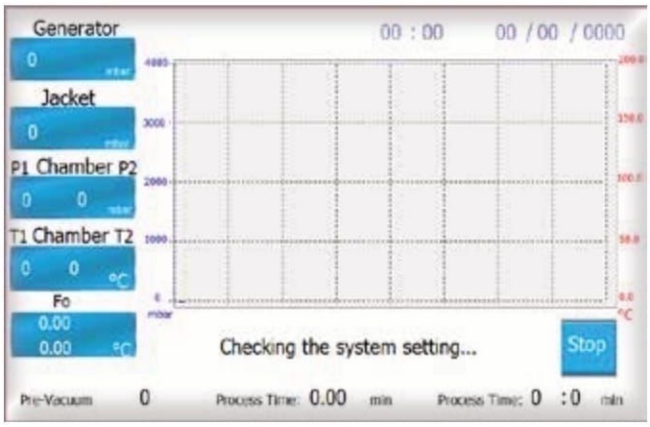
- ❊ Date-time
  The name and the name of the program being run
  Pre-vacuum time and phase number
- ❊ Preheating temperature
  Sterilization chamber temperature
  Sterilization chamber pressure
  Sterilization time
- ❊ Drying time
  Error messages that may occur in the system
  Date, time and total time information at the end of the sterilization process
  User signature repository at the end of the process.
  System diagnostic and testing program

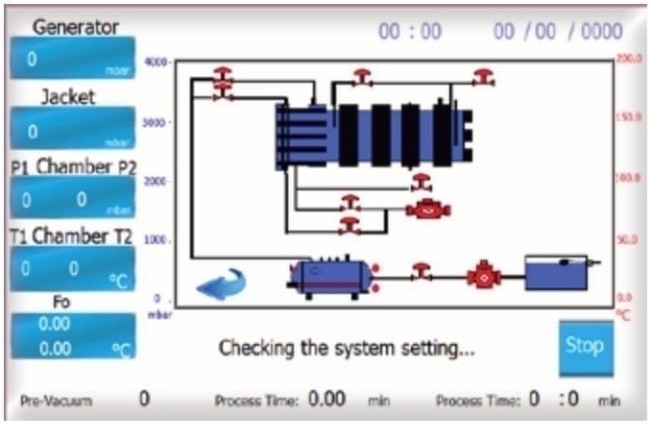
Settings are selected from the main menu.

Touch Panel Save Programme Data

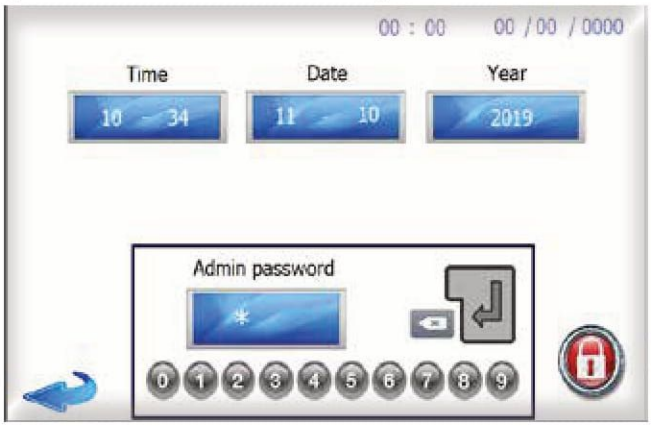


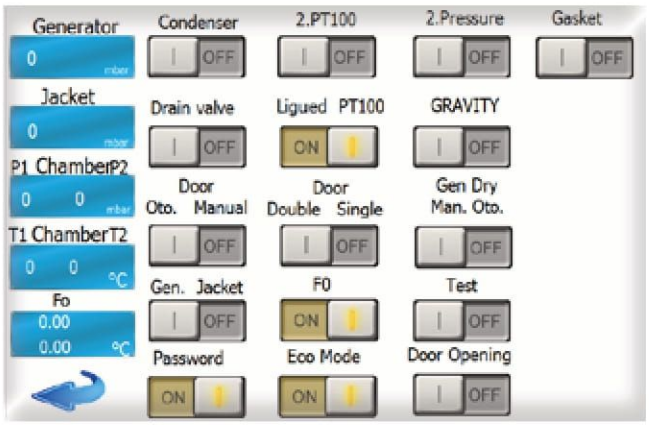
Touch Panel Sterilization Graph

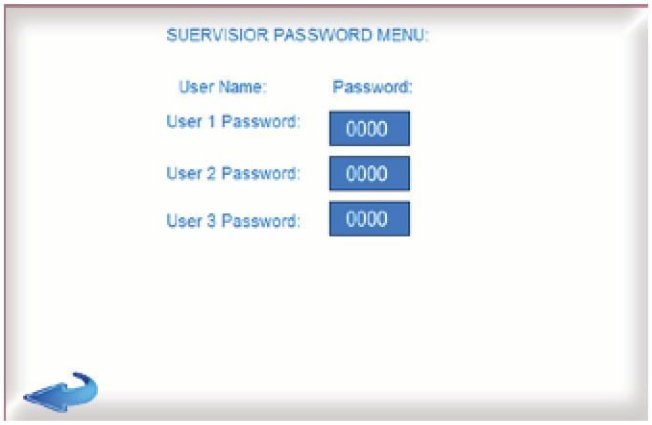


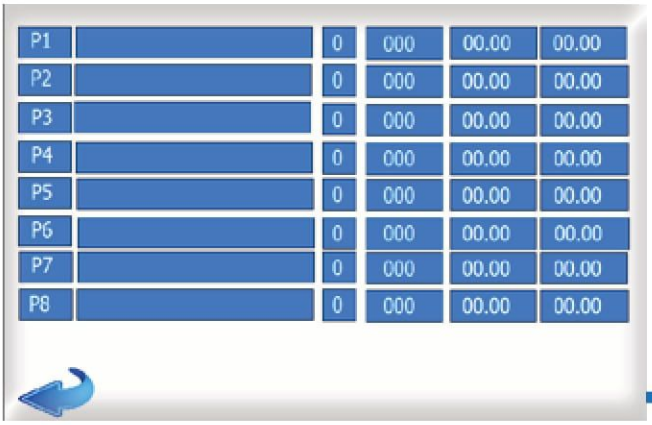


Time date settings can be made Password is entered from the password menu.
(password for manual use)



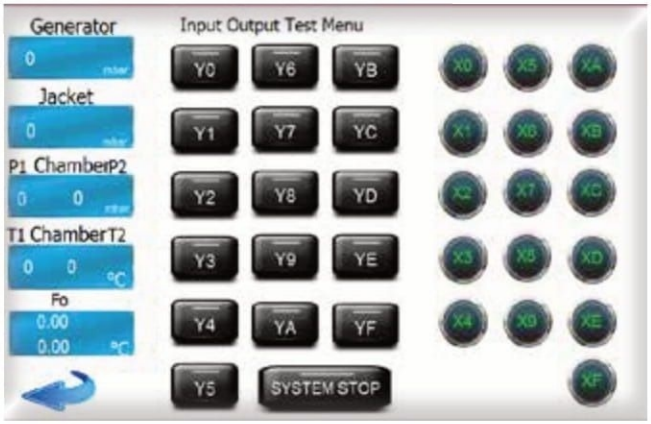






Technical Details

Preasure measurement:
-1.0...+5 Bar (±0.001 bar)
Temperature measurement:
0°C.... 150°C(±0.1 °C)
Sterilization time 0.... 120min.(± 1min.)
Visual, written and audio warning system monitoring Preasure error (vacum)
Generator overheating protection, steam error (heat)
Power cut (audio and visula warning)
Ability to watch the programme phases on computer
Data recording of work done.



121 °C rubber,
121 °C liquid,
134 °C solid,
134 °C textile,
Bowie & Dick Test,
Leakage test,
Optional programming,
Ability to add user programme,
Ability to see all preasure and heat sensors on
Programme and calibration,
Sleep mode and power saving mode,
Automatic start upon user preference.

Pressure Sensor

Temperature Sensor

Thermal Printer

The thermal type printer located in the control unit is supplied with the following values as the cast:

- Data
- Sterilization Time for each cycle
- Sterilization Pressure for each cycle
- Sterilization Temperature
- Sterilization program
- Bar-code
- USER name

Technical Details

Water pump : Imported 0.75 hp pipe part 304L or 316L stainless steel

Steam installment pipes : 304L or 316L stainless steel

Water installment pipes : 304L or 316L stainless steel

Air installment pipes : 304L or 316L stainless steel

Vacuum pump : Imported flow speed 2900 cycle/minute

The discharge of the device is by the heat exchanger system.

Optional materials : Stainless steel trolley

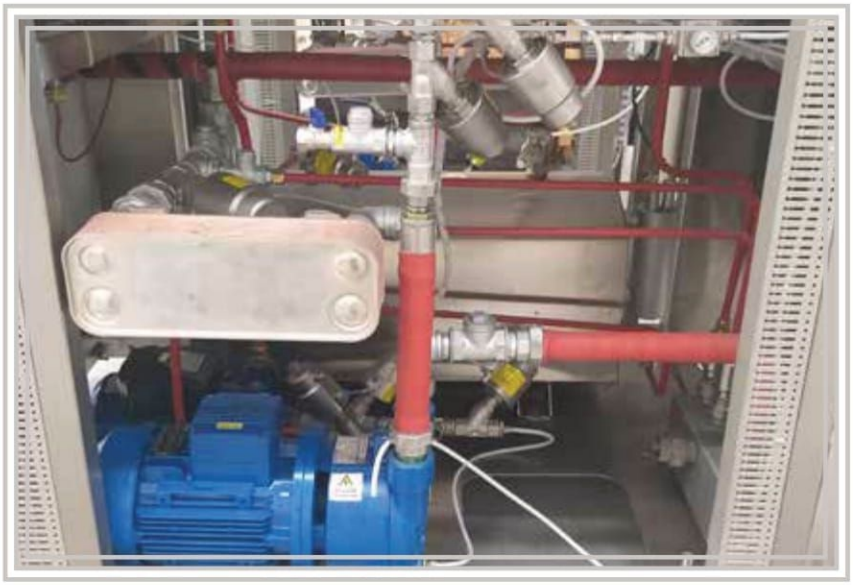
Stainless steel loading trolley

Software controlled water saving system

Water Pump

Heat Exchanger

Vacuum Pump



Steam installation view

All Components Of Steam Installment Are 304 or 316 L Stainless Steel

Steam Trap

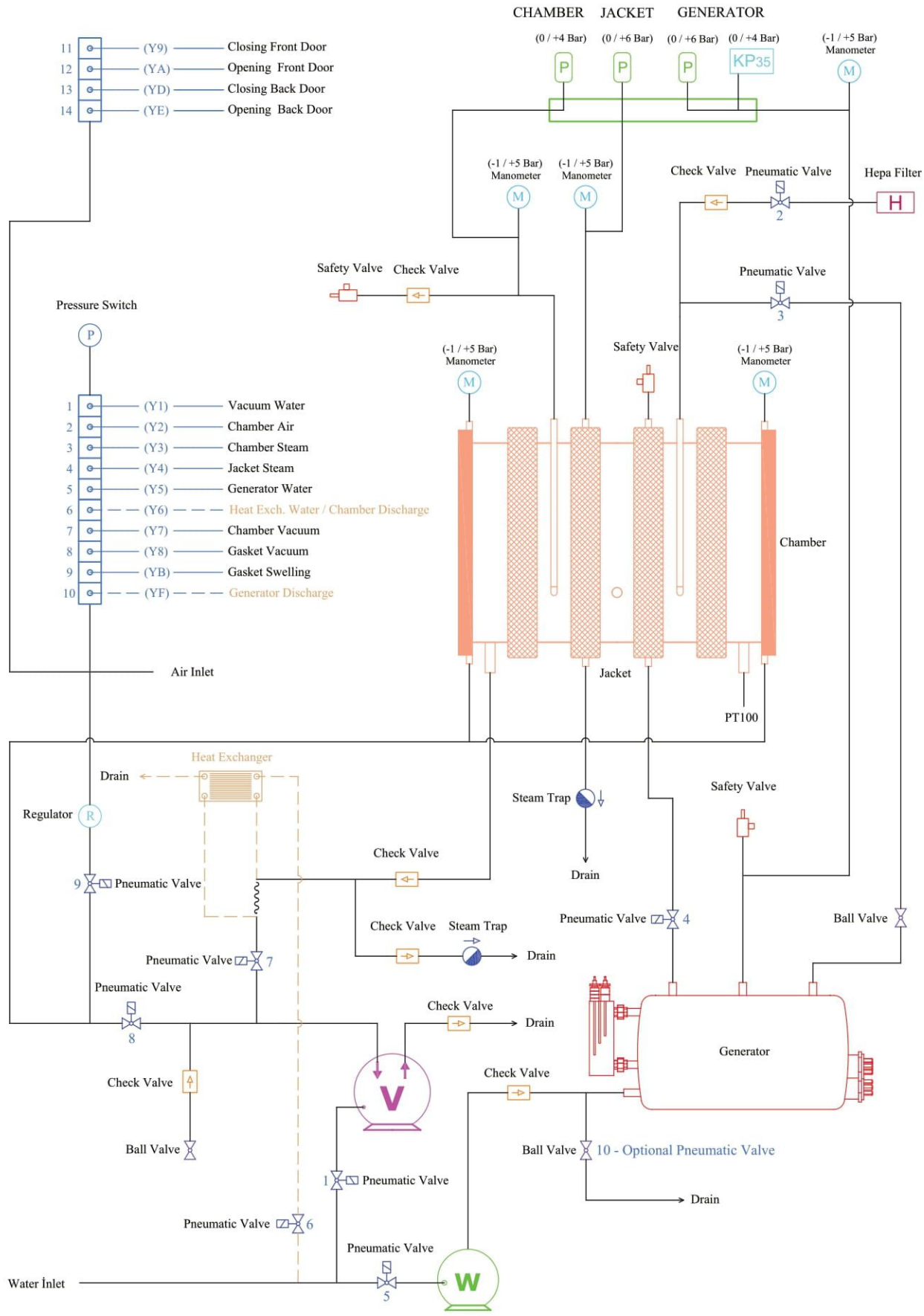
Hepa Filter

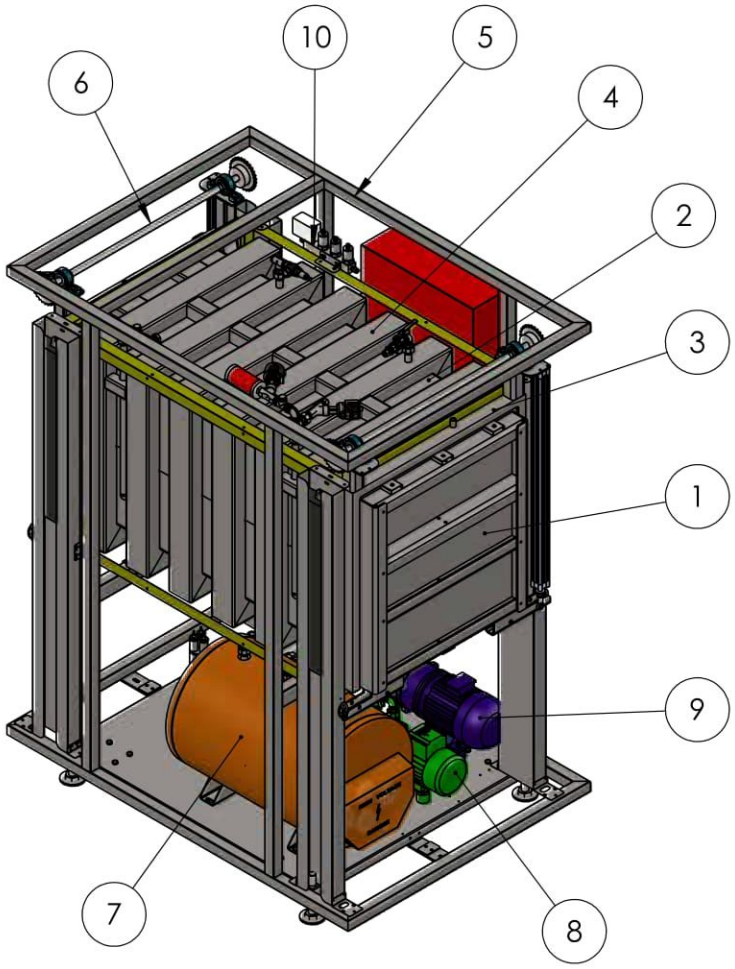
Pneumatic solenoid valve : Imported 304L or 316L stainless steel
Steam trap : Imported 304L or 316L stainless steel
Safety valve : Sterilizaiton chamber, jacket, generator 304L or 316L stainless steel
Hepa filter: 0.01 pm 99.999%
Check Valve : 304L or 316L stainless steel

Safety Valve

Pneumatic Valve

Check Valve


CHAMBER
JACKET
GENERATOR
(0 / +4 Bar)
(0 / +6 Bar)
(0 / +6 Bar)
(0 / +4 Bar)
KP35
(-1 / +5 Bar) Manometer
11 (Y9) Closing Front Door
12 (YA) Opening Front Door
13 (YD) Closing Back Door
14 (YE) Opening Back Door
Check Valve
Pneumatic Valve
Hepa Filter
Safety Valve
Check Valve
Pneumatic Valve
Pressure Switch
1 (Y1) Vacuum Water
2 (Y2) Chamber Air
3 (Y3) Chamber Steam
4 (Y4) Jacket Steam
5 (Y5) Generator Water
6 (Y6) Heat Exch. Water / Chamber Discharge
7 (Y7) Chamber Vacuum
8 (Y8) Gasket Vacuum
9 (YB) Gasket Swelling
10 (YF) Generator Discharge
Safety Valve
Chamber
Jacket
PT100
Air Inlet
Heat Exchanger
Drain
Regulator
Steam Trap
Safety Valve
Check Valve
9 Pneumatic Valve
Pneumatic Valve 4
Ball Valve
Check Valve
Steam Trap
Drain
Pneumatic Valve 7
Pneumatic Valve
Check Valve
Drain
8
Generator
Check Valve
Ball Valve
Check Valve
Ball Valve
10 - Optional Pneumatic Valve
1 Pneumatic Valve
Drain
Pneumatic Valve 6
Pneumatic Valve
Water İnlet
5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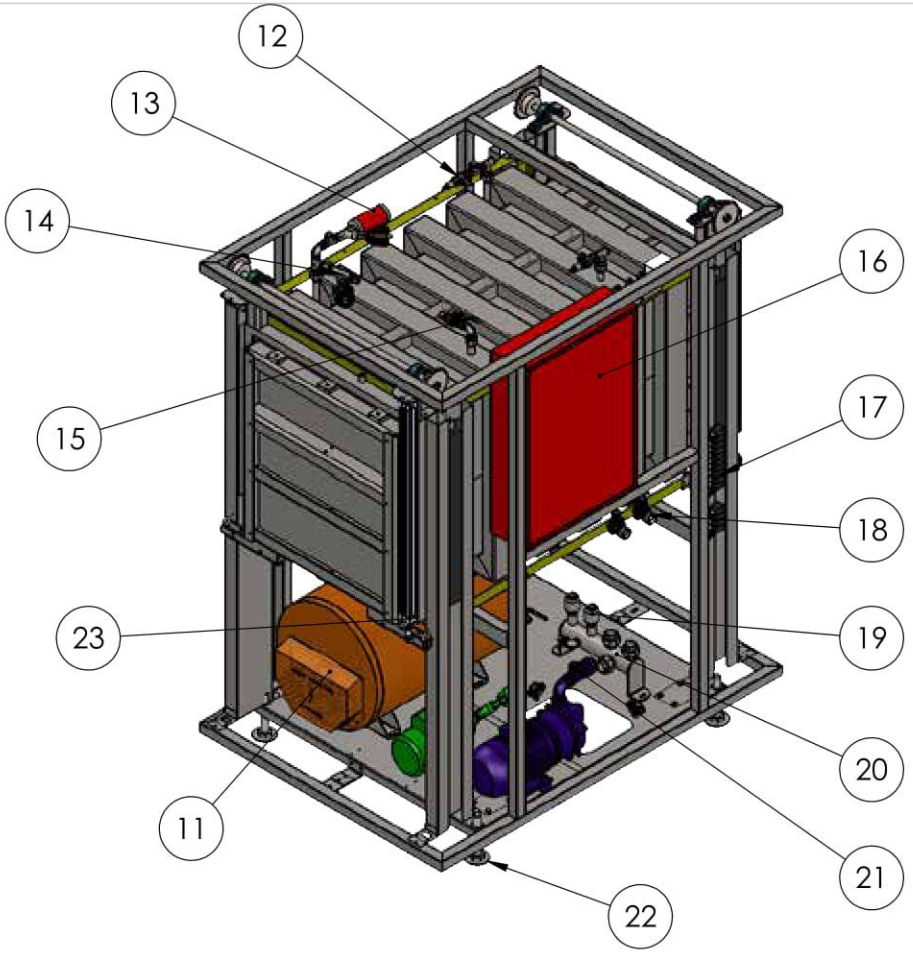
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Sterilmed SMB Steam Sterilizer Specifications

DSD: DOUBLE SLIDING DOORS SSD : SINGLE SLIDING DOOR

CHAMBER DIMENSION DEVICE DIMENSION GENERATOR REQUIREMENTS FOR INSTALLATION

				CHAMBER			*DEVICE DIMENSION*			*STEAM GENERATOR*	
	MODELS	LITER	STU	WIDTH	HEIGHT	DEEP	WIDTH	HEIGHT	DEEP	LITER	POWER KW
SMB-DSD DOUBLE DOORS	SMB-DSD-160	**160**	1	400	400	1000	870	1650	1350	50	20
	SMB-DSD-200	**200**	1.5	500	500	800	970	1750	1150	50	30
	SMB-DSD-250	**250**	1.5	500	500	1000	970	1750	1350	50	30
	SMB-DSD-300A	**300**	2	500	500	1200	970	1750	1550	50	30
	SMB-DSD-300	**360**	4	670	670	800	1140	1900	1050	50	30
	SMB-DSD-450	**450**	6	670	670	1000	1140	1900	1400	50	40
	SMB-DSD-540	**560**	8	670	670	1250	1140	1900	1600	79	40
	SMB-DSD-675	**695**	10	670	670	1550	1140	1900	1900	79	50
	SMB-DSD-810	**830**	12	670	670	1850	1140	1900	2200	89	50
	SMB-DSD-945	**965**	14	670	670	2150	1140	1900	2500	89	60
SMB-SSD SINGLE DOOR	SMB-VD-75	**100**	1	400	400	625	870	1650	950	50	20
	SMB-SSD-160	**160**	1	400	400	1000	870	1650	1350	50	20
	SMB-SSD-200	**200**	1.5	500	500	800	970	1750	1150	50	30
	SMB-SSD-250	**250**	1.5	500	500	1000	970	1750	1350	50	30
	SMB-SSD-300A	**300**	2	500	500	1200	970	1750	1550	50	30
	SMB-SSD-300	**360**	4	670	670	800	1140	1900	1050	50	30
	SMB-SSD-450	**450**	6	670	670	1000	1140	1900	1400	50	40
	SMB-SSD-540	**560**	8	670	670	1250	1140	1900	1600	79	40
	SMB-SSD-675	**695**	10	670	670	1550	1140	1900	1900	79	50
	SMB-SSD-810	**830**	12	670	670	1850	1140	1900	2200	89	50
	SMB-SSD-945	**965**	14	670	670	2150	1140	1900	2500	89	60

a:the device necessary for water (the reverse osmosis system at least 3 bar pressure 3/4 ")

b:the expense of the device connection (at least 2" pipe or galvanized pipe resistant to 150 degrees)

c: the air necessary for the device (1/2" minimum 6 bar, dry air)

GENERAL FUTURES			
		Standart	Optional
General Futures	Chamber	6 mm 316 L Stainless Steel	6 mm 316 L Stainless Steel
	Jacket	3 mm 304 L Stainless Steel	3 mm 316 L Stainless Steel
	Generator	3 mm 304 L Stainless Steel	3 mm 316 L Stainless Steel
	Cover	10 mm 304 L Stainless Steel	10 mm 316 L Stainless Steel
	Chassıs	3 mm 304 L Stainless Steel	3 mm 316 L Stainless Steel
	Gasket Channel and Cover Bearings	50 mm 304 L Stainless Steel Monolithic System	50 mm 316 L Stainless Steel Monolithic System
	External Material	1 mm 304 L Stainless Steel	1 mm 316 L Stainless Steel
	Troyler	304 L Stainless Steel	316 L Stainless Steel
Control Systems And Programme	Control System	PLC Microprocessor	PLC Microprocessor
	Display	7" Colourful Touch Screen	5", 6" or 10" Colourful Touch Screen
	Printer	40 Column Thermal Printers	40, 60 or 80 Column Thermal and Cartridge Printer
	No of Preset Programs	7	20
	No of Test Programs	2	2
	No of Free Programs	20	50
	Minimum Vacuum Level	70 mm bar	70 mm bar
	Remote Control	No	have remote control via ethernet
	Port	Usb Ethernet Rs232 And Rs 485	Usb Ethernet Rs232 And Rs 485
Mechanical Installation	Hepa Filter	0.01 µm %99.999	0.01 µm %99.999
	Vaccum Pomp	2,2 Kw 2900 cycle/minute	Stainless Steel pump 2,2 Kw 2900 cycle/minute
	Safet Valve	1/2" Brass Stainless Steel adjustable	1/2" Stainless Steel adjustable
	Control Valve	1/2" And 1 " 304 L Stainless Steel	1/2" And 1 " 316 L Stainless Steel
	Check Valve	1/2" And 1 " 304 L Stainless Steel	1/2" And 1 " 316 L Stainless Steel
	Exchanger System	-	With Exchanger
	Water Level Control	With Stainless Prob	With Magnetic Sensor Or Flap