

Technical Specification of Schedule no. 1 - item no. 85- Neonatal Transfer Incubator are revised and should be read as follows:-

The System to have -

- Incubator with Double Wall Canopy, Front and Head End Access Doors with Access portholes and Tubing Access Ports. (2 access doors, 2 disposable infant restraint straps, 1 Iris port, 2 Quiet Touch port doors. 6 tubing ports)
- Digital Displays of Air and Baby Skin Temperatures, set range 22.0° C - 38° C (71° F - 100° F)
- Indicators for Mains and Battery Modes of Operation :
- Indicator for Battery Power Capacity : Battery condition status 4 LED indication of battery charge and heater power condition 25-100%
- Examination Light.
- Power mode Illuminates AC, DC, or external DC, AC and 12VDC Connectors.
- Front mounted gas content display
- Comprehensive Alarm System : Alarm indicators for High temp, Power fail, Sensor fault, Heater temp, Air flow, Low DC
- 2D or 2E size tank mounts The tank mount permits mounting gas cylinders with a diameter of up to 4.5 in (11.6 cm) and up to 34 in (85 cm) in length
- Should have O₂ concentration range 21% to 58% minimum
- Should have Noise level <60 dBA
- Humidity pad Holds 400 ml.(14 oz) sterile distilled water with no significant spillage for up to 45° tilt in either direction with relative humidity 50 to 70% for 10-12 hours using humidity pad
- Air filter Removes >99% of airborne particles greater than 0.5 micron diameter
- Controller Displays : On/standby Illuminates when “On”
- Storage temperature -40° C to 70° C ambient
- Operating range Sea level to 3 km (10,000 ft.) non--pressurized environment. Sea level to 12 km (40,000 ft.)-pressurized environment
- Should have Features like Accessory shelf, IV pole, High Hood, Pressure Regulator and Flowmeter
- The system should have European CE and US FDA approved.

Technical Specification of Schedule no. 5 - item no. 5 - Neonatal Incubator are revised and should be read as follows:-

1. Should be a microprocessor controlled system with future expandability/ upgrade for additional functions and fixed height of not more than 140 cm with small footprint
2. Hood specifications
 - a. Should have front and rear access panel
 - b. Should have side access panels, i.e. Dual Viewing Panels
 - c. 6 access ports – 4 access ports and 2 iris ports, Elbow-operated ports
 - d. At least 10 tubing grommets.
 - i. 3 left and 3 right tubing grommets – front

- ii. 2 left and 2 right tubing grommets – rear
 - e. Access panel opening height should be ≥ 28.0 cm
 - f. Mattress to hood height should be ≥ 41.2 cm
 - g. Soft bed mattress size 38.1 cm x 73.6 cm
 - h. Slide out Mattress Tray
 - i. Mattress tilt should be continuously variable $\pm 12^\circ$ and tilt mechanism/ assembly should be outside infant's compartment to avoid disturbance of infant
3. Incubator should have double walls on outside to prevent heat loss – Air curtains
 4. Should have Accessible reservoir, front loading, easier to monitor
 5. Should have an integrated LCD controller panel for settings, monitoring and alarms as below :
 - a. Temperature Control Modes
 - i. Skin and air temperature control mode
 - ii. Air mode control temperature range - 20.0°C - 37.0°C
 - iii. Air mode control override temperature range - 37.0°C - 39.0°C
 - iv. Skin mode control temperature range 34.0°C - 37.0°C
 - v. Skin mode control override temperature range 37.0°C - 38.0°C
 - vi. There should be monitoring and display of dual skin temperatures
 - b. Trending of parameters as below
 - i. 24 Hours Air Temperature
 - ii. 24 Hours Skin Temperature T1 and T2
 - iii. 24 Hours Relative Humidity
 - iv. 24 Hours Oxygen concentration
 - v. 24 Hours Heater power
 - vi. 7-day trend of Weight gain and loss (if integrated scale is used)
 - c. Servo control for Humidity with integrated monitoring.
 - i. Humidity control range 30% to 95% in 1% increments
 - ii. Humidity control reservoir capacity 1000 ml
 - iii. Humidity display accuracy should be $\pm 6\%$ RH (between 10% and 90% at 20°C - 40°C)
 - d. Servo control for Oxygen
 - i. O₂ control from 21% - 65% with accuracy of $\pm 2\%$
 - ii. O₂ display resolution of $\pm 1\%$
 - e. Should have keypad lock for locking settings
 6. Should have an integrated weighing scale as below :
 - a. Weight range 0 - 7 kg
 - b. Weight accuracy $2\text{ g} \pm 1/2$ digit up to 2 kg
 7. Programmable alarms and safety features
 - a. alarm messages with text display of alarm and severity of alarm
 - b. Alarms for Probe failure, High temperature & Power failure
 - c. Low humidity alert
 8. Operating Noise level inside the hood should be (47dB (without servo oxygen control) and 49 db (with servo oxygen control)
 9. X-ray table should be integrated in the mattress – to reduce disturbance to baby while opening canopy
 10. Should have a large storage cabinet with storage volume $\geq 80\text{Ltr.}$ integrated into the main unit, with hands free / noise less operation.

11. Physical dimensions should not be more than 120.6 cm (w) x 75 cm (D) x 140 cm (H) fixed height
12. Incubator should confirm to relevant EN standard for Electrical Safety and should have European CE and USFDA approvals
13. Standard scope of supply must include :
 - a. Main unit mounted on 4 large casters with hood
 - b. Integrated X Ray Drawer
 - c. Soft mattress
 - d. Central Alarm light
 - e. Skin / Air temp control
 - f. Reusable air and skin temp sensors
 - g. Humidity regulation Storage cabinet with whisper quiet hinges
 - h. Oxygen regulation (O2 sensor should be lifetime)
 - i. Integrated weighing scale
 - j. Integrated RS232C output

Schedule 1 Item No. 71 Specification of Lithotripsy Machine to be replaced for ESWL

The Technical Specification of ESWL to be read as follows:-

Therapy unit Should be based on electromagnetic shockwave emitter technology.
Should have dual imaging facility of X-ray c-arm localization and ultrasound
Should be easy to handle and upgradeable.
Treatment table should be multipurpose motorized remote controlled with movement in all 6 axis treatment table.
ESWL Machine completely integrated X-Ray C-Arm, Patient Table, Shockwave Head and Outline/Inline Ultrasound
Simultaneous fluoroscopy and ultrasound image guided localization should be possible.

SHOCKWAVE GENERATOR

Principle of operation-shockwave source based on electromagnetic shockwave emitter technology.

Shockwave generator with variable energy level.

Penetration depth > 160mm

Shock wave generator should generate at least 1.5 million shockwave of therapy failing which it should be replaced free of cost.

Should have rotatable (movable) shockwave head for wide range of coupling and treatment positions

Shockwave Head should be motorized rotates treating patient from either above or under table at different angles.

Shock wave head should permit multiple under and over table window to ensure multiple window for entry of shockwave for treatment of Stones.

INTEGRATED LOCALISATION

Dual with image intensifier (C-Arm /U-arm) and Ultrasound

Simultaneous imaging with X-ray and ultrasound system should be possible without decoupling the patient.

X-ray C-Arm should move isocentric to the shock wave source in both directions around the source

INTEGRATED X-RAY C-ARM

Should have high frequency x-ray generator.

X-Ray unit- integrated and motorized to the main unit

Fluoroscopy voltage 40 KV-110 KV, mA range: 0-5 mA
9" image intensifier
X-Ray tube for both fluoroscopy and radiography
Monitor double monitor 14"/17" or more.
Image memory-digital storage of minimum of 3 images and last image hold facility
Image quality parameter- should have image enhancement, noise reduction, zoom etc.
Should be able to perform stone localization fluoroscopy and radiography.
Should use C-Arm, which can move spherically (i.e. revolving and rotating).

INTEGRATED ULTRASOUND WITH SHOCKWAVE HEAD

Inline/Outline USG
Imaging mode- 2D (real time)
Monitor- 12/14"
Transducer – 3.5 MHz
Urology software package

INTEGRATED TREATMENT TABLE

Integrated Motorized treatment table
Multi purpose treatment table for ESWL as well as standard endourological procedures
Movement in all 6 axis treatment table
Standard accessories for all endourological procedures i.e. stirrups, armrest, infusion bottle holder, drain bag, Anesthesia screen, douching tray, x-ray cassette holder, body & arm straps etc

Remote Site Control panel

Voltage Stabilizer for Machine

Accessories

For Ultrasound

B/w printer with two rolls of printer paper.

ECG MONITORING

Should have facility of ECG Monitoring.

Accessories

Voltage stabilizer & UPS –1

Data storage hardware system-1

19" TFT monitor, laser printer, UPS, wireless keyboard, wireless mouse, 4 GB RAM, 1 TB HDD, 52xDVD writer etc.

Should have installation base of similar product in reputed Government Hospitals

/Institutes.

Should be CE/US-FDA approved.

Specification of Schedule 1 Item No. 60 Bariatric surgery O.T. Table are revised and should be read as follows:-

1)	The OT table should be C-arm compatible sturdy, vibration free, self-balanced and have easy manoeuvrability with Brake locking / unlocking of table base.
2)	An override manual control for all the functions on the head-end of the base or column to be provided for use in case of emergency.
3)	The table shall be provided with a cable connected hand control box.
4)	Dimensions: 1. Table top length with headrest min. 2050 mm \pm 5%. 2. Width min. 540 3. Height adjustment between minimum range of 25 inch to 33 inch with reference to ground level. 4. Weight capacity of table min 200kg. 5. Very steep head up tilt. 6. 3 section table top with foot stoppers
5)	a. Head rest (Detachable) b. Split Leg Section (Detachable) c. Seat Section. d. Back Section
6)	The following adjustments shall be electro-hydraulically operated: a. Height. b. Back Section up 80° min and down 40° min. c. Trendelenberg & Reverse Trendelenberg 45degree min. d. Lateral tilt : Left / Right min. 20° e. Reflex and Flex Limits 110° / 230° \pm 10%
7)	The following adjustment shall be manually operated: Leg section up 10° min and down 90° min.
8)	Table Should be having Electro- Hydraulic System. 1) Height 2) Back Section 3) Trendelenberg & Reverse Trendelenberg . 4) Lateral Tilt
9)	The table shall be provided with the following standard accessories : a. Arm Board with cushion and clamp: 2 Nos. b. Anaesthesia screen double ended with clamp: 1 No. c. Body strap: 1 No. d. Knee crutch with clamp: - 1 pair e. Arm restraint cuff – 1 No. f. Radial setting clamp – 3 Nos. g. Shoulder support – 1 Pair. h. Side support – 1 Pair. i. Lateral Arm support – 1 No. j. IV Stand – 1 No. k. Polyurethane Mattress 50 mm thk. with Velcro attachment.
10)	Should provide a detachable frameless Back Section so that 360 ⁰ imaging may be possible.
11)	Should provide an additional section which can be used for increasing the Length of the Table on either Side.
12)	Company should have European CE Certification/ USFDA Approved.
13)	The rated for optional attachments should be quoted separately.

Specification of Schedule 1 Item No 35 :- Operating tables with Neuro-attachments are revised and should be read as follows:-

Revised Specification: - Operating tables with Neuroattachments

1. High grade modular design resistant to corrotions or damage due to disinfectants, moisture, heat or other sterilizing agents
2. The OT table should be C-arm compatible, carbon Fiber Table Top/radiolucent top with frameless sturdy, vibration free, self-balanced and have easy maneuverability with Brake locking / unlocking of table base.
3. Entire table top should be without cross bar for full length fluoroscopy during surgery
4. Electrohydraulic, fully motorised with remote control (corded/cordless with high duration chargeable battery backup) features of adjusting height, tilt, flex/reflex, longitudinal shift, lower back plate, individual leg plate adjustments.
5. The table should be functional by additional override key panel control system console on column for safety in case electronics fails
6. Table length 1900mm or more, width not less than 500mm without side rails
7. Height adjustment lowest of 540mm or less, max 1000mm or more.
8. Longitudinal slide of 500mm or more with 200mm cranial and 300mm caudal from the centre point to provide full body imaging
9. Weight bearing capacity of 250 kg or more.
10. Reflex 90degree, flex 40 degree
11. Leg splits 90 degree down and 90 degree opening sideways
12. Backup 90 degree, down 40 degree
13. Trendelenberg/reverse trendelenberg 25 degree or more
14. Side tilt right/left 25 degree or more
15. Auto leveling to zero position by single press of a button on remote with or without cord.
16. Cushion of special foam core (SFC) 80mm with multilayer construction for exceptional comfort and safety of patient.with velcro for fixation.
17. Table should be USFDA & European CE/UL approved international quality product
18. Listed standard accessories be included with the Table :
 1. Anesthesia screen frame – 1
 2. Body straps with Velcro– 3
 3. Neuro adopters - 4
 4. 3 pin cranial skull clamps system (Separate for supine and sitting positions) – 1 Each
 5. silicon head rests (for Adults and Pediatrics patients) – 1 Each
 6. Silicon Horse Shoe Headrest with 360 degree move ability in all 3 Axis for optimal positioning of head (for Adults and Pediatrics patients) – 1 Each
 7. Rail clamps and cushioned supports for giving lateral positions – 4
19. **Optional Items (Rates to be quoted Separately)**
 1. Should provide an additional section which can be used for increasing the Length of the Table on either Side ie foot or head end
 2. Should provide a detachable frameless Back Section so that 360° imaging may be possible
 3. Neuro attachments for cranial, spinal surgery in supine lateral, sitting and prone positions including highest quality bolsters for the same. these should be both for paediatrics and adult patients

Specification of Schedule 1 Item No 37 Sugita head clamp are revised and should be read as follows:-

The item should be light weighted high quality of non breakable material with excellent finish Compatible with fluoroscopy and Neuronevigation. Compatibility with CT/MRI intraoperative neuroimaging should be optional. Set of pins should be provided for both Adult & Pediatric Patients. Table coupler should be provided compatible to the Existing Neurosurgery O.T. Table in Medical College Hospitals. The item should be international quality CE/USFDA Approved.

Name of of Schedule 1 Item No 38 Mayo's head clamp should be replaced by name Mayfields 3 pin fixation of Skull and the Specification are revised and should be read as follows:-

The item should be light weighted high quality of non breakable material with excellent finish Compatible with fluoroscopy and Neuronevigation. Compatibility with CT/MRI intraoperative neuroimaging should be optional. Set of pins should be provided for both Adult & Pediatric Patients. Table coupler should be provided compatible to the Existing NeuroSurgery O.T. Table in Medical College Hospitals. The item should be international quality CE/USFDA Approved.

Specification of Schedule 1 Item No 46 Gardener's skull traction are revised and should be read as follows:-

The item should be light weighted high quality of non breakable material with excellent finish Compatible with fluoroscopy and Neuronevigation. Compatibility with CT/MRI intraoperative neuroimaging should be optional. 15 kg weight should be provided Optionally with the item. The item should be international quality CE/USFDA Approved.

Specification of Schedule 1 Item No 81 Pediatric Operation Table Electronic Controlled are revised and should be read as follows :-

1)	The OT table should be C-arm compatible, carbon Fiber Table Top sturdy, vibration free, self-balanced and have easy maneuverability with Brake locking / unlocking of table base.
2)	An override manual control for all the functions on the head-end of the base or column to be provided for use in case of emergency.
3)	The table shall be provided with a cable connected hand control box.
4)	Dimensions: 7. Table top length with headrest min. 2050 mm \pm 5%. 8. Width min. 500 mm. 9. Height adjustment between minimum range of 700mm to 1000 mm with reference to ground level.
5)	a. Head rest (Detachable) b. Split Leg Section (Detachable) c. Seat Section. d. Back Section
6)	The following adjustments shall be electro-hydraulically operated: f. Height. g. Back Section up 80° min and down 40° min. h. Trendelenberg & Reverse Trendelenberg 30° min. i. Lateral tilt : Left / Right min. 20° j. Reflex and Flex Limits 110° / 230° \pm 10%
7)	The following adjustment shall be manually operated: Leg section up 10° min and down 90° min.
8)	Table Can be operated manually in case of failure of Electro- Hydraulic System. 5) Height 6) Back Section 7) Trendelenberg & Reverse Trendelenberg 8) Lateral Tilt
9)	The table shall be provided with the following standard accessories : l. Arm Board with cushion and clamp: 2 Nos. m. Anesthesia screen double ended with clamp: 1 No. n. Body strap: 1 No. o. Knee crutch with clamp: - 1 pair p. Arm restraint cuff – 1 No. q. Radial setting clamp – 3 Nos. r. Shoulder support – 1 Pair. s. Side support – 1 Pair. t. Lateral Arm support – 1 No. u. IV Stand – 1 No. v. Polyurethane Mattress 50 mm thick. with Velcro attachment.
10)	Should provide a detachable frameless Back Section so that 360° imaging may be possible.
11)	Should provide an additional section which can be used for increasing the Length of the Table on either Side.
12)	Optional Attachments:- A) Carbon Fibre Extension Device for orthopedic Surgery:- The following parts should be made of Carbon Fibre a. Perennial Post b. Sacral Rest c. Hip Rest d. Rod for Tibia Nailing. e. Extension Device B) Neuro Surgery Attachment
13)	Company should have European CE Certification/ USFDA Approved.

Schedule no. 1- Item no. 79- Paediatric Operating laparoscopy with high definition system & Hand instruments

(Item no.79, 80 & 84 (Paediatric laparoscope, Hand Instruments Set, Operating Room High Definition Video System for laparoscopy and endourology OR HD Video System) of schedule no. 1 should be read as a single item as item no. 79 of schedule no. 1- **Paediatric laparoscopy system & should be quoted accordingly. Individual item prices are also to be uploaded from 79.1 to 79.3 The sum of these individual items should be equal to price of complete Laproscopy system. Ordering authority may either place the order for complete quoted system or for any individual items as per their choice during the RC period.**

Bidders are requested to quote prices of complete systems as well as for individual items falling under complete system.

Paediatric laparoscope

C02 Insuffiator Model Proflow 20

Insuffiator with Bacterial Filter

Fully Automatic, Electronic, digital, C02 Insuffiator

Maximum Flow rate 20 liter / min

Simultaneous adjustable & Digital Displays

Preset pressure, actual pressure, preset flow rate, actual flow rate, and volume of C02 gas consumed.

Built in release valve to vent relieve the over pressure in the pneumoperitoneum.

Total volume of C02, & Monitor for intraabdominal pressure

Audio & visual C02 Cylinder gas status & overpressure alarm.

Warmer facility

Accessories -Silicon tube, power supply cord, etc

CO2 Cylinders, two of different size, compatible with C02 Insuffiator

Telescopes

Telescope -7 mm, 0°

Wide angled, Autoclavable, Three type of adaptors for fibre

Optic cable

Telescopes

•Telescope -5 mm, 30°

Wide angled, Autoclavable, Three type of adaptors for fibre Optic cable Telescope 1 No.

Straight forward telescope 0o

enlarged view 10mm

diameter, length 31cm. Autoclavable

Telescope

Straight forward telescope 0o diameter 5mm, length 29cm. autoclavable. enlarged view

Telescope

Forward - Oblique Telescope 30o

, diameter 10mm, length 31cm. autoclavable enlarged view
Telescope Forward - Oblique Telescope 0o , diameter 10mm, length 31cm. autoclavable enlarged view

Hand Instruments Set:

Veress Pneumoperitoneum needle with spring loaded blunt inner cannula, LUER-Lock, autoclavable, diameter 2mm- 2.3 mm, working length 7 and 10 and 12 cms. USFDA, CE approved. Qty- 1 Each
Cannula size :6.5/7 mm diameter; should have Multifunctional Valve. It should have LUER-Lock connector for insufflation.The working length of the cannula should be 10.5 cms. USFDA, CE approved. Qty- 2
Cannula size : 5/6 mm diameter; should have Silicone Leaflet Valve. It should have LUER-Lock connector for insufflation.The working length of the cannula should be 6 cms. USFDA, CE approved. Qty- 2
Cannula size :3/ 3.5 mm diameter; should have Silicone Leaflet Valve. It should have LUER-Lock connector for insufflation. The working length of the cannula should be 5 cms. USFDA, CE approved.Qty- 4
Trocar Cannula size : 11 mm diameter; should have Multifunctional Valve. It should have LUER-Lock connector for insufflation. Trocar should have pyramidal tip. The working length of the cannula should be 8.5 cms. USFDA, CE approved. Qty- 3
Trocar Cannula size : 5/6 mm diameter; should have Silicone Leaflet Valve. It should have LUER-Lock connector for insufflation. Trocar should have pyramidal tip. The working length of the cannula should be 6 cms.Cannula with thread. USFDA, CE approved. Qty- 4
Trocar should have pyramidal tip Size 7 mm. The working length of the Trocar should be 10.5 cms. USFDA, CE approved. Qty- 2
Trocar should have pyramidal tip Size 5 mm. The working length of the cannula should be 6 cms. USFDA, CE approved. Qty- 2
Trocar should have pyramidal tip Size 3 mm. The working length of the Trocar should be 5 cms. USFDA, CE approved. Qty-4
Reduction Sleeve, 6/3 mm. USFDA, CE approved. Qty- 2
Reducer sleeve with silicon latch, conversion of 7 to 5mm
Reduction Sleeve, 11/5 mm,USFDA, CE approved. Qty- 2
Universal Grasping forceps - Two part laparoscopic autoclavable Universal Grasping Forcep, double action jaws, 360 degree rotational sheeth,with LUER Lock adaptor for cleaning size 3 mm, length 20 cm,ergonomic metal handle with plastic finger rings with larger contact area at the finger ring to avoid pressure sores, can be dismantled with the press of a button, One Extra Insert Also. USFDA, CE approved. Qty- 1
Atraumatic Grasping force - Two part laparoscopic autoclavable Grasping Forcep atraumatic, fenestrated ,360 degree rotational sheeth, double action jaws,with irrigation connection for cleaning size 3 mm, length 20 cm, Metal Handle, without ratchet, larger contact area , can be dismantled with the press of a button, USFDA, CE approved. Qty-1
Right angled mixer forceps - Two part laparoscopic autoclavable RIGHT ANGLED Dissecting and Grasping Forcep, 360 degree rotational sheeth,

with connector pin for unipolar coagulation, size 3 mm, length 20 cm, long, double action jaws, with Metal Handle, without ratchet, larger contact area , can be dismantled with the press of a button, USFDA, CE approved. Qty-1
Allis forceps - Two part laparoscopic autoclavable Grasping Forcep, single action jaws, jaws with multiple teeth, 360 degree rotational sheeth,with LUER Lock adaptor for cleaning size 3 mm, ,Metal Handle, ratchet, larger contact area , can be dismantled with the press of a button, USFDA, CE approved. Qty- 1
Babcock forceps - Two part laparoscopic autoclavable BABCOCK Click Line Grasping Forceps, fenestrated, rotating, 360 degree rotational sheeth,with LUER Lock adaptor for cleaning size 3 mm, length 20 cm, Metal Handle, ratchet, larger contact area , can be dismantled with the press of a button, USFDA, CE approved. Qty-01
Dissecting & Grasping forceps "Dolphin"- Two part laparoscopic autoclavable grasping Forcep, 360 degree rotational sheeth,with irrigation connection for cleaning, with metal outer sheath, double action jaws, size 3 mm, consisting Metal Handle, without ratchet, larger contact area, can be dismantled with the press of a button, USFDA, CE approved. Qty- 1
Dissecting Forceps - Two part laparoscopic autoclavable KELLY Dissecting and Grasping Forcep, 360 degree rotational sheeth, with connector pin for unipolar coagulation, size 3 mm, length 20 cm, long, double action jaws, with ergonomic plastic handle with larger contact area at the finger ring to avoid pressure sores, can be dismantled with the press of a button., USFDA, CE approved. Qty-1
Metzenbaum curved scissor- Two part laparoscopic autoclavable METZENBAUM scissors, curved blades, 360 degree rotational sheeth, with connector pin for unipolar coagulation, size 3 mm, length 20 cm, long, double action jaws, with ergonomic plastic handle with larger contact area at the finger ring to avoid pressure sores, can be dismantled with the press of a button. USFDA, CE approved. Qty- 1
Micro scissor-straight – Two part laparoscopic autoclavable especially long conical pointed jaws, double action jaws, curved blades, 360 degree rotational sheeth, with connector pin for unipolar coagulation, size 3 mm, length 20 cm, long, double action jaws, with ergonomic plastic handle with larger contact area at the finger ring to avoid pressure sores, can be dismantled with the press of a button. USFDA, CE approved. Qty-1
Scissor - Hook tip - Two part laparoscopic autoclavable Micro Hook Scissors, curved blades, 360 degree rotational sheeth, with connector pin for unipolar coagulation, size 3 mm, length 20 cm, long, double action jaws, with ergonomic plastic handle with larger contact area at the finger ring to avoid pressure sores, can be dismantled with the press of a button. USFDA, CE approved. Qty-1
Claw Forceps – MANHES Grasping Forceps,"Tiger-Jaws", 2 x 4 teeth, single action jaws, size 3 mm, length 36 cm consisting of: Outer Tube with working insert Metal Handle, without ratchet, larger contact area.USFDA, CE approved.Qty-1
Biopsy Forceps – Dissecting and Biopsy Forceps, rotating, dismantling,

insulated, with connector pin for unipolar coagulation, with LUER-Lock adaptor for cleaning, single action jaws, size 3 mm, length 20 cm consisting Plastic Handle, without ratchet.Dismantlable in two parts, Autoclavable.USFDA, CE approved. Qty-1
Biopsy Forceps – Dissecting and Biopsy Forceps, rotating, size 5 mm, length 30 cm, with connector pin for unipolar coagulation, single action jaws, with LUER lock adaptor for cleaning, consisting of: Plastic Handle, without ratchet Outer Tube with insert, insulated.USFDA, CE approved. Qty-1
Fan Retractor – Dismantling Fan Retractor, distendable, size 5 mm, length 36 cm.USFDA, CE approved. Qty- 1
Cuschieri liver Retractor – CUSCHIERI Liver Retractor, size 10 mm, length 36cm.USFDA, CE approved.Qty-1
Clip Applicator – Clip Forceps, jaws curved, size 5 mm, working length 43 cm, for use with Clips 8665 T.USFDA, CE approved. Qty-1
Clip Applicator – Medium Large clip applicator dismantable rotating size: 10mm, length 36cm, for Titanium clips with ratchet to lock the jaw holding the clip.USFDA, CE approved.Qty-01
Unipolar HF Cord.USFDA, CE approved.- Qty-02
Irrigation and Suction Cannula, for use with two-way stopcock ,size 3 mm, length 20 cm. Two-way stopcock for suction and irrigation, for use with cannulas.USFDA, CE approved. Qty-1
Suction and irrigation system along with accessories for Laparoscopy use. It should have suction bottle with overflow protection. Irrigation: - Pressure non-regulated - Max. 400 mmHg (53.2 kPa), Non-regulated- Max. (-) 0.75 bar (-75 kPa). USFDA, CE approved. Qty-1
Dissecting Electrode, L-shaped, size 3 mm, length 20 cm, with connector pin for monopolar. USFDA, CE approved. Qty-1
Coagulating and Dissecting Electrode, spatula-sheaped, blunt with connector pin for unipolar coagulation, size 5 mm, working length 36 cm. USFDA, CE approved. Qty-1
Three part laparoscopic Bipolar KELLY Dissecting & Grasping Forceps with overload tissue protection, CLERMONT- FERRAND MODEL, Wide jaws, with connector pin for bipolar coagulation, 360 degree rotational sheeth, size 5 mm, length 36 cm, long, single action jaws, ergonomic Plastic handle with larger contact area, can be dismantled with the press of a button.USFDA, CE approved. Qty-1
Dissecting-Electrode with exchangeable electrode L-tip, autoclavable, ergonomic handling, size 5 mm, length 36 cm, with connector pin for unipolar coagulation.USFDA, CE approved. Qty-1
Bipolar Grasping Forceps, size 3 mm, length 20 cm, consisting of: Spring Handle, Outer Tube, Forceps Insert.USFDA, CE approved. Qty-1
Two part laparoscopic Bipolar Grasping Forceps, CLERMONT- FERRAND MODEL, with especially fine atraumatic serration, fenestrated with connector pin for bipolar coagulation, 360 degree rotational sheeth, size 3.5 mm, length 20 cm,double action jaws, ergonomic Plastic handle with larger contact area, can be dismantled with the press of a button, USFDA, CE approved. Qty-1
Knife – ALAIN-GROUSSEAU Pylorotome, distendable, size 3 mm, length 20

cm.USFDA, CE approved. Qty-1
Laparoscopic SATINSKY Clamp, short version, length of jaws 8 cm, depth of jaws 2 cm, straight sheath, size 10 mm, length 30 cm, with axial ring handle, ratchet with security locking device. USFDA, CE approved. Qty-1
Needle Holder – Macro needle holder with tungsten carbide insert, dismantling into three parts namely, outer tube, handle and inserts, ergonomic pistol handle, with disengageable ratchet, jaw Straight, size: 5mm, length : 33cm for use with suture material size: 0/0 to 7/0.USFDA, CE approved. Qty-1
Needle Holder – Macro needle holder with tungsten carbide insert, dismantling into three parts namely, outer tube, handle and inserts, ergonomic pistol handle, with disengageable ratchet, jaw curved to left, size: 5mm, length : 33cm for use with suture material size: 0/0 to 7/0.USFDA, CE approved. Qty-1
Injection needle, LUER-lock, diameter 1.2 mm, size 5 mm, length 36 cm.USFDA, CE approved.Qty-1
Endo-Loop Ligature, with ROEDER- knot, for bleeding stumps, with absorbable synthetic thread, sterile, package of 12, USP 0.USFDA, CE approved.Qty-1
Knot Tier, for extracorporeal knotting, size 3 mm, length 20 cm.USFDA, CE approved.Qty-1
Two part laparoscopic autoclavable Percutaneous Pyloric Spreader, rotatable, 360 degree rotational sheath, with LUER Lock adaptor for cleaning size 3 mm, length 20 cm, ergonomic metal handle with plastic finger rings with larger contact area at the finger ring to avoid pressure sores, can be dismantled with the press of a button, USFDA, CE approved. Qty-1

Operating Room High Definition Video System for laparoscopy and endourology OR HD Video System:

Equipment Cart :wide, high , rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, central beams with integrated electrical sub distributors with 12 sockets, grounding plugs, Dimensions in mm (w x h x d):Equipment cart: 830 x 1474 x 730 (approx.),Shelf: 630 x 25 x 510(approx.) Caster diameter: 150mm(approx.) ,consisting of:- Beam Package, equipment cart high 3 X Shelf, wide , Drawer Unit with Lock, wide, - 2X Equipment Rail , long, - Camera holder. Monitor Holder, Monitor Holder , height adjustable , swiveling and tilting , swivel range approx. 360 degrees.Load capacity max 18 kg, with monitor fixation VESA 75/100.USFDA, CE approved.

Documentation system for digital recording of still images and videos:Pre-configured complete system for intra-operative recording of still images and videos and for entering of patient data.Characteristics of the system::Structured and well-arranged control menus and user guidance.Optimized for control via the front plate of the system and via a

keyboard. Possibility of control from sterile field via camera head buttons for recording still images and videos. Recording from clinical video sources: Still images and videos up to FULL HD resolution. Digital inputs: DVI and HD-SDI. Analog inputs: Y/C (S-Video), RGB and Composite. Storage of data on external USB storage medias (external hard disk or stick), internal hard disk or a network. Quickprint function for fast print of images. Recorded data can be edited. Possibility of cart installation with a screen. Technical data: Input voltage: 100-240 VAC. Input frequency: 50/60 Hz. Power input: 1.6A (250 VAC). Power output: 25 Watt. Potential equilization: according to DIN 42801. Potential equilization: according to DIN 42801. Potential equilization: according to DIN 42801. Hard disk: 320GB. USB connections: USB2.0, High-Speed (1 front connection, 2 connections on the rear). Printer support: Color printer Sony UP-DR80MD for medical applications. Networking: RJ45 10/100/1000 Ethernet. External storage: USB-drives (sticks oder hard disks), networks. Image formats: BMP, JPG, TIFF. Video formats: MPEG-4 (H.264). Supported resolutions: 1920x1080, 1280x1024, 1280x720, 1024x768, 800x600, 640x480. Video signal inputs: DVI-D, HD-SDI, Y/C (S-Video), RGB, Composite. Color systems: PAL, NTSC. Resolution images and videos: up to 1920x1080, aspect ratio 16:9. Dimensions: 305mm x 75,5mm x 233mm (w x h x d). Weight: 1.8 kg. Type approval: IEC 60601-1-1, EN60601-1, EN60601-2. Classification: CE, MDD. Type of protection: IP20. Protection class: 1/B. Medical product: yes. Consisting of: Control unit. Compact keyboard with touchpad. DVI-D cable. USB stick. Power cable. USFDA, CE approved.

Full High Definition Three Chip Camera System: Camera control unit with 3 chip HD camera head, Pure Digital signal with high definition video(1920*1080 P) with aspect ratio 16:9 with DVI, SDI & S-VHS output. Integrated Flexible Scope filter. Progressive scan technology. Brightness Control. Aperture Control. . Automatic digital Image Enhancer. . Digital zoom and parfocal optical zoom 14-30mm,& white balance. . Integrated Gain/shutter/Enhancement with brightness control. . Two peripheral control on camera head (System should have facility of controlling additional equipments like light source/ insufflators and recording device from the camera head.). . The camera head should have integrated zoom and focus lens to make it fully soakable. . Should be IEC 601-1, CE according to MDD.

High Resolution HDVideo medical Monitor: 26" High Definition Medical grade Monitor, resolution 1920 X 1080 with DVI input, 1080 p/ 50 & 1080 p/60 displays possible, LED crystal display. Aspect Ratio 16:9 HD format. option for wall mounting and desktop in same unit, Fast response time:(5-12ms). Number of colors:16.8 million. Luminance: 400cd / m². Contrast ratio: 1000:1, Vertical/Horizontal Viewing Angle:178 degree. Video Inputs : 2* DVI-D , 2* 3G SDI, 1* S Video , Composite 1* RGB/VGA , 1* RS 232 , 1* RJ 45 Interface. Output: 1* DVI , 1* 3G SDI, 1* S-Video , Accessories External 24VDC Power Supply, Mains Cord, Pedestal. Certified to : EN 60601-1, protection class IPX 1.

Xenon Light Source: Xenon light source of 300 Watts. Should be able to produce color temperature of 6000 K. Should have continuous manual adjustment of light output, Should be offered with one spare xenon lamp 300 watts. Should be certified IEC 601-1 and CE according to MDD.

Fiber Optic Light Cable: Fiber Optic light cable of actual bundle size: 4.5-4.8mm, length : 250cm. Fiber Optic light cable of actual bundle size: 3.0-3.5mm, length : 250cm.USFDA, CE approved.

Schedule I Item No. 58, 59, 68, 74, 78, 88 should be read as a single item and Item No. 58 of Schedule I is named as – “Video endoscopy System-Adult” and Specifications are to be read as follows :-

Video endoscopy complete unit - Adult (Gastrovideoscope, Colonovideoscope, Video ERCP Scope (Side Viewing), Video Processor, Light Source 300 Watt light (Xenon short arc Ozone free 300 Watt lamp), High Definition LCD Monitor, 1-C Computer, Endoscopy trolley for instrument, Printer)

Individual item prices are also to be uploaded from 58.1 to 58.9. The sum of these individual items should be equal to price of complete Video endoscopy system-Adult. Ordering authority may either place the order for complete quoted system or for any individual items as per their choice during the RC period.

Bidders are requested to quote prices of complete systems as well as for individual items falling under complete system.

1. Gastrovideoscope:-

- Built in HDTV compatible CCD with close focus observation capacity.
- Suitable for Narrow Band Imaging/FICE/I-Scan.
- Fully immersible in disinfectant solution (no need to attach water resistant cap) & one touch connectivity.
- In built scope identification memory chip for monitor display of scope's model no.serial no., white balancing memory, no. connections/cummulative uses etc.
- Auxilary water jet for mucosal cleaning.

Field of View	:	Normal/Near focus 140 degree or more
Direction of View	:	0 degree, forward viewing
Depth of field	:	Near 2-6 mm, Normal 5-100 mm or better
Distal end out diameter	:	9.9 mm or less
Insertion tube outer diameter	:	9.9 mm or less
Tip bending range	:	Up 120 ⁰ , down 90 ⁰ , left & right 100 ⁰
Working length	:	1030 mm or more
Channel inner diameter	:	2.8 mm or more
Minimum Visible distance of Instrument used through channel		3 mm or closer from distal end

2. Colonovideoscope:-

- Built in HDTV compatible CCD.
- Should have Narrow Band Imaging/ FICE/I-Scan for detailed mucosal study

- Inbuilt features like Variable stiffness, High force transmission & passive bending for ease of insertion.
- Fully immersible in disinfectant solution (no need to attach water resistant cap) & one touch connectivity.
- In built scope identification memory chip for monitor display of scope's model no. serial no., white balancing memory, no. of connections / cumulative uses etc.
- Auxiliary water jet for mucosal cleaning

Field of View	:	In Normal focus 170 deg, In Near Focus-160 deg or more
Direction of View	:	0 degree, forward viewing
Depth of field	:	Near 2-6 mm, Normal 5-100 mm or better
Distal end out diameter	:	13.2 mm or less
Insertion tube outer diameter	:	12.8 mm or less
Tip bending range	:	Up 180 ⁰ , down 180 ⁰ , left & right 160 ⁰
Working length	:	L : 1680 mm I: 1330 mm or more
Channel inner diameter	:	3.7. mm or more
Minimum Visible distance of Instrument used through channel	:	4 mm (Normal) or closer from distal end

3. **Video ERCP Scope (Side Viewing) :**

- Dual (separate) inlet ports for better air and water transmission.
- Compatible with leak testing device with auto regulated air flow and pressure.
- Four or more no of use programmable remote control switches on control body.

Field of View	:	100 degree or more
Direction of View	:	5 degree backward oblique viewing
Depth of field	:	5 to 60 mm or better
Distal end out diameter	:	13.5 mm or less
Insertion tube outer diameter	:	12.5 mm or less
Tip bending range	:	Up 120 ⁰ , down & left 90 ⁰ , right 110 ⁰
Working length	:	1240 mm or more
Channel inner diameter	:	4.2 mm or more

4. **Video Processor:**

- Should be compatible with Analog, HD-SDI and DVI output & 16:10 output for a HDTV monitor should be available.
- Should contain the electronics to operate clear visibility of near & far objects.
- Equipped with high resolution HDTV imaging capacity.
- Compact, light weight (10-15 Kg) and ergonomically designed.
- Narrow band imaging capacity for compatibility with NBI videoscopes/FICE/I-Scan.
- Recording of both still & moving images.
- Equipped with one touch connection scopes.
- Portable memory & USB slot for image recording.
- Automatic IRIS control.

5. **Light Source 300 Watt light (Xenon short arc Ozone free 300 Watt lamp):**

- Equipped with Narrow Band Imaging/FICE/I-Scan capability with high intensity Xenon light source.
- Compatible for waterproof one touch connector.

- Equipped with Narrow Band Imaging/ FICE/I-Scan.
- Backlit front panel indicators.
- Equipped with automatic light adjustment forced air-cooling, regulated air feeding pump and fan with low noise.

6. High Definition LCD Monitor:

- 26 inch full HD LCD monitor with high resolution 1920X1200 (WUXGA).
- Lower power consumption.
- Aspect ratio 16:9 & 16:10 with output of (1080/601:NTSC) (1080/501:PAL)with RGB or YPbPr.
- Should have Picture-in-Picture and Picture-out-Picture for viewing side-by-side.
- Split screen images.

7. 1-C Computer:

- Window 7 with multimedia DVD writer and Drive, Scroll mouse, 500 GB HDD or more, special software for recording endoscopic procedures, 15" colour monitor, Photo quality inkjet printer, UPS with 1 hour back up with software for imaging

8. Endoscopy trolley for instrument

9. Printer: -

Standard Image printer should be provided for printing of image during the procedure.

Item No. 59 of Schedule 1 is named as – “Video endoscopy System-Paediatric” and Specifications are to be read as follows:-

Video endoscopy Complete unit- Paediatric (Paediatric Sigmoidoscope & colonoscope, Pediatric Video Gastroscope, Video Processor, Light Source 300 Watt light (Xenon short arc Ozone free 300 Watt lamp), High Definition LCD Monitor, 1-C Computer, Endoscopy trolley for instrument, Printer)

Individual item prices are also to be uploaded from 59.1 to 59.8 The sum of these individual items should be equal to price of complete Video endoscopy system-

Pediatric. Ordering authority may either place the order for complete quoted system or for any individual items as per their choice during the RC period.

Bidders are requested to quote prices of complete systems as well as for individual items falling under complete system.

1. Paediatric Sigmoidoscope & colonoscope

Angulation	Angulation Range Up	180
	Angulation Range Down	180
	Angulation Range Right	160
	Angulation Range Left	160
Insertion Tube	Insertion Tube Diameter	13.3 mm
	Instrument Channel Diameter	3.7 mm
	Working Length	73 cm
	Total Length	103cm
Optical System	Field of View	140
	Direction of View	Forward
	Depth of Field	5-100 mm

2. Pediatric Video Gastroscope

Flexible Video Endoscope
Product Name
Pediatric Gastroscope

Angulation Range Up 210
Angulation Range Down 90
Angulation Range Right 100

Product Information
Class Flexible Video Endoscope
Pediatric Gastroscope

Type of Scope Gastroscope

Angulation Range Up 210
Angulation Range Down 90
Angulation Range Right 100
Angulation Range Left 100
Insertion Tube Diameter 5.5 mm or more
Instrument Channel Diameter 2 mm or more
Working Length 103 cm
Total Length 133 cm
Optical System Field of View 120
Direction of View Forward
Depth of Field 3-100 mm
Compatible With
Light Sources.

3. Video Processor:

Should be compatible with Analog, HD-SDI and DVI output & 16:10 output for a HDTV monitor should be available.

Should contain the electronics to operate clear visibility of near & far objects.

Equipped with high resolution HDTV imaging capacity.

Compact, light weight (10-15 Kg) and ergonomically designed.

Narrow band imaging capacity for compatibility with NBI videoscopes/FICE/I-Scan.

Recording of both still & moving images.

Equipped with one touch connection scopes.

Portable memory & USB slot for image recording.

Automatic IRIS control

4. Light Source 300 Watt light (Xenon short arc Ozone free 300 Watt lamp):

- Equipped with Narrow Band Imaging/FICE/I-Scan capability with high intensity Xenon light source.
- Compatible for waterproof one touch connector.
- Equipped with Narrow Band Imaging/ FICE/I-Scan.
- Backlit front panel indicators.
- Equipped with automatic light adjustment forced air-cooling, regulated air feeding pump and fan with low noise.

5. High Definition LCD Monitor:

- 26 inch full HD LCD monitor with high resolution 1920X1200 (WUXGA).
- Lower power consumption.

- Aspect ratio 16:9 & 16:10 with output of (1080/60i:NTSC) (1080/50i:PAL)with RGB or YPbPr.
- Should have Picture-in-Picture and Picture-out-Picture for viewing side-by-side.
- Split screen images.

6. 1-C Computer:

- Window 7 with multimedia DVD writer and Drive, Scroll mouse, 500 GB HDD or more, special software for recording endoscopic procedures, 15" colour monitor, Photo quality inkjet printer, UPS with 1 hour back up with software for imaging

7. Endoscopy trolley for instrument

8. Printer: -

Standard Image printer should be provided for printing of image during the procedure.

New Addition:-

Schedule I Surgery Item No. 88 as Compact Holmium Laser 65 Watt with Ultrasonic & Pneumatic system whose specification would be read as :-

Should be Modularized, Ease of Use and Small & compact.
Should be combination of three-in-one laser lithotripter i.e. Holmium Laser lithotripter, Ultrasonic Lithotripter & Pneumatic Laser Lithotripter.
Should have functions of Touch Screen control, Energy tracking and feedback, User access control, water cooling system and temperature monitoring.
Should have temperature monitor to monitor room and device temperature.
Should have user friendly interface for language switch with 1 key and password protection.
Should have automatic monitoring and error prompt for error warning.
Should have Laser system, Ultrasonic and pneumatic system for all type of stone rigidity.
Should have Electrical requirement 220 V, 50/60 Hz
Manufacturer should be ISO: 9001 & ISO: 13485 Certified.
Product should be European CE/ USFDA approved.

Technical Specifications:-

Laser Type	Holmium Laser
Laser wavelength	2100nm
Average power	65W
Display	532nm/10mW adjustable
Operation mode	Touch screen
Energy	0.5J~4.0J
Frequency	6~40Hz

Power fluctuations	$\leq +10\%$
Pulse width	160us~550us
Optical fibers size	200um, 270um, 365um, 400um 500um, 550um, 600um, 800um
Ultrasonic system	
Max Power	1200W
Frequency	20-30 kHz
Amplitude	$\leq 50\mu\text{m}$
Probe size	Length: 403 $\pm 10\text{mm}$ External diameter: 3.3 $\pm 0.2\text{mm}$ Thickness: 0.55mm
Working mode	Continuous /pulse
Pneumatic system	
Frequency	1~12Hz
Amplitude	$\leq 100\ \mu\text{m}$
Probe size	Length: 403 $\pm 10\text{mm}$ External diameter: 20 $\pm 0.2\text{mm}$ Thickness: 1.4mm
Working mode	Continuous /pulse

Schedule 3 Item No. 23 Specification of Flash Autoclave to be replaced by Cassette Autoclave

The Technical Specification of Cassette Autoclave to be read as follows:-

Technical Specification:

- Should be a removable stainless steel cassette, when inserted into the insulated steel receptacle, forms the sterilization chamber.
- It should be utilized a pressure pulse method of dynamic air removal and also designed with a much smaller sterilization chamber that allows for a faster turnaround time for smaller loads.
- Should have ultrafast 9 minute unwrapped cycle and 17.5 minute wrapped cycle.
- Should be single use water, exceptional instrument turnover, aseptic transfer of instruments directly to the point of use and reduced instrument investment.
- Should have 15 minute Dri-Tec drying technology.
- Should have choice to use external printer or data logger.
- Should be European CE / USFDA Approved

- Cassette Size (External): 498mm (L) includes handles x 200mm (W) x 85mm (H) ± 5 mm
- Cassette Size (Internal): 385 (L) x 185 (W) x 80mm (H) ± 5 mm
- Sterilization Chamber Volume: Not more than 5.1 L
- Reservoir volume: Not more than 4.0 L
- Max. Operating pressure: 341 kPa abs
- Max. Steam Temperature: 138 deg C
- Machine dimension: 555mm (L) ± 5 mm x 415mm (W) ± 5 mm x 195mm (H) ± 5 mm
- Weight (Without water): Not more than 32Kg ± 1 kg
- Power Supply: 220-240 V, 50/60 Hz

- Clearance required:
 - Top 50mm (1.9") ± 1 mm
 - Sides 50mm (1.9") ± 1 mm
 - Back 50mm (1.9") ± 1 mm
 - Front 570mm (22.4") ± 1 mm