Technical Data Sheet

Pulse Vacuum Steam Sterilizer

Model: MAST-V-280SD-B-N



The picture is for reference only, which shall not be taken as standard for machine acceptance. For details, it is subject to technical descripti on.

1 Technical data

1. Sterilizing program

The system has **32 built-in preset programs**, more than 10 kinds of program stage can be flexibly configured according to the needs to meet the requirements of different sterilization process.

Name	Ster. Temp.	Ster. Time	Dry time	Applicable items type
Warm up	134℃	0min	3min	Empty loading, for preheat the device
B&D test	134℃	3.5min	4min	B&d test package or a device
Fabric	134℃	5min	10min	Fabric package, weight ≤7.5kg/pack
Instrument	134℃	5min	15min	Conventional instrument box or basket loading, weight≤ 7.5kg/pack
Thermolabile	121℃	20min	15min	Items can't bear 134℃, weight ≤ 7.5kg/pack
Flash	134℃	4min	1min	Unwrapped instruments
Orthopedics	134℃	6min	15min+10min	Orthopedics instruments, weight ≤14kg/pack
Leak test	———	———	———	Empty loading，leak rate ≤ 0.13kpa/min
Prion	134℃	30min	15min	Special items such as prions
Optical	134℃	7min	15min+5min	Inner diameter ≥ 2mm, length ≤ 1500 times inner diameter from the opening side to end
Heavy load	134℃	6min	15min+10min	Heavy loading items
Small load	134℃	5min	8min	loading capacity＜one standard sterilization unit, weight ≤7.5kg/pack
Open liquid	121℃	30min	———	Unsealed bottled liquid, volume ≤ 500ml / bottle
Gravity	121℃	20min	———	Gravity steam discharge, non-vacuum
Positive	134℃	7min	10min	Items needs positive pressure replacement and vacuum drying

2.	Designed pressure	-0.1~0.3 MPa
3.	Rated working pressure	0.25 MPa

Xinhua Medical Scientific Zone, Zibo New & Hi-Tech Industrial Development Zone, Shandong Province, P. R. China.
Tel: 0086-533-3587720
E-mail: sales@shinva.com http: // www.shinva.com

4.	Vacuum low limit	-0.09 MPa	
5.	Vacuum pulses counts	0~99 Times	
6.	Designed temperature	150℃	
7.	Rated working temperature	134℃	
8.	Maximum working temperature	139℃	
9.	Chamber structure	Rectangular	
10.	Chamber dimension (W*H*D)	535×535×1000mm / 280Liters	
11.	Overall dimension (W*H*D)	1200×1800×1340mm	
12.	Weight	970Kg	
13.	Installation form	Installation on the ground	
14.	Door opening method	Automatic vertical sliding door , cylinder drive	
15.	Quantity of doors	Double doors	
16.	Door opening direction	Up and down sliding door	
17.	Door sealing method	By compressed air with a door gasket sealing	
18.	Controller and screen	Front side 8'' inch color touch screen, 5 level authorization user	
19.	Pure water and water consumption	0.3~0.5MPa	Must be pure water， 0.04m^3/cycle
20.	Tap water and water consumption	0.15~0.3 MPa	Soft water, 0.4m^3/cycle
21.	Cleaned compressed air	0.4~0.7 MPa	Oil free & water free
22.	Power supply	Driving power: AC 380 V ± 10% 3 phases 50 Hz	
		Control power: AC 220V ± 10% single phase 50Hz	
23.	Pressure display	Analogue pressure gauge for chamber and jacket on the front panel	
24.	Temperature display	Digital Temperature Display on the front panel (touch screen)	
25.	Built-in steam generator	20 kW, working pressure: 0.3MPa	
26.	Fittings on built-in steam generator	Safety valve, Analogue pressure gauge, Water level gauge, water level electric cut out, Automatic air ventilate, Control Switch	
27.	Water pump:	Not less than 3 bar should be fitted with a protection against overload and phase failure.	
28.	Data record	Built-in micro printer	
29.	Loading mothed	By Internal loading cart x 1 and External transfer trolley x 2	
30.	Safety system	Over pressure protect, water level protect, door cannot open in case of pressure, door obstacle system, overload protect, and alarming system	
31.	certification	MDD 93/42 EEC ISO ASME PED	

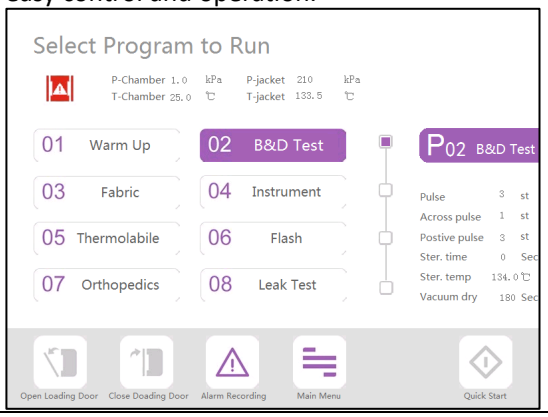
2 Component material

	Component	Material
1.	Chamber	SUS316L
2.	Jacket	SUS316L
3.	Chamber insulation material	Rock wool
4.	Chamber insulation cover	Embossed aluminum sheet
5.	Parts in chamber	SUS316L
6.	Door plate	SUS316L
7.	Door seal	Silicon rubber
8.	Chamber support frame	SUS304
9.	Pipeline system	SUS316L
10.	Built-in steam generator	SUS304
11.	Internal loading cart	SUS316L
12.	External transfer trolley	SUS304

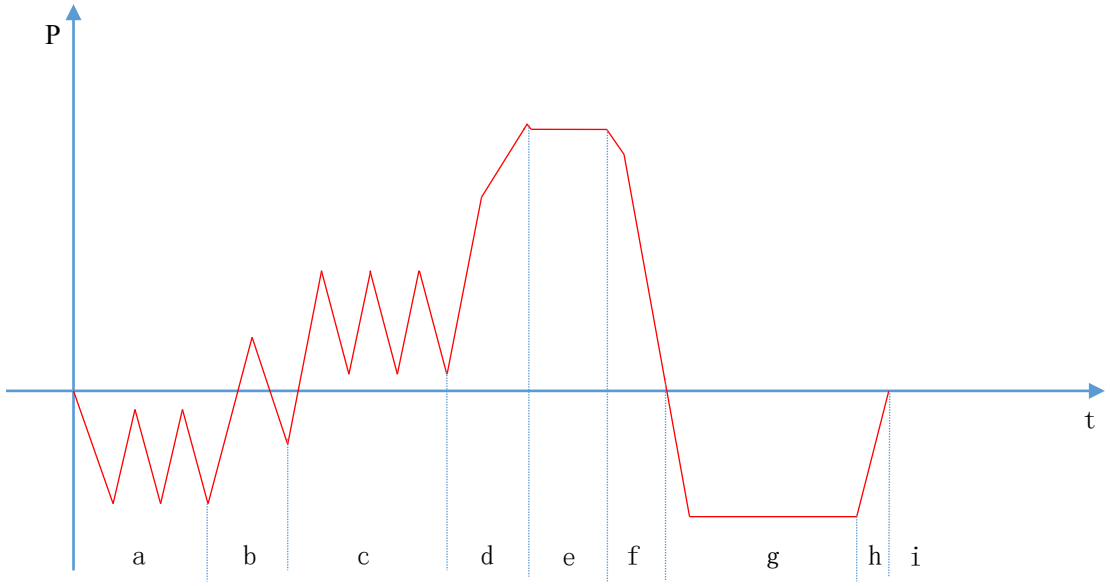
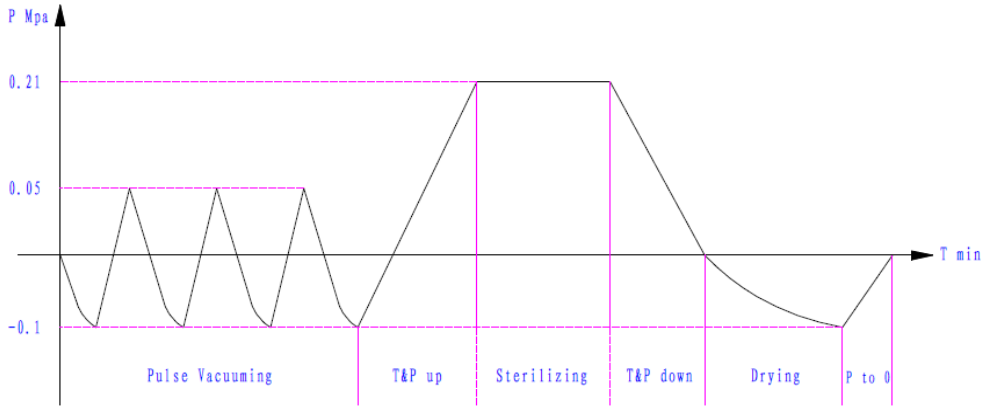
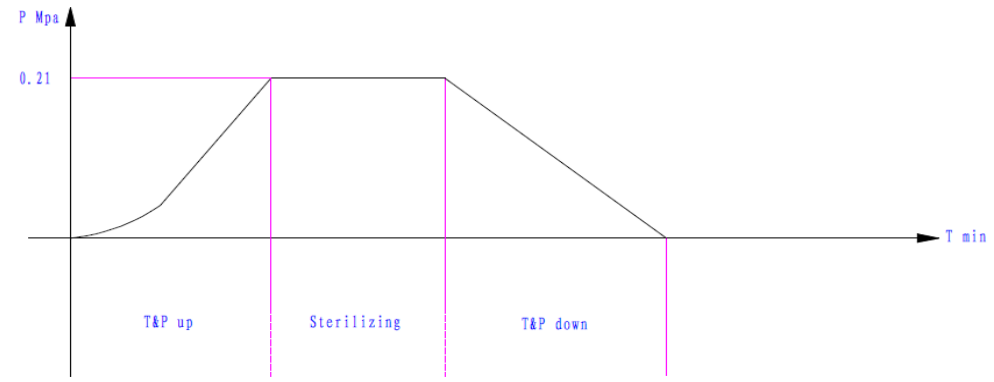
3 Configuration List

No.	Name	Model	Brand	Remark

Xinhua Medical Scientific Zone, Zibo New & Hi-Tech Industrial Development Zone, Shandong Province, P. R. China.
Tel: 0086-533-3587720
E-mail: sales@shinva.com http: // www.shinva.com

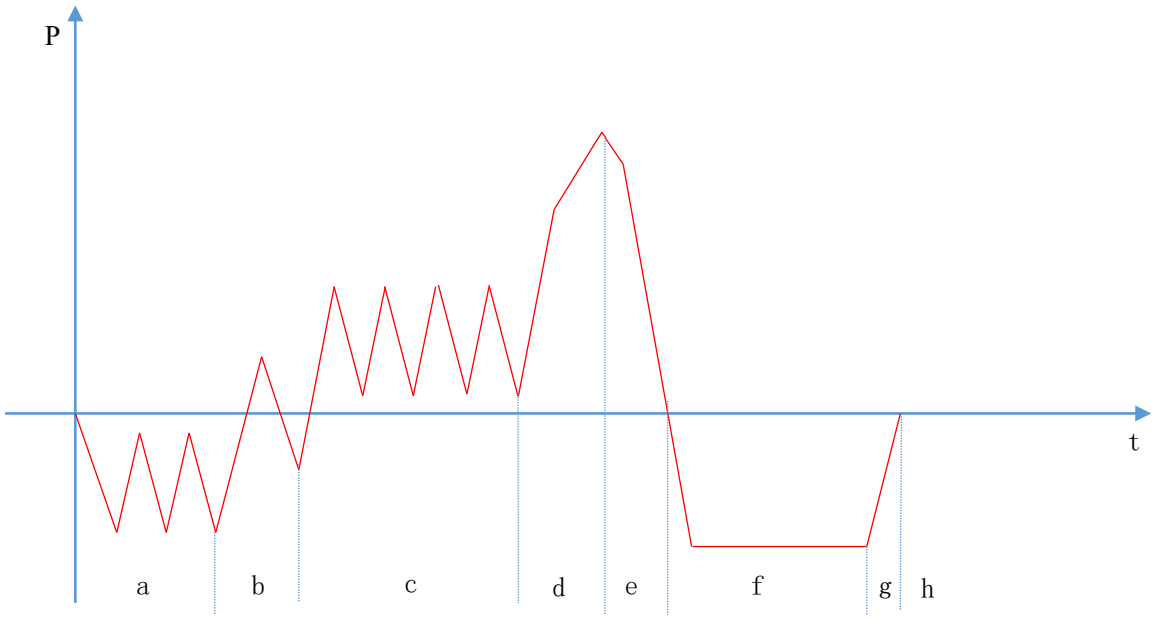
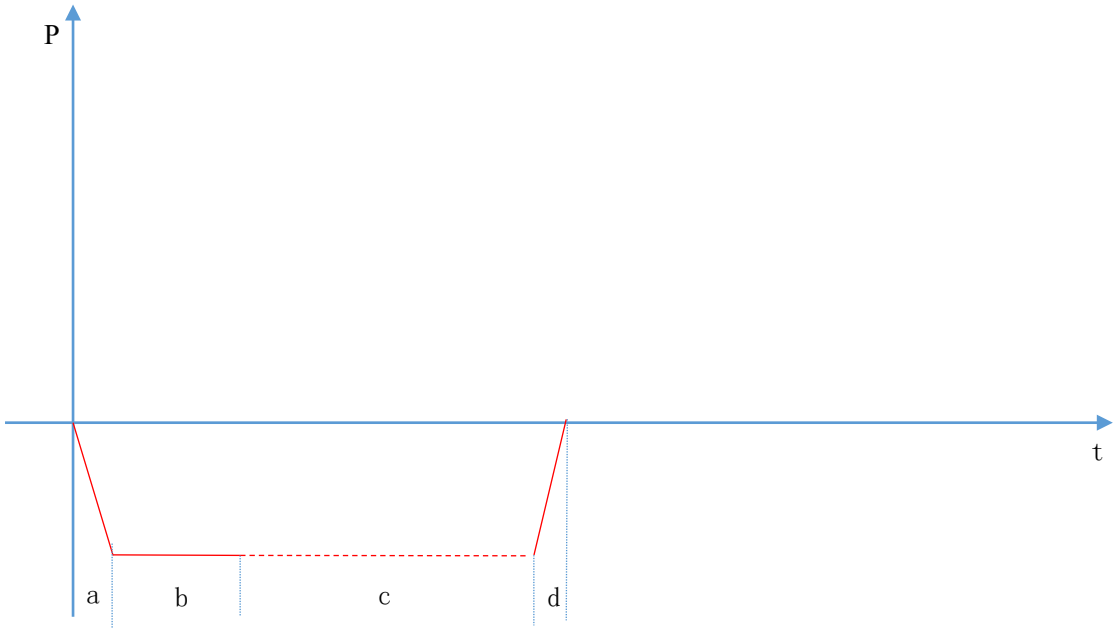
1.	Main Chamber body	XG1.HW.01	SHINVA	Class Ⅰ pressure vessel. Welding by robot Inner chamber is adopted 316L stainless steel; The jacket is 316L steel.
2.	Door	XG1.HW.03	SHINVA	The door inner face is adopted 316L stainless steel; It is electric sliding and compressed air sealing, equipped with safety interlocking and manually controlled open equipment.
3.	Door control switch	MLCA12-TH	OMRON, Japan	Operating Reliably, heat resistant, long service life
4.	PLC	XPC39160	SHINVA	Strong function，advanced performance，high reliability, Multi communication mode.
5.	Touch screen	NSC08-60	SHINVA	8 inch color touch screen, display working process parameters，easy control and operation. 
6.	Sterilization software	Wincc flexible	SHINVA	Multi programs, program modularization management.
7.	thermal printer	WH4008A	SHINVA	Core made in Japan; multi record channels, sterilizing parameter record, long service life.
8.	Pressure transmitter	ECO-1-ABS	WIKA, Germany	Original import from Germany，High precision, high reliability, stable output.
9.	Pressure gauge	-0.1~0.4MPa	WIKA , Germany	High precision
10.	Temperature sensor	Pt100	WIKA , Germany	High precision, mini-measurement error.
11.	Pneumatic valve	554 series	GEMU, Germany	Powerful switch valve, no action error, remote compressed air control.
12.	Vacuum pump	2BV series	Nash Elmo, American	Running stable, no water leakage, high reliability, low noisy.
13.	Air filter	CHL0.2	SHINVA	Ultra-fine sterile filtration, bacterial eliminating rate ≥99.97%
14.	Safety valve	0.3MPa	SHINVA	
15.				
4	**Programs（some of）**			

Xinhua Medical Scientific Zone, Zibo New & Hi-Tech Industrial Development Zone, Shandong Province, P. R. China.
Tel: 0086-533-3587720
E-mail: sales@shinva.com http: // www.shinva.com

Fabric Program	
Instrument Program	
Liquid Program	

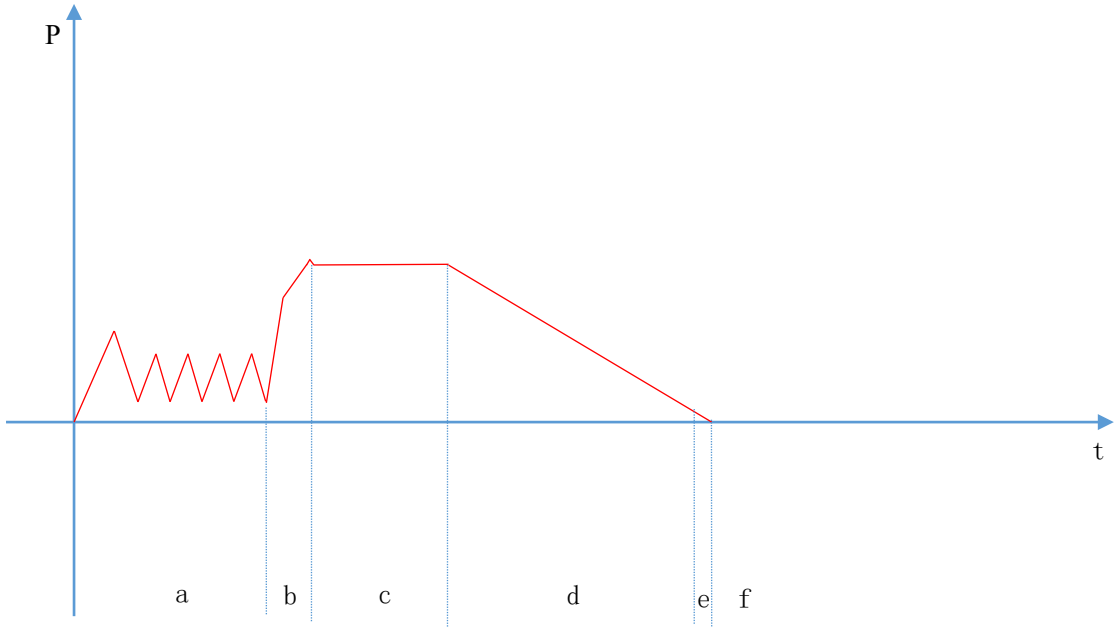
Xinhua Medical Scientific Zone, Zibo New & Hi-Tech Industrial Development Zone, Shandong Province, P. R. China.

Tel: 0086-533-3587720
E-mail: sales@shinva.com http: // www.shinva.com

Warm up	
Leak test	

Xinhua Medical Scientific Zone, Zibo New & Hi-Tech Industrial Development Zone, Shandong Province, P. R. China.

Tel: 0086-533-3587720
E-mail: sales@shinva.com http: // www.shinva.com

Gravity	

Xinhua Medical Scientific Zone, Zibo New & Hi-Tech Industrial Development Zone, Shandong Province, P. R. China.

Tel: 0086-533-3587720
E-mail: sales@shinva.com http: // www.shinva.com