BREAST PUMP

GENERAL		
1.USE		
1.1	**Clinical purpose**	A breast pump is a mechanical device that extracts milk from the breasts of a lactating individual. Breast pumps is an electrical devices powered by electricity or batteries.
1.2	**Used by clinical department/ward**	NICUandPICU
TECHNICAL		
2.TECHNICALCHARACTERISTICS		
2.1	**Technical characteristics (specific to this type of device)**	1) Pumpingfrequency30to80Cpmanduseradjustable. 2) Cushioninsertedinsidethebreastcupsothatitdoesnothurtthem other. 3) SuctionPressure100to250mmhb;useradjustable. 4) Abletoexpressmilkfrombothbreastssimultaneously. 5) Collectionbottlescanbeusedforstorageofmilkshouldbeautoclavablean dbiocompatible. 6) Doublealternatingpumps/doublecyclingpumps. 7) Shouldbemotorizedbreastpumpunits. 8) Shouldbehospitalgradeandheavyduty. 9) Breast pump should not come in contact with Milk 10) shall be supplied with expression set (complete) reusable (washable and autoclavable) 11) shall have dual mode (start with stimulation for 2 minutes followed by suction mode)
2.2	**User'sinterface**	Manual
2.3	**Software and/or standard ofcommunication(where everrequired)**	NA
3.PHYSICALCHARACTERISTICS		
3.1	**Dimensions(metric)**	Portable
3.2	**Weight(lbs,kg)**	Compactunit(weightlessthan4kg)
3.3	**Configuration**	LCD/LEDdisplaysuctiontiming
3.4	**Noise(indBA)**	<60db
3.5	**Heat dissipation**	NA
3.6	**Mobility,portability**	Yes
4.ENERGYSOURCE(electricity,UPS,solar,gas,water,CO2 .....)		
4.1	**PowerRequirements**	220VAC+10%,50Hzpowersupply;5Aplug.
4.2	**Batteryoperated**	NA
4.3	**Tolerance (to variations,shutdowns)**	±10%ofinputAC
4.4	**Protection**	Electricalprotectionbyresettableovercurrentbreakersorreplaceablefuses.
4.5	**Powerconsumption**	Shouldbecompatiblewithotherlifesavingequipmentsrunningparallel.

पृष्ठ सं 9/3

5.ACCESSORIES,SPAREPARTS,CONSUMABLES		
	Accessories (mandatory,standard, optional);Spareparts(mainones);Consumables / reagents(open,closedsystem)	1) Reusablecollectionbottlesalong-withbreastcups-50sets. 2) Allkindsoftubes-50sets(Ifapplicable). 3) Diaphragm-100Nos. 4) Otheraccessoriesrequiredforoptimumfunctioningoftheequioment. 5) All accessories shall be BPA free & CE marked (including disposable bottles, tubing, Breast shield- 24mm, Valve membrane, and extra as per need)
BIDDING/PROCUREMENTTERMS/DONATIONREQUIREMENTS		
6.ENVIRONMENTALANDDEPARTMENTALCONSIDERATONS		
6.1	**Atmosphere/Ambiance(airconditioning,humidity,dust...)**	1) Operating condition: Capable of operating continuously in ambienttemperatureof10to40degCandrelativehumidityof15to90%inidealcircumstances. 2) Storagecondition:Capableofbeingstoredcontinuouslyinambienttemperatureof0to50degCandrelativehumidityof15to90%.
6.2	**User's care, Cleaning,Disinfection&Sterilityissues**	Disinfection:PartsoftheDevicethataredesignedtocomeintocontactwiththepatientortheoperatorshouldeitherbecapableofeasydisinfectionorbeprotectedbyasingleuse/disposablecover.
7.STANDARDSANDSAFETY		
7.1	**Certificates(pre-market,sanitary,..);Performanceandsafety standards (specific tothe device type);Local and/orinternational**	1) ShouldbeCE(EU)/FDA(US)approvedproduct. 2) Manufacturer/suppliershouldhaveISO13485certificateforqualitystandard. 3) ElectricalsafetyconformstostandardsforelectricalsafetyIEC-60601-1.
8.TRAININGANDINSTALLATION		
8.1	**Pre-installation requirements:nature, values, quality,tolerance**	Suppliertoperforminstallation,safetyandoperationchecksbeforehandover.
8.2	**Requirementsforsign-off**	Certificateofcalibrationandinspectionfromthefactory.
8.3	**Training of staff (medical,paramedical,technicians)**	Trainingofusersinoperationandbasicmaintenanceshallbeprovided.
9.WARRANTYANDMAINTENANCE		
9.1	**Warranty**	5 years
9.2	**Maintenancetasks**	Maintainancemanualdetailingcompletemaintainingschedule.
9.3	**Service contract clauses,includingprices**	warrantyofthreeyearwithfreeservicing(min.3)duringwarranty.
10.DOCUMENTATION		
10.1	**Operating manuals, servicemanuals,othermanuals**	Userandmaintenancemanualstobesuppliedin Englishlanguage.Certificateofcalibrationandinspectiontobeprovided. Listtobeprovidedofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance. Listtobeprovidedofimportantsparesandaccessories,withtheirpartnumbersandcost. Contactdetailsofmanufacturer,supplierandlocalserviceagenttobeprovided.
10.2	**Recommendationsformaintenance**	User/Technical/Maintenancemanualstobesuppliedin English.

11.NOTES		
.1	**Service Support Contactdetails (Hierchy Wise;including a toll free/landlinenumber)**	Contactdetailsofmanufacturer,supplierandlocalserviceagenttobeprovided.
11.2	**Recommendationsorwarnings**	Anywarningsignswouldbeadequatelydisplayed.

पान सं. 3/3

अनुक्रमांक - 2 PVPGHSangli

Specifications Colonoscope (Low End)

Technical Specifications:

Video Processor/Light source:

- Should be a Compact Processor, long life LED /Xenon light source having light weight.
- Should be able to provide 16:9 and 16:10 output for a HDTV monitor and should be compatible with Analog and digital (HD-SDI and DVI output) to reproduce high definition images/videos
- Should be equipped with special detection technology for detail observation by enhancing visibility of blood capillaries and mucosa
- Should contain portable memory(minimum 2 GB) & USB Slot for image recording and minimum 1 GB internal buffer memory of processor
- Should have automatic white balance
- Should be able to function Picture in Picture display & index function ability.
- Should be equipped with memory back up for settings & Lithium battery.
- Should have pre-freeze function to select the clearest still image automatically and noise reduction technology.
- Should have structure enhancement A for better observation of larger mucosal tissues in lower GI and structure enhancement B for better observation of vascular tissues in upper GI.
- Company Should have certificate of USFDA & CE notified body

High DefinitionLCD Monitor

- Full HD LCD monitor Medical Grade 24inch and above with high resolution 1920X1200 (WUXGA) & contrast ratio 2000:1.
- Lower Power consumption.
- Aspect ratio 16:9 & 16:10 with output of (1080/601:NTSC) (1080/501:PAL) with RGB or YPbPr
- DVI, SVideo, Input Compatible with video processor.
- Should have Picture-in-Picture and Picture-out-Picture for viewing side-by- side
- split screen images.
- Stand should supplied separately

Should have following specifications :
Four or more no. of remote control switches on control body. R
Compatible with leakage testing device with its air flow and pressure regulation through light sources air pump
Field of view 140 degree or more
Direction of view : O degree, forward viewing
Depth of field : 3 to 100 mm or better
Distal end outer diameter : 12- 13 mm or less
Insertion tube outer diameter : 12- 13 mm or less
Tip bending rage : Up 180 deg, Dn 180 deg, Rt & Lt 160
Working length : 1600 mm or more
Channel inner diameter : 3.7mm or more
Minimum visible distance of instrument used through channel : 5mm or closer from the distal end
Software -To store the data/Record patient information
Trolley-Local/indian make MS trolley with scope holder
Biopsy Forceps for Colonoscope -Reusable ellipsoid cup with needle biopsy forceps made from enhanced, easy to clean autoclavable materials to facilitate reprocessing.
Leakage testing Device to be provided with separate maintenance unit as well as the device should be compatible with video processor supplied
Laptop (4GB RAM+512GB SSD) Laser Printer to be provided

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli.

Dr. Gurav P. D.
Professor & Head of Dept.Surgery,
Govt Medical College,
Miraj & P.V.P.G.H.,Sangli.

अनुक्रमांक - 3 PVPGHSangli

DOUBLE SURFACE PHOTOTHERAPY

GENERAL		
1.USE		
1.1	**Clinical purpose**	Emits in the main radiation spectrum in the range between 400nm and 550nm for reducing the concentration of Bilirubin
1.2	**Used by clinical department/ward**	New born stablisation unit,SNCU
1.3`	**Over view of functional requirements**	a) Provides filtered light using radiant electric lights,not fibreoptics. b) Infantsupportedsecurelyïnbassinettebelowbulbs. c) Monitorshoursofradiantlightexposure.
TECHNICAL		
2.TECHNICALCHARACTERISTICS		
2.1	**Technical characteristics (specific to this type of device)**	1. PhototherapyshouldbebasedonLEDtechnology,whichafterfiltering shouldprovide,alightofwavelengthapproximately450to470nmwith peakwavelengthof450-460nmrange. 2. Irradiancetobeminimum35µW/cm2/nmat40cmheightandUV shouldnotexceed10-4W/m2in180nmto400nm. 3. DigitalHourmetershowingtotalexposuretimeforcurrentpatienttobeclea rlyvisiblebyoperator. 4. Effectivelightfield>700cm2. 5. Lamplifeshouldbeminimum20000hoursforLEDandshouldhav etimertoindicateitsusage. 6. Over temperaturesafetycutouttobeincluded. 7. Up,downandtiltingofheadshouldbepossible. 8. Theunitshouldbemountedwithcastorwheelswithbrakes. 9. Variationinintensityover5-6hours<10%. 10. The irradianceratio(min tomax)shall begreaterthan 40%onmattress. 11. Greenindicatorlightshallbeprovidedtoindicatethatequipmentisrea dyfornormaluse. 12. Interruptionandarestorationofthepowersupplydonotchangepresetv alues.LEDheatcanbereducedbynaturalcooling. 13. LEDshouldbeprotectredfromfreefall. 14. Itshouldnottoppleon10deginclinedangle. 15. Thetemperatureofbabybedandmetalsurfacesshouldnotexceed40d egCand43degCforotheraccesiblesurfaces.
		16. Thereshouldbeintutivemethodtoindicatethelightsurfaceisattheappr opriatetreatmentdistance. 17. Mobilestandwithmovablecastorsandheightadjustmentfacilityalon gwitheasyswivellingofsourcebox.Unitcanbeusedalongwith Infantcare trolley,RadiantWarmerandIncubator.
2.2	**Settings**	UP/DOWNadjustmentofOverHeadUnit;Thephototherapyunitshou ldbeabletoprovideeffectivetreatmentforbedsandincubatorsofvaryinghe ights (generally 1.0 to 1.6m). Adjustment of light intensity may beprovided.
2.3	**User'sinterface**	Manual

पान क्र. 1/3

	Software and/or standard ofcommunication(where everrequired)	LEDDisplayandinbuiltsoftware
2.5	Others	
	3.PHYSICALCHARACTERISTICS	
3.1	Dimensions(metric)	minimumspec:1650mmHeightX750mmWidthX500mmLength
3.2	Weight(lbs,kg)	<20kg
3.3	Configuration	Clearcabinetforobservationofinfant. Infantbassinettetobeanintegralunitwhichshouldbedetachable.Unit to provide shielding of infant in the event of bulb breakage. Bulbmounttohaveangleadjustmentofatleast30degrees.Alls urfacestobemadeofcorrosionresistantmaterials. Lightunittiltingfacilityandheightadjustmentfacility.
3.4	Noise(indBA)	<60dBA
3.5	heat dissipation	Thetemperatureofbabybedandmetalsurfacesshouldnotexceed40degCand 43degCforotheraccesiblesurfaces.
3.6	Mobility,portability	Minimum3castorsandatleast2withbrakes
	4.ENERGYSOURCE(electricity,UPS,solar,gas,water,CO2 .....)	
4.1	PowerRequirements	220to240V,50Hz
4.2	Batteryoperated	NA
4.3	Tolerance (to variations,shutdowns)	±10%ofinputAC
4.4	Protection	Electrical protection by resettable overcurrent breakers or replaceable fuses,fittedinbothliveandneutrallines.
4.5	Powerconsumption	Shouldnotbemorethan160W
4.6	Otherenergysupplies	Mainscabletobeatleast2.5mlength
	5.ACCESSORIES,SPAREPARTS,CONSUMABLES	
5.1	Accessories (mandatory,standard,optiona l)	Completesetofreplacementtubestoallow3months'continuousoperation Tworeplacementsetsoffuses,ifreplaceabletypeused.
5.2	Spareparts(mainones)	Nosparesrequired
5.3	Consumables / reagents(open,closedsystem)	Total 500nos. Infanteyemasks ofbothavailable sizes(termand pretermbabies).
	6.ENVIRONMENTALANDDEPARTMENTALCONSIDERATONS	
6.1	Atmosphere/Ambiance(airconditi oning,humidity,dust...)	Capableofoperatingcontinuouslyinambienttemperatureof10to40degCa ndrelativehumidityof15to90%inidealcircumstances.
6.2	User's care, Cleaning,Disinfection&Sterilityissue s	Completeunittobeeasilywashableandsterilizableusingbothalcoholandch lorineagents.
	7.STANDARDSANDSAFETY	

पृष्ठ सं 2/3

	Certificates(pre-market,sanitary,..);Performanceands afety standards (specific tothedevicetype);Localand/orinter national	ShouldbeFDA/CEapprovedproduct Shall meet IEC-60601-1-2:2007 Medical electrical equipment -- Part 1-2:Generalrequirementsforbasicsafetyandessentialperformance-Collateralstandard: Electromagnetic compatibility - Requirements and tests (OrEquivalentBIS) ShouldmeetIEC60601-1:2005standardrequirements ShallmeetIEC60601-2-50:2009MedicalElectricalEquipment–Part2-50:ParticularRequirementforthebasicsafetyandessentialperformanceofinfantphototherapyequipment; ManufacturershouldbeISO13485certified
	8.TRAININGANDINSTALLATION	
8.1	**Pre-installation requirements:nature, values, quality,tolerance**	Suppliertoperforminstallation,safetyandoperationchecksbeforehandover.
8.2	**Requirementsforsign-off**	CertificateofCalibrationandinspectionfromthefactory.
8.3	**Training of staff (medical,paramedical,technicians)**	Trainingofusersinoperationandbasicmaintenanceshallbeprovided
8.4	**Others**	
	9. WARRANTYANDMAINTENANCE	
9.1	**Warranty**	5 yearsforthemachineand20,000hoursforLEDs
9.2	**Maintenancetasks**	Maintenancemanualdetailingcompletemaintainingschedule
9.3	**Service contract clauses,includingprices**	Localclinicalstafftoaffirmcompletionofinstallation
9.4	**Others**	
	10.DOCUMENTATION	
10.1	**Operating manuals, servicemanuals,othermanuals**	Advancedmaintenancetasksrequiredshallbedocumented User,technicalandmaintenancemanualstobesuppliedinenglishlanguage. Listtobeprovidedofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance
10.2	**Otheraccompanyingdocuments**	List to be provided of important spares and accessories, with their partnumbersandcost.Certificateofcalibrationandinspectiontobeprovided.
	11.NOTES	
11.1	**Service Support Contactdetails (Hierchy Wise;including a toll free/landlinenumber)**	Contactdetailsofmanufacturer,supplierandlocalserviceagenttobeprovided
11.2	**Recommendationsorwarnings**	List to be provided of important spares and accessories, with their partnumbersandcost.Certificateofcalibrationandinspectiontobeprovided.

अनुक्रमांक कं- 4 PVPGHSangli

Specifications - Laparoscopy (Instrument, Trolly Kit & Accessories) (Code No 11472)

1. Camera System-01

Integrated video Laparoscope, 10 mm 30 degree direction of view.

- Two distal full HD sensors with depth of focus २०m no २०० mm, optimized for stereoscopic endoscopy.
- Slender and light design weight should not be able to more than ४५० gm for optimal ergonomics, integrated in a fine titanium case.
- Sterilisation options: Autoclavable, Stend R १०० S, NX, Steris R system V-pro and Et O
- Should have DVI-D output for transmitting the ३D sight ijn १०८० p format at ५०/६० Hz to a ३D monitor
- Early switching between २D and ३D modes.
- Integrated USB interface for saving captured videos or still images in २D while working on २ D mode
- Should have input keyboard for tile generator, ५-pn DIN socket.
- System should have facility of controlling additional equipment's though camera head buttons from sterile zone like light sources, insufflators and recording device etc.
- Camera processor should be upgradeable in ३D giving full HD motion form both sensors
- Focus range should be optimal
- should be autoclavable
- Easy switching from ३D to २D from camera head can be done
- should meet-CEA certification OR US FDA

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli

Dr. Gurav P. D.
Professor & Head of Dept.Surgery,
Govt Medical College,
Miraj & P.V.P.G.H.,Sangli.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli

पान क्र. 9/5

2. High Definition Medical Grade Monitor Capable of displaying 3D- 01.

- LCD panel minimum २९ inches.
- High Definition १९२०* १२०० pixel resolution.
- should supply clip on type glasses also for selectable wearing surgeons.
- Should be supplied with २० pieces of light, passive circularly polarizes ३D glasses
- Viewing angle-Horizontal: १७८ degrees, vertical: १७८ degrees
- Contrast १४००:१
- Should be supplied with १० pieces of light, passive circularly polarized ३D glasses Clip on glasses:५

3. LED Light sources performance- Qty 1 this should be in high end

- Lamp type LED १७५
- Color temperatus ६०००K
- Light Outlets- १ Certified to CFA and USFDA
- Light Intensity Adjustment: Contineuously adjustable either manually or automatically by camera head:
- Certified to CEA and USFDA

4. Fibre optic cable and Illuminator

- High light transmission for optimal imaging.
- Extreme heat resistance
- Should be supplied with diamter ४८ mm, Longih ३०० cm-Qy २ nos.

५. Electronic CO२ Insufflator with Gas heating and smoke Education sytems, Qty-१

it should have the flowing features

heating facility must be inbuilt in thermoflator. Both Insufflator and smoke evacuation system should be separate units for convenience.

- Heatable insufflation tube for sensitive the CO२ gas up to the patient body temperature
- Innovative Sensitive Mode for sensitive areas such as paediatric application with safety limits in the pressure up to maximum १५ mm Hg and flow ranges up to १५ L/min.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli.

Dr. Gaikwad P. D.
Professor & Head of Dept.Surgery,
Govt Medical College,
Miraj & P.V.P.G.H.,Sangli

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli.

१७/२/२५

- High flow mode with flow performance upto ४०-५० L/min.
- Individually programmable procedure list for starting device with personal pre ets.
- Easy and intuitive use with user friendly colour touch screen for easy and precise setting of set values for pressure and flow and of insufflations modes. As well as for clear display of corresponding set values and actual values.
- Optical and acoustic alarm signals in the event of patient over pressure.
- Fully automatic, electrically controlled gas refill.
- Safety systems: Constant monitoring of intra abdominal pressure; any overpressure is reduced immediately.
- Applicable for use in Laparoscopy and to assure an optimal air extrusion and minimizing risk of air micro emboli and for decreasing rate of contamination and minimizing risk of post operative wound infection.
- control via Realistic User Interface

Technical Specification

- gas flow: ०-५० L/min
- Pressure :०-३० mm Hg(४००० Pa)
- High Flow mode (० to ५० L/min)
- Sensitive mode pressure ९५ mm Hg and flow ९५ L./min for sensitive application.
- Electronic control and colour touch screen
- Following data are displayed on touch screen

-Insufflations mode.
-Set value pressure (0 to 30 mmHg)
-Current gas flow
- Gas consumption (o-9991)
-Status of gas heating

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
S.V.P. Govt. Hospital, Sangli.

Dr. Gurav P. D.
Professor & Head of Dept.Surgery,
Govt Medical College,
Miraj & P.V.P.G.H.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli

पान नं. 3/5

- Power supply: १००-२४० VAC ५०/६० Hz
- Certified to: IEC ६०६०१-१, ce Lable acc to MDD, medical product class lib.

Type of protection against electrical shocks; Protection Class१.

Degree of protection against shocks: Applied part type CF

International protection code: IP2

Smoke evacuation System: Should supply smoke ecacuation system with endoflator.

Intelligent, fully automatic control of vacuum generated for smoke for smoke evacuation in combination with HF units integrated in SCB

Should include a footswitch that can be activated from sterile area to provide surgical smoke evacuation for standalone activation during Laparoscopy surgery

Electrosurgical Integration Compatibility: Atomic Activation via FSU footswitch of advance ESUs

Ouch key on the unit to enable smooth insertion of the tube

Should be compatible with all standard insufflators with pressure control, ranging up to 50L flow capacity.

Should have parallel suction and smoke evacuation facilities.

Technical Specification

Line Voltage: 100.....240 V

Power frequency: 52/60 Hz

Dimensions: (wxhxd): 30.5cm X 5 cm X 32 cm

6. IMAGE/VIDEO RECORDING AND DATA ARCHIVING SYSTEM-01 State of the art user friendly Medical grade system (certified to be used in OT) Should be offered with following features.

- User should have full control of the system from the sterile field via camera head buttons, optional touch screen, optional foot switch
- parallel (synchronic or independent) recording of two image sources.
- Still images and videos in २D FULL HD and ३D.
- Intelligent, adaptive storage mamegment
- Storage location is freely definable and configurable. Storage in internal memory (२ TB FIFO) USB storage media via २.०.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli

Dr. Gurav P. D.
Professor & Head of Dept.Surgery,
Govt Medical College,
Miraj & P.V.P.G.H.,Sangli.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli

पान क्र. 4/5

- Playback of ২D and ৩D content on separate monitor (optional ৩D – system required)
- Controllable via ৭২" inbuilt touch screen
- Input voltage: ৭০০-২৪০VAC
- Input frequency: ৫০-৬০ Hz
- Type approval: ICE ৬০৬০৭-৭-৭, EN৬০৬০৭-৭, EN৬০৫০৭-২

7. Endoscopic Trolley

- Equipment cart suitable for the equipment
- Monitor holding arm

8. Accessories

- Should be supplied with sterilization wire tray for all ৩D Videos Scopes Qty – ৭ no from same manufacturer.
- Should be EDA & CE approved product

All equipment's and accessories mention above should be from single manufacture better compatibility and service.

JUSTIFICATION

> For diagnosis of various Gynaecological condition in diagnostic Laparoscopy.

> For Gynaecological Endoscopies operative procedures like TLH, LAVH, Laparoscopies myomectomy, Lap tub plastic.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli

Dr. Gurav P. D.
Professor & Head of Dept.Surgery
Govt Medical College,
Miraj & P.V.P.G.H.,Sangli

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj
P.V.P. Govt. Hospital, Sangli

अनुलग्नक - 5 PVP-GHSangli

ultipara Monitor Specification (Lower End)

1) Monitors ECG, NIBP, SpO2, RESP, TEMP, in standard configuration
2) Suitable for adult, paediatric and neonatal patient with specific parameter.
3) Arrhythmia analysis, S-T segment detection for 10 arrhythmias.
4) 10-12" High Resolution (touch screen), colour TFT display with 7 Waveforms.

Selectable waveform as well as background colour
5) Maximum 24 hours graphical and tabular trends of all S parameters
6) Built in rechargeable battery with 2 hrs. Of battery backup.
Supports Ethernet, wired LAN aud Central Monitoring system connectivity (if CMS and Multipara monitor should be of the same company would be preferred.)
7) Built in protection against Electro Surgical Unit (Cautery)
8) Keys for Menu, alarm, Freeze, NIBP Start
9) Operation through single rotary switch

ECG

1) Lead 5-lead
2) Lead selection I, II, III, VR, aVI., aVF, V
3) Sweep speed 12/25/50mm/sec
4) Heart rate Range/ Accuracy Adult 15-300 bpm with accuracy of ± 1 bpm or 1% whichever is greater
5) Alarm Range Adult 15-300 bmp
6) Paediatric/ Neonatal 15-350 bpm. Alarm events recallable
7) Arrhythmia and S-T analysis YES
8) Review Up to 300 sec real time waveform replay with se selectable sweep speed

NIBP

1) Method Oscillometric
2) Operation modes Manual/Automatic/STAT
3) Measurement unit mmHg/Kpa selectable.
4) Curf pressure display range: 0 to 300 mm Hg
5) Accuracy: +3 mmHg 6) Measurement types Systolic, diastolic, Mean.

SPO2

1) Measurement Range 0-100%
2) Accuracy + 2 digits (80-100 %)
+3 digits (70-80%)
Alarm Range (Visible audible) 0-100%
Pulse Rate Range 25-224 bpm, resolution lbpm
Accuracy + 2 bpm or 2% whichever is greater
Alarm range (Visible audible) 3-300 bpm
Wave from Plethysmograph
Saturation Technology Nelcore / Nonin / Equivalent.
Probe Neonate, paediatric, Adult or Universal (3 No.s)

पान क्र. 9/2

perature

surement range 25 degree-45 degree C
solution 0.1 degree C
curacy ± 0.2 degree C (including probe)
Measurement unit Degree C/ Degree F selectable
Channels 2 channels

IBP/ Dual IBP

NA.

EtCo2

NA.

Warranty: - 2 Years.

Certification : - CE (NB)/USFDA Approval.

Various accessories and their number varies as per user requirements.

1. 5 lead reusable patient cable for ECG monitoring.
2. Adult Reusable SpO2 Sensor
3. Pediatric reusable SpO2 Sensor
4. Neonate reusable SPO2 Sensor
5. Adult & Pediatric Cuff for NIBP monitoring
6. Skin probe compatible for Temp. monitoring
7. Rectal probe compatible for Temp monitoring
8. Sure CO2 sampling line with Nafion Dryer for intubated patient - 5 nos.
9. Adult Nasal sampling line - 100 nos.
10. Water Trap-50 No.

अनुक्रमांक 6 PVPGHSangli

Multipara Monitor Specification (Lower End)

1) Monitors ECG, NIBP, SpO2, RESP, TEMP, in standard configuration
2) Suitable for adult, paediatric and neonatal patient with specific parameter.
3) Arrhythmia analysis, S-T segment detection for 10 arrhythmias.
4) 10-12" High Resolution (touch screen), colour TFT display with 7 Waveforms.

Selectable waveform as well as background colour
5) Maximum 24 hours graphical and tabular trends of all S parameters
6) Built in rechargeable battery with 2 hrs. Of battery backup.
Supports Ethernet, wired LAN aud Central Monitoring system connectivity (if CMS and Multipara monitor should be of the same company would be preferred.)
7) Built in protection against Electro Surgical Unit (Cautery)
8) Keys for Menu, alarm, Freeze, NIBP Start
9) Operation through single rotary switch

ECG

1) Lead 5-lead
2) Lead selection I, II, III, VR, aVI., aVF, V
3) Sweep speed 12/25/50mm/sec
4) Heart rate Range/ Accuracy Adult 15-300 bpm with accuracy of ± 1 bpm or 1% whichever is greater
5) Alarm Range Adult 15-300 bmp
6) Paediatric/ Neonatal 15-350 bpm. Alarm events recallable
7) Arrhythmia and S-T analysis YES
8) Review Up to 300 sec real time waveform replay with se selectable sweep speed

NIBP

1) Method Oscillometric
2) Operation modes Manual/Automatic/STAT
3) Measurement unit mmHg/Kpa selectable.
4) Curf pressure display range: 0 to 300 mm Hg
5) Accuracy: +3 mmHg 6) Measurement types Systolic, diastolic, Mean.

SPO2

1) Measurement Range 0-100%
2) Accuracy + 2 digits (80-100 %)
+3 digits (70-80%)
Alarm Range (Visible audible) 0-100%
Pulse Rate Range 25-224 bpm, resolution lbpm
Accuracy + 2 bpm or 2% whichever is greater
Alarm range (Visible audible) 3-300 bpm
Wave from Plethysmograph
Saturation Technology Nelcore / Nonin / Equivalent.
Probe Neonate, paediatric, Adult or Universal (3 No.s)

सहयोगी प्राध्यापक, सहयोगी प्राध्यापक,
वा. वै. म. मिरज व प.व. पा. रु. सांगली, वा. वै. म. मिरज व प.व. पा. रु. सांगली.

पान क्र. 9/2

Temperature

Measurement range 25 degree-45 degree C
Resolution 0.1 degree C
Accuracy ± 0.2 degree C (including probe)
Measurement unit Degree C/ Degree F selectable
Channels 2 channels

IBP/ Dual IBP

NA.

EtCo2

NA.

Warranty: - 2 Years.

Certification : - CE (NB)/USFDA Approval.

Various accessories and their number varies as per user requirements.

१. ५ lead reusable patient cable for ECG monitoring.
२. Adult Reusable SpO२ Sensor
३. Pediatric reusable SpO२ Sensor
४. Neonate reusable SPO२ Sensor
५. Adult & Pediatric Cuff for NIBP monitoring
६. Skin probe compatible for Temp. monitoring
७. Rectal probe compatible for Temp monitoring
८. Sure CO२ sampling line with Nafion Dryer for intubated patient – ५ nos.
९. Adult Nasal sampling line – १०० nos.
१०. Water Trap-५० No.

सहयोगी प्राध्यापक, स्त्रीरोग व प्रसूतीशास्त्र विभाग. शा. वै. म. मिरज

सहयोगी प्राध्यापक, स्त्रीरोग विभाग. शा. वै. म. मिरज

सहयोगी प्राध्यापक, स्त्रीरोग विभाग.

अनुक्रमांक क्रं - 7 PVPGHSangli

Specifications
O.T. TABLE
(Medium End)

Application
Surgical Table is a mobile, hydraulic surgical table designed to support virtually major surgical procedures including general surgical, orthopedic, neurology, ERCP, urology, gynecology etc with the addition of table accessories. Table features can be opting by its mechanism i.e. Lateral tilt, Trendelenburg/ Reverse Trendelenburg, Chair Position, Flex – reflex and Adjustable height functions.

Should be constructed of stainless steel and other high quality materials. The table should be equipped with a large translucent top, for C-arm use.
Standard Accessory package –
· Anesthesia Screen
· Arm Board
· Shoulder Support
· Lateral Support
· Hand Rest
· Knee Crutches

Key Structure
· Specialized for orthopedic, neurology, ERCP, laparoscopy and urology.
· should provide excellent C-arm and surgical access.
· Slim line column offset relative to tabletop and base.
· 150 kgs maximum patient weight.
· Furnished with hard, robust stainless steel shell which provides the sense of dirt free &) sanitized operations. I
· Smooth height adjustment of the table can be achieved by using the foot pedal.
· Interchangeable general sections (head/leg).

Technical Constraints
Top dimension L 1980 x W 533 mm
Height adjustment 750 mm – 1000 mm
Trendelenburg / Reverse 30° / 25°
Lateral tilt 20° / 20°
Kidney elevator 150 mm
Back Rest (up / down) 80° / 25°
Leg Rest (up / down) 15° / 90°
Head Rest (up / down) 20° / 60°
Patient Weight Capacity 150 kgs (330 lbs)

STANDARD ACCESSORIES
Anesthesia Screen - The L-type anesthesia screen frame is the most commonly used and can be mounted on either side of the table. It can be adjusted in height and angle and conveniently fixed on the table Side-Rail Clamp to be ordered separately.
Shoulder Support – Made of stainless steel frame, foam pad and adjustable with require height and

अधिव्याख्याता, स्त्रीरोग व प्रसुतीशास्त्र विभाग. डा. वै. म. मिरज व प. वै. पा, शा. रु, सांगली.
सहयोगी प्राध्यापक, स्त्रीरोग व प्रसुतीशास्त्र विभाग. डा. वै. म. मिरज व प. वै. पा. शा. रु. सांगली.
सहयोगी प्राध्यापक, स्त्रीरोग व प्रसुतीशास्त्र विभाग. डा. वै. म. मिरज व प. वै. पा. शा. रु. सांगली.

अनुक्रमांक नं- 8

11156 (2)

PVPGMSangli

DEPARTMENT OF CONSERVATIVE DENTISTRY AND ENDODONTICS

SPECIFICATIONS FOR SUCTION MACHINE (HIGH VOLUME)

1. Average value of various specification should be in the following range
2. Ex. Noiseless operation due to oil immersed vacuum pump
3. Mounted on castor for easy mobility
4. Hi-power suction due to ¾ hp piston type vacuum pump
5. Vacuum capacity :760 mm/hg
6. Power 230 V ac, 50 Hz
7. Automatic on and off with the help of suction tip holder
8. Operational: colour choice at extra cost
9. Size 38"x16x 11 (h x l x w)
10. Weight 20 kg
11. This machine should be used for 2 chairs one at a time
12. The machine can continuously use for 2-3 hours
13. It should have maintenance free mechanism for auto drain operation

अनुक्रमांक नं-9 10272

PVPGHS Amritsar

SYRINGE PUMP

GENERAL		
1.USE		
1.1	**Clinical purpose**	designed toprecisely drive the plunger of a syringe down its barrel to infusea solution when it must be administered with a high degree of volume accuracy and rate consistency.
1.2	**Used by clinical department/ward**	NICU/PICU
TECHNICAL		
2.TECHNICALCHARACTERISTICS		
2.1	**Clinical performances**	Shouldacceptallinternationallyproduced/marketedsyringesandshouldbeabletodetectitautomatically,ShouldsupporttheBolussupplyofdrugonpressofsinglebutton,asperneedandshouldbeabletopresetdifferentrangeofBolus supply. PreferablytheunitshouldbeofBottom/sideloadedtoavoidaccidentalspillingofdrugsanddamagetothemachine. (should not be top loaded)
2.2	**Technical characteristics (specifictothistypeofdevice)**	1.Flowrateprogrammablerangeatleastfrom0.1to200ml/hr,instepsof 0.1ml/hr;andatleastfrom100to1200ml/hrinstepsof1ml/hr. 2. Saveslastinfusionrateevenwhentheacpowerisswitchedoff. 3. Bolusrateshouldbeprogrammabletoapprox500ml,withinfused volumedisplay. 4. Selectableocclusionpressuretriggerlevelsselectablefrom300,500and900mmHg. 5. Mustworkoncommonlyavailable20-, 30- and 50-mlsyringes 6. Accuracyof±2%orbetter. 7. Maximumpressuregenerated≤20psi. 8. Automaticdetectionofsyringesizeandproperfixing. 9. Anti-bolussystemtoreducepressureonsuddenreleaseofocclusion. 10. Pauseinfusionfacilityrequired. 11. Self-checkcarriedoutonpoweringon. 12. Comprehensivealarmpackagerequiredincluding:occlusionalarm,nearendofinfusionpre-alarmandalarm,volumelimitpre-alarmandalarm,low battery pre-alarm and alarm, AC power failure, drive disengaged,syringeloadingerror,maintenancerequired. 13. ShouldincludeKVO(Keepveinopen)enablingfeature. 14. Itshouldbeanopensystemcompliant. 15. Adjusted stand for stacking up to 5 syringe pump
2.3	**Settings**	Singleloadablewithonesyringeofminimum20ml.
2.4	**User's interface**	Automatic
2.5	**Software and/ orstandard of communication**	Inbuilt
3.PHYSICALCHARACTERISTICS		
3.1	**Dimensions(metric)**	NA
3.2	**Weight(lbs,kg)**	NA

3.3	**Configuration**	Tamper-resistantcasemadeofimpactresistantmaterial. Securelymountableontabletop,IVstandorbedfitting.
3.4	**Noise(indBA)**	Noisefree
3.5	**heat dissipation**	
3.6	**Mobility,portability**	Yes
	4.ENERGYSOURCE(electricity,UPS,solar,gas,water,CO2.....)	
4.1	**Voltage(value,ACorDC,monophaseortriphase)**	220to240V,50Hz
4.2	**Batteryoperated**	Internalrechargeablebatteryhavingat4to6hoursbackupfor10ml/hrflowrate with50mlsyringe.
4.3	**Tolerance (to variations,shutdowns)**	10%
4.4	**Protection**	Batterypoweredalarmforpowerfailureordisconnection.
4.5	**Powerconsumption**	25W
4.6	**Otherenergysupplies**	Na
	5.ACCESSORIES,SPAREPARTS,CONSUMABLES	
5.1	**Accessories (mandatory,standard,optional)**	ClampformountingpumponIVstand.
5.2	**Spareparts(mainones)**	
5.3	**Consumables / reagents(open,closedsystem)**	Battery,syringe holder, PMO lines
5.4	**Others**	
	BIDDING/PROCUREMENTTERMS/DONATIONREQUIREMENTS	
	6.ENVIRONMENTALANDDEPARTMENTALCONSIDERATONS	
6.1	**Atmosphere/Ambiance(airconditioning,humidity,dust...)**	Operatingcondition: – Capableofoperatingcontinuouslyinambienttemperatureof0to50degCandrelativehumidityof15to90%inidealcircumstances.
6.2	**User's care, Cleaning,Disinfection&Sterilityissues**	Capableofcleaningwithalcoholorchlorinewipes.
	7.STANDARDSANDSAFETY	
7.1	**Certificates(pre-market,sanitary,..);Performanceand safety standards (specific tothedevicetype)**	CEorFDAcertified. Manufacturer/suppliershouldhaveISO13485certificateforqualitystandard. ElectricalsafetyconformstostandardsforelectricalsafetyIEC-60601-1,classII.ShallmeetIEC60601-1-2EMCstandardrequirements. Certified to IEC-60601-2-24: Particularrequirements for the safetyof infusion pumpsandcontrollers.
	8.TRAININGANDINSTALLATION	
8.1	**Pre-installation requirements:nature, values, quality,tolerance**	Suppliertoperforminstallation,safetyandoperationchecksbeforehandover.
8.2	**Requirementsforsign-off**	Asperrequirement

4/07 8·2/3

8.3	Training of staff (medical,paramedical,technicians)	Trainingofusersinoperationandbasicmaintenanceshallbeprovided.
8.4	Others	
	9. WARRANTYANDMAINTENANCE	
9.1	Warranty	5 year
9.2	Maintenancetasks	Advancedmaintenanceandcalibrationtasksrequiredshallbedocumented.
9.3	Service contract clauses,includingprices	Localclinicalstafftoaffirmcompletionofinstallation.
9.4	Others	
	10. DOCUMENTATION	
10.1	Operating manuals, servicemanuals,othermanuals	User,technicalandmaintenancemanualstobesuppliedinenglishlanguage. Listtobeprovidedofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance.
10.2	Otheraccompanyingdocuments	List to be provided of important spares and accessories, with their partnumbersandcost.Certificateofcalibrationandinspectiontobeprovided.
	11.NOTES	
11.1	Otherinformation	Contactdetailsofmanufacturer,supplierandlocalserviceagenttobeprovided.
11.2	Recommendationsorwarnings	

E-UPKVA code no - 11480.

अनुक्रमांक नं- 90

PVPGH Sangli

Specification

Vaccum Delivery System

> Automatic Hands free Vacuum delivery system.

> Ideal for Second stage prolonged labour with Oxipeto anterior position with outlet presentation.

> Comes with complete autoclavable (formalin chamber or regular autoclave with 120de) silicone cups both for assisted vaginal delivery as well as for 'c' section.

> Imported Dry motor with unbreakable Jar, SS surgical grade Trolley.

> Heavy footswitch with Guarantee of 6000 pedal operation.

Justification:

> गंभीर प्रकारच्या प्रसुतिच्या वेळेला Vaccum Delivery System ही मशीन अति उपयोगी पडतेण्

अधिष्ठाता
स्त्रीरोग व प्रसुतीशास्त्र विभाग.
वा. वं. म. मिरज व प. ब. पा. वा. ह. सांगली.

सहयोगी प्राध्यापक
स्त्रीरोग व प्रसुतीशास्त्र विभाग.
वा. वं. म. मिरज व प. ब. पा. वा. ह. सांगली.

सहयोगी प्राध्यापक
स्त्रीरोग व प्रसुतीशास्त्र विभाग.
वा. वं. म. मिरज व प. ब. पा. वा. ह. सांगली.

अनुक्रमांक- 99 PVPGHSangli

Vessel Sealer with Electrosurgical Unit (Code No.11626)

Monopolar, low-carbonization contact coagulation for microsurgery.

(soft coagulation current with low HF output voltage for minimal tissue impact)

- Adjustable power limit in watts.
- Nominal power up to 70 watts.
- Peak HF output voltage max. 240 Vp.
- Auto-stop function.
- Activation optionally via footswitch or handle pushbutton(s).
- Crest factor CF 1.5 CF

Bipolar coagulation with forceps and MIS instruments.

- Adjustable power limit in watts.
- Nominal power up to 120 watts.
- Minimum power selectable: 1 W.
- Auto-stop function selectable.
- Auto-start function selectable.
- Auto-start/auto-stop functions selectable.
- Coagulation degree adjustable.
- Min. number of available coagulation degrees 9 degrees
- Impedance-modulated activation tone selectable.
- Activation/start delay.
- Activation optionally with double-pedal or single-pedal footswitch
- Peak HF output voltage max. 180 Vp
- Crest facto: CF 1.8 CF.

Bipolar, low-carbonization coagulation for microsurgery.

- Adjustable power limit in watts
- Nominal power up to 50 watts.
- Minimum power selectable: 0.1 W.
- Auto-stop function selectable.
- Auto-start function selectable
- Auto-start/auto-stop functions selectable.
- Coagulation degree adjustable.
- Min. number of available coagulation degrees 9
- Impedance-modulated activation tone selectable
- Activation/start delay.
- Peak HF output voltage max. 160 Vp
- Crest factor CF 1.7 CF.

Bipolar sealing mode for open surgery

- Process-controlled current with continuous impedance monitoring.
- Adjustable power limit in watts.
- Nominal power up to 320 watts.
- Reusable instruments with ratchet available.
- Auto-stop function.

पान नं 9/3

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli.

Dr. Gurav P. D.
Professor & Head of Dept.Surgery,
Govt Medical College,
Miraj & P.V.P.G.H., Sangli.

- Sealing degree adjustable.
- Number of sealing degrees available 9 degrees
- Impedance-modulated activation tone selectable.
- Peak HF output voltage max. 180 Vp.
- Crest factor CF 1.9 CF.

Bipolar sealing mode for endoscopy

- Process-controlled current with continuous impedance monitoring
- Adjustable power limit in watts.
- Nominal power up to 100 watts
- Reusable instrument available; can be disassembled for cleaning
- Auto-stop function.
- Sealing degree adjustable.
- Number of sealing degrees available 9 degrees
- Impedance-modulated activation tone selectable.
- Peak HF output voltage max. 200 Vp.
- Crest factor CF 1.9 CF.

Neutral Electrode (NE)

- Automatic NE connection monitoring (optically and acoustically).
- Automatic monitoring of split NEs for proper contact with the patient's skin.
- For split neutral electrodes, continuous qualitative display of NE/tissue contact resistance during application (In addition to treatment parameters).
- Automatic recognition of single-surfaced and split neutral electrodes.
- Baby NE function with automatic power limitation or lock-out of certain currents.
- Baby NE available.
- Optional switchover for exclusive use of split NEs (prevents use of single-surfaced neutral electrodes).

Technical Requirement:

- Power requirements :100-240 VAC
- Nominal frequency :50/60 Hz
- Maximum current input (line current): 6.3 A
- Maximum power input :600 VA
- Power input in standby mode: 40 VA
- Average heat dissipation :40 W
- Protection class acc. to DIN EN 60-601-1 :1
- Type (of applied part) :CF, defibrillation-proof
- Classification acc. to Directive 93/42/EEC Anh. IX I1 b
- Leakage currents (LF/HF): acc. To IEC 60601-1; IC 60601-2-2
- Duty type: int 10s/30s (=duty factor of 25%).
- Device fuses: T6.3 A (slow-blow)
- Sound level: HF indication: 55 dB (A), Alarm: 65 dB (A).
- Electromagnetic interference (EMI):acc. to EN 55011, DIN EN 60601-2-2.
- Weight: Not more than 9 Kg.
- Transport: maximum ambient temperature: from -25°C to +70°C. (-13°F to 158°F)
- Transport: maximum humidity :10-100%
- Transport: maximum atmospheric pressure :700-1060 hPa

पान नं. 2/3

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
Govt. Hospital, Sangli.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
Govt. Hospital, Sangli.

Dr. Gurav P. D.
Professor & Head of Dept.Surgery,
Govt Medical College,
Miraj & P.V.P.G.H.,Sangli.

- Operation: maximum ambient temperature: from +10°C to +40°C (50°Fto 104°F)
- Operation: maximum humidity :30-75%
- Operation: maximum atmospheric pressure :700-1060 hPa
- Notified body: European CE or USFDA Certified.

Accessories

All accessories should be reusable, Autoclavable, made from the same manufacturer and should be European CE/USFDA Certified.

1. monopolar hand switch cable -
2. bipolar forceps cable -
3. Special bipolar non-stick forceps with 2 side irrigation facility. -
4. The unit should have special bipolar mode -fluide assisted coagulation - for using the above forceps.
5. Special vessel sealing reusable instrument for open 200mm and laparoscopy 370mm, with integrated cutting facility. Cutting blade should be easily replaceable. Instrument should be easily removable for cleaning and sterilization. It should be Autoclavable. Plug and play with automatic recognition. Hand activation. 5mm and 10mm
6. Above same instrument 10mm, with double action jaws.
7. Vessel sealing claps for open surgery - 18cm, 21cm, 23cm, 28cm.plug and play with automatic recognition.
8. Special vessel sealing reusable biclamp instrument with integrated cutting facility for pen surgery. Blades should be easily replaceable, it should have hand activation facility .it should plug and play with automatic instrument recognition.
9. Bipolar output socket should have facility for both single connector and 2 pin connector type
10. Vessel sealing option and all other bipolar modes should be accessible through both the 2 bipolar socket on the unit.
11. All monopolar current modes should be accessible through both the 2 monopolar socket on the unit.
12. There should option for swapping 2 programs through the normal hand pencil cable with 2 switches. No special cables are accepted for this function.
13. There should be option to integrate SMOKE EVACUATION SYSTEM with the unit
14. Disposable patients pads dual type with reusable cable
15. For bipolar saline tur - unit should be compatible all reputed brand instruments

Demonstration:

Bidder to demonstrate the Equipment for evaluation of the techno commercial bid at his own cost and shall not charge on demand any extra cost from the Institution

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli.

Associate Professor
Dept. of General Surgery
Govt. Medical College Miraj &
P.V.P. Govt. Hospital, Sangli.

Dr. Gurav P. D.
Professor & Head of Dept.Surgery,
Govt Medical College,
Miraj & P.V.P.G.H.,Sangli.

पान 3/3

अनुक्रमांक नं. 92 PVPGHSangli

Otoscope High End 10423

German Mini type with handle and disposable tips

1. Should be a convenient pocket type otoscope.
2. Should be provided with a halogen light source.
3. Should be able to detach the otoscope head.
4. Should provide no reflections and obstructions.
5. Should provide detachable accessories of various sizes.
6. Should have in built rechargeable battery. Recharge should be possible with direct mains supply

Rs = 14500

LECTURER E. N. T. Dept. Govt. Medical College & Hospital, Miraj.

Hon. Prof. & H.O.D. E. N. T. Depart. P. V. P. General Hosp. & G. M. C. Miraj.