



Always A Step Ahead.....

Complete Blood Bank Equipment's and Accessories



X3 Series

Authentic Instrument Industries Ltd.

Formally known as "Authentic Instrument & Automation Pvt. 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.
- Regular Blood Bank processes are automatically improved.

Objectives of these Equipments:

- Designed to maintain quality of plasma and produce fresh frozen Plasma (FFP) for fractionation
- Tracking and traceability of each plasma bag right from donation of whole blood to separation, freezing, storage, dispatch and transportation of plasma
- Blood bank procedures are automatically improved.



Why Authentic ?

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.

Barcode Reader

To scan and update the process data .

Digital Temperature Display

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

Robust Housing

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

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.



Table of Contents

About the Company	1-2
System Features	3-6
Interior Design Overview	7-8
Blood Collection Monitor	9-10
Blood storage Cabinet	11-16
BBR-200	
BBR-400	
BBR-600	
Blood Component Separator Centrifuge	17-24
Contact Shock/Blast Cabinet	25-30
Platelet Incubator cum Agitator	31-38
PIA-60	
PIA-120	
Plasma Storage Cabinet (-40°C)	39-44
DF-325	
DF-650	
Plasma Storage Cabinet (-80°C)	45-50
UDF-165	
UDF-325	
UDF-525	
Blood Bank Accessories	
Cryo Water Bath	51-52
Central Monitoring System	53-54

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.

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.

Common Features:

- Inkless & paperless weekly temperature circular charts e-mailed automatically at every weekend at pre-selected 3 e-mail IDs and SMS alerts
- smart chart recording system with 3 weeks chart storage capacity.
- **Daily e-mail of all processes in excel sheet.**
- Barcode Reader: To scan and update the process data.
- Inbuilt GPRS / Wireless data transmission
- All features comply with the Drug & Cosmetic Act.

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 color otherwise it is in Red color.

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.

Chart Date and Time

It shows the date and time when above chart started.

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.

Date and Time Indicator

It shows current date and time.

Voltage Indicator

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

Previous Chart

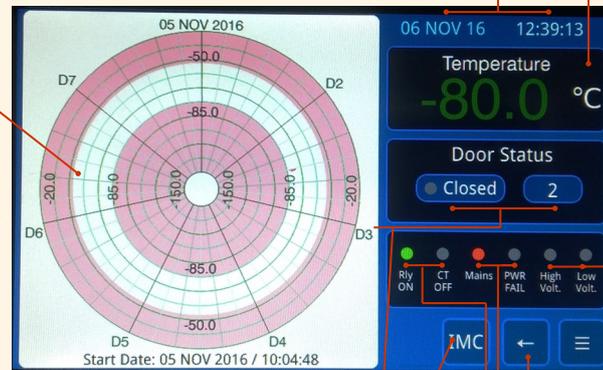
It shows previous two week's recorded circular chart.

Power Supply Indicator

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

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.

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 - 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 Completer
*Cal-2	27 Aug 2016	27 Aug 2016	Nilam	Calibration Completer

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.

- Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	√		41
6	11.09.2017 - 11:45	15790	84651814	√		42
7	11.09.2017 - 11:46	15790	84651815		√	41
8	11.09.2017 - 11:47	15791	84651816	√		42
9	11.09.2017 - 11:48	15792	84651817	√		43
10						
11						

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

^a : Minimum time for Full load of blood packet at +20°C to reach +24°C.

Blood Collection Monitor- (collection)

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



Touch Screen Display

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

Cat. No. : AIL-20702

Barcode Reader

To scan and update the process data .

Powder Coated

Power Coating for Scratch and Corrosion Resistance.

Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	√		41
6	11.09.2017 - 11:45	15790	84651814	√		42
7	11.09.2017 - 11:46	15790	84651815		√	41
8	11.09.2017 - 11:47	15791	84651816	√		42
9	11.09.2017 - 11:48	15792	84651817	√		43
10						
11						

Display during donation of blood



For more details please visit : www.authenticjaipur.com

Specification

- **Purpose** : For monitoring blood collection while donation and ensuring that extra blood from preset 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.
- **Oscillation**: 12 ± 2 rpm
- Should mix the blood with anti - coagulant solution during Collection and ensure that only correct amount of blood is collected
- **Battery Backup**: Should be > 8 hours (12 V DC) with continuous work load (rechargeable battery)
- Should have standby / pause mode Manual clamp facility to abort collection Automatic Release of Clamp when the bag is lifted
- Should be able to operate at Temperature of +5 C to +45 °C and relative humidity (RH) of 5% to 95%.
- There should be continuous digital display of preset volume, Blood flow rate and total time taken at the end of collection.
- **Electrical**: The equipment should be able to run on the existing Electrical provision.
- Suitable Automatic Voltage regulator/stablizer meeting ISI Specifications should be supplied. Broad AC with automatic 2-4 sec Cut off and 6-9 minutes Restart delay. Quick start arrangements for bypassing the start delay. Suitable MCB on input voltmeter and indicators on Front Panel. Input Power Cable with 15 A Plug and six way output Terminal strip for two outlets.
- **Alarms**: There should be continuous digital display of preset volume, Blood flow rate and total time taken at the end of collection
- When flow rate goes below 20 ml / min or high flow rate above 180 ml / min.
- At the end of collection
- When battery low
- During pause function
- Any abnormal condition

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.

Barcode Reader

To scan and update the process data .



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.

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

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°.

Key locking system

High quality locks for locking the door from unauthorized access.

Low-noise Compressor

Relative noise level as low as 50 db.

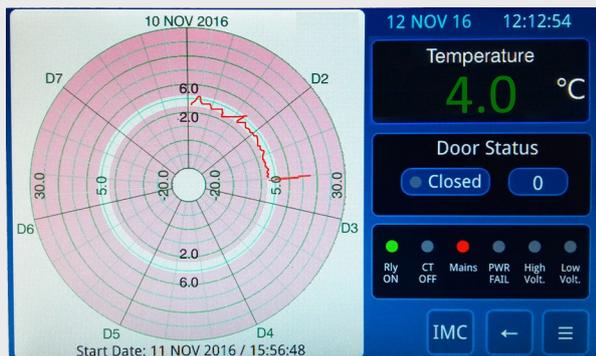
Lockable Castor wheels

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.

BBR-200



Heavy-duty Level adjustment and Easy mobility lockable Castor Wheels

LCD Screen Display for Blood Storage Cabinets

BBR-200, BBR-400 and BBR-600- (storage)

- **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**^ 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#	±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.

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 colors may vary.

Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	√		41
6	11.09.2017 - 11:45	15790	84651814	√		42
7	11.09.2017 - 11:46	15790	84651815		√	41
8	11.09.2017 - 11:47	15791	84651816	√		42
9	11.09.2017 - 11:48	15792	84651817	√		43
10						
11						

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
Electrical Safety			
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
PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING			
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

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	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
Electrical Safety			
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
PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING			
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

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	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
Electrical Safety			
	Particulars	Minimum Requirement / Standard.	Declared
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
PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING			
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 EARTH-ING	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 %	√		√	√	√

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.

Barcode Reader

To scan and update the process data.

Ventilation Slits with pre-filters

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

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.

Cat. No. : AIL-20501



For more details please visit : www.authenticjaipur.com

Refrigerated Centrifuge- (Component Separation Process)

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.

Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	√		41
6	11.09.2017 - 11:45	15790	84651814	√		42
7	11.09.2017 - 11:46	15790	84651815		√	41
8	11.09.2017 - 11:47	15791	84651816	√		42
9	11.09.2017 - 11:48	15792	84651817	√		43
10						
11						

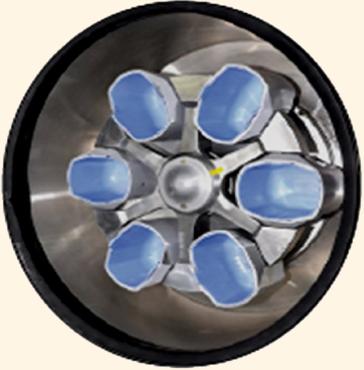
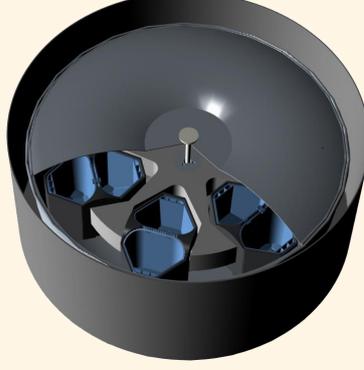
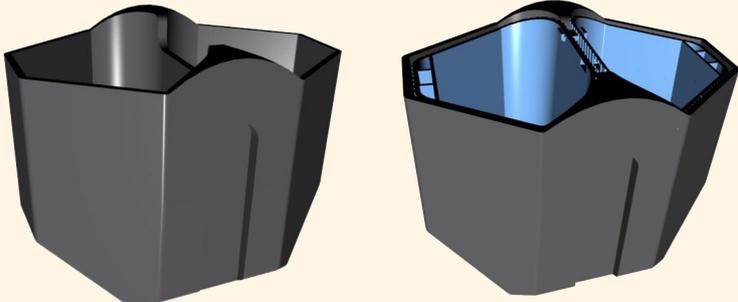
For more details please visit : www.authenticjaipur.com

Variants Of Blood Component Separator Centrifuges

RC-6 (6 bags)

RCW-8 (8 bags)

RCW-12 (12 bags)

		
		
<p>Aluminum Buckets - 6 bags</p>	<p>Aluminum Alloy Buckets</p>	
		
<p>Plastic Buckets - 6 bags</p>	<p>Plastic Buckets 8 bags and 12 bags</p>	

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.				
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				
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

For more details please visit : www.authenticjaipur.com

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

Sr Nos	Particulars	Minimum Requirement / Standard.	Declared
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
Electrical Safety			
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
PRE INSTALLATION ELECTRICAL REQUIRMENTS FOR SMOOTH WORKING			
VOLTAGE -220-240 V AC ,STABILITY- ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX			
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-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 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	✓		✓	✓	✓	
Technical Requirements									
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 Nurshing 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

Contact Shock/Blast Cabinet– quick freezing of plasma

Extra PUF insulated door

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

Digital HMI

7.1” Touch Screen HMI for interacting

Lifetime Comfortable Access

All-length handle in-built to the body for better handling.

Barcode Reader

To scan and update the process data .



Low-noise Compressor

Heavy duty Compressors produce much lower sound.

Ventilation Slits with pre filters

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



CSF-24

Cat. No. : AIL-20601

Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	√		41
6	11.09.2017 - 11:45	15790	84651814	√		42
7	11.09.2017 - 11:46	15790	84651815		√	41
8	11.09.2017 - 11:47	15791	84651816	√		42
9	11.09.2017 - 11:48	15792	84651817	√		43
10						
11						

Specification

- **Purpose** : To freeze the plasma to a core temperature of -40°C within 40 minutes before its components start to decay.
- Rapid freezing to core temperature of plasma bag to -40°C in just 40 minutes .
- Working Temperature is -80°C , and can be controlled within the range of -80°C to $+8^{\circ}\text{C}$ with 0.1°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 x 680 x 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°C .
- Defrosting system available.
- Alarm in case of high/low temperature, door open & power failure.
- Door opening angle limited to 90° to 110° , 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°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.
- Manufacturer ISO 9001 certified.
- Manufacturing in accordance with ISO 13485.

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.

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

Benefits of Contact Shock/Blast Cabinet

Protein	Concentration in Plas-	Regular Deep Freezer	By Contact Shock Freezer	Identification
Albumin	40 g/L	Present	Present	Volume restoration after trauma, shock, burns
Alpha ₁ proteinase inhibitor	1.5mg/mL	Not Present	Present	Hereditary emphysema
Anti-D IgG	Titer varies ^a	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 ^a	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 ^a	Not Present	Present	Measles protection and treatment
Protein C	4µg/mL	Not Present	Present	Neonatal thrombosis
Rabies IgG	Titer varies ^a	Not Present	Present	Rabies risk
Tetanus IgG	Titer varies ^a	Not Present	Present	Tetanus protection and treatment
Thrombin	150µg/mL ^b	Not Present	Present	Tissue sealant component

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

Declaration for Design, Installation, Operation, Performance and Maintenance Qualification			
Technical Parameter Specification			
S. Nos	Particulars	Specified/ Std.	Declared
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
Electrical Safety			
S. Nos	Particulars	Specified/ Std.	Declared
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
PRE INSTALLATION ELECTRICAL REQUIREMENTS FOR SMOOTH WORKING			
VOLTAGE -220-240 V AC ,STABILITY - ±5 V AC, VOLTAGE DROP DURING STARTING 10 V AC MAX			
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	✓	✓			✓
Electrical Safety Requirements								
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	✓		✓	✓	✓
Technical Requirements								
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.	5 minute	5 minute	✓			✓	
17	High Temp. Alarm:-Alarming after -	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-	✓	✓			
21	Power consumption at -50 °C	3 kW	2 kW	✓			✓	
22	Energy Consumption per freezing	6 kW	4 kW	✓			✓	
23	Freezing time depending on load	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)	1 hours	1 hours	✓			✓	✓
29	ON/OFF Cycle (compressor) suita-	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.

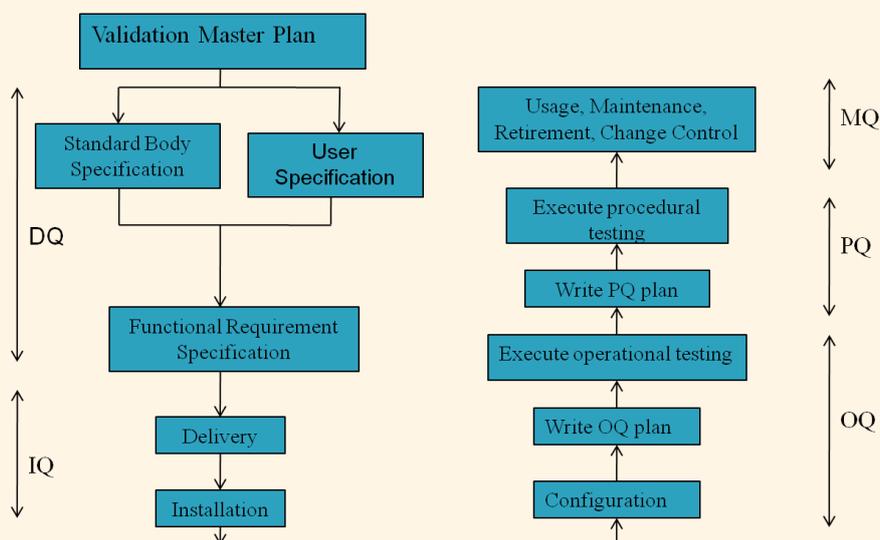
Performance Qualification:

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

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.

Barcode Reader

To scan and update the process data .



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*.

Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	√		41
6	11.09.2017 - 11:45	15790	84651814	√		42
7	11.09.2017 - 11:46	15790	84651815		√	41
8	11.09.2017 - 11:47	15791	84651816	√		42
9	11.09.2017 - 11:48	15792	84651817	√		43
10						
11						

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.

Barcode Reader

To scan and update the process data .



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 14 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.

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.



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^** 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#	±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.
 ^ 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*.

Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	√		41
6	11.09.2017 - 11:45	15790	84651814	√		42
7	11.09.2017 - 11:46	15790	84651815		√	41
8	11.09.2017 - 11:47	15791	84651816	√		42
9	11.09.2017 - 11:48	15792	84651817	√		43
10						
11						

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

Sr Nos	Particulars	Specified/ Std.	Declared
1	Temperature stability \pm °C	(20-24)°C	(20-24)°C
2	Temperature Recorder	(20-24)°C	(20-24)°C
3	Gradient Temp. in Chamber	Less than 2°C	Less than 1.8°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°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	Available	Available
10	Surface Temp. of body at 22°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°C to +22°C)	30 minute	30 minute
14	Hold over time (Full load of blood packet at +22°C to more than +24°C) at 25°C	2 hours	2 hours
15	Carrying Capacity	60 Bag	60 Bag
16	ON/OFF Cycle (compressor) suitability	70:30	70:30
Electrical Safety			
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
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			
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	√	√			√	
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									
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.

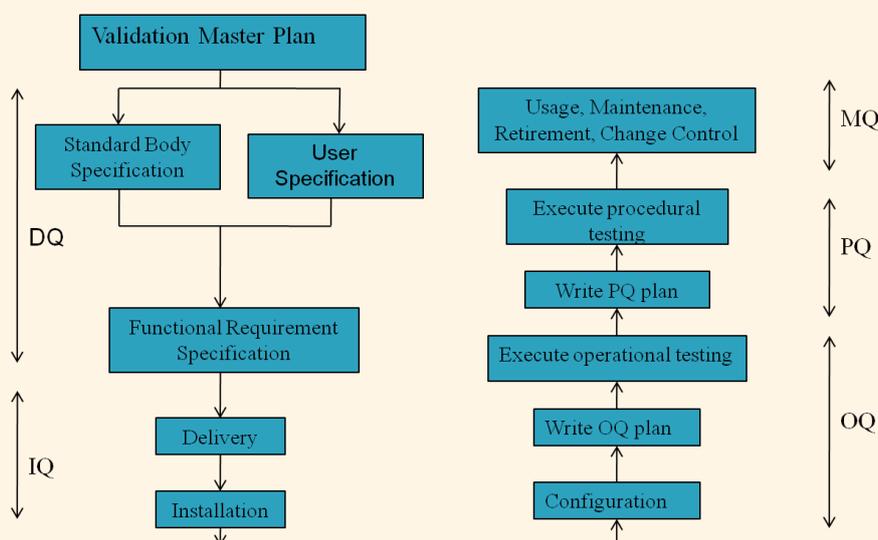
Performance Qualification:

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.



Digital Temperature Display

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

Barcode Reader

To scan and update the process data .



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.

Low-noise Compressor

Relative noise level as low as 50 db.



Miniature Circuit Breaker

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

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.

Ventilation Slits with pre-filters

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

Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	✓		41
6	11.09.2017 - 11:45	15790	84651814	✓		42
7	11.09.2017 - 11:46	15790	84651815		✓	41
8	11.09.2017 - 11:47	15791	84651816	✓		42
9	11.09.2017 - 11:48	15792	84651817	✓		43
10						
11						

Lockable Castor wheels

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



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

Long term 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**^ 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#	±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.
- **USB port** for chart downloading to pen drive*.

* 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

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	3.5 °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
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. 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
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

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.

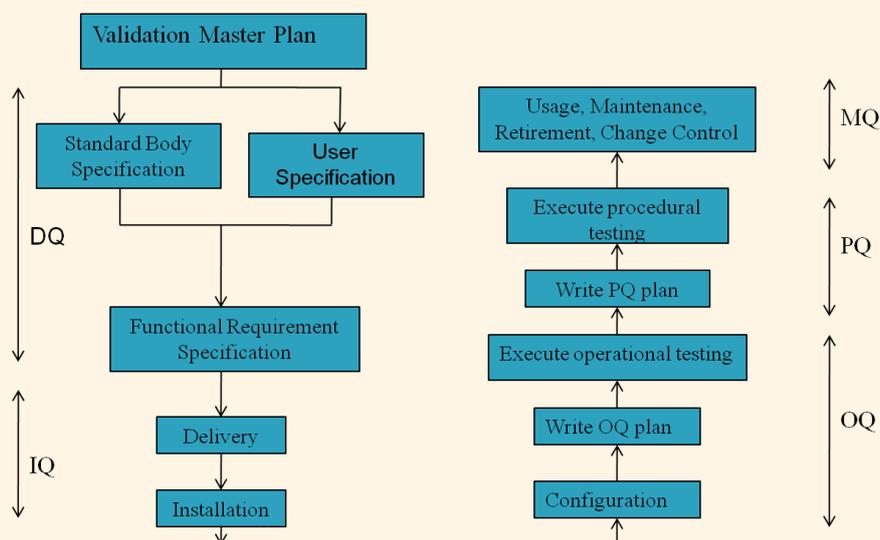
Performance Qualification:

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.

Barcode Reader

To scan and update the process data .



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

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.

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.authenticjipur.com

Short Term 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 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**^ 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 [#]	±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.
- **USB port** for chart downloading to pen drive*.

* 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.

Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	√		41
6	11.09.2017 - 11:45	15790	84651814	√		42
7	11.09.2017 - 11:46	15790	84651815		√	41
8	11.09.2017 - 11:47	15791	84651816	√		42
9	11.09.2017 - 11:48	15792	84651817	√		43
10						
11						

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	150 liter	165 liter
15.	ON/OFF Cycle (compressor) suitability	70 : 30	60 : 40
Electrical Safety			
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
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

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
Electrical Safety			
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
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

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 %	√		√			

Must Have Blood Bank Accessories

Cryo Water Bath

Barcode Reader

To scan and update the process data .



Digital Temperature Display

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

Low-noise Compressor

Relative noise level as low as 50 db.

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.

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

Daily e-mail of all processes in excel sheet.

	A	B	C	D	E	F
1	XYZ Charitable Blood Bank					
2	Equipment Name:	A				
3	Equipment ID:	XYZ/A-01				
4	Timestamp	Donation Number	Bag ID	Deposit	Withdrawal	Balance
5	11.09.2017 - 11:44	15789	84651813	√		41
6	11.09.2017 - 11:45	15790	84651814	√		42
7	11.09.2017 - 11:46	15790	84651815		√	41
8	11.09.2017 - 11:47	15791	84651816	√		42
9	11.09.2017 - 11:48	15792	84651817	√		43
10						
11						

For more details please visit : www.authenticjaipur.com

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.

Central Monitoring System– monitoring of all BB equipments

Features

•Designed for monitoring 60 equipment at one place.

Wireless Central Monitoring System specially designed for 60 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 and auto data flow control
RS-422/485 x 1 (COM3) with isolation and auto data flow control
USB 2.0 x 2 (Host) PS/2 x 1

Barcode Reader

To scan and update the process data .



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.authenticjaipur.com



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

Head Office :	31, RIICO Industrial Area, Jhotwada, Kamani Chouraha, Jaipur – 302012, Rajasthan, India.
Branch Offices :	at Delhi, Kanpur, Lucknow, Mumbai, Raipur, Chennai, Kolkata, Patna, Jabalpur, Bhopal, Bhubaneswar, Hyderabad.
Mobile :	+91-9314529100, +91-9694019100, 9352454200-300
e-mail :	support@authenticinstruments.com / calibration@authenticinstruments.com / service@authenticinstruments.com
Website :	www.authenticinstruments.com



Scan this QR Code to visit
our Website