

**OFFICE OF THE DIRECTOR
GAMBAT INSTITUTE OF MEDICAL SCIENCES, GAMBAT**



**Tender Document for Supply of Machinery / Equipment at Gambat Institute of
Medical Sciences for Financial Year 2015-16**

M/S _____

Due on: 29-10-2015 at 12:30pm

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1(a) INVITATION FOR BIDS

Date: _____

ADP No: _____

Bid reference No: _____

1. The Director Gambat Institute of Medical Sciences invites sealed bids (the **financial envelop** should be separated with earnest money of 2.5% for each item), from eligible firms a foreign Bidders is entitled to bid only in joint venture with a Pakistani contractor having manufacturing facility in Pakistan.
2. Bidders may obtain further information from, inspect at and acquire the bidding documents from the office of the Director Gambat Institute of Medical Sciences.
3. A complete set of Bidding Documents may be purchased by an interested Bidder s on submission of a writing application to the above office and upon payment of a non-refundable fee of **Rs.3000/-**
4. All bids (Technical must be accompanied by a Bid Security in the amount of **2.5% of Bid Amount** in the form of Security deposit, Bank Draft / Pay order on bid security from or in the form of deposit at call or from a foreign bank duly counter guaranteed by a schedule bank of Pakistan in favor of Director Gambat Institute of Medical Sciences and must be delivered to office of the Director Gambat Institute of Medical Sciences, Gambat District Khairpur (Mir's) Sindh at or before 12:00noon on dated 29-10-2015 Bids will be open at 12:30pm on the same day, in the presence of Bidders representatives who choose to attend at same address.

Address:-

**OFFICE OF THE DIRECTOR
GAMBAT INSTITUTE OF MEDICAL SCIENCES,
GAMBAT, DISTRICT KHAIRPR (MIR'S) SINDH.**

**Director
Gambat Institute of Medical Sciences,
Gambat**

1(b) CHECK LIST

The provision of this checklist is essential prerequisite along with submission of tenders.

S/NO	DETAILS	YES / NO	PAGE# ANNEX.
KNOCK OUT CLAUSES			
1	Original receipt for purchase of tender Original receipt for purchases of tender for each alternate		
2	The financial envelops should be separated of each item, clearly marked company name and quoted serial item number and name		
3	Copy of earnest money without amount in technical bid		
4	Acceptance of terms and condition, tender documents duly signed and stamped		
5	Sole agency certificates [as per annex: A]		
6	Proof of past import of quoted items from manufacturers (copy of bill of entry & etc)		
7	Original Literature/ Brochure of product showing complete contact details of the manufacturer (as per annex. B)		
8	Copy of previous installation reports in reputable Govt./Private teaching hospitals		
9	Copy of GST Certificate		
10	Copy of NTN Certificate		
11	Copy of Last three years paid income tax challan		
12	Copy of registration with chamber of commerce		
13	Copy of registration with PNRA in case of X-Ray, Ultrasound.		
14	Bank certificate showing financial capability		
15	Bidders questioner proforma for bid evaluation		
16	Price should not be mentioned on technical bid		
17	Certificate / documentary proof of the effect that the Principal is the original manufacturer of the required goods (major components, mainframe, etc)		
18	Certificate regarding quality of production for conformity with international Standards (Copy of certificate FDA, CE, JIS [as per annex.C])		

Signature & seal (bidder): _____

3. TERMS AND CONDITIONS:

- 3.1 Bid should remain valid for 90 days from the date of financial opening.
- 3.2 Bidders shall quote their price on C.I.F for Gambat Basis. FOR Offer should be inclusive of all duties/Taxes/Octroi/Transportation etc. and all other expenses on free delivery to consignees end at Gambat Institute of Medical Sciences.
- 3.3 Price should be quoted for both C.I.F and FOR basis in Figure and words failing which the offer will be ignored.
- 3.4 Free installation along with all accessories including labor charges/Demonstration at consignees end must be borne by the bidder.
- 3.5 03 years free service from the date of installation and undertaking regarding availability of spare parts for at least 08-10 years may also be confirmed by the bidder.
- 3.6 Sole agent certificate for the quoted items from the Manufacturer must be attached by the bidder. Certificate should valid for three years from the date of issue which should be verifiable by concern authority.
- 3.7 Bidders are required to submit proof of past import of quoted items from Manufacturer by submitting copy of bill of entry (Custom Clearance documents). Bill of landing / Airway bill and etc.. along with their bid.
- 3.8 The supplier will be bound to train nominated technical personnel to operate / repair and maintain the supplied equipment.
- 3.9 Bidders should confirm the presence of Manufacturers trained service/installation Engineers/Technicians and provide the detail of their working experience, Manufacturer training Certificate, list of tools and test equipment, approximate area of workshop in the premises of their office and address along with the bid.
- 3.10 List of hospitals, name of department, contact numbers of the end users, in which the quoted equipment are working must be attached. Copy of previous installation report in a reputed Govt./Private |Teaching Hospitals/ repair certificate if any, of the similar quoted items from the end user should be attached along with the bid.
- 3.11 In case of purchase of C.I.F, the bidder will bear the charges of clearing agent. Godown Rent, Airline D/O charges and all other charges including Transportation to consignees end excluding custom duty and tax. Certificate will be issued by this office to clarify that the import has been made for the hospital in question so as to avail the facility of exemption of duties/taxes as per Government Rules.
- 3.12 In this tender envelops procedure as per SPPRA 2010 rules will be followed i.e. Technical and Financial proposal separately, i.e. single stage two envelops system. The envelope must contain tender enquiry no. on the top and TECHNICAL/FINANCIAL PROPOSAL clearly in order to avoid any confusion. The tenders shall be submitted with all documents, drawing literature & catalogue (in equipment) in Technical proposal, with sealing wax. The name of manufacturer or supplier should be affixed on the face of envelop at the left side, moreover, financial envelops should contain financial bid each item separately.
- 3.13 tenders must be filled in with blue or black ink in the column provided and on separate letter head duly signed.
- 3.14 The tenders must be free from erasing, cutting and overwriting. in case of erasing, cutting and overwriting, authorized person should initial it.
- 3.15 The rates of each item should be written in figures as well as in words. In case of discrepancy the price in words will be taken as authenticate and final.
- 3.16 Conditional tenders will be ignored and will not be considered / entertained / accepted.
- 3.17 tender shall be accompanied by Earnest Money @ 2.5% of the value of stores quoted by them in form of call deposit / pay order/demand draft in the name of Director Gambat Institute of Medical Sciences, Gambat.
- 3.18 Copy of earnest money (without amount) must be attached along with the technical bid and the original along with financial bid in case of disclosure of price or amount of Earnest Money in the technical bid, the bid will be rejected.
- 3.19 Original purchase receipt must be enclosed with their technical offer.
- 3.20 The tender rate (FOR) price should be inclusive of all taxes. Income and sales tax etc payable to Federal and Provincial Government or local bodies and no claims on these accounts shall be entertained.
- 3.21 The bidder shall furnish General Sales Tax (GST) Registration Certificate of the firm failing which the offer will be ignored. In case the item is exempted from GST either documentary evidence or certificate from competent authority shall be attached with the offer.

- 3.22 The bidder shall furnish copy of valid Professional Tax Certificate, Income Tax Certificate; Last three years paid income tax Challan, proof of registration with Chamber of Commerce.
- 3.23 For the X-ray Equipments, bidders must submit a valid copy of Registration with PNRA (Pakistan Nuclear Regulatory Authority).
- 3.24 Bidder should submit a fresh ban certificate showing strong financial capability of firm.
- 3.25 the original printed catalogue / technical brochure showing detail technical specification, clear photo/picture of the quoted item, Manufacturers address, Phone number , e-mail address and website must accompany with offer.
- 3.26 The equipment to be imported comply/certificate at CE / FDA standards certificate should be attached along with the offer.
- 3.27 Store is required immediately. The tenderer, may however give their short guaranteed delivery period by which the supply will be completed positively.
- 3.28 If the Contractor fails to attain completion of the supply or installation within the time for completion, he shall pay to the purchaser liquidated damages at the rate of 2% per month (0.5% per week) of the Contract Price, or the relevant part thereof. The aggregate amount of such liquidated damages shall in no event exceed 10% of the bid amount. Once the "Maximum Limit" is reached, the purchaser may consider termination of the Contract.
- 3.29 Tenderers are required to furnish a detail technical quotation on their letter head and specify the standard and optional items / accessories as required in the tender specification. Bidder should clearly mention make, model and country of origin of the quoted items.
- 3.30 Choice to select /ignore any alternate offers shall rest with the purchaser.
- 3.31 tenders shall purchase separate tender documents and furnish purchases receipt for each alternate offer in case they want to submit alternate offers without separate purchase receipt (original) are supposed to be rejected.
- 3.32 No manufacturer shall authorize their distributor/ agent/ any firm or person to quote the same item which manufacturer quoted it-self in any tender. Failing that offer of both the manufacturer as well as other bidder shall be ignored.
- 3.33 The bidder shall comprise a single package containing two separate envelops. Each envelops shall contain separately the financial proposal and the technical proposal.
- 3.34 The envelops shall be marked as "FINANCIAL PROPOSAL" and "TECHNICAL PROPOSAL" in bold and legible letters to avoid confusion.
- 3.35 Initially only envelops marked as "TECHNICAL PROPOSAL" shall be retained in the custody of the procuring agency without being opened.

4. PURCHASER'S RIGHT TO VARY QUANTITIES AT TIME OF AWARD.

The purchaser reserve the right to increase/decrease or delete the quantities of goods etc at the time of award of contract and also reserve the right to enhance the quantity goods and services originally specified in the schedule of requirements without any change in unit price of other terms and conditions of goods at any time during contract period.

5. NOTIFICATION OF AWARD/ADVANCE CONTRACT:

- 5.1 Prior to the expiration of the period of the bid validity, the purchaser will notify the successful bidder in writing, delivery by hand or by register by cable to be confirmed that their bid has been accepted.
- 5.2 The notification of award will constitute the formation of the contract.

6. AWARD OF CONTRACT AND CONTRACT AGREEMENT.

Subject to the fulfillment of all codal formalities, the purchaser will award the contract to the successful bidder whose bid has been determined to be qualified to perform the contract satisfactory.

7. PERFORMANCE SECURITY.

The successful tenderers will have to deposit with the purchase security depots as under in shape of call deposit / bank guarantee at the rate of 2.5% of the value of the contract.

8. PAYMENT TERM:

- 8.1 in case of purchase on CIF, this office will establish Letter of credit for 80% of contract value in favor of Manufacturer, remaining 20% payment will be release in the equivalent Pak. Rupees of CIF amount after

successful completion of delivery of equipment at consignee end. Insurance charges for opening L/C and the difference in currency fluctuation will be borne by bidder.

8.2 Terms of payment for F.O.R purchase 100% after supply of equipment at consignee end.

9 FEE FOR AWARD OF CONTRACT:

9.1 Stamp duty @0.3% shall be borne by the suppliers.

10. UNDERTAKING

10.1 That I/We agree whether our tender accepted for total partial or enhanced quantity for all or any single item. I/We also agreed to supply and accept the said item at the rates for the supply of contracted quantity within the stipulated period shown in the contract.

10.2 I/We understand and confirm the refund of cost different if the same good is/was supplied at lower rates to any other Government / Semi Government Institution in the Province in same fiscal year.

10.3 I/we undertake that: that I any of the information submitted in accordance to this tender enquiry found incorrect our contract may be cancelled at any stage on our cost and risk.

11. CERTIFICATE

We guarantee to supply the sores exactly in accordance with the requirement specified in the invitation to this tender

Signature of Tenderer: _____

Name & Designation _____

Address _____

12. CRITERIA FOR EVALUATION OF BIDS

Quality and the following evaluation factors criteria will be employed on technical proposals. The number of points allocated to each factor shall be specified in the evaluation report. Only bids securing minimum of 70% marks would be considered for further process.

EVALUATION CRITERIA (ELECTRO-MEDICAL EQUIPMENTS)

S/NO	13. ASSESSMENT PARAMETER	Marks
13.1	Availability of technical staff of the company / firm in reference to the product.	15
Following two companies shall be considered ascertain the availability / expertise of technical staff: A. Number of technical staff i) At least two technical staff members 05 ii) 01 additional number for every additional technical member shall be granted with maximum up to 05 B. Technical staffs academic qualification 05 B.Sc degree in (Bio-medical / Electronic) Engineering from recognized institution shall be granted one additional mark. How ever. B. Tech shall not be considered for additional mark. M.Sc / Master degree holder from recognized institution shall be 2 additional marks.		
13.2	Manufacturer's local agent capacity for technical services with reference to the product.	15
1. Repair workshop facility with the diagnostic tools and test equipment as submitted along with the quotation 03 2. Physical size and facility of workshop attached photo. 03 3. Test and diagnostic tools list. 03 4. Service manual and other technical documentation list. 03 5. Availability of spare parts and accessories at workshop list 03		
13.3	FINANCIAL SOUNDNESS	12
1. Income tax paid challan for last three years 04 Balance sheet, audited for the last financial year 08 OR Bank statement for the last financial year 06 If balance sheet and bank statement both are deposited then only marks of balance sheet (8 Marks) would be counted. Tapering down phenomenon regarding rating of marks shall be applied on competitive firms		
13.4	Overall reputation in reference to the product (cliental)	10
Overall reputation of the product shall be envisaged by following criteria: A. References / certificates provided regarding performance of the product from head of the concern institute / hospital. B. References/ Certificates of the product shall be verified by the department independently C. Attestation of being Category "A" D. Purchaser have right to exercise Market Survey / Internet Exploring Survey give indicator marks.		
13.5	General overall sale turnover of the organization	10
A. 60% or more sales proportion of medical equipment (quoted items) 08 B. 40% or more sales proportion of scientific equipment 02		
13.6	International Sales and country of origin of quoted item	15
A. Sale of product in two or more continents 10 B. Sales of production in single continent 05		
13.7	Product Certification	10
Certificate FDA /CE (MDD)/JIS A. Any two certificates 10 B. Any one certificate 05		
13.8	Exclusive Agency Certificate , Attested by Embassy, & Chamber of Commerce from native Country of Manufacturer	08
A. 10 years or more for each products or 08 B. 5 years or more for each products 05 C. Less than 3 years 03		
13.9	Other	05
Submission of original brochures and required certificates as per tender terms and Conditions. 05		

Assessment parameter: 13.1.1

Availability of technical staff of the company/firm in reference to the product:

1. Total Number of Technical Staff: _____
2. No. of B.Sc. degree in Bio-Medical Engineering holder _____
3. No. of B.Tech / Diploma holder _____
4. No. of MSc / Master Degree holder _____
5. Details of Engineers _____

S/NO	Name of Engineer	Qualification	Experience No of Years	Manufacturer's training with name of equipment and duration

Signature: _____

Seal: _____

ASSESSMENT PARAMETER: 13.2.1

Manufacturer's local agent capacity for technical services in reference to the product.

Physical size and facility of workshop_____

(Please attach photograph or picture of your workshop)

Details of test and diagnostic tools:_____

(Please attach a separate sheet describing the test and diagnostic tools)

Details of service manual and other technical documentation:_____

(Please attach a separate sheet describing the detail of manuals and other supporting documents)

Detail of separate parts and accessories available at workshop:_____

(Please attach a separate sheet mentioning the list of spare parts and accessories)

Assessment Parameter:13.3.1

Financial Soundness

Copy of Income Tax Paid Challan for last three years:_____

Copy audited balance sheet by a recognized audit firm:_____

OR

Copy of Bank statement for the last financial year:_____

Assessment Parameter:13.4.1

Overall reputation in reference to the product (Cliental)

No of References_____

(Reference will be verified)

No of Certificates, regarding performance of the product from head of concerned institute/hospital_____

Signature:_____ **Seal:**_____

15. BID FORM AND PRICE SCHEDULE

Dated: _____

Tender No. _____

To:

[name and address of Procuring agency]

Gentlemen and/or Ladies;

Having examined the Bidding Documents including addenda nos: [insert number's], the receipt of which is hereby duly acknowledged, we, the under signed, offer the supply and deliver [description of goods and service] in conformity with the said Bidding Documents for the sum of [total Bid Amount in words and figures], or such other sums as may be ascertained in accordance with the schedule of Price attached herewith and made part of this bid.

We undertake, if our bid is accepted, to deliver the goods in accordance with delivery schedule specified in the schedule of requirements.

If our bid is accepted, we will obtain a guarantee of a bank in the sum of equivalent to _____ percent of the Contract Price for the due performance of the Contract, in the form prescribed by the Procuring Agency.

We agree to abide by for a period of [number] days from the date fixed for bid opening as per bid terms and condition, and it shall remain binding upon us and may be accepted at any time before the expiration that period.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding Contract between us.

Commissions of gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded to contract, are listed below;

Name and address of agent	Amount and Currency	Purpose of commission or gratuity
_____	_____	_____
_____	_____	_____

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this _____ day of, 2015

Signature: _____

In the capacity of: _____

Duly authorized to sign bid for and on behalf of _____

16. BID SECURITY FORM

Where as [name of bidder] (hereinafter called the Bidder) has submitted its bid dated [date of submission of bid] for the supply of [name /or description of goods] (hereinafter called the bid).

KNOW ALL PEOPLE by these presents that we [name of bank] of [name of country], having our registered office at [address of bank] (hereinafter called the bank) are bound up to [name of procuring agency] (hereinafter called "The procuring Agency") in the sum of for which payment well and truly to be made to said procuring agency, the bank binds itself, its successors and assigns by these presents. Sealed with the common seal of the said bank this _____ day of _____, 20_____

The conditions of this obligation are:

1. If the bidder withdraws its bid during the period of bid validity specified by the bidder on the bid for:

Or

2. If the bidder, having been notified of the acceptance of its bid by the procuring agency during the period of bid validity:
3. Fails or refuses to excuse the contract form, if required; or
4. Fails or refuses to furnish the performance security, in accordance with the instruction to bidders.

We undertake to pay to the procuring agency up to the above amount upon receipt of its first written demand, without the procuring agency having to substantiate its demand, provided that in its demand the procuring agency will note that the amount claimed by it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including twenty eight (28) days after the period of bid validity, and any demand in respect thereof should reach the bank later than the above date.

[Signature of Bank]

17. CONTRACT AGREEMENT

THIS AGREEMENT made at _____ day of 20_____ between [name of procuring agency] of [country of procuring agency] (herein after referred to as the "Procuring Agency") of the one Part; and [name of supplier] of [city and country of supplier] (herein after called the "Supplier") of the other Part.

WHERE AS the Procuring Agency invite bids for certain goods and ancillary services, viz [brief description of goods and service] and has accepted the bid by the Supplier for the supply of those goods and service in the sum of [contract price in words and figures] (hereinafter called "the contract price")

Now this Contract Witness as Follows:

1. In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of this Contract hereinafter referred to:
2. The following documents shall be deemed to form and be read and construed as part of this agreement, viz:-
 - a. The Bid form and Price Schedule submitted by the Bidder;
 - b. The Schedule of requirements;
 - c. The technical Specification;
 - d. The General Conditions of Contract;
 - e. The Special Conditions of Contract;
 - f. The Procuring Agency's Notification of award;
3. In consideration of the payments to be made by the Procuring Agency to the Supplier as hereinafter mentioned, the supplier hereby covenants with the Procuring Agency to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of this Contract.
4. The Procuring Agency hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of this contract at the time and the manner prescribed by this Contract.

IN WITNESS whereof the parties here to have caused this agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____

(For the procuring agency)

Signed, sealed, delivered by _____ the _____

(For the supplier).

18. PERFORMANCE SECURITY FORM

To,

[Name of the Procuring Agency]

[Whereas name of Supplier] (hereinafter called “the Supplier”) has undertaken in pursuance of Contract No. [Number] dated [date] to supply [description of goods] (hereinafter called “the Contract”).

And whereas it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a reputable bank for the sum specified therein as security for compliance with the Suppliers performance obligations in accordance with the Contract.

And whereas we have agreed to give the Supplier a Guarantee.

Therefore we hereby affirm that we are Guarantors and responsible to you on behalf of the Supplier up to a total of [amount of the Guarantee in words and figures] and we undertake to pay upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within limits of [Amount of Guarantee] as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the _____ day of _____ 20_____

Signature and seal of the Guarantors / Bank: _____

[Name of Bank or Financial Institution] _____

[Address] _____

[Date] _____

19. MANUFACTURER’S AUTHORIZATION FORM

To,

[Name of Procuring Agency]

[Tender No]

WHEREAS [name of the Manufacturer] who are established and reputable Manufacturers of [name and/or description of the goods] having factories at address of factory]

Do hereby authorize [name and address of Supplier/ Agent] to submit a bid, and subsequently negotiate and sign the Contract with you against IBF No.[Reference of the invitation to Bid] for the goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

[Signature for and on behalf of manufacturer]

Note:

This letter of authority should be on the letter head of the Manufacturer and Should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should ne included by the bidder in its bid.

S#	Name of equipment with technical specification	Qty	CIF Price		FOR Price	
			Unit Price	Total Price	Unit Price	Total Price
1	<p><u>HIGH END ULTRASOUND SYSTEM</u></p> <p>Monitor should be 19" flat panel display (Flicker free) Vertical articulation range: 8 to 100cm Left/Right swivel articulation: ±38° Vertical articulation range: 8 to 100cm Monitor Screen resolution: 1280x1024 Contrast ratio: 800:1 System should be light weight DICOM ready Transducer ports: min 03 Hard disk capacity: 1.5 T Byte Image storage capacity: min 600,000 Read/write CD-R/DVD-R UBS ports: min 02 BW printer FDA & CE approved</p> <p>Imaging Modes 2D and Tissue Harmonic Imaging (THI) B mode with frame rate Up to 1000 fps 3D & 4D Imaging Color Doppler Velocity Color Doppler Energy M-mode M-mode and Tissue Harmonic Imaging (THI) M-mode and Color Doppler Velocity PW Doppler</p> <p>Beamforming in 2D Imaging More than 50,000 processing channels System dynamic range : 210 dB or better Depth display range: 0.5 to 30 cm Volume Rates: min 30 vps</p> <p>2D Image Processing Display dynamic range: 30 – 90 dB field-of-view range: from 15 to 90° Image zoom: 10x</p> <p>Color Doppler Velocity / Color Doppler Energy Max Color Frame Rate: min 210 fps Gain: -20 to 20 dB in 1 dB increments</p> <p>Display Details 2D/C mode, dual 2D/C mode, live dual 2D/C 2D/C/D mode (simultaneous triplex),</p>	01				

<p>2D/C/D mode (update) 2D/CDV/ Color Doppler M-mode 2D/DTI – for fetal echo 2D/DTI/PW DTI–for fetal echo 2D/DTI/Color Doppler M-mode – for fetal echo Pulsed Wave Doppler PW Sweep Speed: Up to five PW Maps: Up to eight Display dynamic range: 30 to 60 dB in 5 dB increments Gain: 0 to 90 dB in 1 dB increments Display formats: 04 DTI Doppler tissue imaging should include: DTI Velocity (DTV) capability DTI Acceleration (DTA) capability DTI Energy (DTE) capability DTI capability in color Doppler M-mode Multi-frequency probes Intraoperative L shaped probe Frequency range: 5 – 14 MHz FoV 61 mm; 40 degree Max. Display depth : 6 cm compatible with the STERRAD Sterilization System Multiple frequencies for all modes 2D, M-mode, Harmonics, Color Doppler (CDV and CDE), and PW Doppler Exam Types: Vascular and General Surgery, breast, small parts and musculoskeletal imaging Linear probe Frequency range: 4 – 9 MHz depth up to 140 mm variable 2D frequencies variable THI frequencies (independently) variable Color Doppler frequencies (independently) variable PW frequencies (independently) variable Contrast frequencies (independently) Exam Types: Breast, Cerebrovascular, Fetal Echo, Musculoskeletal, OB/GYN, Pediatric Abdomen, Pediatric Hip, Pelvis, Penile, Peripheral Vascular, Testicle, Thyroid CONVEX 4D Transducer Frequency range: 1 – 7 MHz depth up to 300 mm variable 2D frequencies variable THI frequencies (independently) variable Color Doppler frequencies (independently) variable PW frequencies (independently) Exam Types: Abdomen, Fetal Echo, OB/GYN, Pelvis, Renal Complete Cardiac imaging SW with dedicated transducer ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
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2.	<p><u>VIDEO PROCESSOR HD + WITH INTEGRATED AUDIO & VIDEO RECORDING AND INTEGRATED LIGHT SOURCE 300 WATT XENON COMPLETE ACCESSORIES.</u></p> <p>High Definition (HD+) Video Processor with Full G.I Scan management, with Integrated audio and video recording Progressive Scanning Capability Latest & Built-in integrated 300 Watt Xenon light source: High Definition HD+ images for a clear and more detailed visualization System should be HD+ Digital Video and Image Processor Digital Image Enhanced technology functions Built on a computer-based platform Direct typing on monitors, White Balance Adjuster Lever lock mechanism Digital signal processing. Dynamic range expansion. Freeze Scan. Twin Mode white light and enhanced G.I scanning image can be displayed simultaneously to support detection and demarcation. Picture in Picture , Electronic Zoom function Full G.I Scan Management with post processing technology Surface enhancement Contrast enhancement Tone Enhancement Multimodal image enhancement technology to diagnose the gastro, colon, esophago, Pit pattern, Barrett's & vasculature Integrated Video assisted LCD Touch Screen interface panel for controlling all the functions of endoscopic video processor. Integrated HD+ Video recorder.(Video, Audio and image) Micro phone for recording of audio. User interface: keyboard, touch screen and Scope buttons. Light Source: 300 Watt Xenon Light source Video Outputs: HD+ video outputs (wide screen) HD-SDI (2), DVI (1) Standard video outputs RGB, Y/C, Composite Pump: Level Settings: 5 (+1 to +5) Brightness Control Electronic Shutter & Xlum Mode Auto Mode: Average/Peak 11 steps (-5 to -1, 0, +1 to +5) Manual: 11 steps (-5 to -1, 0, +1 to +5) Color Balance: Blue: 11 steps (-5 to -1, 0, +1 to +5) Red: 11 steps (-5 to -1, 0, +1 to +5) ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>	01 each				
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HIGH DEFINITION GASTROINTESTINAL VIDEO SCOPE (ADULT) WITH PROVISION OF LATEST TECHNOLOGY G.I SCAN

High Definition & High Performance Gastrointestinal Video Scope (Adult) with provision of Latest technology G.I Scanning.

Extra ordinary HD+ Image

Excellent therapeutic options within the slimmest diameter

Full vision technology

Close focus for detailed examination and close visualization of mucosa

180° axially rotatable connector head for user safety and maneuverability

Scope should have single connector for Light source and Video processor.

Tone Enhancement for Gastro & Pit patterns (TE-G) (TE-P) Via I-scan.

Scope should have remote control assignment for I-scan functions.

Forward Water Jet System

Angle of View 140°

Depth of field 2-100 mm

Channel Diameter 3.2 mm

Insertion Tube Diameter not less than 9.8 mm

Angulations (Up/Down) 210°/120°

Angulations (Right/Left) 120°/120°

Working Length 1050 -1100 m

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

HIGH DEFINITION RETRO VIEW COLONO VIDEO SCOPE ADULT WITH G.I SCAN IMAGING TECHNOLOGY

High Definition Colono Video Scope (Adult) with provision of Latest technology G.I Scan

Extra ordinary HD+ Image

Retroview colonoscope with 210° upward movement

Excellent maneuverability due to smaller bending radius

Retro flex view enables you to visualize behind the colonic folds

Full vision technology

180° axially rotatable connector head for user safety and maneuverability

Scope should have single connector for Light source and Video processor.

Tone Enhancement for Gastro, Pit patterns & Vasculature (TE-G) (TE-P) (TE-V) Via G.I Scan.

Scope should have remote control assignment for I-scan functions.

Forward Water Jet System

Angle of View 140°

Depth of field 3-100 mm

Channel Diameter 3.2 mm

Insertion Tube Diameter 11.6 mm

Angulations (Up/Down) 210°/180°

Angulations (Right/Left) 160°/160°

Working Length 1700 - 1750 mm

Balloon Catheter Qty 10

Single Balloon assisted deep ileoscopy

Work with your standard endoscope, implemented the working channel of the endoscope, easy & intuitive to use

Catheter length: 3500 mm, balloon diameter: 40 mm

Inflated balloon set pressure: 60 mbar

Air Supply Unit Qty 01

Support for One / Two balloons for GI Endoscopy

Technology: Pressure / vacuum pumps

Pressure set point 60 ± 10 mbar

4 safety mechanism

User interface: double foot pedal , 5 indications light

Country of Origin: Japan / USA

Pediatric Video Gastro Scope

Transnasal Video Gastroscope , Full vision technology

180° axially rotatable connector head for user safety and maneuverability

Scope should have single connector for Light source and Video processor.

Scope should have remote control assignment for I-scan functions.

Angle of View 140°

Depth of field 4-100 mm

Channel Diameter 2.0 mm

Insertion Tube Diameter 5.4 mm

Angulations (Up/Down) 210°/120°

Angulations (Right/Left) 120°/120°

Working Length 1100 – 1150 mm

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

HIGH DEFINITION PEDIATRIC VIDEO COLONO SCOPE WITH LATEST G.I SCAN

High Definition Ultra Slim Colono Video Scope (Pediatric) with provision of Latest technology G.I Scan

Extra ordinary HD+ Image

Full vision technology

180° axially rotatable connector head for user safety and maneuverability

Scope should have single connector for Light source and Video processor.

Tone Enhancement for Gastro, Pit patterns & Vasculature (TE-G) (TE-P) (TE-V) Via G.I Scan

Smallest diameter for easy maneuvering

Scope should have remote control assignment for I-scan functions.

Forward Water Jet System

Angle of View 140°

Channel Diameter 2.8 mm

Insertion Tube Diameter 9.8 mm

Angulations (Up/Down) 180°/180°

Angulations (Right/Left) 160°/160°

Working Length 1700 - 1750 mm

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

HIGH FREQUENCY CAUTERY UNIT WITH ENDOSCOPIC ACCESSORIES COMPATIBLE

Monopolar cutting 1 (pure)

Cutting current allowing smooth, scab-free cuts

Monopolar cutting 2 (blend)

Cutting current allowing a smooth cut with little scab formation

Endo-Mode

Time-controlled cutting mode

Monopolar contact coagulation

Coagulation current with deep-reaching effects; electrode in

Direct contact with the tissue. Particularly suitable in TUR

Endo-Pulse mode : 100 WATT

General mode : 400 Watt : Blend 1

Monopolar spray coagulation

For surface coagulation (fulguration). This type of current is particularly suitable for haemostatic purposes when performing

Standard Accessories :

HF-cable plug for endoscopic instruments

Earth Plate for endoscopy

Foot switch

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

PERISTALTIC FLUSHING PUMP

» Adjustable flow rate approx.: 470 - 1200 ml

» Activate pump by hand-switch

» Continuous using via foot-switch

» Water bottle autoclavable

» Safety interruption on water deficiency to avoid air-insufflation

Power supply: 230V / 50 Hz

Country of Origin: USA / Europe / Japan

CARDIAC OUTPUT MONITOR LATEST VERSION:-

Parameters:

ECG, NIBP, SPO2, RESP, HR, 2 x Temp, 2 x IBP

» 12.1" Full Colour LCD/TFT Display

» Touch-Screen Operation

» 6 Waveforms & 7 Numeric Display Zones

» Adult & Paediatric Operating Modes

» Defibrillator Protection

» Electro-Surgical Interference Protection

» Pacemaker Detection

» ST-Segment Analysis

» Arrhythmia Detection & Analysis

<ul style="list-style-type: none"> » Waveform Trace Speeds of 6.25, 12.5 and 25.0 mm/sec » ECG: » Lead Selection: I, II, III, V, aVL, aVR, and aVF » Automatic Lead Selection » ECG Waveform and Numeric Heart Rate » Waveform sweep speeds 6.25, 12.5 & 25.0 mm/sec » Lead off detection, alarms on lead failure » Heart Beat Indication with QRS Beeps » Respiration: » Waveform & Numeric Display » Waveform Sweep Speed 6.25, 12.5 & 25.0 mm/sec » NIBP: » Oscillometric Measurement in mmHg » Automatic & Manual Measuring Modes Numeric Display for Systolic, Diastolic and Mean Pressures » Selectable Automatic Measurement/Inflate Intervals, adjustable at 3, 4, 5, 10, 15, 30, 60, 90, 120 and 240 minutes » Automatic Cuff Deflation » Over pressure protection » Rising Cuff/Continuous Pressure Display » Temperature: » Numeric Display in °C or °F » Display Parameters of T1, T1 and DT (Delta T) when using both channels » SpO2: » Massimo SpO2 » Measurement Range from 1% to 100% » Pulse Rate from 25 to 300BPM » Waveform and Numeric Display » Waveform Sweep Speeds of 6.25, 12.5 & 25.0 mm/sec » Alarms: » User adjustable High & Low settable on all parameters Visual and Audio Indication of Alarms » Other Features: » 120 Hours of Trends » Network Capability 					
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- » Original Wall Mounting
- » Built-in rechargeable battery with charger, Battery backup of 5 Hours on AC failure
- » Complete System Including 2 x 3 Lead ECG Cable, 2 x NIBP Cuff with Hose (Adult), Skin & Rectal Temperature Probes, Reusable SpO2 Sensor (Adult), NIBP Cuff with Hose (Adult), and all other allied accessories including Operating & Service Manuals.

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

SUCTION MACHINE

Reciprocating, oil free pump & piston mechanism.
 Heavy duty Mobile Suction Unit with twin jars of capacity up to 4 or 5 liters each, autoclavable.
 Aspiration rate up to 30 or more liters /minutes at 650-900mm.Hg. Vacuum continuously adjustable
 10X bacterial filter
 Footswitch
 Complete aspiration set
 220V/50Hz. I Phase
 Trolley with lockable wheels.
 Efficient and powerful – 30 liters per minute – the most precise among suction pumps
 Fast – vacuum build-up to 85kPa
 Safe – incorporates “3guard” protective technology
 Whisper quiet – 42dBA at maximum vacuum
 Low maintenance – incorporates “Low Friction“ Piston/Cylinder-technology
 Compatible with Connectors of Flexible endoscopic system.

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

HIGH DEFINITION MEDICAL GRADE LED DISPLAY

26 Inch Screen Size
 Aspect ratio: 16:9

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

TROLLEY IMPORTED WITH ALLIED COMPONENTS

Imported Cart for endoscopic system
 Keyboard tray, shelf for system , endoscope hanger
 Drawer for accessories, integrated socket

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

CUPBOARD FOR ENDOSCOPE (IMPORTED)

Imported Endoscope hanging cupboard
 Scope capacity: 5 endoscope
 Vertical hangers, scope holders with pull out hanging rails
 Manual push button per scope position
 Door access: Via PIN Keyboard
 Glass door panel
 HEPA filter air through chamber and internal endoscopic channels

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

PATIENT TROLLEY / PATIENT ENDOSCOPIC COUCH

Dedicated examination/procedure couch for endoscopy

3 sectioned examination couch

Electrically Operated

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

RECORDING SYSTEM / PATIENT REPORTING SYSTEM

Latest Configured computers for procedure recordings & patient recording

Laser Color Printer

Locally Supplied

ERCP ROOM

High Definition (HD+) Video Processor with Full G.I Scan management, with Integrated audio and video recording

Progressive Scanning Capability Latest & Built-in integrated 300 Watt Xenon light source:

High Definition HD+ images for a clear and more detailed visualization

System should be HD+ Digital Video and Image Processor

Digital Image Enhanced technology functions

Built on a computer-based platform

Direct typing on monitors, White Balance Adjuster

Lever lock mechanism

Digital signal processing.

Dynamic range expansion.

Freeze Scan.

Twin Mode white light and enhanced G.I scanning image can be displayed simultaneously to support detection and demarcation.

Picture in Picture , Electronic Zoom function

Full G.I Scan Management with post processing technology

Surface enhancement

Contrast enhancement

Tone Enhancement

Multimodal image enhancement technology to diagnose the gastro, colon, esophago, Pit pattern, Barrett's & vasculature

Integrated **Video assisted LCD Touch Screen** interface panel for controlling all the functions of endoscopic video processor.

Integrated HD+ Video recorder.(Video, Audio and image)

Micro phone for recording of audio.

User interface: keyboard, touch screen and Scope buttons.

Light Source:

300 Watt Xenon Light source

Video Outputs:

HD+ video outputs (wide screen) HD-SDI (2), DVI (1)

Standard video outputs RGB, Y/C, Composite

Pump:

Level Settings: 5 (+1 to +5)

Brightness Control

Electronic Shutter & Xlum Mode

Auto Mode: Average/Peak 11 steps (-5 to -1, 0, +1 to +5)

Manual: 11 steps (-5 to -1, 0, +1 to +5)

Color Balance:

Blue: 11 steps (-5 to -1, 0, +1 to +5)

Red: 11 steps (-5 to -1, 0, +1 to +5)

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

HIGH DEFINITION ERCP SCOPE WITH LATEST G.I SCAN WITH DETACHABLE CAP

High Definition ERCP / Duodeno Scope

Must be of latest series and High Definition With detachable cap.

FVT (Full Vision Technology)

Scope should have 10° -15° oblique movement /Retrograde.

180° Anti loop connector

Wide range of Treatment should be possible

Treatment applications in endoscopic sphincterotomy (EST), endoscopic retrograde biliary drainage (ERBD),

lithotripsy

Elevator control wire within the scope

Channels are brush able

Distal cap should be detachable or equivalent for decontamination.

Depth of field 4-60mm

Angle of View 100° (10° retro)

Channel Diameter 4.2 mm

Rigid Distal Width 13.0 mm

Insertion Tube Diameter 11.6 mm

Angulations (Up/Down) 120° - 130° / 90° - 100°

Angulations (Right/Left) 100° - 105° / 90° - 100°

Working Length 1250 mm

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

CARDIAC OUTPUT MONITOR LATEST VERSION:-**Parameters:**

ECG, NIBP, SPO2, RESP, HR, 2 x Temp, 2 x IBP

» 12.1" Full Colour LCD/TFT Display

» Touch-Screen Operation

» 6 Waveforms & 7 Numeric Display Zones

» Adult & Paediatric Operating Modes

» Defibrillator Protection

» Electro-Surgical Interference Protection

» Pacemaker Detection

» ST-Segment Analysis

<ul style="list-style-type: none"> » Arrhythmia Detection & Analysis » Waveform Trace Speeds of 6.25, 12.5 and 25.0 mm/sec » ECG: » Lead Selection: I, II, III, V, aVL, aVR, and aVF » Automatic Lead Selection » ECG Waveform and Numeric Heart Rate » Waveform sweep speeds 6.25, 12.5 & 25.0 mm/sec » Lead off detection, alarms on lead failure » Heart Beat Indication with QRS Beeps » Respiration: » Waveform & Numeric Display » Waveform Sweep Speed 6.25, 12.5 & 25.0 mm/sec » NIBP: » Oscillometric Measurement in mmHg » Automatic & Manual Measuring Modes Numeric Display for Systolic, Diastolic and Mean Pressures » Selectable Automatic Measurement/Inflate Intervals, adjustable at 3, 4, 5, 10, 15, 30, 60, 90, 120 and 240 minutes » Automatic Cuff Deflation » Over pressure protection » Rising Cuff/Continuous Pressure Display » Temperature: » Numeric Display in °C or °F » Display Parameters of T1, T1 and DT (Delta T) when using both channels » SpO2: » Massimo SpO2 » Measurement Range from 1% to 100% » Pulse Rate from 25 to 300BPM » Waveform and Numeric Display » Waveform Sweep Speeds of 6.25, 12.5 & 25.0 mm/sec » Alarms: » User adjustable High & Low settable on all parameters Visual and Audio Indication of Alarms » Other Features: » 120 Hours of Trends 					
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- » Network Capability
- » Original Wall Mounting
- » Built-in rechargeable battery with charger, Battery backup of 5 Hours on AC failure
- » Complete System Including 2 x 3 Lead ECG Cable, 2 x NIBP Cuff with Hose (Adult), Skin & Rectal Temperature Probes, Reusable SpO2 Sensor (Adult), NIBP Cuff with Hose (Adult), and all other allied accessories including Operating & Service Manuals.

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

SUCTION MACHINE HEAVY DUTY

Reciprocating, oil free pump & piston mechanism.
 Heavy duty Mobile Suction Unit with twin jars of capacity up to 4 or 5 liters each, autoclavable.
 Aspiration rate up to 30 or more liters /minutes at 650-900mm.Hg. Vacuum continuously adjustable
 10X bacterial filter
 Footswitch
 Complete aspiration set
 220V/50Hz. I Phase
 Trolley with lockable wheels.
 Efficient and powerful – 30 liters per minute – the most precise among suction pumps
 Fast – vacuum build-up to 85kPa
 Safe – incorporates “3guard” protective technology
 Whisper quiet – 42dBA at maximum vacuum
 Low maintenance – incorporates “Low Friction“ Piston/Cylinder-technology
 Compatible with Connectors of Flexible endoscopic system.

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

HIGH DEFINITION MEDICAL GRADE LED DISPLAY

26 Inch Screen Size
 Aspect ratio: 16:9

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

TROLLEY IMPORTED WITH ALLIED COMPONENTS

Imported Cart for endoscopic system
 Keyboard tray, shelf for system , endoscope hanger
 Drawer for accessories, integrated socket

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

X- RAY VIEWER

Imported X-Ray Viewer

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

PATIENT TABLE

Dedicated examination/procedure couch for endoscopy
 3 sectioned examination couch
 Electrically Operated

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

CUPBOARD FOR ENDOSCOPE (IMPORTED)

Scope capacity: 5 endoscope
Vertical hangers, scope holders with pull out hanging rails
Manual push button per scope position
Door access: Via PIN Keyboard
Glass door panel
HEPA filter air through chamber and internal endoscopic channels
ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

RECORDING SYSTEM / PATIENT REPORTING SYSTEM

Latest Configured computers for procedure recordings & patient recording
Laser Color Printer
Locally Supplied

ENDOSCOPIC ULTRASOUND GASTRO SCOPE (RADIAL)

High Resolution Color CCD scope, CCD Chip should be on scope tip
360° electronic radial-array ultrasound transducer
Ultrasound connector should fully immersible
Capable of 5 – 10 MHz ultrasound frequencies and a wide spectrum of imaging layers
Scope should have the facility of Sono Elastography
Scope should have Screening Endoscopy feature
180° axially rotatable connector head for user safety and maneuverability
3 way air / water valve for air & water insufflation
Scope should provide the full screen image on LCD
Scan system (Radial)
Scan angle (360 °)
Scan Mode (B-mode/COLOR DOPPLER)
Acoustic frequency (MHZ) 5-10
Field of View 140°
Forward Viewing
Range of observation 4-100
Angulations up 130° Down 60° Right 60° Left 60°
Insertion Tube Diameter 12.1 mm
Distal width Probe 12.0 mm
Distal width optic 12.0 mm
Channel Diameter 2.4mm
Working Length (mm) 1250
Biopsy Probe
A Wide Band dedicated Biopsy Probe (5.0-2.0Mhz) which has through crystal biopsy
Slit. Needleless of 14G to 23G can be used It is possible to soak the entire probe in liquid
sterilants by using its optional water proof case.
ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

ENDOSCOPIC ULTRASOUND GASTRO SCOPE (LINEAR)

High Resolution Color CCD scope, CCD Chip should be on scope tip
120° electronic ultrasound transducer
Color chip CCD which provides full-screen vivid endoscopic images
Ultrasound connector should fully immersible
Capable of 5 - 10 MHz ultrasound frequencies and a wide spectrum of imaging layers
Scope should have the facility of Sono Elastography
Real-Time Ultrasound Guided Fine Needle Aspiration Biopsy (FNA) Pulsed
Scope should have Screening Endoscopy feature
Color Doppler Imaging Elevator Controls for Accessories
180° axially rotatable connector head for user safety and maneuverability
3 way air / water valve for air & water insufflation
Full vision technology
Scan direction (Longitudinal)
Scan system (Convex)
Scan angle (120 °)
Scan Mode (B-mode/COLOR DOPPLER)
Acoustic frequency (MHZ) 5-10
Field of View 120°
Forward oblique 50°
Range of observation 5-100 mm
Angulations up 130° Down 130° Right 120° Left 120°
Insertion Tube Diameter 10.8 mm
Distal width Probe 11.5 mm
Distal width optic 12.0 mm
Channel Diameter 2.8 mm
Working Length 1250 mm
Scan direction: Longitudinal

Trans abdominal Probe or Equivalent fibro scan

A wide band linear probe (7.2-3.0 MHz, 38mm FOV) designed for observation of deep area. This probe has good Doppler sensitivity in deep area. With software of fibrosis and cirrhosis detection

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

HD LATEST DIGITAL COLOR DOPPLER FULL BODY ULTRASOUND SCANNER WITH REAL TIME ELASTOGRAPHY FOR ENDOSCOPIC ULTRASOUND

Digital Colour Ultrasound Scanner for endoscopic examination. Fully digital beam former and Compound Pulse Wave Generator with broad band harmonics. Trolley based system.

Operating Modes:

2D, M and Combination, Power Doppler, Spectral Doppler, Colour Doppler, 3D, Live 3D.

Image:

Full screen split and dual select screen formats.

Computing System:

Computer with alpha numeric key board and built-in trackball.

Key board freeze facility including foot switch control.

Dynamic range 90 dB

<p>High Resolution 17" LCD Color monitor or larger Digital acquisition, storage and review of complete ultrasound studies with built in hard disk. The studies can be stored on to CD or DVD. DICOM compatible. Measurements & Soft wares: Measurement of length, angle, distance, depth, area, circumference velocity and volume. Tissue Harmonic Imaging Echo Endoscopy ultrasoundgraphy (EUS) High Definition Tissue Harmonic Imaging mode HI Com function Trapezoidal display function HI REZ Fine Flow Function to display high frame rate & high Definition Doppler image HI Support Auto image optimization real time elastography programmable patient data management software system should be compatible with Gastroscope Linear & Radial ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p> <p><u>HQ PENDANT SYSTEM</u> The Endoscope systems should be mounted on High quality pendant system They should be ceiling pendants, specs are as follows: Pendants for each endoscopy room, two arm, three arm or four arms depending on the room size and requirement, with cable management system and media bridge. They should be able to handle large stacks of endoscopic equipment. They should have capability of attaching IV stands with the equipment stack. Pendant should be able to support equipment according to requirements of different rooms. (The final detailed user requirements will be fine-tuned after infrastructure survey by the endoscopy team and the vendor) Pendants should have max load capacity for 1000kg with capability to support following equipment: Light source for endoscopes Processor for endoscopes Cautery unit Insufflator unit Vital sign monitor EUS processors and light source Suction unit if central suction is not available Two spare electrical outlets should be available also They should have multiple electric outlets with spark free imported switches, suction, and outlet for medical gases and connectivity for Data Port. They should have capability of mounting monitor screens, capability to expand and reduce shelves, and preferably with capability to dock with the mobile trolley system. ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT <u>RESUSCITATION TROLLEY</u> Emergency Cart, w/break-away lock, 37", Drawers:</p>					
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Drawer: 3" drawer x 3 + 6"Drawer x 2 + 9"Drawer x 1

Casters: 5" Plastic TPR Casters

Caster Function Options

TPR Twin Wheel Caster (Φ: 125 x74mm)

Central Key Lock

Drawer rail function: Auto-return

With locking bar

Should include the following:

3" (3 x1), 6" (6 x1) Drawer divider, magnetic label & plastic seals.

Magnetic label holder X 5 pcs

Plastic seals in red (50pcs / pack)

Should include the following accessories:

- I.V. Pole
- Stainless steel Defibrillator Shelf
- Suction unit
- CPR Cardiac Board (440x510x10mm)
Should be of Macromolecular Polymer and easy to clean.
- Oxygen Tank Holder (145x125x403mm)
Adjustable ties securely fasten the oxygen tank.

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

CO2 INSUFFLATOR VERSATILE SYSTEM

Operating modes: Low, Medium & High

One button start stop operation

Completed with functional accessories

Cylinder hose

Gas Tube

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

LATEST DIGITAL FLOROSCOPY (IMAGE INTENSIFIER FOR ERCP) WITH COMPLETE ACCEROSIES C-ARM FLOUROSCOPY FOR ERCP.

FDA Approval with K number/ CE marking with MDD compliance/ JIS

The C-arm needs to be capable of performing fluoroscopy / radiography during procedures on the body for all patient sizes.

Operational Requirements

Should be a mobile unit including C-Arm and image processing/viewing system with large wheels for easy transportation and with easy maneuverability.

Technical Specifications

The system shall be equipped with cable pushers on the C-Arm wheels so that cables lying on the floor will not limit the C-Arm movements.

The C-Arm shall have a minimum distance of 90 cm between the source & image receptor to facilitate larger imaging space and clearance around the patient/table.

The system shall allow interchanging the positions of x-ray tube and imaging system.

The C-Arm shall be able to rotate $\pm 180^\circ$ to allow the imaging chain to accomplish angled projections.

<p>The system shall have vertical C-Arm travel capability (preferably 16" or higher) to adjust the imaging chain height.</p> <p>Movements: Orbit Rotation motor driven or manual, Multiple Angulations, with provision to take orthogonal views of the application from multiple angulations, Horizontal Travel, Swivel travel, Free Space, Electromagnetic brakes for precise positioning of the arms</p> <p>X-Ray Tube: The x-ray tube shall be preferably rotating anode type. Dual focal spots Higher anode heat storage capacity would be preferred. (Please specify) Higher anode cooling capacity would be preferred. (Please specify)</p> <p>X-Ray Generator: Microprocessor controlled. The generator shall be 15 KHz or higher frequency or DC converter type. The power load shall be of not less than 2 KW and KVp Range: 40 – 110 KV, Radiographic Current: 20 mA or higher, Fluoroscopic Current: 0.2 – 15 mA. The mAs range in radiographic mode shall be of minimum 120 mAs. motorized Collimator system: Shutters - Iris Diaphragms Laser localizer beam Cine +LIH</p> <p>Image Intensifier System: Image intensifier based panel for x Ray Imaging The image intensifier shall be at least 9 inch to have wide coverage. DQE @ 65%</p> <p>CCD CAMERA Resolution Active pixel 1024 × 1024 minimum 10 bits ,25frames /s Contrast resolution 1024 grey level The image intensifier shall be equipped with a grid with 8:1 ratio.or better The system shall be equipped with a high resolution of minimum 1k x 1k imaging chain. Image display shall be minimum 17" high resolution TFT black &white monitor medical grade. TFT resolution 1280x1024, (02 monitors.) Radiographic Film Cassette Holder :detachable Offer should include complete spare parts kit for the C-arm. The list of items to be supplied should be included.</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p> <p><u>DISINFECTION SYSTEM</u> IMPORTED LEAKAGE TESTER INTEGRATED WITH DISINFECTION SYSTEM Leakage test takes place throughout the duration of the reprocessing activity Pre cleaning with doses of at least 1% can be selected in the program menu Irrigation after pre cleaning, time selectable from 1 min. – 60 min. Repeat irrigation, time selectable from 1 min. – 60 min. Disinfection time selectable from 1 min. – 60 min. Neutralization time selectable from 1 min. – 60 min. Password protected menu</p>					
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Process-specific parameters can be selected

Electronic pressure and through-flow monitoring for each individual channel

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

Ultrasonic cleaner

High performance 37kHz sandwich transducer systems

Cleaning tank made of cavitation-resistance stainless steel, LED-Display, showing set and Remaining time of cleaning period. Turning knob for setting continued and short-period operation from 1 - 30 min. Sweep function for an optimised sound field, degas function for efficient degassing cycles, dry-run protected heating. Turning knob for tank drainage

capacity: 6.9 Liters

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

IGH FREQUENCY ARGON-BEAMER SYSTEM WITH ENDOSCOPE COMPLETE

HIGH FREQUENCY CAUTERY UNIT WITH ENDOSCOPIC ACCESSORIES COMPATIBLE

Monopolar cutting 1 (pure)

Cutting current allowing smooth, scab-free cuts

Monopolar cutting 2 (blend)

Cutting current allowing a smooth cut with little scab formation

Endo-Mode

Time-controlled cutting mode

Monopolar contact coagulation

Coagulation current with deep-reaching effects; electrode in

Direct contact with the tissue. Particularly suitable in TUR

Endo-Pulse mode : 100 WATT

General mode : 400 Watt : Blend 1

Monopolar spray coagulation

For surface coagulation (fulguration). This type of current is particularly suitable for haemostatic purposes when performing

Standard Accessories :

HF-cable plug for endoscopic instruments

Earth Plate for endoscopy

Foot switch

Country of Origin: USA / Europe / Japan

Flow rate increments 0.1 to 12 l/min (measured at the distal end of the applicator) Resolution (l/min) 0.1 to 1 l / 0.2 to 3

l / 0.5 to 5 l / 1 to 12 l Gas cylinder to be used 5 l or 10 l , Max. Gas-cylinder pressure 200 bar Connection to central

gas supply system: min. supply pressure 2.5 bar max. supply pressure 4.5 bar Minimum purity of argon gas 99.998%

Dimensions 405 x 135 x 380 mm (W x H x D) Weight 6.9 kg Classification of unit and accessories II b Approval/mark

of conformity CE 0297, in compliance with 93/42/EEC

Accessories needed with.

Force Argon Qty : 01

HF connection cable Qty : 01 No

Interface cable: Qty: 01 No.

Double foot switch Qty : 01

	<p>Sterile filter. micron internal filter (Built in with system) 1.2 micron external filter (Sterile pack with argon hand set) Cylinder with pressure and connection Line <u>HIGH FREQUENCY CAUTERY UNIT WITH ENDOSCOPIC ACCESSORIES COMPATIBLE</u> Monopolar cutting 1 (pure) Cutting current allowing smooth, scab-free cuts Monopolar cutting 2 (blend) Cutting current allowing a smooth cut with little scab formation Endo-Mode Time-controlled cutting mode Monopolar contact coagulation Coagulation current with deep-reaching effects; electrode in Direct contact with the tissue. Particularly suitable in TUR Endo-Pulse mode : 100 WATT General mode : 400 Watt : Blend 1 Monopolar spray coagulation For surface coagulation (fulguration). This type of current is particularly suitable for haemostatic purposes when performing Standard Accessories : HF-cable plug for endoscopic instruments Earth Plate for endoscopy Foot switch Country of Origin: USA / Europe / Japan Flow rate increments 0.1 to 12 l/min (measured at the distal end of the applicator) Resolution (l/min) 0.1 to 1 l / 0.2 to 3 l / 0.5 to 5 l / 1 to 12 l Gas cylinder to be used 5 l or 10 l , Max. Gas-cylinder pressure 200 bar Connection to central gas supply system: min. supply pressure 2.5 bar max. supply pressure 4.5 bar Minimum purity of argon gas 99.998% Dimensions 405 x 135 x 380 mm (W x H x D) Weight 6.9 kg Classification of unit and accessories II b Approval/mark of conformity CE 0297, in compliance with 93/42/EEC Accessories needed with. Force Argon Qty : 01 HF connection cable Qty : 01 No Interface cable: Qty: 01 No. Double foot switch Qty : 01 Sterile filter. micron internal filter (Built in with system) 1.2 micron external filter (Sterile pack with argon hand set) Cylinder with pressure and connection Line ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
03	<p><u>Heater-Cooler Unit Specifications.</u></p> <ul style="list-style-type: none"> • The heater cooler unit should be remotely controlled with the Heart lung machine. • There should be 3 separate Water tank in the Heater cooler. • Two water tank for Cardioplegia delivery system for giving immediate Hot and cold shot to the 					

	<p>patient.</p> <ul style="list-style-type: none"> • 1 water tank for the Oxygenator and for the Thermal blanket. • The temperature range should be 2 degrees till 40 degree Celsius. • The water tank should be of 10 liters. • There should be 1 adult blanket and 1 peads blanket for the heater cooler unit. • Three ports should be given at the back. 1 for Cardioplegia 1 for blanket and 1 for oxygenator. • The unit should be sound prove and noise should not be more than 98 db. • The unit should not take more than 10 minutes to go from highest temperature to lowest temperature. <p>Quality Standard</p> <ul style="list-style-type: none"> • FDA approved and CE mark <p>WARRANTY /GUARANTEE</p> <ul style="list-style-type: none"> • One year warranty with free service and part after installation and 10 years part availability at component level. <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
04	<p><u>ANESTHESIA MACHINE WITH VENTILATOR WITH COMPLETE MONITORING</u></p> <p>Anesthesia 3 gas unit (O2, N2O, Air) Digital Display of Pipeline & cylinder pressure on screen. Central Gas Driven Unit with Central Gas hoses Pin index cylinder yokes for Oxygen & Nitrous Oxide (One for each) Connections for large Oxygen and Nitrous Cylinders (One for each) O2 Flush Control up to 75 lit or better Lockable Castors Isoflorane & Sevoflorane both vaporizer will be supplied with each unit 3 X Drawers to store various items Power outlet with socket outlet Absorber 1.5 kg complete with valve for bag / ventilator</p> <p>Anesthesia Ventilator</p> <p>Built-in electrically driven Electronic anesthesia ventilator. The ventilator shall be capable of ventilating Adult & Pediatric patient down to 2 kg body weight. The ventilator shall have a graphic screen with following features as minimum requirement. Screen Size 6" Color or more</p> <p>Modes of Ventilation</p> <p>Volume Preset time cycle ventilator (IPPV mode) Pressure Controlled Mode Manual / Spontaneous</p> <p>Control Ranges:</p> <p>Frequency: 4 to 60 bpm or better PEEP: 0 to 20 cmH2O Trigger sensitivity: 2 to 15 l/min or better</p> <p>Continuous monitoring of O2 concentration, Frequency, Tidal Volume, Minute Volume, Pressure</p>					

	<p>Breathing mode selection (Standby / Volume / Spontaneous & pressure) Fresh Gas Decoupling System Built in oxygen monitoring Automatic Flow sensor & O2 Calibration Tidal volume from 20ml to 1400ml or better Battery Backup for 45 minutes or better Power Supply 220VAC, 50Hz Supplied with Adult and Pediatric Anesthesia breathing circuit (one of each) ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
05	<p><u>Mobile X-Ray (100mA) with Battery</u></p> <p>Generator type 5.0kW, 50Hz high frequency inverter type micro- processor controller Power A/C ,D/C operated with 5 to 6 hours battery backup kV Range 40 – 110kV, 1.0kV increment mA Range 20 – 110mA, variable Console & Display LCD Display, technical value indication Anatomical, Density, Grid / Non-Grid Preset Tech, Store Switch</p> <p>Software 330 APR program, Remote Control Software X-Ray Tube Fixed anode type, 1.5mm Focal Spot size Collimator Manual operation, double slit type X-ray Field Size: 35cm x 35cm @ 1m SID Auto compensation Line voltage comp. \pm 10% Power Requirement Free voltage (100-264Vac), Single phase, 50 / 60Hz Size (L x W x H) 652mm x 636mm x 1364.4mm Safety : FDA approved , ISO , TUV approved , CE , MDD Mark ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>	40				
6	<p><u>HEART LUNG MACHINE</u></p> <p>Country of origin: USA, Japan, Western Europe. FDA / CE Approval Latest Version Heart Lung Machine 05 Pump Complete Modular Pumps console With all Modular Parameter Five single roller Pumps with no cables. Dual Pressure module Temperature module Capacitive Level sensor Ultrasonic Bubble detector Flexible Led arm Gas blender (Standalone) Cardioplegia Monitoring Unit Computer interface. System Control Panel Venous occluding clamp(Standard)</p>	01				

<p>Dual Drive Belt for better activity.</p> <p><u>Pressure Monitor: For monitoring with Pressure module.</u> Arterial and cardioplegia with transducers. With Transducer kit and cable 2m long. b) Time – Timers at least three c) Temperature Monitor with at least four probes (Esophageal 1x adult , 1x Pead) (For oxygenator 1x) <u>Air- Oxygen Blender (Stand-alone):</u> with hoses and Flow meter which alarms and also detect high and low gas pressure alarms. <u>Safety Devices.(Air Emboli protection system)</u> a) Level Sensor Capacitive type with 100 Level sensor pads. b) Air Bubble sensor should be Ultrasonic type. (Should be able to detect 300um bubbles) c) Flexible LED Lamp.</p> <p><u>Pump configuration:</u> a. The unit should have 5-pump compactly arranged with separate sockets (no cables) to control flow. Modules Should have easy access sockets for Interchanging the pump on console b. Each individual roller pump should be capable of running independently. c. Should have a spill proof base. d. The unit should be supplied with a Battery backup for the complete system, safety and accessories for a minimum of 90 minutes or better. Switch over from main power to battery backup should be automatic and immediate. HLM System should have a facility to start on battery .The battery unit should be built in to the pump base and it should be rechargeable. For arterial pump battery backup should be 180 minute or more. e. Monitoring flow rates in LPM&RPM should be digitally display on the pump. f. Each Pump should have easy mechanism for occlusion setting for different thickness of tubes g. Should have hand crank facility as a safety feature. h. The Console should have a compact base place for the entire pump head. i. Should have oxygenator holder 1x for adult. All the pumps should have facility of pulsatile mode Instrument tray for the instruments.</p> <p><u>PRESSURE MONITOR: (Dual pressure module)</u> a) Facility to monitor pressure range: -997 to +997 or Equivalent. b) Facility to monitor one arterial line pressure and one cardioplegia line pressures, along with necessary pressure transducers, cables and domes reusable, with accurate digital display and alarm facilities audio and visual.</p> <p><u>TIMER MONITOR:</u> Facility for 3 time displays With stop, reset and start function</p> <p><u>TEMPERATURE MONITOR:</u> a) 04 temperature displays for patient monitoring and for cardioplegia monitoring with digital Display in Celsius with 4 necessary compatible temperature probes.</p> <p><u>AIR- OXYGEN BLENDER:(Stand Alone)</u> To work at 50-60 PSI for membrane oxygenator with water trap attached with necessary hoses and connections of minimum of 5 meters length and with dual flow glass flow meters.</p> <p><u>ULTRASONIC AIR SENSOR :</u></p>					
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	<p>Ultrasonic air sensor to detect bubbles to work equally well with crystalloid and blood; should be possible to fit anywhere in the circuit easily.</p> <p><u>LEVEL SENSOR SYSTEM:</u></p> <p>a) <i>Should be able to provide both alert alarm for audible and visual alarms or low blood level alarm.</i></p> <p>b) <i>Micro –bubble detection: 300 micrometer or better</i></p> <p><i>Bar Leds, sensor fault, override facility.</i></p> <p><u>STAND ALONE ONLINE ARTERIAL AND VENOUS BLOOD MONITORING :</u></p> <p>a) LCD display of 10.4 touch screen monitor or better.</p> <p><u>Monitoring of Arterial Line :</u></p> <p>b) Measurement method for partial oxygen should be Luminescence or equivalent.</p> <p>c) Measurement method for temperature infrared thermopile sensor or equivalent.</p> <p>d) Measurement of Hemoglobin, Arterial partial pressure of oxygen, Arterial temperature. PaO2,</p> <p><u>Monitoring Venous line :</u></p> <p>e) Measurement method for partial oxygen should be SPECTROPHOTMETRIC or equivalent.</p> <p>f) Measurement method for temperature infrared thermopile sensor or equivalent.</p> <p>g) Measurement of line , Hemoglobin , hematocrit , PaO2 , SvO2 , VO2 , Q-Blood</p> <p>h) Interface for PC Connection Rs-232 Input /output</p> <p>i) USB Connection for Printer</p> <p>j) Integrated barcode scanner.</p> <p><u>Accessories :</u></p> <p>k) Venous probe ;Venous temperature sensor (10x); Arterial probe ; Arterial Temperature sensor (10x)</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
7	<p><u>INTRA AORTIC BALLOON PUMP:</u></p> <ul style="list-style-type: none"> • Self-contained mobile console with ECG amplifier with possible selection 5 leads arterial blood pressure amplifier. • Colour graphic displays at least of 10” for display of arterial and pressure heart rate balloon volume used and alarm conditions with trouble shooting procedures. • Fall safe system. V Pacing switch. Progressive viewing sequence • 5 lead ECG cable, male connector pressure, and transducer adopter, chart recorder. • Transportable, Compact IABP system with minimum 3 Hours of Battery Backup or better • Should have 3 modes of Operation, 1) Automatic 2) Semi-Automatic 3) Manual. • Should have IABP ratio 1:1, 1:2, 1:3. • System should be capable of automatically selecting appropriate Trigger i.e. ECG or Pressure and also accurately select the inflation and Deflation points, in Automatic mode. • In the automatic mode of operation user should be in control of the deflation Point. • System should have Automatic Fiber Optic Pressure Signal Capability and should be capable of working with 7Fr. and smaller Fiber Optic Balloons. • The zeroing / Calibration of the pressure wave form should be automatically done once the Catheter is inserted into the patient (in vivo Calibration). • The system should have fiber-optic IABP and catheter system that automatically calibrates in the patient after insertion and automatically recalibrates in vivo every two hours or sooner should patient or environmental 					

	<p>conditions change.</p> <ul style="list-style-type: none"> • The system should have capability of sending an electrically isolated low level pressure output signal which enables the user to send the Fiber Optic Pressure wave form to a patient monitor by simply attaching a cable. • The system should quickly adapt to rate or rhythm changes in order to optimize augmentation and support during diastole. • Operation Modes: Auto, Semi Auto, Manual • On screen indication for Helium level in the cylinder and Battery level for timely intervention and correction • Intra-Aortic balloon pump should be suitable for pediatric surgery <p>ORIGIN: EUROPE/USA/JAPAN OR EQUIVALENT</p>					
8	<p><u>HYPO/HYPER THERMIA</u></p> <ul style="list-style-type: none"> ▪ Hypo/Hyper Thermia Unit use for Temperature Control And Monitoring System with Cardioplegia Supply with the following features: ▪ System should be latest Version ▪ 5“ Inch or more colour touch screen LCD/LED for smooth operation ▪ Automatic De-airing and emptying function for implies filling of the tubing and removing air of external devices. ▪ Temperature gradient facility for both patient and Cardioplegia side ▪ Water temperature range: 1-40 °c accuracy: +/-0.3 deg/ C ▪ Tank volume capacity : 25 liters or better ▪ Flow capacity within patient water circulation: 18 L/min or better ▪ Flow capacity within Cardioplegia water circulation: 9 L/min or better ▪ Initial cooling capacity: 6000 kj/h or Better ▪ Compressor will automatically start if a shortage of ice in the tank. ▪ UV-light for disinfect internal water tubing and hoses with 254 nm wavelength or better. ▪ Maximum pressure, patient water circulation :1.5-2.0 bar or better <p>Accessories :</p> <ul style="list-style-type: none"> ▪ At Least Two reusable Thermal Blankets (Adult&Pead one each) <p>External Temperature sensor.</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
9	<p><u>PORTABLE HEART LUNG MACHINE</u></p> <p><u>1.OBJECTIVES & PREREQUISITES:</u></p> <ol style="list-style-type: none"> a) System shall be optimal for ECMO (Extra Corporeal Membrane Oxygenation) and ECLS (Extra Corporeal Life Support Therapy) b) System shall provide complete system solution for long-term support of heart and lung function in adults, pediatrics, and infants. c) System should provide extracorporeal support to replace or support the patient’s circulation and respiration or equivalent. d) System should be comprised with disposables, integrated sensors and software versions or equivalent. e) System should have Possibility for patients who require <u>veno-venous support</u> & <u>veno-arterial support</u> and the use of a <u>Minimal extracorporeal circulation (MECC) &(LVAD&RVAD)</u> f) System shall have single pump module for adult, children, and infants g) The entire ECMO unit shall be guaranteed for hardware and performance for at least first two years, following which the same will be covered by guaranteed supply of all kinds of spares for ten (10) years minimum. <p><u>2. COMPONENTS:</u></p> <ol style="list-style-type: none"> a) ECMO FOR ECMO UPTO 30 DAYS. 					

<ol style="list-style-type: none"> 1. Should flow 0-9.9 LPM 2. Should generate rpm 0-5000 3. Power rating 100-240volts, 50-60 Hz and 11-28 volts DC 4. Portable emergency hand crank 5. Compact lightweight console (less than 10kg weight) 6. LCD touch screen to display the following <ol style="list-style-type: none"> a) 04 nos of external pressures (Range: -500 to +900mm Hg) b) 03 nos of internal pressures (Range: -500 to +900mm Hg) c) 04 nos of external temperatures (Range: -10 to +45oC) d) 02 nos of internal temperatures (Range: -10 to 45o C) e) 01 no of Venous blood oxygenated saturation (SVO2) (Range: -10to 100%) f) 01 no of hemoglobin (Range 5 to 15 g %) g) 01 no of Hematocrit (Range 15 to 50 50%) h) 01 no flow sensor with integrated bubble sensor to measure flow rate and bubbles. i) 01 no level sensor-measuring reservoir blood level. 7. Portable emergency hand crank 8. Back flow prevention mode(zero Flow) 9. Data recording facility (3sec-10 min interval) with USB Port retrieval of same into a USB stick or PC. 10. 03 nos of resettable clock timers. 11. 01 nos of countdown timer 12. 03 modes of applications suited for OR,ICU and transport 13. Dual mode of control <ol style="list-style-type: none"> a) LPM – Litres per minute b) RPM- Revolutions Per minute 14. Battery backup of 90 minutes with provision for battery exchange and charge while in use on AC supply 15. Level sensor safety system 16. Back flow detection system 17. Alarm settings <ol style="list-style-type: none"> c) High and Low RPMs d) For Low Flow 18. Console lamps with cable 19. Unit protection with Splash, drips and defibrillator 20. One connector each for alarm, output (ward call), Ethernet cable, external drive, ECG signal 21. Complete supply of battery, cables, US and related accessories 22. Should have road and Air transport approval 23. Should be CE/FDA Approval <p><u>3.Sprinter cart:-</u></p> <ol style="list-style-type: none"> a. Should be stainless steel body four wheels with double shelf b. Low profile design maximizing safety c. Height adjustable infusion pole mast d. Inbuilt gas cylinder holder e. Should be able to incorporate all components of the ECMO system f. Double wide wheels for easy transportability <p><u>4.Mechanical Gas Blender(Oxygen Air Mixture):</u></p> <ol style="list-style-type: none"> a. Display air, Oxygen, Carbon di Oxide and FiO2 					
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	<p>b. Capable of delivering FiO2 21-100%</p> <p>c. Should include supply cables for air and Oxygen</p> <p>d. Should include water trap</p> <p>5. <u>Disposable:</u></p> <p><u>HLS MODULE /7 Liter</u></p> <p>1. Should have 30 days CE certification for continuous usage</p> <p>2. Integrated sensors for pressures (Venous, arterial and internal) and temperature (arterial and venous) monitoring</p> <p>3. Integrated measuring cell for venous probe to measure venous oxygen saturation (Svo2) Hemoglobin, Hematocrit and Venous temperature</p> <p>Onsite support</p> <p>Training for team on site , 1x anesthesiologist , 1x perfusionist , 1x cardiac surgeon</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
10	<p><u>ENT DIAGNOSTIC UNIT</u></p> <p>Steel painted with epoxy powders structures</p> <p>Layer of transparent gloss for disinfection and protection against liquids</p> <p>Mobile structure with 6 antistatic rubber castors</p> <p>Maximum air capacity: 26/Min</p> <p>Integrated Germicide Compartment</p> <p>Drawer combination with various type of multi-compartments trays for instruments</p> <p>1 pull out accessory compartment</p> <p>1 drawer for dirty instruments with a removable plastic tray</p> <p>1 big drawer as dust bin</p> <p>Clar Lamp support with light intensity adjustment switch</p> <p>Suction system with dry pump of 70 Lt/m capacity</p> <p>Vacuum for suction adjustment</p> <p>Insufflation system with manometer (Nasal and olive tubal insufflation)</p> <p>Electronic touch screen console</p> <p>Articulated arm with instrument tablet (Syringe, suction and insufflation)</p> <p>Ear washing syringe with 2 Lt water tank</p> <p>Water tank should be equipped with acoustic reserve warning signal, acoustic and visual on touch screen</p> <p>Microprocessor controlled heating element</p> <p>Quick Heating Mirror warmer</p> <p>Anti bacterial filter (Hydrophobic PTFE filters)</p> <p>Kit Syringe for Medicaments</p> <p>Air syringe group</p> <p>1 atomizers for powder and 1 for liquid spray</p> <p>2 bottle holder for medicaments</p> <p>3 Endoscope supports for flexible and rigid endoscopes</p> <p>Flexible and Rigid Endoscopes</p> <p>Flexible Endoscope, diameter 4.9 mm, working length 300 mm, movement Up down 130°, Depth of field: 3 – 50 mm, angle of view 75°, Instrument Channel: 2.2 mm</p> <p>Rigid Nose Scopes, diameter 2.7 mm, angle of view 0°, Length 145 mm</p> <p>Rigid Ear Scopes, diameter 2.7 mm, angle of view 0°, length 80 mm</p> <p>Laryngoscope with handle, diameter 10 mm, angle of view 90°, length 195 mm</p> <p>Light Source</p>					

<p>LED Light source temperature min 180 Lumen 5500° K Neutral LED Light source 4100°K to 5500°K, 180 lumen Color Touch Screen to control the functions Fiber Optic cable Pole Support for Microscope equipped articulated arm for monitor PC Microscope Coaxial illumination through fiber optic with 5 magnification steps Apochromatic magnification Diameter: 48 mm, working distance 250 mm Manual magnification charger: 5 click stops Focusing range 13 mm 23 Inch LCD (or more) with integrated PC Touchscreen with video capturing software Intel Core i5/i7 processor Wireless keyboard and mouse Wireless video camera Consists on Wireless handpiece LED light source integrated 180 lumen 5500° K Wireless LED Head Light Wireless comfortable head light with modern rechargeable battery pack High light emission for long lasting operation Equipped with ergonomic leather bolstered headband On / Off switch on the battery Hydraulic Chair Equipped with 2 linear motors Independently operating up/down movement Movement of seat and backrest Solid construction in metal painted with epoxdy powders Upholstered parts should be composed of undeformable foam Synchronized movement of legrest with backrest operated by joystick Rotation of 90 deg left and right with blocking system by lever Anatomical articulated head rest Polyurethane detachable armsets, easy entrance of the patient by the side Lifting capacity 180Kg Fixed foot rest in chromed steel Doctor Stool Stool with five foot base Elevation and height adjustment through gas spring Self braking wheels pivoting to 360° ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
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11	<p>HORIZONTAL BED HEAD UNIT FOR NORMAL CARE AND INTENSIVE CARE UNITS.</p> <p>Bed head units certified in CLASS IIB, according to the Medical Device Directive 93/42 ECC.</p> <p>The products is manufactured following the standard applicable on medical device, electromagnetic compatibility (89/336 EEC) and electrical safety rules.</p> <p>Made by extruded aluminum profile single truncking 1,8mm thickness, section of aluminum profile 350x200mm designed and realized specifically to facilitate the modularity of profiles.</p> <p>Minimum length 1600mm.</p> <p>Painted with thermoset epoxy-polyester paint.</p> <p>Fixed to the wall by bracket made in steel and screws, in the bed head units there are 2 brackets for easier installation of units.</p> <p>Easy to inspection of electrical device and light.</p> <p>The slot of the direct light has an inclination of 22 degrees to optimize the correct lighting around the patient.</p> <p>The lamp unit is easily removable to facilitate maintenance and replacement of neon lamps.</p> <p>The Lower profile is divided by compartment in order to separate medical gas and electric components.</p> <p>Smooth surface to guarantee cleanliness and ease of disinfection of the units.</p> <p>Bed head units equipped with:</p> <ul style="list-style-type: none"> - 1 x Indirect light 1x58W T8 electronic for neon lamps, - 1 x Direct light 1x18W T8 electronic for neon lamps, - 1 x Switch for Indirect light - 1 x Switch for Direct light - 4 x Electrical sockets schuko standard 16A - 1 x Anodized medical rail for accessories 25x10mm - 1 x Gas box for AIR – VAC – OXY gas outlet BS standard <p>Bed head units certified in CLASS IIB, according to:</p> <p>Directive 93/42 ECC Medical device Directive;</p> <p>EN 60601:2007 Medical Electrical Equipment;</p> <p>EN 60601-1-2:2007 Usability Medical Electrical Equipment;</p> <p>UNI EN ISO 11197:2009 Essential safety Requirements of medical supply units;</p> <p>UNI CEI EN 1041:2009 Information supplied by manufacturer of medical device;</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
12	<p>Vertical bed head unit for normal care and day care units.</p> <p>Bed head units certified in CLASS IIB, according to the Medical Device Directive 93/42 ECC.</p> <p>The products is manufactured following the standard applicable on medical device, electromagnetic compatibility (89/336 EEC) and electrical safety rules.</p> <p>The Vertical solution of bed head units are designed to accommodate the telescopic arm and the medical curtain.</p> <p>Made by extruded aluminum profile single truncking 1,8mm thickness, section of aluminum profile 450x205mm designed and realized specifically to facilitate the modularity of profiles. Dimension 2000mm Painted with thermoset epoxy-polyester paint. The internal compartments are designed in order to separate medical gas and electric components.</p> <p>Smooth surface to guarantee cleanliness and ease of disinfection of the units.</p> <p>Each bed are equipped with:</p> <ul style="list-style-type: none"> 1 x Switch for Indirect light 1 x Switch for Direct light 2 x Electrical sockets schuko standard 16A 1 x Gas box for AIR – VAC – OXY gas outlet BS standard 					

	<p>1 x Front cover panel in high pressure laminate wood finished are at customer choice. The front panel is easily removed by the screws hidden in the lateral side of units.</p> <p>1 x KIT for privacy solution, with adjustable telescopic arm with fold down system and curtain in 100% TREVIRA CS flame retardant and antibacterial (dimension of curtain 2300x1400 mm, color at customer choice).</p> <p>2 x Lateral drawer in high pressure laminate finish at customer request dimension 400x350mm height 150mm with keys for locking.</p> <p>2 x Adjustable vertical pole made in stainless steel Height 1200mm, diameter 25mm need to clamp accessories (Max Load 50Kg).</p> <p>Bed head units certified in CLASS IIB, according to: Directive 93/42 ECC Medical device Directive; EN 60601:2007 Medical Electrical Equipment; EN 60601-1-2:2007 Usability Medical Electrical Equipment; UNI EN ISO 11197:2009 Essential safety Requirements of medical supply units; UNI CEI EN 1041:2009 Information supplied by manufacturer of medical device; ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
13	<p>Suspended bed head unit for ICU, CCU and PICU</p> <p>The Bed head units certified in CLASS IIB, according to the Medical Device Directive 93/42 ECC.</p> <p>The products is manufactured following the standard applicable on medical device, electromagnetic compatibility (89/336 EEC) and electrical safety rules.</p> <p>Made by extruded aluminum profile single truncing 3,5mm thickness, section of aluminum profile 382x194mm designed and realized specifically to facilitate the modularity of profiles with 49 degrees inclination to facilitate the use of the equipment by the operator.</p> <p>Units with two vertical suspension for each bed made in aluminum profile 4mm thickness with H shape section 130x143mm, electrical cable and medical gas are completely separated.</p> <p>Cover flange for false-ceiling and later cap made in shock proof ABS material</p> <p>Painted with thermoset epoxy-polyester paint.</p> <p>Composed by 2 side to install on the both side of unit the electrical components and device.</p> <p>Indirect light installed in the upper part of bed head units, light cover made in polycarbonate to guarantee the best light diffusion in the environment. Direct light are accommodate under the units, light cover made in polycarbonate material.</p> <p>The internal compartments are designed in order to separate medical gas and electric components. Smooth surface to guarantee cleanliness and ease of disinfection of the units</p> <p>Suspended bed head units for 20 beds Length 50mt</p> <p>21 x Adjustable bracket for ceiling mounted;</p> <p>21 x Vertical suspension</p> <p>Each bed are equipped with:</p> <p>1 x Indirect light 1x58W T8 electronic for neon lamps;</p> <p>1 x Direct light 1x18W T8 electronic for neon lamps;</p> <p>1 x Switch for direct light</p> <p>1 x Switch for indirect light</p> <p>6 x Electrical sockets schuko standard 16A</p> <p>3 x Equipotential ground sockets</p> <p>2 x RJ45 cat. 5e. data sockets</p> <p>1 x Gas box for AIR – VAC – OXY gas outlet BS standard</p> <p>1 x Rotating infusion column with 6 electrical sockets schuko standard 16A, 2 orientable vertical pole 25 mm diameter for infusion pump;</p>					

	<p>1 x Rotating monitor column with 5 electrical sockets schuko standard 16A, Gas box for AIR – VAC – OXY gas outlet BS standard, Shelf painted steel 440x400mm Max Load 45Kg 38mm diameter; 1 x Sliding and rotating trolley with 2 shelves painted steel 440x400mm Max Load 45Kg 38mm diameter, Gas box for AIR – VAC – OXY gas outlet BS standard. Bed head units certified in CLASS IIB, according to: Directive 93/42 ECC Medical device Directive; EN 60601:2007 Medical Electrical Equipment ;EN 60601-1-2:2007 Usability Medical Electrical Equipment; UNI EN ISO 11197:2009 Essential safety Requirements of medical supply units; UNI CEI EN 1041:2009 Information supplied by manufacturer of medical device. ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>																																													
14	<p><u>LAPAROSCOPIC 3D VIDEO SYSTEM</u></p> <p>1. The System should include the following items</p> <table border="1" data-bbox="165 635 1397 1007"> <tr><td>1.1</td><td>3D Full HD camera head with laparoscope and cable</td></tr> <tr><td>1.2.</td><td>3D Camera Control Unit</td></tr> <tr><td>1.3.</td><td>3D Xenon Light Source</td></tr> <tr><td>1.4.</td><td>3D Full HD Monitor</td></tr> <tr><td>1.5.</td><td>2D Monitor</td></tr> <tr><td>1.6.</td><td>Trolley for 3D System</td></tr> <tr><td>1.7.</td><td>3D Polarisation Glasses</td></tr> <tr><td>1.8.</td><td>Sterile single use drape</td></tr> <tr><td>1.9.</td><td>Accessories</td></tr> </table> <p>2. Specification of 3D Full HD camera head with laparoscope and cable</p> <table border="1" data-bbox="165 1046 1326 1246"> <tr><td>2.1.</td><td>0 Degree image sensors camera head with folowing specifications:</td></tr> <tr><td>2.1.1.</td><td>Minimum size: 1/3 inch</td></tr> <tr><td>2.1.2.</td><td>Minimum resolution: native Full HD (1920 x 1080 pixel)</td></tr> <tr><td>2.1.3.</td><td>Image aspect ratio 16:9</td></tr> <tr><td>2.1.4</td><td>3D System should be CF registered for Cardiac Surgery</td></tr> </table> <table border="1" data-bbox="165 1286 1326 1522"> <tr><td>2.2.</td><td>5 feature Control buttons:</td></tr> <tr><td>2.2.1.</td><td>1 button for white balance</td></tr> <tr><td>2.2.2.</td><td>1 button for light source on-standby-switching</td></tr> <tr><td>2.2.3.</td><td>1 button for snapshot and video</td></tr> <tr><td>2.2.4.</td><td>1 button for menue and 180° live image rotation</td></tr> <tr><td>2.2.5</td><td>Digital Zoom in four steps from X1.1 - X1.8 times</td></tr> </table>	1.1	3D Full HD camera head with laparoscope and cable	1.2.	3D Camera Control Unit	1.3.	3D Xenon Light Source	1.4.	3D Full HD Monitor	1.5.	2D Monitor	1.6.	Trolley for 3D System	1.7.	3D Polarisation Glasses	1.8.	Sterile single use drape	1.9.	Accessories	2.1.	0 Degree image sensors camera head with folowing specifications:	2.1.1.	Minimum size: 1/3 inch	2.1.2.	Minimum resolution: native Full HD (1920 x 1080 pixel)	2.1.3.	Image aspect ratio 16:9	2.1.4	3D System should be CF registered for Cardiac Surgery	2.2.	5 feature Control buttons:	2.2.1.	1 button for white balance	2.2.2.	1 button for light source on-standby-switching	2.2.3.	1 button for snapshot and video	2.2.4.	1 button for menue and 180° live image rotation	2.2.5	Digital Zoom in four steps from X1.1 - X1.8 times					
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2.3.	All in one camera head with integrated twin cable for connection to light source and CCU
2.4.	Length of camera cable 4m
2.5.	Locking mechanism and protection of sterile single use drape
2.6.	Four integrated camera control buttons
2.7.	Integrated heating elements to prevent fogging of distal laparoscope tip
2.8.	Separate camera heads with 0° and 30° viewing angle
2.9.	Outer diameter including sterile single use drape 10 mm
2.10.	Focal area of approx 25 mm to 250 mm
2.11.	Working length with sterile single use drape approx. 330 mm
2.12.	180° image rotation for 30° camera system by push of a button
2.13.	Image sensors provide Full HD resolution (1920 x 1080 pixel) from the sensor itself, no upscaling of resolution to Full HD
2.14.	Applied part acc. IEC 60601-1 type CF

3.Specification of 3D Camera Control Unit

3.1.	Connectors and ports
3.1.1.	2 DVI outputs
3.1.2.	1 LAN port
3.1.3.	2 USB ports
3.1.4.	1 S-video output
3.1.5.	2 HD/SDI outputs for 3D signal to 3D monitor
3.1.6.	1 BNC video output
3.1.7.	1 connector for master bus system
3.1.8.	1 single port for camera head connecting cable

3.2.	Control buttons
3.2.1.	6 buttons for menu control
3.2.2.	1 photo recording button
3.2.3.	1 video recording button
3.2.4.	1 switchover button 3D to 2D

3.3.	Menu functions
3.3.1.	Adjustable user settings for brightness, colour, detail, user name, reset to camera default
3.3.2.	Patient data collection (name, age, sex, patient number)
3.3.3.	Patient stamp function to stored image

3.3.4.	Preselectable storing to internal HDD or external USB-drive					
3.3.5.	Freeze on capture function on/off					
3.3.6.	Preselection of video quality normal/high/low					
3.3.7.	Time limit setting for video storing 5 seconds to infinity					
3.3.8.	Storage management functions:					
3.3.8.1.	Copy of internal HDD to external USB drive					
3.3.8.2.	Format of internal HDD and external USB drive					
3.3.9.	Patient review function					
3.3.10.	White balance activating function					
3.4.	Internal hard disc drive (HDD) >320 GB capacity					
3.5.	Network connection interface					
3.6	White balance function					
3.7.	2D image storing function					
3.8	2D video storing function					
4.Specification of Xenon Light Source						
4.1.	Light source features					
4.1.1.	1 light guide connector					
4.1.2.	1 menu switch					
4.1.3.	1 LED display					
4.1.4.	2 buttons for increasing/decreasing the light intensity					
4.1.5.	1 button for switching on/standby of the lamp					
4.2.	Light source functions:					
4.2.1.	Lamp life indication in hours					
4.2.2.	Light output indication in %					
4.3.	Minimum power 300 W					
4.4.	Type of lamp xenon					
4.5.	1 connector for data-bus-system					
5.Specification of 3D Monitor						
5.1.	Minimum size of display 32"					

5.2.	Minimum resolution 1920 x 1080 pixel
5.3.	Format 16:9
5.4.	2 inputs HD-SDI (left and right)
5.5.	1 2D to 3D adapter board
5.6.	1 connector for data-bus-system
5.7.	1 DVI Input

6.Specification of 2D Monitor

6.1.	1 DVI input
6.2.	Minimum size of display 17"

7.Specification of Trolley

7.1.	Minimum of four shelves
7.2.	Rear cart columns for high stability
7.3	Four antistatic double castors, front wheels with lock
7.4	Integrated drawer
7.5	Integrated push bar handle for easy maneuvering
7.6	Integrated holder for CO" bottle
7.7	Minimum dimensions 720 x 1610 mm x 620 (W x H x D)
7.8	Integrated insulation transformer max. 1600 VA
7.9	Articulating holding arm for secondary monitor

8.Specification of Sterile Single Use Drape

10.1.	Single use sterile drape with integrated locking mechanism
10.2.	Sterile barrier between unsterile camera/laparoscope and patient
10.3	Available in 0° and 30° version
10.4	Distal glass window to allow unobstructed clear viewing
10.5	Integrated connector to camera holding device
10.6	Shelf life of 5 years
10.7	Latex free
10.8	Single sterile packed drape
10.9	Distal arm to hold camera head

13

8 Donor Set For Liver TX
1- Vascular Instruments
Vascular Clamps

S.No	Items Description	QTY.
1	COOLEY ATR.CLMP CVD42MM JW145MM	1
2	COOLEY PEDIATRIC FORCEPS 24MM160MM	1
3	BABY-SATINSKY CLAMP150MM	1
4	HOPT ATR.PANKREAS A.KIDNEY FCPS.50/200MM	1
5	DE'BAKEY-HARKEN ATR.VASC.FORCEPS 245MM	1
6	MICRO ATR.BULLDOGCLAMP STR.20/60MM	2
7	MICRO DIETHRICH BULLDOGCLAMP ANG.10/48MM	2

Forcep

S.No	Items Description	QTY.
1	CUSHING DEL STR FORCEPS 180MM	2
2	GERALD FORCEPS DEL CVD 175MM	2
3	DE'BAKEY ARTERIOTOMY SCISSORS CVD 175MM	2
4	METZENBAUM SCISSORS STR 180MM	2
5	DIADUST MICRO RING FORCEPS 1MM STR.185MM	2
6	DIADUST MICRO RING FORCEPS 1MM STR.210MM	2

Needle Holder

S.No	Items Description	QTY.
1	DUROGRIP NDL HLDR SERR 0.2/180MM	2

2	TC MAYO-HEGAR NDHOLDERHVYSERR150MM	2
3	TC MAYO-HEGAR NEEDLE HOLDER305MM	2

Scissors

S.No	Items Description	QTY.
1	NOIR METZENBAUM SCISSORS CVD 180MM	1
2	NOIR NELSON-METZ SCISSORS CVD.230MM	1
3	POTTS-DE MARTEL SCISSORS45DGS/S185MM	1
4	METZENBAUM SCISSORS STR 180MM	1
5	FINE SCISSORS STRAIGHT 195MM LONG	1

2 - General Set

S.No	Items Description	QTY.
1	DEAVER RETRACTOR FIG 3 38MM300MM	1
2	MIKULICZ ABDOMINAL RETRACTOR 86X55MM	1
3	KOCHER-LANGENBECK RETR 80X16MM215MM	1
4	KOCHER RETR 4-PRGSEMI-S16X20220MM	1

Artery Forcep

S.No	Items Description	QTY.
1	LAHEY FORCEPS LONG-SERR 225MM	1
2	DE'BAKEY ATR.AORTA CRSS-CLMP240MM	1
3	ARTERY FORCEPS STRAIGHT 250MM	1
4	CRILE FORCEPS CVD 140MM	1
5	CRILE FORCEPS STR 140MM	1
6	ROCHESTER-PEAN FORCEPS STR 185MM	1
7	RAMPLEY SPONGE FORCEPS STR SERR 180MM	1
8	BABCOCK TISSUE FORCEPS 215MM	1
9	ALLIS FORCEPS 5X6 155MM	1
10	JUDD-ALLIS FORCEPS 3X4T.200MM	1

Forcep

S.No	Items Description	QTY.
1	LAZAR MICRO SUTURE FORCEPS 0.5MM 155MM	1
2	TISSUE FORCEPS 3X4 160MM	1
3	ADSON TISSUE FCPS FINE W/1X2T 150MM	1

Scissor

S.No	Items Description	QTY.
1	MAYO SCISSORS CVD 170MM	1
2	BABY-METZ SCISSORS DEL STR 145MM	1

Miscellaneous

S.No	Items Description	QTY.
1	LABORATORY DISH 2.5 L	1
2	LABORATORY DISH 1.0 L	1
3	KIDNEY TRAY 275MM 750ML	1
4	SCALPEL HANDLE #7 ENGLISH NO.5 160MM	1

3 - Retractor

Liver transplant system / resection system

Consisting of:-

S.No	Items Description	QTY.
1	MUENSTER WISHBONE RETRACTOR U SHAPED	2
2	MUENSTER FRAME HOLDER	1
3	MUENSTER WISHBONE RETRACTOR V SHAPED	2
4	MUNSTER CONNECTION CLAMP	4
5	MUENSTER OCTAG.NOTCH ROD 200MM W/JOINT	4
6	WRENCH 10MM	1
7	MUNSTER ABDOMINAL BLADE 62MMX76MM	4
8	MUNSTER ABDOMINAL BLADE80MM X80MM	4
9	MUNSTER BLADE 48MMX90MM	4

10	MUNSTER BLADE 48MMX105MM	4
11	ABDOMINAL WALL HOOK100X100MM	4
12	ABDOMINAL WALL HOOK 100X120MM	4
13	MUNSTER KELLY BLADE 63MMX55MM	4
14	BLADES PAIR 58X80MM BSC.	1
15	BLADES PAIR 72X84MM BSC.	1
16	MUNSTER LIVER BLADE 140MMX85MM	4
17	MUNSTER BLADE MALL 40MM	4
18	MUNSTER BLADE MALL 50MM	4
19	MUNSTER BLADE MALL 85MM	4
20	MUNSTER HARRINGTON BLADE 127MMX62MM	2
21	WIRE BASKET FOR STORING VALVES	1
22	WIRE BASKET FOR STORING ABDOMINAL RINGS	1

4 - Liver Perfusion Set

S.No	Items Description	QTY.
1	LABORATORY DISH 0.063 L	1
2	LABORATORY DISH 0.4 L	1
3	LABORATORY DISH 1.0 L	1

Scissor

S.No	Items Description	QTY.
1	HARVEY WIRE SCISSORS SERR 125MM	1
2	IRIS SCISSORS STR.S/S 110MM	1

Forceps

S.No	Items Description	QTY.
1	JUDD-ALLIS FORCEPS 3X4T.200MM	1
2	TITANIUM ADSON FORCEPS 1X2T.120MM	1

Miscellaneous

S.No	Items Description	QTY.
1	MICRO ATR.BULLDOGCLAMP STR.10/50MM	1

2	MICRO ATR.BULLDOGCLAMP STR.14/55MM	1
3	MICRO ATR.BULLDOGCLAMP STR.20/60MM	1
4	MICRO ATR.BULLDOGCLAMP ANG.10/45MM	1
5	MICRO ATR.BULLDOGCLAMP ANG.14/50MM	1
6	MICRO ATR.BULLDOGCLAMP ANG.20/55MM	1
7	HALSTED-MOSQ.FCPSDELSTR1X2 200MM	1
8	COTTLE MALLET FLAT/RND 320GR.30MM 185MM	1
9	DE'BAKEY DILATOR MALL 0.5MM 190MM	1
10	DE'BAKEY DILATOR MALL 1.0MM 190MM	1
11	DE'BAKEY DILATOR MALL 1.5MM 190MM	1
12	DE'BAKEY DILATOR MALL 2.0MM 190MM	1
13	DE'BAKEY DILATOR MALL 2.5MM 190MM	1
14	DE'BAKEY DILATOR MALL 3.0MM 190MM	1

Recipient Instruments set for Liver TX

S.NO.9 1 - Vascular Instruments

S.No	Items Description	QTY.
1	BABY-SATINSKY CLAMP150MM	2
2	HOPT ATR.PANKREAS A.KIDNEY FCPS.50/200MM	2
3	DE'BAKEY ATR.FCPS 1.5MM STR150MM	2
4	MICRO ATR.BULLDOGCLAMP STR.10/50MM	3
5	MICRO ATR.BULLDOGCLAMP STR.14/55MM	2
6	MICRO ATR.BULLDOGCLAMP STR.20/60MM	2
7	MICRO ATR.BULLDOGCLAMP ANG.10/45MM	2
8	MICRO ATR.BULLDOGCLAMP ANG.14/50MM	2
9	MICRO ATR.BULLDOGCLAMP ANG.20/55MM	2
10	COOLEY ATR.CLMPCVD42MM JW145MM	2

Forceps

S.No	Items Description	QTY.
1	CUSHING DEL STR FORCEPS 180MM	2
2	GERALD FORCEPS DEL CVD 175MM	2
3	DE'BAKEY ARTERIOTOMY SCISSORS CVD 175MM	2

4	METZENBAUM SCISSORS STR 180MM	2
5	DIADUST MICRO RING FORCEPS 1MM STR.185MM	2
6	DIADUST MICRO RING FORCEPS 1MM STR.210MM	2

Needle Holder

S.No	Items Description	QTY.
1	DUROGRIP NDL HLDR SERR 0.2/180MM	2
2	BARRAQUER NEEDLE HLDRW/CATCHCVD120MM	2
3	TC MAYO-HEGAR NDLHOLDERHVYSERR150MM	2
4	TC MAYO-HEGAR NEEDLE HOLDER305MM	2

Scissor

S.No	Items Description	QTY.
1	POTTS-DE MARTEL SCISSORS45DGS/S185MM	1
2	POTTS-DE MARTEL SCISSORS25DGS/S185MM	1
3	DIETH.POTTS SCISSORS DEL.125 ANG.180MM	1
4	FINE SCISSORS STRAIGHT 195MM LONG	1
5	METZENBAUM SCISSORS STR 180MM	1
6	NOIR METZENBAUM SCISSORS CVD 180MM	1
7	NOIR NELSON-METZ SCISSORS CVD.230MM	1
8	FINE SCISSORS STRAIGHT 195MM LONG	1
9	METZENBAUM SCISSORS STR 180MM	1

Miscellaneous

S.No	Items Description	QTY.
1	SELF-RETAINING RETR 3X4T.BLUNT 240MM	1

2- General set

Retractore

S.No	Items Description	QTY.
1	DEAVER RETRACTOR FIG 3 38MM300MM	1
2	MIKULICZ ABDOMINAL RETRACTOR 86X55MM	1

3	KOCHER-LANGENBECK RETR 80X16MM215MM	1
4	KOCHER RETR 4-PRGSEMI-S16X20220MM	1

Artery Forceps

S.No	Items Description	QTY.
1	LAHEY FORCEPS LONG-SERR 225MM	1
2	DE'BAKEY ATR.AORTA CRSS-CLMP240MM	1
3	ARTERY FORCEPS STRAIGHT 250MM	1
4	CRILE FORCEPS CVD 140MM	1
5	CRILE FORCEPS STR 140MM	1
6	ROCHESTER-PEAN FORCEPS STR 185MM	1
7	RAMPLEY SPONGE FORCEPS STR SERR 180MM	1
8	BABCOCK TISSUE FORCEPS 215MM	1
9	ALLIS FORCEPS 5X6 155MM	1
10	JUDD-ALLIS FORCEPS 3X4T.200MM	1

Forcep

S.No	Items Description	QTY.
1	LAZAR MICRO SUTURE FORCEPS 0.5MM 155MM	1
2	TISSUE FORCEPS 3X4 160MM	1
3	ADSON TISSUE FCPS FINE W/1X2T 150MM	1

Scissor

S.No	Items Description	QTY.
1	MAYO SCISSORS CVD 170MM	1
2	BABY-METZ SCISSORS DEL STR 145MM	1

Miscellaneous

S.No	Items Description	QTY.
1	LABORATORY DISH 2.5 L	1

2	LABORATORY DISH 1.0 L	1
3	KIDNEY TRAY 275MM 750ML	1
4	SCALPEL HANDLE #7 ENGLISH NO.5 160MM	1

3 - Retractor

Liver transplant system / resection system

consisting of:

S.No	Items Description	QTY.
1	MUNSTER WISHBONE RETRACTOR U SHAPED	2
2	MUNSTER FRAME HOLDER	1
3	MUNSTER WISHBONE RETRACTOR V SHAPED	2
4	MUNSTER CONNECTION CLAMP	4
5	MUNSTER OCTAG.NOTCH ROD 200MM W/JOINT	4
6	WRENCH 10MM	1
7	MUNSTER ABDOMINAL BLADE 62MMX76MM	4
8	MUNSTER ABDOMINAL BLADE80MM X80MM	4
9	MUNSTER BLADE 48MMX90MM	4
10	MUNSTER BLADE 48MMX105MM	4
11	ABDOMINAL WALL HOOK 100X100MM	4
12	ABDOMINAL WALL HOOK 100X120MM	4
13	MUNSTER KELLY BLADE 63MMX55MM	4
14	BLADES PAIR 58X80MM BSC.	1
15	BLADES PAIR 72X84MM BSC.	1
16	MUNSTER LIVER BLADE 140MMX85MM	4
17	MUNSTER BLADE MALL 40MM	4
18	MUNSTER BLADE MALL 50MM	4
19	MUNSTER BLADE MALL 85MM	4
20	MUNSTER HARRINGTON BLADE 127MMX62MM	2
21	WIRE BASKET FOR STORING VALVES	1
22	WIRE BASKET FOR STORING ABDOMINAL RINGS	1

Open Surgery Instruments (Reusable)

S.No	Items Description	QTY.
1	BIPOLAR PREP.SCISSORS FINE TIP 230MM	1
2	BIPOL.FORCEPS AAG FL.STR.0.9MM 200MM	1

Kidney Transplant System / Retractor System

S.No. 10 Consisting of:

S.No	Items Description	QTY.
1	MUNSTER WISHBONE RETRACTOR U SHAPED	2
2	MUNSTER FRAME HOLDER	1
3	MUNSTER WISHBONE RETRACTOR V SHAPED	2
4	MUNSTER CONNECTION CLAMP	4
5	MUNSTER OCTAG.NOTCH ROD 200MM W/JOINT	4
6	WRENCH 10MM	1
7	MUNSTER ABDOMINAL BLADE 62MMX76MM	4
8	MUNSTER ABDOMINAL BLADE80MM X80MM	4
9	MUNSTER BLADE 48MMX90MM	4
10	MUNSTER BLADE 48MMX105MM	4
11	ABDOMINAL WALL HOOK100X100MM	4
12	ABDOMINAL WALL HOOK 100X120MM	4
13	MUNSTER KELLY BLADE 63MMX55MM	4
14	BLADES PAIR 58X80MM BSC.	1
15	BLADES PAIR 72X84MM BSC.	1
16	MUNSTER LIVER BLADE 140MMX85MM	4
17	MUNSTER BLADE MALL 40MM	4
18	MUNSTER BLADE MALL 50MM	4
19	MUNSTER BLADE MALL 85MM	4
20	MUNSTER HARRINGTON BLADE 127MMX62MM	2
21	WIRE BASKET FOR STORING VALVES	1
22	WIRE BASKET FOR STORING ABDOMINAL RINGS	1

Containers Validated For 5000 Cycles(Life Time containers.)

S.No	Items Description	QTY.
1	BOTTOM FOR 1/1 CONTAINER HEIGHT:135MM	12
2	PRIMELINE CLEAR LID 1/1 SIZE	12
3	1/1 SIZE PERF BASKET 540X253X76MM	12
4	SILICONE CUSHIONING PAD 1/1 SIZE	12
5	STERILIT I OIL SPRAY	24

S.No	Items Description	QTY.
1	MAIER FORCEPS W/RCHT CVD260MM	2
2	BACKHAUS TOWEL CLAMP 110MM	6
3	TOWEL CLAMP FOR PAPER CLOTHS 115MM	4
4	MAIER FORCEPS W/RCHT STR 260MM	4
5	LABORATORY DISH 0.16 L	1
6	LABORATORY DISH 0.4 L	1
7	KIDNEY TRAY STAINLESS STEEL 250MM	1
8	SCALPEL HANDLE #4 135MM	1
9	SCALPEL #4L	1
10	SCALPEL HANDLE #3 125MM	1
11	TC BABY-METZ SCISSORSDEL CVDB/B145MM	1
12	TC METZENBAUM SCISSORS DEL CVD 180MM	1
13	TC METZENBAUM SCISSORS CVD 200MM	1
14	TC NELSON-METZ SCISSORS CVD 230MM	1
15	TC NELSON-METZ SCISS CVD 260MM	1
16	TC NELSON-METZ SCISSORS DEL CVD 285MM	1
17	TC SUTURE WAVECUT SCISSORS CVD 180MM	1
18	TC SUTURE SCISS W/1 SERR CVD 230MM	1
19	TC LEXER SCISS NARR CVD 165MM	1
20	SURGICAL SCISSORS STR S/B145MM	1
21	TC DE'BAKEY CV DUCT SCISS 220MM	1
22	TISSUE FORCEPS STR 1X2 145MM	2
23	DISSECT.FORCEPS MED.WIDE 1X2T.200MM	2
24	TISSUE FORCEPS 1X2 TEETH 250MM MED.	2

25	DE'BAKEY ATR.FCPS 2.0MM STR150MM	2					
26	DE'BAKEY ATR.FCPS 2.0MM STR 200MM	2					
27	DE'BAKEY ATR.FCPS 2.0MM STR240MM	2					
28	DISSECTING FORCEPS INSULATED 200MM	1					
29	TISSUE FORCEPS INSULATED 200MM	1					
30	KOCHER FORCEPS STR 1X2 140MM	6					
31	PEAN FORCEPS STR 140MM	6					
32	HALSTED-MOSQUITO FCPS DELCVD1X2125MM	6					
33	HALSTED-MOSQUITO FORCEPS DEL CVD125MM	10					
34	HALSTED DELICATE FORCEPS STR 185MM	2					
35	HALSTED-MOSQUITO FCPSDELSTR1X2185MM	2					
36	KOCHER-OCHSNER FORCEPS STR 1X2 200MM	2					
37	KOCHER-OCHSNER FORCEPS STR 1X2240MM	2					
38	DE'BAKEY ATR.BULLDOGCLAMP CVD.25/80MM	2					
39	DE'BAKEY ATR.BULLDOGCLAMP CVD.30/90MM	2					
40	ALPHA VASCULAR CLAMP ANGLED 350 GRAMS	2					
41	ALPHA VASCULAR CLAMPSLT CURVED350 GRAM	2					
42	ALPHA VASCULAR CLAMP CURVED 350 GRAMS	2					
43	DE'BAKEY ATR.COARCTAT.CLMPANG65/225MM	2					
44	DE'BAKEY PERIPHERAL CLAMP 60DG180MM	2					
45	DE'BAKEY AORTA ANEURYSM CLMPCVD270MM	1					
46	DERRA PEDIATRIC FORCEPS 26MM175MM	1					
47	DE'BAKEY TANGENTIAL CLMP1.38MM-WD220MM	1					
48	DBAKY TNGENTAL CLMP 2.48MM-WIDE 265MM	1					
49	DE'BAKEY TANGENTIAL CLMP 54/99/270MM	1					
50	DBAKY TNGENTIAL CLMP 4.58MM-WIDE270MM	1					
51	DE'BAKEY TANGENTIAL CLMP 5 75MM-W280MM	1					
52	DE'BAKEY CLAMP 60DG 55/85MM220MM	1					
53	DE'BAKEY CLAMP 60DG 65/100MM 275MM	1					
54	DE'BAKEY CLAMP 60 100/135/285MM	1					
55	DBAKEY AORTA ANEURYSM CLMPCVD130/315MM	2					
56	GUYON ATR.KIDNEY CLAMP230MM	1					
57	OVERHOLT-GEISS SUTURE FCPS #3 CVD225MM	2					

58	OVERHOLT FORCEPS # 1 CVD 295MM	2					
59	OVERHOLT-GEISS SUTURE FCPS#2CVD270MM	2					
60	MIXTER SUTURE FORCEPS RT-ANG 230MM	2					
61	DE'BAKEY SUTURE FORCEPS CVD230MM	1					
62	DE'BAKEY-RUMEL SUTURE FCPS CVD245MM	1					
63	MIXTER FORCEPS LONG-SERR 250MM	2					
64	MIKULICZ PERITONEUM FORCEPS CVD.200MM	6					
65	HABERER RIBBON RETRACTOR 50/40MM 305MM	1					
66	ATR.OVUM FORCEPS STR SM250MM	2					
67	VOLKMANN BONE CURETTE #0 5.2MM 170MM	1					
68	NELATON DIRECTOR W/TONGUE CVD160MM	1					
69	DOUBLE-ENDED PROBE 1.5MM 200MM	1					
70	DAVIS VASCULAR SPATULA 245MM	1					
71	ALLIS ATR.FORCEPS 8.4MM 255MM	2					
72	ROUX RETRACTOR3/SET 165MM	1					
73	LANGENBECK RETRACTOR 28X14MM	2					
74	LANGENBECK RETRACTOR 40X10MM	2					
75	KOCHER-LANGENBECK RETR 55X11MM 215MM	2					
76	VOLKMANN RETR4-PRGSEMI-S8.5X19220MM	2					
77	FRITSCH ABDOMINAL RETRACTOR 46X75MM #4	2					
78	MIKULICZ ABDOM.RETRACTOR 155X50MM 250MM	2					
79	MIKULICZ ABDOMINAL RETRACTOR 180X50MM	2					
80	CUSHING VEIN RETRACTOR 10X13MM 205MM	1					
81	CRILE VESSEL HOOK BLUNT 90DEG 6/200MM	1					
82	CUSHING VESS.HOOK BL.90DEG 6/280MM	1					
83	TC CRILE-WOOD NDL HLDRSTRSERR 145MM	2					
84	TC MAYO-HEGAR NDL HOLDERHVYSERR205MM	2					
85	TC WANGENSTEEN NEEDLE HLDR SERR275MM	1					
86	TC DE'BAKEY NDL HOLDER DEL SERR 180MM	2					
87	TC DE'BAKEY NDL HOLDER DEL SERR 260MM	2					
88	INTERIOR BOX F/BL930	2					
89	REDON SPIKE CH.10 SLIGHT.CVD.KNIFE TIP	1					
90	REDON SPIKE CH.12 SLIGHT.CVD.KNIFE TIP	1					

	91	TC RYDER NEEDLE HOLDERX-DELSERR210MM	1					
15	<u>NEURO SURGERY INSTRUMENT SET</u>							
	LAMINECTOMY INSTRUMENT SET							
	S.NO	DESCRIPTION	QTY.					
	1	SCALPEL HANDLE #3 E	1					
	2	SCALPEL HANDLE #4 E	1					
	10	METZENBAUM SCISSORS STR 145MM E	1					
	11	METZENBAUM SCISSORS CVD 145MM E	1					
	12	METZENBAUM SCISSORS CVD180MM E	1					
	13	METZENBAUM DISSECT.SCISSORS CVD.200MM	1					
	9	CUSHING DISSECT.FORCEPS STR.180MM	1					
	6	CAIRNS DOTT DISSECT.FORCEPS 178MM	2					
	7	DISSECT.FORCEPS MED.WIDE 1X2T.180MM	1					
	8	WAUGH DISSECT.FORCEPS 1X2T.184MM	1					
	4	RAMPLEY DRESSING FORCEPS,250MM	2					
	3	BACKHAUS TOWEL CLAMP 135MM E	6					
	53	TC CRILE-WOOD NDL HLDRSTD SERR185MM	1					
	50	TC MAYO-HEGAR NDLHOLDERHVYSERR150MM	1					
	51	TC MAYO-HEGAR NDL HOLDERHVYSERR185MM	1					
	52	TC MAYO-HEGAR NDL HOLDERHVYSERR205MM	1					
	47	MAYO-HEGAR NEEDLE HOLDER150MM E	1					
	48	MAYO-HEGAR NEEDLE HOLDER185MM E	1					
	49	MAYO-HEGAR NEEDLE HOLDER200MM E	1					
	15	WOUND RETRACTOR TRAVERS	2					
	14	ANDERSON-ADSON RETR 4X4 SHARP 190MM	2					
	17	HARVEY JACKSON RETRACTOR SHARP 3X3T.	1					
	16	BECKMANN-ADSON RETR 4X4 SEMI-S 305MM	1					
	18	CASPAR RETR ONLY F/BV450 W/KEY TE749	1					
	19	CASPAR BLD 4-PRONGS 37X52MM F/BV450R	2					
	26	KERRISON 130DG-UP 2MM 180MM	1					
	27	KERRISON 130DG-UP 3MM 180MM	1					

29	KERRISON 130DG-UP 5MM 180MM	1					
28	KERRISON 130DG-UP 4MM 180MM	1					
32	RONGEUR CHUSHING ANG.UP 3X140MM	1					
33	RONGEUR CUSHING ANGLED UP 4 X 140MM	1					
34	RONGEUR CHUSHING ANG.DOWN 3X140MM	1					
35	RONGEUR CHUSHING ANG.DOWN 4X140MM	1					
30	LOVE-GRUENWALD RONGEURSTR2X10MM130MM	2					
31	SPURLING RONGEUR STR 4X10MM135MM	2					
36	CUSHING RONGEUR STR 2X10MM180MM	1					
38	LOVE-GRUENWALD RONGUP-BITE3X10MM180MM	1					
37	SPURLING RONGEUR STR 4X10MM180MM	2					
40	LOVE-GRUENWALD RONGDN-BITE3X10MM180MM	1					
41	SPURLING RONGEUR DWN-BITE 4X10MM180MM	1					
39	SPURLING RONGCVDUP-BITE4X10MM178MM	1					
5	WATSON-CHEYNE DISSECTOR LGTH 191MM	1					
42	STILLE OSTEOTOME FINE 25/205MM	1					
20	PENNYBACKER RONGEUR 203MM	1					
25	LEKSELL RONG FCPSDBACT.CVD 245MM	1					
24	STILLE BONE RONGEUR230MM	1					
21	STILLE-RUSKIN BONE RONGEUR240MM	1					
22	LUER-STILLE BONE RONGEUR STR 225.MM	1					
23	LUER-STILLE BONE RONGEUR CVD 225MM	1					
43	FERG-FRAZIER SUCT 6FR 2/110MM WRK-LGTH	1					
44	FERG-FRAZIER SUCT 7FR110MM WRK-LGT	1					
45	FERG-FRAZIER SUCT 9FR 3/110MMWRK-LGTH	1					
46	FERG-FRAZIER SUCT 12FR 110MM WRK-LGT	1					
54	1/1 SIZE PERF BASKET 485X253X76MM	1					
	Sterlization container Validated for 5000 Cycles						
55	BOTTOM FOR 1/1 CONTAINER HEIGHT:120MM	3					
56	CLEAR LID 1/1 SIZE	3					
57	1/1 SIZE PERF BASKET 540X253X56MM	3					
LAMINECTOMY INSTRUMENT SET							
S.No	DESCRIPTION	QTY.					

1	SCALPEL HANDLE #3 E	1				
2	SCALPEL HANDLE #4 E	1				
3	BACKHAUS TOWEL CLAMP 135MM E	6				
4	RAMPLEY DRESSING FORCEPS,250MM	2				
5	DANDY DELICATE FORCEPS CVD140MM	25				
6	HUDSON HAND DRILL SET COMPLETE	1				
7	TWIST DRILL 2MM DIA	1				
8	HOOK HANDLE F/WIRE SAWS	3				
9	GIGLI WIRE SAW FINE6-WIRES400MM	5				
10	DEMARTEL CONDF/WIRE SAWSFLEX350MM	1				
11	ELEVATOR CAIRNS 178MM	2				
12	WEITLANER RETRACTOR 3X4T. SH.130MM	1				
13	OLIVECRONA BONE RONGEUR CVD 205MM	1				
14	LUER-STILLE BONE RONGEUR CVD 225MM	1				
15	OLIVECRONA SPATULAFLATFLEX7&9MM178MM	1				
16	OLIVECRONA SPATULA FLAT FLEX 11&13MM	1				
17	OLIVECRONA BRAIN SPATULA 15 A.18MM	1				
18	OLIVECRONA BRAIN SPATULA 18 A.22MM	1				
19	RASPATORY MCKISSOCK STR.197MM	2				
20	DAVIS VASCULAR SPATULA 245MM	1				
21	FERG-FRAZIER SUCT 7FR110MM WRK-LGT	1				
22	FERG-FRAZIER SUCT 9FR 3/110MMWRK-LGTH	1				
23	FERG-FRAZIER SUCT 12FR 110MM WRK-LGT	1				
24	KRAYENBUEHL NERV HKSHRTBALL-TIP184MM	2				
25	LOVE NERVE ROOT RETRACTOR STR 220MM	2				
26	SCHMIEDEN-TAYLOR DURA SCISSORS 155MM	2				
27	METZENBAUM SCISSORS CVD180MM E	1				
28	METZENBAUM DISSECT.SCISSORS STR.180MM	2				
29	MAYO-HEGAR NEEDLE HOLDER150MM E	1				
30	MAYO-HEGAR NEEDLE HOLDER185MM E	1				
31	TC MAYO-HEGAR NDLHOLDERHVYSERR150MM	1				
32	TC MAYO-HEGAR NDL HOLDERHVYSERR185MM	1				
33	TC DEBAKEY NEEDLE HOLDER 150MM	1				
34	TC DEBAKEY NDL HOLDER DEL SERR 180MM	1				
35	ADSON TISSUE FCPS FINE W/1X2T 120MM E	2				

36	ADSON FORCEPS SERR 120MM E	2
37	DISSECT.FORCEPS MED.WIDE 1X2T.180MM	1
38	CAIRNS DOTT DISSECT.FORCEPS 178MM	2
39	KERRISON 130DG-UP 2MM 180MM	1
40	KERRISON 130DG-UP 3MM 180MM	1
41	FRAZIER BRAIN PUNCTURE CANNULA	2
42	PENNYBACKER RONGEUR 203MM	1
43	CONE LAMINECTOMY RETRACTOR 3 X 4 TEETH	1
44	FORCEPS BAYO 1X2 200MM	2
45	SPURLING RONGEUR STR 4X10MM180MM	2
46	YASARGIL MICROFORM BAYO FCPS .6MM180MM	1
47	YASARGIL MICROFORM BAYO FCPS.9MM180MM	1
48	YAS. MICRO SCISSDELBAYOSTS/S225MM	1
49	YAS.MICRO SCISS BAYOUP-CVDS/S225MM	1
50	LABORATORY DISH 0.4 L	2
51	KIDNEY TRAY STAINLESS STEEL 250MM	1
52	1/1 SIZE PERF BASKET 485X253X76MM	1
53	TUNNELING INSTRUMENT 450MM	1
54	CLOWARD TYPE RETRACTOR W/5 BLADES 250MM	1
	Sterlization container Validated for 5000 Cycles	
	BOTTOM FOR 1/1 CONTAINER HEIGHT:120MM	3
	CLEAR LID 1/1 SIZE	3
	1/1 SIZE PERF BASKET 540X253X56MM	3

TRANSPHENOIDAL PITUATARY SET

S.No	Description	QTY.
1	FOERSTER SPONGE FCPS SERR STR 242MM E	2
2	BACKHAUS TOWEL HOLDING FORCEPS,110MM	1
3	SCALPEL HANDLE #3 E	2
4	TOENNIS-ADSON SCISSORS DEL CVD175MM	1
5	SURGICAL SCISSORS STR S/B145MM E	4
6	TISSUE FORCEPS STR 1X2 145MM E	1
7	GERALD DISSECT.FORCEPS STR.1X2T.175MM	1

8	GRUENWALD FORCEPS BAY.SH.W/O.T.200MM	2				
9	KOCHER-LANGENBECK RETR 41X11MM216MM	1				
10	CRILE-WOOD NEEDLE HOLDER 150MM	2				
11	COTTLE CHISL/OSTEO.W/DPTH-MRK4MM178MM	1				
12	COTTLE CHISEL/OSTEOTOMEW/MRK9MM178MM	1				
13	COTTLE OSTEOTOME 6MM178MM	1				
14	COTTLE Mallet FLAT/RND235G30MM184MM	2				
15	FREER ELEVATOR S/B185MM	1				
16	COTTLE ELEVATOR DBEND 203MM	1				
17	BONE RASPATORY 8MM #2 165MM	1				
18	HARTMANN NASAL SPECULUM LIGHT 145MM	1				
19	CUSHING-LANDOLT SPECULUM 70X15MM	1				
20	CUSHING-LANDOLT SPECULUM 90X15MM	1				
21	CUSHING-LANDOLT SPECULUM 110X15MM	1				
22	LANDOLT SPREADER F/SPECULUM OK100R-02R	1				
23	KERRISON 130DG-UP 2MM 180MM	1				
24	KERRISON 130DG-UP 3MM 180MM	1				
25	KERRISON 130DG-UP 4MM 180MM	2				
26	LANDOLT TUMOR FORCEPS BLUNT 9MM200MM	1				
27	YASARGIL RONGEUR STR D:3.5/190MM	1				
28	WEIBLAKESLEY RONGEURSTR3.6MM121MM	1				
29	LANDOLT DISS MALLRTBLUNT DWN261MM	1				
30	LANDOLT DISS MALLRTBLUNT UP261MM	1				
31	LANDOLT CURETTEMALLSPATULA-TIP260MM	1				
32	LANDOLT CURETTE MALL RND-TIP260MM	1				
33	LANDOLT CURETTE MALL RND-TIP260MM	1				
34	NICOLA CURETTE MALL LFT-CUT 260MM	1				
35	NICOLA CURETTE MALL ANG 260MM	1				
36	HARDY CURETTE MALL D:4/260MM	1				
37	HARDY CURETTE MALL D:6/260MM	1				
38	LANDOLT RASPATORY D:3.2/260MM	1				

39	YASARGIL MOVABLE MIRROR D:6MM	1
40	FERGUSSON SUCT.CANN D:2.5MM WORK.L.200MM	1
41	FERGUSSON SUCT.CANN D:4.0MM WORK.L.200MM	1
42	LABORATORY DISH 0.16 L	1
43	KIDNEY TRAY STAINLESS STEEL 250MM	1
	Sterlization container Validated for 5000 Cycles	
44	BOTTOM FOR 1/1 CONTAINER HEIGHT:120MM	3
45	CLEAR LID 1/1 SIZE	3
45	1/1 SIZE PERF BASKET 540X253X56MM	3

VASCULAR BASIC SET

1	FOERSTER SPONGE HOLD.FORC.,SERRAT.JAWS	2
2	BACKHAUS TOWEL HOLDING FORCEPS,110MM	8
3	SCALPEL HDL.NO.3	1
4	SCALPEL HDL.NO.4	1
5	METZENBAUM DISSECT.SCISSORS CVD.145MM	1
6	METZENBAUM DISSECT.SCISSORS CVD.200MM	1
7	MAYO DISSECT.SCISSORS CVD.170MM	1
8	OP.SCISSORS,STR.,BL/SH,145MM	1
9	POTTS-DE MARTEL SCISSORS25DGS/S185MM	1
10	POTTS-DE MARTEL SCISSORS45DGS/S185MM	1
11	POTTS-DE MARTEL SCISSORS60DGS/S185MM	1
12	TOENNIS-ADSON SCISS X-DEL CVD 175MM	1
13	DEBAKEY ATRA FCPS 2.0MM STR150MM	1
14	DEBAKEY ATRA FCPS 2.0MM STR 200MM	1
15	TISSUE FORCEPS,STD.PATT.,1X2 T.,145MM	1
16	DISSECT.FORCEPS STD.PATT.1X2T.200MM	1
17	CUSHING DISSECT.FORCEPS STR.200MM	1
18	HALSTED MOSQUITO FORCEPS STR.125MM	6
19	CRILE ARTERY FORCEPS CVD.140MM	6
20	PEAN ARTERY FORCEPS STR.140MM	6
21	KOCHER-OCHSN.ARTERY FORC.1X2T.STR.160MM	4
22	KOCHER-OCHSN.ARTERY FORC.1X2T.STR.200MM	2
23	BABY-MIXTER FORCEPS HEAVY-CVD180MM	1
24	OVERHOLT FORCEPS # 1 CVD209MM	1
25	BABY-MIXTER FORCEPS CVD 140MM	1

26	ALLIS ATRAUMATIC FORCEPS 6.2MM 155MM	1					
27	HALSEY NEEDLE HOLDER 130MM	1					
28	CRILE-WOOD NEEDLE HOLDER 150MM	1					
29	HEGAR-MAYO NEEDLE HOLDER 200MM	1					
30	TC RYDER NEEDLE HOLDERX-DELSERR155MM	1					
31	DESCHAMPS NDLF/RT-HNDBLTLNG-HK215MM	1					
32	DIRECTOR W/TONGUE STR 145MM	1					
33	DOUBLE-ENDED PROBE 1.5MM 145MM	1					
34	CUSHING VEIN RETRACTOR 10X13MM 203MM	2					
35	SENN-MILLER RECTOR. SH. 8X7/18X5.5MM	2					
36	FARABEUF RTRCTRS23X16/28X16-20X16/24X16	1					
37	VOLKMANN RETR4-PRGSEMI-S8.5X19222MM	2					
38	KOCHER-LANGENBECK RETR 41X11MM216MM	2					
39	CRILE VESSEL HOOK BLUNT 90DG 6/203MM	1					
40	ADSON-BABY RETRACTOR 3X4 BLUNT130MM	1					
41	ADSON LAMIN RETR 5X4 SEMI-S 325MM	1					
42	DAVIS VASCULAR SPATULA 245MM	1					
43	SCHMIDT DISSECTOR BLUNT 235MM	1					
44	DEBAKEY DILATOR MALL 1.0MM 190MM	1					
45	DEBAKEY DILATOR MALL 1.5MM 190MM	1					
46	DEBAKEY DILATOR MALL 2.0MM 190MM	1					
47	DEBAKEY DILATOR MALL 2.5MM 190MM	1					
48	DEBAKEY DILATOR MALL 3.0MM 190MM	1					
49	DEBAKEY DILATOR MALL 3.5MM 190MM	1					
50	DEBAKEY DILATOR MALL 4.0MM 190MM	1					
51	DEBAKEY DILATOR MALL 4.5MM 190MM	1					
52	DEBAKEY DILATOR MALL 5.0MM 190MM	1					
53	NABATOFF VEIN STRIPPER SET	1					
54	HANDLE FOR RING STRIPPER	1					
55	ENDARTERECTOMY STRIPPER 2.0MM	1					
56	ENDARTERECTOMY STRIPPER 3.0MM	1					
57	ENDARTERECTOMY STRIPPER 4.0MM	1					
58	ENDARTERECTOMY STRIPPER 6.0MM	1					
59	ENDARTERECTOMY STRIPPER 7.0MM	1					
60	ENDARTERECTOMY STRIPPER 8.5MM	1					
61	ENDARTERECTOMY STRIPPER 10.0MM	1					
62	ENDARTERECTOMY STRIPPER 12.0MM	1					
63	ENDARTERECTOMY STRIPPER 14.0MM	1					
64	SCHMID IRRIGATING CANNULA MALLEAB.LL.	1					

65	SCHMID IRRIGATING CANNULA MALLEAB.LL.	1
66	GUIDE F/FB651R	1
67	DEBAKEY BULDGX-ACT23MMJAWCVD78MM	1
68	DEBAKEY BULDGX-ACT35MM JAWSTR90MM	2
69	DEBAKEY BULDGX-ACT31MM JAWCVD86MM	2
70	DEBAKEY BULDGX-ACT42MMJAWCVD97MM	1
71	DEBAKEY ATRA MOSQUITO FCPS STR125MM	1
72	DEBAKEY ATRA MOSQUITO FCPS CVD 125MM	1
73	PEAN-DEBAKEY ATRAUMATIC FRCPS STR155MM	2
74	PEAN-DEBAKEY ATRAUMATIC FRCPCVD 155.MM	2
75	DEBAKEY ATRA COARCTAT. CLMPSTR65/225MM	1
76	DEBAKEY PERIPHERAL CLAMP 60DG180MM	1
77	DEBAKEY BLLDG CLAMPRING-HDL45DG25MM	1
78	DEBAKEY COARCTAT FCPSANG15DEG50/165MM	1
79	DERRA PEDIATRIC FORCEPS 26MM175MM	1
80	COOLEY PEDIATRIC CLAMP 60DG 30/160MM	1
81	PELKMANN FORCEPS CVD SERR261MM	1
82	KIDNEY TRAY STAINLESS STEEL 250MM	1
83	LABORATORY DISH 0.16 L	1
	Sterlization container Validated for 5000 Cycles	
84	BOTTOM FOR 1/1 CONTAINER HEIGHT:120MM	3
85	CLEAR LID 1/1 SIZE	3
86	1/1 SIZE PERF BASKET 540X253X56MM	3

Neuro High speed Drill with Craniotome & Perforatos (Electric)

S.No	Description	QTY.
1	MICROSPEED UNI CONTROL UNIT W/COOL.UNIT	1
2	MICROSPEED UNI FOOT CONTROL ONE PEDAL	1
3	MICROSPEED UNI MOTOR CABLE F/FOOT CTRL.	1
4	MICROSPEED UNI XS HIGHSPEED MOTOR	2
5	MICROSPEED UNI PERFORATOR DRIVER	1
6	XS ANGLED HANDPIECE I	1
7	XS STRAIGHT HANDPIECE I	1
8	XS ANGLED HANDPIECE II	1
9	XS STRAIGHT HANDPIECE II	1
10	XS CRANIOTOME HANDPIECE	1
11	XS FIXED DURAGUARD I	2

12	XS FIXED DURAGUARD II	2
13	XS HOLDING SLEEVE F/GB740R	1
14	CRANIAL PERFORATOR 9/12MM HUDSON SHANK	1
15	CRANIAL PERFORATOR 6/9MM HUDSON SHANK	1
16	ECCOS SET F/MICROSPEED UNI NEUROSURGERY	1
17	BOTTOM FOR 1/1 CONTAINER HEIGHT:135MM	1
18	CLEAR LID 1/1 SIZE	1
19	POWER SYSTEMS OIL SPRAY	6
20	XS DIAMOND BURR II D1.0MM	6
21	XS DIAMOND BURR II D1.4MM	6
22	XS CRANIOTOME CUTTER I	6
23	XS CRANIOTOME CUTTER II	6

Set of Microsurgery Instruments for Neurosurgery

S.No	Description	QTY.
1	YASARGIL MICRO SCISSORSSTRSERR225MM	2
2	YASARGIL MICRO SCISSORS UP-CVD245MM	2
3	YASARGIL MICROFORM BAYO FCPS.6MM240MM	2
4	YASARGIL MICROFORM BAYO FCPS.9MM240MM	2
5	MICROFORM TUMOR FORCEPS 3MM 240MM	2
6	MICROFORM TUMOR FORCEPS 5MM 240MM	2
7	YASARGIL NEEDLE HOLDER BAYO STR225MM	2
8	SAMII KNIFE/TUMOR TISSRND1.5MM230MM	2
9	SAMII KNIFE/TUMORTISSRND3.0MM230MM	2
10	SAMII KNIFE/TUMOR TISSRND4.5MM230MM	2
11	KRAYENBUEHL NERVE HOOK BALL-TIP 184MM	2
12	KRAYENBUEHL NERVE/VESSEL HKSHARP184MM	2
13	SENSATION MICROSCIS S/S BAY STR 90/217MM	2
14	SENSATION MICROSCIS S/B BAY STR 90/217MM	2
15	SENSATION MICROSCIS B/B BAY STR 90/217MM	2
16	SENSATION MICROSCIS S/B BAY CVD 90/217MM	2
17	MUELLER MICRO-SCISSORS CVD S/S 120MM	2
18	MICRO-SCSRFLT-HDL/CROSS-SERCVD120MM	2

19	VANNAS MICRO-SCISSORS ANGL.120MM	2
20	VANNAS MICRO-SCSRCS/SER-HDLSTR160MM	2
21	MICRO-SCISSORSRND-HDLCVD S/S145MM	2
22	DIADUST MICRO RING FORCEPS 1MM CVD.185MM	2
23	DIADUST MICRO RING FORCEPS 2MM STR.185MM	2
24	MICRO FORCEPS DE'BAKEY 1MM STR.185MM	2
25	MICRO FORCEPS DE'BAKEY 1MM STR.210MM	2
26	YASARGIL NEEDLE HOLDER BAYO STR 200MM	2
27	YASARGIL NEEDLE HOLDERBAYOUP-CVD200MM	2
	Sterlization container Validated for 5000 Cycles	
	BOTTOM FOR 1/1 CONTAINER HEIGHT:120MM	5
	CLEAR LID 1/1 SIZE	5
	1/1 SIZE PERF BASKET 540X253X56MM	5

ORTHO.INSTRUMENTS SETS

S.No	Items Description	QTY.
1	BONE HOLDING FORCEPS (STANDARD SET)	1
	Details of above set is as per list attached	
	Sterilization Contener for above set	
	BOTTOM FOR 1/1 CONTAINER HEIGHT:90MM	1
	FULL-SIZE LID W/RETENTION PLATE SILVER	1
	Total of Bone Holding Set	
2	BASIC INSTRUMENTATION F/SCREWS/PLATES	1
	Sterilization Contener for above set	
	BOTTOM FOR 1/2 CONTAINER HEIGHT:90MM	1
	1/2-SIZE LID W/RETENTION PLATE SILVER	1
	Total of Basic Ins F/Scr &Plates	
3	SET OF BONE SCREWS	1

	Sterilization Contener for above set					
	BOTTOM FOR 1/2 CONTAINER HEIGHT:120MM	1				
	1/2-SIZE LID W/RETENTION PLATE SILVER	1				
	Total Of Set Of Bone Screw					
4	SET OF BONE PLATES SPHERIC.GLIDING HOLES	1				
	Sterilization Contener for above set					
	BOTTOM FOR 1/2 CONTAINER HEIGHT:90MM	1				
	1/2-SIZE LID W/RETENTION PLATE SILVER	1				
	Total Of Set Of Bone Plate Spheric Gliding Holes					
5	INSTRUMENTATION F/ANGULAR NAIL PLATES	1				
	Sterilization Contener for above set					
	BOTTOM FOR 1/1 CONTAINER HEIGHT:90MM	1				
	FULL-SIZE LID W/RETENTION PLATE SILVER	1				
	Total Of Set Of Ins F/Angular Nail Plates					
6	SMALL FRAGMENT INSTRUMENTATION	1				
	Sterilization Contener for above set					
	BOTTOM FOR 1/2 CONTAINER HEIGHT:90MM	1				
	1/2-SIZE LID W/RETENTION PLATE SILVER	1				
	Total Of Set Of Small Faragment Ins					
7	SMALL FRAGMENT AND MINI INSTRUMENTATION	1				
	Sterilization Contener for above set					
	BOTTOM FOR 1/2 CONTAINER HEIGHT:90MM	1				
	1/2-SIZE LID W/RETENTION PLATE SILVER	1				
	Total Of Set Of Small Faragment & Mini Ins					
8	SMALL FRAGMENT IMPLANT SET W/PERF CONTAI	1				

	Sterilization Contener for above set							
	BOTTOM FOR 1/2 CONTAINER HEIGHT:90MM	1						
	1/2-SIZE LID W/RETENTION PLATE SILVER	1						
	TotalOf Set Of Small Farg Impt Set W/ Perf Cont							
9	SMALL FRAGMENT AND MINI IMPLANTS SET	1						
	Sterilization Contener for above set							
	BOTTOM FOR 1/2 CONTAINER HEIGHT:90MM	1						
	1/2-SIZE LID W/RETENTION PLATE SILVER	1						
	Total Of Set Small Frag & Mini Implants Set							
10	EXTRACT.INSTRUMENTATION F/INTRAMED.PINS	1						
	Sterilization Contener for above set							
	BOTTOM FOR 1/1 CONTAINER HEIGHT:90MM	1						
	FULL-SIZE LID W/RETENTION PLATE SILVER	1						
	Total Of Set Extract. Ins F/ Intramed . Pins							

Battery Operated Ortho. Drill With Oscillating Saw Complete System

1	BATTERY OPRATED SMALL DRILL	1
2	BATTETRY OPERATED DRILL AND REAMER	1
3	BATTERY OPERATED OSCILLATING SAW	1
4	UNIVERSAL K-WIRE ATTACHMENT	1
5	REAMER ATTACHMENT AO-LARGE	2
6	DRILL ATTACHM.LARGE JACOBS	1
7	REAMER ATTACHM.HUDSON/ZIMMER	1
8	DRILL ATTACHMENT AO-SMALL	1
9	ECCOS SET F/ACCULAN 3TI MOTORS/ACCESSOR.	2
10	BOTTOM FOR 1/1 CONTAINER HEIGHT:135MM	2
11	CLEAR LID 1/1 SIZE	2
12	CHARGING UNIT	1

	13	MAINS CORD 5M LONG	1					
	14	LID	1					
	15	STERILE FUNNEL	2					
	16	BATTERY REMOVAL DEVICE	2					
	17	NIMH BATTERY	2					
	18	NIMH BATTERY SHORT	2					
	19	DISP.SAW BLADE RAPID ACTION 90/13/.89	5					
	20	DISP.SAW BLADE RAPID ACTION 90/25/1.27	5					
	21	STERILIT POWER SYSTEMS OIL SPRAY	6					
	22	DISP.SAW BLADE RAPID ACTION 90/19/1.27	5					
	ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT							
16	<u>LAPAROSCOPE SET 7MM WITH ACCESSORIES</u> Telescope Dia 7mm, 300mm long 0° Telescope Dia 7mm, 300mm long 25° Telescope Dia 7mm, 300mm long 50° Tracer Sleeves 7mm with Insufflation tap. Metal Sleeve, Standard Straight Distal Tip WL 150mm, 7mm Dia Metal Sleeve, Standard Oblique Distal Tip WL 100mm, 7mm Dia. Trocar Sleeve Conical Tip for use with Straight Tip Sleeve Trocar Sleeve Pyramidal Tip for use with Straight Tip Sleeve Trocar Sleeve Conical Tip for use with Oblique Tip Sleeve Trocar Sleeve Pyramidal Tip for use with Oblique Tip Sleeve Reducing adapter for reduction from Dia 7mm to 5.5mm A traumatic Grasping Forceps both jaws Opening WL430mm A traumatic Grasping Forceps both jaws Opening Babcock WL 430mm Grasping Forceps blunt, both jaws opening WL 430mm Grasping Forceps 14mm tapered, both jaws opening WL310mm Grasping Forceps with teeth, both jaws opening. WL 310mm Grasping Forceps with one teeth, grooved, both jaws opening WL310mm Grasping Forceps with Two teeth grooved WL 430mm Grasping Forceps for fine structures WL 310mm Grasping Forceps and coagulation forceps, both jaws opening WL 310mm Grasping and Dissecting Forceps both jaws opening WL 310mm. Grasping and Dissecting Forceps curved left both jaws opening. WL 430mm Grasping and Dissecting Forceps 18mm, tapered, both jaws opening WL 310mm Grasping and Dissecting Forceps 20mm, single jaw action WL 310mm Grasping and dissecting forceps 15mm single jaw action Universal Grasping Forceps both jaws opening WL 310mm Plate shaped grasping Forceps both jaws opening WL 310mm							

	<p>Biopsy Forceps Spiked, both jaws Opening WL430mm Biopsy Forceps Cutting action WL430mm Biopsy Forceps Cutting action WL430mm Hook Punch by Frangenheim, cutting action. WL 310mm ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
17	<p><u>C-ARM</u> A Mobile C-Arm Image Intensifier suitable for use in Operation Theatres for Surgical procedures. The Control Panel should be fully feather touch for easy cleaning and disinfections.</p> <p>A) <u>IMAGE INTENSIFIER:</u></p> <ul style="list-style-type: none"> o Image Intensifying Tube : 9 Inches, Triple Field. o CCD Camera: High Resolution Compact CCD Camera. B/W, Pixels 752 X 582. o Monitor (2 Nos) : 15" or 17" Monitor along with a trolley. <p>B) <u>C-ARM MOVEMENTS:.</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Rotation : ±180°. <input type="checkbox"/> Motorized Up/Down : 430 mm <input type="checkbox"/> Horizontal Travel : 220 mm <input type="checkbox"/> Arc Orbital Movement : 125°. <input type="checkbox"/> Wig Wag : ±12.5°. <p>C) <u>X-RAY GENERATOR:</u></p> <p>High Frequency (40 KHz) with Max. Output power 6 KW and Rotating Anode Tube of focal spot 0.3mm (small) & 0.6mm (Large) to be provided.</p> <p>D) <u>CONTROL:</u></p> <ul style="list-style-type: none"> i. LCD display of kV & mA range) ii. Technic Selector switch for Fluoro & Rad. Mode Selection. iii. KV Selection from 40 to 120 KY in steps iv. An inbuilt Radiographic Timer to select mAs in steps for more than 240mAs. v. A 5 minutes cumulative Timer with Buzzer vi. Fluoro mA from 0.1-3 mA, continuously variable. vii. Indicators for left/right, up/down Image Rotation should be provided on Control Panel. viii. Thermal Safety cut off'. ix. The unit should be operable on SinglePhase 230 Y ±10% AC, 50 Hz x. Automatic Brightness Stabilizer should be provided. xi. Provision must exist on Control Panel for easy identification of faults, to minimize the downtime. xii. Iris Collimator should be provided. xiii. High Definition mode upto 7.5 mA should be available 					

	<p>xiv. Emergency fluoroscopy must be provided</p> <p>xv. Anatomical Programmed should be provided in radiography mode</p> <p>xvi. Emergency stop of mains supply should be provided</p> <p>E) DIGITAL IMAGE MEMORY SYSTEMS should include the following:- 100 Frame Storage Memory with last image hold, Recursive filter, Pulsed fluoroscopy, Negative image & contrast enhancement. Should be operable from Memory Panel as well as Remote control. Facility to transfer and Store image in Pen Drive as well as through LAN Port should be available. Should display Date and Time. ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
18	<p>Battery Operated Sternum Saw Specifications Dedicated cardio thoracic reciprocating saw hand piece Operating speed variable & stepless from 1000-14000 cpm Small, ergonomic, quiet and light weight hand piece at 760g Single trigger operation with safe mode selector Handpiece of metal anodised aluminium construction Tool-less quick fit blade locking mechanism Reciprocating blade stroke 3.7mm Single size micro adjustable (steerable) blade guard Handpiece will have the option of: - Sterile Li-Ion battery power; 13.2V large & small capacity - Aseptic (non sterile) NiMH battery power; 14.4V large, 10.8V medium & small capacity Handpiece should be of the DC brushless motor type Handpiece should be of the high performance, hermetically sealed hybrid motor controller type Handpiece should be fully machine washable Lithium Ion sterilisable battery technology with 5-bar LED battery capacity fuel gauge Unidirectional & bidirectional cutting accessories Half size sterilisation container Battery Charger 4 position battery charger with diagnostic function, healthcare check and conditioning cycle. Health care check can be initiated by the user if required Microprocessor controlled fully automatic intelligent charging system. All sizes of sterile and aseptic batteries can be charged at the same time in any combination Standard charging time of five to forty five minutes depending on the condition of the battery Simple touch-screen LCD user interface display Display shows battery empty, charging, finished, health check, light use & replacement status ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					

19	<p><u>Cell Saver Specifications:</u></p> <p>Microprocessor based cell saver system providing consistent high hematocrit, volume independent, fat elimination, fast processing time by simultaneous washing and processing system and low processing volume.</p> <p>Fully Automated Processing – beginning to end. Automatic Start at larger volume in the Reservoir.</p> <p>Continuous Processing of Bowls in sequence, and Automatic Stop when Reservoir is empty.</p> <p>Fat elimination 99%</p> <p>Heparin, protein, albumin, potassium removal rate is >95%.</p> <p>High quality wash 20-1000ml/min.</p> <p>Low volume wash 25ml/min</p> <p>Quality wash 20-1000ml/min</p> <p>High flow wash 100ml/min.</p> <p>Blood transfer 190 to 350ml/min</p> <p>PSQ from blood bags or direct draw.</p> <p>Centrifuge speed 0-5600RPM</p> <p>Red blood cell pump 0-1000ml/min</p> <p>Shed blood pump 0-1000ml/min.</p> <p>Anti coagulant removal >95%.</p> <p>Operating temperature 15-30 degree centigrade.</p> <p>Fast Processing Time - 4 minutes or less.</p> <p>Built-in Printer.</p> <p>RS232 Ports.</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
20	<p><u>THROMBOELASTOGRAPH</u></p> <p>Test / Assays: For measuring clot formation, clot kinetics, clot strength & clot stability.</p> <p>Suited for all point-of-care & lab testing situations.</p> <p>Microprocessor-controlled electromechanical coagulation instrument to determine all phases of coagulation in fresh and citrated whole blood samples.</p> <p>Two (2) independent measuring channels per analyzer & up to eight (8) channels per computer.</p> <p>Individual temperature control for each channel.</p> <p>Measuring technique — shear elasticity of a coagulating sample, determined by motion of the pin.</p> <p>Disposable cups and pins with Heparinase.</p> <p>Platelet inhibition reagents: for the measurement of platelet inhibition by anti-platelet drugs.</p> <p>Anticoagulant dosages can be adjusted</p> <p>Data management and connectivity-ready capability.</p> <p>Long-term data storage and retrieval, with access to patient and quality control test data.</p> <p>Test results are stored in the order in which they are performed.</p> <p>The ability to externally transfer or save data enhances the system's versatility.</p> <p>Cup drive — Line-synchronized, with synchronous motor</p>					

	<p>Transducer — Electrical-mechanical transducer of movement of torsion wire connected to the suspended pin Sample volume — 360 μ L or less. Power — external power supply, 220V model @ 50 Hz Initial warm-up time — Less than five minutes to warm sample Operating position — Setting verified with spirit level Desktop PC with licensed windows Weight not more than 08 kg. ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
21	<p><u>VIDEO ENDOSCOPE SYSTEM, LIGHT SOURCE,GASTROSCOPE AND COLONOSCOPES WITH ORIGINAL TROLLEY & LARGE LCD MONITOR</u></p> <p>Image Processor adopts the state-of-the-art technology to provide the high quality endoscopic image, and the safe and effective clinical diagnosis. The built-in workstation of the image processor is used to edit, manage and store the patient information, and print the patient report, which can well communicate with the network information system of the hospital. System maintenance and upgrade can be completed by updating software to achieve product improvements and advanced technology. The image processor complies with the international standards and regulations.</p> <p>Built-in workstation 300W of Xenon light source 500GB storage Compatible with USB keyboard</p> <p><u>Interface</u> Endoscope signal input port Video output port: DVI port (1), component RGB/YPbPr port (1), S-VIDEO port (1), CVBS port (1), VGA port (1) Video print control port Footswitch</p> <p>Gigabit Ethernet network port (IEEE 802.3) USB ports (3) RS232 ports (2) Grounding terminal Power supply port Touch control panel</p> <p><u>Specifications</u> Automatic white balance White balance memory function Automatic gain control: On/Off Color tone adjustment Red: -9 to +9; Blue: -9 to +9 Structure enhancement Mode A: 0 -8; Mode B: 0 -8 Edge enhancement: I, II, III Contrast enhancement: Low, medium or high CHb enhancement: 0 -8 Automatic brightness control Auto: -9 to +9;Peak: -9 to +9;Average: -9 to +9 Magnification: ×1.4, ×1.6, ×1.8 Image freeze/storage: Supported by the button on the endoscope, keyboard or footswitch</p>					

<p>Display mode: full screen and dual display Monochrome display: On/Off CHb chrome display: On/Off Built-in workstation For patient information management: The patient information can be created, edited, saved, searched, printed, marked by bodymark, viewed in the form of report, backed up and exported. For digital image management: The image can be acquired, archived, transmitted, displayed, searched and is compatible with DICOM standard. Storage capacity: ≥500GB Support system version update Output format: Analog signal: PAL, NTSC Digital signal: 720P, 1080P, SXGA (1280×1024)</p> <p>Monitor: LCD monitor: 19” color display Resolution: 1280×1024 Response time: 5ms Dot pitch: 0.294 x 0.294mm Visible angle: 170° Video input port: S-VIDEO (1), CVBS (1), RGB/YPbPr (1), VGA (1), DVI-D (1) Video output port: S-VIDEO (1), CVBS (1), RGB/YPbPr (1)</p> <p>Light Source: Technical Specification Unit should be with the xenon lamp as light source for endoscope system. On the basis of its special luminescence mechanism, the xenon lamp can provide better cold light source and longer lifespan than the traditional halogen lamp. Its color temperature approaches to that of the sunlight.</p> <p>Advanced Technologies Aspheric optical technology Capacitor touch screen</p> <p>Functions: 300W xenon lamp Instantaneous strong light transmission Auto output protection when the light source is not connected to the endoscope. Auto brightness adjustment Manual brightness adjustment Auto spare lamp switch Air blast cooling Prompt for components replacement Overheating protection</p> <p>Specifications Air feeding: 4 options (OFF, L, M and H) Brightness adjustment: 19 levels Max. output light flux: 1800 lumen ±10% CCT: 5900K±10% Color rendering index: > 90% Adaptable optical fibre NA: NA0.55 Light output spot diameter: 5mm Average operating life: 500 hours (continuous)</p>					
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	<p>Spare lamp: halogen lamp, 12V/5A Average operating life of spare lamp: 50 hours</p> <p>Interfaces Endoscope interface Air pump interface Brightness adjustment Power switch Lamp switch Air pump switch Light source indicator Air pump indicator Equipotential interface Air pump feeding interface Water bottle hook</p> <p>Complete with following items: Image processor 01 Video Gastroscope 01 Video Colonoscope 01 Original Trolley with LCD 01</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
22	<p>ECG MACHINE 3 CHANNELS WITH ORIGINAL TROLLEY</p> <p>Foldable Display LCD Screen Size 5 to 6” inch, Vivid waveform display, Automatic ECG Measurement and interpretation software standard, Paper Speed: 5mm/s, 6.25mm/s, 10mm/s, 12.5mm/s, 25mm/s, 50mm/s (±3%)</p> <p>Auto/Manual/Rhythem work modes, Automatic baseline adjustment, Complete digital filtering, resisting baseline drift, AC and EMG interface, Lead off detection and alarm, Built in high resolution thermal printer, Built-in rechargeable Li-ion battery, for more than 5/6 hours backup, Large patient data storage 150/200 which can be enlarged by a USB flash disk, Communication interface: Ethernet/RS232/USD connections standard, External USB printer port for connecting Laser printer/low cost printing, With all standard accessories with original mobile trolley/arm for cable. Note: The offered should be latest with FDA, TUV, CE and MDD certified</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
23	<p><u>EXAMINATION AND TREATMENT CHAIR FOR GYNECOLOGY</u> ELECTRO HYDRAULIC WITH COMPLETE ACCESSORIES WITH VIDEO COLOPOSCOPE FULL HD WITH 21” MONITOR AND EXAMINATION LIGHT 50000 LUX LED TYPE</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					

24	<p>DELIVERY BED COMPLETE ELECTRO HYDRUAILC WITH COMPLETE ACCESSORIES ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
25	<p>EXAMINAITON LIGHT LED 50000 LUX OR MORE COMPLETE ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
26	<p>LATEST PATIENT TRANSPORT SYSTEM MOBILE FOR EMERGENCY, OUT PATIENT, INTERNSIVE CARE, XRAY DEPT. COMPLETE WITH MEDICAL MATTRESS, IV POLE, ANTIMICROBILE COATING WITH STRONG CASTORS WITH BRAKES</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
27	<p><u>PNEUMATIC TUBE SYSTEM COMPLETE / LATEST (FOR TRAUMA & LAB BUILDINGS AT GIMS)</u> TECHNICAL DETAILS: MODE OF OPERAITON: FULLY AUTOMATIC MULTI ZONE SYSTEM – REVERSING OPERATION 08 STATIONS IN IN LAB AND 10 STATIONS IN TRAUMA BUILDING TOTAL 18 STATIONS WITH CARIER RACK 110MM TOTAL 54 PCS, OPERATING SYSTEM: WINDOWS 2000 OR XP / LATEST, LCD MONITOR, COMPLETE PC SYSTEM WITH GRAPHICAL DISPLAY OF ALL ZONES WITH MONITORING AND CARRIER FLOW IN GRAPHIC AND ALPHANUMERIC, STATUS INDICAITON OF ALL ZONES IN DIFFERENT COLORS, ACCESS TO PROGRAMMING MODE WITH DIFFERENT PASSWORDS IN DIFFERENT ACCESS LEVELS, AUTO START WILL AUTOMATICALLY COMPLETE ANY TRANSACTION IN PROGRESS WHEN POWER IS LOST/OFF, REAL TIME CLOCK, ZONE MASTER CONTROL, FIRE ALARM SYSTEM, AUTOMATIC DISTRIBUTION OF EMPTY CARRIERS, CARRIERS CAN BE RECALLED, COMPLETE ACCESSORIESWITH FOLLOWING ACCESSOIRES: RECEIVING BASKET, STEEL SLEEVES, DIVERTERS 2 WAY, 3 WAY, 4 WAY, TUBE SWITCH, OPTICAL, AIR REDUCTION CARRIERSTOP, ZONE MASTER, COMPLETE WITH PC SYSTEM AND PRINTER, BLOWER WITH CONTROL, AIR TUBE FLEXIBLE / TRANSPARENT, SPARE PARTS FOR TROUBLE SHOOTING/SERVICE PURPOSE. A HEAVY DUTY FULLY AUTOMATIC STRONG AND LATEST SYSTEM SHOULD QUOTED WHICH CAN BE CAPABLE TO CONNECT 250 OR ABOVE STATIONS FOR FUTURE EXTENSTION IN OTHER BUILDINGS. SYSTEM SHOULD BE CAPABLE TO CONNEXT 30 ZONES OR ABOVE. QUOTED PRICES MUST INCLUDE: COMPLETE STRONG PACKING EACH ITEM WITH FREIGHT CHARGES, INSTALLATION/COMMISSIONING THROUGH FOREIGN TRAINED ENGG. OPERATINNAL TRAINING AT SITE WITH 02 YEARS WARRANTY/PARTS. NOTE: THE QUOTED SYSTEM SHOULD HAVE MAJOR HOSPITAL REFERENCE SITE IN PAKISTAN WITH CE/FDA CERTIFICATES. ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					

28	<p>PROFESSIONAL ECG SYSTEM (15/18 LEADS)</p> <p>Advance Features: 15" or more high-resolution foldable color TFT touch-screen Water proof alphanumeric keyboard, 12/15/18 lead ECG acquisition,</p> <p>Automatic measurement and interpretation tested with authoritative and latest CSE/AHA/MIT data base, support on screen diagnosis,</p> <p>Support USB flash disk/SD card external memory, Support Linear/2D barcode scanner, PDF, SCP, FDA-XML and Dicom data export capabilities with HL7/Dicom connectivity,</p> <p>Complete digital filters, resisting baseline drift, AC and EMG interference Ethernet and RS-232 interface for data transmission to PC Built-in rechargeable Lithium battery for up to 4 hour backup Sleep mode for saving energy and extending LCD life Real-time waveform freezing 120 seconds ECG waveform reviewable Waveforms and auto-diagnosis results preview before printing Automatic arrhythmia detection and recording 180 ECGs recording in internal memory Automatic measurement and interpretation Heart rate variability (HRV) analysis Trolley and cable bracket standard</p> <p>Note: Reputable brand with FDA/CE certified products should be quoted. ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
29	<p>HIGH END TRANSPORT MONITOR (FOR AMBULANCES/EMERGENCIES/TRANSPORT)</p> <p>LIGHT WEIGHT AND PORTABLE DESIGN SUITABLE FOR ADULT/PAEDS/NEONATE AMBULATORY DESIGN WITH AP44 WATER PROOF AND DUSTPROOF 1.2M SHOCK RESISTANCE, LARGE CAPACITY BUILT-IN MEMORY PACEMAKER DETECTION, ELECTROSURGICAL INTERFERENCE PROOF DEFIBRILLATION PROTECTION AND DEFIB SYNCHRONIZATION ECG ALGORITHM OPTIMIZED FOR ARRHYTHMIA DETECTION PACEMAKER DETECTION AND HR MEASUREMENTS. 12 LEAD DIAGNOSIS ALGORITHM WITH 200 KINDS OF ANALYSIS RESULTS SP02 ALGORITHM WITH OUTSTANDING MOTION RESISTANCE AND LOW PERFUSION RESISTANCE PERFORMANCE SIGNAL INTENSITY MEASUREMENT AS A BLOOD PERFUSION INDICATOR NIBP ALGORITHM OPTIMIZED FOR CARDIAC PATIENTS, HYPERTENSIVE PATIENTS AND NEONATAL PATIENTS LATEST NO FAN DESIGN, BI DIRECTIONAL COMMUNICATION WITH CENTRAL MONITORING SYSTEM, SUPPORT HL7 VIA XML FILES WITH RECHARGEABLE LITHIUM BATTERY 4 HOURS, TOUCH SCREEN STANDARD</p> <p>NOTE: ONLY FDA/CE CERTIFIED LATEST MODELS SHOULD BE QUOTED. ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					

30	<p>VACUUME EXTRACTOR WITH SILICONE CUPS</p> <p>MOBILE HEAVY DUTY VACUMME EXTRATOR FOR OB/GYNE AND OPERATION THEATRE CONVIENENT HANDLE FOR EASY MOVEMNET COMPARTMENT FOR KEEPING ASSESSORIES HIGH VACUMME AND HIGH FLOW RATE FLOW RATE 90 L/MIN (HEAVY DUTY) MAX. VACUUM PRESSURE: 675 MMHG TWO UNBREAKABLE & AUTOCLAVABLE JARS WITH ANTIBACTERAIL & HYDROHOBIC FILTER CAPACITY EACH JAR 4000 ML WITH FOOT SWITCH OIL LESS PISTON TYPE VACUUM PUMP, OVER FLOW VALVE SYSTEM STANDARD SILICON AUTOCLAVABLE TUBES MOBILE ANTISTATIC CASTERS 04 WITH 02 BRAKES, FULL ABS STRONG BODY, WITH 02 SILICONE CUPS SMALL/MEDIUM</p> <p>Note: FDA/CE certified products should be quoted. ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
31	<p><u>DEFIBRILLATOR WITH COLOUR MONITOR RECORDER</u></p> <p>Latest Technology with Biphasic Waveform, Made for adult, pediatric and neonate patients. The monitored parameters are: ECG and heart frequency Should be lightweight and compact device, Modern and practical design, adequate for use in emergency cases and transportation within hospitals or in ambulances. With LCD High Resolution Colour Display .</p> <p><u>Description:</u> ECG Monitoring High Resolution Thermal Head Printer . AC Operated as well as Battery Back-up. Auto/Manual Record. One touch operation. BIG LCD Colour Display.</p>					

	<p>Specification: Power: AC: 100 to 265 VAC, 50/60 HZ External DC: 11 to 16 VDC Removable Battery Type: NiMH, 14.4V DC 4,5 A/h Max. Energy level 360 joules shock Full charge battery (completely discharged) 8 hours. Battery storage: Storing the battery for a long period under temperatures higher than 40 C will reduce battery capacity and its life cycle. Patients stored: >150 patients ECG: Recording of 2.5 hours continuous Storage: 15 seconds of ECG when in shock, physiological alarm and panel events.</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
32	<p>INFUSION PUMP MICRO PROCESSOR CONTROLLED WITH BACK LIT GRAPHIC AND COLORLED LCD DISPLAY AUDIBLE AND VISIBLE ALARMS FOR: OCCLUSION (UPPER & LOWER), COMPLETE, LOW BATTERY, DOOR OPEN, MALFUNCTION, BUBBLE PUMPING PRINCIPLE: PERISTALTIC, FINGER TYPE FLOW RATE RANGE: 0.1 – 990ml/h (im/h step increments) INFUSED VOLUME & VOLUME MAX. LIMIT RANGE : 1 – 999.9 ml MEMORY FUNCTION FOR FLOW RATE AND TOTAL VOLUME LATEST AUTOMATIC SELF TESTING WHEN UNIT IS SWITCHED ON AUTOMATIC KEY LOCK FUNCTION LATEST RETAIN MEMORY/LAST SETTING, ALARM REPEAT FUNCTION, OPEN SYSTEM (10 TYPES/BRANDS OF IV SETS CAN BE USED) LATEST AUTOMATIC KEEP VAIN OPEN SYSTEM BUZZER LEVEL OF 3 STEPS, HISTORY CALL BACK UPTO 10 DATA BATTERY: RECHARGEABLE BUILTIN FOR 4/5 HOURS. ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
33	<p><u>ULTRASONIC SURGICAL ASPIRATOR WITH DUAL FREQUENCY HAND PIECES 23KHZ & 36KHZ</u></p> <p>For use in different brain and spinal operations. Magnetostrictive technology with water cool hand pieces. Ultrasonic Surgical Aspirator (console) with foot switch control system. System capable of dual frequencies. (23 KHz and 36 KHz) Electric ultrasonic aspirating system 100 Watt output power. Irrigation flow maximum 25 ml to 50 ml/min. Suction pressure 0-0.6 bar. Steam autoclaveable hand pieces.</p>					

	<p>Ultrasonic surgical aspirator system on mobile trolley with 4-wheel castors. Variable dual energy / frequencies and control aspiration. Tissue selection mode. Integrated cooling and suction facility. Compatible module for electrosurgical unit. Built in irrigation pump in the unit. Irrigation output The irrigation rate display shows digits 1 – 10 One Hand Piece straight with resonance frequency 36 kHz. One Hand Piece angled with resonance frequency 23 kHz Sterilization case for each hand piece Ultrasonic bone sculpting saber tip Micro Tip for transphenoidal work Biopsy collection Trap Tubing kit for irrigation system Tubing kit for suctioning system FDA or European Directive 93/42/EEC, CE certificates CE12756</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
34	<p>SYRINGE PUMP MICRO PROCESSOR CONTROLLED WITH BACK LIT LCD DISPLAY WITH SLIDER HOOK WITH COMPACT DESIGN AND LIGHT WEIGHT AUDIBLE AND VISIBLE ALARMS WITH SENSOR FLOW RATE CAN BE CALCULATED BY INPUTING DOSE RATE OCCLUSION (UPPER & LOWER), COMPLETE, LOW BATTERY, DOOR OPEN, MALFUNCTION, BUBBLE AUTOMATIC SYRINGE SIZE DETECTION: 10, 20, 30 AND 50 ML SYRINGES OF ANY BRAND. FLOW RATE RANGE: 0.1 – 1200ml/h INFUSED VOLUME & VOLUME MAX. LIMIT RANGE : 1 – 999.9 ml BATTERY: RECHARGEABLE NI-CD BUILTIN AS STANDARD ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
35	<p><u>DIGITAL MOBILE RADIOGRAPHY SYSTEM WITH BUILT IN 22" INCH SCREEN</u></p> <ul style="list-style-type: none"> • Mobile x-ray unit, H.F. microprocessor controlled x-ray generator • Power 32 kW. • Rotating anode x-ray tube focus 0.8-1.3mm. • Tube anode heat capacity 107kHU. • Max values 300mA, 100kV. • 22" Touch screen LCD console with full screen image. • System Weight: maximum 280 kg. • Portable strongly built detector. • Portable detector sustains a weight of 7.5kg. • The System is a digital mobile x-ray unit equipped with a wireless 36x43cm flat panel detector. • The System also features +180*/-180* rotation of the x-ray mono block arm to facilitate exam execution in 					

narrow spaces.

- The System is 100% microprocessor controlled and equipped with a **large area 22” LCD high contrast touch screen console**,
- The System has been designed with **extensive use of light-weight alloys**, thus allowing easy system mobility with minimal effort and no need for costly and heavy system motors.
- The System is characterized with a “dead man” breaking system with a comfortable handle that facilitates the unit movement and positioning. The breaking system blocks the unit in any position, just releasing the handle. An **automatic closedown** system prevents the unit from remaining in ON mode for prolonged time.
- The System is **100% DICOM compliant**. Once the imaging session is completed, the entire study can be automatically sent to a PACS, a review workstation, or a DICOM printer; a large number of studies can be also maintained locally for temporary storage. And, most importantly, the intuitive Graphical User Interface makes the entire process smooth and easy. Needless to say the System DICOM layer has been thoroughly tested and will seamlessly interface with any DICOM environment.
- The System is equipped standard with the **image enhancement algorithm**, which makes it possible to expand the latitude of a single image and see all the relevant clinical details at the same time and without time-consuming Window/Level adjustment.

TECHNICAL FEATURES

<i>RADIOLOGICAL CHARACTERISTICS</i>	
Maximum power	32 kW
Inverter frequency	40 kHz
Max ripple	< 1% at max power
Exposure times	2-2200 ms
kV range	40-100 kV
mAs range	40kv - 200 mAs 50kv – 180 mAs
Max curent	300 mA @ 100kv
Operating mode	Two-points
Anatomical techniques	Over 550 ANATOMICA TECHNIQUES can be stored
X-ray tube type	Rotating anode
X-Ray monoblock Colum arm rotation	± 90 deg.
Monoblock rotation around (X-Y axis)	X ±180 deg. Y +103 deg. / -50 deg.
Focus height min	2022 mm
Maximum anode heat content	80 kJ (107 KHU)

Thermal monoblock	600 kj (800KHU)
APR	➤ 1000
Maximum continuous anode heat dissipation	300 W (24 kHU/min)
Internal Battery for unplugged exams executions	Standard
<i>OPERATING CHARACTERISTICS</i>	
Operator interface	Rear-lit High-Contrast 1280 x 1024 22” LCD touch screen display for all the operating parameters and messages for any possible anomalous conditions
DAP camera	Optional
Automatic closedown	The unit is fitted with an automatic closedown system minutes of not being used. This features prevent the unit from remaining on by mistake for long periods
X-ray push button	Manual with double click and 4m extensible cable (standard)

<i>ACQUISITION SYSTEM</i>		
	Flat panel detector	Wire and WIFI
IMAGE ACQUISITION & STORAGE	Acquisition resolution	3000x2372x16 bit
	Scintillator	Cesium Iodide (CsI)
	Detector dimensions	35x43 cm
	Pixel pitch	139 µm
	Max. spatial resolution	3,6lp/mm
	Max images locally archived	28000 images (no compression) 56000 images (lossless compression)
	Automatic LUT	YES, Linear and Logarithmic
	Image Enhancement	YES, Automatic
	Anatomic Programs	YES, preconfigured and editable
DICO 3.0	Print SCU	YES, (Optional)

	<ul style="list-style-type: none"> Featuring an ergonomically, intuitive operating concept which incorporates a wide range of additional renal replacement therapies. Other progressive and extensive technical features include: - <p>A high resolution LCD Colour screen Four roller pumps Four robust, high precision scales. Two individual bag heating system An integrated heparin pump The multifiltrate is optimally designed to carry out highly efficient therapies in the nephrological and intensive care environment. The CRRT machine should be constructed with special scales to enable to hold 24 liters of haemofiltration solution. This volume of solution allows the system to carry out a safe and smooth renal replacement therapy without the necessity of replacing bags. Cassette should be available Cassette enables the extra corporeal circuit to be fitted quickly and easily.</p> <p><u>STANDARD ACCESSORIES SHOULD BE SUPPLIED WITH UNIT AND BELOW DISPOSABLE ACCESSORIES</u></p> <table border="0"> <tr> <td>CVVH Procedure Disposable Kit</td> <td>10 Nos.</td> </tr> <tr> <td>HV-CVVH Procedure Disposable Kit</td> <td>10 Nos.</td> </tr> <tr> <td>CVVHD Procedure Disposable Kit</td> <td>10 Nos.</td> </tr> <tr> <td>CVVHDF Procedure Disposable Kit</td> <td>10 Nos.</td> </tr> </table> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>	CVVH Procedure Disposable Kit	10 Nos.	HV-CVVH Procedure Disposable Kit	10 Nos.	CVVHD Procedure Disposable Kit	10 Nos.	CVVHDF Procedure Disposable Kit	10 Nos.					
CVVH Procedure Disposable Kit	10 Nos.													
HV-CVVH Procedure Disposable Kit	10 Nos.													
CVVHD Procedure Disposable Kit	10 Nos.													
CVVHDF Procedure Disposable Kit	10 Nos.													
37	<p><u>CRRT Machine for Liver Dialysis</u></p> <ul style="list-style-type: none"> The Liver failure dialysis unit eliminates albumin bound and water-soluble toxins in two separate steps. Effective detoxification of albumin-bound toxins by direct adsorption Highly efficient dialysis of water-soluble toxins carried out as second independent step. No exogenous albumin required for priming and filling of the system. Usable also as dialysis machine for conventional dialysis. <p><u>FPSA Circuit</u></p> <ul style="list-style-type: none"> Firstly, the patient's own albumin is separated from blood by a novel membrane filter, AlbuFlow®, which retains higher molecular weight solutes and cells in the blood. The filtered albumin is then perfused through the adsorber, whereby the bound toxins are captured by direct contact with the higher-affinity adsorbing material. The native albumin is then returned to the patient. Thus, no exogenous albumin is required for the entire process. <p><u>Dialysis Circuit</u></p> <ul style="list-style-type: none"> Finally, water-soluble toxins are effectively removed by dialyzing the patient's blood directly: e.g. ammonia, which plays important role in the development of hepatic encephalopathy, as well as urea and other substances accumulating in the hepatorenal syndrome. The albumin filter membrane, as well as the dialyser membrane, is made of the highly biocompatible Polysulfone. 													

	<p><u>System Components:</u></p> <ul style="list-style-type: none"> • The machine should consists of expanded by module for fractionated plasma separation and adsorption (FPSA). • It can be used either for liver support (FPSA with simultaneous dialysis) or for conventional dialysis alone. • An albumin filter, two adsorbser and highflux dialyser required for one treatment. <p><u>Rationale</u></p> <ul style="list-style-type: none"> • Multiple solutes accumulate in blood as the excretory and metabolic function of the failing liver declines. • Many of these substances play a critical role in the pathophysiology of hepatic failure (e.g by inhibiting both regeneration of the liver and neurological functions.) • Additionally renal failure often develops in patients with hepatic dysfunction with subsequent accumulation of uraemic toxins in blood. <p><u>Therapy</u></p> <ul style="list-style-type: none"> • Metabolites associated with liver failure vary with respect to molecular size and physicochemical characteristics. • Typically, a significant portion of toxins is albumin-bound, e.g. unconjugated bilirubin, bile acids, hydrophobic amino-and fatty acids. Fractionated plasma separation and adsorption (FPSA) clears blood effectively from albuminbound substances. • Another significant portion of toxins comprises water-soluble toxins of low – and middle-molecular weight. • Their concentrations are increased by hepatic failure (e.g. ammonia), or renal failure (e.g urea and creatinine). These toxins are most effectively removed by haemodialysis. • Thus, a combination of FPSA with high-flux haemodialysis is the most effective method to deplete the patient from toxin waste. • The therapy for extracorporeal blood purification supports the detoxification function of the liver. Thus the liver is temporarily relieved enabling a regeneration of liver cells. <p><u>Safety</u></p> <ul style="list-style-type: none"> • The therapy has proven to be safe and compatible during numerous treatments. The procedure has been well-tolerated by the patients. <p><u>Selectivity</u></p> <ul style="list-style-type: none"> • The AlbuFlow® filter is made of Polysulfone hollow fibers and shows an excellent biocompatibility. Its specially designed membrane is permeable to albumin and albumin-bound substances. • Unlike conventional plasma filters it retains not only cells but also larger molecules of the immune and coagulation system in the patient’s blood. • The unit should be supplied with 10 Nos. Disposables patient kits. <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
38	<p><u>CENTRAL OR INFORMATION HUB</u></p> <ul style="list-style-type: none"> • Main Features: - • Central OR Information Hub to be used in Operation Theatres • Brilliant 42” full HD touch display • High performance industrial-grade workstation • Home button for intuitive system control • Full flexibility of video inputs from analog to state-of-the-art digital • Integrated sound system with iPod, dock, speakers and volume control • Sealed touch screen for easy disinfection • Scales from minimal-invasive allin-one on-wall to fully-fledged highly inter-convertible in-wall configurations 					

- Touch data and manipulate using only gestures.
- Interactive DICOM viewer created specifically for intuitive operation by the surgeon. With its unambiguous, practical touch interface and broad range of features to be prepped for the OR.
- Fast and easy access to medical image data
- Surgeon optimized OR functionality
- Quick and direct interaction with DICOM images
- Simplified multi-touch drag & drop user interface
- One touch multi-planar reconstruction
- Add-on data enrichment options for a variety of specialties

Scope of Delivery

1. PLATFORM

ON-WALL PACKAGE

- Centralized OR information hub combining the latest technology with appealing, modern design.
- At its core is a large 42" display with ultra-slim multi-touch interface that displays excellent image quality in full HD.
- The system based on a premium performance workstation allows for connection with a multitude of video signals and routing content on up to six full HD displays if required by the user.
- The newly designed control concept ensures intuitive management of data sources and displays with its drag & drop functionality.
- Fast and easy access to medical image data is provided through the integrated interactive DICOM viewer.
- Procedures can be conveniently documented with screenshots or single/dual channel recording with a single click.
- On-wall features an integrated sound system with speakers, iPod/iPhone dock and volume control that brings digital music in the OR.
- The on-wall mounting also allows for a compact all-in-one system setup

2. MULTI-TOUCH INFORMATION GATEWAY

- Next-generation OR Integration platform based on computer and network technology rather than classical rack-based hardware.
- Efficiently designed to route medical images, patient data and video sources to be viewed within an OR environment.
- Base unit with brilliant 42" full HD (1920x1080 pixels) multi-touch display
- Ultra-slim touch control (optical touch technology) replacing mouse and keyboard
- High-performance server-grade workstation with Hexa Core Intel Xeon W3680 CPU (3.33 GHz, 6 cores, 12MB cache), 6 GB of main memory and 320 GB storage
- Routing of any display content to connected external displays
- Video out functionality provides two outputs (multi-touch display and one additional display) from the PC with up to full HD resolution.
- Additional video-in/out functionality provided through articles #15601 and #15604.
- On-wall mounting for compact all-in-one system setup with workstation attached to touch display
- Integrated sound system with speakers, iPod/iPhone dock and volume control brings digital music in the OR
- CD/DVD drive and USB 3.0 ports at PC and additional USB ports at display for import of medical image data stored on external media
- Seamless extension to fully integrated IGS operating room

	<ul style="list-style-type: none"> - Customer site pre-requisite for integration of IGS system: systems connected to local network infrastructure (minimum 100 Mbit/s, recommended 1 Gbit/s, effective network speed 40 Mbit/s, recommended maximum latency 2 ms) - Full integration with databases such as PACS and web-based HIS and documentation such as HD streams and recordings for easy data access - Fast simultaneous access to e.g. PACS/hospital network and integration with e.g. IGS C-Arms via 2x high-speed network connection (up to 1 Gbit/s each) - Intuitive operating system for patient-centric data handling, application and display management - Central "Home Button" ensures intuitive system control - Intuitive content management of available displays via "drag & drop" functionality - Streamlined patient-centric access to DICOM and image data from multiple sources (PACS, CD/DVD, USB, Network) - Unified search and load of patient image data from all available sources with optimized usability, including intelligent pre-fetching and buffering of patient image data for increased performance - Ability to merge different patient data sets - Export of treatment documentation (e.g. screenshots) and plans to network storage or USB - HIPAA-compliant feature set including authentication, accountability log and automatic log-off - Built-in webcam and microphone for video- and audio-conferencing - Future-proof and scalable solution through modular software concept - Built-in power supplies for fibre-optical transfer lines - Requires external power switch for display - Power Input 100-240V; 50/60Hz - Power Consumption Touch Display (incl. transfer lines) Max. 350W - Workstation (incl. transfer lines) Max. 600W - Certificates and Classifications (Workstation and Touch Display) ETL, IEC 60601-1:2005 (3rd edition), ANSI/AAMI ES 60601-1:2005, /A2:2010, CAN/CSA-C22.2 No. 60601-1:08, SN EN60601-1:2006, IEC 60601-1-2, JIS T 0601-1-2, IP 20 (touch area designed according IP 54 requirements) CE, RoHS, I/O connections (total, available with) - Total of up to 6 Full HD video outputs, Up to 4 video signals with up to Full HD resolution can be displayed simultaneously, - 2x USB 2.0 and 2x USB 3.0 - ENVIRONMENTAL REQUIREMENTS - Temperature (Operation) 10°C to 35°C [50°F to 95°F], - Temperature (Storage) -10°C to 50°C [-14°F to 122°F], - Humidity (Operation) 20% to 80%. (non-condensing), - Humidity (Storage) 10% to 90% (non-condensing) - TOUCH DISPLAY - Cleanability: <ul style="list-style-type: none"> Alcohol-based (e.g. Meliseptol, Mikrozid AF Liquid) <ul style="list-style-type: none"> Alkylamine-based (e.g. Incidin Plus 2%) Active oxygen-based (e.g. Perform) Aldehyde/chloride-based 					
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	<ul style="list-style-type: none"> - Panel Size 42" - Resolution Full HD (1920x1080) - White Luminance 450cd/m² - Viewing Angle 178° horizontal, 178° vertical - Contrast Ratio Typ. 1200:1 - Color Depth 10bit, 1.06 Billion colors - Technology Active Matrix TFT, IPS panel - DICOM DICOM preset, re-adjustable in field - Touch Screen Infrared based multi-touch panel - Glass Tempered safety glass with antireflection - I/O connections 2x USB 2.0 input - Audio Control Direct volume control via touch panel - Dimensions - (workstation Height 648mm with display) Width 1842mm - Depth total 180mm - Weight total 74kg - Weight without holder wall 60kg - Dimensions (workstation) Width Display + Speakers 1309mm detached from display Width design cover 533mm or equivalent - WORKSTATION - Processor Intel Xeon W3680 (3.33 GHz, 6 cores, 12MB cache) - RAM 6 GB DDR3 - Hard disk 320 GB - Operating system Windows 7 64-bit (Embedded Standard) - Graphics Nvidia Quadro 2000 (PCI Express 2.0, 1 GB RAM) - I/O connections 2 x LAN 10/100/1000 - (galvanically isolated) - 2 x USB 3.0 - 1 x CD/DVD writer - Video Output (incl. Main display) 4 x Full HD DVI output - 2 x Full HD DVI output - Video Input Formats: S-Video, Composite, HD-SDI, DVI, RGB/VGA, Two of the connected video, signals can be displayed simultaneously - Audio Integrated sound system with speakers, iPod/iPhone dock and volume control. - Supported devices: iPod Touch 2nd generation, 3rd generation, 4th generation, iPhone 3G(S), iPhone 4(S) - Line-Out - for external audio system (e.g. speakers) - Line-In - for external audio sources - Microphone-In - for external microphone All galvanically isolated - 3. ELEMENTS DICOM VIEWER - Intuitive image viewing, manipulation and data enrichment software with a touch screen-optimized user interface. 					
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<ul style="list-style-type: none"> - Concurrent display of multiple medical image series with flexible hanging protocols - Easy arrangement of windows via drag-and-drop - Intuitive touch-based view manipulation functions (zoom, pan, scroll, flip, rotate) - Measurement functions for distance, angles and circles - Entering image annotations with virtual keyboard - 3-D multi-planar reconstructions in multiple planes (axial, coronal, sagittal, oblique) - Support of numerous modalities (x-ray, CT, MRI, PET, SPECT, ultrasound, secondary capture) - Import and export of surgical plans from/to planning workstation or - Node Server / USB / CD for trajectories and labeled points - Platform support - with minimum Patient Data Manager version 2.0 - Planning workstations which meet minimum technical requirements Node Server / Customer workstations which meet minimum technical requirements. - Minimum Technical Requirements - Operating System: Windows 7 (64-bit) with Service Pack 1 • Graphics: DirectX 11 compatible with 512MB graphics memory, - Display resolution: 1280x1024 - Processor: 2 physical cores - RAM: 4 GB 4. ORIGIN DATA MANAGEMENT - Origin operating system facilitating intelligent and automatic synchronization of data between platforms and offering easy access to all new software capabilities. - Universal patient data management software that allows for import of patient data in DICOM format on systems - Easy and intuitive user interface for streamlined access to patient data and applications - Full control with support of touch gesture interaction as well as mouse and keyboard support - Provides the same look and feel whether in the O.R. or office, while planning or navigating - PACS access via DICOM "Query/Retrieve" (compatible to all major PACS systems) - Import from PACS ("Query/Retrieve" and "Push"), USB, CD/DVD, Qentry and network - Import of any modalities including CT, MR, PET/SPECT, X-ray - Receipt of data via DICOM "Push" - Selection of patient from patient list on PACS (C-FIND) - Screenshots and video recordings in DICOM format (recording) can be sent to PACS (C-STORE) - Intelligent export of screenshots (.png or DICOM) and video recordings (.mp4 or DICOM) - Data export to different destinations (e.g. PACS, USB,..) - Data import and export tools: media filter (CD, USB,&hellip;) and browsing of network folders - Patient data management tools including new patient creation, merging and editing of patient data - Patient pinning allows for manual pre-loading of DICOM images (e.g. all patients that are scheduled for O.R. 3 on Thursday) in order to reduce waiting times for PACS - Support of DICOM worklist - Group-based user rights - Link to remote support (iHelp) 					
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	<ul style="list-style-type: none"> - HIPAA-compliant feature set including authentication, accountability log and automatic log-off - Generic license valid for all applications installed on system - PACS requirements for optimal performance - PACS should feature complete implementation of the DICOM query/retrieve protocol on study, series and instance level for optimal performance. - Alternatively, operation on series and study level or study level only is possible resulting in loss of performance and fidelity of the user interface. - PACS should allow for several parallel associations for optimal performance. - DICOM data retrieved from a long-term archive should be cached for optimal performance. - Recommended network connection speed of the client 1Gb/s with latency - Recommended achievable download bandwidth from PACS 100Mb/s. <p>5. VIDEO INPUTS: TWO CHANNELS UP TO FULL HD</p> <ul style="list-style-type: none"> - High-end dual-channel frame grabber enables connection and display of external medical video sources in full HD resolution. - Supports two external digital or analog inputs to PC with up to full HD resolution - Adds another two video outputs from PC with up to full HD resolution - Video input formats: S-video, Composite, HD-SDI, DVI, RGB/VGA - Video output format: DVI <p>6. TRAINING ON-SITE (1 DAY)</p> <ul style="list-style-type: none"> - One day on-site training to be provided by manufacturer Support Specialist for the whole system TM - complete functionality including:- - Authentication - Patient selection - Image viewing - Connection and routing of video signals - Interconnection with navigation platforms - Treatment plan viewing and session sharing <p>TO BE QUOTED SEPARATELY</p> <ul style="list-style-type: none"> - PLATFORM SOFTWARE FEATURES <p>7. ORIGIN INTEGRATION OF OR PC INTO DIGITAL OR</p> <ul style="list-style-type: none"> - Enables bi-directional communication between platform and a hospital OR PC. - OR PC desktop can be viewed and controlled on through touchscreen and displayed on external screens connected to main unit - Allows for remote control of software from OR PC - Control of content management of all displays - Control of treatment documentation features (screenshots, streaming and recording) - Applications available on platform (e.g. interactive DICOM viewer, navigation software, etc.) can be viewed and controlled from OR PC - OR PC is integrated into "home screen" as additional display - Other software applications can run simultaneously on OR PC. Easy switch between control software and other applications possible 					
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	<ul style="list-style-type: none"> - Requires installation of software on OR PC that is provided by hospital - Requirements & comments:- - Requires Windows 7 (64 bit) operating system hospital OR PC - Display resolution: 1920x1080 or 1920x1200 - NET Framework 4.0 must be installed <p>8. ORIGIN INTEGRATION OF COMPATIBLE 3RD PARTY SOFTWARE ON SYSTEM</p> <ul style="list-style-type: none"> - Allows for installation of compatible 3rd party software (e.g. HIS client) on system platform: installed applications can be accessed through user interface. - Installation of 3rd party software through service engineer - Applications installed can be accessed through Each application is represented by an icon on "home screen" - Requirements & comments: - Compatibility of 3rd party software with Windows 7 (64 bit) operating system required; System performance must not be affected severely by 3rd party software. <p>9. ORIGIN STREAMING AND RECORDING WITH WEB PORTAL: 2X HD OR 1 X FULL HD</p> <ul style="list-style-type: none"> - Live-streaming or recording in digital HD or full HD quality including portal for web-browser access from anywhere (e.g. PC in a surgeon's office). - HD Streaming and recording of two display contents simultaneously with HD quality or one display content with full HD quality - Digital HD or full HD streaming (1280x800/720p or 1920x1200/1080p resolution with state-of-the-art MPEG4/H.264-encoding) allows efficient transmission of live view of any display content (e.g. navigation software, microscope or endoscope video) to any web-browsing enabled computer connected to network (typical data transfer rate / network load only ~8 Mbit/s) - Digital HD or full HD recording (1280x800/720p or 1920x1200/1080p resolution with state-of-the-art MPEG4/H.264-encoding) of any display content (e.g. navigation software, microscope or endoscope video) to local or network connected storage (typical file size only ~8 Mbit/s, i.e. ~60 MByte per minute recording) - Screenshot function to capture any display content in native resolution and store to local or network connected storage - Intuitive one-click control interface for streaming, recording and screenshot functionalities seamlessly integrated in Content Manager - Direct web-access to live stream, digital recordings and screenshots via system portal page accessible from any web-browsing enabled computer -no further software installation required HIPAA-compliant feature set including authentication, accountability log and automatic log-off - Requirements and further information: - Access via HTTP; optional additional access via HTTPS (requires certificate to be purchased by customer) - Login via "NTLM Authentication Scheme for HTTP"; optionally NTLM can be disabled and Kerberos can be used instead (not supported by Mac OS• Single-sign-on (automatic login with domain account) - Web browsers: 32bit-versions of Internet Explorer 8, Mozilla Firefox 4, Google Chrome 11, Opera 11 on Windows, Google Chrome 12 on Mac OS X (or later versions) with VLC 1.1.11 (or later versions) and VLC browser plugin <p>10. ORIGIN AUDIO AND VIDEOCONFERENCING</p>					
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	<ul style="list-style-type: none"> - Web-based audio- and videoconferencing solution - Allows for audio and video communication between (i) system and office PC, or (ii) between two systems - Purely web-based solution that requires no installation of hardware or additional software on client side besides web browser - Conferencing application available for office use on a wide range of operating systems: Apple OS, Windows 7, Windows 8, Windows XP, Windows Vista - Equipped with built-in web camera and microphone for conferencing - Alternatively the surgeon can use an external microphone connected to (e.g. via bluetooth headset) for audio communication from sterile field (external microphone not provided). - When viewing a live stream from the OR (e.g. displaying live microscope video) a single-click in the web portal allows to call the OR for remote consulting. - For optimized conferencing user administration recommends to run the Conferencing application on an iPlan Net server or a hospital server. - Article only available - Customer requirement: Google Chrome <p>11. ORIGIN SURGICAL CHECKLIST</p> <ul style="list-style-type: none"> - Surgical checklist for improved patient safety - Electronic checklist is based on WHO principles - Checklist guides through different questions to make sure that e.g. the correct patient is operated at the correct site, the OR team prepares for risk of high blood loss, the OR team will avoid inducing an allergic drug reaction for which the patient is known to be at risk, etc. - Checklist is available in the following languages: English, German, Spanish, French - Customization of checklist items support engineer according to hospital-specific requirements - Full integration of checklist in Hospital Information System (HIS): document providing evidence that all steps in the checklist were completed is sent to HIS and embedded in the electronic medical record of the patient - Hospital-specific customization of the HL7 interface by support engineer to enable communication between system and HIS - Customer requirement for HIS integration: (i) HL7 interface in HIS, (ii) Node server or hospital server running the Surgical Checklist application <p>12. ORIGIN INTEGRATION OF HOSPITAL INFORMATION SYSTEM (HIS)</p> <ul style="list-style-type: none"> - Automatic data synchronization between platform and hospital servers - Automatic identification of patients scheduled for surgery based on HL7 messages or DICOM worklist provided by the hospital - Patient list is created accordingly and displayed in the user interface of the platform. Eliminates search for patient name or ID. - Automatic synchronization of patient image data with hospital server. - Pre-loading (e.g. overnight) of image data of the scheduled patients. - Advanced treatment documentation management: automatic saving of screenshots or video recordings to hospital servers and notification of HIS (patient name, ID and storage location) - Hospital-specific customization of HIS integration by support engineer required - Article only available - Customer requirement for HL7 integration: (i) HL7 interface in HIS, (ii) iPlan Net server or hospital server 					
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running a application

13. ORIGIN STREAMING AND RECORDING WITH WEB PORTAL: 1 X HD

- Live-streaming and recording in digital HD quality including portal for web-browser access from anywhere (e.g. PC in a surgeon's office)
- Digital HD streaming (1280x800/720p resolution with state-of-the-art MPEG4/H.264-encoding) allows efficient transmission of live view of any display content (e.g. navigation software, microscope or endoscope video) to any web-browsing enabled computer connected to network (typical data transfer rate / network load only ~4 Mbit/s)
- Digital HD recording (1280x800/720p resolution with state-of-the-art MPEG4/H.264-encoding) of any display content (e.g. navigation software, microscope or endoscope video) to local or network connected storage (typical file size only ~4 Mbit/s, i.e. ~30 MByte per minute recording)
- Screenshot function to capture any display content in native resolution and store to local or network connected storage
- Intuitive one-click control interface for streaming, recording and screenshot functionalities seamlessly integrated in Content Manager
- Direct web-access to live stream, digital recordings and screenshots via system portal page accessible from any web-browsing enabled computer -no further software installation required
- HIPAA-compliant feature set including authentication, accountability log and automatic log-off
- Requirements and further information:-
- Access via HTTP; optional additional access via HTTPS (requires certificate to be purchased by customer)
- Login via "NTLM Authentication Scheme for HTTP"; optionally NTLM can be disabled and Kerberos can be used instead (not supported by Mac OS)
- Single-sign-on (automatic login with domain account)
- Web browsers: 32bit-versions of Internet Explorer 8, Mozilla Firefox 4, Google Chrome 11, Opera 11 on Windows, Google Chrome 12 on Mac OS X (or later versions) with VLC 1.1.11 (or later versions) and VLC browser plugin
- Requires IPv4 (without NAT) and open network ports for video stream

14. ORIGIN REMOTE CONTROL FROM TABLET INSIDE OR

- Enables a tablet (e.g. iPad) inside OR to communicate with platform:
- content of touch-display can be viewed and controlled from tablet
- Allows for remote control of software from tablet: touch display can be viewed and controlled from tablet
- Content management of all displays
- Control of treatment documentation features (screenshots, streaming and recording).
- Applications installed on platform (e.g. Interactive DICOM viewer) can be started, viewed and controlled from tablet
- **Requirements & comments:-**
- Alternatively the remote control is also possible from a Touch Panel PC
- Tablet or Touch Panel PC not included
- Tablet operating system: latest version of Android, iOS or Windows
- Touch panel PC shall run latest version of Internet Explorer, Chrome or Firefox
- WiFi available for tablet
- Only available for Platform System

	<ul style="list-style-type: none"> - ELEMENTS 15. ELEMENTS TRAJECTORY PLANNING - Planning of multiple trajectories for neurosurgical approaches - Interactive crosshairs for target and entry point definition - Flexible scaling of trajectory diameter - Probe's Eye and Inline views for trajectory verification - Platform support - With minimum Patient Data Manager version 2.0 - Customer workstations which meet minimum technical requirements. Quotation of article 10959 - CUSTOMER HARDWARE ID is mandatory - Node server or customer server which meet minimum technical requirements - Minimum Technical Requirements - Operating System: Windows 7 (64-bit) with Service Pack 1 - Graphics: DirectX 11 compatible with 512MB graphics memory - Display resolution: 1280x1024 - Processor: 2 physical cores - RAM: 4 GB 16. ELEMENTS DICOM VIEWER 3D - Instantaneous, high-quality 3D visualization for analysis by and increased diagnostic confidence of the surgeon. - 3D volume rendering of CT, MR, PET, SPECT datasets, with presets for visualization of skin, bone, vessel, DRR and MIP - Superimposition of 3D dataset visualization and surgical planning data (volume objects, trajectories and labeled points) - Selection of region of interest to cut and zoom onto the relevant anatomical volume (only available in Elements DICOM Viewer) - Threshold adjustment to adapt visualization to density of relevant anatomy - Platform support - With minimum Patient Data Manager version 2.0 - Customer workstations which meet minimum technical requirements. CUSTOMER HARDWARE ID is mandatory - Minimum Technical Requirements - Operating System: Windows 7 (64-bit) with Service Pack 1 - Graphics: DirectX 11 compatible with 512MB graphics memory - Display resolution: 1280x1024 - Processor: 2 physical cores - RAM: 4 GB 17. ELEMENTS SMARTBRUSH - Quick and easy volumetric outlining of pathologies and anatomical structures in medical images 					
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	<ul style="list-style-type: none"> - Immediate 3D contouring & Instant volume calculation by outlining on just two orthogonal slices - Interactive target delineation by dynamically following the path of a cursor or touch of a finger - Intelligent contour expansion with ambient edge detection - Flexibility to outline, adapt and review in axial, coronal and sagittal planes - Support of various CT, MR or PET sequence types for volumetric contouring and review - Simultaneous inclusion of fused data sets with different modalities during outlining - Dedicated spanned view to further review and optimize objects in all directions - Slice-by-slice review and adaptation in brush mode - Fast update and modifications of automated atlas segmentation results - Intuitive user interface with both mouse and touch control compatibility - Automatic creation of "Volumetric Report" PDF files per object with representative screenshots and details on geometrical measurements like volume, RECIST and Macdonald criteria - Platform Support - With minimum Patient Data Manager version 2.0 - Technical Requirements - Operating System: Windows 7 (64-bit) with Service Pack 1 - Graphics: DirectX 11 compatible with 512MB graphics memory - Display resolution: 1280x1024 - Processor: 2 physical cores - RAM: 4 GB <p>18. ELEMENTS IMAGE FUSION</p> <ul style="list-style-type: none"> - Fast and precise fusion, based on mutual information algorithm enables to exploit all anatomical & functional data sets simultaneously - Automatic fusion of numerous modalities including CT, MRI (T1, T2, FLAIR, MRA), PET, SPECT (PET, SPECT fusion not available in Spine & Trauma 3D version 2.0) - Automatic pair selection with instantaneous pre-alignment and fusion - Possibility of manual fine-adjustments in all dimensions - Definition of a "Region of Interest" in all dimensions to exclude areas from fusion - Color overlay in amber-blue and Spyglass functionality for reviews - Ability to fuse a series of image datasets from different modalities and points of time - Compatible with datasets of various body regions - Platform Support - With minimum Patient Data Manager version 2.0 - Minimum Technical Requirements - Operating System: Windows 7 (64-bit) with Service Pack 1 - Graphics: DirectX11 compatible with 512MB graphics memory - Display resolution: 1280x1024 - Processor: 2 physical cores - RAM: 4 GB <ul style="list-style-type: none"> - DISPOSABLES <p>19. DISPOSABLE STERILE TOUCHPENS (24 PACKS A 5 PCS)</p> <ul style="list-style-type: none"> - Disposable sterile touch pens to control touch screen displays. 					
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	<ul style="list-style-type: none"> - Quantity: 24 packs a 5 pcs - Disposable item <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
39	<p><u>AUSCULTATION SIMULATOR:</u> Qty: 01 No.</p> <p>Teaching aid to study heart diseases, especially those that students or doctors do not hear very often during their practical work. The model should have the facility to simulate the characteristic changes in heart sounds and murmurs associated with uncommon heart conditions.</p> <p>The simulator reproduces 20 different heart sounds at 4 positions (aortic, pulmonic, tricuspid, and mitral valves) as well as 10 different respiratory sounds at 3 positions. All sounds should be heard by using a stethoscope.</p> <p>The heart rate should be adjusted.</p> <p>Consists of a soft-skin torso, a smartscope and a digital remote control with English display.</p> <p>Size: 62 x 43.5 x 27.5 cm, weight: 12.6 kg</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
40	<p><u>DICOM heart model, clear</u> Qty: 01 No.</p> <p>The Heart Model should based on CT scan data of a healthy, adult male and should anatomically correct inside and out. The heart model should pliable which allows seeing all internal structures.</p> <p>The model comes pre-cut for easy examination.</p> <p>Uses of the model:</p> <ul style="list-style-type: none"> - A simulator for practice in coronary artery bypass grafting or other surgery - A catheterization simulator - Educational model for learning surgery skills. - Stent placements <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
41	<p><u>GIANT HEART MODEL, 3 TIME LIFE SIZE, 4 PARTS</u> QTY: 01 NO.</p> <p>4-part heart model, 3X life size. It sould sectioned along the anterior plane to show internal structures, including the cardiac valves and the comparative morphology of the right and left ventricles.</p> <p>The right atrium is also removable. Mounted on base.</p> <p>Size : 24 x 25 x 28 cm.</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					

42	<p><u>HEART HYPERTROPHY</u> QTY: 01 NO</p> <p>This life size model shows the compensatory hypertrophy heart disease. This pathology is characterized by the myocardium thickening of the muscular fibres of the left ventricle. Hypertrophy heart disease is the complication of a chronic hypertension. The model is divided in 2 parts and mounted on stand. Size: 11 x 11 x 22 cm</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
43	<p><u>DICOM HEART MODEL, CLEAR</u> QTY: 01 NO.</p> <p>The Heart Model should based on CT scan data of a healthy, adult male and should anatomically correct inside and out. The heart model should pliable which allows seeing all internal structures. The model comes pre-cut for easy examination.</p> <p>Uses of the model:</p> <ul style="list-style-type: none"> - A simulator for practice in coronary artery bypass grafting or other surgery - A catheterization simulator - Educational model for learning surgery skills. - Stent placements <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
44	<p><u>HEART WITH BYPASS, 2X LIFE SIZE, 4 PARTS</u> QTY: 01 NO</p> <p>The 2x life size model describes all the main structures of the human heart in great detail. The right part is detachable to expose the inner chambers and valves. The left auricle and ventricle wall should be removed to show the atrium, the mitral valve, the ventricle and papillary muscles. Additionally this model shows bypass to the right coronay artery as well as bypass to the left interventricular artery and to the ramus circumflexus. Size: 15 x 13 x 24 cm,</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
45	<p><u>TRAINING ARM FOR INTRAVENOUS INJECTION:</u> QTY: 01 NO.</p> <p>This injection training model should have the most injectable veins. The following veins should be punctured:</p> <ul style="list-style-type: none"> - Basilic V. - Dorsal metacarpal V. - Median basilic V. 					

	<ul style="list-style-type: none"> - Cephalic V. - Digital V. - Median cephalic V. - Accessory cephalic V. - Thumb V. - Median antebrachial V. - Median cubital V. <p>Vein and skin should be replaced, the arm should moveable to enable the student to develop manipulation skills. I.m. and subcutaneous injection should also possible at the model. Supplied with storage case.</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
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46	<p>ETT SYSTEM COMPLETE WITH 12 CHANNELS ECG MACHINE WITH STRESS FUNCION AND COMPLETE WITH TREADMILL</p> <ul style="list-style-type: none"> . 12.1 inch high-resolution foldable color TFT touch-screen Specific function keys for Exercise ECG test Complete digital filters, resisting baseline drift, AC and EMG interference Ethernet and RS-232 interface for data transmission to PC Built-in rechargeable Lithium battery for up to 4 hour backup Sleep mode for saving energy and extending LCD life Real-time waveform freezing 120 seconds ECG waveform reviewable Waveforms and auto-diagnosis results preview before printing Automatic arrhythmia detection and recording 180 ECGs recording in internal memory Automatic measurement and interpretation Heart rate variability (HRV) analysis PC-based data management and measurement software (Option) <p>Standard Accessories:</p> <ul style="list-style-type: none"> ECG Machine 12 channel with stress with original trolley and Treadmill <p>Note: The unit is FDA approved, ISO, TUV approved, CE & MDD Marked)</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
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urine analyzer series**System**

Modular, analytical system platform, consolidated work area for urine strip test and urine microscopy, expandable and re-configurable on site.

Types of module

urine strip measuring unit

urine microscopy measuring unit

Module combinations

Stand-alone:

Sample throughput

Up to 240 samples/hour with test strip analysis only

Up to 116 samples/hour with microscopy analysis only

The throughput (theoretical max) depends on the rate of samples that are processed on the analyzer

Test parameters

Urine strip analysis:

ERY Erythrocytes and hemoglobin

LEU Leukocytes

NIT Nitrite

PRO Protein

GLU Glucose

KET Ketones

UBG Urobilinogen

BIL Bilirubin

pH

SG Specific gravity

COL Color

CLA Clarity

Urine microscopy analysis:

RBC Red blood cells

WBC White blood cells

NEC Non-squamous epithelial cells

SEC Squamous epithelial cells

YEA Yeasts

CRY Crystals

BAC Bacteria

HYA Hyaline casts

SPRM Sperm

MUC Mucus

PAT Pathological casts

Consumables

Pack: cassette with 400 strips for urine strip analysis. The onboard stability of the pack is 14 days

cuvette: cassette with 400 cuvettes for urine microscopy analysis

Sample input/output

Load/unload capacity: 75 samples (= 15 racks), continuous loading/unloading

Rack: 5 position rack, RD standard rack

Tray: tray with 15 racks/75 samples, RD standard tray

Automatically starts operation after routine, priority or emergency samples loading

Sample container types

Length: 65 - 115 mm. Diameter: 13 - 16 mm. Bottom: round, conical or false

Minimal sample volume

Test strip and microscopy: 2.8 mL

Test strip: 2.0 mL

Microscopy: 2.0 mL

Test strip reduced volume (no measuring cell measurements): 1.5 mL

Test strip reduced volume and microscopy: 2.3 mL

Measurement principles

Reflectance photometry: with 4 different wavelengths (465, 528, 560 and 615 nm)

Refractometry: SG testing

<p>Turbimetry: clarity testing Automated microscopy Automatic image evaluation Calibration calibration strip for urine strip analysis Reference cuvette for urine microscopy analysis Storage capacity Test results: up to 10,000 test results QC, photometer calibration and measuring cell calibration data records: up to 300 for each Operator can export all results of the analyzer, including QC and calibration results Power requirements Line voltage: 100-125 VAC, permanent connection (+10%, -15%) 200-240 VAC, permanent connection (+10%, -15%) Line frequency: 50 or 60 Hz (± 5%) Regulatory requirements The urine analyzer series meets the protection requirements laid down in IVD Directive 98/79/EC. Furthermore, instruments are manufactured and tested according to the following international standards:</p> <ul style="list-style-type: none"> - IEC 61010-1, 2nd Edition - IEC 61010-2-081, 1st Edition - IEC 61010-2-101, 1st Edition - CAN/CSA C22.2 No. 61010 2nd Edition - EN IEC 61326-1 1st Edition - EN IEC 61326-2-6 1st Edition <p>UL 61010-1, 2nd Edition Operating conditions Ambient room temperature 18 to 32 °C (64.4 to 90 °F) Relative humidity 30%-80%, non-condensing Physical dimensions must be:</p> <table border="0"> <tr> <td>Width (with buffers)</td> <td>107.9 cm (42.48 in)</td> </tr> <tr> <td>Width (without buffers)</td> <td>68.7 cm (27.05 in)</td> </tr> <tr> <td>Depth</td> <td>53.2 cm (20.94 in)</td> </tr> <tr> <td>Height</td> <td>64.4 cm (25.35 in)</td> </tr> </table> <ul style="list-style-type: none"> • Urine work area (with buffers): <table border="0"> <tr> <td>Width</td> <td>176.6 cm (69.53 in)</td> </tr> <tr> <td>Depth</td> <td>53.2 cm (20.94 in)</td> </tr> <tr> <td>Height</td> <td>64.4 cm (25.35 in)</td> </tr> </table> <p>Uninterruptible power supply (UPS) Output power capacity 1500 VA Battery runtime Min. 5 min Water quality Type II/IF (according to CLSI C3-A4 guidelines) (Conductivity: 1µS/cm; 25 °C) Wash solution Recommended solution for performing the daily wash action: 4% Na-hypochlorite solution Cleaning solutions Recommended solutions for manually cleaning the instrument: Ethanol</p>	Width (with buffers)	107.9 cm (42.48 in)	Width (without buffers)	68.7 cm (27.05 in)	Depth	53.2 cm (20.94 in)	Height	64.4 cm (25.35 in)	Width	176.6 cm (69.53 in)	Depth	53.2 cm (20.94 in)	Height	64.4 cm (25.35 in)					
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	<p>Mikrozyd (EtOH/Propanol)</p> <p>Display Touch screen, 19 inch (1280 x 1024 pixels)</p> <p>Keyboard Standard US QWERTY layout</p> <p>Environmental conditions Ambient room temperature 18 to 32 °C (64.4 to 90 °F) Relative humidity 30%-80%, non condensing Altitude and pressure Max. 2000 m (6'561 feet) above sea level</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
48	<p>FULLY AUTOMATED SAMPLE PREPARATION WITH REAL-TIME POLYMERASE CHAIN REACTION (PCR) TECHNOLOGY FOR AMPLIFICATION AND DETECTION</p> <p>Fully automated sample preparation from primary vials Ready-to-use, load-and-go reagents No thawing or mixing required Less than 20-minute set-up for full run of 94 samples Real-time PCR with digital data capture provides accurate qualitative results with no gray zone Eliminates the need for equivocal sample retesting Advanced results algorithm eliminates the need for manual curve analysis</p> <p>Features and Benefits</p> <p>Easy-to-learn and easy-to-use software</p> <ul style="list-style-type: none"> • Intuitive user interface • Requires only a few hours training at all levels of laboratory personnel • Seamlessly integrates both system components <p>Streamlines workflow</p> <ul style="list-style-type: none"> • Fully automated sample preparation • High quality nucleic acid extraction technology • Robust engineering reduces maintenance and downtime • Bi-directional connectivity with an LIS for automated results reporting reduces labor and potential for error <p>Promotes lab efficiency</p> <ul style="list-style-type: none"> • Processes up to 384 samples a day • Load primary collection tubes and liquid cytology vials directly on the system • Minimal input volumes allow multiple tests from the same patient specimen <p>An expanding menu on a single platform HI V* HBV* HCV* HCV GT* HPV CT/NG</p>					

	BRAF KRAS EGFR HSV 1 and 2 Cdiff MRSA/SA ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT					
49	LIVER DIALYSIS MACHINE DATA SHEET MARS® kit—type 1116/1—X-MARS™ Compatibility Monitor 1 TC in combination with the PrismafleX® system (SW 5.0 and following versions) Extracorporeal blood volume: Total 279 ml = 152 ml (MARS® FLUX 2.1) + 127 ml (tubings) FLUX 2.1: High flux dialyzer especially suited for removing protein-bound toxins from the patient's blood by means of an human serum albumin (HSA) dialyzate. Effective surface area : 2.1 m ₂ Priming volume : 152 ml Volume HSA dialyzate side : 306 ml Performance data (according to EN 1283) Clearance (HD) Q _B = 200 ml/min, Q _D = 500 ml/min, UF = 0 ml/min, +/-20% Urea : 195 ml/min Creatinine : 187 ml/min Vitamine B₁₂ : 149 ml/min Ultrafiltration rate in vitro Measured using bovine blood at Q_B = 300 ml/min, TMP = 200 mmHg : 133 ml/min at Q_B = 500 ml/min, TMP = 200 mmHg : 180 ml/min UF-coefficient in vitro : 83 ml/h*mmHg Sieving coefficients (according to EN 1283) +/-20% Measured using bovine blood at Q_B = 300 ml/min Inulin : 0.99 β₂-Microglobulin : 0.63 Albumin : < 0.01 Connections Dialyzate and blood connectors according to EN 1283 and ISO 8637 diaFLUX™ 1.4 Low flux dialyzer to be used to remove water-soluble toxins from the human serum albumin (HSA) dialyzate of the MARS® circuit. Effective surface area : 1.4 m ₂ Performance data (according to EN 1283) In vitro clearance specifications : Counter-current, saline 37°C, Q _B = 200 ml/min, Q _D = 1000 ml/h, UF = 0 ml/min, +/- 20%. Urea : 15 ml/min Vitamin B₁₂ : 15 ml/min Inulin : 14 ml/min Sieving coefficients—typical values (according to EN1283) Bovine plasma, protein content 60 g/l, 37°C, Q_B = 200ml/min, UF = 20 ml/min Urea, Creatinine, Vitamin B₁₂, Inulin : 1 Albumin : < 0.01 Water permeability : 16 ml/(h*mmHg*m ₂) Max. transmembrane pressure : 600 mmHg Connections to MARS® FLUX 2.1 dialyzer : according to EN 1283 and ISO 8637					

	<p>Others : Luer; ISO 594 ½</p> <p>Adsorber cartridges diaMARS® AC250 This adsorber cartridge is filled with vapor-activated carbon, to be used to clean the HSA dialyzate in the MARS® circuit. The carbon is uncoated and especially suited for elimination of low-molecular, non-polar compounds, such as aromatic polycyclic hydrocarbons or fatty acids.</p> <p>diaMARS® IE250 This adsorber cartridge is filled with an ion-exchanger resin, to be used to clean the HSA dialyzate in the MARS® circuit. This cartridge is especially suited for eliminating anionic molecules, such as bilirubin.</p> <p>Sterilization : MARS® FLUX 2.1 steam</p> <p>MARS® set for PrismafleX system : EtO</p> <p>Adsorber : moist heat</p> <p>Tube kit : gamma</p> <p>Storage conditions : between 8° and 27°C</p> <p>Weight and packaging : 3.2 kg, 430 x 310 x 310 mm (W x H x D)</p> <p>Dialyzate MARS® circuit₁₎ : 500 ml with 20% (or 400 ml with 25%) human serum albumin (HSA)₁₎ (according to the latest edition of the European Pharmacopeia, monograph 255: albumin solution from human)</p> <p>Dialyzate PrismafleX System₁₎ : Lactate or bicarbonate solution (according to the latest edition of the European Pharmacopeia, monograph 128: hemodialysis solutions)</p> <p>Rinsing volumes : blood + dialyzate circuit 2 l MARS® circuit 4.5 l</p> <p>Rinsing solutions MARS® circuit₁₎ : 0.9% NaCl solution or lactate solution for hemofiltration or bicarbonate solution for hemofiltration</p> <p>Kit components : MARS® FLUX 2.1 : MARS® set for PrismafleX (diaFLUX filter) : Adsorber cartridges – diaMARS® AC250 : diaMARS® IE250 : Tube set AS-03 (units 1–4, Accessories incl. heating bag A) : Manual</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
47	<p><u>XRAY FILM VIEWER (LED TYPE/SLIM)</u></p> <p>Advance x-ray film viewer for professional use (2/3/4 sections) Screen and light route should made of acrlly produced in japan With better light tranmittance then glass, with long life without Distortion and colors changing, advance technology tft backlit Slim only 23mm thinkness for the complete unit, easy installation, Automatic start when film is inserted and turn off automatically When its taken away within 5 seconds Viewer could be used more then 200000 hours, light color 10000k Type: led brightness: 4000 cd/m weight: 7/8 kgs maximum</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					

2 MONITORS FOR OT INCLUSIVE ANESTHESIA**MONITORING SYSTEM:**

Bedsides Patient Color Monitor

Model BSM-6701K, to Monitor ECG,

Resp. (Impedance), NIBP, HR, SpO₂,

Dual Temperature, Dual IBP, CO₂,

Cardiac Output and Multigas Unit to be following:

Operating Features and Characteristics :

Display : to be 15 Inches, TFT Color LCD or above.

- Waveform : Non-Fade moving or non-fade fixed.

- Number of Traces : to be Up to 15-Traces

- Sweep Speed : to be 6.25mm/s, 12.5mm/s

(Compressed : to be 6.25mm/s, Respiration)

(Low Speed : to be 1.56mm/s, 6.25mm/s, 12.5mm/s).

Waveform Freeze : to be provided

- Electro-Surgical Interface

Suppression/Protection : to be provided.

- Neonatal & Pediatrics

Modes of Operation Detection and Alarms for all Parameters: to be provided.

Trend :

- Graphical & Tabular Data available for all parameters for 1, 2, 4, 8, 24, 72hrs.

Operating Requirements :

- AC 220V/50Hz.

Battery Operation:

- Type of Battery: NICD

- Operation Time: Approx. 1hour with fully charged battery.

POWER REQUIREMENTS:

Line Voltage: AC100 to 240V \pm 10%.

Line Frequency: 50 or 60Hz.

Power Consumption: AC Operation: 80VA max.

DC Operation: 50 W.

BATTERY OPERATION:

Type of Battery: NICD

Voltage: 10.8 to 16V, \pm 5%.

Operation Time: Approx. 1 hour with Full Charged Battery.

ENVIRONMENT:

Operating Temperature: 10o to 40oC.

Storage Temperature: -20 to 65oC, -15 to 55oC

for recording paper.

SYSTEM COMPOSITION

Main Unit MU-671RK.

- Input unit AY-663P.

- Smart Unit AA-672P.

	<ul style="list-style-type: none"> - Accessory Kit Y212A. - Battery (X075) x 2. - Multisite SPO2 Probe P225G for Adult, Paeds & Neonatal. - Temperature probe, 401J, catheter for Adult P240B. - Temperature probe, 402J for Child P241B. - Temperature probe, 409J, disk type P242D. - IBP connection cord, JP-920P, L901 x 2. - CO2 sensor kit, TG-900P, P903. - Airway adapter, YG-101T, 50 pcs/set, R801. <p>CO Connection Cord K962.</p> <ul style="list-style-type: none"> - Interface Unit QI-671P. - Multigas unit, GF-210R-10K. - Water trap YG-600P (SW) V918. - Straight T-piece, YG-620P, V920A. - Elbow T-piece, YG-621P, 25 pcs/set V920B. - Sampling tube YG-610P, V919. - Connection cable, YJ-601P, 2.5 m K978. - NIBP Cuff Small S943A, 05cm. - NIBP Cuff Medium S943B, 07cm. <p>Accessory Kit Content Y212A:</p> <ul style="list-style-type: none"> - ECG Connection Cord K922. - ECG Electrode lead for 3 electrode K911. - NIBP Hose S902. - NIBP Cuff 13cm S944B. - SPO2 connection Cord K931. - Recorder WS-671P. <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
49	<p><u>MONITORS FOR RECOVERY MONITORING SYSTEM:</u></p> <p>Bedsides Patient Color Monitor Model BSM-3562K, to Monitor ECG, Resp. (Impedance), NIBP, HR. SpO2 and Dual Temperature having following: Operating Features and Characteristics :</p> <ul style="list-style-type: none"> - Display : 12.1 Inches, TFT Color LCD. - Waveform : Non-Fade moving or non-fade fixed. - Number of Traces : Up to 14-Traces - Sweep Speed : 6.25mm/s, 12.5mm/s , 25mm/s, 50mm/s (Compressed : 6.25mm/s, Respiration) (Low Speed : 1.56mm/s, 6.25mm/s, 12.5mm/s). - Waveform Freeze : to be provided - Electro-Surgical Interface Suppression/Protection : to be provided. <p>Neonatal & Paediatrics</p>					

	<p>Modes of Operation Detection and Alarms for all Parameters: to be provided.</p> <p>Trend :</p> <ul style="list-style-type: none"> - Graphical & Tabular Data available for 72hrs for all parameters <p>Operating Requirements :</p> <ul style="list-style-type: none"> - AC 220V/50Hz. <p>POWER REQUIREMENTS:</p> <p>Line Voltage: AC100 to 240V ±10%.</p> <p>Line Frequency: 50 or 60Hz.</p> <p>Power Consumption: AC Operation: 100VA max. DC Operation: 8.5 to 12.6 (Battery Operation).</p> <p>BATTERY OPERATION:</p> <p>Type of Battery: Ni-MH</p> <p>Voltage: 9.6V, ±5%.</p> <p>Operation Time: Approx. 1.5 hours with Full Charged Battery.</p> <p>ENVIRONMENT:</p> <p>Operating Temperature: 10o to 40oC.</p> <p>Storage Temperature: -20 to 65 oC, -15 to 55 oC for recording paper.</p> <p>SYSTEM COMPOSITION:</p> <p>Main Unit BSM-3562K.</p> <ul style="list-style-type: none"> - Accessory Kit Y212A. - Battery (X075). - Multisite SPO2 Probe P225G for Adult, Paeds & Neonatal. - Temperature probe, 401J, catheter for Adult P240B. - Temperature probe, 402J for Child P241B. - Temperature probe, 409J, disk type P242D. - NIBP Cuff Small S943A, 05cm. - NIBP Cuff Medium S943B, 07cm. <p>ECG Connection Cord K922.</p> <ul style="list-style-type: none"> - ECG Electrode lead for 3 electrode K911. - NIBP Hose S902. - NIBP Cuff 13cm S944B. - SPO2 connection Cord K931. <p>CO2 sensor kit, TG-900P, P903.</p> <p>Airway adapter, YG-101T, 50 pcs/set, R801</p> <p>Recorder WS-371P.</p> <p>ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT</p>					
50	<p><u>3) CENTRAL STATION FOR 2+6 MONITORS:</u></p> <ul style="list-style-type: none"> - Main Unit PU-621R. - 19” or more Color TFT/LCD Display* - B/W Laser Printer* - Hub * - Cables* 					

- Keyboard*

- Mouse*

- UPS (Imported)*

SPECIFICATIONS:

DISPLAY:

All Beds screen

Number of patients: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 28, 32

Number of waveform traces: More than 1 trace/patient (Up to 32 patients)

Sweep speed: 6.25, 25, 50 mm/s (when 24 inch LCD display is used)

Waveform selection: Maximum 16 traces/auto

Waveform display: ECG, IBP, respiration wave, EEG, ETCO2, external input, pulse wave (SpO2),

FLOW/Paw, others depends on the connected bedside monitor or transmitter

Number of numeric data: More than 4 parameters/patient (less than 4 parameters are also available)

Numerical selection: Up to 17 parameters/auto

Numeric data display: Heart rate, VPC rate, respiration rate, pulse rate, IBP (systolic, diastolic, mean),

NIBP (systolic, diastolic, MAP), temperature, ΔT , blood temperature, ETCO2,

tcPO2, tcPCO2, SpO2, ST level, O2, CO, CCO, PiCCO, ventilator, anesthetic gas,

BIS, others depends on the connected bedside monitor or transmitter

Numeric data display size: Numeric data display size depends on the parameters

Waveform and numeric data display color: 32 colors

Alarm indication: Displays for each bed. Frame of alarmed bed lights or blinks*, highlighted

message for arrhythmia (when arrhythmia is detected)*, highlighted numeric

data (when vital signs alarms are generated)*, alarm sound* (Volume can be

adjusted.* Minimum volume is more than 45 dB. Minimum volume can be set

by the administrator.), alarm indicator lights

* Essential performance in EMC standard

Alarm silence: Displays alarm silence mark or silence mark with remaining minutes.

Alarm can be silence for each bed.

Recording: Alarm recording, manual recording, all beds recording *Page 6 of 9*

Alarm recording starts when an alarm is generated even which screen is

displayed.

Sync sound: Displays QRS sync mark at the selected patient data display area. Sync sound is generated from the speaker (volume

can be adjusted). Sync sound is generated even which screen is displayed. Alarm indicator lights.

TREND WINDOW:

Display formats: Trendgraph, tabular trend

Display times: Up to 120 hours/bed

Zoom in display: 1, 2, 4, 8, 12, 24, 48, 96 or 120 hours

Display interval: 5 minutes at NIBP measurement

Parameters: Depends on the connected bedside monitor

Recording: Recorder, network printer

HEMODYNAMICS LIST WINDOW:

Display format: Tabular trend

Number of files: 256 files/bed*

*The data is deleted after 120 hours even the files are less than a maximum

number.

Parameters: Depends on the connected bedside monitor monitoring parameter

Recording: Network printer

4. MONITORS FOR INTENSIVE CARE:

Bedsides Patient Color Monitor

Model BSM-6701K, to Monitor ECG,

Resp. (Impedance), NIBP, HR, SpO₂,

Dual Temperature, Dual IBP, CO₂,

And Cardiac Output having following:

Operating Features and

Characteristics :

- Display : 15 Inches, TFT Color LCD.
- Waveform : Non-Fade moving or non-fade fixed.
- Number of Traces : Up to 15-Traces
- Sweep Speed : 6.25mm/s, 12.5mm/s
(Compressed : 6.25mm/s, Respiration)
- (Low Speed : 1.56mm/s, 6.25mm/s, 12.5mm/s).
- Waveform Freeze : Provided
- Electro-Surgical Interface
Suppression/Protection: Provided.
- Neonatal & Paediatrics
Modes of Operation Detection
and Alarms for all Parameters: Provided.
- Trend :
 - Graphical & Tabular Data available for all parameters

for 1, 2, 4, 8, 24, 72hrs.

Operating Requirements :

- AC 220V/50Hz.

Battery Operation :

Type of Battery : Nicd

- Operation Time : Approx. 1hour with fully charged battery.

POWER REQUIREMENTS:

Line Voltage: AC100 to 240V \pm 10%.

Line Frequency: 50 or 60Hz.

Power Consumption: AC Operation: 80VA max.

DC Operation: 50 W.

BATTERY OPERATION:

Type of Battery: Nicd

Voltage: 10.8 to 16V, \pm 5%.

Operation Time: Approx. 1 hour with Full Charged Battery.

ENVIRONMENT:

Operating Temperature: 10o to 40oC.
Storage Temperature: -20 to 65oC, -15 to 55oC
for recording paper.

SYSTEM COMPOSITION:

Main Unit MU-671RK.

- Input unit AY-663P.
- Smart Unit AA-672P.
- Accessory Kit Y212A.
- Battery (X075) x 2.
- Multisite SPO2 Probe P225G for Adult, Paeds & Neonatal.
- Temperature probe, 401J, catheter for Adult P240B.
- Temperature probe, 402J for Child P241B.
- Temperature probe, 409J, disk type P242D.
- IBP connection cord, JP-920P, L901 x 2.
- CO2 sensor kit, TG-900P, P903.
- Airway adapter, YG-101T, 50 pcs/set, R801.
- CO Connection Cord K962.
- NIBP Cuff Small S943A, 05cm.
- NIBP Cuff Medium S943B, 07cm.

Page 8 of 9 Accessory Kit Content Y212A:

- ECG Connection Cord K922.
- ECG Electrode lead for 3 electrode K911.
- NIBP Hose S902.
- NIBP Cuff 13cm S944B.
- SPO2 connection Cord K931.
- Recorder WS-671P.

5) MONITORS FOR INTERMEDIATE CARE:

NIHON KOHDEN'S *Life*scope-VS

Bedsides Patient Color Monitor

Model BSM-3562K, to Monitor ECG,

Resp. (Impedance), NIBP,

HR. SpO2 and Dual Temperature

having following:

Operating Features and

Characteristics :

- Display : 12.1 Inches, TFT Color LCD.
- Waveform : Non-Fade moving or non-fade fixed.
- Number of Traces : Up to 14-Traces
- Sweep Speed : 6.25mm/s, 12.5mm/s , 25mm/s, 50mm/s
(Compressed : 6.25mm/s, Respiration)
- (Low Speed : 1.56mm/s, 6.25mm/s, 12.5mm/s).
- Waveform Freeze : Provided
- Electro-Surgical Interface
Suppression/Protection : Provided.

- Neonatal & Paediatrics
Modes of Operation Detection
and Alarms for all Parameters: Provided.
Trend :
- Graphical & Tabular Data available for 72hrs for all parameters

Operating Requirements :
- AC 220V/50Hz.
POWER REQUIREMENTS:
Line Voltage: AC100 to 240V \pm 10%.
Line Frequency: 50 or 60Hz.
Power Consumption: AC Operation: 100VA max.
DC Operation: 8.5 to 12.6 (Battery Operation).
BATTERY OPERATION:
Type of Battery: Ni-MH
Voltage: 9.6V, \pm 5%.
Operation Time: Approx. 1.5 hours with
Full Charged Battery.
ENVIRONMENT:
Operating Temperature: 10o to 40oC.
Storage Temperature: -20 to 65 oC, -15 to 55 oC
for recording paper.
SYSTEM COMPOSITION:

Main Unit BSM-3562K.
- Accessory Kit Y212A.
- Battery (X075).
- Multisite SPO2 Probe P225G for Adult, Paeds & Neonatal.
- Temperature probe, 401J, catheter for Adult P240B.
- Temperature probe, 402J for Child P241B.
- Temperature probe, 409J, disk type P242D.
- NIBP Cuff Small S943A, 05cm.
- NIBP Cuff Medium S943B, 07cm.
Accessory Kit Content Y212A:
- ECG Connection Cord K922.
- ECG Electrode lead for 3 electrode K911.
- NIBP Hose S902.
- NIBP Cuff 13cm S944B.
- SPO2 connection Cord K931.

OPTIONAL:
- CO2 sensor kit, TG-900P, P903
Airway adapter, YG-101T, 50 pcs/set, R801
- Recorder WS-371P.

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

5 PART DIFFERENTIAL HEMATOLOGY ANALYZER

Fully automated 5 Part differential hematology analyzer based on flow Cytometry, Light scattering and Peroxidase staining technology. Instrument should offer automatic start-up, shut down and sample analysis.

Five discrete analysis modes CBC, CBC+ DIFF, CBC + Retic, CBC+Retic+Diff & Retic only.

33 or more parameters i.e. WBC, RBC, HGB, HCT, MCV, MCH, MCHC, CHCM, RDW, HDW, CH, CHDW, PLT, MPV, PDW, PCT, % RETIC, # RETIC, MCVr, CHCMr, RDWr, HDWr, CHr, CHDWr., Absolute & % values for NEUT, LYMPH, MONO, EOS, BASO, LUC, morphology results (user definable) like WBC : Left Shift, Atypical Lymph, Immature Granulocytes RBC: NRBC, ANISO, MICRO, MACRO, RBC Ghosts.

Has the capability to perform veterinary application with minimum of 21 pre programmed species & 30 programmable slots.

With Auto Sampler with capacity of 150 sample tubes at a given time. A single sample rack should be able to cater different tube sizes.

High throughput of 120 samples per hour or more in CBC and CBC / Diff. mode & 74 samples per hour or more in Retics mode.

Has multi-channel analysis for better resolution & reproducibility's like Dual differential **count** for WBC

Platelets – Should have Dual angle Light Scatter

RBC – Should have light Scatter

HGB – Should have photometric and direct cellular measurement

Retics – Should have on board, light scatter (fluorescent dye) for Reticulocytes.

Has lot detection facility.

On-board reagents facility with maximum of upto 7 reagents onboard and **automatic reagent inventory management**.

Especially capability of cross checking of parameter such as WBC, MCHC, Hb.

Extensive linearity as

WBC - 0.02- 400 x 10³ /ul

RBC - 0 - 7.0 x 10⁶ / ul

PLT - 5 - 3500 x 10³ / ul

HGB - 0- 22.5 g/dl

RETIC – 0.2- 24.5%

Free of tubing & pinch valves ensuring low maintenance requirement.

Has FDA approved capability of running CSF fluids.

Carryover of < or = to 1 % for all parameters.

Sample volume required in all modes is 175ul.

Dead volume required < 300 ul.

capable of reporting unique additional parameters such as CHr-reticulocytes HGB measurement to aid in anemia treatment .

Extensive QC features

3D Bar & SDI Graphs

LJ plot available

Table Format

Delta checks available for cumulative review

Option for online QC also available

Patient moving average

QC File Management

ILQC Programme

Remote QC

Has comprehensive Data management such as
 User friendly Windows 2000 based software
 Network integration possible with lab information system
 Database storage capacity of 10,000 records including graphics

Accessories Along :

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

Product Name	Qty
10313419 Advia 2120 analyzer	1
10329339 Advia Centaur Xp	1
Advia AutoSlide	1
ADVIA 2120/120 CONNECTOR	2
NON ADVIA 120 KIT CONNECTOR	2
ANNUAL MAINT INSTRUMENT	4
CENTAUR XP LAB AUTO INTE	1
ADVIA 120 LABCELL INTER	2
CENTAUR INTERFACE KIT	1
ADVIA 1650/2400 RISER	1
KIT INTERFACE ADVIA 1650	1
RISER SKIRTING KIT CENTAUR	1
DUAL ADVIA HEMATOLOGY INTERFACE	1
Advia 2120 analyzer	1
ADVIA 1800 MODULE ASSY ENGLISH	1

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AUTOMATION EXPANDS TO MICROBIOLOGY

**Enhance productivity.
 Increase flexibility.**

Improve quality

With the WASP Walk-Away Specimen Processor

Today, microbiology labs face many challenges. Among them is the need to balance budget constraints with fewer skilled technologists and increased workloads.

The WASP® Specimen Processor is an innovative technology to help microbiology labs meet this challenge. It provides a total solution for preanalytical specimen management that streamlines functions and increases capacity.

It is the **FIRST** system to automate all the core aspects of microbiology specimen processing: planting and streaking, gram slide preparation, enrichment broth inoculation, and more.

The WASP System automates more steps and is much more flexible than other like systems. Customization and forward compatibility are built-in features, providing labs the means to easily adapt to the changing needs of the future. The WASP System is designed as an open platform, modular instrument for the seamless addition of new features and capabilities. This format allows for future expansion while prolonging your initial investment.

System Features and Benefits Comparison	WASP	PREVI Isola	BD/Kiestra InoqulA
Ability to process multiple container types and ESwabs, as well as streak bi-plates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to auto-inoculate enrichment broths			
Automatic gram stain slide preparation			<input type="checkbox"/>
Customizable streak patterns to meet specific needs and preferences			<input type="checkbox"/>
Reusable streaking tools to reduce consumables cost and hazardous waste			
Familiar methodology and tools for planting and streaking to eliminate plate reading retraining			<input type="checkbox"/>
Standard vortex step prior to planting and streaking to prevent sample sedimentation			
Integrated spinner to reduce contamination when processing stool samples			
PRDecap and recap specimen container without user intervention to increase productivity			<input type="checkbox"/>

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

A REVOLUTIONARY ADDITION TO SIEMENS MICROBIOLOGY PORTFOLIO — THE ESWAB DESIGNED TO INTEGRATE PERFECTLY WITH THE WASP SPECIMEN PROCESSOR

The ESwab is the only patented liquid-based multipurpose collection and transport system that maintains viability of aerobic, anaerobic, and fastidious bacteria. It is a truly open platform suitable for automation, gram stains, and traditional culture, just to name a few.

Simplify, Streamline, and Save with the ESwab

- Entire specimen moves from swab to liquid phase

within seconds

- Each collection kit provides up to 10 identical 100 µL aliquots allowing for multiple tests from the same specimen
- Multiple swab SKUs are replaced by standardizing with one convenient product
- Unique cap design makes it an ideal platform for automation
- Testing capabilities are expanded to gram stain, PCR, rapid antigen tests, and more
- Bacteria is supported for up to 48 hours at room and refrigerator temperature*

* Performance of the Copan ESwab has been validated in multiple studies adhering to protocols as outlined in the CLSI M40-A: Quality Control of Microbiological Transport Systems, guidance document.

Neisseria gonorrhoeae survival is at 24

ESwab's unique cap design allows the applicator stick to securely attach to the cap so the swab can be conveniently removed and manipulated using the cap as a handle

Accessories Along

Product Name	Qty
MICROBIOLOGY LAB AUTOMATION	
AUTOMATIC INCUBATOR (1 CO2 and 1 AIR) WITH PLATES IMAGING STATION	2
CONVEYOR BELT tracking system connecting WASP to Incubators	1
PLATE STACKERS (complete with plate lifter, motor , one canister)	6

ORIGIN: UK/USA/EUROPE/JAPAN OR EQUIVALENT

53	LED PANEL LIGHT 2X2				
54	ALUMINIUM PARTITION WITH 8MM GLASS POWDER COATED ALUMINIUM				
55	ALUMINIUM WINDOWS / DOORS DIFFERENT SIZES				
56	SUPPLY OF ALUMINIUM FALSE CEILING ALONG WITH ALL STANDARD ACCESSORIES				
57	HP COLOR LASERJET PROFESSIONAL CP5225 PRINTER SERIES				
58	HP Color LaserJet Pro MFP M177fw				
59	HP LASERJET PRO P1102 PRINTER				
60	APPLE MACBOOK AIR 13" TECH SPECS				

61	<p><u>BLACK & WHITE LASER MULTIFUNCTION COPIERS</u> FEATURES D1120 D1150 D1170 D1180 COPIER SPECIFICATIONS Duplex Copy Yes, Auto matic (1 to 2, 2 to 1, 2 to 2) Yes, Auto matic (1 to 2, 2 to 1, 2 to 2) Yes, Auto matic (1 to 2, 2 to 1, 2 to 2) Yes, Auto matic (1 to 2, 2 to 1, 2 to 2) Copy Type Monochrome Laser Monochrome Laser Monochrome Laser Monochrome Laser Copy Speed Up to 30 cpm (letter) Up to 30 cpm (letter) Up to 30 cpm (letter) Up to 30 cpm (letter) Copy Resolution Up to 600 x 600 dpi; 1200 x 600 dpi quality Up to 600 x 600 dpi; 1200 x 600 dpi quality Up to 600 x 600 dpi; 1200 x 600 dpi quality Up to 600 x 600 dpi; 1200 x 600 dpi quality Halftones 256 levels 256 levels 256 levels 256 levels Warm-up Time Approx. 16 seconds from Power On Approx. 16 seconds from Power On Approx. 16 seconds from Power On Approx. 16 seconds from Power On First Copy Time Approx. 8 seconds Approx. 8 seconds Approx. 8 seconds Approx. 8 seconds Standard Paper Source(s) 500-sheet cassette; 50-sheet multipurpose tray 500-sheet cassette; 50-sheet multipurpose tray 500- sheet cassette; 50-sheet multipurpose tray 500-sheet cassette; 50-sheet multipurpose tray Optional Cassette Optional 500-sheet cassette Optional 500-sheet cassette Optional 500-sheet cassette Optional 500-sheet cassette Paper Weight 16 to 32 lb. (cassette); 16 to 51 lb. (multipurpose tray) 16 to 32 lb. (cassette); 16 to 51 lb. (multipurpose tray) 16 to 32 lb. (cassette); 16 to 51 lb. (multipurpose tray) 16 to 32 lb. (cassette); 16 to 51 lb. (multipurpose tray) Paper Output 150 sheets (face down) 150 sheets (face down) 150 sheets (face down) 150 sheets (face down) Reduction/Enlargement 50%, 64%, 78%, 129%, 200% 50%, 64%, 78%, 129%, 200% 50%, 64%, 78%, 129%, 200% 50%, 64%, 78%, 129%, 200% Zoom 50-200% in 1% increments 50-200% in 1% increments 50-200% in 1% increments 50-200% in 1% increments Document Feeder 50-sheet1 50-sheet1 50-sheet1 50-sheet1 Copy Size Platen: Up to 8.5" x 14"; ADF: Up to 8.5" x 14" Platen: Up to 8.5" x 14"; ADF: Up to 8.5" x 14" Platen: Up to 8.5" x 14"; ADF: Up to 8.5" x 14" Platen: Up to 8.5" x 14"; ADF: Up to 8.5" x 14" Copy Features Memory Sort, Toner Saver Mode, 2 on 1, I.D. Card Copy Memory Sort, Toner Saver Mode, 2 on 1, I.D. Card Copy Memory Sort, Toner Saver Mode, 2 on 1, I.D. Card Copy Memory Sort, Toner Saver Mode, 2 on 1, I.D. Card Copy Copy Memory 128MB (shared) 128MB (shared) 128MB (shared) 128MB (shared) PRINTER SPECIFICATIONS Duplex Print Yes (letter) Yes (letter) Yes (letter) Yes (letter) Printer Type Monochrome Laser Monochrome Laser Monochrome Laser Monochrome Laser Print Speed Up to 30 ppm (letter) Up to 30 ppm (letter) Up to 30 ppm (letter) Up to 30 ppm (letter) Print Resolution Up to 600 x 600 dpi; 1200 x 600 dpi quality Up to 600 x 600 dpi; 1200 x 600 dpi quality Up to 600 x 600 dpi;</p>					
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<p>1200 x 600 dpi quality Up to 600 x 600 dpi; 1200 x 600 dpi quality Printer Language Canon UFR II LT (Host-based) Canon UFR II LT (Host-based) Canon UFR II LT (Host-based) PCL 5e/6, Canon UFR II LT (Host-based) Print Memory 128MB (shared) 128MB (shared) 128MB (shared) 128MB (shared) System Memory (on board) 128MB (shared) 128MB (shared) 128MB (shared) 128MB (shared) FAX/PC FAX SPECIFICATIONS Duplex Fax Yes (transmission, reception) Yes (transmission, reception) Yes (transmission, reception) Modem Speed Up to 33.6 Kbps (Super G3) Up to 33.6 Kbps (Super G3) Up to 33.6 Kbps (Super G3) Fax Resolution Up to 406 x 391 dpi (super fine) Up to 406 x 391 dpi (super fine) Up to 406 x 391 dpi (super fine) Memory Capacity Up to 512 pages2 Up to 512 pages2 Up to 512 pages2 Speed Dials 20 one-touch speed dials/201 coded dials 20 one-touch speed dials/201 coded dials 20 one-touch speed dials/201 coded dials Receive Modes Fax Only, Manual, Answering, DRPD, Fax/Tel Auto Switch Fax Only, Manual, Answering, DRPD, Fax/Tel Auto Switch Fax Only, Manual, Answering, DRPD, Fax/Tel Auto Switch Fax Features Remote RX, Delayed TX, Dual Access, Polling RX Remote RX, Delayed TX, Dual Access, Polling RX Remote RX, Delayed TX, Dual Access, Polling RX Memory Backup Standard, 15 minutes Standard, 15 minutes Standard, 15 minutes PC Fax Sending only Sending only Sending only SCANNER SPECIFICATIONS Duplex Scan Yes Yes Yes Yes Scan Type Color Contact Image Sensor (CIS) Color Contact Image Sensor (CIS) Color Contact Image Sensor (CIS) Color Contact Image Sensor (CIS) Scan Resolution Up to 600 x 600 dpi (optical); Up to 9600 x 9600 dpi (interpolated) Up to 600 x 600 dpi (optical); Up to 9600 x 9600 dpi (interpolated) Up to 600 x 600 dpi (optical); Up to 9600 x 9600 dpi (interpolated) Up to 600 x 600 dpi (optical); Up to 9600 x 9600 dpi (interpolated) Color Depth 24-bit 24-bit 24-bit 24-bit Document Size Platen: Up to 8.5" x 14"; ADF: Up to 8.5" x 14" Platen: Up to 8.5" x 14"; ADF: Up to 8.5" x 14" Platen: Up to 8.5" x 14"; ADF: Up to 8.5" x 14" Platen: Up to 8.5" x 14"; ADF: Up to 8.5" x 14" Compatibility TWAIN, WIA TWAIN, WIA TWAIN, WIA TWAIN, WIA Output File Formats JPEG, PDF, TIFF, BMP JPEG, PDF, TIFF, BMP JPEG, PDF, TIFF, BMP JPEG, PDF, TIFF, BMPD SPECIFICATIONS Scan to E-mail Yes Yes Other Protocols Scan to SMB Scan to SMB Output File Formats JPEG, Hi-compression PDF, PDF, TIFF JPEG, Hi-compression PDF, PDF, TIFF INTERFACE/SOFTWARE Standard Interface(s) USB 2.0 Hi-Speed3 USB 2.0 Hi-Speed3 USB 2.0 Hi-Speed3 USB 2.0 Hi-Speed3</p>					
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<p>Network Interface 10/100 Base T 10/100 Base T 10/100 Base T 10/100 Base T</p> <p>USB Functions Print/Scan Print/PC Fax/Scan Print/PC Fax/Scan Print/PC Fax/Scan</p> <p>Network Functions Print Print/PC Fax Print/PC Fax Print/PC Fax</p> <p>Network Protocol TCP/IP TCP/IP TCP/IP TCP/IP</p> <p>Bundled Software Canon drivers for Windows®, ScanSoft® OmniPage®SE (OCR), NewSoft® Presto! PageManager Canon drivers for Windows®, ScanSoft® OmniPage®SE (OCR), NewSoft® Presto! PageManager Canon drivers for Windows®, ScanSoft® OmniPage®SE (OCR), NewSoft® Presto! PageManager Canon drivers for Windows®, ScanSoft® OmniPage®SE (OCR), NewSoft® Presto! PageManager</p> <p>OS Compatibility USB: Windows Vista, XP, 2000 Network: Server 2008, Windows Vista, Server 2003, XP, 2000 <i>Drivers available for download from www.cusa.canon.com</i> USB: Windows Vista, XP, 2000 Network: Server 2008, Windows Vista, Server 2003, XP, 2000 <i>Drivers available for download from www.cusa.canon.com</i> USB: Windows Vista, XP, 2000 Network: Server 2008, Windows Vista, Server 2003, XP, 2000 <i>Drivers available for download from www.cusa.canon.com</i> USB: Windows Vista, XP, 2000 Network: Server 2008, Windows Vista, Server 2003, XP, 2000 <i>Drivers available for download from www.cusa.canon.com</i></p> <p>SPECIFICATIONS</p> <p>Dimensions 17.7" (W) x 18.6" (D) x 18.3" (H) 17.7" (W) x 18.6" (D) x 18.3" (H) 17.7" (W) x 18.6" (D) x 18.3" (H) 17.7" (W) x 18.6" (D) x 18.3" (H)</p> <p>Weight (with Cartridge) Approx. 48.5 lbs Approx. 48.5 lbs Approx. 48.5 lbs Approx. 48.5 lbs</p> <p>Warranty 1 year limited warranty⁴ (Extended Warranty available) 1 year limited warranty⁴ (Extended Warranty available) 1 year limited warranty⁴ (Extended Warranty available) 1 year limited warranty⁴ (Extended Warranty available)</p> <p>Power Consumption 1090W (Max), 3W (Energy Saver Mode) 1090W (Max), 3W (Energy Saver Mode) 1090W (Max), 3W (Energy Saver Mode) 1090W (Max), 3W (Energy Saver Mode)</p> <p>Replacement Consumable Canon Cartridge 120 (Starter Cartridge included) Canon Cartridge 120 (Starter Cartridge included) Canon Cartridge 120 (Starter Cartridge included) Canon Cartridge 120 (Starter Cartridge included)</p> <p>Cartridge Type Single Cartridge System Single Cartridge System Single Cartridge System Single Cartridge System</p> <p>Cartridge 120 Yields approx. 5,000 pages based on ISO/IEC Standard Yields approx. 5,000 pages based on ISO/IEC Standard Yields approx. 5,000 pages based on ISO/IEC Standard Yields approx. 5,000 pages based on ISO/IEC Standard</p> <p>Duty Cycle Up to 20,000 pages per month Up to 20,000 pages per month Up to 20,000 pages per month Up to 20,000 pages per month</p> <p>1 Based on 20 lb. paper 2 Based on ITU-T #1 Chart (standard mode) 3 USB 2.0 Hi-Speed requires Windows Vista, Windows XP, 2000. 4</p>					
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62	<p><u>HP PRO 3500 MICROTOWER BUSINESS PC</u></p> <p>Operating system Pre-installed (availability varies by region): Genuine Windows® 7 Ultimate (32-bit)* Genuine Windows® 7 Ultimate (64-bit)* Genuine Windows® 7 Professional (32-bit)* Genuine Windows® 7 Professional (64-bit)* Genuine Windows® 7 Home Premium (32-bit)* Genuine Windows® 7 Home Premium (64-bit)* Genuine Windows® 7 Home Basic (64-bit)* Genuine Windows® 7 Starter (32-bit)* FreeDOS FreeLnx</p> <p>Processors 1 Intel® 3rd Generation Core™ i5 and i7, Intel® 2nd Generation Core™ i3, i5 and i7, Intel® Pentium®, Intel® Celeron®</p> <p>Chipset Intel® H61 Express</p> <p>Memory4 Non-ECC, DDR3 1600 MHz SDRAM UDIMM; (2) DIMM slots enabling up to 8GB</p> <p>Internal storage2 Up to 2TB hard disk drive</p> <p>Removable storage9 SATA DVD-ROM drive, SATA SuperMulti DVD Writer Drive3, HP 6-in-1 Media Card Reader</p> <p>Drive bays External: (1) 5.25” Internal: (1) 3.5”</p> <p>Expansion slots (1) PCIe x16, (3) PCIe x1, (1) Mini PCIe</p> <p>Graphics Integrated Intel® HD Graphics: Basic, 2000, 2500, 3000, 4000 (depends on processor). AMD and NVIDIA discrete graphics solutions also available.</p> <p>Audio HD Audio with Realtek ALC656 , microphone and headphone front ports, audio line-out and line-in rear ports</p> <p>Communications Ethernet (RJ-45): Realtek RTL8171E Gigabit Ethernet Controller, HP Wireless 802.11 b/g/n Minicard (optional)</p> <p>Ports and connectors Front: (2) USB 2.0, microphone, headphone Rear: (4) USB 2.0, (1) audio in, (1) audio out, (1) VGA, (1) DVI-D, (1) RJ-45</p> <p>Input devices HP USB Value Keyboard, HP USB Optical Mouse</p> <p>Power 300W Power Supply, Active PFC or 300W regular; 100-200 VAC Rated Voltage Range</p> <p>Security HP Business PC Security Lock Kit (optional), HP Keyed Cable Lock Kit (optional)</p> <p>Software Microsoft® Office Starter 2010 Preloaded: reduced-functionality Word and Excel® only, with advertising. No PowerPoint® or Outlook®. Buy Office 2010 to use the full-featured software.** HP Protect Tools Security Suite SMB5</p> <p>Dimensions (W x D x H) 6.50 x 15.31 x 14.49 in 16.5 x 38.9 x 36.8 cm</p>					
63	<p><u>HP PROBOOK 430 G2 NOTEBOOK PC</u></p> <p>Available Operating System Windows 8.1 Pro 64 1 Windows 8.1 64 1 Windows 7 Professional 64 (available through downgrade rights from Windows 8.1 Pro 64) 2 Windows 7 Professional 64 1 FreeDos 2.0</p>					

<p>Available Processors Intel® Core™ i7 processor; Intel® Core™ i5 processor; Intel® Core™ i3 processor; Intel® Celeron® processor 4</p> <p>Chipset Chipset is integrated with processor</p> <p>Maximum Memory 16 GB 1600 MHz DDR3L SDRAM Celeron processors will run at 1333 MHz</p> <p>Memory Slots 2 SODIMM</p> <p>Internal Storage up to 500 GB SATA (7200 rpm) 7 320 GB up to 1 TB SATA (5400 rpm) 7 up to 128 GB SSD 7</p> <p>Optical Drive Optional external</p> <p>Display 13.3" diagonal HD anti-glare LED-backlit (1366 x 768); 13.3" diagonal HD shatter, scratch, and smudge resistant LED-backlit touch screen (1366 x 768) 10,11</p> <p>Available Graphics Integrated: Intel HD Graphics 4400 (Intel i3, i5, and i7 Dual-Core configurations); Intel HD Graphics (Intel Celeron configurations)</p> <p>Audio HD audio with DTS Sound+; 2 integrated stereo speakers; Dual array microphones (for models configured with camera); Headphone and microphone combo jack</p> <p>Wireless Technologies Realtek 802.11b/g/n (1x1); Ralink 802.11b/g/n (1x1) and Bluetooth® 4.0 Combo; Intel Dual Band Wireless-AC 3160 802.11a/b/g/n/ac (1x1) WiFi and Bluetooth® 4.0 Combo; Intel Dual Band Wireless-AC 7260AN 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.0 Combo; Broadcom 802.11a/b/g/n (2x2) and Bluetooth® 4.0 Combo 8,9,28</p> <p>Communications Realtek Ethernet (10/100/1000)</p> <p>Expansion Slots 1 multi-format digital media reader (supports SD, SDHC, SDXC)</p> <p>Ports and Connectors 2 USB 3.0; 1 USB 2.0 (power port); 1 HDMI; 1 headphone/microphone combo; 1 AC power; 1 RJ-45; 1 VGA</p> <p>Input Device Full-sized, spill resistant keyboard; Full-sized, spill resistant backlit keyboard (optional); 10; Touchpad with gestures support, on/off button, two-way scroll, taps and gestures enabled, and finger zoom (pinch)</p> <p>Camera 720p HD webcam (select models) 11</p> <p>Available Software Buy Office; HP Client Security Manager; HP Drive Encryption; HP Device Access Manager; Absolute Persistence; HP Computrace; HP File Sanitizer; HP Connection Manager; HP GPS and Location; HP Mobile Connect; HP Wireless Hotspot; HP Roaming Alert; HP PageLift; HP ePrint; HP Hotkey Support; HP 3D Driveguard; HP Wireless Button Driver; HP Recovery Disc Creator; HP Support Assistant; CyberLink PowerDVD; CyberLink YouCam BE; PDF Complete; Foxit PhantomPDF Express; Microsoft Security Essentials; Bing Search; Skype ready 12,13,14,15,16,17,18,19,20,21,22,25,26</p> <p>Security Management Standard: HP Client Security, Microsoft Defender (models with Windows 8), Drive Encryption, HP BIOS Protection, Security lock slot, TPM 1.2 Embedded Security Chip; Optional: Intel® Identity Protection, HP Fingerprint reader 23,26,27</p> <p>Power 65 W EM Smart AC adapter; 45 W Smart AC adapter; 45 W Smart AC adapter 2-prong (Japan only); 40 W Smart AC adapter (EMEA only) 4-cell, 44</p>					
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	<p>WHr Li-ion; 4-cell, 40 WHr Long Life Li-ion</p> <p>Dimensions 12.83 x 9.19 x 0.79 to 0.83 in (front to rear) (non-touch); 12.83 x 9.21 x 0.84 to 0.89 in (front to rear) (touch) 32.6 x 23.35 x 2 to 2.1 cm (front to rear) (non-touch); 32.6 x 23.4 x 2.13 to 2.25 cm (front to rear) (touch)</p> <p>Weight Starting at 3.31 lb Starting at 1.5 kg (Lowest weight configuration. Weight will vary by configuration. See QuickSpecs.)</p> <p>Environmental Low halogen 24</p> <p>Energy Efficiency Compliance ENERGY STAR® qualified configurations available</p>					
64	<p><u>FAX MACHINE</u></p> <p>Available Operating System Windows 8.1 Pro 64 1 Windows 8.1 64 1 Windows 7 Professional 64 (available through downgrade rights from Windows 8.1 Pro 64) 2 Windows 7 Professional 64 1 FreeDos 2.0</p> <p>Available Processors Intel® Core™ i7 processor; Intel® Core™ i5 processor; Intel® Core™ i3 processor; Intel® Celeron® processor 4</p> <p>Chipset Chipset is integrated with processor</p> <p>Maximum Memory 16 GB 1600 MHz DDR3L SDRAM Celeron processors will run at 1333 MHz</p> <p>Memory Slots 2 SODIMM</p> <p>Internal Storage up to 500 GB SATA (7200 rpm) 7 320 GB up to 1 TB SATA (5400 rpm) 7 up to 128 GB SSD 7</p> <p>Optical Drive Optional external</p> <p>Display 13.3" diagonal HD anti-glare LED-backlit (1366 x 768); 13.3" diagonal HD shatter, scratch, and smudge resistant LED-backlit touch screen (1366 x 768) 10,11</p> <p>Available Graphics Integrated: Intel HD Graphics 4400 (Intel i3, i5, and i7 Dual-Core configurations); Intel HD Graphics (Intel Celeron configurations)</p> <p>Audio HD audio with DTS Sound+; 2 integrated stereo speakers; Dual array microphones (for models configured with camera); Headphone and microphone combo jack</p> <p>Wireless Technologies Realtek 802.11b/g/n (1x1); Ralink 802.11b/g/n (1x1) and Bluetooth® 4.0 Combo; Intel Dual Band Wireless-AC 3160 802.11a/b/g/n/ac (1x1) WiFi and Bluetooth® 4.0 Combo; Intel Dual Band Wireless-AC 7260AN 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.0 Combo; Broadcom 802.11a/b/g/n (2x2) and Bluetooth® 4.0 Combo 8,9,28</p> <p>Communications Realtek Ethernet (10/100/1000)</p> <p>Expansion Slots 1 multi-format digital media reader (supports SD, SDHC, SDXC)</p> <p>Ports and Connectors 2 USB 3.0; 1 USB 2.0 (power port); 1 HDMI; 1 headphone/microphone combo; 1 AC power; 1 RJ-45; 1 VGA</p> <p>Input Device Full-sized, spill resistant keyboard; Full-sized, spill resistant backlit keyboard (optional); 10; Touchpad with gestures support, on/off button, two-way scroll, taps and gestures enabled, and finger zoom (pinch)</p>					

	<p>Camera 720p HD webcam (select models) 11</p> <p>Available Software Buy Office; HP Client Security Manager; HP Drive Encryption; HP Device Access Manager; Absolute Persistence; HP Computrace; HP File Sanitizer; HP Connection Manager; HP GPS and Location; HP Mobile Connect; HP Wireless Hotspot; HP Roaming Alert; HP PageLift; HP ePrint; HP Hotkey Support; HP 3D Driveguard; HP Wireless Button Driver; HP Recovery Disc Creator; HP Support Assistant; CyberLink PowerDVD; CyberLink YouCam</p> <p>BE; PDF Complete; Foxit PhantomPDF Express; Microsoft Security Essentials; Bing Search; Skype ready 12,13,14,15,16,17,18,19,20,21,22,25,26</p> <p>Security Management Standard: HP Client Security, Microsoft Defender (models with Windows 8), Drive Encryption, HP BIOS Protection, Security lock slot, TPM 1.2 Embedded Security Chip; Optional: Intel® Identity Protection, HP Fingerprint reader 23,26,27</p> <p>Power 65 W EM Smart AC adapter; 45 W Smart AC adapter; 45 W Smart AC adapter 2-prong (Japan only); 40 W Smart AC adapter (EMEA only) 4-cell, 44 WHr Li-ion; 4-cell, 40 WHr Long Life Li-ion</p> <p>Dimensions 12.83 x 9.19 x 0.79 to 0.83 in (front to rear) (non-touch); 12.83 x 9.21 x 0.84 to 0.89 in (front to rear) (touch) 32.6 x 23.35 x 2 to 2.1 cm (front to rear) (non-touch); 32.6 x 23.4 x 2.13 to 2.25 cm (front to rear) (touch)</p> <p>Weight Starting at 3.31 lb Starting at 1.5 kg (Lowest weight configuration. Weight will vary by configuration. See QuickSpecs.)</p> <p>Environmental Low halogen 24</p> <p>Energy Efficiency Compliance ENERGY STAR® qualified configurations available</p>									
65	<p>HP LASERJET P2055DN PRINTER</p>									
66	<p>SLIM LED TV 75"/65"/60"/ 55"/50"/46" (SAMSUNG)</p> <p>PICTURE QUALITY - Full HD 1080p- Micro Dimming - Clear Motion Rate 480</p> <p>SMART TV 2.0 - Dual Core Processor - Smart Hub - Full Web Browser - S-Recommendation</p> <p>SMART INTERACTION 2.0 - Motion Control Ready (limited gesture)* - Voice Control</p> <p>SMART CONNECTIVITY - AllShare™ - Samsung Smart View (Clone View Only)</p> <p>2D AND 3D IN FULL HD</p> <p>SLIM DESIGN</p> <p>CONNECTIONS - 4 HDMI® Connections - 3 USB Connections - Wi-Fi® Built-in - 1 Component in - 1 Shared Composite in (AV)</p> <p>AUDIO - Dolby® Digital Plus, Dolby® Pulse - DTS Premium Sound 5.1™ decoding with DTS Studio Sound™processing</p> <p>INCLUDES - Smart Touch Remote Control - 2 pairs of 3D Active Glasses (SSG-5100GB)</p>									
67	<table border="1"> <tr> <td data-bbox="136 1430 215 1469">Data & Voice System</td> <td data-bbox="215 1430 1538 1469"></td> </tr> <tr> <td data-bbox="136 1469 215 1551"></td> <td data-bbox="215 1469 1538 1551">Supply ,Pulling & Fluke testing of Data or Voice cables in PVC Pipe Including labeling at both ends as per drawings.</td> </tr> </table>	Data & Voice System			Supply ,Pulling & Fluke testing of Data or Voice cables in PVC Pipe Including labeling at both ends as per drawings.					
Data & Voice System										
	Supply ,Pulling & Fluke testing of Data or Voice cables in PVC Pipe Including labeling at both ends as per drawings.									

1	CAT-5E Cable for Voice /Data from communication rode to work Station etc complete 50 Nodes 1700/Per Node	100		P/Node	
2	CAT-5E UTP Cable in 20/25 mm dia PVC Pipe Voice	200		Mtr	
3	CAT-6 UTP Cable in 20/25 mm dia PVC Pipe Data	200		Mtr	
4	Supply ,Installation & Termination of face plates comprising as follows ,Make: 3M	200		Nos	
5	RJ -45 CAT-6 I/O	50		Nos	
6	RJ -11 CAT-6 I/O	50		Nos	
7	Supply ,Installation & Termination of 24 ports RJ-45 Cat -5E ITP Patch Panel complete with all accessories : 3M/ Cisco	5		Nos	
8	Supply & Laying 36 Core PVC/PWA Copper Cable I/C Pipe ,"dia sigle mode 50 UGC Optical Fieber	50		Mtr	
9	Supply ,Installation & termination of 24 Port RJ-45 Cat-6 UTP Patch Panel Complete with all accessories .Make: 3M/ Cisco	5		Nos	
10	Supply ,Installation & termination of 24 Port RJ-45 Cat-6 UTP Patch GIGA Speed Switch ,Complete with all accessories .Make: 3M/Cisco	5		Nos	
11	Wifi Heavy Duty Router 2T2R 300 M	2		Nos	
12	Supply ,Installation of 18 U rack ,mad of 1.5 mm sheet steel,powder coated ,complete with cable management ,troughs,labels,cable holder ,cable guid and teo exhaust fans. A cable extention lead with 4 x 13 A sockets is tobe provided & Installed .The job include all fixing & mounting accessories complete in all respect:Local	5		Nos	
Misc System/HSD System Station					
	Supply ,Installation ,testign & commisioning of Supply and fix Cable Lux 95 mm to 300 mm	100	1	each	
2	Cable terminal 6 dia to 1 dia	4		each	
3	Providing and fixing of 4 in one coloured Fax/Printer/Photo copier /Scanner (HP)	1		each	
4	Porviding /Fixing of star switch Auto on /off	4		each	
5	scanner (HP) Colour Networking Bilten			each	
6	Provding & fixing of UPS 10 Kva Servo Motar Single Phase	1		each	

7	Providing & fixing of UPS 100 Kva Servo Motar SPhase	1		each					
8	Providing & fixing of UPS 150 Kva Servo Motar	1		each					
9	Providing & fixing of UPS 200 Kva Servo Motar	1		each					
10	S/Fixing core I.7 Computer Complete all accessories HP			each					
11	Supply and fixing of MS Diesel Tank 25000 Ltr for HSD Complete with 2 Coat Red Oxide color i/c bitumen coating for protection of Tank and digging of earth and refilling the same with Loading /unloading								
12	Supply and fixing of MS Diesel Tank 15000 Ltr for Petrol Complete with 2 Coat Red Oxide color i/c bitumen coating for protection of Tank and digging of earth and refilling the same with Loading /unloading	1		each					
13	Supply and fixing of Single filling unit of HSD Complete with whine machine etc complete with unloading	1		each					
68.	C.C.T.V System Supply & Installation of High-resolution WCR Camera Image Pick-up Device 1/3" Vertical double density interline color COD total pixels 811(H) x 494 (V) Scanning Frequency Horizontal: 15.734KHz/Vertical: 59.94Hz Horizontal Resolution Color 560TV line (Min 1/B/W 7001V line mint Day & Night Color / B/W / Auto selectable (CR fitter Change) Min illumination 0.2Lux@F1 2 (Color mode) 0.1 Lux@F1 2 (B/W mode) 0.0001Lux@F1 2 (Sens up mode) Back Light compensation Nor / BLC / Off selectable OSD Multi-language support Digital Zoom On / Off (2X – 10X) SSNR – On / Off selectable (Level adjustable) Lens Mount C/Cs-mount (Easy focus type)	1 JOB		P/job					
69	2. Supply & Installation of High Resolution 10X Vandal Proof Dome Camera Image Pick-up Device ¼ Super HAD CCD Total Pixels 795(H) x 596(V) Effective Pixels: 752(H) x 582 (V) Scanning Frequency: Horizontal: 15.734KHz (H) / 59.94Hz (V) Horizontal Resolution: Color: 500TV lines (Color) 570TV lines (B/W) Day & Night: Auto 1, Auto2. Color, B/W (ICR) Min illumination: 0.7Lux @F1 8 (Color mode)	2		Each					
		2		Each					

	<p>0.02 Lux@F1.8 (B/W mode) 0.005Lux (Sens up mode)</p> <p>Back Light compensation Low/Middle/High/ Off selectable OSD</p> <p>Digital Zoom On/Off (2X – 10X) Focus Auto / Manual / One push selectable Ins Control Auto/ Manual selectable Lens Mount C/CS-mount (Easy focus type)</p>								
70	<p>Supply & installation of High Resolution Day & Night Mini Dome Camera Image Pick-up Device 1/3" Super HAD COD</p> <p>Total Pixels 795(H) x 596(V) Effective Pixels 752(H) x 582(V)</p> <p>Scanning Frequency Horizontal' 15,734KHz(H) /59.94Hz (V) Horizontal Resolution 530TV line</p> <p>Day & Night On/auto selectable (Electrical) Min illumination 0.3Lux@F1.2 (Normal color mode)</p> <p><u>0.002Lux@F1.2 (Sens up mode)</u> Gain control Off/Low/Middle /High selectable SSNR OFF/ Low / Middle / High selectable (Noise control) OSD Built-in.</p>	2		Each					
71	<p>Supply & Installation of Varifocal Lens F4 Manual/Dc Type Auto Ins. Varifocal 3.5- 8mm</p> <p>Excellent low light performance Extremely simple Installation and adjustment High quality, compact design</p>	3		Each					
72	<p>Supply & Installation of Low Light, WRD, 30X PTZ Speed Dome Camera</p> <p>Image Pick-up Device: 1/4" Vertical double density interline CCD Total Pixels 795(H) x 596(V) Effective Pixels 752(1-I) x 582 (V) Horizontal Resolution: Color 520 TV lines (Min) / B/W: 570TV lines ((Min) Day & Night: Color /BW / Auto selectable</p>	1		Each					

	<p><u>Min illumination: 0.4Lux@F1.6 (Normal color mode)</u> Gain control: Off/ Low / Middle / High selectable</p> <p>White Balance: ATW / AWC /Manual selectable (18000K- 10.500'K Electronic Sutter Speed: Auto / Manual selectable (1/60 – 11120,000)</p> <p>SSNR Off/ Low /Middle /High selectable OSD: Built-in</p> <p>Motion Detection On/ Off selectable Rotation Angle I Speed Pan. 360 / Pen 240' sec</p>									
73	<p>Supply & Installation of Digital Video Recorder 16 Channel 480fps(N) real-time video recording</p> <p>Power full CMS support as standard 16 Channel audio recording, Various search modes</p> <p>Built-in DVD Writer, Max , 3 multi-monitor</p>	1		Each						
74	<p>Supply & Installation of Controller for Speed Dome camera Connector 9 Port</p> <p>Connector 9 Port LCD Display: 20 x 4 Character LCD</p> <p>PTZ Control Joystick (3-Axis twist zoom)Control Quantity Max 255</p> <p>Remote Control: Rs-485/Rs-422</p>	1								
75	<p>Supply & Installation High Resolution Bracket Mount Camera Image Pick-up Device 1/3" IT CCD</p> <p>Total Pixels: 795 (H) x 596 (V) Effective Pixels: 752(H) x 582 (V) Horizontal Resolution: 530TV lines <u>Min illumination 0.3Lux@F1.2 (Normal color mode)</u></p> <p>Gain control: Off / Low / Middle / High / Off selectable White Balance: ATW (1800K – 10,500' K Electronic Sutter Speed Auto/Manual selectable (1/60- 1/120,000) SSNR Off/ Low / Middle / High selectable</p> <p>OSD Built-in Motion Detection On/ Off selectable Iris Control DC / Video</p>	2		Each						

76	<p>Supply & Installation Housing for Speed Dome Camera Operating Temperature -20 c- 50' C</p> <p>Housing Outdoor ALDC 12 Ring Decoration ALDC 12</p> <p>Dome Cover Poly Carbonate Antivibration / Waterproof: IP 67</p>	2		Each						
77	<p>SUPPLY & INSTALLATION OF WEATHER PROOF HOUSING FOR FIXED CAMERA Construction Extrudod Aluminum Fabricated Aluminum Frame Poly carbonate window Movable Top and Lock</p>	2		Each						
78	<p>SUPPLY & INSTALLATION OF 40" COLOR LCD High Definition LCD WXGA Display</p> <p>Pixel Plus for better Details and Clarity 3D comb filter separates colors for a razor –sharp image</p> <p>Virtual Dolby Surround for a Cinema Audio experience RF Remote Control View PC content HDMI for full digital High Defination Hanging Bracket</p>	2		Each						
79	<p>SUPPLY & INSTALLATION OF 32" COLOR MONITOR LCD High Definition LCD WXGA Display</p> <p>Pixel Plus for better Details and Clarity</p> <p>3D comb filter separates colors for a razor –sharp image Virtual Dolby Surround for a Cinema Audio experience</p> <p>RF Remote Control View PC content HDMI for full digital High Defination Hanging Bracket</p>	1		Each						
80	<p>Supply & Installation of 1.5KVA UPS 1.5 KVA UPS with two batteries Built in isolation transformer Built in Surge Protection</p>	1		Each						
81	<p>Supply & installation of 1.5 KVA Servomotor Type Stabilizer 1.5 KVA Stabilizer with Built in Servomotor</p>	1		Each						

	82	Supplying & Fixing Design, Built & Setup Commands & Control Roomo Solid Wooden Structure	1 Job	P/Job						
		Cinema Scope Type Curve Front Formica Finish 8 Space for 21' CCTV Monitor 2 Space for 40' LCD TV Screen Internal Space for 1 UPS One Door for Troubleshooting & Maintenance 1 Space for DVR								

83	TPM PULSE GENERATOR SINGLE CHANNEL	2				
84	INSTRUMENT TRAY	20				
85	SPONGE HOLDER	20				
86	ARTERY FORCEPS	20				
87	SCISSORS	20				
88	KIDNEY BOWEL	40				
89	ROUND BOWL	40				
90	NEEDLE HOLDERS 11NO.	20				
91	DRIP STAND	20				
92	CRASH CHART	2				
93	OT TROLLIES	2				
94	PATIENT STRETCHER	10				

95	WHEEL CHAIRS		20				
96	<u>PHYSIOTHERAPY ITEMS</u>						
	1. MULTI EXERCISE COUCH WITH SHOULDER PULLY	01					
	2. WAX BATH THERAPY COMPLETE SET	01					
	3. WALL SHOULDER PULLY	04 SETS					
	4. DIATHERMY	01					
	5. COMBI 200L ELECTRODES	08PAIR					
	6. PARALLEL BAR COMPLETE SET LENGTH 14FEET, HEIGHT 3 ½ FEET	01					
	7. DL2 MACHINE (ELECTRICAL MUSCLE SIMULATOR)	02					
	8. CPM MACHINE FOR ELBOW +KNEE	02					
	9. MEDICINE BALLS SMALL/MEDIUM/LARGE	02 EACH					
	10. WRIST RETATOR COMPLETE COMPLETE SET WITH TABLE	01					
	11. HOT AND COLD PACKS MEDIUM/ LARGE	04 EACH					
	12. ELECTRICAL HEATING PACK MEDIUM / LARGE	02 EACH					
	13. STATIC EXERCISE CYCLE WITH METER READER	01					
	14. MIRROR FOR WALKING TRAINING HEIGHT 6FEET LENGTH 2½ IN PARELAL BAR	02					
	<u>ENDO INSTRUMENTS</u>						
	1. URS 6.7.5 FR WITH FORCEPS (01)						
	2. URS 8FR WITH FORCEPS (01)						
	3. MINISCOPE 10.5 FR PEADS SIZE WITH FORCEPS (01)						
	4. MINISCOPE PEADS SIZE 9.5FR						
	5. PCNL LITHOCLAST FORCEPS SMALL SIZE						