



SERENA

Last Generation Steam Autoclave



CE 0051



**Low power
consumption**



Reliability



Speed



Technical assistance



Simplification

Features:

- Comply with the European Regulation UNI EN 13060
- Provides only type B cycles
- Motorized door
- Operator code
- Sterilization data recording on incorporated SD Card
- Printer predisposition
- Labeller predisposition
- Possibility of PC connection
- Possibility of automatic filling with Kiara-Tec
- Depurator connection
- Spore incubation cycle included

Advantages:

- Mandatory directive for small sterilizer
- Extreme ease of insertion of different types of instruments
- Provides the operator identification
- Maximum simplification in data storage with immediate software update
- Instant print on paper of the cycle in progress
- Label printing for storage with date
- Tow machines in one, spore incubation cycle included
- Absolute time saver for filling and emptying of tanks



Last generation steam autoclave SERENA is designed to increase safety in the dental and medical practice and for informed choice provides only type B sterilization cycles, i.e. medical level cycles. It is characterized by an extreme reliability, ease of use and cutting-edge design criteria. All cycles are directly saved on the incorporated SD Card to be directly consulted, printed or saved on the PC.

The sterilization chamber is made in stainless steel with capacity 18 lt or 23 lt, it is supplied with 4 trays and trays holder for the correct placement of the instruments into the chamber. The automatic air detection system together with the process indicators, confirms the total safety of the sterilization cycle.



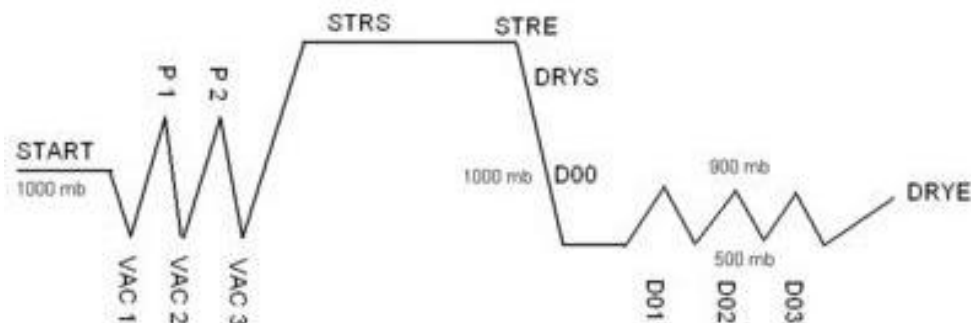
*Is possible to customize the front of the machine in two different colors on demand- Black or Silver
(In the images is represented Serena Black model)

			STERILIZATION CYCLES					TEST CYCLES		
			UNIVERSAL B134	PRION B134	UNIVERSAL B121	SPECIAL 1 **	SPECIAL 2 **	Helix B&D	Vacuum	Spore
TEMPERATURE			134°	134°	121°	121°/134°	121°/134°	135.5°	--	54°
PRESSURE			3050 mb	3050 mb	2060 mb	2060/3050 mb	2060/3050 mb	3185 mb	198 mb	--
DURATION OF STERILIZATION PHASE			5'	18'	15'	5'-99'	5'/99'	3'30"	15'	--
DURATION OF DRYING PHASE			15'	15'	20'	0-99'	0-99'	4'	--	--
TOTAL DURATION OF THE CICLE	18 LT		40'	53'	43'	VARIABLE	VARIABLE	60'	19'	2910'
	23 LT		45'	58'	48'	VARIABLE	VARIABLE	65'	21'	2910'
TYPE OF LOAD	SOLID, TWEEZERS, CUTTERS, ...		YES	YES	YES	YES	YES	EMPTY CHAMBER OR TEST		
	POROUS, SMALL OBJECTS TYPE GAUSE, COTTON		YES	YES	YES	NO	NO			
	POROUS, 80% OF THE USABLE SPACE		YES	YES	YES	NO	NO			
	HOLLOW TYPE A, SCISSORS, PLIERS, HANDPIECES		YES	YES	YES	NO	NO			
	HOLLOW TYPE B, SUCTION		YES	YES	YES	NO	NO			
	UNWRAPPED		YES	YES	YES	YES	YES			
	WRAPPED		YES	YES	YES	NO	NO			
	DOUBLE WRAPPED		YES	YES	YES	NO	NO			
MAXIMUM LOAD	SERENA 18LT.	SOLID UNWRAPPED	3 KG.	3 KG.	3 KG.	3 KG.	3 KG.			
		SOLID WRAPPED	3 KG.	3 KG.	3 KG.	NO	NO			
		POROUS	1 KG.	1 KG.	1 KG.	NO	NO			
	SERENA 18LT.	SOLID UNWRAPPED	4 KG.	4 KG.	4 KG.	4 KG.	4 KG.			
		SOLID WRAPPED	4 KG.	4 KG.	4 KG.	NO	NO			
		POROUS	1.2 KG.	1.2 KG.	1.2 KG.	NO	NO			

* COLD CHAMBER: add 5 minutes - FULL LOAD CHAMBER: add 5 minutes

** SPECIAL CYCLES: if you leave set two vacuums and three minutes of drying, the load must be SOLID and only UNWRAPPED

PHASES OF THE STERILIZATION CYCLE



SERENA 23
ONLY B CYCLE
Ver. 100

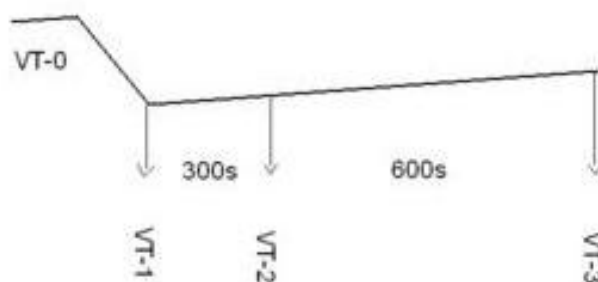
S/N 000001
Nr.CICLO 0361
CICLO: UNIVERSALE B 134
COD OPERATORE 04
DATA 00-01-32
ORA 04:08:05
FASE TIME T°C P mbar
START 00:00:03 93.3 1013
VAC1 00:03:12 98.6 199
P1 00:04:02 106.7 1301
VAC2 00:06:40 97.4 168
P2 00:07:59 110.5 1300
VAC3 00:10:36 96.9 180
PPH 00:11:11 101.6 1004
STRs 00:16:12 135.6 3151
MINt 00:18:19 134.8 ----
MAXt 00:16:28 136.0 ----
MINp 00:18:19 ---- 3043
MAXp 00:16:32 ---- 3164
STRe 00:21:12 135.4 3080

DRYs 00:21:12 135.4 3078
D00 00:22:34 117.9 1096
D01 00:22:55 111.6 493
D02 00:25:36 107.8 901
D03 00:26:22 104.1 498
D04 00:27:37 101.8 901
D05 00:28:24 98.7 498
D06 00:29:36 96.6 901
D07 00:30:24 94.0 497
D08 00:31:36 92.6 901
D09 00:32:24 90.5 499
D10 00:33:32 89.3 901
D11 00:34:22 88.3 496
D12 00:35:27 90.7 901
D13 00:36:17 90.6 497
DRYe 00:37:12 91.1 895

CICLO OK

PHASES	DESCRIPTION
START	START
VAC1	FIRST VACUUM MAX REACHED
P1	FIRST PRESSURE REACHED
VAC2	SECOND VACUUM MAX REACHED
P2	SECOND PRESSURE REACHED
PPH	TEMPERATURE/PRESSURE RATIO
VAC3	THIRD VACUUM MAX REACHED
STRS	STERILIZATION KEEPING
STRE	END STERILIZATION
DRYS	DRYING TIME START
D01	VACUUM PULSATION DRYING
D02	
D03	
DRYE	END DRYING

VACUUM TEST DIAGRAM



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SERENA 23
 ONLY B CYCLE
 Ver. 100
 S/N 000001
 Nr.CICLO 0311
 CICLO: VACUUM TEST
 COD OPERATORE 01
 DATA 00-03-00
 ORA 09:27:05

FASE	TIME	TøC	P mbar
VT-0	00:00:03	40.0	1028
VT-1	00:03:30	39.2	208
VT-2	00:08:30	38.4	224
VT-3	00:18:30	36.7	237

CICLO OK

PHASES	DESCRIPTION
VT-0	PRESSURE ENVIRONMENT
VT-1	TIME IN WHICH THE DEPRESSION IS REACHED MAXIMUM START TIME COMPENSATION
VT-2	BEGINNING OF LEAK PERIOD
VT-3	END TIME TRIAL



TYPE OF TEST	STERILIZATION CYCLES			
	UNIVERSAL B134		UNIVERSAL B121	
CHANGES IN THE CHAMBER	X		X	
AIR LEAKAGE	X		X	
EMPTY CHAMBER	X		X	
SOLID LOAD DOUBLE WRAPPED	X		X	
SMALL POROUS ARTICLES				
SMALL LOADPOROUS DOUBLE WRAPPED	X		X	
FULL POROUS LOAD DOUBLE WRAPPED	X		X	
HOLLOW LOAD B				
HOLLOW LOAD A	X		X	
MULTIPLE PACKAGING				
DRYING SOLID LOAD DOUBLE WRAPPED	X		X	
DRYING POROUS LOAD DOUBLE WRAPPED	X		X	
RESIDUAL AIR				
X	IN COMPLIANCE WITH ALL APPLICABLE POINTS OF THE STANDARD <i>UNI EN 13060</i>			

1 TECHNICAL FEATURES*		AUTOCLAVE "SERENA"		U.M
		SERENA 18 LT.	SERENA 23 LT.	
<u>Sterilizer :</u>	Power consumption max.	2200	2200	W
	Power sterilization chamber	1250	1250	W
	Working pressure	2,1 – 1,1 3100-2100 (absolute)	2,1 – 1,1 3100-2100(absolute)	Bar mBar
<u>Steam Generator:</u>	Power	230Vac ~ 50Hz monofase – 10 A	230Vac ~ 50Hz monofase – 10 A	~
	Power consumption max.	1050/1100	1050/1100	W
	Pressure max.	2,1 – 1,1 3100-2100(absolute)	2,1 – 1,1 3100/2100(absolute)	Bar mBar
<u>Sterilization chamber:</u>	Temperature max.	180°	180°	°C
	Voltage	230	230	~
	Pressure max	2,5 3500 (absolute)	2,5 3500 (absolute)	Bar mBar
	Temperature max	140°	140°	°C
	Safety valve	2,5 3500 (absolute)	2,5 3500 (absolute)	Bar mBar
	Bacterial filter	0,027	0,027	μ
	Temperature/Humidity range	Da +5° a +29° C / 0-90%	Da +5° a +29° C / 0-90%	-
	Max altitude	2800 slm	2800 slm	m
	Min air pressure	0,5	0,5	Bar
	Flexible electric cable length	2	2	m
Supplied power plug		si	si	-
Control power		24	24	V
Maximum noise level		62	66	dB
Net weight		(45) 441,5	(50) 490,5	(Kg) N
Gross weight		(51) 500,3	(56) 549,4	(Kg) N
Predominant color		Paint RAL 9010	Paint RAL 9010	-
DIMENSIONS	Boiler	Ø 236 P. 360	Ø 236 P. 530	mm
	STERILIZER	L47Xh43XP63	L47Xh43XP72	cm
	PACKING	L57XH53XP77	L57XH53XP77	cm
	<u>Distilled water</u> WATER QUALITY	Standard EN13060 <15 μS/cm	Standard EN13060 <15 μS/cm	-
	CONSUMPTION MIN/MAX	0,32L/0,57L POROUS LOAD	0,42L/0,62L POROUS LOAD	-

*The data located on the leaflet may change without notice.

Do not embed the autoclave – We do not recommend the embedding of the machine.



COMPLEMENTARY ACCESSORIES



Printer



Labeler



Automatic water depurator



Sealing machine



Rolls for sealing machine



Kristal water distiller



Disinfection vessel



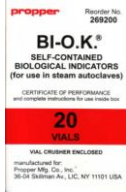
Ultrasonic cleaner



Instruments washer



STERILIZATION TESTS

Test vaporline	Test bowie & dick	Spore Test
		

Applicable directives and standards of reference :

- | | |
|----------------------|---------------------------|
| ▪ 47/2007 EEC | Medical Devices Directive |
| ▪ 2014/68/UE | Pressure Vessel Directive |
| ▪ EN62304 | Software validation |
| ▪ UNI EN 13060 | Small Steam Sterilizers |
| ▪ CEI EN 61010-1 | Safety requirements |
| ▪ CEI EN 61010-2-040 | Safety requirements |
| ▪ CEI EN 61326-1 | EMC |



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