

SECTION - VI
LIST OF REQUIREMENTS

Part I

S. No.	Item	Qty./Requirements	EMD (INR)
1	Minimally Invasive Cardiac Surgery Instruments	4 Sets for CTVS Deptt. in Super-Specialty Block	2,00,000.00
2	Adult Cardiac Instruments Set	14 Sets for CTVS Deptt. in Super-Specialty Block	5,60,000.00
3	Paediatric By-Pass Instruments Set	7 Sets for CTVS Deptt. in Super-Specialty Block	2,80,000.00
4	Coronary Sets	12 Sets for CTVS Deptt. in Super-Specialty Block	4,80,000.00
5	Thoracic Instruments Set	7 Sets for CTVS Deptt. in Super-Specialty Block	2,10,000.00
6	Cardiac Instruments Set	7 Sets for CTVS Deptt. in Super-Specialty Block	4,20,000.00

Part II: Required Delivery Schedule:**a) For Indigenous goods or for imported goods if supplied from India:**

60 days from date of Notification of Award except, for MRI, CT Scan, DR System, DRF System, DSA, Gamma Knife, Gamma Camera, PET CT, Cath Lab. for which the delivery period will be 90 days from date of Notification of Award. The date of delivery will be the date of delivery at consignee site (Tenderers may quote earliest delivery period).

b) For Imported goods directly from foreign:

60 days from date of opening of L/C except, for MRI, CT Scan, DR System, DRF System, DSA, Gamma Knife, Gamma Camera, PET CT, Cath Lab. for which the delivery period will be 90 days from date of opening of L/C. The date of delivery will be the date of Bill of Lading/Airway Bill. (Tenderers may quote earliest delivery period).

c) Installation & commissioning within 15 days of receipt of goods at site except for MRI, CT Scan, DR System, DRF System, DSA, Gamma Knife, Gamma Camera, PET CT, Cath Lab. for which installation & commissioning to be done within 90 days of receipt of goods at site.

Note: Indigenous goods or imported goods if supplied from India (offered in INR) which are linked with supply of directly imported goods are to be supplied within the contractual delivery period as stated in para b) above.

For delayed delivery and/ or installation and commissioning liquidated damages will get applied As per GCC clause 23.

Part III: Scope of Incidental Services:

Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in GCC Clause 13

Part IV:

Turnkey (if any) as per details in Technical Specification.

Part V:

Warranty & Comprehensive Maintenance Contract (CMC) as per bid document.

Part VI:

Required Terms of Delivery and Destination.

a) For Indigenous goods or for imported goods if supplied from India:

At Consignee Site – Specified in the List of Requirements

Insurance (local transportation and storage) would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery

b) For Imported goods directly from abroad:

The foreign tenderers are required to quote their rates on CIP Named Port of Destination Basis giving break up of the price as per the Proforma prescribed in the Price Schedule. Purchaser will place the order on Consignee site basis. The shipping arrangements shall be made by the supplier accordingly.

Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.

NOTE: For goods to be imported from abroad the Tender shall submit Proforma Invoice within 07 working days from the date of Award for establishing Letter of Credit process.

Consignee/destination details as mentioned in Section-XXI.

Turnkey Works:

The Tenderer shall examine the existing site where the equipment is to be installed to assess the site condition for Equipment placement and installation. Whether the scope of Turnkey Works is mentioned in the Technical Specifications or not, the bidder's offer should be on a "Turn Key" basis including all costs associated with the supply, installation and commissioning of the equipment.

For equipment, the major Turnkey work to be carried out are given at the end of Technical Specification. The Tenderer to quote prices indicating break-up of prices of the Machine and Turnkey Job of Hospital/Institution/Medical College. The Turnkey costs to be quoted in Indian Rupee will be added for Ranking Purpose. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later. The Turnkey Work should completely comply with AERB requirement, if any.

Bidders must take into consideration in its bid, the costs to be incurred for any additional work pertaining to civil, Electrical, Plumbing, sanitary, Radiation protection as per Govt. regulation, furniture, servo stabilizers, U.P.S. etc. required for successful installation testing and commissioning of the Medical Equipment and the "All inclusive lump sum price" should include all such costs, each **schedule/package** is to be considered a package in itself and suppliers to execute the order package on a "turn key basis" including all civil, electrical, air – conditioning & allied requirement for the equipment, at the site.

For X-Ray and related equipment, bidders who have Type Approval/NOC of AERB/BARC shall only be considered with documentary evidence. It shall be bidder's responsibility to get the equipment installed and commissioned as per AERB / BARC guidelines and installed and commission on "Turn Key basis".

Bidders must take into consideration in its bid the costs to be incurred for any additional work viz. Electrical cabling, plugs of suitable ratings from the source, Electrical points of suitable ratings, water connection, water drainage, plumbing, air-conditioning, Radiation protection/shielding, mechanical & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the quoted “All inclusive lump sum price” should include all such costs.

Following details have been provided by our Safderjung Hospital Site Office of Various Makes for Executing Turnkey Activities for Installation, Testing & Commissioning Medical Equipment viz. CT Scan, MRI, DSA, Digital Radiography, Digital Radiofluoroscopy, Cath Lab., PET/CT, Gamma Camera, Heamodialysis Machines, RO Plant, any Lab. Equipment or any other Medical Equipment requiring such activities at Safderjung Hospital Project:

LIST OF APPROVED MAKES : CIVIL WORKS

S.No	Material	MANUFACTURERS
1	Doors & Windows fixtures/ Fittings	<i>Dorma, Godrej, Ozone, Austavision</i>
2	Door Closer / Floor spring	<i>Ozone, hettich, Dorma, Godrej,</i>
3	Aluminium Sections.	Hindalco, Jindal, <i>BALCO, Alom</i>
4	Clear Glass/ Clear Float Glass/ Toughened Glass	Saint Gobain(SG), Modi, <i>Asahi, Glaverbel</i>
5	Laminates	Formica, Decolam, Century, Marino, <i>Greenlam</i>
6	Synthetic Enamel Paints	Berger, Asian, ICI , Nerolac, Shalimar
7	Oil Bound Distemper	Berger, Asian, <i>ICI , Nerolac, Shalimar</i>
8	Cement Paint	Snowcem plus, Berger, Nerolac, <i>Asian, ICI</i>
9	Plastic Emulsion Paint	<i>Berger, Asian, ICI , Nerolac, Shalimar</i>
10	Other Paints/Primers	Berger, Asian, ICI , Nerolac, Shalimar
11	MS Pipe/ Sections	Jindal Hisar, Prakash-Surya, BST, Kalinga, Tata
12	Polycarbonate Sheets	<i>GE, Macrolux, Plastic, Vergola, Skyarch, Polytechno</i>
14	Wooden Fire Check Doors	Navair, Pacific Fire Control, Kutty Promat, Sukri
15	Metal Fire Check Doors	Navair, Shakti- Met, Godrej, Sukri, Pacific Fire Control
16	Ceramic Tiles	Johnson, Somany, Kajaria, Nitco, <i>Bell, Hindustan,</i>
17	Pre-Laminated Particle Board	Novopan, Greenlam, Kitlam, Marino, <i>Century, Archid ply</i>
18	Flush Door Shutters	Century, Kitply, Green Ply, <i>Duro</i>
19	Glazed Tiles	Bell, Somany, Johnson, Kajaria, <i>Nitco</i>
20	PVC Water Stops	<i>Prince/Supreme/Finolex//BASF</i>
21	White Cement	Birla White, J.K., <i>Grasim</i>
22	Dash Fasteners./Anchor bolts	Hilti, Fischer, Bosch,
23	Stainless Steel Bolts, Washers and nuts	Kundan , Puja , Atul
24	6mm thick Reflective Glass	Glaverbel, Glavermas, Saint Gobain, <i>Asahi</i>
25	Door Locks	ACME, Godrej, <i>Dorma</i>
26	Door Seal – Woolpile Weather Strip/ <i>Acoustic seal</i>	Anand -Reddiplex, <i>Enviroseal, Viper</i>
27	Aluminium Grill	Hindalco, Jindal

28	Vitrified Tiles	Naveen, Bell, Kajaria, Somani, <i>Nitco, Johnson, Euro</i>
29	Aluminium Cladding sheets	Alstrong , Alpolic, Alucobond, Alstone International, Aludecor Lamination
30	Stainless steel D-handles	D-line, Giesse, Dorma, Dorset, ozone
31	Stainless Steel Pipes/Flats	304 Grade (as approved by Engineer)
32	Structural Steel	TATA, SAIL, RINL, JINDAL
33	Epoxy Flooring/ wall coating	Fosrock, Beck, Famaflor, <i>Araldite, STP, Sika, BASF</i>
34	Ply board	Greenply, Kitply, Century, Archid, Marino, <i>Duro</i>
35	PVC Flooring	LG, Tarkett, Responsive , <i>Armstrong, Gerflor</i>
36	SS Railing	<i>Ozone, D-Line, Jindal,</i>
37	Fire rated door closer/Mortice Lock/ Door Co-ordinator	Dorma, Becker F.S. Australian or approved equivalent
38	Gypsum Board System	Gyproc (Saint Gobain), Lafarge, Boral, <i>Hilux,, Aerolite</i>
39	Adhesive for Door Work	<i>Fevicol/ Vamicol/ Dunlop/ Piditite/ Sika/ Thermoshield</i>
40	Epoxy Paint	<i>Nerolac/ Shalimar/ cico/ Fairmate/ sika/ BASF/ Berger/ Asian/ Pidilite</i>
41	Polysulphide sealant	Pidilite/ Fosroc/ Choksey/chematal rai/ cico/ sika, MC Bouchemie, BASF, STP
42	Glass Doors (Motorised)	<i>DORMA/ Hafle/ Ozone</i>
43	Calcium silicate boards	<i>Hilux/ Aerolite, Armstrong</i>
44	Calcium Silicate Tiles	<i>Hilux/ Aerolite, Armstrong</i>
45	Texture Paints	<i>Spectrum/Heritages/ICI Dulux/Asian</i>
46	Wall care putti	<i>J.K. White/Birla/Gyproc wall putty</i>
47	Frameless glass partition fixtures	<i>Dorma/Hafle/Ozone</i>
48	U-PVC Windows	<i>Fenesta, Window Magic, Aluplast</i>
49	Toilet Cubicles	<i>Greenlam, Marino or approved equivalent</i>
Note:	<p>If the makes given in the list are not available, other equivalent makes can be considered subject to approval by the Purchaser/HSCC based on credentials of the company and test certificates of the product, subject to price adjustment.</p> <p>Wherever makes have not been specified for certain items, the same shall be as per BIS and as per approval of Purchaser/HSCC.</p>	

LIST OF APPROVED MAKES: PLUMBING WORKS

Sl.No	Material	Relevant IS Code	MANUFACTURERS
1	Vitreous China Sanitary ware	2556	Kohler, Roca, American Standard, Toto
2	White Glazed Fire Clay Sink	771	Sanfire, Cera, Neycer, Hindware.
3	Stainless Steel Sink		Jayna, <i>Neelkanth</i> , Commander, Nirali

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4	Plastic seat cover of W.C	2548	Kohler, Roca, American Standard, Toto
5	Geyser		Racold, Venus, Voltas, Usha Lexus, Jaguar, Havells
6	C.P. Fittings Mixer/Pillar taps Washers, C.P. brass accessories ,CP Angle Valve,Bibcocks,CP waste	1795/4291/4827	Kohler, Roca, American Standard, Toto
7	Centrifugally /Sand cast iron pipes & fittings	3989/1729	Neco, Hepco, SKF
8	G.I. Pipes	1239 Part I	Jindal-Hissar, Tata, Prakash-Surya
9	G.I. Fittings	1239 Part I	Unik, K.S., Zoloto, R
10	Stoneware pipes & Gully Traps	651	IS Marked pipes
11	Mirror		Atul, Modi guard, Asahi, Saint Gobain
12	Hand drier		Kopal, Automat, Euronics, Utech
14	Insulation of Hot water pipes		Vidoflex insulation, Superlon, Thermaflex, Kaiflexkaimenn
15	D.I pipes		Jindal, Tata, Electrosteel.,Kesoram
16	PVC/UPVC pipes & fittings		Finolex , Prince,
17	Infrared Sensor operated Faucets/Urinals		Kohler, Roca, American Standard, Toto
18	Gratings, Strainers, Cleanouts etc		Neer Brand (Sage Metals),ACO
19	Decorative bath room fittings		Jaquar (Florentine range), Aquabaths, Kohler
20	HDPE pipes and fittings		Oriplast, So-Soon, Finolex, Gebreti, Nosil,
21	CPVC pipe,fittings and Solvent		Flowguard, Astral, Prince,
22	Copper Pipe		Raj Co., Maxflow, Mehta Tubes
23	Copper Fittings		Viega, IBP, Yorkshire, Mehta Tubes, Rajco
24	Lab drainage		Viega, Duraline, Rex
25	Lab Fittings		Vijay, Viega
26	SS pipe(EN-10312) & press type fitting		Viega, Jindal
27	Oxilyte (Mixed oxident)		Oxybee Solutions, I2M Technologies, Faith Innovations

Note:Wherever makes have not been specified for certain items, the same shall be as per BIS and as per approval of Purchaser/HSCC.

LIST OF APPROVED MAKES : FIRE FIGHTING WORKS

Sl.No	Material	Relevant ISI Code	MANUFACTURERS
1	G.I./M.S. Heavy class pipe	1239/3589	Jindal-Hissar, Tata, Prakash -Surya,
2	Portable Fire Extinguisher	2171	Minimax, Safex, Ceasefire, Newage,
3	Sprinkler Heads		
4	Pendent type		Tyco, Viking,HD,Grinnel
5	Side wall type		Tyco, Viking,HD,Grinnel

6	Sprinkler Side wall extended through		Tyco, Viking,HD,Grinnel
7	Standby battery lead acid		Exide, Standard, Amco
8	Cables		As per Electrical Works
9	G.I. Fittings	1239 Part I	Unik, K.S., Zoloto,R
10	DI pipes		Jindal,TATA,Electrosteel,Kesoram
11	Pipe coat material (Pipe protection)		Pypkote Integrated water proofing co. Madras/coaltek Rustech products (P) Ltd. Syndcate Enclave, Dabri/Makphall
12	Fire Man's Axe		Safeguard/safex/Newage/Gunnebo

Note:Wherever makes have not been specified for certain items, the same shall be as per BIS and as per approval of Purchaser/HSCC.

LIST OF APPROVED MAKES FOR ELCTRICAL SYSTEM

Contractor shall use the materials of approved make as indicated below unless specified in BOQ or as approved by the HSCC electrical incharge. The contractor shall ensure the correct selection of the approved make meeting the specifications and application duties. Before placing order for procurement, the sample of approved make shall be got verified for its suitability to the specification and application duty. However, HSCC electrical engineer (approving authority) reserves the right to opt for the best preferred listed make. The contractor shall quote the rate for the material and equipment as per the list of approved makes and equipment as per the list of approved makes. In the event of the contractor wants to use alternate makes other than those stipulated for any reason , the contractor can send a proposal after ensuring that what he proposes at the least meets both the quality and safety standard of the stipulated makes, and the financial benefit that will accrue to the client. He shall also stand full guarantee to his alternate proposal. The alternate makes can be used only after an approval accorded by the client/HSCC., whose decision will be final in this matter. Any financial implication incurred related with inspection will be borne by contractor.

S.No.	Item Description	Make list
1	Timers in Distribution board	Legrand/ Hager/ Siemens/ ABB/ GE
2	MCB distribution Boards	L &T /Hager/ MDS/Legrand/ Siemens, ABB/GE/ Schenieder (MG)
3	MCB	L &T /Hager/ MDS/Legrand/ Siemens, ABB/GE/ Schenieder (MG)
4	Rewirable porcelain wire	CPL, KEW
5	Data and Voice wire	Finolex,Delton,Skyton,Anchor,L&T,AT&T, Avaya
6	RCCB	L & T Hager/ Legrand/ Siemens , GE/Schenider (Merlin –Gerin)
7	ELCB/ELMCB	Merlin Gerin-multi 9, Legrand, Hager, Siemens
8	11 KV LT XLPE cables	RPG/ Polycab/ NICCO/ UNIVERSAL/Rallison/KEI/Skytone/ Havells

9	Copper Control cable	Finolex/ Polycab/ NICCO/ Universal/ National/ Rallision/RR Cable
10	Cable Joints (Heat Shrinkable)	Raychem/3M/Cabseal
11	Cable Trays	Steelways/ Bharti/ Unitech /Maheshwari/or approved by HSCC
12	Galvanized/PVC Raceways and raceways accessories	Steelways/ Bharti/ Schneider(MG)/Legrand
13	Light fitting	Philips/ GE/ Crompton Greaves
14	fancy LIGHT FITTING	Anchor(Panasonic)/ Twinkle/Decon/Ankur
15	Lamps	Philips/ Osram/ GE/Anchor (Panasonic)/Perlite
16	GI / MS conduit ISI marked	BEC/ AKG/ Steel Kraft
17	PVC conduit	BEC/ AKG
18	Steel conduit accessories (ISI as approved sample)	Sharma sales corporation, super sales corporation or equivalent.
19	Modular Metal box for switch /socket	Havells/ MK/MDS/Anchor Roma/Northwest
20	Copper conductor FRLS PVC insulated wires ISI marked	National/ Finolex / R R cable/Rallision/Skytone/lap/Bonton
21	Modular Switches & sockets Outlets	Havell's (Crabtree)/ MK- Wraparound/Hagger/Wipro Legrand (Myrius/ Anchor- Roma(Tersa, woods,viola)/ Northwest
22	Metal clad Socket outlets With boxes	L & T Hager/ Siemens/ Merlin Gerin/ ABB MDS / BCH /Havells
23	UPS system	PCI LTD/ Siemens/ Etone powerware/Emerson/APC (Schneider)
24	Electronic Ballast	Philips/ Wipro/Osram / Bajaj
25	Ceiling fans	Crompton Greaves/ Bajaj/ Orient/ Alastom/ Usha

26	Main PC with CPU monitor	HP/ Compaq/Del
27	PVC Tape	Steel Grip
28	Batton Holder,Angle holder, Ceiling Rose	Anchor
29	Exhaust Fan with Gravity Louvers	Usha Lexus/Orient/ Crompton/Industrial-Almonard/ GEC
30	TV Cable- Co axial	Finolex, airtech, bhansali
31	Chemical Earthing	Ashlok, Erico, Pioneer, Nimbus,JK Earthing
32	LCD/LED Monitor	Sony, Panasonic, Samsung

LIST OF APPROVED MAKES AND MANUFACTURERS

The subcontractors/makes/brands of equipment listed below are approved for installation.

All items to be used in the works samples, catalogues and specifications are to be submitted by the contractor for approval of the Purchaser/HSCC. Only approved makes shall be used in the works. The approved samples shall be kept in the custody of the Purchaser/HSCC for comparison.

S.No	Material/Item	Approved Makes
1	Precision AC units	Emerson/Blue box/Stulz/Hiross
2	Window/split AC	Carrier /Hitachi/Voltas/Bluestar/Daikin/Ogeneral
3	VRV/VRF	Carrier /Hitachi/Daikin/Ogeneral
	Ducting & Grilles	
4	Factory fabricated duct	Zeco/ Ductofab/Rolastar/Technofab
5	G.I. Sheet Metal Duct	Jindal /National/ Tata/Sail
6	Spiral duct	Atco/Seven Star
7	Grilles/Diffusers/Volume Controller	Ravistar/Caryaire/ Mapro/Dynacraft/Airmaster
8	Fire Dampers UL listed	Caryaire/Dynacraft / Ravistar/Ruskin
9	Sound Attenuator	Caryaire/Dynacraft/Ravistar/Trox
10	G.I. Sheets	TATA/SAIL/Jindal/Bhushan Steel
11	Aluminium Sheets	Balco/Nalco/Hindalco
12	Stick Pins	Prima Seal/Air flow
	Pipes	
13	G.I.	ITC/ Jindal Hissar/Tata/SAIL/HSL
14	M.S. upto 150 mm	ITC/ Jindal Hissar/Tata/SAIL/HSL
15	M.S. 200 mm and above dia factory rolled	ITC/ Jindal Hissar/Tata/SAIL/HSL
	Valves	

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16	Butterfly Valves	Advance/Audco
17	Motorised butterfly valve(actuator)	Belimo/Honeywell/Invensys/siemens
18	Non Return Valve	Advance/Kirloskar/Audco
19	Balancing Valves	Advance/Audco/Danfoss/Honeywell
20	Gate/Globe Valves	Leader/Divine/Sant/Bankim Sarkar /Zoloto
21	GM valve upto 40mm	Leader/Divine/Sant/Bankim Sarkar /Zoloto
22	Ball Valve with Y strainer	Rapid Control/Sant/Leader/Zoloto
23	Pressure independent Balancing valve	Danfoss/Flowcon/TA
	Accessories	
24	Y-strainer	Emerald/Sant/Rapid cool
25	Pressure Gauge	Fiebig/Emerald/H Guru/Japsin
26	Thermometer	Fiebig/Emerald/H Guru/Japsin
27	Flow Switch	Rapid Control/Anergy
28	Automatic Air Vent	Rapid Control/Anergy
29	Suction Guide	Anergy/ Rapid Control/Flowcon
30	Filters(pre, fine Hepa)	Thermadyne/Spectrum/Kirloskar /Anfilco/Johnflower/Dynafilter
	Insulation	
31	Expanded Polystyrene	Beardsell Ltd./ BASF/Styrene Packing/ Indian Packaging Industries/ Lloyd
32	Glass Wool	FGP Ltd./UP Twiga/Kimmco / Owens Corning
33	Polyurethane Foam	Malanpur /Superurethane
34	Crossed linked Polyethylene Foam	Trocellene / Aeroflex/Armacell/
35	Closed Cell Elastomeric Insulation	K-flex /Vedoflex/Armacell
36	Non woven fibre material	Mikron/ Du pont
37	Mineral wool	Rockwool India Pvt Ltd,
38	Pre-moulded PUF section for pipe & pipe supports	Malanpur/ Lloyd
39	Fibreglass rigid Board/Pipe section	FGP Ltd./UP Twiga/Kimmco / Owens Corning
40	Aluminium Tape	Johnson/Birla 3M/Garware
41	Thermostats	Honeywell/Johnson controls/Belimo/Danfoss/Siemens/Oventrop
42	Humidistat	Honeywell/Johnson control/ Belimo/Danfoss
	Miscellaneous	
43	V Belt	Dunlop/Fenner
44	Anchor fastners	Fischer/Hilti
45	Dash fastner	Fischer/Hilti
46	Welding rods	Advani/L&T
47	Wire Rope duct supporting arrangement	Gripple
48	Flexible pipe connection	Dunlop/Kanwal/resistoflex
49	Hessian Cloth (fire rated)	Navair/Pyrogaurd

50	Vibration isolator	Resistoflex, Dunlup, Kanwal
51	Copper Refrigerant Piping	Diamond/Star/Rajco

It is the vendors/suppliers responsibility to do the needful for installation, testing and commissioning of Medical Equipment as per terms and conditions of the Bid Document including Turnkey Works mentioned in Section-VI of the Bid Document.

Section - VII
Technical Specifications

Minimally Invasive Cardiac Surgery Instruments Sets (4 Sets)

1 Long Instruments for MICS

Long Valve Forceps, for MICS. Should be made of high grade surgical Steel and have balanced weight for less fatigue of muscles, Should be available in straight and angled shape with Jaw dimensions of 1 to 3mm width and 10 to 15mm length, the shaft diameter should be 5.0mm and over all length from 335-350mm. should also have anti reflecting surface coated with Ceramic.

Long Needle Holders with Lock for MICS. Should be made of high grade surgical steel and have balanced weight for less fatigue of muscles, should be available in Straight and angled shape with jaw dimensions of 2mm to 3mm width and 8 to 10mm length, the shaft diameter should be 5.0mm and overall length from 335-350mm. Should also have anti reflecting surface coated with Ceramic.

Long Scissors for MICS. Should be made of high grade surgical Steel and have balanced weight for less fatigue of muscles, should be available in straight and angle of 45° and 90° also in curved shape with shaft diameter of 5.0mm and overall length from 335mm to 350mm. Should also have anti reflecting surface coated with Ceramic.

Long Knot Pusher, for MICS. Should be made of high grade surgical steel and have balanced weight for less fatigue of muscles, Should be available in Star shape and with 25° angled shape with shaft diameter of 5.0mm and overall length 335- 340mm Should also have anti reflecting surface coated with Ceramic

Long Clip applicators, for MICS. Should be made of high grade surgical steel and should be compatible with small and midum clips for occluding bleeders with shaft diameter of 5.0mm and overall length be 335-340mm. Should also have anti reflecting surface coated with Ceramic.

Long Nerve hook, with tip diameter of 1x7mm and over all length be 335 to 340mm should have ante reflecting surface coated with Ceramic.

Long Non Traumatic Forceps, Should be made of high grade surgical steel with one Jaw movement, should be available in Jaw dimensions of 3.5x 50mm and overall length 330mm, 2.8 x 70mm and overall length 290mm and 5.5x 80mm and overall length 360mm.

Long suture hook with the length between 340- 350mm along with saperate handle for suture hook. Should also have anti reflecting surface coated with ceramic

Coronaries Long Instruments for MICS

Long Forceps, for MICS. Should be made of high grade surgical Steel and have balanced weight for less fatigue of muscles, Should be available in straight and angled shape with Jaw dimensions of 1 to 2mm width and 8 to 15mm length, the shaft diameter should be 3.5mm and over all length from 280-290mm. should also have anti reflecting surface coated with Ceramic.

Long Needle Holders with Lock for MICS. Should be made of high grade surgical steel and have balanced weight for less fatigue of muscles, should be available in Straight and angled shape with jaw dimensions of 1mm to 2mm width and 8 to 10mm length, the shaft diameter should be 3.5mm and overall length from 270-280mm. Should also have anti reflecting surface coated with Ceramic.

Long Scissors for MICS. Should be made of high grade surgical Steel and have balanced weight for less fatigue of muscles, should be available in straight and angle of 45° and 125° also in curved shape with shaft diameter of 3.5mm and overall length from 270mm to 280mm. Should also have anti reflecting surface coated with Ceramic.

3 MICS Retractor System

The MICS retractor system should comprises of retractor frame which can attach various size blades along with ball joint adapters and extention to hold atrial hook of different sizes along with blade guide and guiding forceps for atrial blades. Should also have attachments for holding telescope and suction devices. The retracting blades depth should be 35x 40mm to 35x 60mm and atrial hook length should be 40mm to 70mm. The retractor should also be able to mount the tissue heart stabilizer during midcab.

4 Self Retaining IMA retractor system.

The retracting system can be mounted on OT table for hands free retraction with blade guide, coupling rider, IMA Blades in different length and width, retracting blade in different sizes. Should be able to facilitate LIMA & Rima Harvesting.

Adult Cardiac Instruments Sets (14 Sets)

S.No.	Items	Qty
	ADULT BY-PASS SET (O H Set)	
1	Mosquito forceps 5" Curved	12
2	Mosquito forceps 5" Straight	12
3	Baby Mosquito forceps 4" Straight	6
4	Baby Mosquito forceps 4" Curved	6
5	Artery forceps 6" Straight	12
6	Artery forceps 6" Curved	12
7	Kocher forceps 6" Straight	12
8	Kocher forceps 8" Curved	2
9	Allis forceps 6"	2
10	Allis forceps 8"	1
11	Babcock forceps 6"	2
12	Babcock forceps 8"	1
13	Towel clip (backhus) 4"	12
14	Towel clip (backhus) 5"	18
15	Kellies artery forceps 9" Curved	2
16	Shell Cross forceps 8"	2
17	Right angle forceps STD 7" (Small)	1
18	Right angle forceps STD 8" (Medium)	1
19	Right angle forceps STD 9" (Big)	1
20	Right angle forceps fine 5 1/2"	2
21	Right angle forceps fine 7"	2
22	Robert artery forceps 7" curved	2
23	Robert artery forceps 8" curved	2
24	Robert artery forceps 9" curved	2
25	Sponge holding forceps 10"	6
26	Dunal Lung Holding forceps	1
27	B.P. Handle # 3	2
28	B.P. Handle # 4	2
29	B.P.Handle # 7	2
30	Tube cutting Scissor (Plastic Handle)	2
31	Metzenbaum Scissor 6"Curved, TC	1
32	Metzenbaum Scissor 7"Curved, TC	2
33	Metzenbaum Scissor 8" Curved, TC	1
34	Metzenbaum Scissor 9" Curved, TC	1
35	Mayo Scissor 7" Straight, TC	2
36	Mayo Scissor 7"Curved, TC	2
37	Mayo Hegar Needle Holder 6" TC	2
38	Mayo Hegar Needle Holder 8" TC	2
39	Debakey Needle Holder 5" TC	2
40	Debakey Needle Holder 7" TC	2
41	Debakey Needle Holder 8" TC	2

42	Debakey Needle Holder 9" TC	2
43	Sorat Needle Holder 7 1/2" TC	1
44	Ryder Needle Holder 7" TC	2
45	Ryder Needle Holder 8" TC	1
46	Wire Twister / Sternal Needle Holder 6" TC	1
47	Wire Twister / Sternal Needle Holder 8" TC	2
48	Finochitto Rib Retractor Single Blade New Born	1
49	Finochietto Rib Retractor (Small) With Single Blade	1
50	Finochietto Rib Retractor (Medium) With Single Blade	1
51	Finochietto Rib Retractor (Adult) With Single Blade	1
52	Morse Sternal Spreader With Double Blades New Born	1
53	Morse Sternal Spreader (Small) With Double Blades	1
54	Morse Sternal Spreader (Medium) With Double Blades	1
55	Morse Sternal Spreader (Adult) With Double Blades	1
56	Morse Sternal Spreader (Adult) With Deep Double Blades	1
57	IMA Retractor	1
58	IMA Blade for Morse Sternal Spreader Adult (SRMC Model)	1
59	Bailey Rib Approximator (Small)	1
60	Bailey Rib Approximator (Big)	1
61	Kocher- Langenbeck Retractor (Small)	2
62	Kocher- Langenbeck Retractor (Medium)	2
63	Kocher- Langenbeck Retractor (Big)	2
64	VSD Retractor (Set of 5 Different Size)	1
65	Harrington Retractor (Medium)	1
66	Harrington Retractor (Big)	1
67	Davidson Scapula Retractor Big	1
68	Davidson Scapula Retractor small	1
69	Allison Lung Retractor (Small)	1
70	Allison Lung Retractor (Medium)	1
72	Root Retractor	2
73	Moris Retractor	1
74	Cats paw Retractor (4 prongs)	2
75	Czereny Retractor	2
76	Muller-Senn / Cats Paw Retactor	2
77	Malleable / Ribbon Retractor	6
78	Nerve Hook Blunt	1
79	Nerve Hook Sharp (Fine)	1
80	Skin Hook	1
81	Aneurysm Needle	1
82	Snugger Rod Small / Medium / Big	3
83	Toothed Dessecting Forceps 6"	2
84	Non-Toothed Dessecting Forceps 6"	2
85	Toothed Dessecting Forceps 7"	2
86	Non-Toothed Dessecting Forceps 7"	2
87	Adson Toothed Forceps 5"	2

HSCC (India) Limited

88	Debakey Vascular Forceps 6" long 1.6 mm tip	2
89	Debakey Vascular Forceps 8" long 1.6 mm tip	4
90	Debakey Vascular Forceps 8" long 2.0 mm tip	4
91	Debakey Vascular Forceps 8" long 2.0 mm 45 Deg Angled tip	2
92	Debakey Vascular Forceps 8" long 2.7 mm tip	2
93	Debakey Vascular Forceps 8" long 3.5 mm tip	2
94	Morse- Andrews Suction Tube (Small)	1
95	Yankauer Suction Tube	2
96	Cardiotomy Suction Tube (Small)	1
97	Cardiotomy Suction Tube (Big)	2
98	Heparin / Irrigation Cannula (Different Sizes & Shapes)	8
99	Suction Tip #2 & # 3	2
100	Wire-Cutter Single Action 7"	1
101	Wire Cutter 8" Double Action TC	1
102	Doyen Respiratories Right / Left	2
103	Overholt Periosteal Elevators #1	1
104	Overholt Periosteal Elevators #3	1
105	Bone Nibbler 8"	1
106	Bone Hole	1
107	Scoop 8"	1
108	Bethune Rib Shears 13 3/4"	1
109	DeraCoolyDebakey Vascular Clamp 7", 16mm Jaw (Small)	1
110	DeraCoolyDebakey Vascular Clamp 7", 20mm Jaw (Medium)	1
111	DeraCoolyDebakey Vascular Clamp 7" 26mm Jaw (Big)	1
112	Dissecting & Ligature Debakey Vascular Clamp 7 1/2"	1
113	Dissecting & Ligature Debakey Vascular Clamp 9"	1
114	Beck Debakey Vascular Clamp 8", 30mm Jaw	1
115	Beck Debakey Vascular Clamp 8 1/2", 45mm Jaw	1
116	Harken Debakey Vascular Clamp 10" # 1	1
117	Harken Debakey Vascular Clamp 9 3/4" # 2	1
118	Harken Debakey Vascular Clamp 9 3/4" # 3	1
119	Side Biting Clamp 8"	1
120	SatinskyDebakey Vascular Clamp 7 1/4", 38mm Jaw	1
121	SatinskyDebakey Vascular Clamp 10 1/4", 48mm Jaw	1
122	SatinskyDebakey Vascular Clamp 10 1/4", 48mm Jaw	1
123	Debakey Vascular Cross Clamp 7", 65mm Jaw, 60 degree	1
125	Debakey Vascular Cross Clamp 9", 55mm Jaw, 60 degree	1
126	Debakey Vascular Cross Clamp 11", 65mm Jaw, 60 degree	1
127	Price Thomas Clamp 9"	1
128	Debakey SEMB Arota Aneurysm Clamp, 60mm Curved Jaw, 10 3/4"	1
129	Debakey LAMBERT-KEY Arota Anastomosis Clamp, 47mm Jaw, 8 1/2"	1
130	Hegar Dilators 1mm to 28mm (Set of 14 Nos)	1
131	Tracheal Dilator	1
132	Milker 8"	1
133	Tube Clamp 6"	4

134	Tube Clamp 8"	8
135	Tube Organiser	1
136	SS Scale 6"	1
137	Kidney Tray Small	2
138	Kidney Tray Big	2
139	Bowel Small	3
140	Bowel Big	3
VALVE SET		
1	B.P.Handle # 7 Long	1
2	B.P.Handle # 3 Long	1
3	Nelson Metzenbaum Scissor 11" Straight/Curved,TC	1
4	Potts Scissor 7" 45 Degree Super Cut	1
5	Potts Scissor 9" 45 Degree Super Cut	1
6	Thomson Valve Cutting Scissor, With Deep Curve	1
7	Valve needle Holder curved 10" TC	2
8	Debakey Needle Holder 10" TC Gold Handle	2
9	Debakey Needle Holder 11" TC Gold Handle	2
10	Cooly Mitral Valve Retractor, RIGHT (Small, Medium,Big)	3
11	Cooly Mitral Valve Retractor, LEFT (Small, Medium, Big)	3
12	Mitral Hook Long (Right Angled Tip)	1
13	Mitral Hook (rounded)	1
14	Russian Forceps 8"	1
15	Russian Forceps 10"	2
16	Aortic Valve Rongeurs Straight	1
17	Aortic Valve Rongeurs Upward	1
18	Aortic Valve Rongeurs Downward	1
19	Debakey Vascular Forceps 12" long 3.5 mm tip	2
20	Debakey Vascular Forceps 9 1/2" long 3.5 mm tip	2
21	Self retaining Mitral Valve Retractor System Adult	1
LEG SET		
1	B.P.Handle # 4	2
2	Debakey Vascular Forceps 6" long 2.0 mm tip	2
3	Toothed Dessecting Forceps 6"	2
4	Baby Mosquito forceps 4" Curved	15
5	Mayo-Hegar Needle Holder TC 8"	1
6	Crile-wood Needle Holder TC 6"	1
7	Fine Right angle forceps 5 1/2"	1
8	Fine Right angle forceps 7"	1
9	Metzbaum Scissor 7" TC	1
10	Mayo Scissor 7" TC Straight	1
11	Mayo Scissor 7" TC Curved	1
12	Henly Popliteal Self Retaining Retractor (Small)	1
13	Henly Popliteal Self Retaining Retractor (Medium)	1
14	Henly Popliteal Self Retaining Retractor (Big)	1
15	Allis Forceps Small 6"	2

29	Bulldog Clamp Spiky	2
30	Bulldog Clamp Straight	3
31	Bulldog Clamp Curved	3
32	Bulldog Clamp Angled	5

- Doesn't require US-FDA and CE approval
- Quality will be judged by demonstration
- Medical grade & rust free stainless steel is must

Paediatrics Instrument Sets (7 Sets)

S.No.	Items	Qty
	<i>Paediatric BY-PASS SET (O H Set)</i>	
1	Mosquito forceps 5" Curved	12
2	Mosquito forceps 5" Straight	12
3	Baby Mosquito forceps 4" Straight	6
4	Baby Mosquito forceps 4" Curved	6
5	Artery forceps 6" Straight	12
6	Artery forceps 6" Curved	12
7	Kocher forceps 6" Straight	12
8	Allis forceps 6"	2
9	Allis forceps 8"	1
10	Babcock forceps 6"	2
11	Babcock forceps 8"	1
12	Towel clip (backhus) 4"	12
13	Towel clip (backhus) 5"	12
14	Shell Cross forceps 8"	2
15	Right angle forcpep STD 7" (Small)	1
16	Right angle forcpep STD 8" (Medium)	1
17	Right angle forceps fine 5 1/2"	2
18	Right angle forceps fine 7"	2
19	Robert artery forceps 7" curved	2
20	Robert artery forceps 8" curved	2
21	Sponge holding forceps 8"	6
22	Dunal Lung Holding forceps	1
23	B.P. Handle # 3	2
24	B.P. Handle # 4	2
25	B.P.Handle # 7	2
26	Tube cutting Scissor (Plastic Handle)	2
28	Metzenbaum Scissor 7"Curved, TC	2
29	Metzenbaum Scissor 8" Curved, TC	1
30	Mayo Scissor 7" Straight, TC	2
31	Mayo Scissor 7"Curved, TC	2
32	Mayo Hegar Needle Holder 6" TC	2
33	Mayo Hegar Needle Holder 7" TC	2
34	Debakey Needle Holder 5" TC	2
35	Debakey Needle Holder 7" TC	2
36	Debakey Needle Holder 8" TC	2
37	Sorat Needle Holder 7 1/2" TC	1
38	Ryder Needle Holder 7" TC	2
39	Ryder Needle Holder 8" TC	1
40	Wire Twister / Sternal Needle Holder 6" TC	2
41	New Born Castinada Retractor with Single Curved Blade	1
42	New Born Finochietto Retractor With Single Blade W12xD14	1

43	New Born Finochietto Retractor With Single Blade W20xD20	1
44	Finochietto Rib Retractor (Extra Small) With Single Blade W20xD18	1
45	Finochitto Rib Retractor Single Blade New Born	1
46	Finochietto Rib Retractor (Small) With Single Blade	1
47	Finochietto Rib Retractor (Medium) With Single Blade	1
48	Morse Sternal Spreader With Double Blades New Born	1
49	Morse Sternal Spreader (Small) With Double Blades	1
50	Morse Sternal Spreader (Medium) With Double Blades	1
51	Bailey Rib Approximator (Small)	1
52	Kocher- Langenbeck Retractor (Small)	2
53	Kocher- Langenbeck Retractor (Medium)	2
54	Baby- Langenbeck Retractor (Small)	1
55	Baby- Langenbeck Retractor (Medium)	1
56	Baby- Langenbeck Retractor (Big)	1
57	VSD Retractor (Set of 5 Different Size)	1
58	Davidson Scapula Retractor small	1
59	Allison Lung Retractor (Small)	1
60	Root Retractor	2
61	Mories Retractor	1
62	Rack Retractor (4 prongs)	2
63	Czereny Retractor	2
64	Muller-Senn / Cats Paw Retactor	2
65	Malliable / Ribbon Retractor	6
66	Nerve Hook Blunt	1
67	Nerve Hook Sharp (Fine)	1
68	Skin Hook	1
69	Aneurysm Needle	1
70	Snugger Rod Small / Medium / Big	3
71	Toothed Dessecting Forceps 6"	2
72	Non-Toothed Dessecting Forceps 6"	2
73	Toothed Dessecting Forceps 7"	2
74	Non-Toothed Dessecting Forceps 7"	2
75	Adson Toothed Forceps 5"	2
76	Debakey Vascular Forceps 6" long 1.6 mm tip	4
77	Debakey Vascular Forceps 8" long 1.6 mm tip	4
78	Debakey Vascular Forceps 8" long 2.0 mm tip	2
79	Debakey Vascular Forceps 8" long 2.0 mm 45 Deg Angled tip	2
80	Debakey Vascular Forceps 8" long 2.7 mm tip	2
81	Debakey Vascular Forceps 8" long 3.5 mm tip	2
82	Morse- Andrews Suction Tube (Small)	2
83	Yankauer Suction Tube	1
84	CardiotomySution Tube (Small)	2
85	Heparin / Irrigation Cannula (Different Sizes & Shapes)	8
86	Suction Tip #2 & # 3	2
87	Wire Cutter Double Action 7"	1

88	Doyen Respiratories Right / Left	2
89	Bone Hole	1
90	Scoop 8"	1
91	Titanium Micro Clamp, Straight Debakey, 30 mm Jaw length, Straight Shank, 12 cm	1
92	Titanium Micro Clamp, Side Biting Debakey, 20 mm Jaw length, Slightly Angled Shank, 11.2 cm	1
93	Titanium Micro Clamp, Spoon Debakey, 26 mm Jaw length, Straight Shank, 11.8 cm	1
94	Titanium Micro Clamp, 45 Deg Angled Debakey, 25 mm Jaw length, Straight Shank, 11 cm	1
95	Titanium Micro Clamp, 60 Deg Angled Debakey, 25 mm Jaw length, Straight Shank, 11 cm	1
96	DeBakey Ring Handle Bulldog Clamps, Straight, 5 1/8" .	1
97	DeBakey Ring Handle Bulldog Clamps, Curved, 5".	1
98	DeBakey Ring Handle Bulldog Clamps, Curved, 5". S-Shape	1
99	DeBakey Ring Handle Bulldog Clamps, Angled 45 Degree, 5".	1
100	DeBakey Ring Handle Bulldog Clamps, Right Angled 90-Deg, 4 1/8".	1
103	Fine DebakeyNeonatales Castaneda Curved 15mm Jaw 6"	1
104	Fine DebakeyNeonatales Castaneda Curved 18mm Jaw 6"	1
105	Fine DebakeyNeonatales Castaneda Curved 23mm Jaw 6"	1
106	Fine DebakeyNeonatales Castaneda Curved 25mm Jaw 6"	1
107	DebakeyMulti Purpose Clamp Deep Curved 31mm Jaw, 6 1/2"	1
108	DebakeyMulti Purpose Clamp Deep Curved 40mm Jaw, 6 1/2"	1
109	DebakeyMulti Purpose Clamp 30mm Jaw, Angled 30 Degree 6 1/2"	1
110	DebakeyMulti Purpose Clamp 30mm Jaw, Angled 60 Degree 6 1/2"	1
111	DebakeyMulti Purpose Clamp 30mm Jaw, Angled 90 Degree 6"	1
112	BebakeyDerra Cooley Clamp 16mm Jaw, 6 3/4"	1
113	BebakeyDerra Cooley Clamp 20mm Jaw, 6 3/4"	1
114	BebakeyDerra Cooley Clamp 26mm Jaw, 7"	1
115	BebakeyDerra Cooley Clamp 24mm Jaw, 6 1/4"	1
116	Dissecting & Ligature Debakey Vascular Clamp 7 1/2"	1
117	Debakey Vascular Cross Clamp 7", 65mm Jaw, 60 degree	1
118	Debakey Vascular Cross Clamp 7", 65mm Jaw, 30 degree	1
119	Tracheal Dilator	1
120	Milker 8"	1
121	Tube Clamp 6"	8
122	Tube Clamp 8"	4
123	Tube Organiser	1
124	SS Scale 6"	1
125	Kidney Tray Small	2
126	Kidney Tray Big	2
127	Bowel Small	3
128	Bowel Big	3
MICRO INSTRUMENTS SET		
1	Micro Needle Holder Diamond Dusted 6 1/4" (for 7-o)	1
2	Micro Needle Holder Diamond Dusted 7" (for 6-o)	1

3	Micro Needle Holder Diamond Dusted 8 ¼" (for 6-o)	1
4	Micro Needle Holder Diamond Dusted 8 ¼" (for 8-o)	1
5	Castrovijeo Needle Holder TC 7" (for 4-o)	2
6	Micro Debakey Vascular Forceps 7" Round Handle	1
7	Micro Debakey Vascular Forceps 7" Round Handle (45 Degree Angled)	1
8	Micro Ring Tip forceps Diamond Dusted 7"	1
9	Gerald Forceps 7"	4
10	Coronary Spring Potts Scissor Round Handle 45 Degree, 7" , 11 mm blade	1
11	Coronary Spring Potts Scissor Round Handle 125 Degee, 7" 11 mm Blade	1
12	Diethrich Pott's Coronary Artery Super Cut Scissor 45 Degree, 7"	1
13	Diethrich Pott's Coronary Artery Super Cut Scissor 125 Degree, 7"	1
14	Distill Forceps Diamond Dusted 8"	1
15	Steven Tronotomy Scissor curved 7" Super cut	1
16	Reynold Scissors Super Cut Curved 18cm/7" Super cut	1
17	Metzenbaum Scissor Normal Curved 7" Super cut	1
18	Metzenbaum Scissor Sharp Curved 7" Super cut	1
19	Metzenbaum Scissor Normal Curved 5" Super cut	1
20	Bullet Suction tip (Small, Medium, Big) (1set = 3 Nos.)	1
23	Bulldog Clamp Spiky	2
24	Bulldog Clamp Straight	3
25	Bulldog Clamp Curved	3
26	Bulldog Clamp Angled (Dr.Rao's Bulldog)	5
27	Micro Instruments Tray With Silicon Mat (Imported)	1

- Doesn't require US-FDA or CE approval.
- Quality will be judged by demonstration.
- Medical grade and rust free stainless steel is must.

CORONARY INSTRUMENT SET (12 Sets)

Sl. No	Instrument name	Qty.
1	Jacobson micro needle holder, round handle straight, diamond dust jaw, never shear, dual guide, extended 10mm diameter knurling regular box lock with ratchet-size 8"/20cm (titanium) for suture- 7.0 and smaller(Titanium)	1
2	Jacobson micro needle holder, round handle straight, diamond dust jaw, never shear, dual guide, extended 10mm diameter knurling regular box lock with ratchet-size 9"/23cm (Titanium) for suture- 7.0 and smaller (Titanium)	1
3	Jacobson micro needle holder, round handle straight, diamond dust jaw, never shear, dual guide, extended 10mm diameter knurling regular box lock with ratchet-size 8"/20cm (Titanium) for suture- 5.0 and smaller (Titanium)	1
4	Micro forcep, round handle, 1 mm straight diamond dust, ring tips- 7 ¼" (18.5cm) (titanium)	2
5	Debakey forceps, flat handle-1 mm straight debakey tips size-7 ¾" (19.5 cm) (stainless steel)	3
6	Lilehei – potts scissors, ring handle curved blades, sharp tips – 7" (18cm)	1
7	Debakey scissors, ring handle – 45 degree angled blades, sharp tip – 6 ¼" (16cm)	1
8	Jacobson micro scissors round handle, spring style 45 degree angled micro fine blades – 6 ¾"	1
9	Jacobson micro scissors, round handle, spring style, v-neck-125degree angled micro fine blades size- 6 ½" (16.5cm)	1
10	Micro forceps, round handle, straight 1.0mm diamond dust platform tips 8 ¼" /21cm (titanium)	1

Quality will be judged on Demonstration
Should be US FDA & CE Approved

Thoracic Instrument set (7 Sets)

	Perforated Tray 12x9"	4
	Doyen Costal Periosteal (L) Adult	1
	Doyen Costal Periosteal (R) Adult	1
	SELLERS RIB APPROXIMATOR SPREADER	1
	BURFORD RIB SPREADER TWO PAIRS OF BLADE	1
	TUFFIER RIB SPREADER	1
	STILLS-LISTON BONE CUTTING FORCEP ANGLED	2
	RIB CUTTER	1
	TUDOR EDWARD RIB SHEAR	1
	ALLISON LUNG RETRACTOR	2
	DAVIDSON SCAPULAR RETRACTOR	1
	DUVAL'S LUNG FORCEPS 22 CM	1
	DUVAL'S LUNG FORCEPS 23 CM	1
	MIXTER HEMOSTATIC FORCEP 22 CM	1
	MIXTER HEMOSTATIC FORCEP 25 CM	1
	PERIOSTIUM ELEVATOR	2
	NIBBLUAR	1
	NIBBLUAR 9"LONG B.P. HANDLE	1
	MORRIS RETRACTOR	1
	PERIOSTEAM ELEVATOR	1
	BONE NEBBULER	1
	RIB CUTTER	1
	RETRACTOR MORRIS 50MMW	1
	RETRACTOR MORRIS 35MMW	1
	RECTRATOR DEVERS 25MMWX30MM	1
	RECTRATOR DEVERS 75MMWX311MM	1
	RECTRATOR MALLEABLE	2
	RETRACTOR HARRINGTON	2
	MASTOID RETRACTOR	1
	MASTOID RETRACTOR BIG	1
	RETRACTOR BALFOUR (SELF-RETAINING)	1
	BABCOCK TISSUE HOLDING FORCEP	1
	SCISSOR MATZENBAUM 11"	1
	DEBAKEY CLAMP	2
	CRAWFORD CLAMP	2
	GILE WOOD WOOD NEEDLE 9"	1
	DEBAKEY NEEDLE HOLDER 12"	1
	DEBAKEY TISSUE FORCEPS 9"	2
	DEBAKEY TISSUE FORCEPS 12"	1
	CHERRYSUPRA LLIAC CLAMP	1
	DEBAKEY CLAMP CD	1
	ANGLED DEBAKEY	2
	CLAMP (JARIT)	1