



ACU/PS/AIMS/Clsd-Tender/ 199 /2021-22

Date:17.01.2022

TENDER NOTIFICATION

Adichunchanagiri University is inviting **closed tender** for the supply of Medical equipment and General instruments to "Adichunchanagiri Institute of Medical Sciences (AIMS)", B.G. Nagara, from the competitive firms.

1	Name of the work	Supply of Medical equipment and General instruments to Adichunchanagiri Institute of Medical Sciences
2	Tender documents available for download	On or Before 02- 02- 2022 up to 05:00 PM
Sl. No.	Name of the Medical Equipment & General Instrument	Provisional Qty. (In No's)
1.	Band saw for sectioning body and limbs	01
2.	Articulated Skeleton set	06
3.	Haemocytometer	18
4.	Sphygmomanometer (Digital display)	50
5.	Stethoscope	57
6.	Algometer	22
7.	Amphibian experiments software	1
8.	Spectrophotometer	1
9.	LED Binocular with Scanner, 10X, 40X, & Oil immersion lenses and inbuilt Battery backup power source	19
10.	Fully Automated embedding system	1
11.	Heated Paraffin Embedding machine	1
12.	Automated Tissue processor	1
13.	Fully Automated Flexible Cover slipping workstation	1
14.	Standalone cold plate	1
15.	Fully Automated Immunohistochemistry setup	1
16.	Binocular Microscope	7
17.	Spectroscopic adjustable slit	2
18.	Dissection Set complete	4
19.	Autopsy Saw with accessories	2
20.	Cold storage – 4 compartment	1





Note: Kindly send quotes in 2 bid formats (Technical and Financial bids sealed separately inside the main envelope for each individual item or list of items) to be addressed to **“The Registrar, Adichunchanagiri University, B.G. Nagara -571448, Nagamangala (T), Mandya(D)”**.

- Adichunchanagiri University reserves all the rights to accept, reject, incorporate changes and re-tender without giving any reasons.
- The sealed cover must be duly superscripted with the words “ACU/AIMS/Clsd Tendir/ME-GI/Ref no” Or tender details for which company is quoting.
- Attach Brochure, Certification of the product, Bank/account details, PAN, GSTIN and 02 Years of ITR declaration inside the envelope and company contact details with email ID on the main envelope cover for further correspondence.
- Quote for **unit price** with applicable GST (display GST at extra column) and Equipment/Instrument must have a **minimum warranty of 03 years**.
- For any queries, please write to **registrar@acu.edu.in** or telephone to purchase section **+91 -98458 35834**

Dr. C.K. Subbaraya

Registrar

Adichunchanagiri University
B.G.Nagara-571448



Technical Specifications

1.	Band saw for sectioning body and limbs (Anatomy)
	<p>Description: Instrument used for sectioning of the body</p> <p>Student utility: Essential for training the I MBBS students by taking cross sections of the body at various levels and compare the anatomy with sectional anatomy seen in computerised tomography (CT) or magnetic resonance imaging (MRI) films</p> <p>Specifications: one instrument with following specification required</p> <ul style="list-style-type: none">• Model name: BS-500 Band Saw Machine• Size/Dimension: 1100 x 750 x 1830 mm• Voltage: 415V / 50 Hz / 3P• Power: 1.5 kw• Machine Weight: 260 kgs• Available Model: BS - 600• Wheel Diameter: 500 mm• Saw Blade Size: L3560 x W12.5 mm• Saw Blade Speed: 18.8 m/s• Saw Blade Length: 3550 mm• Saw Blade Width: 12.5 ~ 40 mm• Suction Hood Diameter: 95 mm• Accessories required: 10 spare blades
2.	Articulated Skeleton set (Anatomy)
	<p>Description: Articulated Skeleton set</p> <p>Student utility: Essential for training I MBBS students in human osteology</p> <p>Specifications: 6 sets with following specifications required</p> <ul style="list-style-type: none">• Articulated Skeleton set: Each set should show muscle and ligament attachments in permanent colour (these colours should be present on only one half preferably)• Stand: Should have revolving wheels• Size: 170 cms Tall (Full Human Size)• Material: plastic/fibre
3.	Haemocytometer





	<p>Description: Equipment used to perform blood cell count (RBC, WBC, Platelets).</p> <p>Student utility: Train the student on the method of cell counting</p> <p>Specifications: To include a set of 4 items in a carry case.</p> <ol style="list-style-type: none">1. Neubauer's counting chamber (thick glass slide with 2 counting grids, silver coated platforms - German)2. RBC pipette (with markings 0.5, 1 & 101, red bead, rubber tube with red mouth piece)3. WBC pipette (with markings 0.5, 1 & 11, white bead, rubber tube with white mouth piece)4. Cover slips (3-4)5. Accessories – Carry case.
4.	Sphygmomanometer (Digital display)
	<p>Description: Instrument used to measure blood pressure by indirect method.</p> <p>Student utility: Train the student on the method of recording blood pressure on a patient.</p> <p>Specifications:</p> <p>Type – Aneroid with LED display (analogue to digital transducing)</p> <p>Contents – Arm cuff (adult size) with detachable rubber tube connecting to the pressure gauge & another rubber tube connecting to a rubber bulb (with one-way valve at one end of bulb & another bi-directional valve with option to open and close)</p> <p>Display – Digital (LED)</p> <p>Max measuring capacity – up to 300 units</p> <p>Pressure measurement units – mm of Hg</p> <p>Pressure division value – 2 mm of Hg.</p> <p>Accuracy - +/- 0.5 %</p> <p>Certification – CE compliant</p> <p>Accessories – Carry case.</p>
5.	Stethoscope
	<p>Description: Instrument used to auscultate the cardiovascular and respiratory systems.</p> <p>Student utility: Train the student on the method of clinical examination of cardiovascular & respiratory systems.</p>





	<p>Specifications:</p> <p>Type – Basic type</p> <p>Contents – Ear piece (soft), chest piece with diaphragm and bell.</p> <p>Sound amplification degree - moderate.</p> <p>Sensitivity – moderate.</p> <p>Certification – CE compliant</p> <p>Accessories – Carry case, spare ear pieces & diaphragm.</p>
6.	Algometer
	<p>Description: Instrument used to measure pressure threshold & pain tolerance based on the amount of force applied.</p> <p>Student / Patient utility: Train the student on the method of testing for sensations of pressure & pain; a reliable measure of pain in muscle, joints, ligaments & tendons (example: fibromyalgia)</p> <p>Specifications:</p> <ul style="list-style-type: none">• Display – Dial type (analog)• Load capacity – up to 20 kg• Load measurement units – Kgs (preferably) / lbs• Load division value – 100 gm.• Accuracy - +/- 0.5 %• Certification – CE compliant• Accessories – Carry case.
7.	Amphibian experiments software
	<p>Description: Software to demonstrate amphibian nerve – muscle & heart experiments.</p> <p>Student utility: Demonstrate the student on the method of documenting the various properties of nerves & muscles, heart.</p> <p>Specifications:</p> <ol style="list-style-type: none">1. To have videos of all amphibian nerve-muscle & heart experiments with necessary set-up.2. To have animations of the recordings made during the above experiments.3. To have simulation option for students to select / modify the conditions in the





	<p>experimental set-up.</p> <p>4. To have a renewal option for software.</p> <p>5. Compatible with Windows 98 and above versions of OS.</p> <p>6. To have option for installing in multiple systems.</p> <p>Service terms:</p> <p>To provide on-site service as and when required.</p>
<p>8.</p>	<p>Spectrophotometer</p>
	<p>UV Spectrophotometer specification</p> <p>Optical system Double beam with sample and reference cell holder Light sources: Halogen lamp, deuterium long</p> <p>Wavelength range: 190nm to 1100nm</p> <p>Wavelength accuracy:</p> <ul style="list-style-type: none"> • ±0.1nm at D2 peak 656.1nm, • ±0.3nm for entire range <p>Wavelength repeatability: ±0.1nm</p> <p>Spectral bandwidth (SBW)</p> <p>UV visible:</p> <ul style="list-style-type: none"> • 0.1, 0.2, 0.5, 1, 2, 5, 10 nm • L2, L5, L10 nm (low stray light mode) • M1, M2 nm (micro cell mode) <p>Wavelength scanning speed:</p> <ul style="list-style-type: none"> • 3000 to 2nm/min • 29000 nm/min when survey scanning <p>Stray light:</p> <ul style="list-style-type: none"> • Less than 0.02% at 220 nm (NaI 10 g/L aqueous solution) • Less than 0.02% at 340 nm (NaNO₂ 50g/L aqueous solution) • Less than 0.5% at 198nm (KCl 12 g/L aqueous solution) <p>Photometric range</p> <ul style="list-style-type: none"> • Absorbance: -4 to 4 Abs • Transmittance: 0% to 400% <p>Photometric accuracy:</p> <ul style="list-style-type: none"> • ±0.002 Abs at 0.5 Abs • ±0.004 Abs at 1.0 Abs





- ± 0.006 Abs at 2.0 Abs

Photometric repeatability:

- ± 0.0002 Abs at 0.5 Abs
- ± 0.0002 Abs at 1 Abs
- ± 0.001 Abs at 2 Abs

Baseline stability:

- Less than 0.0003 Abs/Hr (700nm, one hour after light source turned ON)
- Baseline flatness:
- Less than ± 0.0006 Abs (1,100 to 190nm, one hour after light source turned ON)
- Noise level:
- Less than 0.00005 Abs (700nm)
- Light source:
- 20-W halogen lamp and deuterium lamp (Built in light source auto position adjustment)

Monochromator:

- Lo-Ray-Ligh® grade blazed holographic grating in Czerny Turner mounting

Detector:

- Silicon photodiode/ photomultiplier tube

Cuvettes: 1 ml to 3.5 ml (Quartz), Additional pair of cuvette to be provided

Standard Spectrum mode

- Abs, T% T meter, Quantitative analysis, Spectrum measurement
- Time course measurement, Fixed wavelength measurement, Validation, Daily check
- wavelength time course measurement
- **Photometric mode: Single wavelength, Multiple wavelength measurement**
- **Quantitation mode**
- **Kinetic mode**
- **PC compatibility: should be available**

Display:

- HDD flat screen and Color touch screen
- Standard Touch pen
- Touch panel protective sheet (optional)

9.

LED Binocular with Scanner, 10X, 40X, & Oil immersion lenses and inbuilt Battery backup power source (Pathology)



BINOCULAR STUDENT MICROSCOPE

Body: Ergonomic die cast aluminium body with powder coat finish with rubber bush for microscope to fit firmly on platform for vibration free performance.

BINOCULAR 45 degree inclined head with 360 degrees rotatable, lock in type head for less damages during student use.

Nosepiece: FORWARD REVOLVING Quadruple click-stop revolving mechanism with multiple ball bearings, elastic nosepiece grip-ring.

Eyepiece: 10x Wide field FOV 18mm with rubber eye guards pair

Objectives: Semi Plan ACHROMAT 4x, 10x, 40x, 100x oil Spring loaded.

Focusing system: Co-axial coarse and fine Focusing knobs mounted on fine ball bearings for extra smooth movements

Stage: 125x145mm mechanical stage with slide holder, right hand rectangular mechanical stage with co-axial x and y movements with stage locking mechanism and torque adjusting knob.

Illumination: LED Bright light with battery backup and intensity controller **Condenser:** Pre Cantered Abbe type NA 1.25 mounted on rack and pinion with blue filter

Microscope should have student handling safety features like, lock in head, lock in eyepiece, lock in pre cantered condenser with centring adjustment knobs and stage upper limit stopper.

All optical components should be hard coat antifungal and antireflection treated and certificates of the same should be produced.

Microscope should be CE & ISO Certified for quality, should carry genuine serial number with instruction manual, warranty card. Supplied along with antifungal treated certification and dust cover.

BINOCULAR MICROSCOPE for Faculty

Binocular Siedentop 30 degree inclined head with interpapillary distance and dioptré adjustments, 20mm for wide field eyepiece pair with rubber eye guards and lock in eyepieces.

infinity plan achromatic objectives

4X NA 0.10 WD 22MM

10X NA 0.25 WD 10.5 MM



	<p>40X NA0.65 WD 0.56 MM</p> <p>100X OIL.NA 1.25 WD 0.13MM</p> <p>all optical system should be hard coat anti-fungal treated.</p> <p>quadropole revolving noseiece.</p> <p>wire driven reckless mechanical stage 120x132 mm with x and y controls. travelling range 70x30mm and stage locking mechanism should be provided.</p> <p>sumps based power supply board with 6v 20watts illumination system with two halogen lamps variable intensity type.</p> <p>abbe na.1.25 condenser with blue filter and objective magnification markers.</p> <p>Microscope should be CE, ISO & TUV Certified for quality, should carry genuine serial number with instruction manual, warrantee card.</p> <p>Should be provided with antifungal treated certification.</p>
<p>10.</p>	<p>Fully Automated embedding system</p>
	<p><u>Specifications for AUTOMATIC PARAFFIN EMBEDDING Station</u></p> <p>Should be a modular paraffin embedding centre with a separate embedding system and cooling system.</p> <ul style="list-style-type: none"> ▪ The Embedding System must have the following features. ▪ Individual programming of all temperatures with auto turn off/on and consideration of pre-heating times according the user. ▪ Paraffin reservoir must be of minimum 5 liters capacity with a right and left tray of minimum 1.5 litres with individual adjustable temperature of 50 to 70 degree centigrade. ▪ Paraffin flow can be operated manually or thru foot switch. ▪ The equipment must be equipped with a knob to control the flow of paraffin ▪ Should have minimum 6 forceps storage area with a temp adjustment and optionally should have the facility of connecting the electrically heated forceps. Both electrically heated and histology forceps should be supplied with the equipment. ▪ The Cooling system should be large enough to place minimum of 100 blocks and the cooling system can be kept in both right and left side of the embedding system. ▪ The Instrument should be capable of programing for a whole week or on individual days with stand by dates for holidays.





	<ul style="list-style-type: none"> ▪ The instrument should have the facility of attaching the electrically heated forceps of different tip sizes ▪ Should be supplied with different sizes of easy to use metal moulds. ▪ The equipment should have a built in magnifier and should be equipped with a blue LED at the dispensing area for ease in viewing the tissue samples. ▪ The instrument should be ISO & CE Certified. <p>Throughput: Up to 120 Paraform Cassettes per hour</p> <p>Interface USB: 2 ports, Type A; LAN: 2 ports</p> <p>Noise level <65 dB</p> <p>Cassettes capacity: 100 cassettes.</p>
11.	Heated Paraffin Embedding machine (Pathology)
	<ul style="list-style-type: none"> ▪ STAND ALONE heated PARAFFIN DISPENSING / embedding MODULE, CAPACITY 06 LTRS, entire system made out of Stainless steel finish. Digital or manual thermostat control with 01-degree temperature accuracy. should work up to 65 degrees from room temperature. SHOULD BE ISO & CE CERTIFIED
12.	Automated Tissue processor
	<p>The instrument should be capable of processing minimum of 100 or more standard cassettes at a time.</p> <ul style="list-style-type: none"> ▪ The instrument should have a permanent memory of 9-10 stored processing protocols. ▪ The instrument should be supplied with highly resistant reagent vessels made up of Polypropylene or equivalent with capacity to hold 1.5 to 1.8 liters of reagent. ▪ The equipment should be equipped centrifugal agitation or must have vacuum for better infiltration and avoid carry over contamination. ▪ The equipment should have a feature of programmable agitation. The agitation should be centrifugal both in clockwise and anticlockwise with speed selection and vertical agitation programmable. ▪ The instrument should have a feature to avoid carryover contamination like centrifugation over the reagent level or any other mechanism to remove excess





	<p>reagent.</p> <ul style="list-style-type: none"> ▪ The paraffin baths supplied should be sturdy and temperature programmable from 50-75° C with over temperature cut off facility, the paraffin impregnation either through centrifugation or by applying Vacuum. ▪ The instrument should have facility like battery backup for safety of tissues during power failure so that the tissues are immersed into the nearest station and should not allow drying. ▪ The Instrument should have facility to lift the carousel by automatic movement not by mechanical movements to remove the tissues in case of long power failures. ▪ The equipment should have built in features like error messages audible alarms, warning signals for maximum safety. ▪ The instrument should have option of locking the keypad for inadvertent operation during program run. ▪ The infiltration time programmable should be 5 min – 99 hrs. ▪ The instrument should have the feature to select the delay time with automatic calculation without time limit not by manual calculations. ▪ At any given point of time the instrument should be up gradable to double up the capacity. ▪ The instrument should be supplied with a steel vessel to hold the cassettes with a counter weight so that the sample does not float during processing. ▪ The instrument should be of European community or origin, origin certificate certified by that country embassy should be enclosed. ▪ Should be CE & ISO CERTIFIED <p>Wax baths : 2 (3 optional)</p> <p>Wax baths capacity: 1.8 Liters</p> <p>Wax baths temperature range: 45 °C - 65 °</p> <p>Standard tissue basket capacity: min 100 cassettes</p>
13.	Fully Automated Flexible Cover slipping workstation (Pathology)
	<ul style="list-style-type: none"> ▪ The instrument should be modern high throughput XY stainer, specifically designed for the operator’s safety and protection.



- The instrument should have a loading capacity of 30 slides per rack/basket.
- The instrument should have processing capacity up to 12 or more slide baskets at the same time with the same or different staining protocols.
- The instrument should have total 40 stations arranged in 3 different rows.
- The instrument should have 28 Reagent Stations arranged in 1st two rows, 14 reagent stations in each row.
- The instrument should have 5 washing stations, 2 heating stations (warm air slide dryers), 2 entry and 3 exit stations arranged in a single row.
- The instrument should have a facility of picking 7 reagent stations at a time for easy reagent replacement.
- The instrument washing stations should have flow adjustment and solenoid valve control for each station.
- The instrument heating/drying stations should have air forced ventilation up to 60°C, with electronic control and a precision of 1°C.
- The instrument Entry and Exit stations should be arranged in a single sliding drawer with basket sensors that can be opened independently from the instrument lid cover.
- The instrument complete structural internal parts should be made in high quality stainless steel.
- The slide basket handling should be in 3 different axes on XYZ scheme with closed loop control.
- The instrument should have an integrated computer with a 15" touch screen color monitor which controls all operations.
- The instrument advanced software should handle multiple staining protocols and bath layouts, with a graphic representation of the work in progress.
- The instrument should have a option of checking the work in progress of each slide basket simply touching the related basket icon.
- The instrument should have a memory of total 18 staining protocols/programs with 28 steps each.
- Each step of program should have reagent station number (station position), immersion time in minutes & seconds, time type (Open/Flexible/Exact) and Drip time.
- Each immersion time should have 3 different priorities like OPEN (no limit), FLEX





(10% tolerance) and EXACT (to be respected exactly).

- The reagent agitation/mixing should be continuous independent of robotic arm.
- The agitation movement should be vertical up/down in all 28 reagent stations.
- The agitation should start automatically when a basket is in one of the 28 reagent station.
- The instrument should have Reagent management system to assists the operator with a precise scheduling of the reagent substitution allowing high quality staining results.
- Whenever the predefined number of stained baskets is exceeded, the related station should be shown in red color.
- The instrument should have a option of USB ports for Memory Data Backup and downloading reports.
- The instrument should have a password protection for different function.
- The instrument should have fumes neutralization system with charcoal filter.
- The instrument should be supplied with 8 slide racks (30 slides per rack).
- The instrument should provide high quality mounted slides which can be stored safely for long time.
- The instrument should be such that once the slide is inserted into the loading station, the user does not need to manipulate or make any operation on it.
- The instrument should have capacity of continuously loading slide baskets (30 slides par basket).
- The instrument productivity should be 180 slides/hour (directly on the tray).
- The instrument should have facility of continuously loading baskets, even with the frontal covers closed.
- The instrument should have revolutionary and unique automatic feature of exit system to bring the mounted slides directly on dedicated trays which can be taken directly to the pathologist's desk, this results in time saving for the user. When the tray is completed it is automatically pushed forward in order to advise that it is ready to be taken.
- The instrument output should have 9 trays with 10 places each for mounted slides.
- The instrument should have frontal exit for empty slide basket.
- The instrument should mount cover glasses with 3 different sizes (24x40/50/60



	<p>mm) with rapid holder substitution.</p> <ul style="list-style-type: none"> ▪ The instrument should have cover glasses holders with 3 different measures. ▪ The instrument should have regulation of dispensing offset (position, quantity and speed) without needle substitution. ▪ The instrument should have automatic cleaning of the dispensing needle, after every cycle. ▪ Dispensing needle cleaning system should guarantee the continuous work of the instrument without interruptions. ▪ The volume of mounting medium bottle should be minimum 500 ml. ▪ The instrument mounting medium bottle should have level sensor with rapid connection and easy substitution. ▪ The instrument should have integrated color touch screen, with indication of all working parameters. ▪ The instrument should have intuitive and easy to use menu and multilingual software. ▪ The instrument should have acoustic and optical signal for warning and the end of staining and mounting cycle. ▪ The instrument should have indication of mistakes during slides mounting. ▪ The instrument should have vapour aspiration system with integrated filter. ▪ Both staining machine and the cover slipping machine should be integrated and work simultaneously. ▪ SHOULD BE ISO & CE CERTIFIED.
14.	Standalone cold plate (Pathology)
	<ul style="list-style-type: none"> ▪ standalone paraffin dispensing module cold plate for holding approx 100 cassettes for tissue embedding in histopathology. ▪ Should have quick cooling compressor, noise free and entire system made out of M.S. Powder coat finish. ▪ SHOULD BE ISO & CE CERTIFIED
15.	Fully Automated Immunohistochemistry setup



	<ul style="list-style-type: none"> • System should be fully Automated Immune Staining System • Should perform on board Baking, Dewaxing, Epitope Retrieval, Staining and Counter Stain • Should be capable to do Immune Histo Chemistry (IHC), In-situ Hybridization ISH and preferably Fluorescent in situ Hybridization (FSH) • System should be open for Primary Antibodies with different pH (range 6 to 9) • Should be Xylene Free • It should have Baking to chromogen incubation for improved consistency. • It should have the capacity to run at least 36 slides at a time • Should have fast turnaround time (TAT) Completes 30 slides run within 5hrs. • It should separate Hazardous and non-hazardous waste • It should have on boarding mixing of Chromogens • It should read slide labels by Optical Character Recognition (OCR) • Should have liquid level sensor (LLS) for tracking and monitoring reagents alerts when reagents are low or waste is full • Reagent dispensing method should be probe • Should be capable of doing Dual IHC (Double Staining) • Should have operating temperature from 35°C to 100°C
16.	Binocular Microscope (Microbiology)
	<p>BINOCULAR MICROSCOPE for Faculty</p> <ul style="list-style-type: none"> • binocular sidentopf 30 degree inclined head with interpapillary distance and diopter adjustments, 20mm fov wide field eyepiece pair with rubber eye guards and lock in eyepieces. • INFINITY PLAN ACHROMAT OBJECTIVES <ul style="list-style-type: none"> ○ 4X NA 0.10 WD 22MM ○ 10X NA 0.25 WD 10.5 MM ○ 40X NA0.65 WD 0.56 MM ○ 100X OIL.NA 1.25 WD 0.13MM • all optical system should be hard coat anti-fungal treated. • quadrupole revolving nosepiece.





- wire driven reckless mechanical stage 120x132 mm with x and y controls. travelling range 70x30mm and stage locking mechanism should be provided.
- SMPS based power supply board with 6v 20watts illumination system with two halogen lamps variable intensity type.
- abbe na.1.25 condenser with blue filter and objective magnification markers.
- microscope should be CE, ISO & TUV certified for quality, should carry genuine serial number with instruction manual, warrantee card.

Should be provided with antifungal treated certification.

17. Spectroscopic adjustable slit

The adjustable slit is used in all optical experiments where a continuously and reproducibly variable slit is required, particularly for diffraction and interference experiments and for spectral analysis.

Safety note

Impurities (e.g. grains of dust) adhering to the slit edges can cause undesirable diffraction effects; do not remove these using a metal object; use moist, lint-free paper or a fine moistened brush. Always loosen screw 4 before realigning the slit.

Description, technical data

1. Slit with chamfered edges: Width: 0 to approx. 2.5 mm, continually adjustable
Height: 20 mm
2. Lever for adjusting the slit width
3. Slit holder, rotatable by 360° in frame 6
4. Arresting screw for slit holder 3
5. Scale with index mark to indicate the slit width Graduation: 0 to 1.6 mm with 0.2 mm divisions
6. Accuracy: 0,02 mm
7. Frame (dia. 13 cm) on rod (8 cm x 1 cm diam.)

Operation

Set up the apparatus in the experiment arrangement so that the bevelled edges of the slit face the light source and the light beam is perpendicularly incident on the slit.

To optimally utilize the light, align the slit and the lamp filament parallel to each other. If necessary, loosen screw 4 and turn holder 3; remember to retighten the screw.





	Rough adjustment of the experiment setup is best carried out when the slit is opened wide. Set the slit to the desired width using lever 2 before fine adjustment of the setup.
18.	Dissection Set complete
	Name, Category And Coding UMDNS Name Amputation Saw, Bowel Surgical Scissors, Post Mortem Scissors, Chisel, Detachable Cross Handle Chisel, Brain Knife, Cartilage Knife UMDNS Code(S) 13922,14250,14181,14055,21023,19816, 19818 1. GENERAL USE- Clinical Purpose Post mortem instruments for autopsy surgeon pathologists providing the examination of corpses during autopsy. Below list of instruments are for single autopsy table. 2. TECHNICAL List of instruments: <ul style="list-style-type: none">○ Amputation Saw 12" -1 Quantity○ Bowel Scissors 7" 1 4 Quantity○ Post Mortem Scissors 6" 1 4 Quantity○ Blow Pipe straight 8" 2 Quantity○ Hammer with chisel 8" 1 Quantity○ Detachable Cross handle chisel 3.5" 1 Quantity○ Skull Rest 7" 1 Quantity○ Brain Knife 9.5" 1 Quantity○ Caltin Knife 9.5" 1 Quantity○ Cartilage Knife 7.5" 1 Quantity○ Scalpel 16" 4 Quantity○ Dissecting Forceps 6" 1 Quantity○ Chain hook set of 3, 3" 1 Quantity○ Scalpel Handle 127 mm 1 Quantity○ Organ knife and saw 22mm blade 1 Quantity○ Bistoury Knife 70mm blade 1 Quantity○ Rib Knife 1 Quantity○ Pelvic Organ Knife 1 Quantity○ Dissection scissors 1 Quantity○ Bone cutting scissors 1 Quantity



- Needle Holder 1 Quantity
- Raspatory 1 Quantity
- Retractor 2 Quantity
- Osteotome 2 Quantity
- Vagotome 1 Quantity
- Surgical needles 12 Quantity
- Folding rulers 300 mm 2 Quantity
- Probes with eye/fish tail 2 Quantity
- Measuring/specimen jar (100 ml and 1 Litre) 1 Quantity
- Rib Shears
- Magnifying lens 1 Quantity
- Box Containing all these instruments 1 PC

- User's interface NA All knives should have stainless steel handle and surgical quality.

3. PHYSICAL CHARACTERISTICS

- 3.1 Dimensions(metric): As specified in IS/ISO standards.
- 3.2 Weight (lbs, kg) NA As specified in IS/ISO standards.
- 3.3 Noise (in dBA) Zero
- 3.4 Heat dissipation Zero
- 3.5 Mobility, portability- Portable

4. ENERGY SOURCE (electricity, UPS, solar, gas, water, CO2)

- 4.1 Power requirements -- Zero
- 4.2 Battery operated- Zero
- 4.3 Protection Not required.
- 4.4 Power consumption- Zero

5. ACCESSORIES, SPARE PARTS, CONSUMABLES

- 5.1 Accessories, (mandatory, standard, optional);
- Spare parts (main ones); Consumables/reagents (open, closed system)
- Protective SS 304 case for clean storage and safe transport.



6. ENVIRONMENTAL AND DEPARTMENTAL CONSIDERATIONS

6.1 Atmosphere/Ambience (air conditioning, humidity, dust...)

Capable of working in 50-100% humid condition and in temperature range of 5-40 degree Celsius.

6.2 User's care, Cleaning, Disinfection & Sterility issues

1. Disinfection: Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover.

2. Should be compatible with Medical grade disinfectant solutions like Cidex or hydrogen peroxide solution.

7. STANDARDS AND SAFETY

7.1 Certificates (premarket, sanitary,); Performance and safety standards (specific to the device type); Local and/or international

1. The surgical instruments should be made using top quality medical grade hardened stainless steel with defined specifications like IS 5589, IS 10414, IS6989, IS6990, IS6996, IS 3318 IS3320, IS 6442 etc.

2. History of adverse events and actions (Recall/Filed safety correction etc) taken by manufacturer on the product should be made available to procurer. Such Information (as and when happen) after commission of product should be continued to be provided to purchaser till manufacturing of same type product is curtailed.

8. TRAINING AND INSTALLATION

8.1 Pre- installation requirements: nature, values, quality, tolerance Not required

8.2 Requirements for sign-off Compliance with quantity checklist, Quality check of the product.

8.3 Training of staff (medical, paramedical, technicians)

Hands on training to be provided to healthcare professional on using post mortem equipment set, day to day maintenance/cleaning.

9. WARRANTY AND MAINTENANCE

Warranty 3 years, including all spares. or State/UT may also include the medical devices in NHM Biomedical Equipment management and maintenance program.





10. DOCUMENTATION

- 10.1 Operating manuals, set manuals, other manuals One copy (hardcopy and softcopy) to be provided on user manual/operating manual and service/Technical manual
- 10.2 Other accompanying documents Certification Documents implying compliance to standards.

11. Notes

- 11.1 Service Support, Contact details (Hierarchy Wise; including a toll free/landline number)
 - Contact details of manufacturer, supplier and local service agent to be provided;
 - Any Contract (AMC/CMC/add-hoc) rate available to be declared by the manufacturer.
 - Purchaser may engage third party for maintenance of equipment and vendor needs to comply in all terms.
 - Manufacture/Supplier of medical devices should provide price quote for spare part of medical device or supply item, against requisition/Purchase order from biomedical engineers/technicians.
- 11.2 Recommendations or warnings Any warning sign would be adequately displayed on each instrument.

19. Autopsy Saw with accessories

The Mopec 810 (Stryker) Autopsy saw remains as the industry standard in anatomic pathology. High speed oscillating action quickly cuts through bone with minimal damage to soft tissue. Used for removing the cranial cap, making linear cuts or sectioning small bone specimens.

Construction

- Cast aluminium housing
- Arbor-mounted blades
- 10-foot cord with hospital grade plug
- Powerful 17,000 RPM motor produces 32,000 oscillations per minute



	<ul style="list-style-type: none"> • Familiar lightweight & ergonomic design • Slender handle for precise control <p><u>Materials</u></p> <ul style="list-style-type: none"> • Armature, field coil, cord, plugs, switches, bearings, carbon brushes, gaskets, cam, shaft, shaft link. <p><u>Dimensions/Weight</u></p> <ul style="list-style-type: none"> • Shipping Dimensions 6.5 x 18.5 x 5.5 • Weight with power cord 3.7 lbs • Shipping weight: 4.2 lbs <p><u>Capacity</u></p> <ul style="list-style-type: none"> • 32,000 oscillations per minute <p><u>Utilities</u></p> <ul style="list-style-type: none"> • Voltage: 115V/60Hz/1PH <p><u>Included Options/Accessories</u></p> <ul style="list-style-type: none"> • Blades: BD101 Large Section Blade • Additional Tools: Allen wrench <p><u>AUTOPSY SAWS & BLADES</u></p> <ul style="list-style-type: none"> ○ Mopec 810 Autopsy Saw Replacement Blades ○ Mopec Part # Purpose/Description Stryker Part # Cut Edge x Cut Depth ○ BD101 Large Section Blade 1100 3.70" x 0.98" ○ BD104 Round Blade 1119 2.56" x 0.85" ○ BD105 Spinal Column Blade 1105 3.79" x 1.64" ○ BD108 Small Section Blade 1101 2.16" x 0.61" ○ BD110 Paediatric Blade 1106 0.79" x 1.62" ○ BD111 Deep Cutting Mastoid 1106A 0.8
20.	Cold storage – 4 Compartment
	<ul style="list-style-type: none"> ○ Number of bodies storage – 4 ○ Temperature range - 2°C to 8°C



- Temperature control - Digital microprocessor
- Temperature display - LED display
- Construction - 304 Stainless Steel/GPS/MS
- Insulation - High grade polyurethane
- Doors - Made of steel sheets with magnetic gasket & external lock
- Tray material - Stainless Steel SS 304
- Tray dimension - 608 x 75 x 2182 (H x D x L) mm
- Trolleys - Made of steel and sliding on telescopic rails
- Compressor - Reciprocating type
- Evaporation - Internal evaporator system forced draught
- Internal drainage - Yes
- Refrigeration system - Air cooled hermetically sealed
- Air circulation - Forced air circulation
- Alarm - High/low visual alarm system
- Internal lighting - Waterproof CFL lamps
- Locking system - Stranded key locks
- Power supply - 1 phase/220 Volts/50 Hz

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