

OIL & GAS DEVELOPMENT COMPANY LIMITED
PROCUREMENT DEPARTMENT (LOCAL), ISLAMABAD
SCHEDULE OF REQUIREMENT

Material : **TRAUMA CENTER**

Due Date:

Tender Enquiry No: **PROC-LH/17035**

Bid Bond Value : 400000/-

EVALUATION WILL BE CARRIED OUT ON FULL

Attachment(if any) : YES

Sr No	Description	Quantity	Make/Brand offered	Unit	Unit Price (PKR) Inclusive Of All Taxes Except GST	Unit Price (PKR) Inclusive of GST	Total Price (PKR) Inclusive of GST	Delivery Period Offered	deviation from Tender Spec. If Any
1	02 CONCENTRATOR (F/I ITEM NO. 6).	3		Number					
2	ANESTHESIA MACHINE WITH CARDIAC MONITOR (Agent Analyzers) (F/I ITEM NO 29).	1		Number					
3	AUTOCLAVE HIGH PRESSURE ELECTRIC – F/I IEM NO. 30.	2		Number					
4	B. P. SET (F/I ITEM NO. 32).	10		Number					
5	BED SIDE PATIENT COLOR MONITOR (F/I ITEM NO. 3)).	5		Number					
6	CAUTORY DIATHERMY (F/I MACHINE (F/I ITEM NO. 14).	1		Number					
7	COMPLETE ENT SET (TONSILECTOMY) - F/I ITEM NO. 16.	2		Number					
8	COMPLETE GENERAL SURGERY SET (F/I ITEM NO. 15).	4		Number					
9	COMPLETE SMR SET (F/I ITEM NO. 17).	1		Number					
10	CYST SCOPE WITH ACCESSORIES (F/I ITEM NO. 20).	1		Number					
11	DEFIBRILLATOR (F/I ITEM NO. 4)	1		Number					
12	ECG MACHINE /UNIT (F/I ITEM NO. 5).	2		Number					
13	ELECT. STERILIZER (LARGE SIZE) – F/I ITEM NO. 28.	6		Number					
14	ELECTRIC SAW FOR POP (F/I ITEM NO. 21).	4		Number					
15	ELECTRIC WATER COOLER (F/I ITEM NO. 39).	3		Number					
16	ENT HEAD LIGHT (F/I ITEM NO. 18).	1		Number					



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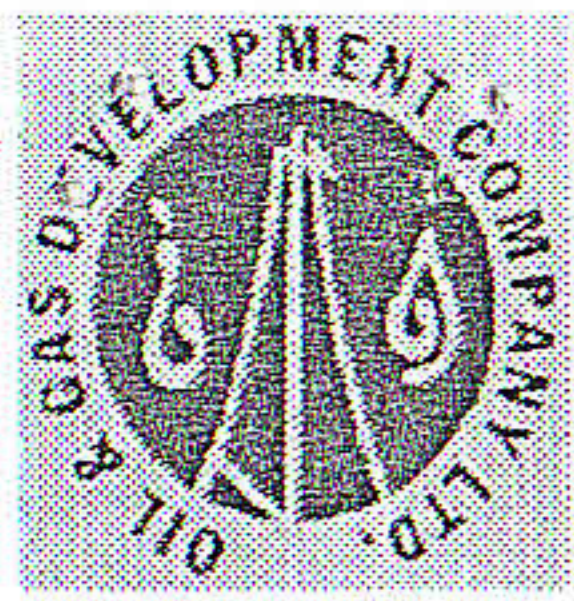
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17	GAS GEEZER (F/I ITEM NO. 38).	5		Number					
18	GAS-HEATER (F/I ITEM NO. 37).	10		Number					
19	I. V. POLE STAND (F/I (ITEM NO. 11).	15		Number					
20	ICU BEDS - F/I ITEM NO. 2.	10		Number					
21	INFUSION PUMP (F/I ITEM NO. 9).	2		Number					
22	INSTRUMENTS TROLLEY (F/I ITEM NO. 27).	10		Number					
23	LARYNGOSCOPE FOR ENT (F/I ITEM NO. 24).	1		Number					
24	NEBULIZER (F/I ITEM NO. 8).	6		Number					
25	O. T. LIGHT (F/I ITEM NO. 13).	1		Number					
26	O. T. TABLES AUTOMATIC HYDRAULIC SYSTEM (F/I ITEM NO. 23).	2		Number					
27	PATIENT SHIFTING TROLLEY SPECIAL (F/I ITEM NO 36).	1		Number					
28	PATIENT STRTCHER / TROLLEY - F/I ITEM NO. 31.	10		Number					
29	PROSCOPE (F/I ITEM NO. 19).	1		Number					
30	PULSE OX METER (F/I ITEM NO. 7).	4		Number					
31	SPECIAL STRETCHER (F/I ITEM NO. 26).	4		Number					
32	SPICA TABLE (F/I ITEM NO. 35).	1		Number					



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33	STETHOSCOPE (F/I ITEM NO. 33).	10		Number					
34	SUCTION HEAVY DUTY (F/I ITEM NO. 25).	2		Number					
35	SUCTION MACHINE NORMAL SIZE (F/I ITEM NO. 12).	2		Number					
36	SYRINGE PUMP (F/I ITEM NO. 10).	2		Number					
37	TRACHEOTOMY SET (F/I ITEM NO. 22).	4		Number					
38	VENTILATORS WITH ALL ACCESSORIES (F/I ITEM NO. 1).)	1		Number					
39	WHEELCHAIR (F/I ITEM NO 34).	5		Number					

Special Note:- The prospective bidders also download the master set of Tender Document

- The prospective bidders may keep in touch with OGDCL web site for downloading the clarifications/amendments (if any) issued by OGDCL.
- (1) DELIVERY PERIOD: 120 DAYS AFTER ISSUANCE OF LPO. (2) DELIVERY LOCATION: BASE STORE ISLAMABAD.(3) 100% AFTER DELIVERY AND INSPECTION.

Discount (if any) shall only be entertained on Schedule of Requirement of Bidding Document (Financial Proposal). If the discount is mentioned elsewhere in the bid, the same shall not be entertained.

ICU

Sr. No	Name of Items	Standard Specification	Qty
1	Ventilators with all accessories	<p><u>ICU VENTILATOR</u></p> <p><u>Gen Feature</u></p> <ul style="list-style-type: none">➤ Ventilator Should equipped with minimum TFT 12" color monitor or above➤ Which must display the curves of pressure, Flow, volume, the loops of breathing parameters, The trends and the ventilation parameters.➤ Ventilators which must suitable for ventilation of adult, pediatric and neonatal patients.➤ It should equipped with a flow and pressure trigger, which provides the most advanced volume controlled ventilation modalities like➤ VC/VAC, VC/VAC-BABY➤ Pressure controlled ventilation modalities APCV (BILEVEL ST)➤ APCV-TV➤ SIMV by Volume and by Pressure, Pressure supported modalities PSV (BILEVEL S),➤ PSV-TV,➤ CPAP SIGH➤ Non Invasive➤ Ventilation (NIV), Drug Nebulizer➤ Manual Ventilation (MAN).➤ Ventilator must be supplied with back up long lasting batteries➤ Software can be updated for new modes and last generation ventilation strategies	1

- Patient circuit should be double hose non Re – breathing
- *Trends* Storage capacity (72 h) of all measured parameters or better
- *Events* Memory storage up to 100 machine events including the alarms or Better



TECHNICAL SPECIFICATION

Ventilation Mode

- APCV (BILEVEL ST
- APCV-TV,
- PSV (BILEVEL S
- PSV-TV
- Auto Weaning
- VC/VAC
- VC/VAC BABY
- V SIMV+PS
- P SIMV+PS
- SPONT
- CPAP
- APRV
- SIGH
- NEB
- Apnea BACK-UP
- NIV, MANUAL.

Parameters and Ranges

Expiratory Time: 0.08-10,9sec

Tidal volume: 2 – 3000 ml

Breathing rate VC/VAC 4 - 150 bpm

Breathing rate 1 - 60 bpm

	V-SIMV e P-SIMV	
	Inspiration time:	0.036 -9.6s
	Aspiratory pause	0 to 60 %
	I: E ratio	1:10 to 4:1
	Pressure trigger	OFF; -1 to -20 cmH2O under PEEP level
	From -1 cmH2O to -20 cmH2O : step of 1 cmH2O	
	Flow trigger	Flow adjustable from OFF; 0.3 to 15 L/min
	Trigger E peak	From 5 to 90 % of the inspiratory flow peak
	Inspiratory flow (FLOW)	120 l/min per every gas
	PS (pressure support) SIMV+PS, P SIMV+PS)	from 2 to 80 cmH2O (PSV - V
	SIGH in VC/VAC	Interval 40 ÷ 500 bpm (step 1 bpm)
	CPAP	From 3 to 50 cmH2O
	APRV	Time 1 and Time 2 : from 10 to 200 sec.
	NEB	Drug nebulizer: selectable to 6 l/min with automatic compensation on
		Forced ventilation modes and dedicated output
	Inspiratory pressure limit	From 2 to 80 cmH2O (in function of low and high pressure alarm set)
	Flow sensor	Magnetic disturbance multi-usage type
	Calibration	Automatic
	EtCo2	Optional

Following should be display on Screen

- Setting of Operative Mode
- Visualization of alarm messages and signals
- Setting and monitoring of physiological breathing parameters
- Visualization of additional graphs and breathing parameters
- The function MENU for setting operation parameters
- Activation of special functions
- Visualization of operative mode, clock, date and time functions
- Visualization of software version

Following Function Can setup

- Language
- Graphic
- Volume
- Energy saving
- Brightness
- Apnea time
- Gas sensor CO₂ : unit of measurement
- Password
- TCP setting
- Test on demand
- Gas sensor
- Color selection

Range of measured parameters

- PAW: peak, mean, plateau, PEEP (range -20 ÷ 80 cmH₂O)
- T_{insp.}, T_{exp}, T_{pause} (range 0.036 ÷ 10,9sec)
- I:E ratio (range 1:99 ÷ 99:1)
- Static and dynamic compliance (range: 10 ÷ 150 ml/cmH₂O)
- Resistance (range: 0 ÷ 400 cmH₂O/l/s)
- % of FiO₂ (range: 0% ÷ 100%)

- Rate (range: 0 ÷ 150 bpm)
- Tidal Volume: Vte, Vti (range: 0 ÷ 3000 ml)
- Minute Volume (range: 0 ÷ 40 l/min)
- Inspiratory Peak Flow (range: 1 ÷ 240 l/min)
- Expiratory Peak Flow (range: 1 ÷ 150 l/min)
- EtCO2: with optional CO2 module (range: 0 ÷ 10%)

Alarms Set Up

- Airways pressure High – Low
- Breathing rate High – Low
- Expired minute volume High – Low
- Expired tidal volume High – Low
- PEEP High – Low
- FiO2 concentration High – Low
- Electric power supply Alarm
- Apnea Low rate (function of Apnea BACK-UP)
- Level (charge) Battery at 50%
- Level (charge) Battery at 25%
- Battery level (low) 10 Minutes
- Disconnected battery Yes / No
- Gas feeding: O2 Low (< 2,7 bar)
- Gas feeding: Air Low (< 2,7 bar)

Standard Accessories

- O2 supply hose
- AIR supply hose
- Nebulizer set
- Silicone patient circuit
- Antibacterial filter
- Power cable
- O2 cell
- Patient Circuit Arm
- Water Trap

CE/FDA with ISO, 13485 approved.

		<p>WARRANTY /GUARANTEE</p> <ul style="list-style-type: none"> • Two-year warranty with free service and part after installation and 10 years part availability at component level. <p>MANUALS</p> <p>Two sets each of the following manual in English languages will be provided free of cost.</p> <ol style="list-style-type: none"> 1. Operator/User Manual 2. Service Manuals 	
2	ICU Beds	<p style="text-align: center;"><u>ICU Bed</u></p> <p><u>General Feature</u></p> <ul style="list-style-type: none"> ➤ ICU/ Electric Bed with five functions ➤ Have detach able ABS head board/ foot board with patient card ➤ ABS hand rail in four pieces ➤ Frame of bed made of cold rolled steel treat by electro coating and powder coating/ epoxy polyester power coated and baked finish. ➤ Remote hand set control of all electrical operated functioned and movement. 	10

- Safe working load capacity 280 Kg
- A silent double caster which having min dia 125 mm with central break system
- Oxygen bottle holder under plastic carriage

Specification

- Height not less than: 700 mm
- Lowest position not more than: 450 mm
- Length not less than: 2000 mm
- Width not less than: 900 mm
- Integrated Extension 10-20 cm
- Mattress Height adjust 54-94 cm
- Trendelenbrug : 16 degree both side
- Both side tilting : 20 degree
- Back rest 0--75° or better
- Kneec rest angle 0-30° or better
- Battery back up facility
- X-Ray / Fluoroscopy facility
- Compatible good quality mattress
- At least 2 x holders for IV pole

WARRANTY / GUARANTEE

		<ul style="list-style-type: none"> • Two-year warranty with free service and part after installation and 10 years part availability at component level. <p><u>Firm must provide</u></p> <p>CE with MDD No /FDA/JIS certification approved</p>	
3	Bed side patient color monitor	<p><u>Multi Parameter Cardiac Monitor</u></p> <p>specifications:</p> <p>12" or more LCD display</p> <p>Parameter figures either may be enlargeable</p> <p>Full colour LCD/TFT screen</p> <p>12 or more waveforms</p> <p>120 hours of trends minimum</p> <p>Built-in Li_ion battery with a backup time or 4 hours or more</p> <p>Built-in battery charger</p> <p>ST-Segment analysis</p>	5

Arrhythmia detection

Defibrillator and electro surgical protection

Sweep speed: 6.25, 12.5, 25.0 and 50.0 mm/sec

Built in thermal printer (**Optional**)

ECG

3 lead ECG

Automatic lead selection

Lead off Alarm

RESPIRATION

Range: 0 to 150 resp/min

SPO2

Measurement range: 1-100%

Pulse rate 20-250 pulse/per min

TEMPERATURE

Dual channel

Display units in °C or °F

NIBP

Automatic or Manual

	<p>Systolic, Diastolic and Mean</p> <p>Overpressure protection</p> <p>Automatic cuff deflation</p> <p>Original Wall mounting with drawer for storing accessories.</p> <p>2 X IBP (Optional)</p> <p>ALARMS</p> <p>Audio and Visual alarms for all parameters</p> <p>User adjustable High and Low alarms for all parameters</p> <p>INCLUDING</p> <p>3 Lead ECG (01 Nos), NIBP cuff with hose Adult (01 Nos), Reusable SPO2 sensor Adult (01 Nos), Skin temperature probe (01 Nos), Operating and</p> <p>Service manuals (01 Nos) with each monitor.</p> <p>Must be International Certification CE MDD No/ FDA 510 K/JIS(Two Certification Mandatory out of three)</p>	
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	4 Defibrillator	<p><u>DEFIBRILLATOR Manual&AED</u></p> <p>General</p> <ul style="list-style-type: none"> • Compact & portable for easy carrying • Biphasic form <p>Display</p> <ul style="list-style-type: none"> • Digital display Min 5.7 inch <p><u>Defibrillator</u></p> <ul style="list-style-type: none"> • Wave form • Biphasic current, impedance compensated, • External Pace Maker Optional • SPO2 Optional • NIBP Optional <p><u>ENERGY SELECTION</u></p> <ul style="list-style-type: none"> • From 2—270 Joules <p><u>Charge Time</u></p> <ul style="list-style-type: none"> • Less then 5 seconds, from 0 to 200 joules <p><u>CHARGE INDICATOR</u></p> <ul style="list-style-type: none"> • Audible and graphic 	1
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- Synchronous cardio version;
- Energy transfer with in 80 m sec

MONITOR

ECG

Three lead or 05 leads patient cable

Paddles leads monitoring should be available with all type of paddles

Lead Selection (I, II, III, AVR AVL AVF)

Heart rate display range (20----250)

CV Classification CF defibrillator Prof

Alarms Heart rate , VT/VF, alarms

Low battery

Battery Inbuilt rechargeable

Battery time 2 hrs or 100 discharge at 270 J

Power 220 VAC/ 50Hz

Standard Accessories

- Power cord
- ECG patient cable
- Electrode s & electrode gel

		<ul style="list-style-type: none"> • Standard adult& Pediatric paddles • Internal Paddles (Optional) • Accessories Bag <p>➤ FDA/CE approved</p> <p>WARRANTY /GUARANTEE</p> <ul style="list-style-type: none"> • Two-year warranty with free service and part after installation and 10 years part availability at component level. <p><u>Firm must provide</u></p> <ol style="list-style-type: none"> 1. service manual 2. Operator/User Manual 3. Ten year spare parts availability on payment. 4. Two year warranty with free parts replacement. 	
5	ECG Machine/Unit	<p><i><u>ECG Machine 12 Channel Specification</u></i></p> <ul style="list-style-type: none"> • Twelve Channels ECG. LCD Display color 5" TFT Touch or more • Paper Size A 4 width 210 mm min • One touch operating system • Recording Channel 3,6,12 • Sampling Rate : 10000 sample/second or better • Patient leakage current not mor than 10 uA • Automatic Operation, Variable gain: 1/2, 1, 2 cm/mV 	2

		<ul style="list-style-type: none"> • Thermal recorder for printing 210 mm width twelve channels simultaneously. • Input impedance not less than 50 m ohm • Interpretation software. • Recording Trace speed: 10, 25 and 50 mm/sec. • Muscle artifact and AC (50Hz) interference filters. • Defibrillator protection. • Mains AC as well as battery operation. • Built-in AC interference, noise filter and baseline drift control. • Capability to interface with Ethernet for data transfer. • Patent recorder for at least 100 patients. • Complete with standard accessories, including patient cable with pediatric and adult re-usable electrodes. • Paper Roll 20. • Mobile Cart. • All accessories should be from the same manufacturer except battery. • Country of origin and manufacturer should be same. 	
6	O2 Concentrator	<p><u>Specifications:</u></p> <p>Oxygen Concentration: 5 liters per minute at 90% + 505/ .3% (Based on 70°F [21°C] at sea level)</p> <p>Dimensions: 20.8 in. high, 14.1 in. wide, 11.5 in. deep (52.8 cm high, 35.8 cm wide, 29.2 cm deep)</p> <p>Weight: 30 lb; shipping weight-37lb (13.6 kg; shipping weight- 16.7 kg)</p>	3

		<p>Electrical: 115 VAC, 60 Hz, 3 amps, 290 watts 220-240 VAC, 50 Hz, 1.5 amps, 290 watts 230 VAC, 60 Hz, 1.5 amps, 290 watts</p> <p>Sound Level: 40 dBA</p> <p>Alarms: Power Failure High and Low Pressure High Temperature Low Oxygen concentration (with Optional Oxygen Monitor) Relative Humidity: Up to 95% (non-condensing)</p>	
7	Pulseoxi Meter	<p><u>Hand held Pulse Oximeter</u></p> <p><u>General Feature</u></p> <ul style="list-style-type: none"> ➤ Portable Desktop Pulse Oximeter. ➤ Display LCD display 128x64 dot matrex. ➤ Data memory: 24 hrs or more ➤ Built in rechargeable battery min back up for 03 hrs. <p><u>Technical Specifications</u></p> <ul style="list-style-type: none"> ➤ Power supply requirement: input 100-240 V, 50/60 Hz. ➤ Battery Operating time: 3 hours or more 	4

Environmental Conditions:

- Operating temperature: 5 to 80 °C
- Storage temperature: -20 to 70 °C
- Operating humidity: 5 to 95%

Display/ Alarm

- a) % SPO2, Pulse Rate, SPO2 limits, Pulse Rate limits, Pleth waveform,
- b) Alarm status, trends, battery status

Alarm type: Physiological visual and audible.

Alarm limits

- Low SPO2: 85 %
- High SPO2: 85 to 100%. OFF

SPO2:

- Range of display: 7 to 100%
- Resolution: 1 bpm or better

Accuracy:

Without motion: Adult: 70 to 100% ± 2
digits or better

Neonates: 70 to 100% ± 3 digits or better

With motion: Adult: 70 to 100% ± 3
digits or better

Neonates: 70 to 100% ± 2 digits or better

Average mode: 10 sec

Pulse Rate:

- Measurement range: 15 to 300 bpm
- Resolution: ±1 bpm or
better

Accuracy:

- Without motion: 25 to 250 % ± 3
digits or better
- With motion: 25 to 250 % ± 5
digits or better
- Measurement range: 0.1 to 20%
- SPO2 saturation and pulse rate memories
(72 hours) or more.

**Standard Accessory (must be provided with
equipment)**

- SPO2 probe soft tip Adult 01
- SPO2 probe wrapping Neonate 01

➤ SPO2 probe paeds (Ear type) 01

➤ Power cards 01

TERM AND CONDITION

➤ FDA/CE approved

➤ **Warranty:** Two-year warranty with free service and part after installation and 10 years part availability at component level.

➤ **Manual:** Two sets each of the following manual in English languages will be provided free of cost in original form.

1) Operator/User Manual

2) Service Manuals consisting of

- *Working principal*
- Trouble shooting chart
- Alignment /Adjustment
- Fault finding / Calibration Software
- All electrical /electronic/mechanical schematic circuit diagram
- Part list at component level
- The firm has strong set up for back up support in Rwp / Islamabad.

8	Nebulizer	<p><u>Table Top Ultra Sonic Nebulizer (Heavy Duty)</u></p> <p><u>Feature: -</u></p> <p>Noise Less than 50 db Large Medicine Capacity Automatic protection of water shortage</p> <p><u>Technical Specification</u></p> <p>Ultra Sonic Frequency: 1.5 MHz to 2.5 MHz ± 10% Maximum capacity of small atomizing cup 150ml or more Maximum capacity big atomizing 350 ml ore more Atomizing rate 4 ml/ minute Timing range: stepless and 0-60 minute Water tank capacity: 300 ml or more Particle size: 0.5 to 6 um Air Flow 10-15 ltr / minute Speed Adjustable</p> <p><u>Accessories</u></p> <p>a) Disposable Hose Qty-01 b) Filter Qty-05 c) Mask Adult, Pead, Neonate d) Heat able hose with heating wire (Optional) e) Trolley (Optional) f) Disposable Medication chamber Qty-05</p>	6
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		<p>WARRANTY / GUARANTEE</p> <ul style="list-style-type: none"> ➤ Two-year warranty with free service and part after installation and 10 years part availability at component level. ➤ Manual: one set each of the following manual in English languages will be provided free of cost in original form. <ul style="list-style-type: none"> 3) Operator/User Manual 4) Service Manuals 	
9	Infusion pump	<p><u>INFUSION PUMP</u></p> <p><u>Specification:</u></p> <ul style="list-style-type: none"> • Compatible with IV sets of any standard • High accuracy and eliminates false alarm with the unique design of drop sensor. • Three work modes: Drop counting control volume control and time control mode. • 8 hours internal batter life in high capacity. • Special Light for night operation. • Three levels of occlusion pressure • Three level of alarm volume • Switch ml/h and drop/min freely • Self correcting the occlusion alarm according the soft hardness of the IV-sets • Waterproof and anti-sticking design of the drop detector • Bolus function 	2

TECHNICAL SPECIFICATIONS

Control Way Drop counting and adjusting the delivery rate automatically.

Pump Type Peristaltic finger

Compatible IV sets Standard(Including

Lucifugal IV sets)

Accuracy \leq drop/min: $\pm 2\%$, > 25
drop/min: $\pm 3\%$

Drop counting and time control model) :

Delivery Rate Range 1.0ml/h-1200ml/h)(1.0ml/h-99.9ml/h step $>$

9.99ml/h, 1ml/h, 1ml/h step)

Delivery Time Range 1-1999 min(1 minutes)

Volume Limit Range 0-9999ml (1ml step)

Purge Rate 6000.0ml

KVO Rate kvo is 1ml/h when the delivery rate 10 ml/h.

Otherwise KVO is 3ml/h.

		<p>Alarms Air-in-line, Infusion complete when volume limit has</p> <p> Been set (Empty container)</p> <p>Bolus Bolus rate: 10-1200ml/hr Bolus volume: Max.of 100ml</p> <p>Power Source AC power supply: ac 100 to 240V 10%, 50/60 Hz;</p> <p>Shock Protection Class 1, Type CF</p> <p>Dimension & Weight 130mm X 200 mm X 230mm. 2.0kg</p>	
10	Syringe pump	<p>SYRINGE PUMP</p> <p><u>Specification:</u></p> <ul style="list-style-type: none"> • Stackable to be the maximum 8 channels. • Compatible with disposable syringes from 5ml, 10ml, 20ml, 30ml, 50ml universal type. • High accuracy +/-2% after correct calibrated. • Automatically detect the remained solution. • Three work modes: Rate mode, time mode and weight mode. • Unique LCD Displayer. • 6 Hours continuous worked. 	2

Technical Specification

Applicable syringes : 5ml, 10ml, 20ml,
30ml, 50ml of any standard.

Accuracy : +/- 2% with
correct calibration

Rate mode : 50ml: 0.1ml/h-
1800.0ml/h (0.1ml/h step)
20ml(30ml):
0.1ml/h-800.0ml/h (0.1ml/h step)
10ml: 0.1ml/h-
400.0ml/h (0.1ml/h step)

Time mode : SOL. VOL: 0.1-
999.9ml (0.1ml/h step)
Time 1-1999min
(1min step)

Body weight mode : 0.1-1999.9ml
(0.1ml step)
Drug Mass: 0.1-
999.9mg (0.1mg step)
Dose 0.01-
99.99ug/kg/min (0.01ug/kg/min step)
Weight: 0.1-
300kg (0.1kg the least step)

Total Volume Range : 0.1-1999.9ml (0.1 ml
step)

	<p>Purge Rate : 50ml: 1800.0ml/h, 20ml (30ml): 800.0ml/h, 10ml: 400.0ml/h, 5ml: 200ml/h</p> <p>KVO Rate : 1ml/h</p> <p>Occlusion Pressure : Three level setting LOW, MEDIUM or HIGH</p> <p>Alarms : Near empty, syringe empty, volume complete (When Limit volume is set), Occlusion, syringe loose, operation Error, Low battery, device failures, Three level setting LOW, MEDIUM or HIGH</p> <p>Bolus Rate : 10ml: 10-300ml/h, 20ml (30ml): 10-600ml/h, 50ml: 10- 1200ml/h</p> <p>Bolus volume : Maximum of 25ml</p> <p>Interface : RS-232 Reversed port</p>	
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		<p>Power source : AC Power supply: AC 100 to 240V (+/-10%)M=, 50/60Hz</p> <p>Built-in Lithium Battery: Rechargeable 11.1V, 2000mAh 6 hours of continuous operation.</p> <p>Accessories : AC Power line, operational manual</p> <p>Protection class : Class I, Type CF, IPX4</p> <p>Dimension : 230mm*150mm*125mm, 2.2kg.</p> <p>Certifications : ISO-9001-2008 TUV Management service TUV Management Service ISO-13485:2003</p>	
11	I.V Pole stand	<p>Drip Stand</p> <p>Heavy weight base on 50 mm dia. castors, plastic coated base and column with telescopic adjustment of I.V rod, 2 port I.V rod of S/S wire dia. 5mm.</p>	15

12	Suction Machine normal size	<p>Suction Machine (Heavy Duty)</p> <p><u>Gen Feature</u></p> <ol style="list-style-type: none"> 1. Have rapid suction with 50L / min flow rate adjustable vacuum power. 2. Vacuum can be adjustable from front panel with monitoring gauge. 3. have maintenance free, silent, no vibrating, oil free vacuum pump 4. have collecting Jar with scale body 5 litre capacity 5. Should have collecting Jar auto transfer second Jar and after both filled, auto shot off suction unit. 6. Should have four casters, two of them with brake. <p>Optional</p> <ul style="list-style-type: none"> ➤ Can be connected with central vacuum system <p><i>WARRANTY / GUARANTEE</i></p>	2
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		<ul style="list-style-type: none"> • Two-year warranty with free service and part after installation and 10 years part availability at component level. <p>5) Operator/User Manual</p>	
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Operation Theater

Sr. No	Name of Items	Standard Specification	Quantity
13	O.T Light	<p style="text-align: center;"><u>LED CEILING OPERATION LIGHT</u> <u>(SINGLE DOME)</u></p> <p><u>General Feature</u></p> <ul style="list-style-type: none"> ➤ Consistent LED light distribution having high intensity. ➤ Suspension and positioning of light should be comfortable operation. ➤ Control panel to enable operator to adjust light intensity and field diameter. 	1

- Auto clamp able control handles for precise positioning of the dome.

Technical Specification

- Light intensity at 100 cm min: 160000 Lux
- Intensity Adjustment: 5 ~ 100 %
- Light Arm Swing Consist of 3 Arm total length
2100 to 2500 mm
- Fixed color temperature between 4500 K° or better
- Light Field Dimension 50d@100 cm 10 cm min or better
- Light Field Dimension 10d@100 cm 18 cm min or better
- Focus able working Distance 70-150cm or better
- Color rendering index min: 95
- Light Area Surface 148cm Square or better
- Increase of temperature on surgeon Head: Not more than 2 °C
- Average life of LED not less then: 50000 hrs
- Main color RAL: 9002
- Light head Diameter 50cm
- EC/FDA/ JIS approved
- Authorized distributor certificate
- CE/FDA Approved

		<p>WARRANTY / GUARANTEE</p> <ul style="list-style-type: none"> • One-year warranty with free service and part after installation and 10 years part availability at component level. <p><u>Firm must provide</u></p> <ol style="list-style-type: none"> 1. service manual 2. Operator/User Manual 3. Ten year spare parts availability on payment. 4. Two year warranty with free parts replacement. 	
14	Cautery Diathermy Machine	<p style="text-align: center;"><u>ELECTRO SURGICAL CAUTERY</u></p> <p>Gen Feature</p> <p>Suitable for Gen surgical application</p> <p>Technical Feature</p> <p>Microprocessor control High frequency generator</p> <p>Output error control</p> <p>Constant power</p> <p>Constant voltage and starting impulse for cutting current</p>	1

Power dissipation cooling system

Can be used in

Mono polar technique ,Bipolar technique, Coagulation Technique

Operation

Digital Presentation

Disabling of the O/P power in case patient circuit discontinuity

Possibility of controlling the unit operation by mean of either a double

Foot switch or cutting – coagulation selector switch in the active electrode holder

CUTTING CURRENT MONOPOLAR

Cutting Pure	400watt/400 Ohm
Cutting Blend 1	250Watt/400 Ohm
Cutting Blend II	200Watt/400 Ohm
Coagulation Current; standard	100 W/300 Ohm
Spray coagulation:	80W/300 Ohm

	<p>Contact coagulation 120 Watt/200 Ohm</p> <p>BIPOLOUR Dual Coagulation 100/100 Ohm</p> <p>Including: -</p> <ul style="list-style-type: none"> • Power input 220 Volt , 50 HZ <p><u>Accessories</u></p> <ul style="list-style-type: none"> • Standard Accessories : <ul style="list-style-type: none"> A .Double Foot Switch (Water Proof) c. Twin Button Handle Reusable e. Silicon Patient Plate Reusable g. Patient Return plate cable h. Ground cable i. Bipolar forceps cable k. Bipolar Forcep) q. Power cord operation manual • . <p>➤ FDA/CE approved</p>	
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		<p>WARRANTY / GUARANTEE</p> <ul style="list-style-type: none"> Two-year warranty with free service and part after installation and 10 years part availability at component level. <p><u>Firm must provide</u></p> <ol style="list-style-type: none"> service manual Operator/User Manual Ten year spare parts availability on payment. Two year warranty with free parts replacement. 	
15	Complete General Surgery set	<p>Complete General Surgery set Consist of following instruments.</p> <p>Needle holder small 6"</p> <p>1 Needle holder 6" TC</p> <p>1 Needle holder 7"</p> <p>2 Needle holder 7" TC</p> <p>1 Needle holder large 8"</p>	4

	<p>1 Needle holder large 8" TC</p> <p>1 Towel clips 110mm</p> <p>6 Ulrich-sponge holding forceps 10 ½"</p> <p>2 BP knife handle No.4</p> <p>1 BP knife handle No.4 L</p> <p>1 Tissue holding forceps with 1x2 teeth 150mm lane</p> <p>2 Tissue holding forceps with 1x2 teeth 190mm lane</p> <p>2 Scissors straight 140mm mayo</p> <p>1</p>	
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	<p>Scissors straight 170mm mayo</p> <p>1 Scissors metzenbaum 180mm mayo straight</p> <p>1 Scissors metzenbaum 180mm mayo curved</p> <p>1 Artery forceps small 125mm straight mosquito</p> <p>24 Halstead mosquito curved</p> <p>24 Artery forceps medium 140mm crile straight</p> <p>24 Tissue tendon forceps 150mm</p> <p>2 Kicker forceps tissue hoding 160mm</p> <p>2 Allis tissue holding forceps 190mm</p>	
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	12 Volkman skin retractor double pronge	
	4 Single to four hooks blunt	
	2 Single to four hooks sharp	
	2 Lane bone holding forceps 330mm	
	4 Langeback retractor small	
	2 Langeback retractor medium	
	2 Langeback retractor large	
	2 Mcdonalds retractor	
	2	

	<p>Suture passer</p> <p>2</p> <p>Tendon stripper 300m</p> <p>2</p> <p>Hohmann retractor pointed small</p> <p>2</p> <p>Hohmann retractor pointed medium</p> <p>2</p> <p>Hohmann retractor pointed large</p> <p>2</p> <p>Hey grove bone holding forceps large 190mm</p> <p>2</p> <p>Hey grove bone holding forceps large medium</p> <p>2</p> <p>Hey grove bone holding forceps large small</p> <p>2</p> <p>Pointed reduction forceps small</p>	
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	<p>4 Pointed reduction forceps large</p> <p>4 Reduction forceps for small fragment with ratchet 130mm</p> <p>2 Reduction forceps for small fragment with tooth 140mm</p> <p>2 Reduction forceps for large fragment with pint 160mm</p> <p>2 Reduction forceps for large fragment with tooth 170mm</p> <p>2 Reduction forceps for large fragment medium 200mm</p> <p>2 Reduction forceps for large fragment large 240mm</p> <p>2 Volkman double ended currette 170mm</p> <p>2</p>	
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	<p>Bone cutter double action small</p> <p>1</p> <p>Bone cutter double action medium</p> <p>1</p> <p>Bone cutter double action large</p> <p>1</p> <p>Rasp</p> <p>1</p> <p>Cock screw extractor</p> <p>1</p> <p>Self retaining retractor small charley 6 1/4"</p> <p>1</p> <p>Self retaining retractor medium charley</p> <p>1</p> <p>Self retaining retractor large charley</p> <p>1</p> <p>Gauge straight small</p> <p>1</p> <p>Gauge straight medium</p>	
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	1 Gauge straight large	
	1 Bone nibble double action straight 6"	
	1 Bone nibble double action straight 7"	
	1 Bone nibble double action straight 9"	
	1 Osteotome straight small 10mm	
	1 Osteotome straight medium 20mm	
	1 Osteotome curved small 10mm	
	1 Ostiotome curved medium 20mm	
	1	

	<p>Hammer 400gm</p> <p>1 Hammer 38 Oz</p> <p>1 Suction cannula 4-8mm dia Frazier</p> <p>2 Periosteal elevator small 2-4-5mm, 6mm wide</p> <p>1 Periosteal elevator medium 2-4-5mm, 11mm wide</p> <p>1 Periosteal elevator medium 2-4-5mm, 12mm wide</p> <p>1 Periosteal elevator large 2-4-5mm, 13mm wide</p> <p>1 Cushing nerve hook 190mm</p> <p>2 Bone file single ended</p>	
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		<p>1 Wire saw giggle</p> <p>1 Wire cutter for 2-3mm rods 47cm TC</p> <p>1 Lowmann boneclamps single or double jaw</p> <p>2 Bristow retractor</p> <p>2 Chanley's hip retractor</p> <p>2 Universal chuck with handle</p> <p>1 Hand saw medium angel</p> <p>1</p>	
16	Complete ENT Set (Tonsillectomy)	<p>Box 11" x 13"</p> <p>1</p>	2

	<p>Metzenbaum scissors curved 180mm</p> <p>1 Mayo towel clips 140mm</p> <p>4 Rampley sponge holding forceps 10"</p> <p>1 Doyen mount gag</p> <p>2 Yankeur suction tip</p> <p>2 Drains brown tonsil holding forceps</p> <p>2 Gwynne Evan's tonsil dissector 6x200</p> <p>2 Birkett tonsil forceps straight 180mm</p> <p>1 Birkett tonsil forceps curved 180mm</p>	
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	<p>1 Hurd tonsil dissector with pillar retractor</p> <p>2 Eve tonsillar snare slide action 280mm</p> <p>2 Wilson tonsil scissors 64mm, 200mm</p> <p>1 Negus tonsillar artery forceps curved 180mm</p> <p>2 Negus artery forceps</p> <p>2 Tonsillar needle holder 18cm</p> <p>2 Tonsillar needle</p> <p>2 Negus push for knot tying doughty tongue plate</p> <p>2</p>	
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	<p>Beckmann adenoid curette 14x215mm</p> <p>2 Saint clare Thomson adenoid curette 10mm</p> <p>2 Saint clare Thomson adenoid curette 12mm</p> <p>1 Saint clare Thomson adenoid curette 14mm</p> <p>1 Davis boyle mouth gag frame child</p> <p>2 Davis boyle mouth gag frame adult</p> <p>2 Doughty tongue plate 65mm</p> <p>2 Doughty tongue plate 75mm</p> <p>2 Doughty tongue plate 90mm</p>	
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		<p>2 Doughty tongue plate 100mm</p> <p>2 Doughty luer tracheostomy tube nickel tongue 115mm</p> <p>1 Draffin bipod</p> <p>2 Draffin bipod rods child 406mm</p> <p>2 Maguaran plate for draffin bipod 405mm</p> <p>2 INSTRUMENT SUPPLIES MUST BE ISO CERTIFIED & INSTRUMENT MUST BE EXPORT QUALITY CE MARKED</p>	
17	Complete SMR set	<p>Container 11" x 13"</p> <p>1 Killian Nasal Speculum 50mm</p>	1

2
Killian Nasal Speculum
75mm

3
Killian Nasal Speculum
90mm

4
Hartmann Nasal
Speculum

5
Thudichun Nasal Speculum Set of 5
Piece

6
Luc's Nasal Turb Forceps Hrt Shaped
Med.

7
Luc's Nasal Turb Forceps Hrt Shaped
6mm

8
Luc's Nasal Turb Forceps Hrt Shaped
7.5mm

9
Luc's Nasal Turb Forceps Hrt Shaped
9mm

10

	<p>Bard Parker Knife No.3</p> <p>11 Freer Periosteum Elevator</p> <p>12 Turbinectomy Scissors</p> <p>13 Tilly's Hankle Forceps</p> <p>14 Luc's Non Cutting Forceps</p> <p>15 Luc's Cutting Forceps</p> <p>16 Needle Holder 7"</p> <p>17 Joseph Rasp</p> <p>18 Maltz Rasp</p>	
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19
Killian Septum
Gouge

20
Hammer 220
Gm

21
NURSING SCISSORS 5
½"

22
Janson Medelton Septum
Forceps

23
Watson William Ethmoidal
Forceps

24
Duratip Curved Dissecting Scissors 7" TC
Metzenbaum

25
Nasal Suction
Tips

26
Aufrecht
Retractor

27

	Fomen Osteotome Right	
	28 Fomen Osteotome Left	
	29 Cottle Chisel 9mm	
	30 ASH Forceps	
	31 Walsham Forceps	
	32 Septum Morselizer Forces	
	33 Trocar and Cannula	
	34 Myle's Antrum Perforator	
	35 Ballenger Swivel Knife	

		<p>36 Tilly's Nasal Dressing Forceps</p> <p>37 INSTRUMENT SUPPLIES MUST BE ISO CERTIFIED & INSTRUMENT MUST BE EXPORT QUALITY CE MARKED</p>	
18	ENT Head Light	Rechargeable	1
19	Protoscope	Good Quality	1
20	Cyst Scope with Accessories		1
21	Electric Saw for POP		4
22	Tracheotomy set	<p>FOERSTER SPONGE FCPS SERR STR 242MM</p> <p>2 BACKHAUS TOWEL CLAMP 110MM</p> <p>6 SCALPEL HANDLE #3</p> <p>1 SCALPEL HANDLE #4</p> <p>1 MAYO SCISSORS CVD 170MM</p>	4

1
METZENBAUM SCISSORS
CVD180MM

1
METZENBAUM SCISSORS CVD
200MM

1
SURGICAL SCISSORS STR
S/B145MM

1
STANDARD FORCEPS SERR
145MM

1
STANDARD FORCEPS SERR
200MM

1
STANDARD TISSUE FORCEPS 1X2
145MM

1
STANDARD TISSUE FORCEPS 1X2
200MM

1
HALSTED-MOSQUITO FORCEPS DEL
CVD125MM

4
CRILE FORCEPS STR
1X2160MM

4
BABY-MIXTER FORCEPS HEAVY-
CVD180MM

1
OVERHOLT FORCEPS # 1
CVD209MM

1
MAYO-HEGAR NEEDLE
HOLDER185MM

1
MAYO-HEGAR NEEDLE
HOLDER200MM

1
ALLIS FORCEPS 4X5
155MM

1
CZERNY UTERINE TENAC.
FCPSSTR4X4200MM

1
LAHEY FORCEPS 3X3
155MM

1
FARABEUF RTRCTRS25X10/32X12-
22X10/28X12

1
COLLIN RETRAC. 21X14/32X16-
17X14/28X16MM

2
VOLKMANN RETR4-PRGSEMI-
S8.5X19222MM

2
SIMON VAGINAL RETR 115X26MM
273MM

		<p>1 WULLSTEIN RETRACTOR 3X3 SHARP 130MM</p> <p>1 KIDNEY TRAY STAINLESS STEEL 250MM</p> <p>1 LABORATORY DISH 0.16 L</p> <p>1 INSTRUMENT SUPPLIES MUST BE ISO CERTIFIED & INSTRUMENT MUST BE EXPORT QUALITY CE MARKED</p> <p>ENT INSTRUMENT SET</p>	
23	O.T Table automatic Hydraulic system	<p>Hydraulic Operation Table 4 Section S.S Tope</p> <p>Hydraulic pump, operatable with foot paddle, table top rotatable at 360 degrees. Made in stainless steel body finish. Kidney section: 0 - 12 cm adjustable. Lateral tilt position: 20° Trendelburg & reverse: 25°. Leg section: 45° split & 90° down.</p> <p>Standard Accessories: Head rest, adjustable <i>OT-S01</i> Arm rest (pair) <i>OT-S02</i> Lateral support (pair) w/clamps <i>OT-S03</i></p>	2

		Shoulder support (pair) <i>OT-S04</i> Lithotomy Pole (pair) w/universal swivel clamps <i>OT-S05</i> Anesthetic frame w/clamp <i>OT-S06</i> Infusion rod with clamp <i>OT-S07</i> Optional Accessories: Foot rest (pair) w/clamps <i>OT-S08</i> Proctology Attachment <i>OT-S09</i> Neurological Head rest attachment	
24	Laryngoscope for ENT	With four blades reaster germany	1
25	Suction Heavy Duty	<p style="text-align: center;">Suction Machine (Heavy Duty)</p> <p><u>Gen Feature</u></p> <p>7. Have rapid suction with 50L / min flow rate adjustable vacuum power.</p> <p>8. Vacuum can be adjustable from front panel with monitoring gauge.</p> <p>9. have maintenance free, silent, no vibrating, oil free vacuum pump</p> <p>10. have collecting Jar with scale body 5 litre capacity</p>	2

		<p>11. Should have collecting Jar auto transfer second Jar and after both filled, auto shot off suction unit.</p> <p>12. Should have four casters, two of them with brake.</p> <p>Optional</p> <ul style="list-style-type: none"> ➤ Can be connected with central vacuum system <p><i>WARRANTY / GUARANTEE</i></p> <ul style="list-style-type: none"> • Two-year warranty with free service and part after installation and 10 years part availability at component level. 6) Operator/User Manual 	
26	Special stretcher	<p style="text-align: center;"><u>Patient Transfer Trolley Hydraulic operated</u></p> <p><u>General Feature:</u></p> <ul style="list-style-type: none"> ➤ Should have back rest adjustment hydraulic/Gas Spring/Electric. ➤ Should have foldable side guards. ➤ Should have ABS under side plat form. ➤ Should have minimum caster 150mm with central brake. ➤ Should have high, low, trendelen burg/ reverse trendelen burg. ➤ Should have X-Ray translucent patient sleep position surface. ➤ Should have oxygen cylinder holder. 	4

- Should have height adjustable IV Pole. And have 4 receptacle for IV pole
- Should have rubber bumpers.
- Must have hydraulic foot paddle on both side of the trolley

Technical Specification:

- Minimum height range: 540mm ~ 780mm
- Minimum trendelen burg: 18° or more
- Minimum reverse trendelenburg: 18° or more
- Minimum back angle: 65° or more
- Adjustment Knee Position 55° or more
- Minimum overall length: 2100mm
- Minimum overall width: 800 mm
- Minimum patient surface length: 1940mm minimum
- Minimum patient surface width: 620mm minimum
- Caster dia minimum: 150mm
- Minimum safe working load: 250 Kg

WARRANTY /GUARANTEE

- Two-year warranty with free service and part after installation and 10 years part availability at component level.

Firm must provide

- 9. service manual
- 10.Operator/User Manual

		<p>11.Ten year spare parts availability on payment.</p> <p>12.Two year warranty with free parts replacement.</p>	
27	Instruments trolley	<p>Frame constructed of stainless steel hollow pipe, complete with two stainless steel trays, both trays provided with reinforcement as side guards for safety.mobile on 50 mm dia. twin wheels. size 45x60 cm.</p> <p>Available sizes: 45 cm x 75 cm 510-TM-00 45 cm x 90 cm 510-TL-00 60 cm x 90 cm 510-TX-00</p>	10
28	Elect. Sterilizer	Electric Sterilizers (Stainless Steel Element: 1000w) 9x18 cm	6
29	Anesthesia Machine with cardiac Monitor	<p><u>ANAESHTEZIA WORKSTATION</u></p> <p>Anesthesia Workstation which can be used on adult, children and newborn patients. It should be suitable for administration of Oxygen - Air- NitrousOxide - Halothane - Enflurane Isoflurane – Sevoflurane - Desflurane mixtures</p> <p><u>General Feature</u></p> <p>Anesthesia Workstation must complete with:</p> <ul style="list-style-type: none"> • Electronic gas mixing system, • Electronic lung ventilator with 12” TFT colour display, 	1

- Valves group open, semi-closed, closed, heated, with soda lime absorber of minimum 1 Kg. capacity,
- Selecta Tec compatible 2 vaporizers
Gas supply group,
- Gas analysis system (optional function).
- It must has function to regulate the capacity and the concentration of gas mixture(Air,O₂,N₂O)by displaying them on the TFT Minimum5"colourmonitor
- It must allows electing the mixture to be delivered(Air-O₂,or N₂O-O₂) and the O₂ enrichment for delivered mixture in case Of emergency.
- Through the three pressure gauges on the front pane lit allows The continuous control of medical gas feeding pressure
- The electronically controlled flow meter should be equipped with a safety
- The electronic flow meter box must provide the option on demand to use an alternative anesthetic gas in spite of N₂O: the Xenon(Xe).
- Electronic flow meter control automatically performed test

TECHNICALSPECIFICATION ANESTHESIA MACHINE

Structure Light aluminum alloy and plastic moulds

Wheels Pivoting antistatic wheels, diameter
100mm (2 with brakes)

Drawer No. 3 full extension drawers

Cylinder support 2 vertical cylinders supports, on the
back side (for cylinders up to 10 liters
capacity) and round rubber pads

Support for 2 vaporizers On horizontal guide (SIARETEX rapid
connection device, Selectatec compatible
for 2 vaporizers

Auxiliary power supply outlets No. 1 socket 220VAC outlet (max. 6 A)

Work shelf lighting 12Vdc by LED

	<p>Environmental conditions Temperature from 10 to 40°C Relative humidity from 10 to 90% non-condensing</p> <p>Oxygen Rotameter Scale 0.1 - 15 L/min, or better Resolution: 0.1 L/min, or better</p> <p>Maximum Accuracy: ±7% of read value, or better</p> <p>Nitrous oxide rotameter Scale 0.1 - 9L/min, or better Resolution: 0.1 L/min, or better</p> <p>Maximum Accuracy: ±7% of read value, or better</p> <p>Air Rotameter Scale 0.1 - 15 L/min, or better Resolution: 0.1 L/min. or better</p> <p>Maximum Accuracy: ±7% of read value, or better</p> <p>Medical gas supply</p> <p>OXYGEN Pressure between (2, 8 – 6 bar)</p> <p>NITROUS OXIDE Pressure between (2, 8 – 6 bar)</p> <p>MEDICAL COMPRESSED AIR Pressure between (2, 8 – 6 bar)</p> <p>Gauges No. 3 on front panel (O₂- N₂O- AIR),</p> <p>Electric power supply 100 ÷ 240Vac / 45 ÷ 60Hz</p> <p>Back-up battery 12Vdc– Minimum backup time 2hours.</p> <p>Alarms</p> <ul style="list-style-type: none"> • Lack or low O₂ pressure with consequent • cut-off of N₂O delivery • Lack or low N₂O pressure • Lack or low Xe pressure • Lack or low AIR pressure • Fresh gas occlusion 	
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Safety devices Against the administration of hypoxic mixtures mix-life

In case of lack or low oxygen pressure cut-off.
Against the simultaneous delivery of air and N₂O

GEN FEATURE ANESTHEISA VENTILATOR

- Should be compact system with automatic connections, easy dismantable and autoclave able
- It should allow ventilation in mode: real open circuit, semi-closed circuit, closed circuit at low flows.
- The system should also allow the spontaneous and manual ventilation in case of anesthesia unit breakdown or machine off.
- CO₂ absorber canister can be replace during intervention

Change of ventilator mode must be control by ventilator itself

TECHNICAL SPECIFICATION VETILATOR

TECHNICAL SPECIFICATION VETILATOR

User's interface 12" TFT high resolution colour display minimum.
Control modality Electronic by microprocessor Dead space compensation system Automati Automatic compensation Must have automatic compensation of atmospheric
Pressure on measured pressure present
Flow generation Electronic system
Gas feeding Medical compressed Air or Oxygen supply
Turbine drive (Optional)
Ventilation mode
a. APCV
b. APCV-TV
c. PSV
d. APNEA BACK-UP
e. SIMV (Volumetric+PS; SPONT)

f.	VC/VAC	
g.	VC/VAC BABY (integrated NEONATAL ventilation mode)	
h.	MANUAL	
Breathing rate		4 -120 bpm (step 1bpm)
I:E Ratio		1:1, 1:1.5, 1:2, 1:3, 2:1, 3:1
Inspiratory time		0,2 - 5sec.
Inspiratory pause		0 - 60% of inspiratory time
SIMV rate		1 -119bpm
Tidal volume		5 -1500 ml
Minute volume		1 - 30liters
Airways pressure limit (PLIM)		6 -60 cmH ₂ O
Support pressure (PS)		5 -60 cmH ₂ O
PEEP		OFF, 3- 30 cmH ₂ O
Inspiratory Flow (FLOW)		Selectable ramp 10 - 80 L/min
Oximeter procedure		Minimum resolution 1% / Automatic calibration
Bronchomanometer		-20 -+80 cmH ₂ O
Flow trigger		OFF, 1 -15 L/min (step 1 L/min)
Pressure trigger		-1 to -9cmH ₂ O under the PEEP level
Safety pressure	Electronic and mechanical limit of airways pressure	
Alarms	Low / High airways Pressure, Low/ High Breathing Rate, Low / HighO ₂	
Concentration,	Low / High Tidal Volume, Electric Power Supply	
Apnoea,	Low Battery, Low Gas Supply, Disconnected Patient Circuit,	
Can-Bus Failure		
Measured parameters	PAW; PEEP;Rate; I:E; FiO ₂ ;Vte;	
ExpMV		
MAP; Pplateau;	Tpause; Ti; Te; Fi; Fe;	

Cs; Ri; Ventilation Curves

CURVES: Pressure - Flow - Volume

LOOPS: Volume / Pressure and Flow / Volume

Measurement RANGE: automatic

Trend 72hours Minimum

Events Memory storage up to 100events per machine including the alarms.

Gas analysis (Optional) Integrated software for analysis ofCO₂,O₂,N₂O,AG
automatic
identification, MAC.

Mainstream ETCO₂IRMAAX+(CO₂,N₂O, primary and secondary
agents,
(Optional) HAL,ISO, ENF, SEV, DES).IRMA CO₂(CO₂)

ELECTRICPOWERSUPPLY

Electric power supply 100 ÷ 240Vac / 45 ÷ 60Hz

Back-up battery Minimum 2 hours

CONFORMITYSTANDARD

- Class and type according with IEC 601-1 Class I Type B
- Class according with 93/42/EEC Drive. Class IIb
- IEC 601-1, IEC 601-1-1, IEC 601-1-2,
- IEC 601-1-4, UNIEN 1281-1,
- EN 60601-2-13, EN 60601-1-8,
- UNI EN ISO 4135, DIR. 93/42/ EEC.

OR

- FDA with 510K approved

Standard accessories

- a. User's Manual
- b. O₂ supply hose

	<ul style="list-style-type: none"> c. Selecta Tec Vaporizer Qty 02 d. N₂O supply hose e. Air supply hose f. O₂ cylinder supply hose g. N₂O cylinder supply hose h. Top Special CO₂ absorber canister i. O₂ cell j. Adult silicone patient circuit k. Adult Mapleson C adult patient circuit l. Manual ventilation KIT m. Electric power supply cable <p><u>Term & Condition</u></p> <ul style="list-style-type: none"> • Authorized distributor certificate • FDA&CE approved <p>WARRANTY /GUARANTEE</p> <ul style="list-style-type: none"> • One-year warranty with free service and part after installation and 10 years part availability at component level. <p><u>Manual:</u> Two sets each of the following manual in English languages will be provided free of cost</p> <ul style="list-style-type: none"> • Operating Manual • Service manual 	
30	<p style="text-align: center;">Small Steam Sterilizers</p> <p>INTRODUCTION</p> <p><i>The Azteca AC Sterilizer family consists of pre- and post-vacuum sterilizers / autoclaves, designed with the highest quality for sterilization of wrapped or unwrapped goods such as fabrics, surgical instruments, utensils, and other heat and moisture stable materials. With their large capacity from 90up to 200 liters</i></p>	2

they cover a large field of applications for hospitals, medical centers and Operating Theaters. The constructions of these autoclaves is modern, ensures reliable operation, incorporate high-tech features and behind its success.

The sterilizer includes the following features:

- Large capacity sterilization chamber
- Independent steam generator
- Vacuum pump for evacuation of the chamber
- Fully automatic door locking system
- Water reservoirs for process and used water retention
- Water pump for water circulation
- Condenser and collector for condensation and collection of water
- Control valves operating at programmed intervals
- Temperature sensors and a pressure transducer to monitor both vacuum and pressurized states

The steam sterilizer family consists of pre- and post-vacuum sterilizers, autoclaves, designed with the highest quality for sterilization of wrapped or unwrapped goods such as fabrics, surgical instruments, utensils, and other heat and moisture stable materials. With their large capacity from 75 up to 200 liters they cover a large field of applications for hospitals and operating rooms

fully automatic high-speed pre & post vacuum Steam Sterilizer. This model is an electrically heated sterilizer, which operates with saturated steam as a sterilizing agent, and has a temperature range of up to 137°C (279°F) and pressure up to 2.3 bars (34 psi). The autoclave is classified as Class IIb according to MDD 93/42/EEC. The autoclave is designed as a Large Steam Sterilizer in accordance with EN285 and as Class I in accordance with EN60601-1, continuously operated,

ordinary equipment without applied parts and without signal input-output parts. The device is not intended for use in the presence of flammable mixtures.

The unit is designed to cover a large field of applications for hospitals, medical centers and as secondary sterilizer for emergency cases at Operating Theatres.

Standard Features

- Microprocessor controlled steam sterilizer -Using steam under pressure as the sterilizing agent for wrapped or unwrapped goods such as fabrics, surgical instruments, utensils, and other heat and moisture stable materials at temperatures from 121°C to 134°C. The Azteca AC-450 sterilizer is a pre-and post-vacuum sterilizer designed to cover a large field of applications for hospitals, medical centers and as secondary sterilizer for emergency cases at Operating Theatres. Within the health care services, sterilization of medical supplies is an essential issue in the battle against the advance of many infectious diseases. In order to improve the quality of sterile supply, international standards, which specify the requirements for the equipment, and procedures in the sterilization departments in health care facilities, have been developed.
- **Design and Construction** - sterilizer meets the highest standards requirements for quality, safety and operation. Stainless Steel Pressure Vessels 316 L conforms to the Pressure Equipment Directive (PED). The inner shell, door(s) and jacket are designed for a maximum working pressure of 2.76 bar and full vacuum
- **Chamber**- The Vessel, with an electrical jacketed round chamber, is made of corrosion-resistant electro polished Stainless Steel 316 L, and is thus easy to clean.
- **Exterior** – The Sterilizer’s framework and housing are made of painted quality steel. The sterilizer can be used under clean room conditions.
- **Steam generator** – Equipped with a built-in 5.8 kW steam generator, made of Stainless Steel 316 L. The large capacity of the heaters enables steam to always be ready for operation, and thus contributes to a very fast cycle.
- **Vacuum system** –Equipped with a Liquid ring vacuum pump, combined with a heat exchanger, and is a pre-vacuum sterilizer having the following features:

An air removal stage (pre-vacuum), before starting the sterilizing stage.

A post-sterilization drying phase, based on the combined operation of heat and vacuum with air inlet pulses. In order to improve the efficiency of the vacuum pump – capability

and speed– a heat exchanger is installed on the outlet piping of the chamber.

The advantages of the pre-vacuum sterilizer are as follows:

Removal of air pockets from packs and porous load and most kinds of hoses (rubber, plastic etc.) by vacuum at the first stage of the cycle.

Better steam penetration into the load; resulting in effective sterilization.

Better temperature uniformity.

Better drying of materials due to the vacuum achieved in the chamber at the end of the sterilization cycle.

- **Safety Devices** - Numerous safety features including: a safety valve, thermostat, a temperature sensor, a water detection electrode in the steam generator, pressure sensors, a door locking device and software safety features.
- **Alarms** – Depending on the state of the input and of the installed accessories, the controller is capable of providing an audio alarm, as well as displaying and/or printing several alarms, including:
 - <:- Door Unlock
 - <:- Temperature/Pressure Error
 - <:-Low/High Temperature
 - <:- Low/High Pressure
 - <:- Low Vacuum and more.
- **Door locking mechanism** –The door system is automatic and based on a ring locking mechanism, driven by a geared electric motor, preventing the opening of the door by a safety pin. A lock ring grips the door and locks it securely. To facilitate the locking process, a partial vacuum is created when closing the door which holds the door down while it is being closed, until the safety ring has mechanically locked the door. A locking device prevents the door from being opened accidentally. The door lock can only be unlocked if the unloading temperature has been reached and the sterilization chamber is in a depressurized state.
- **Water system** – The sterilizers are equipped with 2 Water Reservoirs: one for the tap water for the liquid ring vacuum pump and one for drain water. Water is circulated in the water pump and converted to saturated steam. The Sterilizers are supplied as a stand-alone unit. A Reverse-Osmosis water purification system is available in order to avoid the need to refill the water reservoirs. This system improves the quality of the water used to generate steam. The use of mineral-free water will contribute to better performance and longer life of the Sterilizers' chamber.

- **Sterilizer Evaluation System (SES 285)** – A totally independent monitoring and documenting system, the “SUPERVISOR”, compares the parameters recorded by the basic automated sterilization process control system with the parameters recorded by its own completely independent sensor system. The “SUPERVISOR” performs a cross checking of the timing/stages/cycles of the sterilization according to the limits and tolerances defined in EN285, and sends it to the user alarms in case the parameters are not accepted. The ‘SUPERVISOR” is connected to a printer which registers all parameters and provides documentary proof of the sterilization processes.
- **Reverse Osmosis (water softener)** – A Reverse Osmosis system shall be used to improve the quality of the water used to generate steam in the electric steam generator. The use of mineral-free water will contribute to better performance and longer life of the autoclave’s chamber. The water purification system uses a high quality booster pump which can provide 6.8 bar water pressure to pass through the membrane even under low water pressure area. The booster pump prevents damage, prolongs the life of the membrane and improves solids +99% of all organics +99% of all bacteria.
- **Energy saving mode** - The Sterilizers are equipped with an Energy Saving Mode which is activated when the unit is not used after a certain period of time. This Mode reduces power consumption by approximately 12% to 30% and is thus environmental friendly.
- **Control system / Touch screen panel** – A state of the art computerized control system includes a Microprocessor controller and a Touch-Screen Panel LCD 4.5” with blue & white graphic display, developed by world experts in the electronic field. The control system ensures high reliability, simplicity, safety of operation and automatic process cycles. The displayed information is available for users in a variety of languages. During the sterilization cycle the control system measures, controls and shows in digital display: the time, chamber pressure and sterilization status. While the power is off, the non-volatile memory keeps the status of the Sterilizer, and the real-time clock, driven by its own back-up battery, keeps running the date and time. An optional Ethernet Connection enables controlling, monitoring and connecting your Azteca AC-450 with no need of additional software.
- **Operation** – Operating is simple: close the door, select the cycle on the Touch-Screen Panel, and press the Start Key. The cycle will run automatically. At the end of the cycle, by pressing the ‘Open Door’ button on the Touch-Screen Panel, the door will automatically open.
- **Printer** – The unit supplied with an integrated impact printer. Each cycle can be documented by the printer which records the preset and actual parameters of the cycle: the selected cycle, cycle parameters, date, time, temperature, pressure, errors, etc. The last 10 cycles’ data is automatically stored in memory, and can be re- printed.

	<ul style="list-style-type: none"> • 1 STU Container – Made of stainless steel with the size of 580x280x260 mm • Internal Shelf – The unit can be supplied with 1 internal shelf for 1 STU container upon request. Size: 236 x 10 x 550mm • Tray holder – Stainless steel tray holder for up to 4 trays (2 big and 2 small) is available. <p>Stainless Steel Trays – Stainless steel trays in 2 sizes. Big tray: 316 x 20 x 580mm, Small tray: 220 x 20 x 580mm</p>	
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Ward Equipments

Sr. No	Name of Items	Standard Specification	Quantity
31	Patients stretcher/trolley	Local Strongman	10
32	B.P set	BP Apparatus Mercury stands	10
33	Stethoscope	Stethoscope	10
34	Wheelchair	The size of unit approximately 812mm (H) x 550mm (L) x 612mm (W). The safe loading capacity of the seat shall be approximately about 100 kg	5
35	Spica table	Local Export Quality Strongman	1
36	Patient shifting trolleys special	<p style="text-align: center;"><u>Patient Transfer Trolley Hydraulic operated</u></p> <p><u>General Feature:</u></p> <ul style="list-style-type: none"> ➤ Should have back rest adjustment hydraulic/Gas Spring/Electric. ➤ Should have foldable side guards. 	1

- Should have ABS under side plat form.
- Should have minimum caster 150mm with central brake.
- Should have high, low, trendelen burg/ reverse trendelen burg.
- Should have X-Ray translucent patient sleep position surface.
- Should have oxygen cylinder holder.
- Should have height adjustable IV Pole. And have 4 receptacle for IV pole
- Should have rubber bumpers.
- Must have hydraulic foot paddle on both side of the trolley

Technical Specification:

- Minimum height range: 540mm ~ 780mm
- Minimum trendelen burg: 18° or more
- Minimum reverse trendelenburg: 18° or more
- Minimum back angle: 65° or more
- Adjustment Knee Position 55° or more
- Minimum overall length: 2100mm
- Minimum overall width: 800 mm
- Minimum patient surface length: 1940mm minimum
- Minimum patient surface width: 620mm minimum
- Caster dia minimum: 150mm
- Minimum safe working load: 250 Kg

		<p>WARRANTY / GUARANTEE</p> <ul style="list-style-type: none"> • Two-year warranty with free service and part after installation and 10 years part availability at component level. <p><u>Firm must provide</u></p> <p>13. service manual</p> <p>14. Operator/User Manual</p> <p>15. Ten year spare parts availability on payment.</p> <p>16. Two year warranty with free parts replacement.</p>	
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Miscellaneous

Sr. No	Name of Items		Quantity
37	GAS Heater		10
38	GAS Geezers		5
39	Elect Water Collar		3