

RAYPA

Leading
Lab Technologies

NEW

TLV SERIES

SAFETY
MANAGEMENT
AUTOMATIC
RAPIDITY
TRACEABILITY

SMART AUTOCLAVES FOR SMART LABS

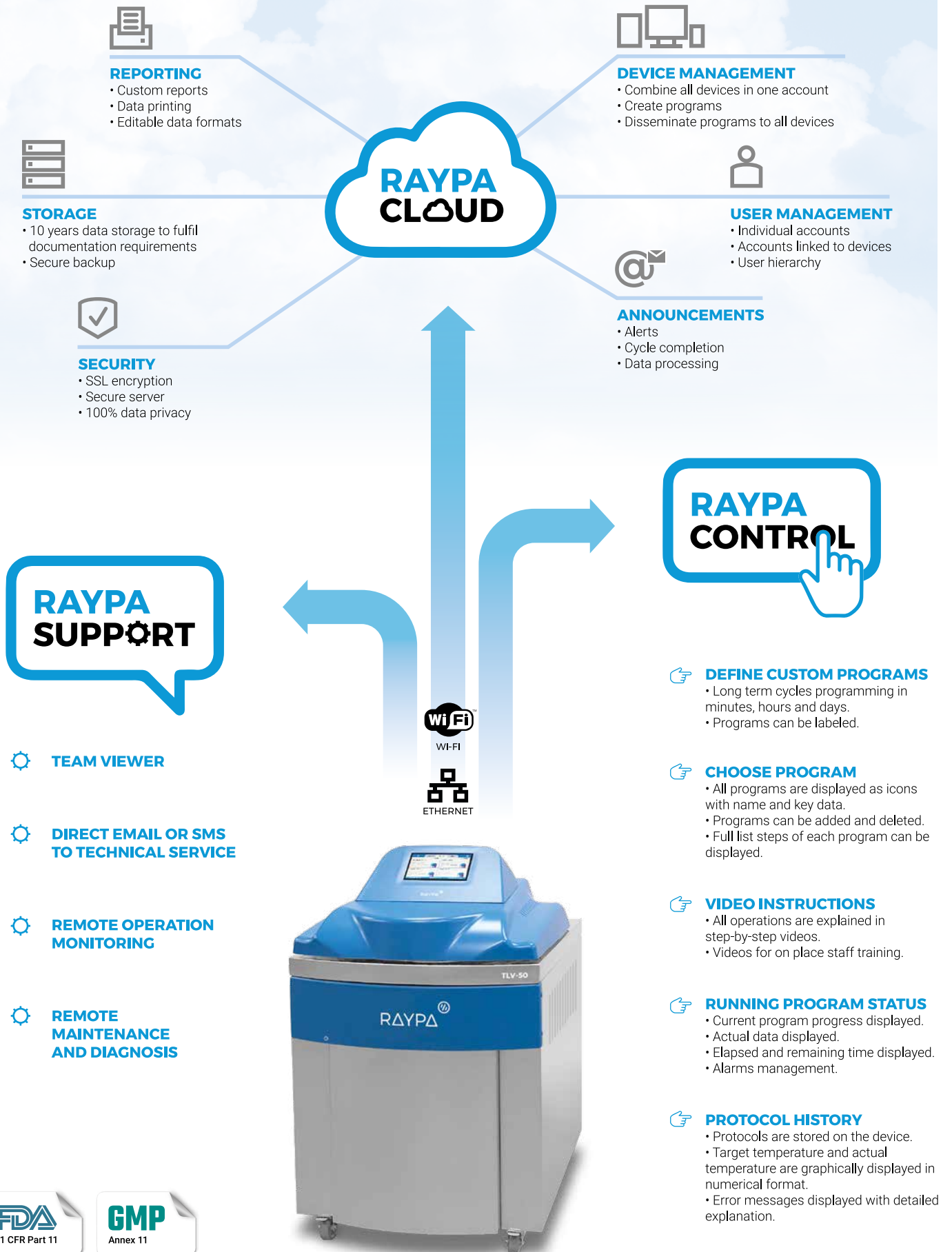


 Sterilization

FDA
21 CFR Part 11

GMP
Annex 11

TLV SERIES STERILIZATION WITH TOTAL CONNECTIVITY



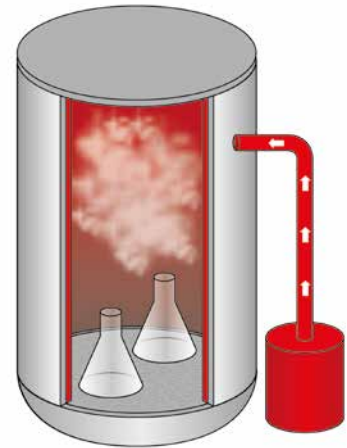


TLV SERIE BASIC

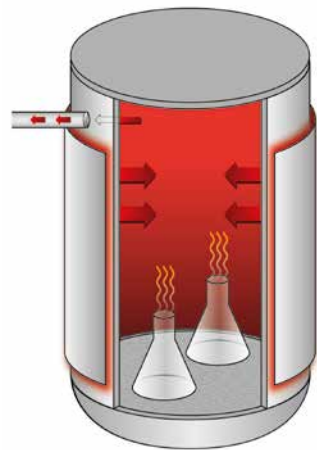
MULTI-PURPOSE AUTOCLAVE FOR STERILIZING SOLIDS AND LIQUIDS

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.

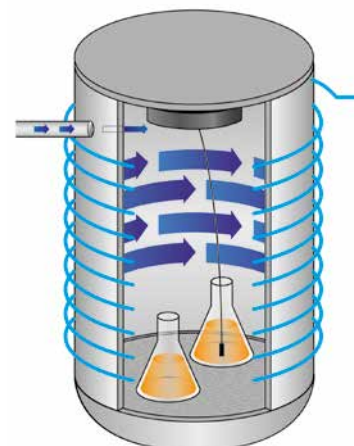
- Integrated steam generator (separated into the housing) with automatic filling
- 7" capacitive colour touch screen
- Connectivity to PC, cloud, intranet, LIMS*
- Bacteriological filter
- Automatic block/unblock system with mechanical assisted door
- Casters with brake
- Filtration of exhaust gases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

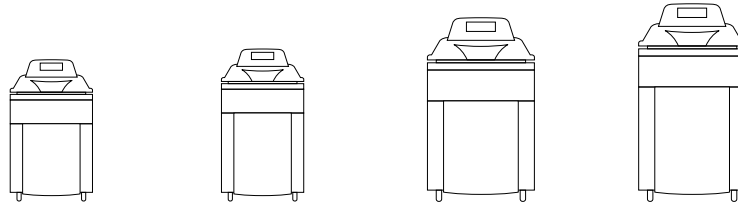
STERILIZATION OF LIQUIDS IS A COMPLEX TASK THAT REQUIRES A PRECISE CONTROL OF THE LIQUID TEMPERATURE AND A GOOD MANAGEMENT OF THE THERMAL BALANCE DURING THE COOLING PHASE IN THE MINIMUM POSSIBLE TIME.

- 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 | | 9000 W | |
| Electrical voltage* | 230 (1P+N+E) V | | 400 (3P+N+E) V | |
| Frequency | 50 / 60 Hz | | | |
| Working temperature range | 105 - 140 °C | | | |
| Maximum working pressure | 2,6 barg | | | |
| Maximum design Temperature/Pressure | 143 °C / 2,9 barg | | | |

* 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

REV 01/2021

