



# Complete Blood Bank Equipments and Accessories



X2 SERIES

Authentic Instrument Industries Ltd.  
(Previously known as "Authentic Instrument & Automation (P) Ltd.")

## Profile

We, **Authentic Instrument Industries Ltd.** got established in the year 1996. Since the inception, we have been involved in manufacturing Industrial Lab / Research Lab Equipments. Our major role is setting new benchmarks in the field of Blood Bank Equipment. We are counted among the leading manufacturers, exporters, suppliers and service providers of this domain.

We have Rajasthan's biggest scope of NABL accredited calibration laboratory which is utilized for calibrating almost any industrial & medical equipment. We also have testing lab facility of each and every parameter for conformation of **DQ, IQ, OQ, PQ and MQ** of all the medical electrical equipments.

We had also registered in NSIC, SSI (District Industries Centre) of Rajasthan. Our company certified with ISO 9001:2015, ISO 13485:2016 and CE European Conformity.

### **Innovation and Quality**

Since 1996, we have been synonymous with high-quality products fulfilling the most stringent standards and providing the highest reliability. Since then we have won over your trust through consistent innovation, quality and service.

### **Temperature stability and reliable temperature monitoring & recording.**

Our policy of manufacturing our own housing enables us to optimally coordinate all components of our refrigerator and freezers. This is why we have become a world leader in temperature stability, which can be confirmed by numerous validations at customer premises. The reason is that we only manufacture products that are proven to fulfill the most stringent requirements.

We have continuously developed the most reliable and accurate temperature monitoring and recording system. First time in the world, we had developed smart chart controller and recording system.





## Quality:

Quality systems existing at Authentic Instruments comply with the requirement of International standard systems. To achieve the objectives of the quality policy, company plans to implement & achieve Total Quality Management. Quality checks have been Introduced at various work centers of the company under the guidance & expertise of Certified Quality Management Consultants. Persistent follow up by management, internal/external audits and relentless efforts on the part of employees have paid rich dividends. Working in accordance with quality systems has now become a way of life at "**Authentic**".

- NABL Accredited Calibration Lab facility and test lab facility for quality control measures.
- 24x7 customer care services.
- Specialized, continuously trained expert staff.
- Service centre available in major city of India.
- Qualified service engineers team.
- Well equipped and systematic quality control system.
- All the equipments compliance with specific electrical safety requirement with IEC 60601.



## Why Authentic instruments ?

**Why it is worth investing in Authentic blood bank equipments?** Because we use the experience gained from manufacturing blood bank instruments from past 2 decades according to the most stringent quality, functionality and efficiency requirements. **We know**, how sensitive products you need to cool or process, so you can rely 100% on us.

### Robust Housing

Made from rust-proof, galvanized sheet steel with robust, grey powder coating.

### Digital Temperature Display

7.1" Touch Screen Display for viewing the temperature, alarms and two previous week records.

### Glass Doors

Avoid opening the door unnecessarily to inspect the contents.

### Lifetime Comfortable Access

All-length handle inbuilt to the body for better handling.

### Low-noise Compressor

Relative noise level as low as 50 db.

### Heavy duty Castor wheel

Heavy duty advanced castor for mobility and stopper.





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### LED-Illumination

Optimal and energy-efficient interior lightning for inspection mounted on side wall.

### Forced-air Cooling\*

Equipped with an optimized air guide concept. This reduces the physically induced temperature drop and enables an almost constant temperature throughout the chamber.

### Heavy duty Hinges with Door stopper.

All our equipments are equipped with heavy duty hinges, so that you never hear a creaky sound. A door stopper also provided for restricting door opening angle 90° to 110°.

### Ventilation Slits with pre-filters

Proper ventilation for the equipment to keep cool and dust elimination by pre filters which are removable and washable.

\*The model-specific features see the individual product descriptions.

## Simple to operate and safe.

**Our systems are controlled by high-end industrial computers.** This enables precise temperature control and smooth working of our equipments. The X2 Series is equipped with various new and futuristic features while doing it's job as it should be done.



- **7.1" Touch screen** for monitoring and controlling the temperature of the equipment, it is very user friendly and completely programmable.
- **Inkless & paperless** smart chart recording system with 3 weeks chart storage capacity.
- **Digital circular chart** can be downloaded from the controller by using a pen drive. (optional)
- **External Housing Border** made from galvanized sheet (rust proof) of 18 SWG, with black, anti-scratch powder coating.
- **Password Protected** for changing the settings.
- **Interior** consists of a robust industrial computer which is capable of running continuously for very long periods.



### Temperature Indicator

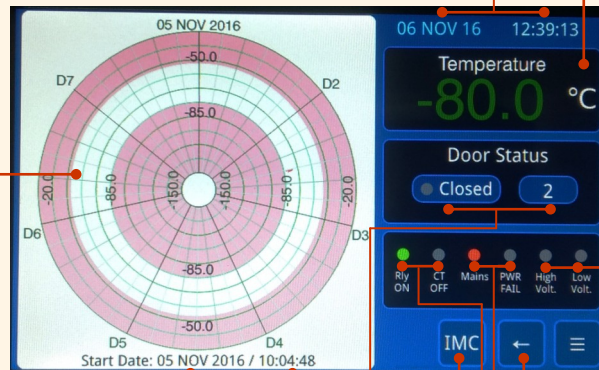
It shows the real time temperature with 0.1 °C accuracy. It's colour coded, when it is in utility temperature range it is in Green colour otherwise it is in Red colour.

### Date and Time Indicator

It shows current date and time.

### Digital Circular Chart

Digital form of circular chart in which red zone means low or high temperature and it can be downloaded to a computer very easily.



### Voltage Indicator

It lights up when the voltage increases or decreases beyond limit.

### Previous Chart

It shows previous two week's recorded circular chart.

### Chart Date and Time

It shows the date and time when above chart started.

### Power Supply Indicator

It lights up when power is available or when power cuts off.

### Door Status and Door open Count Indicator

It shows whether the door is currently Open or Closed, and it also counts the number of times the door has been opened since the starting of the machine.

### Relay status & CT status

It indicates whether the compressor and CT is on or not.

### Digital Instrument Maintenance Card

To view the Maintenance card of the instrument.

Authentic Instrument Maintenance Card - CAL				
Instrument Name : #Cal - Calibration Half Yearly Model : model details model				
Period : period details period details pe Sr. No. : Sr. No. details Sr. N				
Planned Date	Done Date	Name Of Eng.	Remark	
#Cal-1 27 Aug 2016	27 Aug 2016	Nilam	Calibration Complete	
#Cal-2 27 Aug 2016	27 Aug 2016	Nilam	Calibration Complete	

Authentic Instrument Maintenance Card - AMC				
Instrument Name : #Cal - Calibration Half Yearly Model : model details model				
Period : period details period details pe Sr. No. : Sr. No. details Sr. N				
Planned Date	Done Date	Name Of Eng.	Remark	
*PM-1 11-Nov-2016	11-Nov-2016	Nilam	Maintenance Done!!!	
*PM-2 11-Nov-2016	11-Nov-2016	Nilam	Maintenance Done!!!	
*PM-3 11-Nov-2016	11-Nov-2016	Nilam	Maintenance Done!!!	
*PM-4 11-Nov-2016	11-Nov-2016	Nilam	Maintenance Done!!!	

### Instrument Maintenance Card

Now no need to stick Instrument Maintenance Card to the equipment which disrupts it's beauty and wastes paint work on the equipment.

The Digital Instrument Maintenance Card consists the details about the equipment, preventive maintenance and calibration, which helps to determine the quality status of the equipment.

	Blood Storage Cabinets			
Interior Design	BBR-80	BBR-200	BBR-400	BBR-600
<b>Capacity</b> In terms of bags/liters.	80 bags	200 bags	400 bags	600 bags
<b>Temperature Setting</b> The temperature at which the equipment is utilized.	+4°C	+4°C	+4°C	+4°C
<b>Ambient Temperature</b> The temperature up to which equipment could run efficiently.	Yes	Yes	Yes	Yes
<b>Touch Screen Interface</b> User friendly touch screen interface for temperature monitoring and controlling	Yes	Yes	Yes	Yes
<b>Compatibility with Central Monitoring System</b> Central Monitoring System allows to display the temperature and alarms of all the connected equipments at one place.	Yes	Yes	Yes	Yes
<b>External Size (W x D x H)</b> Total Size of the equipment in “inches”.	24”x28”x54”	29”x 33”x70”	32”x34”x72”	40”x40”x72”
<b>Number of Drawers/ Trays</b> Stainless Steel buffed drawers/ trays with channel mechanism.	3	5	6	8
<b>Capacity per Drawer</b> Number of blood/plasma bags that could be carried in one drawer.	17	40	67	80
<b>Cool down Time</b> Time required for the instrument to reach utility temperature from ambient temperature on full load.	3 hours	4 hours	5 hours	5 hours
<b>Hold Over Time</b> Time up to which the equipment could hold the temperature after power failure	2* hours	3* hours	4* hours	4* hours
<b>Ground Clearance</b>	95 mm	100 mm	100 mm	100 mm

**Note:** \* : Minimum time for Full load of blood packet at +4°C to reach +6°C.

\*\* : Minimum time for Full load of blood packet at –35°C to reach –20°C.



Plasma Storage Cabinet		Plasma Storage Cabinet			Platelet Incubator cum Agitator	
DF-325	DF-650	UDF-165	UDF-325	UDF-525	PIA-60	PIA-120
325 liters	650 liters	165 liters	325 liters	525 liters	60 bags	120 bags
-40°C	-40°C	-86°C	-86°C	-86°C	+22°C	+22°C
Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes
31"x33"x73"	42"x40"x74"	34" x 33" x 72"	38"x38"x72"	44"x44"x78"	24"x28"x54"	29"x33"x70"
3	5	2	3	3	10	14
—	—	—	—	—	6	9
8 hours	15 hours	16 hours	18 hours	20 hours	30 minutes	30 minutes
3** hours	6** hours	4*** hours	5*** hours	6*** hours	2 <sup>a</sup> hours	2 <sup>a</sup> hours
100 mm	100 mm	100 mm	100 mm	100 mm	90 mm	100 mm

**Note:** \*\*\* : Minimum time for Full load of blood packet at –80°C to reach –20°C.

<sup>a</sup> : Minimum time for Full load of blood packet at +20°C to reach +24°C.

**Digital Temperature Display**

7.1" Touch Screen Display for viewing the temperature, alarms and previous week records.

**USB drive support**

So that you could download the digital paperless, inkless circular charts to your computer in non-editable jpeg format.



**BBR-80**

**Lifetime Comfortable Access**

Full length handle for easy access from all heights.

**Miniature Circuit Breaker**

It cuts off the power to the equipment in case of voltage peaks to protect inner circuitry.

**Forced-air Cooling**

Equipped with an optimized air guide concept. This reduces the physically induced temperature drop and enables an almost constant temperature throughout the body.

**Easy drawers**

A total of 3 drawers are set on channels for easy access to blood bags.

**Key locking system**

High quality locks for locking the door from unauthorized access.

**Low-noise Compressor**

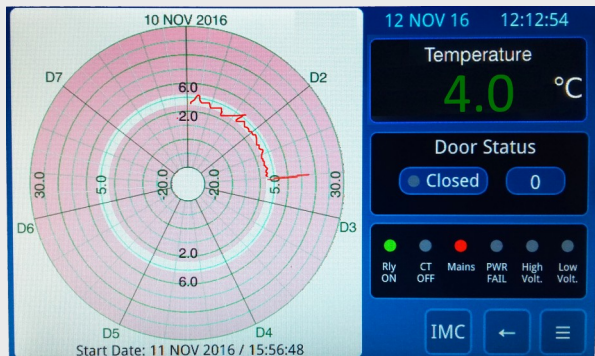
Relative noise level as low as 50 db.

**Lockable Castor wheels**

Heavy duty lockable Castor wheels for locking the equipment in place.

**Ventilation Slits with pre-filters**

Proper ventilation for the equipment to keep cool and dust elimination by pre filters which are removable and washable.



**LCD Screen Display for Blood Storage Cabinets**



**Heavy-duty Level adjustment and Easy mobility lockable Castor Wheels**

For more details please visit : [www.authenticjaipur.com](http://www.authenticjaipur.com)



## BBR-80

- **Purpose** : To store Blood bags at +4°C to stop the decay process of blood.
- **7.1" Touch screen** for monitoring and controlling the temperature of the equipment.
- **Inkless & paperless** smart chart recording system with 3 weeks chart storage capacity.
- **Digital circular chart** can be downloaded from the controller by using a pen drive\*.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.
- **Lockable Castor Wheels** to lock the equipment in place without moving.
- **Interior** made from 304 grade 22 SWG stainless steel.
- **Interior consists** of three drawers on channels with stop,
- **Capacity per drawer** approx. 27 blood bags, 500 ml each.
- **Door stop** on the right-hand side to stop the door from opening more than 100-110 degrees.
- **Forced air cooling** with axial blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviation.
- **Front door** double Vacuum packed toughened glass.
- **Warning function** with visual and audible alarm signal in the case of power failure, temperature deviations, voltage fluctuation, door left open (after 60 seconds).
- **Battery backup**<sup>^</sup> for up to 36 hours for temperature and chart recording system.
- **Central Monitoring System** compatible so that temperatures from all the equipment could be seen at one place.
- **Ventilation-enforced refrigerating machine**, vibration free, hermetically sealed, energy saving, low noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front and the back.
- **Low-noise compressor** reduces noise to a negligible range.

### Specification

Capacity	80 bags
Temperature Setting	+4°C
Voltage	220 - 240 V, 50Hz
Overall Dimensions	24" x 28" x 54" (inches)
Interior Dimensions	17" x 21" x 28" (inches)
Starting/Running Current	3 A / 2 A
Ground Clearance	90 mm
Cool Down time (at full load)	3 hours
Hold Over time (at full load)	2 hours
Temperature Gradient <sup>#</sup>	±1°C
Catalog Number	AIL-20101

\* Supported capacity for pen drive is capped at 4 GB.

<sup>#</sup> It is the maximum temperature difference between different parts of interior.

<sup>^</sup> Battery backup is not provided for the equipment.

This picture is for visual purpose only, actual colours may vary.

### Highlights

- **Automatically** mails the digital circular chart at 3 e-mail IDs every weekend and can mail any time by using Manual Mail function.
- In case of fault occurrence, a SMS is sent to a primary number, then he has to acknowledge the fault by using Acknowledge function, if he doesn't acknowledge the fault then a SMS is sent to a higher authority.
- **GSM Module** for alarm text message and e-mail forwarding about all the faults.
- **Port for Central Monitoring System** for viewing the temperatures of all the blood bank equipments at same place on 10.3" Touch Screen industrial computer.
- **USB port** for chart downloading to pen drive\*.

<b>Declaration for Design, Installation, Operation, Performance and Maintenance Qualification</b>			
<b>Technical Parameter Specification</b>			
<b>Sr Nos</b>	<b>Particulars</b>	<b>Minimum Requirement / Standard.</b>	<b>Declared</b>
1	Temperature Indicator	4.0°C	4.0°C
2	Temperature Recorder	4.1°C	4.1°C
3	Gradient Temp. in Chamber	≤2°C	≤1°C
4	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	2 minute
5	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.
6	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	traditional	Smart electronic weekly circular temperature chart recorder
7	Low Temp. Alarm:-Alarming after 2°C with delay of 2 min.	2-5 minute	2 minute
8	High Temp. Alarm:-Alarming after 6°C with delay of 2 min.	2-5 minute	2 minute
9	front glass double toughened	Found	Found
10	Surface Temperature of body at +4°C inside temp after 48 hrs.	Equal to ambient Temp.	Equal to ambient Temp.
11	Frosting at gate.	Should Never Seen	Never Seen
12	Moisture at door	Should Never Seen	Never Seen
13	Cool down time (Full load of blood packet at +25 °C to +4 °C) at +43 °C ambient temperature.	6 hours	2 hours
14	Hold over time (Full load of blood packet at +4 °C to more than +6 °C) at 25 °C	2 hours	2 hours
15	Blood Packets Carrying Capacity	80 Bags	80 Bags
16	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40
<b>Electrical Safety</b>			
17	Mains Voltage: Live to Neutral	240 V AC	240 V AC
18	Mains Voltage: Live to Earth	240 V AC	240 V AC
19	Mains Voltage: Neutral to Earth	Max. 5 V AC	Max. 5 V AC
20	Equipment Current	Max 5 Amp.	Max 3 Amp.
21	Power plug unbreakable with Line	Line	Line
22	Leakage Earth	5 V AC Max.	5 V AC Max.
23	Noise level test	Less than 55 dB	Less than 52 dB
24	Starting amp.	Max. 5.0 Amp.	Max 3 Amp.
25	Running amp.	2-4 Amp.	2 – 3 Amp.
26	Power Failure Alarm	Available	Available
27	High Voltage Indicator	Available	Available
28	Low Voltage Indicator	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIREMENTS FOR SMOOTH WORKING</b>			
<b>VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX</b>			
29	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For Neutral
30	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For Earthing
31	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For Earthing

## Blood Storage Cabinet

### Declaration for Design (DQ), Installation (IQ), Operation (OQ), Performance (PQ) and Maintenance Qualification (MQ)

Requirement of Drug Act.

√

#### PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING

Sr. Nos	Particulars	Min. Requirement / Std.	Observed	(DQ)	(IQ)	(OQ)	(PQ)	(MQ)
1	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For NEUTRAL	√	√			√
2	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For EARTHING	√	√			√
3	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For Earthing	√	√			√
<b>Electrical Safety Requirements</b>								
4	Equipment Current	Max 5 Amp.	Max 3.5 Amp.	√		√	√	√
5	Power plug unbreakable with Line	Line	Line	√	√			√
6	Leakage Earth	5 V AC Max.	5 V AC Max.	√	√		√	√
7	Noise level test	Less than 55 dB	Less than 52 dB	√	√	√	√	√
8	Starting amp.	Max. 5.0 Amp.	Max 3.5 Amp.	√		√	√	√
9	Running amp.	2-4 Amp.	1.5 – 2.5 Amp.	√		√	√	√
10	Power Failure Alarm	Available	Available	√	√	√	√	√
11	High Voltage Indicator	Available	Available	√		√	√	√
12	Low Voltage Indicator	Available	Available	√		√	√	√
<b>Technical Requirements</b>								
13	Temperature Indicator	4.0°C	4.0°C	√	√	√	√	√
14	Temperature Recorder	4.1°C	4.1°C	√	√	√	√	√
15	Gradient Temp. in Chamber	≤2°C	≤1°C	√		√	√	√
16	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	2 minute	√	√	√	√	√
17	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.	√			√	√
18	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	traditional	Smart chart recorder	√	√		√	√
19	Low Temp. Alarm:-Alarming after 2°C with delay of 2 min.	2-5 minute	2 minute	√		√		√
20	High Temp. Alarm:-Alarming after 6°C with delay of 2 min.	2-5 minute	2 minute	√	√	√		√
21	Front glass double toughened	Found	Found	√	√			
22	Surface Temperature of body at +4°C inside temp after 48 hrs.	Equal to ambient Temp.	Equal to ambient Temp.	√		√	√	
23	Frosting at gate.	Should Never Seen	Never Seen	√		√	√	√
24	Moisture at door	Should Never Seen	Never Seen	√	√	√	√	√
25	Cool down time (Full load of blood packet at +25 °C to +4 °C) at +43 °C ambient temperature.	8 hours	4 hours	√		√	√	√
26	Hold over time (Full load of blood packet at +4 °C to more than +6 °C) at 25 °C	2 hours	3 hours	√		√	√	√
27	Blood Packets Carrying Capacity	100 Bags	100 Bags	√	√	√		
28	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40	√		√	√	√
29	Effectiveness of Cooling unit (Heat Exchanger)	60 %	70 %	√		√	√	√



### Digital Temperature Display

7.1" Touch Screen Display for viewing the temperature, alarms and previous week records.

### Sticker sticking area

Dedicated space for sticking the stickers during calibration or services.

### Miniature Circuit Breaker

It cuts off the power to the equipment in case of voltage peaks to protect inner circuitry.

### Forced-air Cooling

Equipped with an optimized air guide concept. This reduces the physically induced temperature drop and enables an almost constant temperature throughout the body.

### Lifetime Comfortable Access

Full length handle for easy access from all heights.

### Heavy duty Hinges with Door stopper.

All our equipments are equipped with heavy duty hinges, so that you never hear a creaky sound. A door stopper also provided for restricting door opening angle 90° to 110°.

### Easy drawers

A total of 5 drawers are set on channels for easy access to blood bags.

### Low-noise Compressor

Relative noise level as low as 50 db.

### Key locking system

High quality locks for locking the door from unauthorized access.

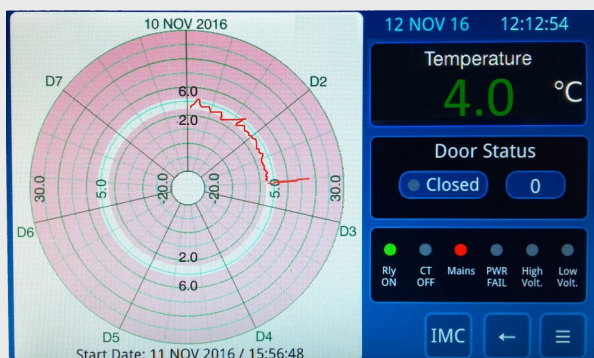
### Ventilation Slits with pre-filters

Proper ventilation for the equipment to keep cool and dust elimination by pre filters which are removable and washable.

### Lockable Castor wheels

Heavy duty lockable Castor wheels for locking the equipment in place.

BBR-200



LCD Screen Display for Blood Storage Cabinets



Heavy-duty Level adjustment and Easy mobility lockable Castor Wheels

## BBR-200, BBR-400 and BBR-600

- **Purpose** : To store Blood bags at +4°C to stop the decay process of blood.
- **7.1" Touch screen** for monitoring and controlling the temperature of the equipment.
- **Inkless & paperless** smart chart recording system with 3 weeks chart storage capacity.
- **Digital circular chart** can be downloaded from the controller by using a pen drive\*.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.
- **Lockable Castor Wheels** to lock the equipment in place without moving.
- **Interior** made from 304 grade 22 SWG stainless steel.
- **Interior consists** of three drawers on channels with stop,
- **Capacity per drawer** approx. 40, 67 and 100 blood bags, 500 ml each.
- **Door stop** on the right-hand side to stop the door from opening more than 100-110 degrees.
- **Forced air cooling** with axial blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviation.
- **Front door** double Vacuum packed toughened glass.
- **Warning function** with visual and audible alarm signal in the case of power failure, temperature deviations, voltage fluctuation, door left open (after 60 seconds).
- **Battery backup**<sup>^</sup> for up to 36 hours for temperature and chart recording system.
- **Central Monitoring System** compatible so that temperatures from all the equipment could be seen at one place.
- **Ventilation-enforced refrigerating machine**, vibration free, hermetically sealed, energy saving, low noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front and the back.
- **Low-noise compressor** reduces noise to a negligible range.

### Specification

Specification	BBR-200	BBR-400	BBR-600
Capacity	200 bags	400 bags	600 bags
Temperature Setting	+4°C	+4°C	+4°C
Voltage	220 - 240 V, 50Hz	220 - 240 V, 50Hz	220 - 240 V, 50Hz
Overall Dimensions	29"x 33"x70" (inches)	32"x34"x72" (inches)	40"x40"x72" (inches)
Interior Dimensions	23" x 23" x 42" (inches)	26" X 24" 44" (inches)	36" x 36" x 44" (inches)
Starting/Running Current	3.5 A / 2 A	4.5 A / 3 A	8 A / 6 A
Ground Clearance	100 mm	100 mm	100 mm
Cool Down time (at full load)	4 hours	5 hours	6 hours
Hold Over time (at full load)	3 hours	4 hours	4 hours
Temperature Gradient <sup>#</sup>	±1°C	±1°C	±1°C
Catalog Number	AIL-20102	AIL-20103	AIL-20104

### Highlights

- **Automatically** mails the digital circular chart at 3 e-mail IDs every weekend and can mail any time by using Manual Mail function.
- In case of fault occurrence, a SMS is sent to a primary number, then he has to acknowledge the fault by using Acknowledge function, if he doesn't acknowledge the fault then a SMS is sent to a higher authority.
- **GSM Module** for alarm text message and e-mail forwarding about all the faults.
- **Port for Central Monitoring System** for viewing the temperatures of all the blood bank equipments at same place on 10.3" Touch Screen industrial computer.
- **USB port** for chart downloading to pen drive\*.

\* Supported capacity for pen drive is capped at 4 GB.

<sup>#</sup> It is the maximum temperature difference between different parts of interior.

<sup>^</sup> Battery backup is not provided for the equipment.

This picture is for visual purpose only, actual colours may vary.

**Declaration for Design, Installation, Operation, Performance and Maintenance Qualification****Technical Parameter Specification**

Sr Nos	Particulars	Minimum Requirement / Standard.	Declared
1	Temperature Indicator	4.0°C	4.0°C
2	Temperature Recorder	4.1°C	4.1°C
3	Gradient Temp. in Chamber	≤2°C	≤1°C
4	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	2 minute
5	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.
6	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	traditional	Smart electronic weekly circular temperature chart recorder
7	Low Temp. Alarm:-Alarming after 2°C with delay of 2 min.	2-5 minute	2 minute
8	High Temp. Alarm:-Alarming after 6°C with delay of 2 min.	2-5 minute	2 minute
9	front glass double toughened	Found	Found
10	Surface Temperature of body at +4°C inside temp after 48 hrs.	Equal to ambient Temp.	Equal to ambient Temp.
11	Frosting at gate.	Should Never Seen	Never Seen
12	Moisture at door	Should Never Seen	Never Seen
13	Cool down time (Full load of blood packet at +25 °C to +4 °C) at +43 °C ambient temperature.	6 hours	4 hours
14	Hold over time (Full load of blood packet at +4 °C to more than +6 °C) at 25 °C	2 hours	4 hours
15	Blood Packets Carrying Capacity	200 Bags	200 Bags
16	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40
<b>Electrical Safety</b>			
17	Mains Voltage: Live to Neutral	240 V AC	240 V AC
18	Mains Voltage: Live to Earth	240 V AC	240 V AC
19	Mains Voltage: Neutral to Earth	Max. 5 V AC	Max. 5 V AC
20	Equipment Current	Max 5 Amp.	Max 3.5 Amp.
21	Power plug unbreakable with Line	Line	Line
22	Leakage Earth	5 V AC Max.	5 V AC Max.
23	Noise level test	Less than 55 dB	Less than 52 dB
24	Starting amp.	Max. 5.0 Amp.	Max 3.5 Amp.
25	Running amp.	2-4 Amp.	1.5 – 2 Amp.
26	Power Failure Alarm	Available	Available
27	High Voltage Indicator	Available	Available
28	Low Voltage Indicator	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIREMENTS FOR SMOOTH WORKING</b>			
VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX			
29	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For Neutral
30	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For Earthing
31	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For Earthing



<b>Declaration for Design, Installation, Operation, Performance and Maintenance Qualification</b>			
<b>Technical Parameter Specification</b>			
<b>Sr Nos</b>	<b>Particulars</b>	<b>Minimum Requirement / Standard.</b>	<b>Declared</b>
1	Temperature Indicator	4.0°C	4.0°C
2	Temperature Recorder	4.1°C	4.1°C
3	Gradient Temp. in Chamber	≤2°C	≤1°C
4	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	2 minute
5	Circular temperature recorder weekly	1 week	Weekly with Previous 2 Week Storage.
6	Paperless/inkless/traditional	Traditional	Smart Chart Recorder
7	Low Temp. Alarm:-Alarming after 2°C with delay of 2 min.	2-5 minute	2 minute
8	High Temp. Alarm:-Alarming after 6°C with delay of 2 min.	2-5 minute	2 minute
9	front glass double toughened	Found	Found
10	Surface Temperature of body at +4°C inside temp after 48 hrs.	Equal to ambient Temp.	Equal to ambient Temp.
11	Frosting at gate.	Should Never Seen	Never Seen
12	Moisture at door	Should Never Seen	Never Seen
13	Cool down time (Full load of blood packet at +25 °C to +4 °C) at +43 °C ambient temperature.	8 hours	4 hours
14	Hold over time (Full load of blood packet at +4 °C to more than +6 °C) at 25 °C	2 hours	5 hours
15	Blood Packets Carrying Capacity	400 Bags	400 Bags
16	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40
<b>Electrical Safety</b>			
17	Mains Voltage: Live to Neutral	240 V AC	240 V AC
18	Mains Voltage: Live to Earth	240 V AC	240 V AC
19	Mains Voltage: Neutral to Earth	Max. 5 V AC	Max. 5 V AC
20	Equipment Current	Max 6 Amp.	Max 3.5 Amp.
21	Power plug unbreakable with Line	Line	Line
22	Leakage Earth	5 V AC Max.	5 V AC Max.
23	Noise level test	Less than 55 dB	Less than 52 dB
24	Starting amp.	Max. 6.0 Amp.	Max 3.5 Amp.
25	Running amp.	2-4 Amp.	2 – 3 Amp.
26	Power Failure Alarm	Available	Available
27	High Voltage Indicator	Available	Available
28	Low Voltage Indicator	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING</b>			
<b>VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX</b>			
29	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For Neutral
30	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For Earthing
31	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For Earthing

<b>Declaration for Design, Installation, Operation, Performance and Maintenance Qualification</b>			
<b>Technical Parameter Specification</b>			
<b>Sr Nos</b>	<b>Particulars</b>	<b>Minimum Requirement / Standard.</b>	<b>Declared</b>
1	Temperature Indicator	4.0°C	4.0°C
2	Temperature Recorder	4.1°C	4.1°C
3	Gradient Temp. in Chamber	≤2°C	≤1°C
4	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	2 minute
5	Circular temperature recorder weekly	1 week	Weekly with Previous 2 Week Storage.
6	Paperless/inkless/traditional	Traditional	Smart Chart Recorder
7	Low Temp. Alarm:-Alarming after 2°C with delay of 2 min.	2-5 minute	2 minute
8	High Temp. Alarm:-Alarming after 6°C with delay of 2 min.	2-5 minute	2 minute
9	front glass double toughened	Found	Found
10	Surface Temperature of body at +4°C inside temp after 48 hrs.	Equal to ambient Temp.	Equal to ambient Temp.
11	Frosting at gate.	Should Never Seen	Never Seen
12	Moisture at door	Should Never Seen	Never Seen
13	Cool down time (Full load of blood packet at +25 °C to +4 °C) at +43 °C ambient temperature.	10 hours	6 hours
14	Hold over time (Full load of blood packet at +4 °C to more than +6 °C) at 25 °C	2 hours	6 hours
15	Blood Packets Carrying Capacity	600 Bags	600 Bags
16	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40
<b>Electrical Safety</b>			
	<b>Particulars</b>	<b>Minimum Requirement / Standard.</b>	<b>Declared</b>
17	Mains Voltage: Live to Neutral	240 V AC	240 V AC
18	Mains Voltage: Live to Earth	240 V AC	240 V AC
19	Mains Voltage: Neutral to Earth	Max. 5 V AC	Max. 5 V AC
20	Equipment Current	Max 8 Amp.	Max 6 Amp.
21	Power plug unbreakable with Line	Line	Line
22	Leakage Earth	5 V AC Max.	5 V AC Max.
23	Noise level test	Less than 60 dB	Less than 55 dB
24	Starting amp.	Max. 8.0 Amp.	Max 6 Amp.
25	Running amp.	4-6 Amp.	3.8 - 4.5 Amp.
26	Power Failure Alarm	Available	Available
27	High Voltage Indicator	Available	Available
28	Low Voltage Indicator	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING</b>			
<b>VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX</b>			
29	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For Neutral
30	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For Earthing
31	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For Earthing

## Blood Storage Cabinet

### Declaration for Design (DQ), Installation (IQ), Operation (OQ), Performance (PQ) and Maintenance Qualification (MQ)

Requirement of Drug Act.

√

#### PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING

Sr. Nos	Particulars	Min. Requirement / Std.	Observed	(DQ)	(IQ)	(OQ)	(PQ)	(MQ)
1.	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For NEUTRAL	√	√			√
2.	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For EARTHING	√	√			√
3.	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For Earthing	√	√			√

#### Electrical Safety Requirements

4.	Equipment Current	Max 5 Amp.	Max 3.5 Amp.	√		√	√	√
5.	Power plug unbreakable with Line	Line	Line	√	√			√
6.	Leakage Earth	5 V AC Max.	5 V AC Max.	√	√		√	√
7.	Noise level test	Less than 55 dB	Less than 52 dB	√	√	√	√	√
8.	Starting amp.	Max. 5.0 Amp.	Max 3.5 Amp.	√		√	√	√
9.	Running amp.	2-4 Amp.	1.5 – 2.5 Amp.	√		√	√	√
10.	Power Failure Alarm	Available	Available	√	√	√	√	√
11.	High Voltage Indicator	Available	Available	√		√	√	√
12.	Low Voltage Indicator	Available	Available	√		√	√	√

#### Technical Requirements

	Temperature Indicator	4.0°C	4.0°C	√	√	√	√	√
	Temperature Recorder	4.1°C	4.1°C	√	√	√	√	√
	Gradient Temp. in Chamber	≤2°C	≤1°C	√		√	√	√
	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	2 minute	√	√	√	√	√
	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.	√			√	√
	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	traditional	Smart chart recorder	√	√		√	√

Sr. Nos	Particulars	Min. Requirement / Std.	Observed	(DQ)	(IQ)	(OQ)	(PQ)	(MQ)
	Low Temp. Alarm:-Alarming after 2°C with delay of 2 min.	2-5 minute	2 minute	√		√		√
	High Temp. Alarm:-Alarming after 6°C with delay of 2 min.	2-5 minute	2 minute	√	√	√		√
	Front glass double toughened	Found	Found	√	√			
	Surface Temperature of body at +4°C inside temp after 48 hrs.	Equal to ambient Temp.	Equal to ambient Temp.	√		√	√	
	Frosting at gate.	Should Never Seen	Never Seen	√		√	√	√
	Moisture at door	Should Never Seen	Never Seen	√	√	√	√	√
	Cool down time (Full load of blood packet at +25 °C to +4 °C) at +43 °C ambient temperature.	8 hours	4 hours	√		√	√	√
	Hold over time (Full load of blood packet at +4 °C to more than +6 °C) at 25 °C	2 hours	3 hours	√		√	√	√
	Blood Packets Carrying Capacity	100 Bags	100 Bags	√	√	√		
	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40	√		√	√	√
	Effectiveness of Cooling unit (Heat Exchanger)	60 %	70 %	√		√	√	√





### Digital Temperature Display

7.1" Touch Screen Display for viewing the temperature, alarms and previous week records.

### Miniature Circuit Breaker

It cuts off the power to the equipment in case of voltage peaks to protect inner circuitry.

### Lifetime Comfortable Access

Full length handle for easy access from all heights.

### Powder Coated

High Impact Powder Coating for Scratch and Corrosion Resistance.

### Easy removable perforated tray

3 or more trays are set for easy access to plasma bags.

### Key locking system

High quality locks for locking the door from unauthorized access.

### Low-noise Compressor

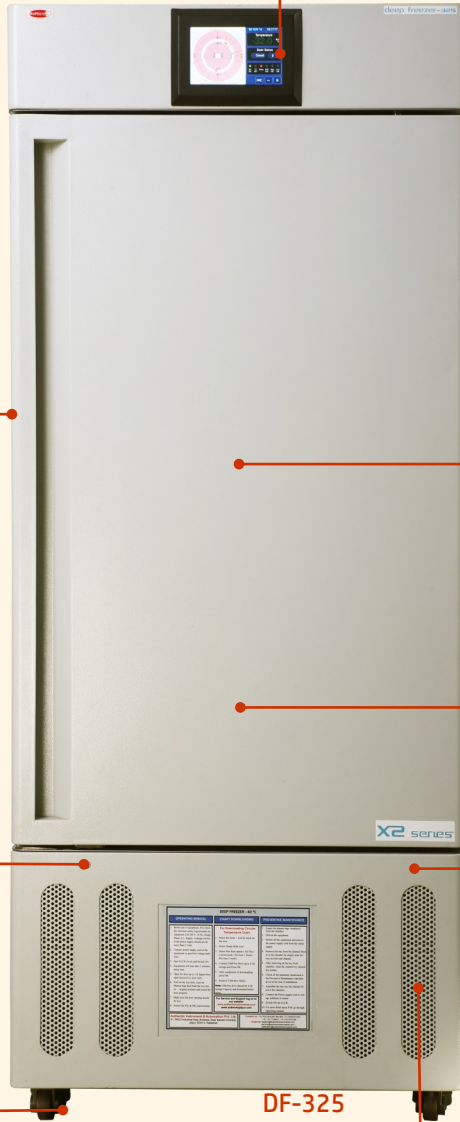
Relative noise level as low as 50 db.

### Lockable Castor wheels

Heavy duty lockable Castor wheels for locking the equipment in place.

### Ventilation Slits with pre-filters

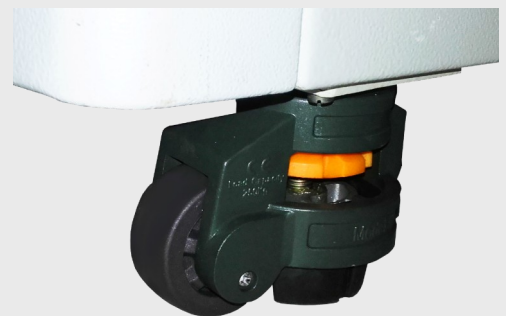
Proper ventilation for the equipment to keep cool and dust elimination by pre filters which are removable and washable.



DF-325



LCD Screen Display for Plasma Storage Cabinet (-40°C)s



Heavy-duty Level adjustment and Easy mobility lockable Castor Wheels

For more details please visit : [www.authenticjaipur.com](http://www.authenticjaipur.com)

## Plasma Storage Cabinet (-40°C)

- **Purpose** : To store Plasma bags at -40°C to increase its life span upto ~1 years.
- **7.1" Touch screen** for monitoring and controlling the temperature of the equipment.
- **Inkless & paperless** smart chart recording system with 3 weeks chart storage capacity.
- **Digital circular chart** can be downloaded from the controller by using a pen drive\*.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.
- **Lockable Castor Wheels** to lock the equipment in place without moving.
- **Interior** made from 304 grade 22 SWG stainless steel.
- **Interior consists** of three drawers with stop,
- **Door stop** on the right-hand side to stop the door from opening more than 100-110 degrees.
- **Front door** extra PUF insulated to prevent temperature loss.
- **Warning function** with visual and audible alarm signal in the case of power failure, temperature deviations, voltage fluctuation, door left open (after 60 seconds).
- **Battery backup**<sup>^</sup> for up to 36 hours for temperature and chart recording system.
- **Central Monitoring System** compatible so that temperatures from all the equipment could be seen at one place.
- **Ventilation-enforced refrigerating machine**, vibration free, hermetically sealed, energy saving, low noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front and the back.
- **Low-noise compressor** reduces noise to a negligible range.

### Specification

Specification	DF-325	DF-650
Capacity	325 litres	650 litres
Temperature Setting	-40°C	-40°C
Voltage	220 - 240 V, 50Hz	220 - 240 V, 50Hz
Overall Dimensions	31"x33"x73" (inches)	42"x40"x74" (inches)
Interior Dimensions	23" x 23" x 40" (inches)	34" x 30" x 42" (inches)
Starting/Running Current	6 A / 3 A	7 A / 4 A
Ground Clearance	100 mm	100 mm
Cool Down time (at full load)	8 hours	15 hours
Hold Over time (at full load)	3 hours	6 hours
Temperature Gradient <sup>#</sup>	±2°C	±2°C
Catalog Number	AIL-20201	AIL-20202

### Highlights

- **Automatically** mails the digital circular chart at 3 e-mail IDs every weekend and can mail any time by using Manual Mail function.
- In case of fault occurrence, a SMS is sent to a primary number, then he has to acknowledge the fault by using Acknowledge function, if he doesn't acknowledge the fault then a SMS is sent to a higher authority.
- **GSM Module** for alarm text message and e-mail forwarding about all the faults.
- **Port for Central Monitoring System** for viewing the temperatures of all the blood bank equipments at same place on 10.3" Touch Screen industrial computer.

\* Supported capacity for pen drive is capped at 4 GB.

# It is the maximum temperature difference between different parts of interior.

^ Battery backup is not provided for the equipment.

This picture is for visual purpose only, actual colours may vary.

**Declaration for Design, Installation, Operation, Performance and Maintenance Qualification****Technical Parameter Specification**

Sr Nos	Particulars	Minimum Requirement / Standard.	Declared
1	Temperature Indicator at -40°C	(-40) ±1°C	-40 °C
2	Temperature Recorder at -40°C	(-40) ±1°C	-40 °C
3	Temperature Gradient in Chamber	not more than 4 .8°C	3 °C
4	Door Alarm:- Alarming after 5 min. of Gate opening	5 minute	5 minute
5	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.
6	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	traditional	Smart electronic weekly circular temperature chart recorder
7	High Temp. Alarm:-alarming after -22°C with delay of 2 min.	2-5 minute	3 minute
8	Separate door insulation.	Available	Available
9	Surface Temp. of body at -40°C inside temp after 48 hrs	Equal to ambient Temp.	Equal to ambient Temp.
10	Frosting at gate	Should Never Seen	Never Seen
11	Moisture at door	Should Never Seen	Never Seen
12	Cooling down time (Full load of plasma packs at +25 °C to -20 °C)	18 hours	12 hours
13	Hold over time (Full load of plasma packet at -35°C to more than -20°C) at 25°C	3 hours	4 hours
14	Carrying Capacity	300 liter	325 liter
15	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40

**Electrical Safety**

	Particulars	Minimum Requirement / Standard.	Declared
16	Mains Voltage: Live to Neutral	240 VAC	240 VAC
17	Mains Voltage: Live to Earth	240 VAC	240 VAC
18	Mains Voltage: Neutral to Earth	Max. 5 VAC	Max. 5 VAC
19	Equipment Current	Max. 7Amp.	Max. 6Amp.
20	Power plug unbreakable with LINE	Line	Line
21	Leakage Earth	Max. 5 VAC	Max. 5 VAC
22	Noise level test	Less than 55 dB	Less than 52 dB
23	Starting Amp.	Max. 7.0 Amp.	Max. 6 Amp.
24	Running Amp.	3-5 Amp.	2-4 Amp
25	Power Failure Alarm	Available	Available
26	High Voltage Indicator	Available	Available
27	Low Voltage Indicator	Available	Available

**PRE INSTALLATION ELECTRICAL REQUIREMENTS FOR SMOOTH WORKING****VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX**

28	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC FOR NEUTRAL
29	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC FOR EARTHING
30	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC FOR EARTHING



<b>Declaration for Design, Installation, Operation, Performance and Maintenance Qualification</b>			
<b>Technical Parameter Specification</b>			
<b>Sr Nos</b>	<b>Particulars</b>	<b>Minimum Requirement / Standard.</b>	<b>Declared</b>
1	Temperature Indicator at -40°C	(-40) ±1°C	-40 °C
2	Temperature Recorder at -40°C	(-40) ±1°C	-40 °C
3	Temperature Gradient in Chamber	not more than 4 .8°C	3.5 °C
4	Door Alarm:- Alarming after 5 min. of Gate opening	5 minute	5 minute
5	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.
6	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	traditional	Smart electronic weekly circular temperature chart recorder
7	High Temp. Alarm:-alarming after -22°C with delay of 2 min.	2-5 minute	3 minute
8	Separate door insulation.	Available	Available
9	Surface Temp. of body at -40°C inside temp after 48 hrs	Equal to ambient Temp.	Equal to ambient Temp.
10	Frosting at gate	Should Never Seen	Never Seen
11	Moisture at door	Should Never Seen	Never Seen
12	Cooling down time (Full load of plasma packs at +25 °C to -20 °C)	18 hours	13 hours
13	Hold over time (Full load of plasma packet at -35° C to more than -20°C) at 25°C	2 hours	6 hours
14	Carrying Capacity	500 liter	650 liter
15	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40
<b>Electrical Safety</b>			
	<b>Particulars</b>	<b>Minimum Requirement / Standard.</b>	<b>Declared</b>
16	Mains Voltage: Live to Neutral	240 VAC	240 VAC
17	Mains Voltage: Live to Earth	240 VAC	240 VAC
18	Mains Voltage: Neutral to Earth	Max. 5 VAC	Max. 5 VAC
19	Equipment Current	Max. 9 Amp.	Max. 8 Amp.
20	Power plug unbreakable with LINE	Line	Line
21	Leakage Earth	Max. 5 VAC	Max. 5 VAC
22	Noise level test	Less than 58 dB	Less than 55 dB
23	Starting Amp.	Max. 9 Amp.	Max. 8 Amp.
24	Running Amp.	4-5 Amp.	3-4 Amp
25	Power Failure Alarm	Available	Available
26	High Voltage Indicator	Available	Available
27	Low Voltage Indicator	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING</b>			
<b>VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX</b>			
28	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC FOR NEUTRAL
29	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC FOR EARTHING
30	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC FOR EARTHING

## Plasma Storage Cabinet (-40°C)

## Declaration for Design (DQ), Installation (IQ), Operation (OQ), Performance (PQ) and Maintenance Qualification (MQ)

Requirement of Drug Act.

√

## PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING

Sr. Nos	Particulars	Min. Requirement / Std.	Observed	(DQ)	(IQ)	(OQ)	(PQ)	(MQ)	Re-remarks
1.	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For NEUTRAL	√	√			√	
2.	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For EARTHING	√	√			√	
3.	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For Earthing	√	√			√	

## Electrical Safety Requirements

4.	Equipment Current	Max 5 Amp.	Max 3.5 Amp.	√		√	√	√	
5.	Power plug unbreakable with Line	Line	Line	√	√			√	
6.	Leakage Earth	5 V AC Max.	5 V AC Max.	√	√		√	√	
7.	Noise level test	Less than 58 dB	Less than 55 dB	√	√	√	√	√	
8.	Starting amp.	Max. 7 Amp.	Max 6 Amp.	√		√	√	√	
9.	Running amp.	3-5 Amp.	2-4 Amp.	√		√	√	√	
10.	Power Failure Alarm	Available	Available	√	√	√	√	√	
11.	High Voltage Indicator	Available	Available	√		√	√	√	
12.	Low Voltage Indicator	Available	Available	√		√	√	√	

## Technical Requirements

13.	Temperature Indicator	(-40) ±1°C	-40 °C	√	√	√	√	√	
14.	Temperature Recorder	(-40) ±1°C	-40 °C	√	√	√	√	√	
15.	Gradient Temp. in Chamber	not more than 4.8°C	3 °C	√		√	√	√	
16.	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	2 minute	√	√	√	√	√	
17.	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.	√			√	√	
18.	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	traditional	Smart chart recorder	√	√		√	√	
19.	Low Temp. Alarm:-Alarming after 2° C with delay of 2 min.	2-5 minute	2 minute	√		√		√	
20.	High Temp. Alarm:-Alarming after 6° C with delay of 2 min.	2-5 minute	2 minute	√	√	√		√	
21.	Front glass double toughened	Found	Found	√	√				
22.	Surface Temperature of body at +4° C inside temp after 48 hrs.	Equal to ambient Temp.	Equal to ambient Temp.	√		√	√		
23.	Frosting at gate.	Should Never Seen	Never Seen	√		√	√	√	
24.	Moisture at door	Should Never Seen	Never Seen	√	√	√	√	√	
25.	Cooling down time (Full load of plasma packs at +25 °C to -20 °C)	18 hours	12 hours	√		√	√	√	
26.	Hold over time (Full load of plasma packet at -35°C to more than -20°C) at 25°C	3 hours	4 hours	√		√	√	√	
27.	Capacity	300 liter	300 liter	√		√			
28.	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40	√		√	√		
29.	Effectiveness of Cooling unit (Heat Exchanger)	60 %	70 %	√		√			

## What is DQ, IQ, OQ, PQ & MQ ?

### **Design Qualification:**

Design qualification (DQ) is the process of completing and documenting design reviews to illustrate that all quality aspects have been fully considered at the design stage. The purpose is to ensure that all the requirements for the final systems have been clearly defined at the start.

### **Installation Qualification:**

The Installation Qualification (IQ) execution; verifies that the equipment, and its ancillary systems or sub-systems have been installed in accordance with installation drawings and or specifications.

### **Operational Qualification:**

Operational qualification (OQ) is the process of testing to ensure that the individual and combined systems function to meet agreed performance criteria and to check how the result of testing is recorded.

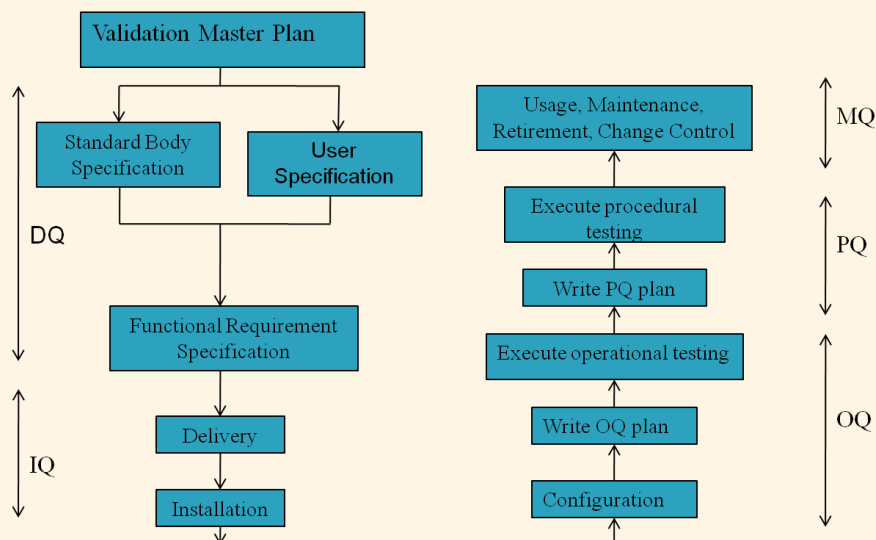
### **Performance Qualification:**

Performance qualification (PQ), also called process qualification, is the process of testing to ensure that the individual and combined systems function to meet agreed performance criteria on a **consistent** basis and to check how the result of testing is recorded.

### **Maintenance Qualification:**

The MQ describes and documents any maintenance required on the equipment. This includes routine servicing and any repairs necessary. Details of any maintenance contracts are also documented in this section, together with a list of authorized service engineers. In addition, the MQ includes the routine cleaning of the equipment and also its ultimate disposal.

- Maintenance Qualification should be done yearly for an equipment so that it can be determined whether the equipment is usable or not.
- At the time of maintenance qualification, MQ should match IQ to ensure that the equipment is still working as it was working at the time of Installation, if not the equipment should be serviced or repaired properly.
- If the problem is beyond repairing then the equipment should retire with immediate effect.



### Digital Temperature Display

7.1" Touch Screen Display for viewing the temperature, alarms and previous week records.

### Sticker sticking area

Dedicated space for sticking the stickers during calibration or services.

### Miniature Circuit Breaker

It cuts off the power to the equipment in case of voltage peaks to protect inner circuitry.

### Powder Coated

Power Coating for Scratch and Corrosion Resistance

### Easy removable perforated tray

3 or more trays are set for easy access to plasma bags.

### Lifetime Comfortable Access

Full length handle for easy access from all heights.

### Key locking system

High quality locks for locking the door from unauthorized access.

### Ventilation Slits with pre-filters

Proper ventilation for the equipment to keep cool and dust elimination by pre filters which are removable and washable.

### Lockable Castor wheels

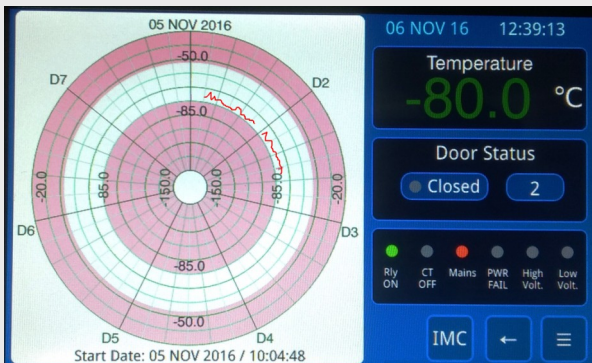
Heavy duty lockable Castor wheels for locking the equipment in place.

### Low-noise Compressor

Relative noise level as low as 50 db.



UDF-165



LCD Screen Display for Plasma Storage Cabinet (-80°C)



Heavy-duty Level adjustment and Easy mobility lockable Castor Wheels

For more details please visit : [www.authenticjaipur.com](http://www.authenticjaipur.com)



## Plasma Storage Cabinet (-80°C)

- **Purpose** : To store Plasma bags at -80°C to increase its life span upto ~5 years.
- **7.1" Touch screen** for monitoring and controlling the temperature of the equipment.
- **Inkless & paperless** smart chart recording system with 3 weeks chart storage capacity.
- **Digital circular chart** can be downloaded from the controller by using a pen drive\*.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.
- **Lockable Castor Wheels** to lock the equipment in place without moving.
- **Interior** made from 304 grade 22 SWG stainless steel.
- **Interior consists** of five drawers with stop,
- **Door stop** on the right-hand side to stop the door
- **Front door** extra PUF insulated to prevent temperature loss.
- **Warning function** with visual and audible alarm signal in the case of power failure, temperature deviations, voltage fluctuation, door left open (after 60 seconds).
- **Battery backup**<sup>^</sup> for up to 36 hours for temperature and chart recording system.
- **Central Monitoring System** compatible so that temperatures from all the equipment could be seen at one place.
- **Ventilation-enforced refrigerating machine**, vibration free, hermetically sealed, energy saving, low noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front and the back.
- **Low-noise compressor** reduces noise to a negligible range.

### Specification

Speciafication	UDF-165	UDF-325	UDF-525
Capacity	165 litres	325 litres	525 litres
Temperature Setting	-86°C	-86°C	-86°C
Voltage	220 - 240 V, 50Hz	220 - 240 V, 50Hz	220 - 240 V, 50Hz
Overall Dimensions	34" x 33" x 72" (inches)	38"x38"x72" (inches)	44"x44"x78" (inches)
Interior Dimensions	21" x 20" x 30" (inches)	25" x 25" x 30" (inches)	31" x 30" x 36" (inches)
Starting/Running Current	17 A / 6 A	17 A / 7 A	17 A / 7 A
Ground Clearance	100 mm	100 mm	100 mm
Cool Down time (at full load)	16 hours	18 hours	20 hours
Hold Over time (at full load)	4 hours	5 hours	6 hours
Temperature Gradient <sup>#</sup>	±4°C	±4°C	±4°C
Catalog Number	AIL-20301	AIL-20302	AIL-20303

### Highlights

- **Automatically** mails the digital circular chart at 3 e-mail IDs every weekend and can mail any time by using Manual Mail function.
- In case of fault occurrence, a SMS is sent to a primary number, then he has to acknowledge the fault by using Acknowledge function, if he doesn't acknowledge the fault then a SMS is sent to a higher authority.
- **GSM Module** for alarm text message and e-mail forwarding about all the faults.
- **Port for Central Monitoring System** for viewing the temperatures of all the blood bank equipments at same place on 10.3" Touch Screen industrial computer.

\* Supported capacity for pen drive is capped at 4 GB.

<sup>#</sup> It is the maximum temperature difference between different parts of interior.

<sup>^</sup> Battery backup is not provided for the equipment.

This picture is for visual purpose only, actual colours may vary.

<b>Declaration for Design, Installation, Operation, Performance and Maintenance Qualification</b>			
<b>Technical Parameter Specification</b>			
<b>Sr Nos</b>	<b>Particulars</b>	<b>Minimum Requirement / Standard.</b>	<b>Declared</b>
1.	Temperature Indicator at -80°C	(-80) ±1°C	-80.1 °C
2.	Temperature Recorder at -80°C	(-80) ±1°C	-80 °C
3.	Temperature Gradient in Chamber	not more than 4 .8°C	3 °C
4.	Door Alarm:- Alarming after 5 min. of Gate opening	5 minute	5 minute
5.	Circular temperature recorder	1 week	Weekly with Previous 2 Week Storage.
6.	Paperless/inkless/traditional	traditional	Smart Chart Recorder
7.	High Temp. Alarm:-alarming after -22°C with delay of 2 min.	2-5 minute	3 minute
8.	Separate door insulation.	Available	Available
9.	Surface Temp. of body at -40°C inside temp after 48 hrs	Equal to ambient Temp.	Equal to ambient Temp.
10.	Frosting at gate	Should Never Seen	Never Seen
11.	Moisture at door	Should Never Seen	Never Seen
12.	Cooling down time (Full load of plasma packs at +25 °C to -20 °C)	18 hours	12 hours
13.	Hold over time (Full load of plasma packet at -35°C to more than -20°C) at 25°C	4 hours	4 hours
14.	Carrying Capacity	150 liter	165 liter
15.	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40
<b>Electrical Safety</b>			
16.	Mains Voltage: Live to Neutral	240 VAC	240 VAC
17.	Mains Voltage: Live to Earth	240 VAC	240 VAC
18.	Mains Voltage: Neutral to Earth	5VAC >	5 VAC >
19.	Equipment Current	0.5Amp. >	17 Amp. >
20.	Power plug unbreakable with LINE	Line	Line
21.	Leakage Earth	5 VAC Max.	5 VAC Max.
22.	Noise level test	Less than 52 dB	Less than 55 dB
23.	Starting Amp.	Max. 5.0 Amp.	Max. 17.0 Amp.
24.	Running Amp.	2-4 Amp.	6-8 Amp.
25.	Power Failure Alarm	Available	Available
26.	High Voltage Indicator	Available	Available
27.	Low Voltage Indicator	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING</b>			
<b>VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX</b>			
28.	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC FOR NEUTRAL
29.	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC FOR EARTHING
30.	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC FOR EARTHING

**Declaration for Design, Installation, Operation, Performance and Maintenance Qualification****Technical Parameter Specification**

Sr Nos	Particulars	Minimum Requirement / Standard.	Declared
1.	Temperature Indicator at -80°C	(-80) ±1°C	-80.1 °C
2.	Temperature Recorder at -80°C	(-80) ±1°C	-80 °C
3.	Temperature Gradient in Chamber	not more than 4 .8°C	Not more than 4 °C
4.	Door Alarm:- Alarming after 5 min. of Gate opening	5 minute	5 minute
5.	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.
6.	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	traditional	Smart electronic weekly circular temperature chart recorder
7.	High Temp. Alarm:-alarming after -22°C with delay of 2 min.	2-5 minute	3 minute
8.	Separate door insulation.	Available	Available
9.	Surface Temp. of body at -40°C inside temp after 48 hours	Equal to ambient Temp.	Equal to ambient Temp.
10.	Frosting at gate	Should Never Seen	Never Seen
11.	Moisture at door	Should Never Seen	Never Seen
12.	Cooling down time (Full load of plasma packs at +25 °C to -80 ° C)	30 hours	24 hours
13.	Hold over time (Full load of plasma packet at -80 °C to more than -20 °C) at 25°C	4 hours	6 hours
14.	Carrying Capacity	300 liter	325 liter
15.	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40

**Electrical Safety**

	Particulars	Minimum Requirement / Standard.	Declared
16.	Mains Voltage: Live to Neutral	240 VAC	240 VAC
17.	Mains Voltage: Live to Earth	240 VAC	240 VAC
18.	Mains Voltage: Neutral to Earth	5 VAC >	5 VAC >
19.	Equipment Current	18Amp. >	17 Amp. >
20.	Power plug unbreakable with LINE	Line	Line
21.	Leakage Earth	5 VAC Max.	5 VAC Max.
22.	Noise level test	Less than 58 dB	Less than 55 dB
23.	Starting Amp.	Max. 18.0 Amp.	Max. 17.0 Amp.
24.	Running Amp.	6-9 Amp.	6-8 Amp.
25.	Power Failure Alarm	Available	Available
26.	High Voltage Indicator	Available	Available
27.	Low Voltage Indicator	Available	Available

**PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING****VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX**

28.	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC FOR NEUTRAL
29.	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC FOR EARTHING
30.	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC FOR EARTHING

### Declaration for Design, Installation, Operation, Performance and Maintenance Qualification

#### Technical Parameter Specification

Sr Nos	Particulars	Minimum Requirement / Standard.	Declared
1.	Temperature Indicator at -80°C	(-80) ±1°C	-80.1 °C
2.	Temperature Recorder at -80°C	(-80) ±1°C	-80 °C
3.	Temperature Gradient in Chamber	not more than 4 .8°C	3 °C
4.	Door Alarm:- Alarming after 5 min. of Gate opening	5 minute	5 minute
5.	Circular temperature recorder	1 week	Weekly with Previous 2 Week Storage.
6.	Paperless/inkless/traditional	traditional	Smart Chart Recorder
7.	High Temp. Alarm:-alarming after -22°C with delay of 2 min.	2-5 minute	3 minute
8.	Separate door insulation.	Available	Available
9.	Surface Temp. of body at -40°C inside temp after 48 hrs	Equal to ambient Temp.	Equal to ambient Temp.
10.	Frosting at gate	Should Never Seen	Never Seen
11.	Moisture at door	Should Never Seen	Never Seen
12.	Cooling down time (Full load of plasma packs at +25 °C to -20 °C)	18 hours	12 hours
13.	Hold over time (Full load of plasma packet at -35°C to more than -20°C) at 25°C	4 hours	4 hours
14.	Carrying Capacity	500 liter	525 liter
15.	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40
<b>Electrical Safety</b>			
16.	Mains Voltage: Live to Neutral	240 VAC	240 VAC
17.	Mains Voltage: Live to Earth	240 VAC	240 VAC
18.	Mains Voltage: Neutral to Earth	5VAC >	5 VAC >
19.	Equipment Current	0.5Amp. >	17 Amp. >
20.	Power plug unbreakable with LINE	Line	Line
21.	Leakage Earth	5 VAC Max.	5 VAC Max.
22.	Noise level test	Less than 52 dB	Less than 55 dB
23.	Starting Amp.	Max. 5.0 Amp.	Max. 17.0 Amp.
24.	Running Amp.	2-4 Amp.	6-8 Amp.
25.	Power Failure Alarm	Available	Available
26.	High Voltage Indicator	Available	Available
27.	Low Voltage Indicator	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING</b>			
<b>VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX</b>			
28.	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC FOR NEUTRAL
29.	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC FOR EARTHING
30.	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC FOR EARTHING



## Plasma Storage Cabinet (-80°C)

## Declaration for Design (DQ), Installation (IQ), Operation (OQ), Performance (PQ) and Maintenance Qualification (MQ)

Requirement of Drug Act.

√

## PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING

Sr. Nos	Particulars	Min. Requirement / Std.	Observed	(DQ)	(IQ)	(OQ)	(PQ)	(MQ)	Remarks
1.	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For NEUTRAL	√	√			√	
2.	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For EARTHING	√	√			√	
3.	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For EARTHING	√	√			√	

## Electrical Safety Requirements

4.	Equipment Current	Max 18 Amp.	Max 17 Amp.	√		√	√	√	
5.	Power plug unbreakable with Line	Line	Line	√	√			√	
6.	Leakage Earth	5 V AC Max.	5 V AC Max.	√	√		√	√	
7.	Noise level test	Less than 58 dB	Less than 55 dB	√	√	√	√	√	
8.	Starting amp.	Max. 18 Amp.	Max 17 Amp.	√		√	√	√	
9.	Running amp.	6-9 Amp.	6-8 Amp.	√		√	√	√	
10.	Power Failure Alarm	Available	Available	√	√	√	√	√	
11.	High Voltage Indicator	Available	Available	√		√	√	√	
12.	Low Voltage Indicator	Available	Available	√		√	√	√	

## Technical Requirements

13	Temperature Indicator	(-80) ±1°C	-80.1 °C	√	√	√	√	√	
14	Temperature Recorder	(-80) ±1°C	-80 °C	√	√	√	√	√	
15	Gradient Temp. in Chamber	not more than 4 .8° C	Not more than 4 °C	√		√	√	√	
16	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	2 minute	√	√	√	√	√	
17	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.	√			√	√	
18	Paperless/inkless/traditional/ Smart electronic weekly circular temperature chart recorder	traditional	Smart chart recorder	√	√		√	√	
19	Low Temp. Alarm:-Alarming after 2°C with delay of 2 min.	2-5 minute	2 minute	√		√		√	
20	High Temp. Alarm:-Alarming after 6°C with delay of 2 min.	2-5 minute	2 minute	√	√	√		√	
21	Front glass double toughened	Found	Found	√	√				
22	Surface Temperature of body at +4°C inside temp after 48 hrs.	Equal to ambient Temp.	Equal to ambient Temp.	√		√	√		
23	Frosting at gate.	Should Never Seen	Never Seen	√		√	√	√	
24	Moisture at door	Should Never Seen	Never Seen	√	√	√	√	√	
25	Cooling down time (Full load of plasma packs at +25 °C to -80 °C)	24 hours	18 hours	√		√	√	√	
26	Hold over time (Full load of plasma packet at -80 °C to more than -20 °C) at 25°C	4 hours	6 hours	√		√	√	√	
27	Capacity	300 liter	300 liter	√		√			
28	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40	√		√	√		
29	Effectiveness of Cooling unit (Heat Exchanger)	60 %	70 %	√		√			

### Digital Temperature Display

7.1" Touch Screen Display for viewing the temperature, alarms and previous week records.

### Sticker sticking area

Dedicated space for sticking the stickers during calibration or services.

### Miniature Circuit Breaker

It cuts off the power to the equipment in case of voltage peaks to protect inner circuitry.

### Lifetime Comfortable Access

Full length handle for easy access from all heights.

### Powder Coated

Power Coating for Scratch and Corrosion Resistance.

### Trays

A total of 10 trays are set for easy access to platelet bags.

### Key locking system

High quality locks for locking the door from unauthorized access.

### Low-noise Compressor

Relative noise level as low as 50 db.

### Ventilation Slits with pre-filters

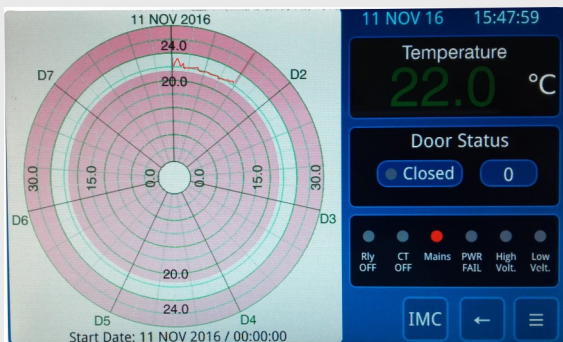
Proper ventilation for the equipment to keep cool and dust elimination by pre filters which are removable and washable.

### Lockable Castor wheels

Heavy duty lockable Castor wheels for locking the equipment in place.



PIA-60



LCD Screen Display for Platelet Incubator cum Agitator



Heavy-duty Level adjustment and Easy mobility lockable Castor Wheels

## PIA-60

- **Purpose** : To agitate the Platelet Bags at 22°C so that the platelet doesn't coagulate.
- **7.1" Touch screen** for monitoring and controlling the temperature of the equipment.
- **Inkless & paperless** smart chart recording system with 3 weeks chart storage capacity.
- **Digital circular chart** can be downloaded from the controller by using a pen drive\*.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.
- **Lockable Castor Wheels** to lock the equipment in place without moving.
- **Interior** made from 304 grade 22 SWG stainless steel.
- **Interior consists** of 10 trays on an agitator to place platelet bags.
- **Capacity per tray** approx. 6 platelet bags.
- **Door stop** on the right-hand side to stop the door from opening more than 100-110 degrees.
- **Forced air cooling** with axial blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviation.
- **Front door** double Vacuum packed toughened glass.
- **Warning function** with visual and audible alarm signal in the case of power failure, temperature deviations, voltage fluctuation, door left open (after 60 seconds).
- **Battery backup**^ for up to 36 hours for temperature and chart recording system.
- **Central Monitoring System** compatible so that temperatures from all the equipment could be seen at one place.
- **Ventilation-enforced refrigerating machine**, vibration free, hermetically sealed, energy saving, low noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front and the back.
- **Low-noise compressor** reduces noise to a negligible range.

### Specification

Capacity	60 bags
Temperature Setting	+22°C
Voltage	220 - 240 V, 50Hz
Overall Dimensions	24"x28"x54" (inches)
Interior Dimensions	18" x 18" x 26" (inches)
Starting/Running Current	5 A / 2.5 A
Agitation RPM	72 to 75 RPM
Ground Clearance	100 mm
Cool Down time (at full load)	30 minutes
Hold Over time (at full load)	2 hours
Temperature Gradient#	±1°C
Catalog Number	AIL-20401

\* Supported capacity for pen drive is capped at 4 GB.

# It is the maximum temperature difference between different parts of interior.

^ Battery backup is not provided for the equipment.

This picture is for visual purpose only, actual colours may vary.

### Highlights

- **Automatically** mails the digital circular chart at 3 e-mail IDs every weekend and can mail any time by using Manual Mail function.
- In case of fault occurrence, a SMS is sent to a primary number, then he has to acknowledge the fault by using Acknowledge function, if he doesn't acknowledge the fault then a SMS is sent to a higher authority.
- **GSM Module** for alarm text message and e-mail forwarding about all the faults.
- **Port for Central Monitoring System** for viewing the temperatures of all the blood bank equipments at same place on 10.3" Touch Screen industrial computer.
- **USB port** for chart downloading to pen drive\*.

### Digital Temperature Display

7.1" Touch Screen Display for viewing the temperature, alarms and previous week records.

### Sticker sticking area

Dedicated space for sticking the stickers during calibration or services.

### Miniature Circuit Breaker

It cuts off the power to the equipment in case of voltage peaks to protect inner circuitry.

### Powder Coated

Power Coating for Scratch and Corrosion Resistance

### Trays

A total of 14 trays are set for easy access to platelet bags.

### Low-noise Compressor

Relative noise level as low as 50 db.

### Ventilation Slits with pre-filters

Proper ventilation for the equipment to keep cool and dust elimination by pre filters which are removable and washable.

### Lifetime Comfortable Access

Full length handle for easy access from all heights.

### Key locking system

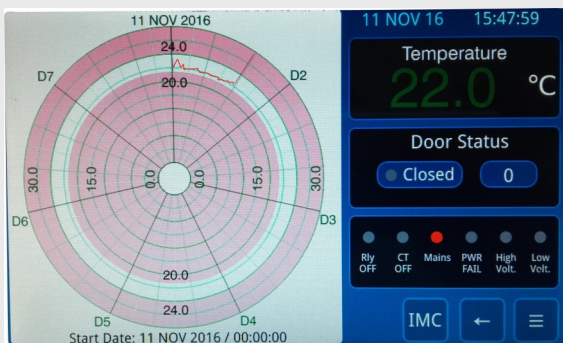
High quality locks for locking the door from unauthorized access.

### Lockable Castor wheels

Heavy duty lockable Castor wheels for locking the equipment in place.



PIA-120



LCD Screen Display for Platelet Incubator cum Agitator



Heavy-duty Level adjustment and Easy mobility lockable Castor Wheels



## PIA-120

- **Purpose** : To agitate the Platelet Bags at 22°C so that the platelet doesn't coagulate.
- **7.1" Touch screen** for monitoring and controlling the temperature of the equipment.
- **Inkless & paperless** smart chart recording system with 3 weeks chart storage capacity.
- **Digital circular chart** can be downloaded from the controller by using a pen drive\*.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.
- **Lockable Castor Wheels** to lock the equipment in place without moving.
- **Interior** made from 304 grade 22 SWG stainless steel.
- **Interior consists** of 14 trays on two agitators to place platelet bags.
- **Capacity per tray** approx. 9 platelet bags.
- **Door stop** on the right-hand side to stop the door from opening more than 100-110 degrees.
- **Forced air cooling** with axial blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviation.
- **Front door** double Vacuum packed toughened glass.
- **Warning function** with visual and audible alarm signal in the case of power failure, temperature deviations, voltage fluctuation, door left open (after 60 seconds).
- **Battery backup**<sup>^</sup> for up to 36 hours for temperature and chart recording system.
- **Central Monitoring System** compatible so that temperatures from all the equipment could be seen at one place.
- **Ventilation-enforced refrigerating machine**, vibration free, hermetically sealed, energy saving, low noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front and the back.
- **Low-noise compressor** reduces noise to a negligible range.

### Specification

Capacity	120 bags
Temperature Setting	+22°C
Voltage	220 - 240 V, 50Hz
Overall Dimensions	29"x33"x70" (inches)
Interior Dimensions	21" x 23" 42" (inches)
Starting/Running Current	6 A / 3 A
Agitation RPM	72 to 75 RPM
Ground Clearance	100 mm
Cool Down time (at full load)	30 minutes
Hold Over time (at full load)	2 hours
Temperature Gradient <sup>#</sup>	±1°C
Catalog Number	AIL-20402

\* Supported capacity for pen drive is capped at 4 GB.

# It is the maximum temperature difference between different parts of interior.

<sup>^</sup> Battery backup is not provided for the equipment.

This picture is for visual purpose only, actual colours may vary.

### Highlights

- **Automatically** mails the digital circular chart at 3 e-mail IDs every weekend and can mail any time by using Manual Mail function.
- In case of fault occurrence, a SMS is sent to a primary number, then he has to acknowledge the fault by using Acknowledge function, if he doesn't acknowledge the fault then a SMS is sent to a higher authority.
- **GSM Module** for alarm text message and e-mail forwarding about all the faults.
- **Port for Central Monitoring System** for viewing the temperatures of all the blood bank equipments at same place on 10.3" Touch Screen industrial computer.
- **USB port** for chart downloading to pen drive\*.

**Declaration for Design, Installation, Operation, Performance and Maintenance Qualification****Technical Parameter Specification**

Sr Nos	Particulars	Specified/ Std.	Declared
1	Temperature stability $\pm^{\circ}\text{C}$	(20-24) $^{\circ}\text{C}$	(20-24) $^{\circ}\text{C}$
2	Temperature Recorder	(20-24) $^{\circ}\text{C}$	(20-24) $^{\circ}\text{C}$
3	Gradient Temp. in Chamber	Less than 2 $^{\circ}\text{C}$	Less than 1.8 $^{\circ}\text{C}$
4	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	5 minute
5	Circular Temperature Chart Recorder	1 week	1 Week storage with Previous two Week Backup
6	Paperless/inkless/traditional/Smart Chart recorder	Traditional	Smart Chart recorder
7	Low Temp. Alarm:-Alarming after 2 $^{\circ}\text{C}$ with delay of 2 min.	2-5 minute	2 minute
8	High Temp. Alarm:-Alarming after 6 $^{\circ}\text{C}$ with delay of 2 min.	2-5 minute	2 minute
9	Front glass double toughened	Available	Available
10	Surface Temp. of body at 22 $^{\circ}\text{C}$ inside temp after 48 hrs	Equal to amb. Temp.	Equal to amb. Temp.
11	Frosting at gate and Moisture at door	Should never Seen	Should never Seen
12	Agitation and displacements	70-75 rpm at 25mm	70-75 rpm at 25mm
13	Cool down time (Full load of blood packet at +25 $^{\circ}\text{C}$ to +22 $^{\circ}\text{C}$ )	30 minute	30 minute
14	Hold over time (Full load of blood packet at +22 $^{\circ}\text{C}$ to more than +24 $^{\circ}\text{C}$ ) at 25 $^{\circ}\text{C}$	2 hours	2 hours
15	Carrying Capacity	60 Bag	60 Bag
16	ON/OFF Cycle ( compressor ) suitability	70:30	70:30
<b>Electrical Safety</b>			
17	Mains Voltage: Live to Neutral	240 VAC	240 VAC
18	Mains Voltage: Live to Earth	240 VAC	240 VAC
19	Mains Voltage: Neutral to Earth	Max. 5 V AC	Max. 5 V AC
20	Equipment Current	Max. 7 Amp	Max. 5 Amp
21	Power plug unbreakable with LINE	Line	Line
22	Leakage Earth	5 VAC Max.	5 VAC Max.
23	Noise level test	Less than 55 dB	Less than 55 dB
24	Starting amp.	Max. 7.0 Amp.	Max. 5.0 Amp.
25	Running amp.	2-4 Amp.	2-3 Amp.
26	Power Failure Alarm	Available	Available
27	High Voltage Indicator	Available	Available
28	Agitation Alarm	Available	Available
29	Low Voltage Indicator	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING</b>			
<b>VOLTAGE -220-240 V AC ,STABILITY - <math>\pm</math> 5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX</b>			
30	Mains Voltage: Live to Neutral	220-240 VAC	220-240 VAC
31	Mains Voltage: Live to Earth	220-240 VAC	220-240 VAC
32	Mains Voltage: Neutral to Earth	0.5 TO 5 VAC	0.5 TO 5 VAC

**Declaration for Design, Installation, Operation, Performance and Maintenance Qualification****Technical Parameter Specification**

Sr Nos	Particulars	Specified/ Std.	Declared
	Temperature stability $\pm^{\circ}\text{C}$	(20-24) $^{\circ}\text{C}$	(20-24) $^{\circ}\text{C}$
	Temperature Recorder	(20-24) $^{\circ}\text{C}$	(20-24) $^{\circ}\text{C}$
	Gradient Temp. in Chamber	less than 1.8 $^{\circ}\text{C}$	Less than 1.8 $^{\circ}\text{C}$
	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	5 minute
	Weekly Circular temperature chart recording.	1 week	1 Week storage with Previous two Week Backup
	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	Traditional	Smart Chart recorder
	Low Temp. Alarm:-Alarming after 2 $^{\circ}\text{C}$ with delay of 2 min.	2 minute	2 minute
	High Temp. Alarm:-Alarming after 6 $^{\circ}\text{C}$ with delay of 2 min.	2 minute	2 minute
	Front glass double toughened	Available	Available
	Surface Temp. of body at 22 $^{\circ}\text{C}$ inside temp after 48 hrs	Equal to amb. Temp.	Equal to amb. Temp.
	Frosting at gate and Moisture at door	Should never Seen	Should never Seen
	Agitation and displacements	70-75 rpm at 25mm	70-75 rpm at 25mm
	Cool down time (Full load of blood packet at +25 $^{\circ}\text{C}$ to +22 $^{\circ}\text{C}$ )	30 minute	30 minute
	Hold over time (Full load of blood packet at +22 $^{\circ}\text{C}$ to more than +24 $^{\circ}\text{C}$ ) at 25 $^{\circ}\text{C}$	2 hours	2 hours
	Carrying Capacity	120 Bag	120 Bag
	ON/OFF Cycle ( compressor ) suitability	70:30	70:30

**Electrical Safety**

	Mains Voltage: Live to Neutral	240 VAC	240 VAC
	Mains Voltage: Live to Earth	240 VAC	240 VAC
	Mains Voltage: Neutral to Earth	Max. 8 V AC	Max. 7 V AC
	Equipment Current	Max. 0.5 Amp	Max. 5 Amp
	Power plug unbrakble with LINE	Line	Line
	Leakage Earth	5 VAC Max.	5 VAC Max.
	Noise level test	Less than 55 dB	Less than 55 dB
	Starting amp.	Max. 8.0 Amp.	Max. 7.0 Amp.
	Running amp.	3-4 Amp.	2-3 Amp.
	Power Failure Alarm	Available	Available
	High Voltage Indicator	Available	Available
	Agitation Alarm	Available	Available
	Low Voltage Indicator	Available	Available

**PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING****VOLTAGE -220-240 V AC ,STABILITY -  $\pm$  5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX**

	Mains Voltage: Live to Neutral	220-240 VAC	220-240 VAC
	Mains Voltage: Live to Earth	220-240 VAC	220-240 VAC
	Mains Voltage: Neutral to Earth	0.5 TO 5 VAC	0.5 TO 5 VAC

# Platelet Incubator cum Agitator

Declaration for Design (DQ), Installation (IQ), Operation (OQ), Performance (PQ) and Maintenance Qualification (MQ)

## PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING

Sr. Nos	Particulars	Min. Requirement / Std.	Observed	(DQ)	(IQ)	(OQ)	(PQ)	(MQ)	Re-remarks
1.	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For NEUTRAL	√	√			√	
2.	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For EARTHING	√	√			√	
3.	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For EARTHING	√	√			√	
<b>Electrical Safety Requirements</b>									
4.	Equipment Current	Max 5 Amp.	Max 3.5 Amp.	√		√	√	√	
5.	Power plug unbreakable with Line	Line	Line	√	√			√	
6.	Leakage Earth	5 V AC Max.	5 V AC Max.	√	√		√	√	
7.	Noise level test	Less than 55 dB	Less than 52 dB	√	√	√	√	√	
8.	Starting amp.	Max. 5.0 Amp.	Max 3.5 Amp.	√		√	√	√	
9.	Running amp.	2-4 Amp.	1.5 - 2.5 Amp.	√		√	√	√	
10.	Power Failure Alarm	Available	Available	√	√	√	√	√	
11.	High Voltage Indicator	Available	Available	√		√	√	√	
12.	Low Voltage Indicator	Available	Available	√		√	√	√	
<b>Technical Requirements</b>									
13.	Temperature Indicator	(20-24)°C	(20-24)°C	√	√	√	√	√	
14.	Temperature Recorder	(20-24)°C	(20-24)°C	√	√	√	√	√	
15.	Gradient Temp. in Chamber	Less than 2°C	Less than 1.8°C	√		√	√	√	
16.	Door Alarm:- Alarming after 5 min. of gate opening	5 minute	2 minute	√	√	√	√	√	
17.	Weekly Circular temperature chart recording.	1 week	Weekly with Previous 2 Week Storage.	√			√	√	
18.	Paperless/inkless/traditional/Smart electronic weekly circular temperature chart recorder	traditional	Smart chart recorder	√	√		√	√	
19.	Agitation and displacements	70-75 rpm at 25mm	70-75 rpm at 25mm	√		√	√	√	
20.	Low Temp. Alarm:-Alarming before 22° C with delay of 2 min.	2-5 minute	2 minute	√		√		√	
21.	High Temp. Alarm:-Alarming after 24°C with delay of 2 min.	2-5 minute	2 minute	√	√	√		√	
22.	Front glass double toughened	Found	Found	√	√				
23.	Surface Temperature of body at +22°C inside temp after 48 hrs.	Equal to ambient Temp.	Equal to ambient Temp.	√		√	√		
24.	Frosting at gate.	Should Never Seen	Never Seen	√		√	√	√	
25.	Moisture at door	Should Never Seen	Never Seen	√	√	√	√	√	
26.	Cool down time (Full load of blood packet at +25°C to +22°C)	30 minute	30 minute	√		√	√	√	
27.	Hold over time (Full load of blood packet at +22°C to more than +24°C) at 25°C	2 hours	2 hours	√		√	√	√	
28.	Platelet bags Carrying Capacity	60 Bags	60 Bags	√		√			
29.	ON/OFF Cycle ( compressor ) suitability	70 : 30	60 : 40	√		√	√		
30.	Effectiveness of Cooling unit (Heat Ex-changer)	60 %	70 %	√		√			



## What is DQ, IQ, OQ, PQ & MQ ?

### **Design Qualification:**

Design qualification (DQ) is the process of completing and documenting design reviews to illustrate that all quality aspects have been fully considered at the design stage. The purpose is to ensure that all the requirements for the final systems have been clearly defined at the start.

### **Installation Qualification:**

The Installation Qualification (IQ) execution; verifies that the equipment, and its ancillary systems or sub-systems have been installed in accordance with installation drawings and or specifications.

### **Operational Qualification:**

Operational qualification (OQ) is the process of testing to ensure that the individual and combined systems function to meet agreed performance criteria and to check how the result of testing is recorded.

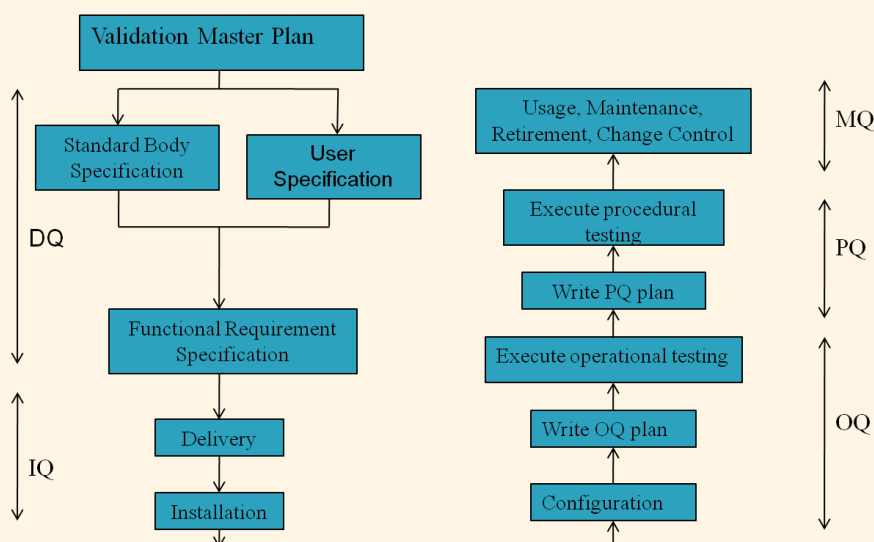
### **Performance Qualification:**

Performance qualification (PQ), also called process qualification, is the process of testing to ensure that the individual and combined systems function to meet agreed performance criteria on a **consistent** basis and to check how the result of testing is recorded.

### **Maintenance Qualification:**

The MQ describes and documents any maintenance required on the equipment. This includes routine servicing and any repairs necessary. Details of any maintenance contracts are also documented in this section, together with a list of authorized service engineers. In addition, the MQ includes the routine cleaning of the equipment and also its ultimate disposal.

- Maintenance Qualification should be done yearly for an equipment so that it can be determined whether the equipment is usable or not.
- At the time of maintenance qualification, MQ should match IQ to ensure that the equipment is still working as it was working at the time of Installation, if not the equipment should be serviced or repaired properly.
- If the problem is beyond repairing then the equipment should retire with immediate effect.





### Touch Screen HMI

Fully automatic touch controls which can be used for selecting different processes.

### Viewer

For RPM calibration.

### Lid Opener

To open the lid, but if the process is running then this will not open the lid until it completes.



### Ventilation Slits with pre-filters

Proper ventilation for the equipment to keep cool and dust elimination by pre filters which are removable and washable.

Cat. No. : AIL-20501

### Automatic Lid Locks

Heavy-duty Lid Locks ensure that the lid doesn't open accidentally during operation.

### Durable Pin Locks

The Pin locks are made to withstand the weight and force that acts upon it, it locks the centrifuge in position so that after balancing it doesn't move from it's place.



For more details please visit : [www.authenticjaipur.com](http://www.authenticjaipur.com)

# Blood Component Separator Centrifuges

## Specification

- **Purpose** : To separate Blood components from whole blood.
- **Floor standing** refrigerated centrifuge for separation of components from whole blood.
- **Fully automatic** with touch screen.
- **Programmable** memory with tamper proof facility.
- **Predefined program** and parameter stored in the memory.
- **Stable**, sturdy all-steel design with stainless steel rotor chamber, easy to clean, corrosion resistant paintings, provision of both drain and condensed water collection container.
- **Automatic lid lock**.
- **Swing-out buckets**, Swing-out rotors with metal buckets, with or without wind shielded, suitable adapters for 6/8/12 blood bags with SAGAM bag and empty satellite bags with In line filter system and, removable plastic cups to hold single/double/triple blood bags etc.
- **Temperature control**, range:-20 °C to +40 °C in 0.1 °C increment, with micro processor controlled rotor temperature within 0.1 °C, regardless of centrifuge speed.
- **Digital display** (real time and set target) of temperature, speed, acceleration time, deceleration time, real time and processing RCF with minimum no. of 3 digit resolution.
- **Programmable time**: 0 minute to 99 hours with minimum resolution of 0.1 minute.

## Speed, Force and other things

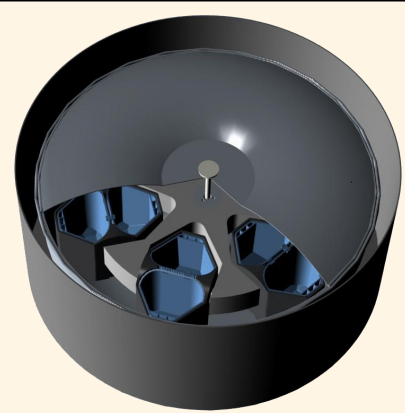
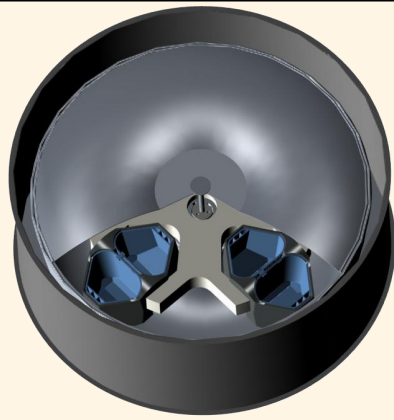
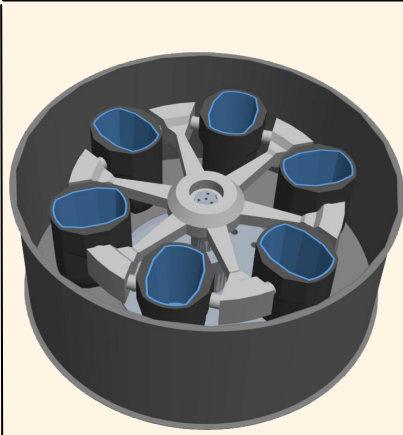
- **Maximum speed** 4500 rpm
- **Maximum RCF** (Relative Centrifugal force) for blood bags: 6500g.
- **Acceleration** and deceleration profiles are independently adjustable with nine brake levels and option for free coasting.
- **Motor Imbalance detection**, automatic shutdown of centrifuge if rotor load is out of balance with appropriate indicator. Motion sensors drives unbalance detection. Soft touch emergency stop.
- **Protection & Alarm**, in event of power interruption or complete failure, data remain stored in memory. Password Protection to prevent unintentional switch off and also unauthorized opening of the equipment.
- **Alarms** for imbalance detection, lid interlock, over temperature, rotor over speed.
- **Manufacturing unit compliant** with ISO 13485:2003, ISO 9001:2008.
- **Power Supply**, compatible with 220V to 240V, 50 Hz, Single phase A.C.
- **High Voltage protector**, available for 160V to 260V voltage fluctuation.

# Variants Of Blood Component Separator Centrifuges

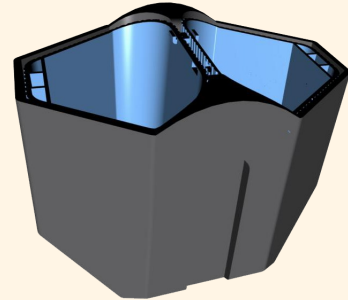
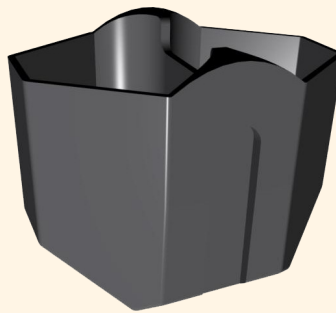
RC-6 (6 bags)

RCW-8 (8 bags)

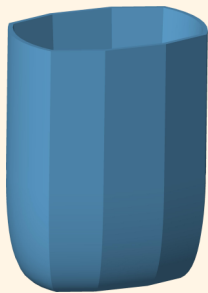
RCW-12 (12 bags)



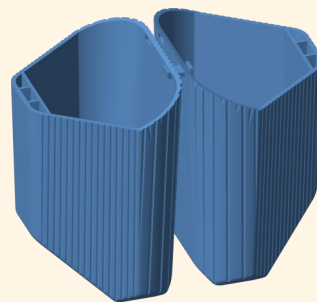
Aluminum Buckets - 6 bags



Aluminum Alloy Buckets



Plastic Buckets - 6 bags



Plastic Buckets



### Various Screenshots of the HMI.



### Specifications

Specification	RC-6	RC-8	RC-12	RCW-8	RCW-12
Capacity	6 bags	8 bags	12 bags	8 bags	12 bags
Compatibility with blood bags	Single, Double, Triple, etc.	Single, Double, Triple, etc.	Single, Double, Triple, etc.	Single, Double, Triple, etc.	Single, Double, Triple, etc.
Bucket Type and number	Single x 6	Double x 4	Double x 6	Double x 4	Double x 6
Chamber dia. x height	25.6" x 10.6"	26.5"x10.6"	26.7" x 10.6"	26.5"x10.6"	26.7" x 10.6"
External Dimensions	31" x 40" x 33"	31"x 40" 33.6"	31" x 41.6" x 33.6"	31"x 40" 33.6"	31" x 41.6" x 33.6"
Temperature Utility	-10 °C to 40 °C	-10 °C to 40 °C	-10 °C to 40 °C	-10 °C to 40 °C	-10 °C to 40 °C
Windshield	No	No	No	Yes	Yes
Weight	325 kg	350 kg	375 kg	355 kg	380 kg
Catalog Number	AIL-20501	AIL-20502	AIL-20503	AIL-20504	AIL-20505

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**Declaration for Design, Installation, Operation, Performance and Maintenance Qualification****Technical Parameter Specification**

<b>Sr Nos</b>	<b>Particulars</b>	<b>Minimum Requirement / Standard.</b>	<b>Declared</b>
1	Temperature Indicator set at 4°C to 6°C	4.0°C	4.0°C
2	Temperature Indicator set at 22°C±5°C	22.0°C	22.0°C
3	Gradient Temp. in Chamber	not more than 1.5°C	not more than 1.5°C
4	Cool down time (Full load of blood bucket at +25°C to +4°C)	15 minute	15 minute
5	Cool down time (Full load of blood bucket at +25°C to +22°C)	5 minute	5 minute
6	noise level at refrigeration	50 dB	50 dB
7	noise level at centrifugation	55 dB	55 dB
8	noise level at refrigeration and centrifugation	60 dB	60 dB
9	vibration at refrigeration	0.5 mm	0.5 mm
10	Vibration during acceleration	1 mm	1 mm
11	Vibration during de-acceleration	0.6 mm	0.6 mm
12	Surface Temp. of body at +4°C inside temp after 48 hrs	Equal to ambient Temp.	Equal to ambient Temp.
13	Total time taken for soft spin	20 minutes	20 minutes
14	Total time taken for hard spin	25 minute	25 minute
15	Platelet concentrate	more than 70%	more than 80%
16	Plasma separation	50%	60%
17	ON/OFF Cycle ( compressor ) suitability	50:50	60:40
<b>Electrical Safety</b>			
18	Mains Voltage: Live to Neutral	240 VAC	240 VAC
19	Mains Voltage: Live to Earth	240 VAC	240 VAC
20	Mains Voltage: Neutral to Earth	5 VAC >	5 VAC >
21	Equipment Current	10Amp. >	8 Amp. >
22	Power plug unbreakable with LINE	Line	Line
23	Leakage Earth	5 VAC Max.	5 VAC Max.
24	Noise level test	Less than 58 dB	Less than 55 dB
25	Starting Amp.	Max. 10.0 Amp.	Max. 8.0 Amp.
26	Running Amp.	5-8 Amp.	4-6 Amp.
27	Power Failure Alarm	Available	Available
28	High Voltage Indicator	Available	Available
29	Low Voltage Indicator	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING</b>			
<b>VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX</b>			
30	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC FOR NEUTRAL
31	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC FOR EARTHING
32	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC FOR EARTHING

## Blood Component Separator Centrifuge

## Declaration for Design (DQ), Installation (IQ), Operation (OQ), Performance (PQ) and Maintenance Qualification (MQ)

## PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING

Sr. Nos	Particulars	Min. Requirement / Std.	Observed	(DQ )	(IQ )	(OQ)	(PQ)	(MQ )	Re- marks
1	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For NEUTRAL	✓	✓			✓	
2	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For EARTHING	✓	✓			✓	
3	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For EARTHING	✓	✓			✓	
<b>Electrical Safety Requirements</b>									
4	Equipment Current	Max 10 Amp.	Max 8 Amp.	✓		✓	✓	✓	
5	Power plug unbreakable with Line	Line	Line	✓	✓			✓	
6	Leakage Earth	5 V AC Max.	5 V AC Max.	✓	✓		✓	✓	
7	Noise level test	Less than 58 dB	Less than 52 dB	✓	✓	✓	✓	✓	
8	Starting amp.	Max. 10.0 Amp.	Max 8.0 Amp.	✓		✓	✓	✓	
9	Running amp.	5-8 Amp.	4-6 Amp.	✓		✓	✓	✓	
10	Power Failure Alarm	Available	Available	✓	✓	✓	✓	✓	
11	High Voltage Indicator	Available	Available	✓		✓	✓	✓	
12	Low Voltage Indicator	Available	Available	✓		✓	✓	✓	
<b>Technical Requirements</b>									
13	Temperature Indicator set at 4°C to 6°C	4.0°C	4.0°C	✓	✓	✓	✓	✓	
14	Temperature Indicator set at 22° C±5°C	22.0°C	22.0°C	✓	✓	✓	✓	✓	
15	Gradient Temp. in Chamber	Less than 2°C	Less than 1.5°C	✓		✓	✓	✓	
16	Cool down time (Full load of blood bucket at +25°C to +4°C)	15 minute	15 minute	✓			✓		
17	Cool down time (Full load of blood bucket at +25°C to +22°C)	5 minute	5 minute	✓			✓		
18	Noise level at refrigeration	55 dB	50 dB	✓			✓	✓	
19	Noise level at centrifugation	55 dB	52 dB	✓			✓	✓	
20	Noise level at refrigeration and centrifugation	60 dB	55 dB	✓			✓	✓	
21	Vibration at refrigeration	0.5 mm	0.5 mm	✓			✓	✓	
22	Vibration during acceleration	1 mm	1 mm	✓	✓		✓	✓	
23	Vibration during de-acceleration	0.6 mm	0.6 mm	✓	✓		✓	✓	
24	Surface Temp. of body at +4°C inside temp after 48 hrs	Equal to ambient Temp.	Equal to ambient Temp.	✓		✓	✓		
25	Total time taken for soft spin	20 minutes	20 minutes	✓			✓	✓	
26	Total time taken for hard spin	25 minute	25 minute	✓		✓	✓	✓	
27	Platelet concentrate	more than 70%	more than 80%	✓		✓	✓		
28	Plasma separation	50%	60%	✓			✓		
29	ON/OFF Cycle ( compressor ) suitability	50:50	60:40	✓		✓	✓		

## Some of User List of Authentic Blood Component Separator Centrifuge

YEAR	MONTHS	NOMENCLATURE	MODEL	INSTALLATION CUSTOMER	NAME OF PLACE	STATE
2016	September	Centrifuge m/c	RC-08	S.K. Soni Hospital blood bank	Jaipur	Rajasthan
2016	September	Centrifuge m/c	RC-06	Goyal hospital bood bank	Bhatinda	Haryana
2016	September	Centrifuge m/c	RC-06	Lions blood bank,parpargang	Delhi	Delhi
2016	September	Centrifuge m/c	RC-06	Ujjwal blood bank	Jagdalpur	C.G
2016	May	Centrifuge m/c	RC-06	Nidan blood bank	Sonipat	Haryana
2016	June	Centrifuge m/c	RC-08	Barala blood bank	Jaipur	Rajasthan
2016	July	Centrifuge m/c	RC-08	Govt medical college	Banda	U.P
2016	Aug	Centrifuge m/c	RC-06	Mangla blood bank	Kanpur	U.P
2016	April	Centrifuge m/c	RC-06	City blood bank	Raipur	C.G
2016	May	Centrifuge m/c	RC-12	Ujjwal blood bank	Jagdalpur	C.G
2016	May	Centrifuge m/c	RC-06	Thwaiyat blood bank	Raipur	C.G
2016	March	Centrifuge m/c	RC-06	Mangalam blood bank	Hissar	Haryana
2016	March	Centrifuge m/c	RC-06	Prem niketan	Jaipur	Rajasthan
2016	February	Centrifuge m/c	RC-12	Swasthya kalyan institute	Jaipur	Rajasthan
2016	February	Centrifuge m/c	RC-12	Krishna Rotary Blood Bank	Kota	Rajasthan
2016	February	Centrifuge m/c	RC-06	Noida Internationa Noida	Noida	U.P
2015	November	Centrifuge m/c	RC-06	Anantha medical college	Udaipur	Rajasthan
2015	November	Centrifuge m/c	RC-12	Jaipuria blood bank demo	Jaipur	Rajasthan
2015	November	Centrifuge m/c	RC-06	Navya Blood Bank Kurnool ROAD Ongole	Ongole Prakasam	A.P
2015	November	Centrifuge m/c	RC-12	SDMH	Jaipur	Rajasthan
2015	October	Centrifuge m/c	RC-12	Red Cross Society demo	Delhi	Delhi
2015	October	Centrifuge m/c	RC-06	KD medical college	Mathura	U.P
2015	October	Centrifuge m/c	RC-8	Tagoor Medical Collage & Hospital	Chennai	A.P
2015	September	Centrifuge m/c	RC-06	Life line blood bank	Bikaner	Rajasthan
2015	September	Centrifuge m/c	RC-06	Agarsen blood bank	Jaipur	Rajasthan
2015	April	Centrifuge m/c	RC-6	Shree Walface Society Blood Bank Guntur	Guntur	A.P
2015	April	Centrifuge m/c	RC-6	Buddala nagaratnam charitable	Amalapuram	A.P
2015	April	Centrifuge m/c	RC-6	Shri Krishna Life Line Hospital	Noida	U.P
2015	February	Centrifuge m/c	RC-06	Columbia Asia Hospital Gugaon	Gurgaon	Haryana
2014	November	Centrifuge m/c	RC-08	Prasad medical college	Luchnow	U.P
2014	Oct	Centrifuge m/c	RC-06	Jindal hospital	Bharatpur	Rajasthan
2014	July	Centrifuge m/c	RC-08	Riya Hospital & blood bank	Gangapur City	Rajasthan
2014	July	Centrifuge m/c	RC-06	Naveen hospital	Dadri	U.P
2014	May	Centrifuge m/c	RC-06	Brahm shakti hospital	Delhi	Delhi

YEAR	MONTHS	NOMENCLATURE	MODEL	INSTALLATION CUSTOMER	NAME OF PLACE	STATE
2014	May	Centrifuge m/c	RC-08	Ambedkarnagar MRA Medical Collage	Ambedakar nagar	U.P
2014	May	Centrifuge m/c	RC-06	Azamgarh Govt Medical College	Azamgarh	U.P
2013	April	Centrifuge m/c	RC-08	Span healthcare (malabar cancer hospital)	Cochin	Kerala
2013	May	Centrifuge m/c	RC-06	Deshmukh Durgabai Hospital	Hyderabad	A.P
2013	May	Centrifuge m/c	RC-12	NTR memorial blood bank	Guntur	A.P
2013	May	Centrifuge m/c	RC-06	Sadbhavna blood bank	Mathura	U.P
2013	July	Centrifuge m/c	RC-06	Family healthcare	Ghaziabad	U.P
2013	October	Centrifuge m/c	RC-06	Raipur Institute of medical sciences	Raipur	C.G
2013	September	Centrifuge m/c	RC-06	Swasthya kalyan blood bank	Jaipur 7	Rajasthan
2013	September	Centrifuge m/c	RC-06	Agarsen blood bank	Jaipur-6	Rajasthan
2013	January	Centrifuge m/c	RC-06	Krishna Devi Dr. Anita Ranjan Nursing Home Pvt Lt	Farukhabad	U.P
2013	January	Centrifuge m/c	RC-06	G.R Hospital	Agra	U.P
2013	January	Centrifuge m/c	RC-06	Shri k.m jain memorial	Sikar	Rajasthan
2013	February	Centrifuge m/c	RC-06	Krishna super speciality hospital	Kanpur	U.P
2013	February	Centrifuge m/c	RC-06	Life care blood bank	Jaipur	Rajasthan
2012	June	Centrifuge m/c	RC-06	Sidherswar blood bank	Solapur	Maharastra
2012	October	Centrifuge m/c	RC-06	Sevayatan blood bank	Jaipur	Rajasthan
2012	December	Centrifuge m/c	RC-06	Tej bLood Bank	Ambikapur	C.G
2012	November	Centrifuge m/c	RC-06	Tarawati blood bank	Sahranpur	U.P
2012	January	Centrifuge m/c	RC-06	SPM Hospital	Kanpur	U.P
2012	March	Centrifuge m/c	RC-06	Agarsen blood bank	Jaipur-3	Rajasthan
2012	March	Centrifuge m/c	RC-06	Mahatma gandhi hospital	Jaipur-4	Rajasthan
2012	February	Centrifuge m/c	RC-06	Life line blood bank	Bikaner	Rajasthan
2011	Before 2011	Centrifuge m/c	RC-06	Tapowan Blood Bank	Sriganganagar	Rajasthan
		Centrifuge m/c	RC-06	Ramkrishna care hopspital	Raipur	C.G
		Centrifuge m/c	RC-12	JHALAWAR Govt Medical College	Jhalawar	Rajasthan
		Centrifuge m/c	RC-06	Raj Blood Bank Society	Bharatpur	Rajasthan
		Centrifuge m/c	RC-06	Bilasa Blood Bank	Korba	C.G
		Centrifuge m/c	RC-06	Bilasa Blood Bank	Raipur	C.G
		Centrifuge m/c	RC-06	Bambhniya Pathology Laboratory	Bhavnagar	Gujrat
		Centrifuge m/c	RC-06	Maharshi Markandeshawar University	Mullana	Haryan
		Centrifuge m/c	RC-06	Manglam Blood Bank	Hissar	Haryan
		Centrifuge m/c	RC-06	Blood Bank Kailash Hospital	Alwar	Rajasthan
		Centrifuge m/c	RC-06	S.K. Soni Hospital	Jaipur	Rajasthan
		Centrifuge m/c	RC-06	Sihag hospital	Shri Ganganagar	Rajasthan
		2007		Centrifuge m/c	RC-06	Swastik blood bank





**Lifetime Comfortable Access**

All-length handle inbuilt to the body for better handling.

**Digital HMI**

7.1" Touch Screen HMI for interacting with the CSF.

**Extra PUF insulated door**

More than 150 mm of PUF filled in the door to prevent temperature loss.

**Ventilation Slits with Pre-filters**

Proper ventilation for the equipment to keep cool and dust elimination by pre filters

**Low-noise Compressor**

Heavy duty Compressors produce much lower sound.

Cat. No. : AIL-20601

**CSF-24**

**Capacity of 24 bags per cycle**

In the three chambers provided inside the CSF, a total of 24 bags could be fitted into it for one cycle. The core temperature of the blood bag is reached at -30°C in just within 40 minutes.

**Benefits of Contact Shock/Blast Cabinet**

Protein	Concentration in Plasma	Regular Deep Freezer	By Contact Shock Freezer	Identification
Albumin	40 g/L	Present	Present	Volume restoration after trauma, shock, burns
Alpha <sub>1</sub> proteinase inhibitor	1.5mg/mL	Not Present	Present	Hereditary emphysema
Anti-D IgG	Titer varies <sup>3</sup>	Not Present	Present	Rh prophylaxis in pregnancy and childbirth
Antithrombin III	100 µg/mL	Not Present	Present	Anti-thrombin III deficiency
C1-Inhibitor	170 µg/mL	Not Present	Present	Hereditary angioedema
Factor IX	10 µg/mL	Not Present	Present	Hemophilia B
Factor VIII	0.5 µg/L	Not Present	Present	Factor VIII deficiency
Fibrinogen	3 g/L	Not Present	Present	Tissue sealant Component
Fibronectin	300µg/mL	Not Present	Present	Wound healing
Hepatitis B IgG	Titer varies <sup>a</sup>	Not Present	Present	Hepatitis immunity
Immunoglobulin G	Up to 12.5 g/L	Not Present	Present	Primary and secondary immune deficiency
Measles IgG	Titer varies <sup>a</sup>	Not Present	Present	Measles protection and treatment
Protein C	4µg/mL	Not Present	Present	Neonatal thrombosis
Rabies IgG	Titer varies <sup>a</sup>	Not Present	Present	Rabies risk
Tetanus IgG	Titer varies <sup>a</sup>	Not Present	Present	Tetanus protection and treatment
Thrombin	150µg/mL <sup>b</sup>	Not Present	Present	Tissue sealant component

# Contact Shock/Blast Cabinet

## Specification

- **Purpose** : To freeze the plasma to a core temperature of  $-40^{\circ}\text{C}$  within 40 minutes before its components start to decay.
- Rapid freezing to core temperature of plasma bag to  $-40^{\circ}\text{C}$  in just 40 minutes .
- Working Temperature is  $-80^{\circ}\text{C}$ , and can be controlled within the range of  $-80^{\circ}\text{C}$  to  $+8^{\circ}\text{C}$  with  $0.1^{\circ}\text{C}$  accuracy.
- Temperature controlling and monitoring done by high-end 7.1" Touch Screen HMI with data storage in form of charts, and equipped with e-mailing facility.
- Constructed in double wall CFC free PUF (Polyurethane foam) Insulated.
- PUF thickness  $> 120$  mm.
- 3 shelves available, with 3 cooling plates and 3 motor controlled movable plates.
- Inner body made with Stainless steel 304 grade 22 SWG and outer body made with galvanized pre painted sheet (GPPS) 18 SWG with high impact powder coating.
- External Size :  $1000 \times 680 \times 1790$  mm (W x D x H).
- CFC - HCFC free refrigerant. Hermetically sealed refrigeration compressor are used in cascade refrigeration.
- Pre Cooling Function with temperature of  $-60^{\circ}\text{C}$ .
- Defrosting system available.
- Alarm in case of high/low temperature, door open & power failure.
- Door opening angle limited to  $90^{\circ}$  to  $110^{\circ}$ , Separate inner door with magnetic latch.
- Hotline around the mouth of the cabinet to prevent moisture condensation.
- Mounted on lockable castor wheel.
- Shock freezing of several batches in succession with optimized cooling systems.
- State of art compressor technology with optimized cooling system, and air condenser.
- Separate refrigeration of the fixed cover plate and the electrically adjustable working surface of the upper and lower plates.
- The preset and recommended operating temperature (set point) of  $-60^{\circ}\text{C}$ , to minimize the risk of bag rupturing.
- Microprocessor controlled programmable HMI touch screen for temperature controller and operation documentation. (as per drug act).
- CRP meets current EEC standards.
- Blood Bag Serial number can be introduced in the program.
- Noise level is below 65 dB.
- Power Supply, compatible with 220 V to 240 V, 50 Hz, Single phase A.C.
- High Voltage protector, available for 160 V to 255 V voltage fluctuations.
- Product CE certified.

## Why use Contact Shock Cabinets instead of Ultra Deep Freezers ???

- More than 90% of the blood banks don't have Contact Shock Freezers, rather they use -80 °C Deep Freezer which freezes the plasma at slow rate and the proper processing of the FFP is not attained.
- High Performance Contact Shock Freezers are used for the rapid freezing of blood plasma, preparations to a core temperature of -40 °C with chamber -80 °C for requirement up to the mark.
- Safety of law and compliance with directives for the preparation of blood plasma storage at a core temperature of < -30 °C.
- By the use of Contact Shock Freezers we obtain better **Factor 8**.
- The freezing process can be done by two methods : namely Contact Shock Freezing and Blast Freezing, the Blast Freezing technique is not safe as the temperature of blasted air too low and the operation can not be done by an operator safely.
- CSF is also very useful in case of blood donation camp, where blood is collected in large numbers, they need to be processed fast to prevent cellular decomposition which can't be

## Some of User List of Authentic Contact Shock/ Blast Cabinet

Installation	City	State	Installation	City	State
SDMH Blood Bank	Jaipur	Rajasthan	Govt. Medical College	Azamgarh	Uttar Pradesh
Bhagwan Mahaveer Cancer Hospital	Jaipur	Rajasthan	Govt. Medical College	Banda	Uttar Pradesh
Sawsthya Kalyan Blood Bank	Jaipur	Rajasthan	City Blood Bank	Raipur	Chhattisgarh
Prem Niketan Blood Bank	Jaipur	Rajasthan	Ujjwal Blood Bank`	Jagdalpur	Chhattisgarh

<b>Declaration for Design, Installation, Operation, Performance and Maintenance Qualification</b>			
<b>Technical Parameter Specification</b>			
<b>S. Nos</b>	<b>Particulars</b>	<b>Specified/ Std.</b>	<b>Declared</b>
1	Temperature Indicator at -80°C	(-80) ±5°C	-80.1°C
2	Temperature recorder at -80°C	(-80) ±5°C	-80.1°C
3	Temp. Gradient in Chamber	Not more than 4 .8°C	Not more than 4 °C
4	Door Alarm:- Alarming after 5 min. of Gate opening	5 minute	5 minute
5	High Temp. Alarm:-Alarming after -70°C with delay of 2 min.	2 minute	2 minute
6	Contact Shock temperature range	(-55 to -80)°C	(- 80)°C
7	Capacity	24 standard plasma bag	24standard plasma bag
8	Defrosting	Automatic	Automatic
9	Refrigerant	(CFC/HCFC free)	(CFC/HCFC free) R-508
10	Power consumption at -50 °C	3 kW	2 kW
11	Energy Consumption per freezing Cycle	6 kW	4 kW
12	Freezing time depending on load and ambient temperature	45-60 minutes	30-60 minutes
13	Surface Temp. of body at -80°C inside temp after 48hrs	equal to ambient temperature	equal to ambient temperature
14	Frosting at gate	Should never Seen	Never Seen
15	Moisture at door	Should never Seen	Never Seen
16	Defrosting time	10 minutes	10 minutes
17	Hold over time (Full load of plasma packet at -80° to more than -30°C) at 25°C.	1 hours	1 hours
18	ON/OFF Cycle ( compressor ) suitability	90:10	80:30
<b>Electrical Safety</b>			
<b>S. Nos</b>	<b>Particulars</b>	<b>Specified/ Std.</b>	<b>Declared</b>
19	Mains Voltage: Live to Neutral	240 VAC	240 VAC
20	Mains Voltage: Live to Earth	240 VAC	240 VAC
21	Mains Voltage: Neutral to Earth	Max. 5 V AC	Max. 5 V AC
22	Equipment Current	Min 18 Amp	Mini 17 Amp
23	Leakage Earth	5 V AC Max.	5 V AC Max.
24	Noise level test	Less than 60 dB	Less than 55 dB
25	Starting amp.	Max. 23 Amp	Max. 17 Amp
26	Running amp.	11 Amp.	6-8 Amp.
27	Power Failure Alarm	Available	Available
28	High & Low Voltage Indicator	Available	Available
29	Agitation Alarm	Available	Available
<b>PRE INSTALLATION ELECTRICAL REQUIREMENTS FOR SMOOTH WORKING</b>			
<b>VOLTAGE -220-240 V AC ,STABILITY - ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX</b>			
30	Mains Voltage: Live to Neutral	220-240 VAC	220-240 VAC
31	Mains Voltage: Live to Earth	220-240 VAC	220-240 VAC
32	Mains Voltage: Neutral to Earth	0.5 TO 5 VAC	0.5 TO 5 VAC

**Declaration for Design (DQ), Installation (IQ), Operation (OQ), Performance (PQ) and Maintenance Qualification (MQ)****PRE INSTALLATION ELECTRICAL REQUIREMENTS FOR SMOOTH WORKING**

Sr. Nos	Particulars	Min. Requirement / Std.	Observed	(DQ)	(IQ)	(OQ)	(PQ)	(MQ)
1	Mains Voltage: Live to Neutral	220-240 V AC FOR NEUTRAL	220-240 V AC For Neutral	✓	✓			✓
2	Mains Voltage: Live to Earth	220-240 V AC FOR EARTHING	220-240 V AC For EARTHING	✓	✓			✓
3	Mains Voltage: Neutral to Earth	0.5 TO 5 V AC FOR EARTHING	0.5 TO 5 V AC For EARTHING	✓	✓			✓
<b>Electrical Safety Requirements</b>								
4	Equipment Current	Min 23 Amp.	Min. 17 Amp.	✓		✓	✓	✓
5	Power plug unbreakable with Line	Line	Line	✓	✓			✓
6	Leakage Earth	5 V AC Max.	5 V AC Max.	✓	✓		✓	✓
7	Noise level test	Less than 58 dB	Less than 55 dB	✓	✓	✓	✓	✓
8	Starting amp.	Max. 23 Amp.	Max 17 Amp.	✓		✓	✓	✓
9	Running amp.	11 Amp.	6-8 Amp.	✓		✓	✓	✓
10	Power Failure Alarm	Available	Available	✓	✓	✓	✓	✓
11	High Voltage Indicator	Available	Available	✓		✓	✓	✓
12	Low Voltage Indicator	Available	Available	✓		✓	✓	✓
<b>Technical Requirements</b>								
13	Temperature Indicator at -80°C	(-80) ±5°C	-80.1°C	✓	✓	✓	✓	✓
14	Temperature recorder at -80°C	(-80) ±5°C	-80.1°C	✓	✓	✓	✓	✓
15	Temp. Gradient in Chamber	Not more than 4.8°C	Not more than 4 °C	✓		✓	✓	✓
16	Door Alarm:- Alarming after 5 min. of Gate opening	5 minute	5 minute	✓			✓	
17	High Temp. Alarm:-Alarming after -70°C with delay of 2 min.	2 minute	2 minute	✓			✓	✓
18	Capacity	18 standard plasma bag	18 standard plasma bag	✓			✓	
19	Defrosting	Automatic	Automatic	✓			✓	✓
20	Refrigerant	(CFC/HCFC free)	(CFC/HCFC free) R-508	✓	✓			
21	Power consumption at -50 °C	3 kW	2 kW	✓			✓	
22	Energy Consumption per freezing Cycle	6 kW	4 kW	✓			✓	
23	Freezing time depending on load and ambient temperature	45-60 minutes	30-60 minutes	✓		✓	✓	✓
24	Surface Temp. of body at -80°C in-side temp after 48hrs	equal to ambient temperature	equal to ambient temperature	✓		✓	✓	
25	Frosting at gate	Should never Seen	Never Seen	✓			✓	✓
26	Moisture at door	Should never Seen	Never Seen	✓			✓	✓
27	Defrosting time	10 minutes	10 minutes	✓			✓	✓
28	Hold over time (Full load of plasma packet at -80°C to more than -30°C) at 25°C.	1 hours	1 hours	✓			✓	✓
29	ON/OFF Cycle ( compressor ) suitability	90:10	80:30	✓		✓	✓	



## What is DQ, IQ, OQ, PQ & MQ ?

### **Design Qualification:**

Design qualification (DQ) is the process of completing and documenting design reviews to illustrate that all quality aspects have been fully considered at the design stage. The purpose is to ensure that all the requirements for the final systems have been clearly defined at the start.

### **Installation Qualification:**

The Installation Qualification (IQ) execution; verifies that the equipment, and its ancillary systems or sub-systems have been installed in accordance with installation drawings and or specifications.

### **Operational Qualification:**

Operational qualification (OQ) is the process of testing to ensure that the individual and combined systems function to meet agreed performance criteria and to check how the result of testing is recorded.

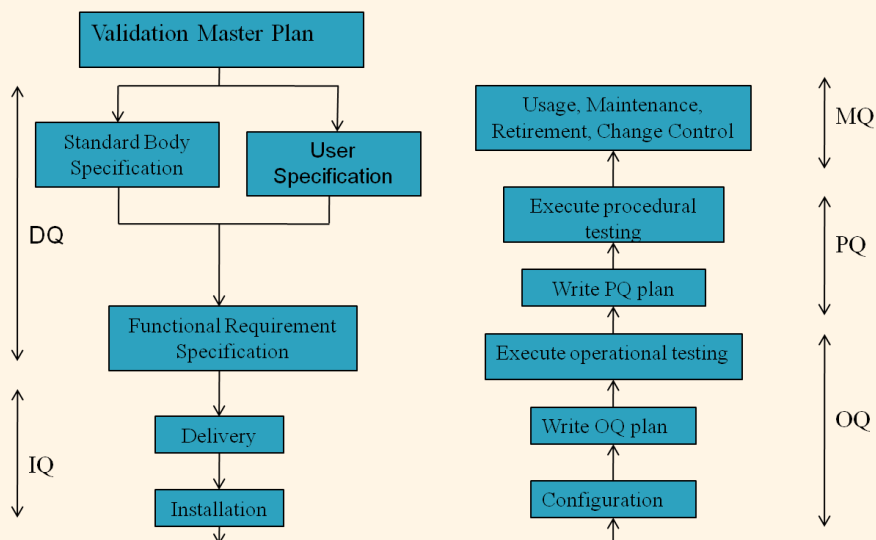
### **Performance Qualification:**

Performance qualification (PQ), also called process qualification, is the process of testing to ensure that the individual and combined systems function to meet agreed performance criteria on a **consistent** basis and to check how the result of testing is recorded.

### **Maintenance Qualification:**

The MQ describes and documents any maintenance required on the equipment. This includes routine servicing and any repairs necessary. Details of any maintenance contracts are also documented in this section, together with a list of authorized service engineers. In addition, the MQ includes the routine cleaning of the equipment and also its ultimate disposal.

- Maintenance Qualification should be done yearly for an equipment so that it can be determined whether the equipment is usable or not.
- At the time of maintenance qualification, MQ should match IQ to ensure that the equipment is still working as it was working at the time of Installation, if not the equipment should be serviced or repaired properly.
- If the problem is beyond repairing then the equipment should retire with immediate effect.



For more details please visit : [www.authenticjaipur.com](http://www.authenticjaipur.com)

# Must Have Blood Bank Accessories

## Cryo Bath

### Digital Temperature Display

4.3" Touch Screen Display for viewing the temperature and alarms.

### Miniature Circuit Breaker

It cuts off the power to the equipment in case of voltage peaks to protect inner circuitry.

### Low-noise Compressor

Relative noise level as low as 50 db.

### Powder Coated

Power Coating for Scratch and Corrosion Resistance.

### Lockable Castor wheels

Heavy duty lockable Castor wheels for locking the equipment in place.

### Ventilation Slits with pre-filters

Proper ventilation for the equipment to keep cool and dust elimination by pre filters which are removable and washable.



Cat. No. : AIL-20703

## Specification

- **Purpose** : To prepare cryo-precipitate in an accidental case.
- **4.3" Touch screen** for monitoring and controlling the temperature of the equipment.
- **Set Temperature** is at +4°C.
- **Capacity** of the equipment is 12 bags. There are two holders included to properly hold the plasma bags during the complete process.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.
- **Lockable Castor Wheels** to lock the equipment in place without moving (optional).
- **Interior** made from 304 grade 22 SWG stainless steel.
- **Interior consists** of holders to hold plasma bags during the process.
- **Door stop** on the right-hand side to stop the door from opening more than 100-110 degrees.
- **Forced water circulated cooling** with submersible motor to continuously circulate water to keep constant cooling.
- **Flip Door** PUF filled to prevent temperature loss.
- **Warning function** with visual and audible alarm signal in the case of temperature deviations, cycle over.
- **Ventilation-enforced refrigerating machine**, vibration free, hermetically sealed, energy saving, low noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front and the back.
- **Low-noise compressor** reduces noise to a negligible range.

For more details please visit : [www.authenticjaipur.com](http://www.authenticjaipur.com)

## Plasma Thawing Bath

### Digital Temperature Display

4.3" Touch Screen Display for viewing the temperature and alarms.

### Miniature Circuit Breaker

It cuts off the power to the equipment in case of voltage peaks to protect inner circuitry.

### Powder Coated

Power Coating for Scratch and Corrosion Resistance



Cat. No. : AIL-20704

## Specification

- **Purpose** : To bring the temperature of Blood bags and Plasma bags to 37°C before issuing it to a person.
- **4.3" Touch screen** for monitoring and controlling the temperature of the equipment.
- **Set Temperature** is at +37°C.
- **Capacity** of the equipment is 12 bags. There are two holders included to properly hold the blood bags during the complete process.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.
- **Lockable Castor Wheels** to lock the equipment in place without moving (optional).
- **Interior** made from 304 grade 22 SWG stainless steel.
- **Interior consists** of holders to hold blood bags and continuous thawing of bags during the process.
- **Door stop** on the right-hand side to stop the door from opening more than 100-110 degrees.
- **Forced water circulated cooling** with submersible motor to continuously circulate water to keep constant cooling.
- **Flip Door** PUF filled to prevent temperature loss.
- **Warning function** with visual and audible alarm signal in the case of temperature deviations, cycle over.
- **Ventilation-enforced refrigerating machine**, vibration free, hermetically sealed, energy saving, low noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front and the back.

## Blood Collection Monitor

### Agitation Pan

For continuous agitation of blood at 10 RPM during donation to avoid blood coagulation.

### Tube Stopper

Stops blood receiving once set volume is reached.

### Touch Screen Display

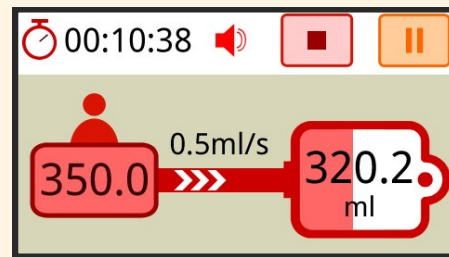
4.3" Touch Screen display to monitor blood collection status, weight, volume and time of donation.

### Powder Coated

Power Coating for Scratch and Corrosion Resistance.



Cat. No. : AIL-20702



Display during donation of blood

### Specification

- **Purpose** : For monitoring blood collection while donation and ensuring that extra blood from pre-set value is not donated.
- **Digital Display** to show the weight, volume and elapsed time of blood donation.
- **Maximum Volume** of blood that is to be collected can be set according to preferences.
- **Pan** continuously agitates to avoid coagulation formation of the blood.

## Double Pan Balance

### Touch Screen Display

4.3" Display for viewing the weight of both pans.



Cat. No. : AIL-20701

### Tare Button for both pans

Touch tare button for both pans for taring at the same time.

### Powder Coated

Power Coating for Scratch and Corrosion Resistance.

### Specification

- **Purpose** : To balance the Component Separator Centrifuge's buckets to ensure machine imbalance doesn't occur.
- **Touch Screen Display** to show the weight on both pans, the screen also shows how much weight you need to add to balance the pans, specially designed for balancing blood bags for centrifugal process. Accuracy is 0.1 gm for safer centrifugal process.
- **Maximum Capacity** of the balance is 3 kg for each pan.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.

For more details please visit : [www.authenticjaipur.com](http://www.authenticjaipur.com)

## Laboratory Centrifuge

### Digital RPM and Timer Display

4.3" Touch Screen for a better Human Machine Interaction and usage.

### Powder Coated

Powder Coating for Scratch and Corrosion Resistance.



### Metal Covering

Safety increased from older versions of Lab Centrifuge.

### Lid Opener

Ring provided for opening the lid easily.

Cat. No. : AIL-20705

## Specification

- **Purpose** : For separating test tube components in different parts to analyze tests.
- **4.3" Touch screen HMI** for monitoring the RPM and time of centrifugation, it controls the speed of motor and displays time countdown ranging up to 59:59 minutes.
- **Highest Speed** of the equipment is 5500 RPM and maximum RCF (Relative Centrifugal Force) is 4574 g.
- **External Housing** made from galvanized sheet (rust proof) of 18 SWG, with grey, anti-scratch powder coating. Length of power cable, approx. 2 m.
- **Interior** made from 304 grade 22 SWG stainless steel.
- **Interior consists** of holders to hold metal test tubes in which normal test tubes will be inserted, maximum capacity is 450 mL.
- **Door Lock** on the right-hand side to lock the door from opening in between the process.
- **Visual Indication function** with an audible alarm signal in the case of cycle over.
- **Ventilation-enforced machine**, vibration free, energy saving, low noise, easy to service.

## Highlights

- On the 4.3" Touch Screen HMI the RPM and Countdown Timer are shown, the RPM and Timer can be set Individually.
- Lid Open Indicator to show whether the Lid is locked properly or not.
- Powerful motor to provide maximum performance.
- The grey powder coating suits with the Laboratory environment.



## Double Pan Balance



Cat. No. : AIL-20701

### Tare Button for both pans

Touch tare button for both pans for taring at the same time.

### Touch Screen Display

4.3" Display for viewing the weight of both pans.

### Powder Coated

Power Coating for Scratch and Corrosion Resistance.

## Specification

- **Purpose** : To balance the Component Separator Centrifuge's buckets to ensure machine imbalance doesn't occur.
- **Touch Screen Display** to show the weight on both pans, the screen also shows how much weight you need to add to balance the pans, specially designed for balancing blood bags for centrifugal process. Accuracy is 0.1 gm for safer centrifugal process.
- **Maximum Capacity** of the balance is 3 kg for each pan.

## Laboratory Centrifuge

### Digital RPM and Timer Display

4.3" Touch Screen for a better Human Machine Interaction and usage.

### Powder Coated

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### Metal Covering

Safety increased from older versions of Lab Centrifuge.

### Lid Opener

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## Highlights

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- Lid Open Indicator to show whether the Lid is locked properly or not.
- Powerful motor to provide maximum performance.
- The grey powder coating suits with the Laboratory environment.

## Our other Blood Bank Accessories



### Motorized Donor Couch

- Purpose : For lying of donor while blood donation with perfect donation posture.
- Facilities for blood collection from both sides.
- The frame of the Recliner is constructed of High grade Steel duly epoxy powder-coated.
- The base is covered with smooth and elegant finish polymer molded which is rust-free, scratch resistant and easy to clean.
- Leather as per Japanese Standard : JASO-M-313-813.
- Donor couch is take care of Physical position, with the help of electric power, we can adjust the donor position in between head low-Feet high to head high-Feet lower position and arm rest swing out for easy sitting as well as up & down of Chair such position minimization of donor.



### Serological Water Bath

- Automatic Control of water temperature.



### Plasma Expresser

- Purpose : To separate Blood Plasma from the centrifuge processed Whole Blood.
- Mechanically Presses Blood bag to extract Plasma easily.



### Tube Sealer

- Purpose : To seal the Blood bag tube without contact of blood with air.
- Seals Blood bag tubes within 1-2 seconds with RF heating.
- No warm-up time required.



### Portable Donor Couch

- Purpose : For lying of donor while blood donation at camps where carrying of motorized donor couch is not possible.
- Well comfortable
- Light weight, easy to use and very helpful in Blood Donation Camps.



### Blood Collection Monitor - X1 Series

- Purpose : For monitoring blood collection while donation and ensuring that extra blood from preset value is not donated.
- Pre selection of volume and auto care facility.
- Display of volume and weight simultaneously.
- Display of set volume & Pause function facility & total time taken.
- Microprocessor controller based programmer.
- Provision for pausing collection and change program during blood collection through microprocessor controller.
- Automatic clamping through imported compact motor.



### VDRL Shaker

- Purpose : For shaking blood bag in a 1-axis orbital motion for VDRL tests.
- Continuously shakes blood bag in orbital form and the speed can be regulated by a knob.



### Hot Air Oven

- The air inside the oven circulates continuously to obtain uniform temperature throughout the interior.

These pictures are for visual purpose only, actual colours may vary.

# Central Monitoring System

## Features

- **Designed for monitoring 16 equipment at one place.**

Wireless Central Monitoring System specially designed for 16 equipments based on industrial computer for 24x7 monitoring. Centralized receiving station equipped with temperature weekly circular graphical display and data storage with email facility on specified recipient.

- **Uploading of data on cloud storage or specified email**

Storage of previous 2 weeks independent circular temperature graph with current weeks. **It will automatically send data on specified e-mail recipient every weekend and you can send data manually anytime.** The data will be stored in both graphical form and in numerical data form in excel sheet. And it can further used for various type of statistical analysis.

## Specifications

### General

- **BIOS** AMI 8Mbit
- **Cooling System** Fan less design
- **Dimensions (W x H x D)** 287.0 x 227.0 x 73.3 mm (11.30" x 8.94 x 2.89)
- **Enclosure Front bezel:** Die-cast Aluminum alloy  
Back housing: PC/ABS Resin
- **Mounting** Desktop, Wall or Panel Mount
- **OS Support** Microsoft® Windows 7/WES7/WES 2009/XPE
- **Power Consumption** 17W
- **Power Input** 10~29 VDC
- **Watchdog Timer** 1 ~ 255 sec (system)
- **Weight (Net)** TPC-1071H: 3.5 kg (7.72 lbs)

### System Hardware

- **CPU** Intel® Atom™ D525 1.8 GHz with 1MB cache
- **Chipset** ICH8M
- **Memory** 8GB SO-DIMM DDR3 SDRAM
- **LAN** 10/100/1000Base-T x 2
- **I/O** RS-232 x 2 (COM1, 2) with isolation  
RS-422/485 x 1 (COM3) with isolation and auto data flow control  
USB 2.0 x 2 (Host) PS/2 x 1



Cat. No. : AIL-21102



Cat. No. : AIL-21103

The Transmitter which will be installed in each equipment whose data is to be shown in the Central Monitoring System.



# How it Works ?



Data uploading on cloud and specified recipient by GPRS network or Ethernet connectivity.

Multiple Circular Temperature Chart Recorder Display

Wireless Central Monitoring System



CENTRAL MONITORING CHART RECORDER DISPLAY

For more details please visit : [www.authenticjipur.com](http://www.authenticjipur.com)



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