



Republic of the Philippines  
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**COLLEGE OF AGRICULTURE, FOOD, ENVIRONMENT  
 AND NATURAL RESOURCES**

Supply, Delivery and Installation of Laboratory Equipment and Materials for Institute of Food Science and Technology and Soils Laboratory

Item No.	Qty.	Unit	Specifications	Unit Price (Php)	Total Price (Php)
1	2	unit	<p><b>Food Dehydrator</b> (for food technology laboratory)</p> <ul style="list-style-type: none"> <li>• Voltage: 220V/60 Hz</li> <li>• Power: 3000 kw</li> <li>• Tray size: 50x5 cm Circular</li> <li>• Capacity: 40-50kg</li> <li>• Temperature Setting: 30-140°C</li> <li>• 15 trays</li> <li>• Machine size: Approximately 645x725x1435 mm to 655x735x1445 mm</li> <li>• All equipment items are inclusive of calibration and preventive maintenance services for at least 2 years, and at least two-year warranty on parts and three-year warranty on services. With onsite demonstration and training for end-users</li> </ul>	108,000.00	216,000.00
2	2	unit	<p><b>Vertical Autoclave</b> (for food technology laboratory)</p> <ul style="list-style-type: none"> <li>• Temp Range: Max 134°C (273°F)</li> <li>• Using Press: 0.21Mpa</li> <li>• Time Controller: Microprocessor Digital PID Controller</li> <li>• Sterling Time: 00.00 to 99HR 59MIN (MIN SEC) selectable</li> <li>• Pressure Gauge: Mechanical type 0 to 0.4 MPa</li> <li>• Sensor: PT-100</li> <li>• Capacity: 100L</li> <li>• Dimension Internal: Approximately Φ 440x650(H) mm/ Φ 17.32"x25.59" to Φ 450x660(H) mm/ Φ 17.42"x25.69"</li> </ul>	593,178.00	1,186,356.00

			<ul style="list-style-type: none"> <li>• Dimension External (WxDxH):</li> <li>• Approximately 600x780x1183mm / 23.62" x 30.71"x46.58" to 610x790x1193mm / 23.72" x 30.81"x46.68"</li> <li>• Net Weight: Approximately 140Kg to 150Kg</li> <li>• Material Internal: Stainless Steel</li> <li>• Material External: Steel Plate with Powder Heating Coated</li> <li>• Heater: 5KW</li> <li>• Electrical Requirements (230V, 50/60Hz. 1Φ): 22.7A</li> </ul> <p><b>Accessory</b></p> <ul style="list-style-type: none"> <li>• Wire Basket x 2EA</li> </ul> <p><b>Safety Device</b></p> <ul style="list-style-type: none"> <li>• Automatic reset function incoming power cut</li> <li>• Buzzer on when set time arrived</li> <li>• Electric leakage circuit breaker</li> <li>• Over temperature protection device</li> <li>• Safety relief valve</li> <li>• Safety Door opening mechanism</li> <li>• Water level sensor (water shortage alarm)</li> <li>• All equipment items are inclusive of calibration and preventive maintenance services for at least 2 years, and at least two-year warranty on parts and services. With onsite demonstration and training for end-users</li> </ul>		
3	1	unit	<p><b>Laboratory Refrigerator</b> (for food technology laboratory)</p> <ul style="list-style-type: none"> <li>• External Size (W*D*H): Approximately 500*550*1300 to 510*560*1310</li> <li>• Capacity: Approximately 130L to 140L</li> <li>• Temp Range: 2°C - 8°C</li> <li>• Temp Accuracy: 0.1°C</li> <li>• Control System: Microprocessor Control, Large Screen, LED Display</li> <li>• Alarm: Audible and visual alarm for – High and low temperature, Power failure alarm, sensor failure, Door ajar</li> <li>• Refrigerator Type: Forced air refrigeration system</li> <li>• Refrigerant: R600a, CFC free</li> <li>• Condenser &amp; Evaporator:</li> </ul>	106,200.00	106,200.00

			<ul style="list-style-type: none"> <li>Bundy tube condenser</li> <li>Defrost: Auto defrost</li> <li>Construction: Structure – Unibody design &amp; Mono-assembly foaming (Rigid polyurethane insulation material) Internal Material – Embossed aluminum sheet External Material – PCM</li> <li>Shelves: 4pcs</li> <li>Door: Glass door with heat reflection film</li> <li>Consumption: 136W</li> <li>Power Supply: AC110/220V ± 10%, 50/60Hz</li> <li>Standard Accessory: LED lamp, shelves, door keys, USB port, probe access port (BPR-5V588 &amp; BPR-5V1000)</li> <li>Gross weight: Approximately 51kg to 61kg</li> <li>All equipment items are inclusive of calibration and preventive maintenance services for at least 2 years, and at least two-year warranty on parts and three-year warranty on services. With onsite demonstration and training for end-users</li> </ul>		
4	2	unit	<p><b>Bench Type Lab pH meter</b></p> <ul style="list-style-type: none"> <li>pH Range: 0.00 ~ 14.00pH</li> <li>pH Accuracy: ± 0.05pH</li> <li>Resolution: 0.01pH</li> <li>Calibration points: 2 points</li> <li>Calibration Solutions: USA (pH 4.01/7.00/10.01)</li> <li>MV Range: -1999 ~ 1999mV</li> <li>MV Accuracy: ±10mV</li> <li>Resolution: 1mV</li> <li>Temperature Compensation: 0 ~100°C, Manual</li> <li>Connector: BNC, 3.5 mm jack socket</li> <li>Display: Custom LCD</li> <li>Power Requirements: DC9V/400mA power adapter</li> <li>Dimensions (mm): Approximately 201*205*65 to 211*215*75</li> <li>Net Weight (kg): Approximately 1.5 to 2.5</li> <li>Package Size (W*D*H) mm: Approximately 310*240*180 to 320*250*190</li> <li>Gross weight (kg): Approximately 1.7 to 2.7</li> </ul>	60,000.00	120,000.00

			<ul style="list-style-type: none"> <li>All equipment items are inclusive of calibration and preventive maintenance services for at least 2 years, and at least two-year warranty on parts and services. With onsite demonstration and training for end-users</li> </ul>		
5	1	unit	<p><b>Soil oven (Vacuum Drying Oven)</b></p> <ul style="list-style-type: none"> <li>Temp Range: Ambient +5°C to 250°C (Ambient +9°F to 482°F)</li> <li>Time Range: 00.00 to 99HR 59MIN (MIN SEC) Selectable Digital Counter Timer</li> <li>Vacuum resistance: 0 to 76 cmHg (0 to 0.1MPa)</li> <li>Heating Type: Hot Air Jacketed</li> <li>Temp &amp; Time Controller: Microprocess PID Membrane Touch Digital controller</li> <li>LED lamp: DC 24V, 1.2W, LED bar, Waterproof, Cool White</li> <li>Heater Capacity: 990W</li> <li>Dimension internal: Approximately 300 X 300 X 300mm to 310 X 310 X 310mm (WXDXH): Approximately 11.81x11.81x11.81" to 11.91x11.91x11.91"</li> <li>Dimension external: Approximately 605 X 550 X 770mm to 615 X 560 X 780mm</li> <li>(WXDXH): Approximately 23.81 x 21.65 x 30.31" to 23.91 x 21.75 x 30.41"</li> <li>Weight: Approximately 69kg to 79kg</li> <li>Capacity: Approximately 27L to 37L</li> <li>Material Internal: Stainless Steel</li> <li>Material External: Steel Plate with Powder Heating Coated</li> <li>Material Packing: Silicon Rubber Packing</li> <li>View Window: Tempered Glass</li> <li>Aluminum Shelves: 2 Supplied (4 Maximum)</li> <li>Electrical Requirements 230V, 50/60Hz, 1 Φ: 4.3A</li> <li>All equipment items are inclusive of calibration and preventive maintenance services for at least 2 years, and at least two-year warranty on parts and three-year warranty on services. With onsite demonstration and</li> </ul>	405,813.60	405,813.60

			training for end-users		
7	1	unit	<p><b>Texture analyzer</b></p> <p><b>Load</b></p> <ul style="list-style-type: none"> <li>Rated Capacity: Approximately 2.5kN/250kgf/550lbf to 3.5kN/260kgf/560lbf</li> <li>Number of ball screws: 1</li> <li>Max data acquisition rate: 1000Hz</li> </ul> <p><b>Displacement</b></p> <ul style="list-style-type: none"> <li>Crosshead travel: 507</li> <li>Resolution: 0.001mm (1micron)</li> <li>Accuracy: ±0.13mm per 300mm of travel</li> </ul> <p><b>Speed</b></p> <ul style="list-style-type: none"> <li>Speed Range: 0.01-1200mm/min 0.0004 – 4.72 in/min</li> <li>Resolution: 0.001</li> <li>Accuracy: Better than ± 2% of indicated speed or ±20 microns/minute</li> </ul> <p><b>Dimensions</b></p> <ul style="list-style-type: none"> <li>Throat depth: Approximately 70.5mm to 80.5</li> <li>Height: Approximately 941mm to 951mm</li> <li>Width: Approximately 290mm to 300mm</li> <li>Depth: Approximately 414mm to 424</li> <li>Vertical Daylight: Approximately 588mm to 598mm</li> <li>Weight: Approximately 24kg to 34kg</li> </ul> <p><b>Electrical Supply</b></p> <ul style="list-style-type: none"> <li>Voltage: 230V AC 50Hz or 110V AC 60Hz</li> <li>Max Power: 250W</li> </ul> <p><b>Environment Specification</b></p> <ul style="list-style-type: none"> <li>Operating Temperature: 10°C - 40°C</li> <li>Operating relative humidity: 30-80% non – condensing</li> </ul> <p><b>General Accessories</b></p> <ul style="list-style-type: none"> <li>TMS Extension Piece Set</li> <li>M6 50mm Adapter</li> <li>M3 30mm Adapter</li> <li>10/32/M6 Adapter</li> <li>M3 locking thumb nut</li> <li>TMS Standard Fixture Table</li> <li>Standard Test Table for easy configuration and alignment of TMS test</li> <li>TMS Anvil plate with T slot</li> <li>16mm Crosshead extension</li> </ul>	247,928.40	247,928.40

			<ul style="list-style-type: none"> <li>• Recommended General Probe Kit</li> <li>• Cylinders: Approximately 38.1mm; 25.4mm; 12.7 mm to BS 48.1mm; 35.4mm; 22.7 mm</li> <li>• TMS Multiple Needle Probe, set of 9 stainless steel needle probes with 15-degree end taper</li> <li>• Computer</li> <li>• AVR</li> <li>• UPS</li> <li>• All equipment items are inclusive of calibration and preventive maintenance services for at least 2 years, and at least two-year warranty on parts and three-year warranty on services. With onsite demonstration and training for end-users</li> </ul>		
				<b>TOTAL</b>	<b>2,282,298.00</b>

Noted by:


  
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