

RAYPA

Leading
Lab Technologies

NEW

TLV SERIES

SAFETY
MANAGEMENT
AUTOMATIC
RAPIDITY
TRACEABILITY

SMART AUTOCLAVES FOR SMART LABS

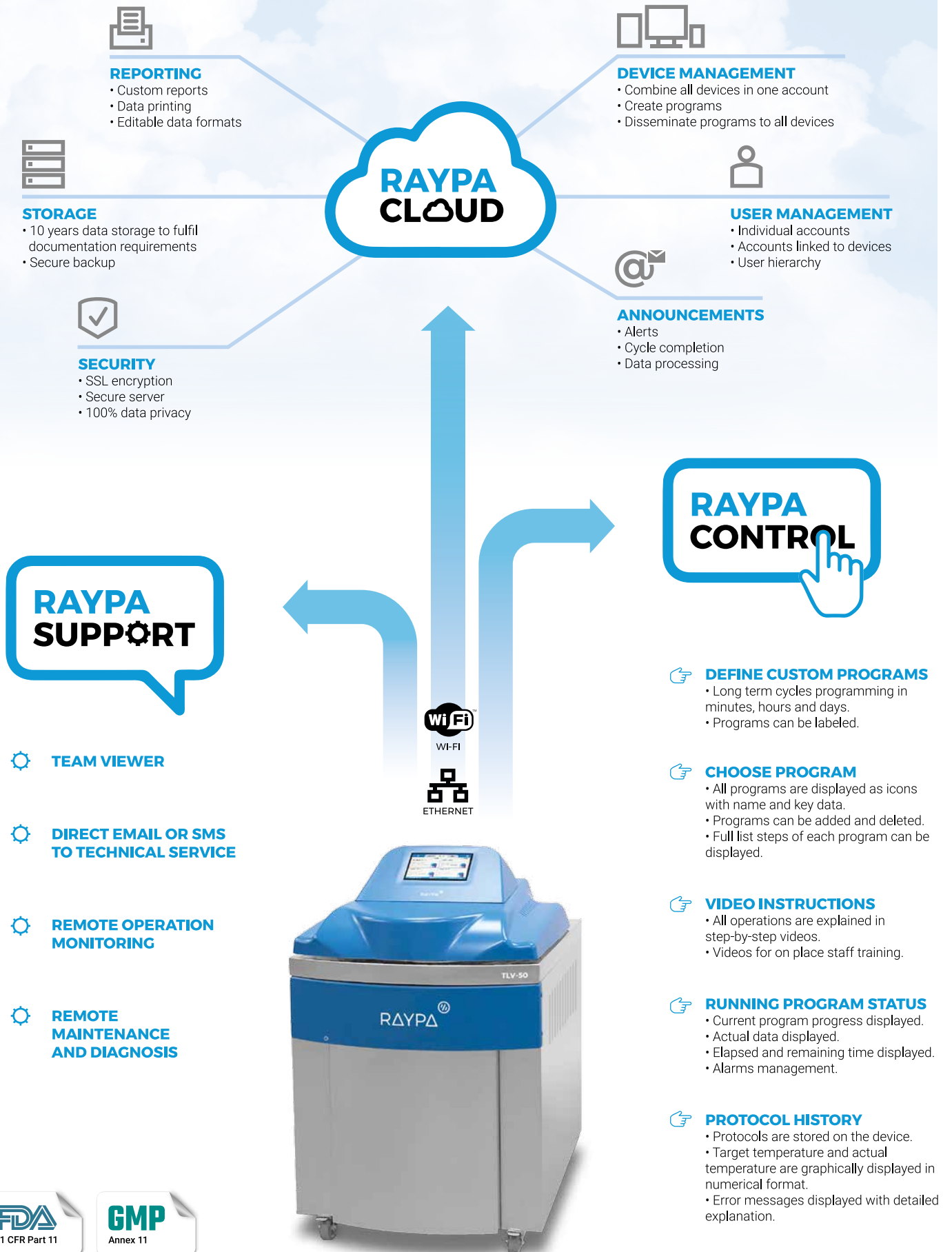


 Sterilization

FDA
21 CFR Part 11

GMP
Annex 11

TLV SERIES STERILIZATION WITH TOTAL CONNECTIVITY

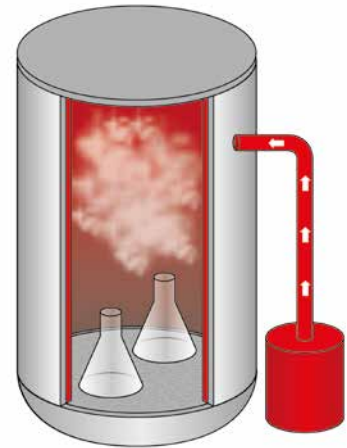




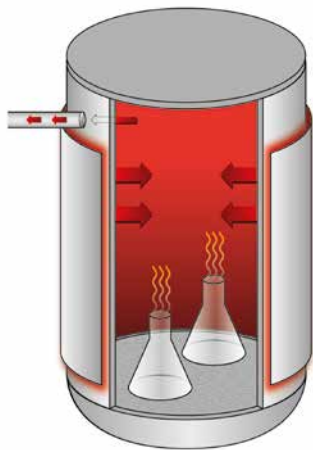
TLV SERIE BASIC

MULTI-PURPOSE AUTOCLAVE FOR STERILIZING SOLIDS AND LIQUIDS
THE TLV SERIES ARE DESIGNED TO COVER THE BASIC STERILIZATION NEEDS IN ALL TYPE OF LABORATORIES OF INDUSTRIES AND EDUCATIONAL INSTITUTIONS.

- Integrated steam generator (separated into the housing) with automatic filling
- 7" capacitive colour touch screen
- Connectivity to PC, cloud, intranet, LIMS*
- Bacteriological filter
- Automatic block/unblock system with mechanical assisted door
- Casters with brake
- Filtration of exhaust gases
- Water cooled discharge



SERIE TLV-PD WITH SUPER-DRYING SYSTEM



IT IS THE IDEAL AUTOCLAVE TO STERILIZE SOLIDS THANKS TO ITS DRYING SYSTEM. VERSATILE FOR SOLIDS AND LIQUIDS.

THE TLV-PD SERIES ARE THE BEST ALLY FOR LABORATORIES THAT MUST STERILIZE ALL TYPES OF SOLID PRODUCTS SUCH AS GLASS, PLASTIC VIALS, POROUS OR HOLLOW MATERIAL, WRAPPED AND UNWRAPPED, IN A SAFE, FAST AND VERIFIABLE WAY.

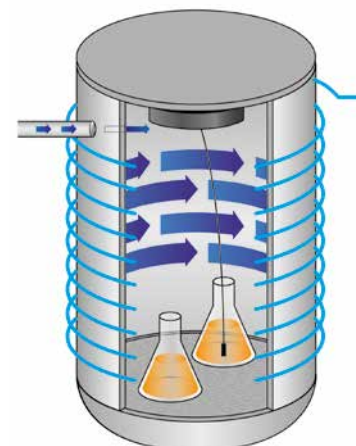
- Integrated steam generator (separated into the housing) with automatic filling
- 7" capacitive colour touch screen
- Connectivity to PC, cloud, intranet, LIMS*
- Bacteriological filter
- Automatic block/unblock system with mechanical assisted door
- Casters with brake
- Filtration of exhaust gases
- Water cooled discharge
- Water-ring pump for quick pre and post vacuum cycles
- Heating jacket for dry cycle

SERIE TLV-FA WITH FAST COOLING SYSTEM

IT IS THE IDEAL AUTOCLAVE FOR STERILIZING LIQUIDS THANKS TO ITS RAPID COOLING SYSTEM. VERSATILE FOR SOLIDS AND LIQUIDS

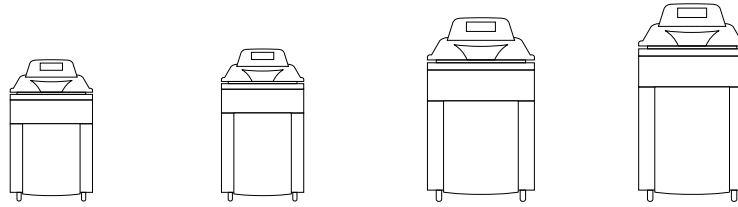
STERILIZATION OF LIQUIDS IS A COMPLEX TASK THAT REQUIRES A PRECISE CONTROL OF THE LIQUID TEMPERATURE AND A GOOD MANAGEMENT OF THE THERMAL BALANCE DURING THE COOLING PHASE IN THE MINIMUM POSSIBLE TIME.

- Integrated steam generator (separated into the housing) with automatic filling
- 7" capacitive colour touch screen
- Connectivity to PC, cloud, intranet, LIMS*
- Bacteriological filter
- Automatic block/unblock system with mechanical assisted door
- Casters with brake
- Filtration of exhaust gases
- Water cooled discharge
- Cooling coil refrigeration circuit
- Internal radial fan
- Flexible PT-100 temperature sensor
- Air ballast



* LIMS: Laboratory Information Management System

TECHNICAL DATA



Features

	TLV-50	TLV-75	TLV-110*	TLV-150*
Chamber dimensions Ø x H usable	400 x 450 mm	400 x 650 mm	500 x 600 mm	500 x 850 mm
Chamber volume total / usable	58 / 56 L	83 / 81 L	124 / 118 L	169 / 155 L
External dimensions L x D x H	610 x 870 x 1000 mm	610 x 870 x 1080 mm	710 x 970 x 1320 mm	710 x 970 x 1400 mm
Weight	140 Kg	150 Kg	195 Kg	210 Kg
Power	3600 W		6000 W	9000 W
Electrical voltage**	230 (1P+N+E) V		400 (3P+N+E) V	
Frequency	50 / 60 Hz			
Working temperature range	100 - 140 °C			
Maximum working pressure	2,6 barg			
Maximum design Temperature/Pressure	143 °C / 2,9 barg			

* Under request. ** Ask for other voltages.

Specifications

	TLV	TLV-PD	TLV-FA
Integrated steam generator separated into the housing	✓	✓	✓
Automatic block/unblock system	✓	✓	✓
Mechanical assisted door	✓	✓	✓
Fast cooling	-	-	✓
Pre-vacuum	✓	✓	✓
Post-vacuum	-	✓	-
Air exhaust filtration	✓	✓	✓
Water ring vacuum pump	-	✓	-
Internal radial fan	-	-	✓
Steam exhaust condensation with cold water	✓	✓	✓
Autofill: automatic purified water feed for steam generation	✓	✓	✓
Temperature holding function after the end of program for liquids	✓	✓	✓
Housing and basic frame construction in stainless steel	✓	✓	✓
Lid and pressure vessel construction	316L	316L	316L
Pressure gauge	✓	✓	✓
4 casters (with brakes in two of them)	✓	✓	✓
Flexible PT-100 temperature sensor	0	0	✓
Second flexible PT-100 temperature sensor	0	0	0
Printer for batch documentation	Integrated	0	0
	External	0	0
Barcode scanner with label printer	0	0	0
Number of sterilization programs	50	50	50
Password secured access rights for parameterization	✓	✓	✓
Automatic microprocessor control	✓	✓	✓
7" capacitive colour touch screen	✓	✓	✓
External data transfer (network compatible)	RS-232	✓	✓
	USB	✓	✓
	ETHERNET	✓	✓
	WI-FI	✓	✓
RAYPA CLOUD Basic (extensive documentation/network compatible)	0	0	0
RAYPA CLOUD Premium (extensive documentation/network compatible)	0	0	0
Private cloud server	0	0	0
Internal memory for documentation for sterilization cycles	up to 1.000.000	up to 1.000.000	up to 1.000.000
Data backup via USB reader	✓	✓	✓
Timer for programmable start time	✓	✓	✓
Calculation of F ₀ value in combination with flexible PT-100	0	0	✓
FDA 21 CFR Part 11 and GMP Annex 11 compliance	0	0	0
Connection to LIMS***	✓	✓	✓

✓ STANDARD 0 OPTIONAL

*** LIMS: Laboratory Information Management System

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