AMENDMENT NOTICE NO: BMSICL/PROC/EQPT/MC-001 dated 14th Jun 2012 against Tender No. BMSICL/2012-13/MC-002.

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In order to financially evaluate each equipment separately, the price bid, for bidders quoting for more than one equipment shall be enclosed in separate envelope for each of the equipment quoted by the bidder as per the price schedule form.

The last date for sale of tender document has been extended to 27th Jun 2012 till 3.00 PM and the last date for submission of Bids is extended to 10th July 2012 till 11.00 AM. The Technical bids will be opened on 10th July 2012 at 2.00 PM.

Equipment	Existing clause	Amended Clause
Anesthesia	Ventillator should be electrically	Ventillator should be pneumatically/
vvorkstation	driven and should be ascending	electrically driven, electronically
	bellows type	controlled with ascending bellow/bag in
		bottle type.
	display, with trench	Ventillator shall have a 15" color TFT
	interface	display with touch screen user interface.
	Should have unlockable ovygon fluch	
	to deliver oxygen flow of	deliver every flow of 2 20 L/m
	approximately 40 L/m	deliver oxygen now of > 30 L/m
	Drawers shall all have the ability to	Drawers should not be lockable
	lock, and shall be easily removed for	brawers should not be lockable.
	the purposes of cleaning and	
	sterilisation	
	Pipeline, cylinder and Airway	Pipeline and cylinder pressures should all
	pressures should all be displayed on	be displayed on colour coded gauges and
	colour coded gauges and be visible at	be visible at all times during operation
	all times during operation.	and if displayed on ventilator monitor at
		all times during operation
	Should have locking of the front	Should have facility of locking the front
	castors by a single central brake	castors brake mechanism.
	mechanism.	
	The ventilator bellows shall be clearly	The ventilator bellows/bag shall be
	visible and should ascend on	clearly visible by bellow/graph and
	indicator for suctors lack	provide a quick visual indicator for
	Ventilator chould be seenable of	system leaks.
	ventilating diverse range of patient	ventilator should be capable of
	groups from neonates to nationts	groups from poppetes to patient
	with restrictive airways with tidal	restrictive airways with tidal volume
	volume range between 20 ml to 1500	range between 20 ml to 1600 ml with
	ml with single bellows system.	single bellows system/hag and bottle
		type. Should have optional tidal volume
		range of 10-1600ml for premature babies
	Measurement at the patient end of	Measurement at the patient end of the
	the circuit (sensor at the patient end)	circuit (sensor at expiratory and
	should be provided to compensate for	inspiratory end) should be provided to
	small leakages and compressible	compensate for small leakages and
	volume variability that occur during	compressible volume variability that



	Measurement at the patient end of the circuit (sensor at the patient end) should be provided to compensate for small leakages and compressible volume variability that occur during ventilation. User should be able to set their own password	range of 10-1600ml for premature babies Measurement at the patient end of the circuit (sensor at expiratory and inspiratory end) should be provided to compensate for small leakages and compressible volume variability that occur during ventilation. Deleted
	Ventilator should have the ability to display and store Patient Spirometery loops including Flow- Volume and Pressure-Volume curves	Ventilator should have the ability to display and store Patient Spirometery loops/values including Flow/volume/ pressure curves
	waveforms/digital value for flow and airway pressure. Monitor should have minimum 19" independent flat panel display with multi color touch screen user interface to ensure all parameters are visible simultaneously	ventilator should also display waveforms/digital value for flow and airway pressure and capnography. Monitor should have minimum 15" independent flat panel display with multi color touch screen user interface to ensure all parameters are visible
	Should have automatic identification and measurement of anesthetic agents, EtCo2, O2 and N2O and MAC value.	Simultaneously. Should have automatic identification and measurement of anesthetic agents, EtCo2, O2 and N2O and MAC value in monitor/ventilator screen any of the two.
	and side stream in one module.	EtCO2 should have both mainstream and side stream in one module in monitor/ventilator display
	Ventillator should have the ability to set hospital default as well as individual user preference for easy selection of ventilation parameters and include screen layout, alarm preferences and ventilation settings.	Ventillator should have the ability to set and store an individual user preference for easy selection of ventilation parameters, alarm preferences and ventilation settings.
	Apnea alarms must be user adjustable to allow for all operating conditions and phases during anesthesia	Apnea alarms must be available in manual/spontaneous mode and PSV mode of ventilation during phase of anesthesia.
Pulse Oxymeter	Should be OS FDA approved Should have plethysmographic wave form with numeric display for SPO2 and Heart rate on LCD/TFT display.	Should be CE/USFDA approved Should have plethysmographic wave form with numeric display for SPO2 and Heart rate on LCD/TFT display (6" or more).
	Should provide with adult reusable finger probe with technology from standard reputed companies	Should provide with adult, paediatric and neonatal (button type) reusable finger probe with technology from standard reputed companies
Ventillator ICU	Ventillation modes	Add following modes to existing modes, PrVC/equivalent, Automode/equivalent, Apnea backup in Pressure and volume Control mode IBW Setting.

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	Tidal volume - 200 – 2000 ML (Adult patient).	Tidal volume 20ml to 2000ml.
CONSERVICE AND	Pressure $= 0 = 100 \text{ cm H2O}$	3. Pressure - 4– 80 cm H2O.
	Inspiratory Peak Flow - 4 – 100	Inspiratory Peak Flow - 4 – 180 1/min.
	Minute volume - $1 - 30$ 1/min.	Minute volume - $1 - 30$ 1/min and can be set by respiratory and tidal volume
	Inspiratory pause - 0.1 – 5.5 sec. Monitor with LCD/TFT (10" or higher size) graphical display for real time simultaneous display of two waveforms. Should display minimum 3 graphs and 2 loops may not simultaneously	Inspiratory pause - $0.1 - 2.0$ sec. Monitor with > 12" TFT color touch screen for graphical display for real time simultaneous display of three (Pressure, Volume and Flow) waveforms . Must have provision for display of 3 waveform graph and 2 loops simultaneously.
	Features	Add following features: Monitor shall measure RSBI (Rapid shallow breathing index), P 0.1 (Tracheal Occlusion Pressure) dynamic compliance, airway resistance and auto PEEP Flow sensor shall have life time replacement warranty. Delivery of 100% oxygen for 3 minutes with a single button for pre and post suction management.
	Internal Battery (maintenance free) with 1 hour minimum operating time for the ventilator	Internal Battery (maintenance free) with 3 hour minimum operating time for the ventilator
Infusion Pump	3 Should have following flow rates	Delete Drops/min column.
Modular Multi parameter	Should have high resolution minimum 12 inch active matrix LCD (TFT)	Should have high resolution minimum 12 inch touch screen display
monitor	Each monitor to have onscreen, user help / support system to have single line prompt message to indicate function of the selected menu. An integral teaching program which provides systems operation via a paragraph oriented popup window format	Deleted.
	Patient monitoring network shall be able to support up to 1,000 monitoring nodes.	Patient monitoring network shall be abl to support monitoring nodes.
c	montoring nouse.	Accessories: Reusable probes for SpO ₂ (adult, neonate (button type) and paediatric 2 each) Reusable probes for EtCO ₂ , NIBP, IBP ECG (adult and paediatric 2 each)

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and a second	unch advide deservations in a service	Shall have 2 hrs battery backup.
	Standards: UL 2601-1 classified	Deleted
Syringe Pump	Flow rate programmable form 0.1 to	Flow rate programmable form 0.1 to
	1000 ml/Hr or more in steps of 0.1	1000 ml/Hr or more in steps of 0.1
	ml/Hr, with user selectable flow set	ml/Hr, with user selectable flow set rate
	rate option. Save last infusion rate	option.
	even when the AC power is switched OFF	
	Rechargeable Battery having at least	Rechargeable Battery having at least 3
	5~6 hour backup for about 5ml/hr	hour backup for about 5ml/hr flow rate
	flow rate with 50ml syringes. Larger	with 50ml syringes. Larger battery life
	battery life and indication of residual life will be preferred	and indication of residual life will be preferred
	Mounting device/ Docking Station	Mounting device/ Docking Station for
	for two or four pumps as per	two or four pumps as per requirement d
	requirement so as to enable to power	when mounted on IV pole01
Fut et al.	up to 2-4 pumps with one power	
Dofibrillator	Cord when mounted on IV pole01	
Demoniator	should have external & internal	Deleted.
	indicator for good raddle contact	
	indicator – for good paddre contact.	
Nasal	Should be a single chip camera	Full High definition 3 chip with 1920 X
Endoscope	technology.	1080 pixel with progressive scan
with FESS		technology
	Should have horizontal resolution of	Deleted
	more than 450 lines	
	Should be supplied with 15"	24" Full HD Monitor
	LCD/TFT monitor.	
	Telescope	Telescope (Length 18cm)
	the loss much burner of every blocks	4mm and 2.7 mm autoclavable 30° wide
		angle telescopes- 2 nos each
	Should be a halogen light source	Should be a LED light source with
	with minimum 250W light output.	minimum 175/180W light output
	Should have two lamps of 250W and	Deleted
	should have provision to change over	store healthes the black where
	in the event of failure from one lamp	sensor, Siden beleet idebniesti and
	to another.	outload logicing as a find of those

Add Following FESS Instruments:

- 1. Bipolar coagulating forceps, insulated angular blunt with integrated suction channel, length 19 cm
- 2. Bipolar suction forceps 45° upturn, length 0.5 cm
- 3. Septum needle
- 4. Maxillary sinus osteum seeker double ended elevated double ended
- 5. Antrum Grasping forceps, jaws curved downward, fixed jaw, curved 90°, movable jaw opening upto 120°, backward opening, length 10 cm
- 6. Forceps cupped jaws, vertical opening 65°, upturn, length 12 cm.
- 7. Forceps cupped jaws, horizontal opening 65°, upturn, length 12 cm.
- 8. Biopsy and Grasping forceps with oval cupped jaws, length 12 cm.



9. Antrum punch, leftside downward and forward cutting, length 10cm.

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- 10. Antrum punch, rightside downward and forward cutting, length 10cm
- 11. Antrum punch, right and left side backward cutting, length 10cm
- 12. Nasal cutting forcep, length 13 cm.
- 13. Suction punch straight and 30° upturn with suction channel, length 10 cm
- 14. Mushroom punch circular cutting sphenoid 18 cm length diameter 4.5 cm
- 15. Mushroom punch 65° upturn for frontal sinus/recess length 17 cm diameter 3.5cm
- 16. Biopsy and grasping forceps, vertical opening with 4 mm cupped jaws length 18cms.
- 17. Trocar and cannula for sinoscopy.
- 18. Should be quoted with appropriate Cautery machine CE/FDA approved.

	Evisting alouro	Amended Clause
Equipment	Existing clause	Should use a LED light source
Head Light	Should use a vericin light board	175/180W with spare lamp.
with cold light	should have provision to change over	1.0,
source	should have provision to change of the primary	Contraction of States 24 and
	In the event failure of the primary	
		Add NASAL shaver handpiece.
Micromotor,	NA	
Handpiece		
and Burr	N14	Removable Blades 4 nos. 2 two straight
	NA	and two curved
	at 111 merichle dialycate flow	Should have variable dialysate flow
Dialysis	Should have variable dialysate now	200-800 ml/mt and should have
Machine	350-800 ml/mt and should have	increasing facility to step up by 20 ml
	increasing facility to step up by 20 mil	
	II win nump with syringe sizes up	Heparin pump with syringe sizes 20-30
	Heparin pullip with syninge sizes up	ml with pump flow rate from 1-10
	to 50 mil with pump now rate nom	ml/hr(0.1 ml increments)
intro provid	1-10 mi/m (0.1 mi merements)	Should have integrated heat and
	showing disinfection facility with	chemical disinfection facility with one
	heth short and long disinfection	standard time
	programme with day knight week	End 26 of the sector for the sector of the sector
	schedule	
	Extra facilities like Blood Volume	Extra facilities like Blood Volume
	sensor Bicart Select technique and	sensor, Bicart Select technique and
	online clearance kt/V	online clearance kt/V and Blood
	omme elearance an	temperature monitor
	Ability to monitor pulse rate and	Ability to monitor pulse rate and NIBP
	NIBP with graphic and tabulated	
	trends.	
CPPT	Programmable Effluent Flow Rate :	Programmable Effluent Flow Rate : 0-
CRIVI	60-10000 mL/Hr	6000 mL/Hr
	Able to perform SCUF, CVV,	Able to perform SCUF, CVVH,
	CVVHD, CVVDF, TPE	CVVHD, CVVDF, TPE
	Clear touch screen TFT/LCD	Clear touch screen/button operated
	Monitor/menu driven soft keys	TFT/LCD Monitor/menu driven soft
e		keys
	Three weighing scales to control	Four weighing scales to control system
	system with balancing accuracy of	with balancing accuracy of less than 1
	less than 1 % of total turnover in	% of total turnover in normal condition



	normal conditions and weighing	and weighing capacity of at least 0-12
	capacity of at least 0-20 kg.	kg.
Upper GI Endoscope	NA	Add Foreign body removal forcep
Digital	The detector should be fixed type	The detector should be moving type,
Radiography	and move between horizontal and	wireless and move between horizontal
Showle showle	vertical positions.	and vertical positions.
	Should be a horizontal table with	Should be a horizontal table with
	carbon fiber table top of minimum	carbon fiber table top of minimum
	2000mmx720mm.59 with adjustable	1120mmx720mm or more with
	height	adjustable beight
	Four 3 ton split AC for X-ray and	Four 2.0 ton split AC for X-ray and work
	work station room.	station room
Digital	Detector should be TFT Based	Detector should be TET Based Direct
Mammography	Direct capture technology, with X	capture technology with X ray
	ray absorption material of	absorption material of Amorphous
	Amorphous Selenium, size of 24 x	Selenium/Cesium, size of 24 x 29 cm.
1	29 cm.	
	Pixel size of the detector should be	Pixel size of the detector should be 100
	90 micron or less.	micron or less.
	Spatial resolution 3.5Lp/mm	Spatial resolution 35Lp/mm
	Dual Medical Grade monitors with	Dual Medical Grade monitors with
	Display of 5 Mega pixel each (High	Display of 5 Mega pixel each (High
	definition)	definition) 19" or more
Portable x ray	mA range: 30 mA- 75 mA	mA range: 30 mA- 60 mA
	Rotating Anode tube. Anode speed	Stationary Anode tube. Anode speed
	300 rpm, thermal capacity 40 KHU	300 rpm, thermal capacity 40 KHU or
	of better.	better.
Ultrasound	Should have multi frequency convex	Deleted
with Color	array probe 3-10 MHZ for paediatric	
Doppler	Imaging.	
	The system should have a very high	The system should have a very high
	dynamic range of at least 200dB to	dynamic range of at least 170 dB and
	pick up subtle echoes	above to pick up subtle echoes
	Should have 15" or more high	Should have 15" or more high
	resolution TFT monitor with tilt and	resolution TFT/LCD monitor with tilt
	swivel facility and should be able to	and swivel facility and should be able to
Literation -	view in all angles and all light	view in all angles and all light
1.114	conditions.	conditions.
Ultrasound	The system should have minimum	Deleted.
(nachine	1500 or more digital processing	
(paeulatric	shades	
DEXA	Multi Detector alamanta minimum	Multi Detector 1
	60 or more	with Detector elements minimum 16 or
	BMD Analysis of AP Lumber	BMD Analysis of AD Lymbor Spins
	Spine, Lateral Spine, Proximal	Lateral Spine Provinal Femur
0	Femur, Forearm, Supine lateral	Forearm Sunine lateral RMD using
	BMD using integrated motorized	integrated motorized C arm dual hip
	rotating Carm dual hip whole body	whole body composition of adult with



	composition of adult with sub-region analysis, and sub-region bone density, infant & pediatric whole body densitometry should be possible	sub-region analysis, and sub-region bone density, infant & pediatric whole body densitometry should be possible
Q Switched Nd-Yag LASER	Wave length: 1064nm/532 nm or mixed wavelengths and 1064 nm single/532 single	Wave length: 1064nm/532 nm
	Fluence : Upto 15 J/cm2	Fluence : Upto 12 J/cm2
	Pulse width: upto 3 nsec $(+/-1)$	Pulse width: upto 3 nsec to 6 nsec
	Dimensions(app) :20" (L), 20" (H), 15" (D)	Deleted
	Manufacturer should have ISO certification for quality standards.	Deleted
CO ₂ Fractional LASER	Principal company should be present in India	Deleted
Intense Pulse Light	Handpieces: a. One dedicated for Hair removal. b. One dedicated for acne treatment. c. One dedicated for vascular treatment	Single handpiece with different filters
Nd-Yag LASER	NA	Item deleted (Schedule 111)
ESR Analyser	Reading Time: Maximum 20 to 30 sec/ sample	Reading time: maximum 20-30 minute
	Sample Volume: 50 microlitres	Sample volume: 1.0 to 2.0 ml
	Reading Temperature: 37° c	Reading Temperature: Room Temperature
	Correlation with Westergren Technique for blood collection in EDTA.	Deleted
Automated Cell Counter	Parameters to be measured are -WBC, LYM%, LYM, MON%, MON, GRA%, GRA, RBC, HGB, HCT, MCV, MCH, MCHC, RDW, PLT, MPV, PCT, PDW	Parameters to be measured are -WBC, LYM%, LYM, MON%, MON, GRA% (with neutrophil, easonophil and basophil with counts) GRA, RBC, HGB, HCT, MCV, MCH, MCHC, RDW, PLT, MPV, PCT. PDW
	Throughput > 60 samples per second. Measurement Principle Electrical impedance method (WBC, RBC, HCT, PLT) Cyanmethemoglobin colorimetric method (HGB)	Throughput > 60 samples per hour. Measurement Principle : Specify Measurement Principle
	Linearity Ranges WBC 0.5-80.0 * 103/µL	Linearity Ranges WBC 400 * $10^3/\mu$ L
	Reproducibility (CV) WBC RBC HGB HCT PLT LYM% MON% GRA%	Reproducibility (CV) WBC RBC HGB HCT PLT LYM% MON% GRA% (with neutrophil, easonophil and basophil with counts)
r	Thermal Printer	External Printer
	On board memory for about 200-250 tests records.	On board memory for about 10000 tests records or more.
	NA	Shall use Cyanide free reagents

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	NA	LAN interface facility :Online data transmission facility through LAN to the Computer Network of the Hospital along with necessary software
Automated Clinical Chemistry Analyser	For analysis of serum, plasma, urine, cerebrospinal fluid (CSF), hemolysate and whole blood	For analysis of serum, plasma, urine, cerebrospinal fluid (CSF), hemolysate and whole blood for HbA1C
	A discrete patient prioritized automated random access clinical chemistry analyzer,For chemistries, immunoglobulins, drug assay etc. in blood/urine/fluid with ISE electrolyte analyzer (Na+,K+,Cl). Independent calibration of photometer and electrolyte analysts and an open versatile system	A discrete patient prioritized automated random access clinical chemistry analyzer,For chemistries, immunoglobulins, drug assay etc. in blood/urine/fluid with ISE electrolyte analyzer (Na+,K+,Cl, Ca, Bicarbonate, Mg). Independent calibration of photometer and electrolyte analysts and an open reagent system
	Through put:Minimum 600 test/hour without ISE test (350-400 tests with ISE). Continuous loading facility to be provided	Through put:Minimum 600 test/hour and ISE test (350-400 tests with). Continuous loading facility to be provided
	Wave Length Range: $340 - 800 \mu\mu$ with polychromatic correction	Wave Length Range:340 – 800 nm with polychromatic correction
	Computer specification :CPU Pentium IV 2.7 GHz and above;128/64 MB RAM;1.44 MB Floppy drive;80 GB Hard Disk Drive;High Speed DVD/CD Rom 52 X: Serial and parallel pOrts ;Keyboard (IOS) , Mouse and Mouse Pad;Preloaded latest MS Windows Versions;SVGA Monitor size 15";Inkjet printer;Modem 56K;latest anti-virus SOLOMAN & NORTON	Computer specification :CPU core i5, 2.7 GHz and above; 1 GB RAM;500 GB Hard Disk Drive; High Speed DVD/CD Rom 52 X: Serial and parallel ports ;Keyboard (IOS) , Mouse and Mouse Pad;Preloaded latest MS Windows Versions; SVGA Monitor size 15";Inkjet printer; Modem 56K;latest anti-virus SOLOMAN & NORTON
Semi Automated Coagulation Analyser	It should be compact and easy to operate automated 4 channel coagulation analyzer for analyzing upto 4 differential parameters simultaneously.	It should be compact and easy to operate automated single channel coagulation analyzer for analyzing upto 4 differential parameters.
	Parameters like PT , APTT , Fbg , TT and all factor assays should be possible on the coagulation analyzer	Parameters like PT , APTT , Fbg , TT, D- Dimer and all factor assays should be possible on the coagulation analyzer
	Start up reagents for 1000 tests.	Start up reagents for 250 tests each for PT, APTT, Fbg, TT, D-Dimer.
Blood Gas Analyser with Electrolyte	Essential Measured parameters; pH, pCO2, pO2, tHb, Barometric Pressure, Na+, K+, Ca++, Cl-, Bl urea and Sr Creatanine & Blood sugar. All these parameters should be measured simultaneously	Essential Measured parameters; pH, pCO2, pO2, tHb, Barometric Pressure, Na+, K+, Ca++, Cl-, . All these parameters should be measured simultaneously
	NA	Shall be provided with online UPS with one hour backup



SKIN GRAFT	Cutting cylinder made of high	Cutting cylinder made of high tempered
MESHER	tempered steel	steel mounted with 50 blades
	Width of grafts 8 cm (3.5") x 23 cm	Different width of grafts.
	Graft integrity is maintained by state	Graft integrity is maintained by state of
	of the art of mesning mechanism that	the art of meshing mechanism that
	in diamond shape pattern	meshes the graft by pinching the skin in
		diamond/V shaped pattern.
	The unique smooth operation of the	The unique smooth operation of the
	ratchet handle makes the meshing	ratchet handle/rotational drive makes
	effortless	the meshing effortless
Electric	The dermatome should be compact	The dermatome should be compact and
Dermatome	and in a case with compartments for	in a case with compartments for
	Dermatome unit, knife clamps,	Dermatome unit, knife clamps/reducing
	conducting cord, and power supply	clamps, conducting cord, and power
	Песк	supply neck. Should work on
		rechargeable battery
Evoked	Standard program for routine	Standard program for routine
Potential	electromyogram (EMG) recording	electromyogram (EMG) recording motor
Machine	motor unit potential (MUP) analysis,	unit potential (MUP) analysis,
	interference pattern analysis, single	interference pattern analysis, , automatic
	fiber EIVIG, Jitter analysis, automatic	computation with display.
	computation wit display	Innut impedances 100 maga abms ar
	mput impedance. 1000 mega onnis or	more
	Standard program for recording brain	Standard program for recording brain
	stem auditory evoked response	stem auditory evoked response middle
	middle latency response and slow	latency response VEMP and slow vertex
	vertex response	response
32 channel	Should be PC based with minimum	Should be PC based with minimum
EEG	following PC specifications: Pentium	following PC specifications: core i5, 1GB
	IV, 512 MB DDR RAM, 160 GB HDD,	DDR RAM, 160 GB HDD, CD/DVD RW, 17-
	CD/DVD RW, 17-25" LCD TFT Display,	25" LCD TFT Display, Key Board, Mouse
	Key Board, Mouse and UPS	and UPS
	Number of EEG Channels should be 32	Number of EEG Channels should be 32
1.4.5.5.5.5.4.4.	with color coding, and another eight	with coding, including eight channels for
	channels for Polygraphy. Also any two	Polygraphy. Also any two channels can be
	channels can be configured as Bipolar,	configured as Bipolar, AC or DC through
	AC or DC through software	software
	Standard programme for routine	Standard programme for routine
	electromyogram (EMG) recording,	electromyogram (EMG) recording, motor
	motor unit potential (MUP) analysis,	unit potential (MUP) analysis,
	interference pattern analysis, single	interference pattern analysis and VEMP
	fiber EMG, jitter analysis	
Neonatal	Inspiratory Time: 0.1 – 3.10 seconds	Inspiratory Time: 0.1 – 3 seconds
Ventillator		
e	Trigger Mechanism: Flow triggering	Trigger Mechanism: Flow triggering
	Mechanism detected by reusable hot	Mechanism detected by flow sensor of
1	wire flow sensor at the proximal end	the circuit
	Lot the circuit	and a second

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	Ventillation Frequency: 0 to 255 BPM It should have the following operating modes: Assist-control, SIMV/IMV, SIMV/PSV, flow cycled Assist-control, flow cycled SIMV, CPAP, PSV, Manual Breath, PEEP, Apnea backup ventilation with user selectable apnea time interval, etc.	Ventillation Frequency: 0 to 150 BPM It should have the following operating modes: Assist-control, SIMV/IMV, SIMV/PSV, CPAP, PSV, Manual Breath, PEEP, Apnea backup ventilation with user selectable apnea time interval, etc.
	The unit should have an auxiliary gas outlet port delivering blended gas for Nebulization during ventilation and for nasal CPAP function	The unit should have provision for Nebulization during ventilation and for nasal CPAP function.
	The ventilator should have built in digital monitoring facility to display important parameters like breath rate, patient initiated indicator (LED), minute volume, tidal volume (inspired and expired), percentage of tube leak, inspiratory time, expiratory time, I:E ratio, peak inspiratory pressure, mean airway pressure, peep incoming air pressure, incoming O2 pressure, hour meter and test.	The ventilator should have built in digital monitoring facility to display important parameters like breath rate, patient initiated indicator (LED), minute volume, tidal volume (inspired and expired), percentage of tube leak, inspiratory time, expiratory time, I:E ratio, peak inspiratory pressure, mean airway pressure, peep.
	The Ventilator should have easy color coded for control setting, alarm setting and monitoring panels for user friendly operation with electronic knob controls.	The Ventilator should have easy control setting, alarm setting and monitoring panels for user friendly operation with electronic knob controls.
	The unit should have audio visual alarm facility to prompt the user for improper / incompatible settings and also to indicate the following alarm conditions. Low PEEP, high breath rate, low Inspiratory pressure, high pressure limit, failed to cycle, low gas supply, low battery patient circuit, prolonged inspiratory pressure, flow sensor fault, Apnea, etc	The unit should have audio visual alarm facility to indicate the following alarm conditions. Low PEEP, high breath rate, low Inspiratory pressure, high pressure limit, low gas supply, low battery patient circuit, prolonged inspiratory pressure, flow sensor fault, Apnea, etc
	The unit should have an integral air oxygen blender with proper bleed facility for accurate blending of air and o2 and should have an auxiliary outlet to provide nebulisation as and when deemed necessary.	The unit should have an integral air oxygen blender with proper bleed facility for accurate blending of air and O_2)
Paediatric	Should be a Microprocessor Volume	Should be a Microprocessor based
Ventillator	Cycled Pressure Limited	Pressure Limited
2	Advanced modes – PVC, PC, PSV, SIMV/CPAP, Base Flow, Flow Trigger etc.	Advanced modes – PVC, PC, PSV, SIMV/CPAP, Flow Trigger etc.
	Should have built-in Noiseless compressor	Should have built-in/ External Noiseless Compressor.

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Automatic Pneumatically/Battery driven Chest Mechanical External Chest Compressor compressor for delivering effective, uninterrupted and consistent chest compression at a rate of 100 compression/min and a compression depth of 4-5cm (approx. 2in It should have а have a 50%-50% compression/ decompression duty cycle.

Pneumatically/Battery driven Mechanical External Chest compressor for delivering effective, uninterrupted and consistent chest compression at a rate of 80 compression/min and a compression depth of 4-5cm (approx. 2in It should have a 50%-50% compression/ decompression duty cycle.

VIKAS PATIL