1 **Biological Safety Cabinet**

No.	Item Specifications	**Fill your Specification**
1	**Technical Specifications**	
	Microprocessor controlled Class-2 type A2 biological safety cabinet suitable for working with microorganisms assigned to biological safety levels 1, 2 & 3, providing full protection to personnel, specimens and environment.	
	NSF International standard 49 / EN 12469 certified and tested. Certificate is to be provided along with HEPA H14/ULPA filters on inflow as well as exhaust with an efficacy of 99.999% for equal or more than 0.3 µ size particles (DOP test Certificate to be produced).	
	30% exhaust air via high performance exhaust filter and 70% air should be recirculated.	
	Dimensions of work chamber in the range of 1100-1300 mm (L), 500-700 mm (W), 550-800 mm (H).	
	Main body made up of rust proof stainless steel single piece (sides and back wall).	
	Safe and ergonomic design for movement in all directions in the chamber (Comfort for users while working).	
	Sliding front window, electrically operated, made up of safety (UV) glass, completely tight sealed while closed for complete protection	
	against contamination and fumigation.	
	Independent fans for impulsion and exhaust.	
	UV lamp with auto regulatory mechanism to work only when the front panel is fully closed.	
	Display of the following parameters:	
	a. Optical & acoustic notification of alarms.	
	b. Low exhaust flow.	
	c. Low down flow air velocity.	
	d. Impulsion/exhaust fan malfunction.	
	e. Cabinet information (with digital display).	
	f. Exhaust air flow in m3/hr.	
	g. Laminar flow air velocity in m/sec.	
	h. Elapsed hour meter for UV.	
	i. Cabinet Temperature	
	Stainless steel pan under working surface to allow safe collection of spilled fluid.	
	Low noise level <65dBA	
	Service ports with stopcock at both ends for gas.	
	Minimum one electrical socket inside the chamber.	
	Light intensity in the working chamber should not be less than 1000 Lux.	
	Working aperture 200 - 220 mm.	
	It should have an adjustable chair and a foot rest.	
	Cabinet should be mounted on a compatible wheel trolley.	
	leakage of UV rays and to ensure containment of potential hazardous material.	
	Essential Accessories	
	One inflow HEPA H14/ULPA filter and (Original & compatible to the cabinet, DOP tested)	
	should be supplied in addition by the firm with each of the cabinets as spare accessories.	
	Input power supply: 220 ± 20 % V AC , 50Hz	
2	**Operating Environment**	
2.1	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature,Humidity, etc. for Sudan.	
2.2	Power supply: 220-240V/ 50 Hz AC Single phase with appropriate plug .The power cable must be minimum 3 Meter	
2.3	Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.	
3	**Standards and Safety Requirements**	
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND	
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.	
4	**User Training**	
4.1	Must provide user training (including how to use and maintain the equipment).	
5	**Warranty**	
5.1	Comprehensive warranty for 2 years after acceptance.	
6	**Maintenance Service During Warranty Period**	
6.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
7	**Installation and Commissioning**	
7.1	Supplier must accomplish proper installation and commissioning of the equipment on site.	
8	**Documentation**	
8.1	User (Operating) manual in English	
8.2	Service (Technical / Maintenance) manual in English	
8.3	List of important spare parts and accessories with their part numbers and costing.	
8.4	Certificate of calibration and inspection from factory.	