

**IB 2020-24 – PROCUREMENT OF VARIOUS LABORATORY  
EQUIPMENT**



**SECTION VII-  
TECHNICAL  
SPECIFICATIONS**

## TECHNICAL SPECIFICATIONS

### IB No. 2020-24 PROCUREMENT OF Various Laboratory Equipment

Item	Specifications	Statement of Compliance
		<p><i>[Bidders must state here either “Comply” or “Not Comply” against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer’s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder’s statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</i></p>
	<p><b>HPTLC Accessories (Camag Linomat 5)</b>            Technical Specifications: Object support: for objects up to 20x20 cm; Stage drive: stepping motor 3200 steps/rotation, 8 steps=0.1mm. Band length 0 (spot) - 190mm in steps 0.1mm. Speed approx. 10mm/s; the speed is automatically adapted such that a whole number of passes is reached with the volume selected. Dosage syringe drive: Stepping motor 1600 steps/rotation, 100 nL=120 steps with 100 µL syringe; 100nL=24 steps with µL syringe. Sample dosage syringe: selectable 100 µL or 500 µL. Memory: 10 methods, backup min. 10 years. LCD display: 2 lines of 16 characters each. Main voltage: 220V; 60 Hz/ VA. Gas Supply: 4-6 bar (60-90 PSI), preferably nitrogen; consumption approximately 1.0L/min. Dimension: 360mm width, 510 mm length, 410 mm height. Operation in stand-alone mode or under winCATS or VisionCATS. Sample application as narrow bands using the spray-on technique. Application of solutions onto any planar medium. Semi-automatic operation, only changing of sample (cleaning, filling, and replacing the syringe) is performed manually. Includes: VisonCATS software license for 1 server including 2 years free update. Sample dosage syringe 100µL and 500 µL for Linomat.</p>	
	<p><b>Refrigerated Micro centrifuge</b>            Technical Specifications:            Maximum speed: at least 15,000 rpm (in 100 rpm increments)            Maximum RCF: at least 20,627 x g            Maximum Capacity: at least 36 x 1.5/2.0 mL            Run time: 99 min, 59 secs, continuous run, short run            Noise Level at Max. Speed: &lt;58 dBa            Temperature Range: -10°C to 40°C (in 1°C increments)            Ambient Temperature Range: 5°C to 35°C            Accel/deccel profiles: Fast, soft            Maximum Heat Dissipation into Room: 1433 Btu/h (420W)            Electrical Requirement: 220 – 240 VAC, 50/60Hz            Weight: 32 kg (70.5 lb.)            Features:            Spin more samples per run with a maximum capacity of 36 x 1.5/2.0 mL tubes            Shorten run times with fast acceleration and deceleration            Inclusions:            1. Fixed Angle, Polypropylene with Snap-on Lid, 24 x 1.5/2.2 mL with 24 placers Rotor            2. 1 unit 3KVA AVR            Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration.</p>	

	<p>Packaged with: After sales support (training from manufacturer's trained engineers/application specialist for at least five (5) participants), quick response to requests (within 3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation. No training will be considered non delivery of items</p>	
	<p><b>Biological Safety Cabinet Level II, 4 ft.</b>  Technical Specifications: Work surface with adjustable stand: 750 to 960 mm (30 to 39 in); Interior work surface area: 0.56 m<sup>2</sup>  Working height of front window: 200 mm; Maximum lifting height of front window: at least 535 mm; Maximum weight load of one-piece work tray: at least 50 kg  Maximum weight: load of divided work tray: 25 kg; Ventilation system: Exhaust/ inflow air volume: 400 m<sup>2</sup>/h (230 CFM); Heat emission at 25°C ambient: -0.15kW  Filter Specification: Supply/exhaust air filter: HEPA H 14 EN 1822, 99.999% at 0.3 um particle size  Additional exhaust filter option (AEF): HEPA H 14 EN 1822, 99.999% at 0.3 um particle size  Certification: EN 12469; GS Nord Cert-TUV; Sound pressure level: &lt;55 dB (A); Lighting power: &gt;1200 lx  Electrical requirement: 220-230 VAC/50-60 Hz; Power consumption: 0.4 kW; Current consumption: 1.7 A; Protection class: I/ IP 20  Protective measure: Conductor connection; Service valves: up to 4 (installed through access ports); Receptacles: One double, right side  Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration.  Packaged with: After sales support (training from manufacturer's trained engineers/application specialist for at least five (5) participants), quick response to requests (3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation.  Inclusion: 1 unit 3kVA AVR, Third Party Calibration Certificate.  No training will be considered non delivery of items</p>	
	<p><b>Upright Laboratory Freezer -40 °C</b>  Capacity: at least 368L  Access security: Key Lock, Padlock Standard  Certifications/Compliance: cULus, CE, UL, FDA Class I  Electrical requirement: 220-230V, 60Hz, 12A; Plug Type: NEMA 6-15  Temperature Range: -10° to -40°C; Type: Ultra-Low Freezer, Upright; Inner Doors: at least 4  Interior: Painted Galvaneel - Standard, Stainless-steel – Optional  Line Voltage Indicator: Buck/Boost; Operating Modes: Standard Operation  Regulatory Approvals: UL; Smart View Compatibility: Smart-View Compatible  Vial to Energy Ratio: 2.95 watts/100 2mL vials (box); Vial to Footprint Ratio (English): 3154 vials/cu. ft.; Vial to Footprint Ratio (Metric): 33803 vials/cu. m  Display: Push Button LED; Water Cooled: Optional; Voltage Compensation: Buck/Boost  Shelves: at least 3; holds at least 240 boxes; Insulation: Polyurethane Foam  Refrigerant: R404A; Vial Capacity: at least 24,000 x 2mL  Inclusions:  1 unit 3kVA AVR  Packaged with: After sales support (training from manufacturer's trained engineers/application specialist for at least five (5) participants), quick response to requests (3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation.  Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration. No training will be considered non delivery of items</p>	
	<p><b>Drying Oven</b>  Technical Specifications  Volume: at least 3.0 cu. ft. (85.0 L)  Shelf Dimensions (W x D): 409 mm x 478 mm  Interior Metal: 430 SST  Exterior Metal: Painted Cold Roll Steel</p>	

	<p>Operating Temperature Range: Amb +20 - 306C  Temperature Uniformity – Midrange: 3.5 °C  Temperature Stability – Midrange: 0.3 °C  Controller Type: Digital  Display Resolution: °C  Power Voltage, Frequency and Current: 220-240VAC, 50/60 Hz, 14.0 Amps  Max Hvac Load: 5732 BTUs/hr.  Safety Certifications: UL 61010-1, EN 61010-1, CSA 61010-1, CE  Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration.  Packaged with: After sales support (training from manufacturer's trained engineers/application specialist for at least 5 participants), quick response to requests (3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation.  Inclusive of 1 unit 3KVA AVR</p>	
	<p><b>Laboratory Refrigerator</b>  Technical specifications  Capacity: at least 326 L; Plug Type: NEMA6-15P; Temperature: 1° to 8°C; Type: High Performance Refrigerator; Doors: 1  Electrical Requirements: 220- 230V /60Hz; Interior: High-impact power paint coat  Amperage: 6A; Breaker: 15A; Cabinet Material: Scratch-resistant painted; Casters: 2 in. (5cm) casters (two locking, two non-locking), factory installed  Insulation: CFC-free; Refrigerant: CFC-and HCFC-free R134A;  Shelves: 4 or more; Temperature Control: Microprocessor  Defrost: Automatic • Adjustable temperatures between 1° and 8°C (factory preset at 4°C) • Automatic defrost and condensate removal • Microprocessor control • Digital electronic technology designed to simplify operation and deliver greater accuracy • Icon-based controls • Large, easy-to-read digital display of temperature within 0.1°C  • Graphic thermometer is steady green when temperature is normal, flashes top bar for over temperature, flashes bulb for under temperature  • Sensor automatically initiates defrost cycle on demand, eliminating need for a defrost timer, minimizing frost buildup, and optimizing coil efficiency  Alarm System  • Audible/visual warnings for temperature deviations or power failure • Key-operated ON/OFF/ALARM ON master switch for set point security • Push-button alarm test and remote alarm contacts • Alarm silence, ring back, and auto reset • Controller battery backup system  • Alarm set points are preset to warn of temperature deviation at 5.5°C over temperature and 1.5°C under temperature  Construction  • Positive forced-air circulation systems • Industrial-grade cabinet construction and compressors • Self-closing, key-locked doors • Epoxy-coated, open-wire shelves adjustable in 1" (2.5cm) increments • Cold-rolled steel interior and exterior finished with high-impact powder paint coating • Interior lights with door-activated ON/OFF switch and independent switch on control panel  Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration  Packaged with: 1 unit AVR, after sales support (training from manufacturer's trained engineers/application specialist for at least 5 participants), quick response to requests (3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation</p>	

---

*Name of Bidder over Printed Name*

---

*Date*