

## HORIZONTAL HIGH PRESSURE AUTOCLAVE



### KEY FEATURES

#### Triple-Walled Construction:

- Inner chamber, steam jacket, and outer shell made from high-grade stainless steel (SS-304/316).
- Ensures maximum thermal efficiency and uniform heat distribution.
- Quality welding (e.g., argon-arc) and leak-proof design are important for pressure integrity.

#### High Pressure & Temperature Operation:

- Designed to withstand sterilization pressure up to 30 psi (2.1 kg/cm<sup>2</sup>) or higher.
- Temperature range typically up to 134°C or more for effective sterilization.
- Hydraulic testing or pressure vessel certification (i.e., tested at 2.5× working pressure is a big plus for safety).

#### Advanced Safety Features:

- Equipped with pressure relief valve, safety valve, and pressure gauge.
- Automatic pressure cut-off and safety locking mechanism prevent door opening under pressure

#### HMI/PLC Control System:

- Programmable sterilization cycles with timers and alarms.
- Control system: from analog, manual to digital/PID/PLC with touchscreen, data logging etc. Being able to pre-set cycles (e.g., 121 °C/20 min, 134 °C/8 min) matters for repeatability
- Multiple safety layers (electrical protections like MCB, over-temp, over-pressure, alarms) are important

#### Heating System:

- High-efficiency immersion heaters with automatic cut-off to maintain set temperature.
- Steam generated within the jacket or through external boiler connection.
- Loading trays/racks made of SS, moisture trap for condensate to avoid wet loads, drying capability for sterilized loads are desirable features especially in pharma/labs

#### Durable Door & Gasket Design:

- Heavy-duty radial locking mechanism with silicone gasket for leak-proof sealing.
- High-quality insulation minimizes heat loss and keeps the outer surface cool.

#### Compliance & Documentation:

- For applications in pharma/medical research we compliance with standards of GMP and capability to validate cycles (e.g., temperature / pressure charting or digital logging.
- Validation ports, ability to integrate data logger, documentation for sterilization cycles (F0 values etc) is also available.

## TECHNICAL MATRIX

PARAMETERS	HPA-224 A	HPA-224 B	HPA-224 C	HPA-224 D	HPA-224 E	HPA-224 F
Inner Dimensions mm (Dia x Height)	350X550	400X600	400x900	400x1200	500x900	500x1200
Inches Conversion	14" X 22"	16" X 24"	16" X 36"	16" X 48"	20"X36"	20"X48"
Dressing drums Capacity	11"x9" (2Nos)	15"x12" (2Nos)	15"x12" (3 nos )	15"x12" (4Nos)	15"x12" (3Nos)	15"x12" (4Nos)
Volume	50 litres	78 litres	120 litres	150 litres	200 litres	250 litres
Working load	6.0 KW	6.0 KW	9.0 KW	12.0 KW	12.0 KW	12.0 KW
Working pressure gauge	15-30 psi					
Lid quality	Heavy Stainless steel					
Lid tightening	Radial Locking System Worked By Handle					
Gasket	Made Of Silicon Rubber					
Sterilizing pressure	1.2 kgf / cm (15 psi ) at 121o C					
Operating pressure	From 15 to 2 psi (Adjustable )					
Inner pressure tank	Stainless Steel (SS- 304)					
Water Level Indicator	Fitted On the Boiler					
Boiler-Hydraulically Tested	Up to +40 psi					
Controller	Microprocessor Based PID Indicator Cum Controller With Digital Timer					
Safety Device	Spring Loaded Type					
Water Draining System	Hand Operated Valve					
Heating	BY ISI Marked Immersion Heaters					
Steam & Vacuum Release	By Valve					
Power	220 Volts AC supply for higher rating model it will be 440 Volts 3 Phase Supply					

## OPTIONAL ADD ONS

- Vacuum Pump for pre-vacuum and post vacuum
- Validation port / Dressing drums / sterilization indicator tape
- Pneumatic valves/ Air Cylinder operated /Double Door
- HMI based PLC touch screen Feature with 21 CFR based
- RS 232port / USB port , Printer Attachment
- ALL CUSTOMIZATION IS AVAILABLE ON REQUEST