

TECHNICAL SPECIFICATIONS

Item # and Name	Component Description	Minimum Specifications	Bidder's Response (Yes/No)	If "No" comment/s on the offer
1. Human movement, kinematic and kinetic analyzer		Two High speed cameras ≥ 100 Hz Data/Power Cable-15 m Host cable-15 m Power supply - five cameras, 240 W Calibration kit, carbon fiber wand 300 Passive Marker-Spherical with plastic base 12.5mm M4, 50 pc Sport movement analysing software - Track Manager, 3D		
2. Automated Weather Station		Data capacity features 8800 intervals (183 days, based upon a 30-min interval), 12-bit A/D conversion, volatile memory, data retained on the station, permitting multiple downloads, measurement intervals of 1,5,10,15,30, Or 60 minutes, power source 4 AA alkaline batteries, LCD display, Data communication speed 9600 baud, communication options- direct connection (20 m) wired RS 422 connection to 1 km, spread spectrum wireless, GSM cellular, GPRS/CDMA to internet, satellite modern, External sensor port 5, Internal sensors; temperature sensors; -32C to 100C, relative humidity sensor 10% to 100%, Dew point, wind speed, 3-241km/h, wind direction, solar radiation 0-1500 W.m ² , rainfall-20.3 cm self-emptying collector, logger records, minimum logging increment 0.254 mm With accessories One year warranty		
3. Optical Microscope		Binocular EWF 10x/20 mm with cross hairs and micrometer retide Plan polarizing 5x/10x/20x/S40x IOS objectives strain free 360° rotatable stage		

		<p>Condenser with graduated 360° polarizer Transmitted illumination Köhler LED Reflected illumination 360° rotatable polarization filter, analyzer, Bertrand lens (build-in), 1 λ first red plate, 1/4 λ retardation plate, a quartz wedge, sliders with green/blue and white/neutral density filter. Warranty for full equipment and service period more than 5 years Optional: Centering knobs in rotatable stage</p>		
4. Particle size analyzer		<p>Dry type only, Measurement principle: Laser diffraction Measuring range (dry) 0.3 μ to 500 μ, Dry dispersion: Venturi Repeatability: Better than 1% variation Accuracy: better than 3% variation Measuring time: <1 min Number of lasers: 1 Laser safety classification: FDA title 21 CFR-Part 1040 & EN 60825-1: 2014 Laser class, closed cover: class 1 of EN 60825-1:2014 Laser class open cover: class 3R of EN 60825-1:2014 Digital data security: FDA title 21 CFR- part 11 Electromagnetic compliance EN 61326-1:2013 Low voltage: EN61010-1:2010 & EN 61010-2-081:2015 Dimensions (LxDxH) : 890mmx 530 mmx430mm; 35inx 21inx 17 im Weight: 55kg Country of origin: USA, Europe or Japan, Warranty: 2 years</p>		
5. Bench top Freeze drier		<p>Dimensions without drying attachments (W x D x H) 460×585×510 mm;Weight 75 kg 75 kg; Minimum clearance on all sides 300 mm; Connection voltage 220-240 VAC; Power consumption (rated) 1200 W; Power consumption (maximum) 1800 W; Lug 10 A/250 V; Frequency 50 Hz; Overvoltage category II; Protection rating IP20 IP20 ; Pollution degree 2; Condensing capacity ≥ 6 kg / 24 h ; Lowest condenser temperature -55 °C ; Temperature divergence ± 1.0 °C; Condenser capacity ≤ 6 kg ; Condenser surface area 1410 cm²; Number of compressors 1 ; Refrigerant R507 CFC-free ;</p>		

		<p>Refrigerant quantity 485 g; Drying shelf temperature up to 60 °C; Drying shelf temperature tolerance ± 1.0 °C; Vacuum generation time to 0.1 mbar* Typically ≤ 10 min; Volume-based leakage rate* Typically ≤ 0.001 mbar x L/ sec; Minimum system vacuum* Typically ≤ 30 mTorr Vacuum control range* 50 to 500 mTorr.</p> <p><u>Pump requirements</u> Connecting voltage 180 – 265 V ; End pressure with gas ballast 3×10^{-3} hPa End pressure without gas ballast 3×10^{-3} hPa ; Absorption capacity 50 Hz 5 m³ / h Maximum power consumption 550 W Warranty; 2 years</p>		
6. Laminar flow cabinet		<p>Horizontal laminar flow cabinet. Gen 3, Stainless Steel Sides (4ft/1.2m W, 2ft/0.6m H)<u>Unit Supplied with</u>;UV Lamp, Polycarbonate Front Cover, Direct Mounted Electrical Outlet - Plug Code H – 02 Nos Support Stand with Caster Wheels (Height 28”), European Style Service Fixture with 80mm Thread Length – Gas ,Warranty - 2 Years Comprehensive.</p>		
7. UV-Visible Spectrophotometer		<p>Wavelength range: 190 to 1100nm, Wavelength resolution: 0.1nm Spectral bandwidth : Variable 0.5, 1, 2, 4, 5nm, Photometric range : - 0.3 to 3.0A 0 to 200%T, Photometric accuracy : $\pm 0.002A$ (0- 0.5A) $\pm 0.3\%$ T (0- 100%T, Stray light : $< 0.05\%$T at 220 and 360nm, Noise : 0.0005A, Multi-wavelength : Up to 10 wavelengths, up to 20 wavelengths with PC software, Spectrum range : Any range between 190 and 1100nm, Scan speed : 100 to 2000nm/min, Analysis: Auto peaks and valleys zoom. Addition, subtraction, peak ratios, smoothing, area under curve, wavelength table, derivatives, overlay with PC software, Light source: Tungsten halogen and Deuterium lamps, Operating system : Windows 2000, XP, Vista, Windows 7, Electrical supply : 120VA, 220/ 110V, 50/ 60Hz Warranty: One Year Comprehensive</p>		

8. Distilled water plant		Output distilled 4 Lit/hr, Reservoir Tank Capacity 11 Lit, Heater Capacity 3 KW, Inlet Water Pre-Filter- Optional sediment filter, All water contacting parts made by Stainless Steel 304, Outer Dimensions (W x D x H mm) -350 x 650 x 510 mm, Electrical Requirement- 220 VAC, 50/60Hz, 1-Phase		
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In general for all Instruments the following requirements should be met by the Bidder

Essential documentation qualification criteria for evaluation	Printed literature for the instrument manufacturer should be attached with the offer. (All specifications requested should be highlighted and tagged for evaluation reference),In the event of all technical features not mentioned in the broacher instrument manufacture should confirm availability of features on their letter head
	Should provide a letter of authority from the manufacture, certifying that the local agent In Sri Lanka. Offers not carrying authentic letter of authority will be rejected.
	Instrument should be a fully workable system. If any other accessory, consumable is needed for completed operation supplier must quote for required accessories, consumables and chemicals
	Supplier should have an established after sales service unit with proven records and necessary tools. supplier should have at least 5 year experience for supply and maintaining similar type of instruments. Should attached list of instruments supplied last 10 years. In the event of Instrument is malfunctioning local agent should attend to the job within 48 hours.
	Manufactures independently provide a written confirmation that they will provide their services and support even they change the local agent in Sri Lanka. This letter should be signed by the most senior and empowered manager responsible for Sri Lankan Market. Closest support center of the manufacturer and Contact person details need to be attached to the tender.
	Two year warranty from the date of acceptance after satisfactory installation and commissioning of the instrument.
	One set of Operation Manual and Method Manual, in the English language.
	Complete training for operation, maintenance and calibration of instrument should be provided by the Local Agent/Manufacturer at installation site. Trainer should have sufficient knowledge on Technology as well as sample preparation.
	The supplier must agree to provide necessary spare parts at least for 10 years after installing the instrument.
	In order to get the maximum usage of the Instrument Manufacturer should agree to offer its technical advice free of charge.
	Five years experience of the bidder in the field of supplying of analytical equipment of similar types
	Bidder shall furnish the past supply records including, Name of the Institution, Type of Instrument, Contact details of the user.
	Organization chart of the supplier with details of Year of company registration, no of staff (In the payroll and EPF paid) involved to scientific Instrument business, Address of the after sales unit/department, experience of after sales staff.
	The bidder shall furnish documentary evidence that it meets qualification criteria Working Capital of past 3 years (Shall furnish past 3 years audited balance sheets), Bidder should have positive working capital for at least two of the past 3 years, Bidder should have profits after tax equivalent to the 50% of the quoted value of the instrument during past 3 years.

