## SPECIFICATION OF LAPAROSCOPE SET FOR TRAINING WITH CO2 INSUFFLATOR

Item with Specification.	Qty
Telescope: Straight forward telescope,0 degree enlarged view, size: 10 MM	01
rod lenses system ,Length:30- 31 cms, Auto clavable, Fiber optic light transmission incorporated	
<b>Telescope:</b> Straight forward Oblique, 30 degree enlarged view, size: 6-6.5 MM	01
rod lenses system, Length: 35-36 cms, Auto clavable, Fiber Optic Light Transmission Incorporated.	
Trocar & Cannula: Cannula size: 11 mm diameter; should have multifunctional valve and automatic	02
valve to prevent damage of sharp instruments and lquipme tip lens while passing through the cannula	
valve. It shoulds have stopcock for CO2 insufflation.	
Trocar should have pyramidal tip with pin holes near the tip for safety outlet of CO2 gas. The working	
length of the canula should be 100-110 mm.	
Trocar & Cannula: Cannula size: 7 mm diameter; should have multifunctional valve and automatic valve	02
to prevent damage of sharp instruments and lquipme tip lens while passing through the cannula valve. It	
shoulds have stopcock for CO2 insufflation.	
Trocar should have pyramidal tip with pin holes near the tip for safety outlet of CO2 gas. The working	
length of the canula should be 100-110 mm.	
Trocar & Cannula: Cannula size: 6 mm diameter; should have multifunctional valve and automatic valve	02
to prevent damage of sharp instruments and 1 quipme tip lens while passing through the cannula valve. It	ı
shoulds have stopcock for CO2 insufflation.	i
Trocar should have pyramidal tip with pin holes near the tip for safety outlet of CO2 gas. The working	
length of the canula should be 100-110 mm.	-
Veress Needle: Veress needle of working length 13 cm with luer lock.	02
Ring Applicator: Ring applicator for use with 6mm Trocar & Cannula, capable of loading two silastic	01
rings. Firing of silicon ring to position where one ring is loaded and firing of two rings simultaneously at	
position2. The ring applicator has to be fully dismantable into different parts like, Prone,Inner tube, outer	
tube, thumb, knurled ring etc to make it lequipments lon and service friendly.	
Bipolar Forcep: Bipolar Grasping Forceps size: 5mm, robust type, take apart in nature that it can be	01
dismountable into three parts, handle, insert grasper and working tube; with movable inner sheath and non-	
retracting jaws. Working length 33cm Handle should be spring type.	
Bipolar Insert Only: Bipolar grasping insert only, robust type to fit with main bipolar forceps.	02
Inner Sheath: Inner sheath with HF insulation to fit with main bipolar forceps.	02
Bipolar HF Cable: Bipolar HF cable compatible to connect with main bipolar forceps.	02
Unipolar curved Kelly dissecting and Grasping Forcep: Kelly curved dissecting and grasping forceps	01
insulated, atraumatic, working length 36 cm, size: 5mm, dismountable into handle, insert and working tube.	
Handle without ratchet.	
Insert Forcep Unipolar: Insert forcep Kelly type curved atraumatic jaw compartible with main Kelley	01
curved dissecting forceps.	
Unipolar Atraumatic Grasping Forcep: Atraumatic fenestrated Grasping forcep, slightly curved,	01
insulated. Dismantable into different parts, insert, handle and working tube, Working length of 36 cm, size:	
5mm. Handle with ratchet.	
Oviduct Forcep: Oviduct forceps to hold the fallopian tube, purely atraumatic without serration. Working	01
length 36 cm, size: 5mm, handle without ratchet.	
Scissor curved Unipolar: METZENBAUM curved scissor, length of blade 12mm, connection for unipolar	01
HF cable, dismountable into insert, tube and handle. Working length 36 cm, size: 5mm, handle without	
ratchet.	
Insert curved scissor: Scissor curved inset to fit with main curved scissor.	02
HF Needle Electrode: High Frequency Needle for splitting and coagulation, insulated, with connection pin	01
for unipolar coagulation, working length 31cm.	
HF Needle Only: Needle insert only suitable to insert with HF needle electrode.	02
Unipolar HF Cable: Unipolar HF cable suitable to connect with forcep and electrosurgical unit.	02
Ompoiai III Capie. Ompoiai III capie suitable to connect with forcep and electrostificat unit.	1 02





Single Chip Endoscopy Camera system with Digital Image Process module.	01	
Image Sensor - ½ " CCD Chip		
Pixels - 752 (H) x 582 (V)		İ
Resolution - 450 Lines Horizontal		
AGC - Microprocessor based		
Minimum Sensitivity – 3 Lux (f- 1.4 mm)		
Exposure Control – 1/50 Sec – 1/10000 Sec		
Should have Freezing Function & Antomoire filter function.		
Camera control unit should have accessories output to control external devices like video printer from the		
camera head buttons		
Programmable Functional Keys on camera head for various functions like automatic white balance, gain		
control, brightness control etc.		ļ
Should have integrated focus control.		
Should have digital zoom.		
Should must have integrated Optical Parfocal zoom lens 25-50MM		
Should have DV output and S-VHS and Composite video output		
Should have contrast enhancement and digital filter		
Should be certified IEC 601-1 and CE according to MDD.		-
Video Monitor:	01	1
19-20" TFT screen with pedestal.		
Viewing angle of 170 degree vertical and brightness of 450cd/m2		
Should have: resolution of 1280 X 1024	į	1
Should take RGB, SDI and S-Video signals		
Xenon Light Source:	01	1
Xenon light source of 175 Watts	1	
Should be able to produce color temperature of 6000 K		
Should have continuous manual adjustement of light output	1	
Should be offered with one spare xenon lamp 175 watts.		
Should be certified IEC 601-1 and CE according to MDD.		
Fiber Optic Light Cable:	02	1
Fiber Optic light cable of actual bundle size: 4.5-4.8mm, length: 250cm.		ł
CO2 Electronic Insufflator:	01	٦
Electronic CO2 insufflators with pin index connection	]	
Should have an adjustable flow rate of 0 to 20 ltr. Per minute and a pressure range adjustable between 0-30		
mm Hg.		
Preset and actual value for Pressure and flow should be displayed together on the front panel in digital		1
display.		
Constant monitoring of intra-abdominal pressure; any overpressure is released immediately with back flow		-
with acoustic alarm.		
Unit should have in-built heater to warm up and preheat the CO2 gas.		-
Should be able to select either central supply (4.5Kg/cm2) input pressure from central supply as well as		-
direct connection to high pressure CO2 cylinder and should indicate the right inlet pressure of CO2 gas		
supply by bar graph on front panel of machine.		- [
Unit should produce immediately acoustic alarm in case of sudden blockage in the gas outlet tube or		
wrongly placed Veress Needle.		İ
Provided with Silicon autoclave tubing with luer attachment.		
Instrument should work on a universal power supply of 100-240 V, with a frequency of 50 Hz single phase.	1	
Electrical Safety certification – IEC-601-1 and CE acc to MDD		1
HP Hose: Suitable high pressure hose pin index to connect the gas to insufflator, length: 1.0 meter.	01	
CO2 Cylinder: 5 Kg. Carbon Dioxide bottle with pin index connection with wrench	02	$\neg$
Electro Surgical Unit: Microcontroller based Digital Electrosurgical Cautery 300 Watts with Digital	01	$\dashv$
Display Push Switch Control Provides Consistent Performance for General Surgical Procedures & delivers		
its Optimum & Reliable Power by using latest & Advance Technology, Convenient for all Surgical		
Application.		
Application.  Unipolar as well as Bipolar facility having operating frequency between 500-700 KHz.		
Must have Dual Mono-polar Coagulation Facility on the unit: Two surgeons can operate mono-		
polar coagulation at the same time on the same patient.		
Must have Patient Plate Contact Quality Monitoring system - With This Silicon Dual Pad Patient Plate	.   •	
Contact Quality Monitoring Takes Place, the moment the contact between Plate & Patient reduces it stops		
the HF delivery with an audio visual indications.		
ule III delivery with the dudie violate indications.		



Independent Mono-polar & Bipolar Output Can be used without Any Switch over from the Machine: This facility Enables the operating surgeon to perform surgery without any Hassle.	
Facility for pure cut 300 watts, blend cut 250 watts, endocut 200 watts, Bipolar cut and coagulation 120-	
100 watts.	
In Accordance with IEC 60601-1 and IEC 60601-2-2; CE certified	
Unit should be supplied with footswitch, patient plate, patient cable, hand control pencil with standard accessories	
Video Trolley: Suitable video trolley to be supplied for mounting 3equipments having minimum three self	01
with drawer, with antistatic wheel casters, front locable, high grade of electrical insulation and earth	1
protection. 5 Ampere socket, 5 Nos, inbuilt with trolley to connect all electronic devices. CO2 bottle stand	
Sterlization/Disinfection Tray:	02
Disinfection/Sterlization stainless steel tray of steel grade 304 with sieve tray to lift. Size:	
27"x7"x5"(LxBxD	
Formaline Chamber: Formaline Chamber made of Virgin Acrylic 6mm thickness;	01
size:26"x8"x8"(LxBxH) with three tray, for sterilizing the laparoscope, preferably with three tray	
UPS 1.5 KVA: UPS – 1.5 KVA off line with One hour backup time( at 1000 Watts real load) with SMF	01
Batteries. Should be able to work on wide input range between 160-270 VAC at 3frequency between 50Hz	
± 2Hz, Should use PWM technology with power conversion with single transformer arrangements with an	
output of 220VAC ± 5%, protection of overload, short circuit and low battery. Should have indication on	
front panel for mains load/battery load/ battery overload-low and MCB protection in case of short circuit.	
ISI/CE approved good quality Indian make.	

**Power Supply** 

Power input to be 220-240VAC, 50Hz fitted with Indian plug

Suitable UPS -1.5 KVA with maintenance-free batteries for minimum one-hour backup time should be supplied with the system

## **Environmental factors:**

The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

The unit shall be specified for operation up to 45 deg C and 100% relative humidity.

## Spares:

The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- (a) such spare parts as will be required during the warranty and CMC period free of cost, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- (b) In the event of termination of production of the spare parts:
- (i) advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
- (iv )following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

## Standards & Warranty:

Should be FDA, CE,UL or BIS approved product, minimum three years from this ITB.

Comprehensive warranty and CMC as specified in Clause 2.

Manufacturer/Supplier should have ISO certification for quality standards.

Product should have IEC safety standards where ever listed.

The core training laparoscope like Telescope, Endovision camera, light source, CO2 Insufflator, hand instruments(bipolar forcep, unipolar forcep, HF needle etc.) fiber optic cable, ring applicator, veress needle, Video monitor should be from single manufacturer for system compartibility.

Executive Director (EPM)
Rajasthan Medical Services Corporation Ltd.,
Jaipur

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