

PART 1

THE GOVERNMENT OF ZIMBABWE

MINISTRY OF LOCAL GOVERNMENT AND PUBLIC WORKS

TECHNICAL SPECIFICATION

1.0 GENERAL

This specification covers the supply, delivery, installation, testing and handing over in full working order of five (5). Biosafety Cabinets at Mpilo National TB Reference Lab.

1.1 REGULATIONS

All mechanical equipment shall conform to the requirements of the Zimbabwe Factory and Works regulations, published under the government notice No: 279 of 1976 or any amendments promulgated subsequently.

1.2 CONTRACTOR'S DRAWINGS

The successful Bidder shall have all his layout and assembly drawings approved in writing by the Engineer before work is commenced on the contract.

1.3 ITEM DESCRIPTION:

Biosafety Cabinet Class II 1200mm (4ft)

- System must work on laminar air flow technology Vertical.
- System should be class II Type and Exhaust by a HEPA filter having working area minimum 1.2m with filter monitoring system.
- System should be 99.99% efficient supply and exhaust HEPA filters shall be 99.99% efficient and of industry standard sizes being accessible for economical and easy replacement.
- System should have 254 nm UV lamps for decontamination

System should have following standard feature –

- Interior-mounted, line-of-sight colour display LCD information centre with “Filter Life Remaining” bar graph, status line for alarm conditions and alerts to warn when filter life diminishes to 20%, 10% and 0%
- Type 304 stainless steel interior and removable, seamless, dished work surface with lift out knobs
- Epoxy-coated steel exterior
- Contain-Air Negative Pressure Channel

- 99.99% efficient HEPA filters.
- Fully-closing, clear 1/4" tempered safety glass sash with two sash handles; counterbalanced, anti-racking mechanism; and 10° slope.
- 8.0 inch working sash opening height.
- Curved stainless steel inlet grille with Reserve-Air Secondary Airflow Slots or Arm Rest type.
- System should allow the user to program start up and shut down operations when the sash is raised or lowered
- System should have the function that idles the blower when the sash is fully closed
- System should have Full five-year warranty.
- System should come along with the entire necessary accessory and should be ready to work.

PART 2

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SCHEDULE OF PRICES

The prices on this section shall only be for the supply of the equipment. The tenderer shall list and price all components and material which shall be required for the manufacture of the Biosafety Cabinets class II and ancillary equipment.

NOTE: the cost price in this schedule refers to the price of the supplier/manufacturer of the equipment

2.1 PRICES OF Biosafety Cabinets Class II

ITEM	QTY	UNIT COST	TOTAL COST
1) 1.2m Biosafety Cabinet complete	5		
1.1) Spares			
1.2) Electrical components			
Sub-Total			

NB: All pricing must be in this format and failure will lead to automatic disqualification

2.2 MAINTENANCE

The successful tenderer shall also quote for the maintenance costs that are not covered by the guarantee period.

2.3 TRAINING

The successful tenderer shall also quote for basic O&M training. The training shall cover the theory, operation, servicing and simple troubleshooting of the installed equipment. The training program is to be approved by the Engineer.

2.4 Acceptance Testing

The contractor shall also provide an acceptance test document showing the installed equipment, spares, faults and normal operation. The **Engineer** will be involved in these tests and commissioning will only be done when these are successfully conducted.

2.5 TOTAL COST OF EQUIPMENT AND SERVICES TO BE CARRIED

OVER TO Summary

ZWLS.....

NOTE: where space provided is insufficient tenders are advised to attach a separate sheet using the same format as outlined above

PART 3

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VARIATIONS AND OMISSIONS TO SPECIFICATION

All omissions and variations to the specification shall be set out below making reference to the corresponding clause numbers in the specification in serial order. If the tender is completely in accordance with the specification, the tenderer shall state 'Nil'.

.....
Signature of tenderer

.....
Date & Seal

PART 4

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SCHEDULE OF TECHNICAL PARTICULARS

The generation of the equipment to be used in the installation should be less than 2 years at the time of bidding.

The tenderer shall complete the schedule below giving the manufacturers of the equipment/materials proposed to be used on which the tender is based.

Illustrations and/or catalogues of the equipment covered by the tender must be provided at the time of tendering.

No alteration to the equipment/materials offered or the information given will be permitted in the execution of the works unless such alteration is approved by the engineer.

BIOSAFETY CABINETS CLASS II:

4.1 (a) Make / Manufacturer:

.....

(b) Model & Type:

.....

(c) Country of Origin :.....

4.2 **Capacity Data**

a) Volume flow.....liters

b) Dimensions.....(W)x.....(D)x.....(H)mm

c) Sash dimensions.....mm

(d) Safety Glass details

Size

Material

Other features.....

e) Describe basically the air movement in and out of the Cabinet.....

.....

.....
g) power rating.....kw

4.5. Control Panel:

For ergonomical design, control panel shall be fully user friendly in terms of controls & functions. Indicate components included on the control panel.

- a)
- b)
- c)
- d)
- e)
- f)
- g)
- h)

4.6.(a) Describe basic functionality

.....
.....
.....

b) Describe the control system.....

.....
.....
.....

c) Describe **safety standards** compliance.....

.....
.....
.....
.....

PART 5

**THE GOVERNMENT OF ZIMBABWE
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TENDER SUMMARY

5.1. Cost of all material as specified in **Part 2** ZWL\$.....

Add VAT ZWL\$.....

SERVICES

5.2 Delivery cost ZWL\$.....

5.3 Installation cost ZWL\$.....

5.4 Services cost ZWL\$.....

5.5 Commissioning cost ZWL\$.....

5.6 **Sub- Total** ZWL\$

5.7 Total ZWL \$.....

Amount in
words.....
.....
.....

5.8 **CONTRACT PERIOD**

Tenderers shall state herewith the period in days/weeks required to effect delivery of all equipment, installation and commissioning.

- Delivery
- Installation
- Acceptance Testing
- Commissioning
- **Total time required (Contract period)**

5.9 Liquidation and ascertain damages shall be at the rate of 0.05% of contract sum per week

NAME OF TENDERER.....

SIGNATURE..... DATE&SEAL.....

PART 6

THE GOVERNMENT OF ZIMBABWE MINISTRY OF LOCAL GOVERNMENT AND PUBLIC WORKS

OPERATING MANUAL, MAINTENANCE MANUAL, AND AS FITTED DRAWINGS

6.1 OPERATING & MAINTENANCE MANUALS

The successful tenderer shall provide a minimum of three copies of all operating and maintenance manuals and as fitted drawings to be provided to the client at the time of handover.

6.2 The operating and maintenance manuals shall give full details of the following: -

- (a) A description of the operation of all items of the biosafety cabinet, including any necessary diagrams
- (b) Instructions on how to stop and start the biosafety cabinet and make any adjustments to the operating conditions. Attention should be drawn to any safety precautions and requirements.
- (c) Details of all materials required in the maintenance of the equipment, including any lubricants, replacement filters, seals etc.
- (d) Schedule of routine and planned preventive maintenance.
- (e) Maintenance checklist
- (f) Details of each item of cabinet, including name and address of manufacturer and agent/stockiest, type and serial number and also duty rating.