

# YR Series

## Serial Vertical Sliding Pressure Steam Sterilizer

# 1.

### Application

It is widely used in the fields of hospital, pharmaceutical factory, laboratory and make the sterilization for high temperature-resisting and high pressure-resisting items including wrapped, unwrapped, textile, rubber, liquid, hollow A, hollow B as well as instruments with built-in pipe and so on.



# 2.

### Main features

#### ■ Chamber

Rectangular-shaped chamber made of top-quality stainless steel AISI 304/AISI 316.

#### ■ Jacket

Rectangular-shaped integral jacket made of top-quality stainless steel AISI 304/AISI 316.

#### ■ Door

Automatic vertical sliding door(s) made of top-quality stainless steel AISI 304/AISI 316.

#### ■ Pipeline

All pipeline made of top-quality stainless steel AISI 304/AISI 316, clamp connection.

## 2.

### Elegant Appearance

Decorative panel made of AISI 304 titanium alloy, outer covers made of AISI 304 frosted anti-fingerprint panel.

### Diverse Load Types

Comes with kinds of programs and User-defined that range in temperature from 105°C - 139°C

### User-friendly

Siemens 7 inch color touch screen and PLC control system, user-friendly interface with printer and USB port for transferring cycle data.



# Kalstein® Master

design

### Stainless Steel Structure

Chamber, jacket, door, pipeline are made of top-quality stainless steel to avoid corrosion and contamination of the sterilized loads.

### Easy to Use

Automatic vertical sliding door(s), touch the screen to make the door open & close, easily browse pre-programmed sterilization cycles and process on screen.

### Safety

Multiple security protection mechanisms and alarm systems to ensure the safety.

1 to 15 STU



# Superior performance

## 3.

### ■ Drainage control system

Automatic drainage temperature adjustment system, drainage temperature  $\leq 55^{\circ}\text{C}$ .

### ■ Automatic hydrophobic device

Automatic control hydrophobic device for chamber and jacket, automatic program control and drain to ensure steam saturation.

### ■ Main control parts and valves

International famous brand, stable performance and reliability.

### ■ Multiple fault alarm system

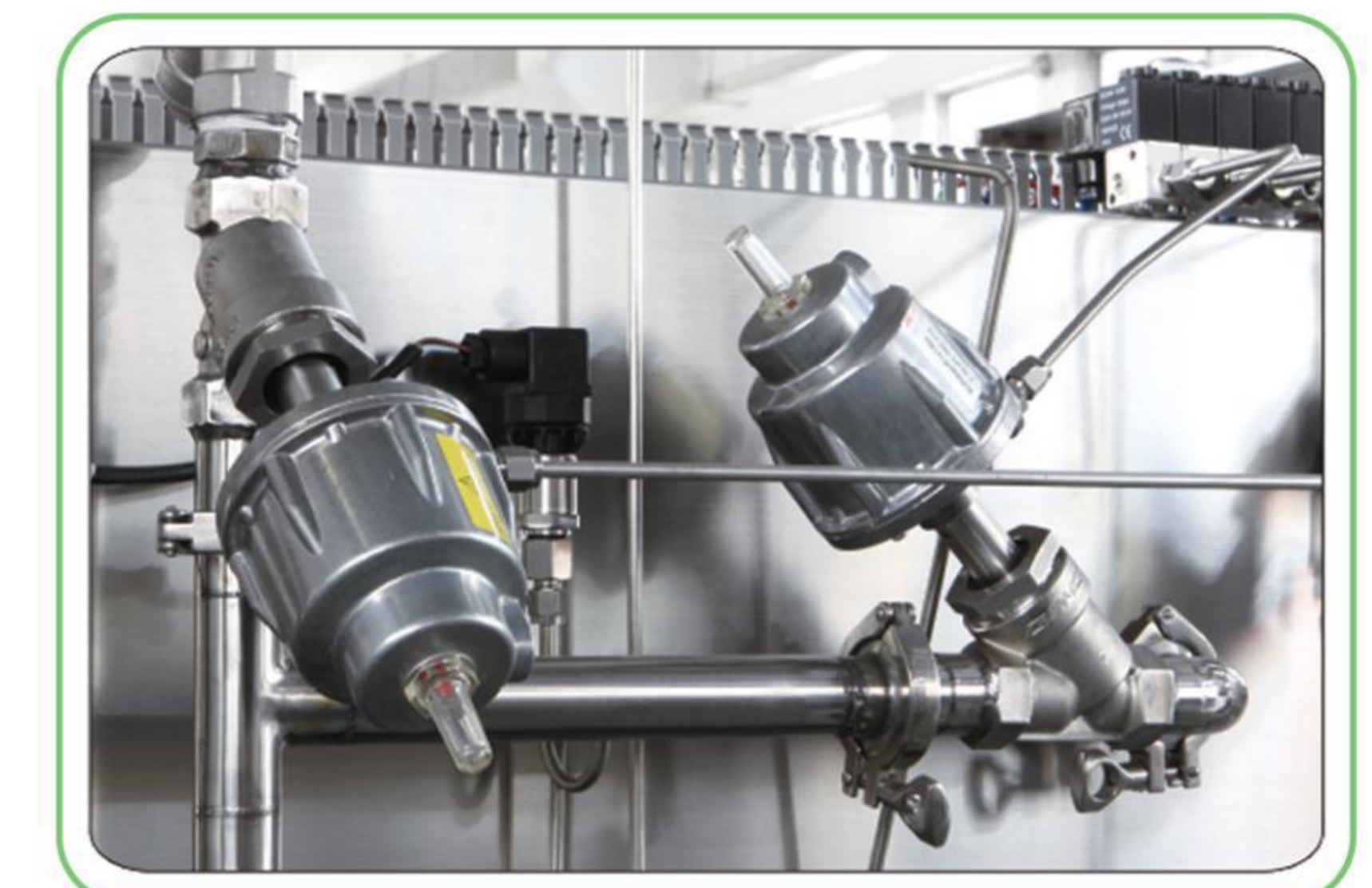
Perfect fault information prompt and fault self-diagnosis function.

### ■ Water-saving and noise-reduction system

Optional configuration, save 30% recycled water consumption and reduce noise for vacuum pump.

### ■ Permission protection system

Optional configuration, three-level user rights protection system, convenient for the customer to operate and management.



# East to operate

# 4.

## PLC control

Siemens automatic PLC control system for the whole process.

## Human-machine interface

7 inch color touch-screen, menu programming, display work process and the curve of report dynamically.

## Data output

Built-in mini-type needle printer, print temperature, pressure, time, items, operator and so on in real time. Optional USB storage system to store the running status in real-time.

## Maintenance system

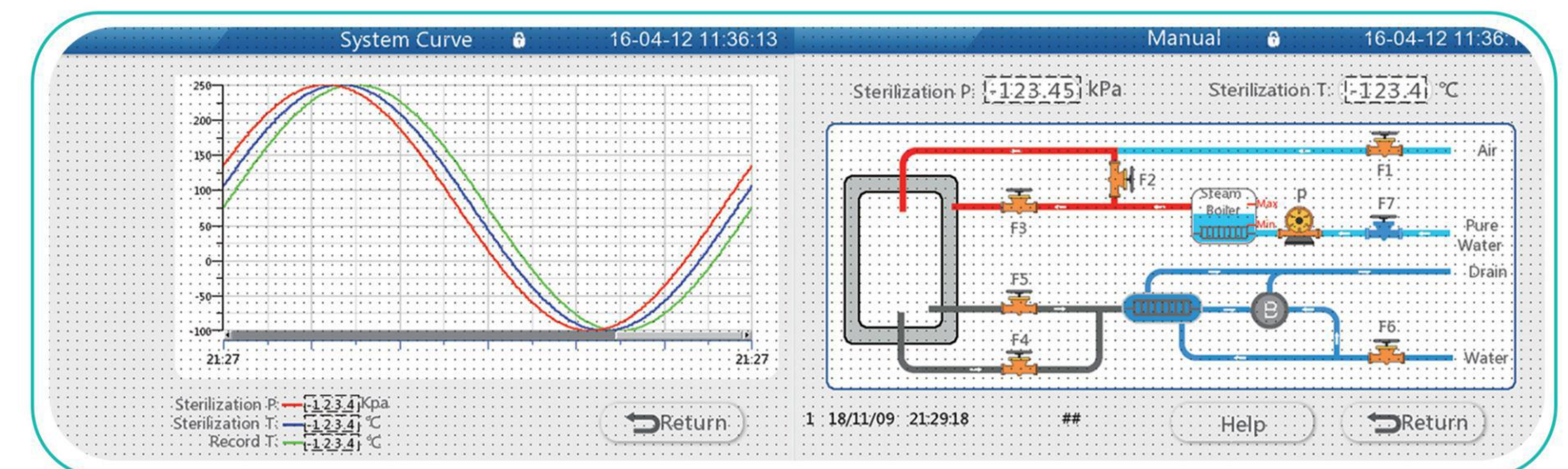
Unique maintenance information prompt function, to remind user of maintenance, including change door gasket, clean and change filter, lubrication and maintenance of door sliding mechanism, wipe main body regularly and so on.

## Communication interface

Optional configuration to connect CSSD quality tracing system.

## Remote monitoring system

Optional configuration to realize the remote monitoring and remote software upgrade, PC/server via Ethernet connection for remote access.



# Safety feature

## 5.

### Door safety interlock device

**Pressure protection** The steam can't come into the chamber and program can't start up when the door is unlocked. While, the door can't open when pressure in chamber.

**Temperature protection** For liquid items to be sterilized, the door can't be open until the temperature in chamber down to the standard point-20°C, in order to avoid explosion.

**Anti-pinch hand protection** The door stops automatically to avoid clipping when approaching an obstacle.

### Over-pressure protection

The relief valve starts to release pressure and alarm automatically when the pressure in jacket, chamber and steam generator exceed the default value.

### Low-pressure alarm

Pressure switch to detect pressure of compressed air, alarms once the pressure lower than 0.4MPa.

### Over temperature & low temperature alarm

PT100 for temperature control in chamber, collect temperature data in real-time to protect and alarm when it is higher or lower than default value.

### Anti-dry burning alarm

Cut off the power supply and alarm once the heat pipe of steam generator is dry-burning due to lack of water.

### Door motor overload

The door stops closing & opening automatically and alarm once the door motor overload or blocked.

### Vacuum pump overload

The vacuum pump stops and alarms once overload or blocked.

### Grid phase sequence detection function

Optional configuration, automatic monitoring for phase sequence, running stopped and alarm once vacuum pump reversal .

# Main parameters

Sterilization Process and Tests			
Program	Sterilization Temperature	Sterilization Time	Drying Time
Unwrapped instruments	134°C	6 mins	8 mins
Wrapped instruments	134°C	7 mins	15 mins
Textile	134°C	7 mins	15 mins
Rubber	121°C	20 mins	15 mins
Liquid	121	20 mins	No
Hollow	134 °C	6 mins	10 mins
Implant	134	10 mins	15 mins
Prions	134	18 mins	15 mins
B&D test	134	3.5 mins	5 mins
PCD	134 °C	3.5 mins	5 mins
User-defined		√	
Vacuum test		√	
Manual control program		√	
Fast program		√	
Auxiliary drying		√	

Item	Chamber	Jacket
Designed Pressure	-0.1~0.3 Mpa	0.3 Mpa
Designed temperature	150 °C	150 °C
Max.working pressure	0.25 Mpa	0.25 Mpa
Max.working temperature	139 °C	139 °C
Safety valve opening pressure	0.28 Mpa	0.28 Mpa
Test pressure	0.4 MPa	0.5 MPa
Vapour pressure	0.3MPa~0.5MPa	
Water source pressure	0.15~0.3Mpa	
Compressed air source	0.5~0.7MPa	
Pulsation times range	0~99 times	
Sterilization time range	0~9999 seconds	
Drying time range	0~9999 seconds	