

DATA SHEET

HLL LIFECARE LIMITED, CHENNAI

	REVIVAL OF BCG VACCINE LABORATORY, GUINDY, CHENNAI		
	REFRIGERATOR		
	PROJECT No:	110729	
	EQUIPMENT ID :	BF-RFG 01,02	
	DOCUMENT No :	DS/BF-RFG 01	

1 Process requirements

1.1 It is used to store the media samples required for the process.

2 Technical Specifications

2.1	Model	cGMP Refrigerator with glass door, Upright type
2.2	Refrigerator compartment	Refrigerator compartment - not less than 1250 L
2.3	External dimension (W X D X H mm)	2200 x 900 x 2000 or near to standard
2.4	Internal dimension (W X D X H mm)	2000 x 700 x 1500 or near to standard
2.5	Shelves (W X D mm)	Vendor to specify
2.6	Height between the shelves (mm)	Vendor to specify
2.7	No. of Shelves	Vendor to specify (SS 304 Perforated shelves shall be adjustable)
2.8	Purpose	For the storage of samples in: Tuberlin flask-450 ml - 120 nos (D-120mm, H-100mm) Conical flask-250 ml - 60 nos (D- 85mm, H-140mm)
2.9	Temperature Range	+1°C to +8°C
2.10	Refrigerant	R134a (HFC refrigerant) or vendor to specify
2.11	Temperature precision (Setting resolution)	± 0.5 deg C
2.12	Temperature stability	± 1 deg C
2.13	Temperature uniformity	± 2 deg C
2.14	Air circulation	Forced air circulation
2.15	Quantity	2 Nos.



3 Material of construction

3.1	Body Construction	Interior	SS 304
		Shelves	Perforated, SS304
		Exterior	Powder coated GI sheet or vendor to specify
3.2	Gaskets, seals, o-rings	Food Grade/ nontoxic material Use of Asbestos is prohibited	
3.3	Insulation	Heavy walled CFC Free	
3.4	Door	Double layer Borosilicate glass	
3.5	MOC Fan	Aluminium	
3.6	All welds shall be ground finish		

4 Specific requirements

4.1	Chamber should have rounded corners for easy cleaning.
4.2	System shall be designed for 100% coverage of the internal surface areas
4.3	The vendor shall provide the detail of cleaning agent based on compatibility of material
4.4	The refrigerators shall be provided with adjustable shelves for flexible storage
4.5	Refrigerator shall be fitted with double-roll lockable caster wheels for easy transportation
4.6	The control shall be microprocessor based with digital display cum controller.
4.7	Set point security or Key lock for Parameter change Protection to be provided
4.8	Temperature to be recorded, monitored and displayed. Temperature probe should be installed (Two nos).
4.9	Temperature controlling must be based on set point
4.10	Interface port RS 232 to transfer data to be provided
4.11	Paperless data logger to be provided
4.12	A complete batch record indicating the following important parameters, but not limited to these: a) Date, Time b) Infrared port (for optional data transmission) c) All failures and alarms

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4.13	Internal clock to be maintained to retrieve data at setpoint interval i.e.; 24 hrs .					
4.14	Positive air circulation by internal fans must be provided to ensure temperature uniformity and recovery					
4.15	Temperature sensor for set temperature					
4.16	Alarms for parameters like high temperature, low temperature shall be provided					
4.17	Temperature set points should be adjustable					
4.18	Alarm if door is open for >5 min.					
4.19	Light on/ off in case of glass door					
4.20	Auto switch off of fan when door opens					
4.21	Automatic defrost cycle and melt water evaporation in heated tray should be provided					
4.22	Dry contact for remote alarm should be provided					
4.23	1 no. Door lock should be provided					
4.26	Spring loaded, self closing door with 90° angle stay open feature should be provided with holder.					
4.27	Ring back function if any alarm condition remains active					
5	Other requirements					
5.1	A CE declaration of conformity must be available. The CE Identification must comply with the current EC instructions.					
5.2	Cleaning shall be done manually					
5.3	Control lights and other display elements shall not be influenced by voltage failure					
5.4	Installation of equipment with refrigerants has to be done by a certified cooling technician.					
5.5	Audio alarms have to be in the range of 2.3 — 2.9 kHz in order to avoid interference and confusion with evacuation alarms					
5.6	The control circuit has to be 24 Volt					
6	Regulatory guidelines / standards					
	NA					
7	Safety requirements					
7.1	Emergency stop function on accessible area.					
7.2	Noise level should be below 75 decible.					
7.3	Proper earthing should be provided					
7.4	No sharp edges/Corners, crevices, pin holes in the process wetted parts of the equipment.					
7.5	In the event of equipment malfunction or loss of utilities, the unit must contain all necessary protection devices to ensure that the equipment and the product remain in a safe condition.					
8	Documents					
8.1	FDS Document(If applicable)					
8.2	Technical Specifications					
8.3	MOC Certificate					
8.4	CE certificate					
8.5	IOQ protocol					
8.6	List of alarms					
8.7	Comprehensive 1 year warranty letter from date of supply.					
9	Timelines					
	NA					
	NOTE: Accurate size and technical specification need to be mentioned by the vendor					
	AFI Approved for Enquiry			AFO Approved for Ordering		
5	2014-06-18	MNS	SDBB	<input type="checkbox"/>	<input type="checkbox"/>	
Rev	Date	Completed By	Checked By	AFI	AFO	Sheet 1 /2

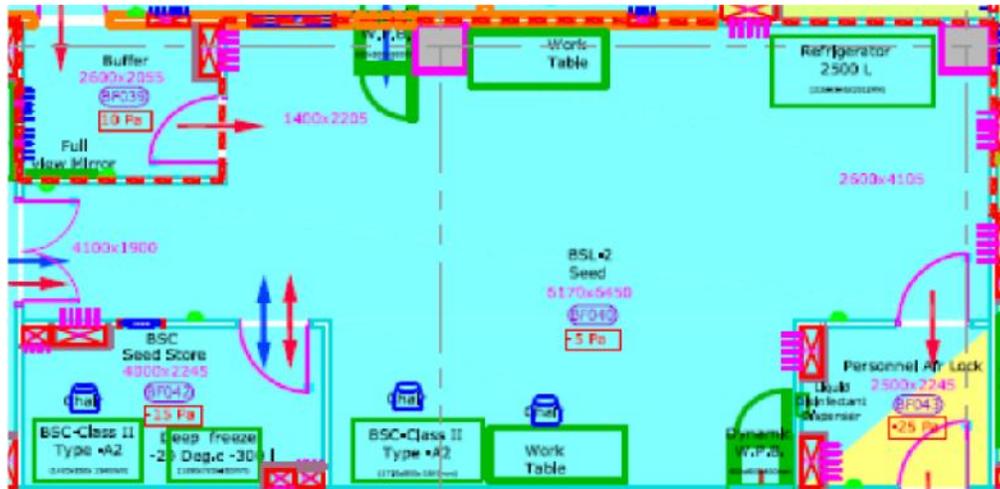
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ROOM LOCATION: BSL-2 Seed, Bulk first floor

- | | |
|---|--|
| 1 | Room No: BF040[2no.s] |
| 2 | ROOM DIMENSION:
(2600 x 4105), (6170 x 6450), (1400 x 2205), (4100 x 1900) |
| 3 | FALSE CEILING HEIGHT: 3000 mm |
| 4 | ROOM PRESSURE: -5 Pa |



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