GR SERIES AUTOCLAVE



To meet the requirements of a future lab

GR series intelligent autoclaves - a once-off selection that exempts the worries of continual upgrading

Heavy-gauge sterilization chamber

The heavy-gauge sterilization chamber in a diameter of 40cm offers a massive space to satisfy various sterilization requirements.

Microcomputer control system

The latest "Inspiration" fast-speed microcomputer intelligent control system is highly robust to not only realize the total-process controls of sterilization, but also enable convenient maintenance, inquiry, calibration, recording and upward scalability in the future. It allows three tiers of administrations, i.e. user, user administrator and engineer, to guarantee satisfactory use and management of the autoclave.

Waste sterilization mode

Dedicated waste sterilization procedures are established for effective sterilization of lab wastes.

Drying

Thoroughly drying according to CE standards

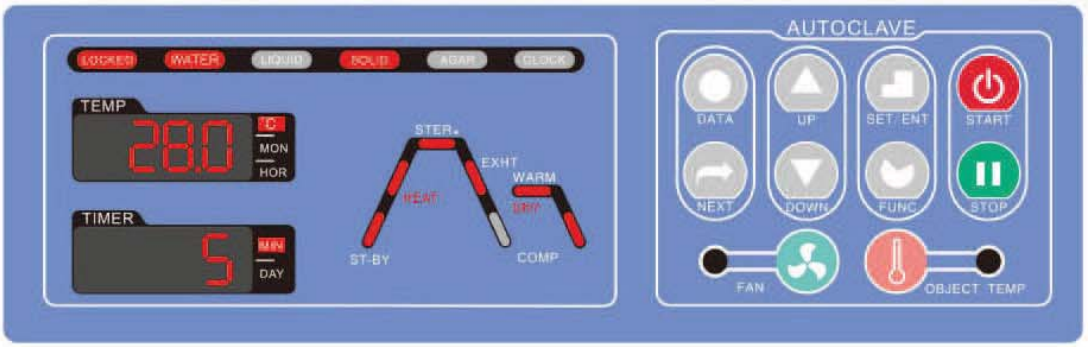
Cooling lock OPEN temperature

Each procedure can set different cooling lock OPEN temperatures according to the thermal inertia of the sterilization object so as to prevent the user from opening the cover and hence getting burnt when the sterilization object (particularly liquid object) is still in an unsafe state.

Sterilizing temperature

105 to 138℃

Simple and easily understandable and operable control panel



The control panel is installed on the top cover for the convenience of operation and observation. A four-digit temperature display that conforms to the latest national and industrial standards is provided. The status flow chart clearly displays the autoclave' s working conditions, including the present sterilization mode, present working state, completed sterilization steps and impending sterilization steps. Press "DATA" key at any time to check the specific parameters of the present procedure.

Preset Procedures

Six sterilization procedures and warming procedures are preset for the sterilizing, warming and drying of solids and liquids, the melting and warming of agars.

Safety

Mechanical interlocking: the unique "eight-column evenly distributed" interlocking device is safer and more reliable than common interlocking devices. The electric double inner locks enable the control system to monitor the temperature and pressure in the sterilization chamber

on a real-time basis and disable opening of the sterilization chamber cover until the safe temperature and pressure are reached, hence guaranteeing the personal safety of the operator.

Agar processing	Timed startup	Saturated steam monitoring
It can heat and melt down and preserve the heat of agars or preheat the sterilization chamber.	It is possible to preset a time program so that the autoclave can be automatically started for sterilization according to the preset schedule.	The system can automatically monitor the discharge conditions of cold air so as to guarantee a sterilizing environment of pure steams and optimal sterilization effects.
Automatic water feeding	Steam discharge control	Ergonomic design
Exempt the convenience of frequent water feeding; water level sensors are installed to automatically stop the autoclave and give out alarms when water is running out.	Upon completion of sterilization procedure, the vent valve can automatically open to discharge steams at the preset temperature.	The chamber cover and bench are covered with a resin coating for heat insulation and to avoid hand burns. The chamber door that flips open upwards saves greater space compared with the horizontally-sliding door. The round-corner design is expected to avoid collisions and personal injuries. The cover open/close device is installed at the front part of the top for convenient operations.
Memory system	Calibration interface	
The operator can set the sterilization parameters and create as many as 60 procedures that can be readily used.	Temperature and pressure calibration interfaces are available for calibration purpose.	

GR Series Configuration

Features	Model	GR60DR GR85DR GR110DR	GR60DF GR85DF GR110DF	GR60DA GR85DA GR110DA
Sterilization mode	Solid mode: Heating→Sterilizing→Exhausting and air cooling	Yes	Yes	Yes
	Solid with drying mode: Heating→Sterilizing→Exhausting and air cooling →Water drainage→Drying	Yes	No	No
	Liquid with warming mode: Heating→Sterilizing→Precooling→Exhausting→ Warming	Yes	Yes	Yes
	Liquid mode: Heating→Sterilizing→Precooling→Steam exhausting	Yes	Yes	Yes
	Waste mode: Heating→Sterilizing→Steam exhausting and air cooling	Yes	Yes	Yes
	Agar mode: Heating→Melting→Warming	Yes	Yes	Yes
Automatic water feeding		Standard	Standard	No
Water level sensor		Standard	Standard	No
Cooling fan		Standard	Standard	Optional
Load thermometer		Optional	Optional	Optional
Printer		Optional	Optional	Optional
Memory system		Create 60 procedures	Create 60 procedures	Create 20 procedures

Technical Data

Model	GR60DR GR60DF GR60DA	GR85DR GR85DF GR85DA	GR110DR GR110DF GR110DA
Capacity	60L	85L	110L
Dimension (L x W x H)	660mmx644mmx980mm	660mmx644mmx980mm	660mmx644mmx1180mm
Sterilization chamber Dimension (Dia. x H)	Φ 400mm x 505mm	Φ 400mm x 700mm	Φ 400mm x 895mm
Rated power supply	220V 50Hz/60Hz		
Rated power	2900W	4600W	4600W
Working environment	5-40℃, relative humidity 10% to 85%		
Sterilization chamber material	SUS304		
Sterilization temperature	105 to 138℃		
Preset range of sterilization time	1 to 300 minutes		
Preset range of melting temperature	60 to 100℃		
Preset range of melting time	1 to 300 minutes		
Preset range of warming temperature	45 to 60℃		
Preset range of warming time	1 to 9999 minutes		
Preset range of drying time	1 to 300 minutes (only for GR60DR/GR85DR/GR1100R)		
Preset range of cooling lock OPEN temperature	40 to 99℃ for solid and agar modes and 40 to 80℃ for liquid and waste modes		
Preset range of steam exhausting temperature	73 to 104℃		
Exhausting mode	Fully automatic internal discharging embedded with a steam trapping bottle		
Preset range of Timer	0 minute - 6 days delayed		
Range of pressure gauge	0 to 0.6Mpa		
Rated working pressure	0.27Mpa		
Controller	"Inspiration" fast-speed microcomputer intelligent control system		
Safety device	"eight-column evenly distributed" interlocking device, electric double inner locks, dry scorch protection, overpressure protection, safety valve, over temperature protection, over current and short circuit protection, leakage protection, cooling lock, anti-scald chamber cover and bench, automatic troubleshooting		
Accessories	stainless steel basket		

Optional Parts

1.Printer: it can record the sterilization parameters and print one set of data per minute.

2.Cooling fan: upon completion of the sterilization procedure, it can compulsorily lower the temperature in the sterilization chamber and hence shorten the operating time and improve work efficiency.

3.Load thermometer: it is particularly applicable for substances with a high thermal inertia, e.g. resin, liquids, etc. After installation of the load thermometer, the thermostatic system can be switched between this sensor and the main instrument sensor.