Blood Bank
Medical Equipment - Technical Specifications

1	Donor chair	Manufacturer ↓	Model No ↓

No.	Item Specifications	Compliance	Your Specifications
1	Comfortable chair type with soft padding for cushioning and rexin cover.		
2	Seat, back rest and leg rest size designed for donor comfort.		
3	It should have height adjustment approx 58 – 60 cm.		
4	Adjustable arm rest for donor's comfort and phlebotomist friendly		
5	Easily tilted to head low position, manual operated		
6	Comfortable working level for the operator.		
7	Load capacity approx 150 kg.		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

2	Hemoglobinmeter	Manufacturer ↓	Model No ↓

No.	Item Specifications	Compliance	Your Specifications
1	Digital display		
2	Built in check filter		
3	Method: Cyanmethemoglobin		

4	Measuring range: 0-30g/dl Hb		
5	Indication Form: 3 digits		
6	Accuracy: ±1%		
7	Dilution Ratio: 1: 251		
8	Sample Volume: 1.5ml		
9	Sample Container: Round type test tube		
10	Wavelength: 546nm		
11	Detector: High sensitivity silicon photocell		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	N.A		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

3	**Cold box**	**Manufacturer ↓**	**Model No ↓**

No.	**Item Specifications**	**Compliance**	**Your Specifications**
1	Vaccine cold box, large, long range:		
2	Vaccine storage capacity 20 litres approx.		
3	Cold life 121-126 hours or more		
4	Vaccine carrier safe temperature range approx: -3 to + 8 C for a particular period known as cold life of the product.		
5	Cold life minimum 126 hours at 43°C without opening.		
6	Weight fully loaded must be less than 50kg.		
7	Weight empty (with empty ice pack) must be less than 25kg.		
9	External surface and internal lining material: Polyethylene		
10	Internal Lining Material: Polyethylene or Polystyrene		
11	Insulation material: Polyurethane foamed.		
12	Insulation thickness: At least 100mm.		
13	Shall come with hinged lid.		

14	Shall provide with one set of 0.3 or 0.4 or 0.6 litre ice packs.		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	N.A		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	N.A		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

4	**Blood collection monitor**	**Manufacturer ↓**	**Model No ↓**

No.	**Item Specifications**	**Compliance**	**Your Specifications**
1	Should have a facility for gentle and uniform mixing of blood and anticoagulant.		
4	Should have facility to view the collection time		
5	Should have detachable tray for easy cleaning		
6	Should have motor activated clamping system and automatic clamping for low rate ,<20 ml/mt for more than 2 mts.		
8	Should have protection against Electrical shock.		
9	Oscillation details : 12+2 RPM, Motor driven		
10	Should have volume setting ranges from 50ml to 500m1 in step of 5 ml ,Automatic stronge and recall of set volume.		
11	Should have a LCD display with backlight.		
12	Accuracy : + 2% of programmed volume		
13	Should have the following alarm indications		
14	Indication and audible alarm for debit flow when flow rate goes below 20 ml/mt or high flow rate above 180 ml/mt.		
15	Indications and audible alarm at the end of collection .		
16	Indications & audible alarm during power failure, LED blinking when battery low.		
17	Indications and audible alarm during power failure.		
18	Power supply : 220/240 V AC , 50Hz		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		

1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

5	**Tube sealer**	**Manufacturer ↓**	**Model No ↓**

No.	**Item Specifications**	**Compliance**	**Your Specifications**
1	Should be a heavy duty tube-sealer capable of sealing tubes of various manufacturers of blood bag.		
2	Should be for bench-top .		
3	The sealing time should be adjustable between 0.5-5 seconds		
4	Sealing triggering should be automatic		
5	Should also have extended portable hand unit. Sealing hand should be with coaxial cable of 1.5 - 2.0 meter.		
6	Should have indication lamps for “Sealing Process” on handle as well as main unit.		
7	No warm-up time should be required.		
8	Should ensure easy separation of tube segments after the sealing.		
9	System should run on both mains and battery (more than 10 hrs. back up and charger).		
10	Should be lightweight.		
11	Detection of wet tube, leakage & sealing defect. Alarm in case of seal not complete.		
12	Power supply : 220/240 V AC , 50Hz		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		

1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

6	**Water bath**	**Manufacturer ↓**	**Model No ↓**

No.	**Item Specifications**	**Compliance**	**Your Specifications**
1	Digital Tempereture Control		
2	Capacity 20 liter		
3	Temp 30-100c		
4	With Mixing Unit		
5	Stainless Steel		
6	Safety Thermostat		
	Accessories		
7	Stainless Steel Racks		
8	Flat lids With Rings		
9	Cover		
10	Input power supply: 220 ± 20 % V AC , 50Hz		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
1	User (Operating) manual in English.		

2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

7	Top Table Centrifuge	Manufacturer ↓	Model No ↓

No.	Item Specifications	Compliance	Your Specifications
1	8x15 ml tube		
2	Speed: 3200- 6000 rpm		
3	Drive Motor Brushless Inculation		
4	Digital Display for speed of time		
5	Stainless Steel Chamber		
6	LID Lock		
7	Input power supply: 220 ± 20 % V AC , 50Hz		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

8	Cold Centrifuge	Manufacturer ↓	Model No ↓

No.	Item Specifications	Compliance	Your Specifications
1	Stainless steel housing		
2	Maximum speed around: 5000 (RPM)		
3	Maximum RCF(FORCE): 8500 RCF		
4	Capacity 12x450 500 ml,swing-out rotor		
5	Lid locking and holding		
6	Rotor: Number p-rotor 12		

7	Emergency lid lock release		
8	Motor overheating protection		
9	Imbalance switch-off		
10	Standstill indication		
11	Refrigerated centerifuge		
12	temp:controlable from -20c to +40c		
13	Input power supply: 220 ± 20 % V AC , 50Hz		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	External Training for 6 Engineers and the Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

9	**Blood Bank Refrigerator**	**Manufacturer ↓**	**Model No ↓**

No.	**Item Specifications**	**Compliance**	**Your Specifications**
1	Must have adjustable temperature control range from +2 ℃ to +6 ℃. It shall maintain internal temp at 4 ℃ +/- 1 ℃ between different chambers.		
2	Capacity approximately 165 litres.		
3	Blood Bank Refrigerator shall have integrated temperature monitoring system with microprocessor controls.		
4	The blood bank refrigerator shall have a large LCD which displays:		
	Temperature.		
	High & Low alarm points with date & time.		
	Previous 24 hour temperature in graphical form.		
	Data of power failure/resumption in last 24 hours with date & time.		
5	The internal temperature alarm system shall also have a battery backup of minimum 3-4 hours.		

6	The blood bank refrigerator shall also have an inbuilt circular chart recorder for 7 days recording of temperature on circular chart paper.		
7	The internal automatic temperature alarm system shall work if a temperature falls below 2 oC & exceeds beyond 6 oC.		
8	The internal temperature alarm system shall also have a battery backup of minimum 3 - 4 hours.		
9	Internal construction must be made up of high grade stainless steel		
10	External construction Corrosion resistant material		
11	It shall have lockable door. Outer door shall be made of glass to see through and inner door shall be made of acrylic sheet to ensure ease of operations, better maintenance of internal temperature.		
12	Blood Bank Refrigerator shall confirm to noise level of less than 85 dB.		
13	Internal cabinet lighting to be provided with lamp illumination whenever door opens.		
14	Shall come with roll out steel basket for proper storage of blood bags.		
15	Shall have adjustments for uneven bases. The adjustments must be easy to use like rotating a screw at the legs in the base.		
16	Input power supply: 220 ± 20 % V AC , 50Hz		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
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2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

10	**Platelet incubator with agitator**	**Manufacturer ↓**	**Model No ↓**

No.	**Item Specifications**	**Compliance**	**Your Specifications**
1	Stainless steel chamber with adjustable shelves and a tough ended glass inner viewing door.		
2	The outer cabinet is to be rust resistant.		
3	Temperature Control detail required:-		
4	An LED display to show the chamber temperature, Indicator		
5	Lamps to show when the heater is active and if an over temperature condition exists.		
6	The over temperature safety cut-out to be set by the user.		

7	Fitted with circulation fan.		
8	Temperature Range : At least 5°C above ambient to +60°C		
9	Control (fan) : ±0.1°C at +37°C		
10	Variation (fan) : ±0.25°C at +37°C		
11	Chamber Capacity: 80 - 100 Litres		
12	Shelves: >= 5.		
13	Input power supply: 220 ± 20 % V AC , 50Hz		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

11	**Microscope**	**Manufacturer ↓**	**Model No ↓**

No.	**Item Specifications**	**Compliance**	**Your Specifications**
1	should be Binocular benchtop microscope		
2	Should have pair of eyepieces plan adjustable 10 xs - 18 xs.		
3	Should have revolving nosepiece suitable to match achromatic lenses.		
4	Should include four achromatic objectives lenses 4x ,10x ,40x(s),100x (s,oil)		
5	Should have mechanical stage with slide holder		
6	The stage should have co-axial focus adjustments up/down and let/rigth		
7	Should have adjustable focusing condenser with iris diaphragm opening		
8	The condenser should have light filters		
9	Should have below-stage light source (e.g. halogen 6v 20w) and light reflecting mirror		
10	Input power supply: 220 ± 20 % V AC , 50Hz		
	Operating Environment		

1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

12	**Sphygmomanometer**	**Manufacturer ↓**	**Model No ↓**

No.	**Item Specifications**	**Compliance**	**Your Specifications**
1	Should be Portable metal case mercurial type		
2	Should have ON and OFF provision for mercury reservoir		
3	Should have a measuring tube with range from 0 to 300mmHg		
4	Scale: sub-divided of 2mmHg with bigger notches every 10 units.		
5	Measurement tolerance ±3mmHg		
6	Glass tube approx: Φ4mm±0.1mm and the thickness not less than 2 mm		
7	The manometer scale markings and graduations should be permanent and clearly visible		
8	Nylon cuff for adult with Velcro, metal D-ring		
9	A elastic pump with air releasing valve		
10	The cuff should be capable of withstanding an internal pressure of 450 mmHg without leaking		
11	The mercury used should be clean, double distilled and of 99.9% purity		
12	The connecting rubber tubes used should have an internal diameter of 3 ± 0.5 mm		
13	The external diameter of the connecting tube should not be less than 8mm		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		

1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	N.A		
	Documentation		
1	User (Operating) manual in English.		
2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		

13	**Stethoscope**	**Manufacturer ↓**	**Model No ↓**

No.	**Item Specifications**	**Compliance**	**Your Specifications**
1	Dual-head stethoscope for adult use		
2	Y tube treated rubber with 10mm diameter		
3	Chest-pieces: stainless steel or chrome brass, with Φ 43 mm diaphragm		
4	Sensitivity of 3.2 dB in a range from 50 to 500 Hz for cardiology		
5	Sensitivity of 8.1 dB in a range from 600 to 1500 Hz for pneumology.		
6	Arm: stainless steel or chrome brass, with spring to give lasting spring and maximum reliability and comfort.		
7	Diaphragm material Epoxy/Fiberglass		
8	Tubes: to be synthetic material		
9	Removable plastic ear-pieces		
	Operating Environment		
1	The system offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards & Safety Requirements		
1	Must submit ISO 13485:2003/AC: 2007 **AND**		
2	CE or USFDA approved product certificate.		
	User Training		
1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
1	Comprehensive warranty for 2 years after acceptance.		
	Maintenance Service During Warranty Period		
1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
1	N.A		
	Documentation		
1	User (Operating) manual in English.		

2	Service (Technical / Maintenance) manual in English.		
3	List of important spare parts and accessories with their part numbers and costing.		