

PLASMA FREEZERS

AVI-124 SERIES



Plasma freezers are designed for the sole purpose of storing blood components, human cells and tissues, blood plasma, etc, at shallow temperatures. The major usage of these freezers is in the medical industry, where they are used to store various laboratory samples at temperatures that go below -86°C . Blood plasma and other blood components are stored at a temperature of around -27°C .

Plasma freezers provide a suitable freezing environment of -30°C to -40°C for safe storage of red cells, cryoprecipitate and platelet concentrate.

Avante plasma freezers come with exceptional cooling qualities with microcontroller based freezers for storing Plasma and other blood components at -40°C . These plasma freezers are specially designed to be used as blood banks and in research laboratories.

CONCEPTION

Avante manufactures high-density cabinets insulated with CFC free Polyurethane Foam for its plasma freezers. The interiors are constructed using stainless Steel (304 SS, 0.8 mm thick) with a mirror finish. The exterior consists of white powder-coated (1.0 mm thick) with mild steel. The doors of these cabinets come with a magnetic gasket and a keyed door lock. Even distribution of temperature is ensured using special wire mesh trays made of stainless steel. These also help with storage inside the cabinet.





REFRIGERATION SYSTEM

Avante provides refrigeration systems which are free of CFC, providing ultimate cooling. Inside the chambers, there is a condensing unit. Avante is a manufacturer of condensing units that are highly capable of transferring heat with low power consumption. This makes our products high quality and completely reliable.



- CFC refrigeration that comes with a time-delay application to safeguard the compressor
- Filter drier keeps humidity and all types of dirt and debris away
- High-quality transfer of heat is assured with the help of inner grooved copper tubes and slit aluminium fins
- Permanently lubricated fan motors with thermal protection
- System protection ensured with safety and control devices

PLASMA FREEZERS FIND TEST APPLICATIONS IN

- Blood banks
- Biomedical research laboratories
- Hospitals
- Universities

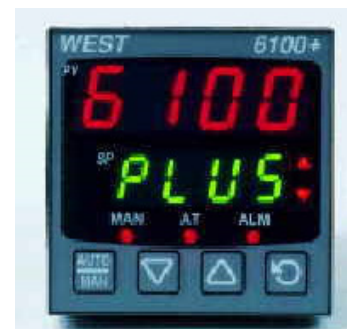


SAFEGUARDING TRAITS

- An MCB to prevent short-circuiting in case of power fluctuation
- Audio-visual alarm that buzzes to pass alerts when the temperatures change from the set temperature
- Overload protector that makes sure the compressor is safe
- Time delay by 180 seconds for compressor switch when ON

TEMPERATURE CONTROLLED SYSTEM

- A microcontroller to keep the temperature inside within $\pm 0.5^{\circ}\text{C}$
- Audiovisual alarm that buzzes to pass alerts when the temperatures change from the set temperature
- Keypad lock made safe using password protection
- LED Display with 4-digit and 7 segment
- Premium quality PT- 100 sensor for assured results and accuracy
- Set and process temperature display
- Temperature based alarm system that can be adjusted with changing high and low temperatures
- A visual alarm that buzzes in case the sensor becomes faulty





PRINCIPLE CHARACTERISTICS

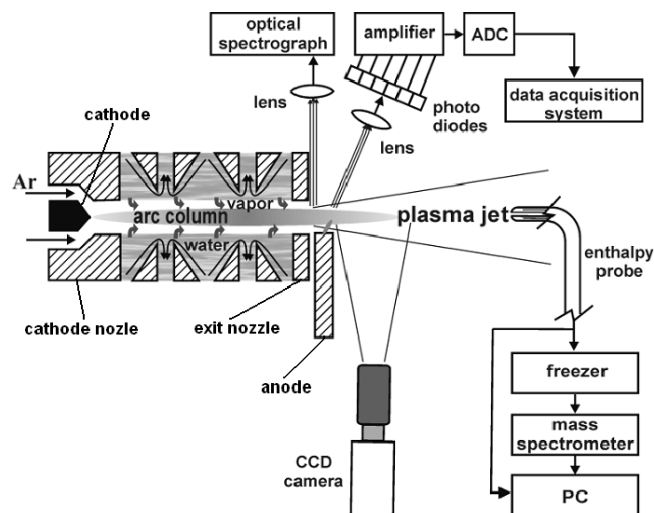
- Even distribution of temperature is ensured with the help of a specially designed Plasma basket made of stainless steel
- Easy movement using castor wheels
- Stable temperature and energy efficiency ensured with foamed in place CFC PUC insulation
- Temperature recording for up to 7 days using a circular chart recorder
- Wide variety of optional accessories

TECHNICAL DATA						
Cat No.	AVI-124A	AVI-124B	AVI-124C	AVI-124D	AVI-124E	AVI-124F
Temperature (°C)	-40.0					
Accuracy (°C)	±1.0					
Uniformity (°C)	Better than ±3.0					
Volume (Liters)	90	170	290	350	450	600
Plasma Bags	90	170	290	350	450	600
No. of Trays	2	3	4	5	6	6
Control system	Micro control / PLC					
Power (W)	250	300	350	400	500	500
Noise level (db)	65					
Voltage VAC	230, 50/60 Hz					
DIMENSIONS (W X D X H) IN MM AND WEIGHT (KG)						
Inner Size	420x380x570	490x420x850	585x500x1000	585x600x1005	685x670x1005	750x790x1040
External Size	580x625x1285	650x670x1565	740x750x1780	740x850x1780	840x720x1780	910x1040x1850
Packing size	710 x760 x1480	780x 800x1760	870x880x1980	870x980x1980	970x1050x1980	1040x1170x2050
Net weight	100	125	150	200	250	300
Gross weight	150	170	200	250	300	350

DISCRETIONARY ACCESSORIES

PC interface communication

This includes a PID controller based on a microcontroller to record, store, print the set values and process values. It also shows date and time with different print timings with RS-485 communication.





PLC system

Programmable Logic Control system comes with a safety controller, auto conversion of Standby systems and several other procedures handling options. It also includes ethernet connectivity, security locks to avoid unauthorised alterations and a 4.3 Colour HMI with a touchscreen.

Power Backup

In case of power failure, the uninterrupted online power supply is provided for PLC.

Chart paper

One packet (100 Nos) of 7- day circular chart compatible with temperature recorder.

Fiber tip pen

One packet (5 Nos) of one- time usable fiber tip pen fully compatible with temperature recorder.



Note: The design, color, specification, and models are subject to transformation due to ending research, development, and technological advances.

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