- ❖ The system must be include 3 working mode :
- 1. Endo motor
- 2. Apex locator
- 3. Automatically Endo motor (with apex locator)
- Touch screen panel.
- Speed & torque can be adjustable
- Including Root canal treatment.
- Including apex locator main unit
- * Foot switch included.
- Including contra angle hand piece .
- Built-in rechargeable battery
- ❖ Power: 220-240VAC /50Hz.
- ❖ Torque reverse must be automatically .
- Automatic apex reverse and stop
- Including all necessary accessories and ready for use.
- Warranty: Two years including spare parts and labors.
- Service and operation manual in English language.

ITEM :2	Digital Periapical Radiography	QTY :2

Compact microprocessor control module with kV, mA, patient type, tooth type, cone type, film speed, exposure time and digital-ready selection switches

- Compatible with most digital radiographic systems
- Variable setting 60-70kV, 4-7mA system
- 0.7mm x 0.7mm focal spot
- ❖ 0.01-3.2 second exposure time
- ❖ 8" Cone length
- ❖ 31.5" Horizontal arm
- ❖ Wall mounting plate
- ❖ Power: 220-240VAC /50Hz.
- Including all necessary accessories and ready for use.
- Warranty: Two years including spare parts and labors.
- ❖Warranty for not less than 10 years for spare parts

Service and operation manual in English language.

ITEM:3	Dental Lab Centrifugal Casting Machine	QTY :1

- Compact casting machine with very high-performance induction heating ,
- time-saving work.
- user-friendly operating panel with display and soft keys
- High output reserves with low power consumption .
- Casting temperature of up to 1550°C:
- ❖ ideal for all commercially available dental alloys (included titanium)
- . Cooling by direct connection to water feed and outlet or with BEGO circulation unit
- Heating-level switch for ceramic or graphite crucible
- Very fast adjustment to suit different casting mould sizes by means of a simple mechanism
- Simple taring device for different mould weights by means of a movable counterweight
- * Resource saving by automatic shut-off of cooling water supply when not in use
- Centrifuge motor speed 600 rpm at least.
- Lowest noise
- The design must be safety for the technical.
- ❖ Power: 220-240VAC /50Hz.
- Including all necessary accessories and ready for use.

Warranty: Two years including spare parts .	
Service and operation manual in English language.	

ITEM:4	Porcelain furnace	QTY:1

- Standard porcelain firing
- Specifying system parameters set and calibration
- ❖ Vacuum test and Temperature rise test
- Get rid of humidity and impurity
- ❖ Temperature range at least 1350.
- Data upload, download, store and print.
- Porcelain furnace can work under the protect mode
- ❖ Power: 220-240VAC /50Hz.
- Including all necessary accessories and ready for use.
- Warranty: Two years including spare parts and labors.
- Service and operation manual in English language.

ITEM:5	Sand plaster machine	QTY :1
SPECIFICATIONS • Plaster made	chine mixing pumping and spraying mortar	,

.with mixer

.pump and spray

.integrated air compressor

❖ Power: 220-240VAC /50Hz.

Including all necessary accessories and ready for use.
 Warranty: Two years including spare parts and labors.

Service and operation manual in English language.

❖ .high pressure

ITEM : 6	Dental unit page1/7	QTY:3

- Fully motorized hydraulically self-adjusting Chair with lifting capacity of 250 Kgs.
- Corrosion free construction and durable scratch resistant epoxy paint finish
- ❖ Should have seamless ultra-thin upholstery to facilitate easy cleaning/disinfecting
- Double articulating headrest for comfortable support.
- Should have flip head rest to be used on patients on wheelchairs
- ❖ Footswitch with multifunction.

- ❖ It should provide all chair movements, adjustable and programmable position, movement of return to zero and emergency stop
- * The hand-rests should be fully adjustable and should rotate out of the way of the patient when he steps off.

Dental Unit Specifications:

- ❖ Should be attached to the chair with overhead delivery system to accommodate up to following 4 modules:
- 1) One turbine connections with hand-piece
- 2) One air-motor connection with air-motor and hand-pieces (straight & contra)

See next page

ITEM: 6	Dental unit page 2/7	QTY :3

- 3) One fiber optic air rotor connection with quick disconnect coupling and light cure unit to be attached to the same coupling. One 6way-syringe with removable tip for sterilization
- 4) One 6way-syringe with removable tip for sterilization.
- ❖ All the controls of the chair should be touch pad on doctor's and assistants sides.
- ❖ The design should be such that it can be simply cleaned and disinfected to reduce the possibility of cross infection.
- ❖ Autoclavable pad should be provided on the unit where the hand pieces are placed.

- ❖ All Dental hand pieces like High speed turbine, Low speed turbine, Contra angle and etc, are should provide.
- ❖ Should have to reservoirs of water and disinfectant with automatic pressurization.
- ❖ Should have a non-retraction valve to avoid the reflux of contaminated materials
- ❖ Automatic hand pieces selection through sensitive pneumatic valves
- Should have warm water syringe.

See next page

ITEM: 6	Dental unit page 3/7	QTY :3

Water Unit/ Spittoon Specifications:

- * Removable porcelain bowl, cup filler and spittoon nozzles which can be cleaned easily.
- ❖ Water should get ON in the spittoon automatically as soon as the patient gets up for spitting.

- ❖ Adjustable timer up-to 15 seconds should be there to adjust timings of the water flow in the spittoon
- ❖ One 3 way syringe should be there on the assistant side
- ❖ Should have Hi/Lo suctions with easy reach filters. The high suction should be powered through a motorized unit.
- Swivel spittoon should be provided.

Operating Light Specifications:

- ❖ With luminosity of 20000 lux and 25000 lux with 620 degrees of rotation of light arm movements
- ❖ Should get ON and OFF with No-touch system for maintaining proper sterilization while working.
- Color temperature of the light should be around 5000 Angstroms.
- ❖ Light should allow Vertical, Horizontal, and Axial & Diagonal Movements for proper focusing.

See next page

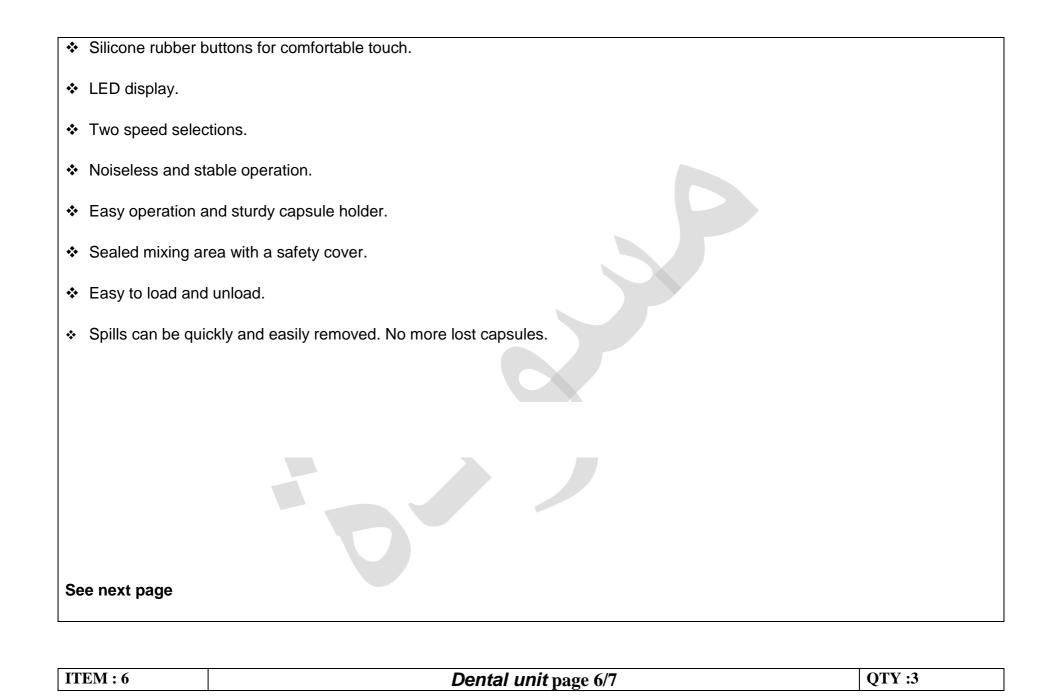
ITEM: 6	Dental unit page 4/7	QTY :3

LED Light Cure Unit / Modular Light Cure Unit Specifications:

Superior light intensity powered by special chip-on-board LED technology and nobulbs to replace.

*	Control-unit, hand piece and cord: Lightweight and deta	chable with one another.			
*	 Curing cycle can be interrupted manually with one-touc 	h trigger button audible signal alerts the user to the op	erational status.		
*	Fan-free and sealed construction allows for confident a	sepsis.			
*	 Standard autoclavable probe with 360 rotations for easy 	y access.			
*	Protective eye shield.				
*	 Super-efficient 5-watt lamp. 				
*	❖ Light intensity is similar to the traditional curing lights w	th halogen lamps, 40-second individual exposure.			
*	Handle all material at once				
Se	See next page				
IT	ITEM: 6 Den	tal unit page 5/7	QTY:3		

ITEM : 6	Dental unit page 5/7	QTY :3	
Amalgamator:			



Oil Free Air Compressor (Medical Grade):

- . It should have Air moisture filter.
- It should have Non-retraction valve.
- It should have Pressure gage.
- ❖ It should have Air tank (capacity of 3040 L).
- It should have Auto cut-off switch.
- It should give medical grade Air which is absolutely oil free.
- ❖ 12001500 R P M,
- ❖ Power: 220 VAC/50 Hz.

See next page

Additional Features:

- ❖ Foot Switch: Single foot control for all instruments with variable speed control.
- ❖ Doctor Stool: Stable with 5-castor base, with load stabilizing gas spring. Back rest tilt should be adjustable.
- Complete Pre-installation and Installation of the system including water input and drainage system has to be installed and chair basement from marble should install.
- ❖ All consumables required for installation and standardization of system to be given free of cost.
- ❖ Power: 220 VAC/50 Hz.
- Manufacturer should have ISO certification for quality standards.
- User and Service manuals to be supplied in English (Hard & Soft copies)
- List of important spare parts and accessories with their part number and costing.
- Warranty: 2 years included spare parts.

ITEM: 7	chemistry analyzer page 1/3	QTY :1

- Full Automatic Chemistry Analyzer.
- Water distillator including with the system.
- Open system use any standard reagents.
- * Routine, STAT, serum, plasma, C.S.F. urine Samples
- Random ,access system, fully test selective
- Photometric method.
- * Rewashable cuvettes hard glass cuvettes .
- Washing system installed in the machine .
- ❖ Throughput: not less than 200 t/hour with ISE Test.
- Reagent tray: approx 40
- Sample tray: approx 60 samples
- Measurement modes: kinetic, tow-point, end point
- Calibration: Linear & non linear with possibility of 2 point Calibration
- Controlled movement for all syringes by stepper motors
- ❖ Sample cup: 0.5 ml -2ml
- Sample volume : 3 60 μl
- ❖ Reagent volume: 20 450 µl , incubation at 37°C
- ❖ Special range: 340-700 nm

❖ Measurement range: 0-3 A

See next page

ITEM: 7 chemistry analyzer page 2/3 QTY:1

- Dilution : automatic dilution pre and post analysis
- * Real time Q.C: Q.C chart print outs, daily & cumulative reports
- Local agent (Authorization letter)
- New catalogue including data sheet is attached with the offer.
- ❖ Interface RS-232
- ❖ Power supply: 220v,50Hz
- Including:
- Laser printer,
- ❖ Brand Name PC(Dell or Equivalent) with all accessories
- LCD display,
- ❖ 100 sample vials,
- ❖ 3000 reaction cups
- ❖ 3 KVA Online UPS
- Maintenance kit
- ❖ 4 spare lamps.

❖ 1 Sample syringe and 1 Reagent syringe
See next page

ITEM: 7 chemistry analyzer page 3/3 QTY:1

- Service and warranty requirements :
- Warranty three years from instillation date.
- Warranty for not less than 10 years for spare parts.
- Operating Program Software.
- Service & operation manuals original

ITEM:8	water distillator page 1/2	QTY :1

- * Required for distilled water production for lab.
- Complete unit made in stainless steel.
- ❖ Double distillation plant with stand not wall mounted and approx. 5 liters/ hour output.
- ❖ It should have de concentrator a bleeder device on the evaporation that constantly removes apart of the boiling water from it so that the cumulative concentration of non volatile impurities in the water is prevented.
- Quality of distillate: PH: 6.9- 7.0, High purity, low conductivity.
- Distilled water should be heavy metal, salts, and iron free.
- ❖ Specific Conductivity at 25 deg C less than 0.4 x 10-6S/cm
- Glass material (or chemical inert material)

- Equipment should be thermal shock proof.
- ❖ Gas vent should be there to remove volatile impurities leaving the condensate free From gaseous impurities .
- * Reservoir: 20 lt.
- Automatic low water cut off.
- Should be provided with necessary safety features such as automatic disconnection of heater connections should the still run dry.

See next page

ITEM:8	water distillator page 2/2	QTY :1

- ❖ Tubing should be made up of good quality rubber (heat resistant).
- Wiring of the equipment should be enclosed in Case.
- Panel box and stand to accommodate regulator and electrical supply, clamps etc
- Power: 220VAC/50Hz.
- Including all necessary accessories and ready for use.
- Warranty: Two years including spare parts.

ITEM: 9	billirubinmeter	QTY :2
SPECIFICATIONS: * Equipment is por		
	ation of bilirubin value.	
_	o drops of peripheral capillary finger puncture blood.(capillery blood sample)	
	bin value directly, accurately, quickly, easily and automatically without any m	anipulation.
	30 mg/dl or 0-500 micromol/Litre.	
❖ The influence of I	Hemoglobin in the sample is automatically corrected.	

Provision for calibration.

- Horizontal loading of capillary tubes.
- ❖ It gives total bilirubin in serum of plasma form a micro volume of blood.
- Total error less than 2% of reading.
- The bilirubin concentration is determined from the difference in the absorbance of 455 nm and 575 nm.
- ❖ The instrument carries out photometric analysis of total bilirubin in undiluted serum plasma by means of Hematocrit Capillary tubes as an optical cell.
- Complete with all accessories and ready for use.
- Warranty two years from date of acceptance.
- Service and operation manuals original in English language

ITEM: 10	Spectrophotometer page 1/2	QTY :3

* Range: 190nm- 1100nm

❖ Absorption Rate:-0.200 to 2.200A

Available filters: 340/405/420/505/546/578/670

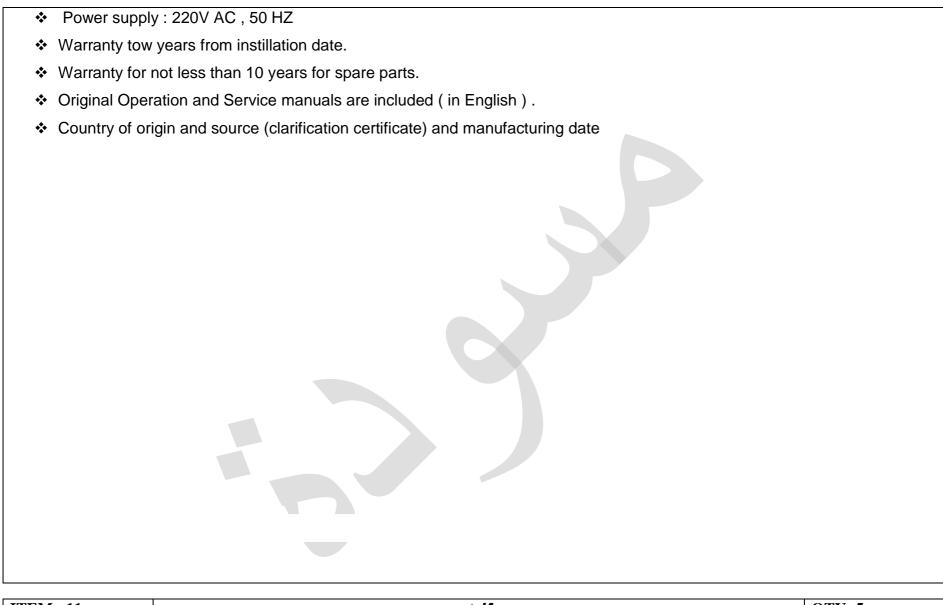
❖ Bandwidth: 1.0nm

- LED light source
- Monochromatic and Dichromatic reading
- ❖ Sample temperature control: 23 deg to 40 deg steps of 1 deg
- Built in thermal printer
- LCD display
- Programmable: up to 70 Tests
- New catalogue including data sheet is attached with the offer.
- Including 10 rolls of printer paper
- Spare five lamp is included
- Absorption, concentration
- End point with factor or standard
- Enzyme kinetics
- Differential mode
- Fixed time
- Polygonal Multi Standard

See next page

ITEM: 10 Spectrophotometer page 2/2 QTY:3

- flow cuvette(micro)
- manual cuvettes (macro ,semimicro,µ)



ITEM: 11	centrifuge	QTY :5
Specifications :		I

- Digital control system
- ❖ Speed up to 5000 rpm
- Specimen capacity 12 tube/run
- ❖ Time selection 0-30 minute
- Built in timer and speed control
- Digital display
- Emergency brake
- Door lock and safety protected lid
- ❖ Power supply 220 VAC, 50 Hz
- Warranty two years from instillation date.
- Warranty for not less than 10 years for spare parts.
- Original Operation and Service manuals are included

ITEM: 12	microscope	QTY:3

- Double head microscope
- ❖ Binocular, stable, fine & coarse focus, control on both sides
- Built in transformer and illumination
- Objective lenses x4, x10 & x40 for both heads
- Objective oil immersion x100
- Eyepiece lenses x10 (pair) for both heads
- Condenser
- Iris diaphragm
- Mechanical stage with specimen holder
- 5 Spare lamp & fuse
- Lenses paper box
- Immersion oil 50 mm
- ❖ Power: 220 VAC/50 Hz
- Dust cover and lenses paper box
- Including all necessary accessories and ready for use.
- Warranty 2 years including spare parts.

ITEM: 13	blood gas analyzer page 1/2	QTY :3

- ❖ To measure the pH, PO2, PCO2.
- ❖ Blood gas case, Electrodes, Gas cylinders and Reagents

Measured Parameters:

- 1. PH 6.5-8
- 2. PO2 0-800 mmHg
- 3. PCO2 3-200 mmHg
- Calculated: so2,cHco3,cto2,ctco2,sbc,abe and other standard parameters
- Automatic gas mixer
- ❖ Sample type: whole blood (heparin zed) arterial and mixed venous
- Re-membraining electrodes
- Throughput: not less than 40 samples per hour
- Calibration method : fully automatic two points and one point calibration
- Data recall: at last 3 patient samples
- LCD Display
- Built in thermal printer
- Printer paper 10 rolls should be delivered
- Interface capability: RS232C

- ❖ Power: 220V AC, 50 HZ
- ❖ Including tubing sets reagent kit and electrodes and all required sensors, cleaning solution.

See next page

				_
ITEM: 13	blood gas analyzer page 2/2		QTY:3	

Spars to be priced separately:

- 1. All electrodes
- 2. Membranes kit for all electrodes and tubes for one year
- 3. Complete set of solutions, reagents, cleaning solutions for one year
- 4. Gas cylinders for one year full
- 5. Printer paper 10 rolls

❖ The offer should include:

- 1. All necessary accessories and ready for use.
- 2. Service & Operation manual in English language.
- 3. Operator training and maintenance training
- 4. Warranty two years from instillation date
- 5. Warranty for not less than 10 years for spare parts
- 6. On line UPS 1KVA
- 7. Warranty for not less than 10 years for spare parts and Reagents.

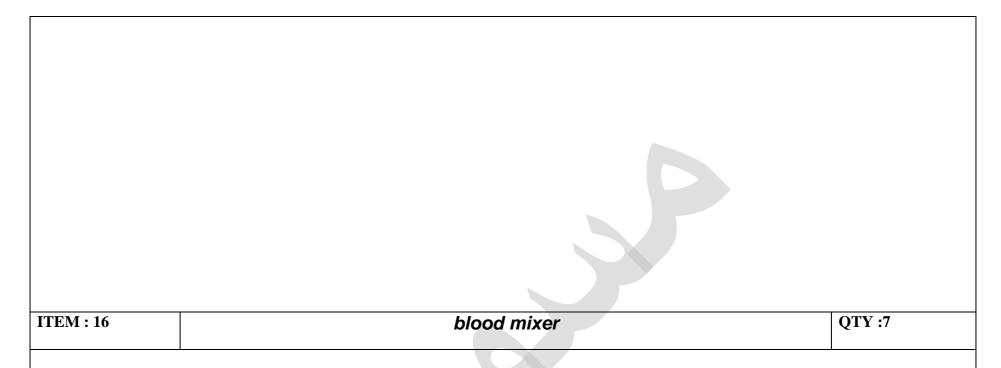
ITEM: 14	safety cabinet	QTY:1

- Class II Laminar flow biological safety cabinet
- Air flow control system
- Motor speed controller
- * Blower speed is regulated by asolid state speed controller
- HEPA filter
- ❖ One (exhust and supply) disposable extended media ,dry type filter at rated airflow capacity
- Utility connection \ installation
- Service valves
- ❖ Up tp three service valves for gas ,air, vacum, etc....
- Can be installed on either or both side walls
- Electrical outlet
- One to two standerd electrical outlet with drep proof cover
- Electrical 250VAC,50Hz
- Dimensions:
- Height:200cm Width:120cm Depth:60cm
 - Exhust flow:
- 203mm{18"} access opening
 - Standard features:
- ❖ large HEPA filter
- fluoroscent lighting

- clear acrylic side wall
- spill trough
- germicidal ultraviolet light
- front closure panel
- metal framed and stanless steel working area
- ❖ Spare parts to be supplied and priced separately
- filter HEPA(Qty:20)
 florissant lamp (Qty:20)
 UV lamp(Qty:10)
- Complete with all accessories and ready for use.
- All accessories and parts should be priced separetely.
- Acceptable UPS must provided.
- ❖ Warranty 2 Years
- Service and Operation Manual in English language soft & hard copy and must delivered at the time of equipment delivery

ITEM: 15	Incubator	QTY:1

- Made of stainless steel material and full length Plexi-glass door.
- ❖ Total capacity not less than 40L with 2 shelves at least, are made of stainless steel.
- ❖ Temperature: Include the range from 10°C to 70°C with ±0.5°C.
- Spatial deviation at 37°C.
- Microprocessor based controller and display for temperature and time.
- Digital temp display
- ❖ Power 200VAC/ 50Hz
- Including all necessary accessories and ready for use.
- Warranty: Tow years including spare parts.
- Service and operation manual in English language



- ❖ For continuous and infinite movement pattern which provides for gentle and complete mixing of blood.
- * Keeps the contents of closed tubes in gentle motion by rocking while rolling.
- The tube can be placed and removed during operation of the MIXER which makes handling and identification simple and easy.
- Homogenizing of blood in blood cell counting
- ❖ 16-Tubes capacity .
- Rolling speed up to 24 rpm
- ❖ Power 230VAC, 50 Hz.
- ❖ Tube Diameter: 8 30 mm
- ❖ Tube length: 8 150 mm.
- Service and operation manuals original in English.

Warranty 2 years from instillation date	

ITEM: 17	Micro plate Elisa Reader with Washer page 1/2	QTY :1

Elisa Reader

- ❖ Fully automated micro plate reader which measures the absorbance of 8 X 12 wells.
- LCD display ,
- ❖ Linear measurement range:0.00-3.0 Absorbance unit
- ❖ Wavelength range 340 to 700 nm (Using standard filter)
- ❖ Wave length selected interference filters (405 , 450 , 492 , 550 , 570, 630nm)

Bandwidth: narrow band interference (10 nm)

❖ Analysis mode: Absorbance, Cut off, Multi standard, % absorbance Kinetics...

❖ Light source controlled by tungsten – Halogen lamp 20 Watts

❖ Reproducibility +/ - 0.5 %

Linearity 2.5 A

❖ Precision + / - 1.5 %

❖ Speed 5 seconds in single, 7 second dual wave length.

Brand Name computer with software.

Supplied with Printer & On Line 2KVA UPS

See next page

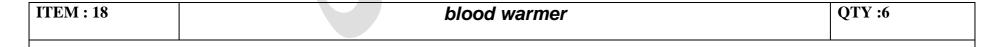
ITEM: 17 Micro plate Elisa Reader with Washer page 2/2 QTY:1

Washer

- Eight-well stainless steel head
- Automatic dispensing of wash solution
- Automatic fully programmable micro plate washer
- Adjust aspirate/dispense height

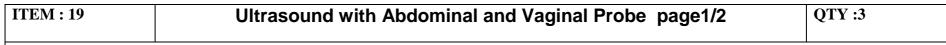


- ❖ Volume 50-1000µl
- ❖ Shaking time 1-59 Seconds
- ❖ Available micro titer plate support (8 x 12) .
- Autoclavable manifolds
- ❖ Delivery of the vacuum pump 8 L/mm at 0.6 bar .
- one waste bottle (2Liter) with audible alarm when filled
- ❖ Wash bottle, rinse bottle 2 liter each
- ❖ Incubator for 2 ELISA plates , 37°C
- ❖ Price include: supply instillation operation and training.
- Operating & service manual in English
- 3 Years warranty



Working Principle: heating air circulation.

- ❖ For assured rapid warming of blood at 37 C °.
- Single scale of delivery rate (1 to 600 mL/min).
- Progressive acceleration and declaration by push button
- Rates precision: ± 5 % from 1 to 600 mL/min
- ❖ Bubbles detector for any liquid, intensive to color and density variation
- Motor protected by safety device.
- ❖ Voltage: 220 ± 10 % V, 50 Hz.
- ❖ Mechanical over pressure security up to 1.3 bars
- Complete with all accessories and ready for use.
- 200 tube should provided
- Warranty two years from date of acceptance.
- ❖ Service and operation manuals original in English language



General use application (Adult & Gynecology).

- Color duplex
- Scanning system: Electronic convex and linear scanning.
- Display mode: B,B/M,M Mode .
- ❖ Measurement function: Distance; Area, Circumference, Weight, Heart rate, LV Function, CDH (HIP joint angle).
- Body mark and PROBE mark facility.
- Character display facility.
- LCD monitor 15" at least, high resolution
- * PROBE selector.
- Connectors for probes.
- Probes with heavy duty cable.
- Convex probe multi frequency 3-5 MHz.
- Transvaginal probe multi frequency 5-7.5 MHz.
- Liner probe multi freq 7-11 MHZ
- ❖ Depth of view at least 2-20 cm.
- High resolution transducer at least 128 elements.
- Complete set of stander accessories.
- Probe hanger, Probe holder, Dust cover.
- ❖ Mobile trolley with shelves from the same manufacturer as the equipment complementary.
- Foot switch.

See next page

ITEM: 19	Ultrasound with Abdominal and Vaginal Probe page 2/2	QTY :3

- Video printer (thermal printer).
- ❖ Thermal paper : 30
- ❖ Acceptable UPS.
- Included all software programs requirements
- Video Printer B/W with 10 paper rolls
- ❖ 5 Liter Ultrasound jell
- ❖ Power Supply: AC 220 ±10, 50 Hz.
- Complete with all Standard Accessories and Ready for use.
- ❖ 3 years warranty including spare parts, preventive maintenance
- Warranty for not less than 10 years for spare parts
- Training course for one biomedical engineer & technical at manufacturer included
- Operation and Service manuals in English must be included

- Fully optimized fetal monitor for effective monitoring of fetal health.
- Twin fetal measurement.
- Automatic fetal movement measurement.
- ❖ Highly sensitive ultra sound transducer which should be 1.5 MHZ for less signal attenuation and good signal acquisition.
- * External toco transducer which should be a sealed unit.
- ❖ The unit should have:

Fetal Heart Rate range 30 to 300 bpm.

External Toco range 0 to 127 relatives units.

- Automatic printing and zoom.
- Printing speed and color depth control function.
- Simultaneous display and printing.
- Continuous data saving.
- ❖ RS232 external port.
- Patients event marker
- Audible alert indication of fetal bradyhcardia and tachycardia
- Alarms and Timer.

See next page		
ITEM: 20	CTG page 2/2	QTY :5

- ❖ Should be compact, lightweight and should have inbuilt carrying handle and waterproof transducers.
- Should be provided with trolley with wheels with locking facility for mounting the unit on it with accessories for storage of transducers paper
- . Digital numeric and text LCD display along with audio signal of fetal movement,
- Should have inbuilt keyboard entry screen for patient data entry, name etc.
- Battery and main operation facility
- ❖ Power: 220VAC/ 50Hz.
- Service and operation manual in English (Hard and soft original copies)
- Warranty: 2 years included spare parts

ITEM : 21	Color US Echo Doppler page1/2	QTY :1
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- High Definition imaging capability
- Broadband Digital Beam former
- ❖ 2D M-Mode , color M Mode
- Pulse Doppler , color Doppler , steerable continuous wave Doppler
- Color power Angio
- ❖ Selectable 2D Gray and color Maps , persistence sector width
- ❖ Triple mode simultaneity
- ❖ Dale imaging BW/color
- Tissue specific imaging capability
- Scrolling Histor Review
- Auto Doppler Trace
- Color Tagging ,color capture
- ECG Capability
- ❖ Pan / zoom
- Foot switch

- OB Software Analysis
- Vascular Software Analysis
- Cardiac Software Analysis

See next page

ITEM : 21	Color US Echo Doppler page 2/2	QTY :1

- Body markers
- Help function
- User defined Equations and table
- User defined presets
- Patient information management software
- ❖ DICOM 3.0 compatible
- ❖ Single 15" high resolution non –interlaced monitor
- ❖ VCR is included
- Color printer is included
- Cardiology advanced performance package
- (includes : color power Angio / power option imaging , Tissue Harmonic Imaging , cardiology contrast specific imaging , Tissue Doppler imaging)

Cardiovascular clinical package

❖ (includes: Adult Echo, pediatric Echo, Transesophageal Echo, cerebrovascular, peripheral vascular, TCD, Abdominal,

and Vascular surgery clinical options)

- Complete with all accessories and ready to use (Transducers and ECG Cable)
- warranty for 3 years including spare parts
- Warranty for not less than 10 years for spare parts
- Training course for one biomedical engineer & technical at manufacturer included
- User/Technical/Maintenance manuals to be supplied in English

ITEM: 22	Vascular Doppler	QTY :1

- Should be compact and light weight and can be hand held or worn around neck.
- ❖ Vascular Doppler is used to conduct a test that measures the velocity of blood flow through the blood vessels.
- Should have various transducers for localization of deep and superficial peripheral vessels.
- Should have a case for keeping all the accessories.
- Should have a built in speaker and head set attachment.
- Should have auto power shut off facility and a battery low indicator.
- Audio unit should be battery operated or can be connected to mains through AC adaptor.
- ❖ Detect the blood flow status of arterial/venous by 5MHz, 8MHz probe.
- ❖ Frequency mode: 0~2 KHz.
- Detect the blood flow average velocity.

- Flow velocity mode: 0~40cm/s
- ❖ Detect the purpose of finger/toes and part of body's vein anatomies operation
- Display the waveform and the detecting result of the blood stream average velocity and the spectrum line.
- LCD indicates the blood stream status through the bar shape cursor and voice.
- ❖ With volume adjusting function, battery volume and time/date display.
- With carrying case .
- Including all necessary accessories and ready for use
- warranty for 3 years including spare parts
- ❖ Warranty for not less than 10 years for spare parts
- Complete with all accessories and ready to use.

User/Technical/Maintenance manuals to be supplied in English

ITEM: 23	Basic X-Ray page1/4	QTY:1	

- Generator:
- High frequency generator.
- ❖ X-ray generator power: at least 50 Kw.
- Power supply: 3 phase 380 VAC 10% 50 HZ
- ❖ Max tube voltage Kv Range: 40 to 150 Kv.
- ❖ Tube current (mA): 10-600mA
- mAs Range : 0,5- 600mAs
- ❖ Exposure time: 0,001-6 s

- Short time rating :
 - 150Kv 300mA
 - 125Kv 400mA
 - 100Kv 500mA
 - 80Ky 600mA
- Self Diagnostics, Error Messaging
- * Radiography setting system with APR at the generator console.
- ❖ Large Graphic LCD display for APR, Technique information, KV, and mAs.
- One pedestal for generator console.
- One Radiography Hand switch.

**

See next page

ITEM: 23	Basic X-Ray page2/4	QTY:1

- High tension cables.
- . High speed rotor control (for Low& high speed).
- Have over load protection
- X -Ray tube:
- ❖ Rotating anode X –Ray type high speed and have dual focus.
- ❖ Tube Voltage 40-150Kv.

- ❖ Focal spot: Large focus: 1,2mm, small focus: 0,6mm.
- ❖ Anode heat storage capacity: 300KHU.

• X - ray Tube support:

- Floor mounting or floor- ceiling mounting.
- Smooth positioning with Multi-function, manual operation with electromagnetic lock for horizontal, vertical transverse and longitudinal movements.
- ❖ Tube rotation around vertical axis: +\- 180 degrees.
- ❖ Tube rotation around horizontal axis: +\- 90 degrees.
- ❖ Release switch and auto-stop for horizontal \vertical adjustments.
- ❖ It should provide of auto centering with table Bucky center.

See next page

ITEM: 23	Basic X-Ray page3/4	QTY :1

• X-ray beam collimator:

- Laser light localizer for accurate cassette and patient positioning.
- Automatic lamp timer switch.
- Manual adjustable additional and inherent filtration.
- Bucky Table:

- ❖ Bucky table with 4 way floating table top 800 *2200mm both lateral and longitudinal movement
- Bucky device with oscillating moving grid.
- Table load of 200kg at least.
- Electromagnetic locks to lock table.
- ❖ Bucky cassette size 14*17 to 6.5*8.5 with focal distance 100cm.
- ❖ Footswitch lock.
- ❖ Automatic Exposure Control AEC for Bucky Table including pick up cells.
- ❖ Adjustable height.
- Flat top of carbon fiber.

ITEM: 23	Basic X-Ray page4/4	QTY :1

- Bucky stand:
- ❖ Counter-balanced vertical movement of the potter Bucky with emergency mechanical brake

- Bucky device with oscillating moving grid
- ❖ Auto- centering cassette tray can be loaded from both sides with Vertical manual travel
- ❖ Bucky stand cassette size 14*17 to 6.5*8.5 Inches.
- Automatic Exposure control AEC for Bucky stand including pick up cells.
- Distance focal spot
- Pre installation:
- Power cabinet with Over-Under voltage regulator
- ❖ Wall finish (Consol) with diagnostic window 80*60cm
- ❖ Air condition unit acceptable with X-Ray room
- Room painting, PVC and cables ducts should included

Cover the leaded wall with wood and painting it

- Warranty:
- ❖ 3 years warranty include tube, spare parts and preventive maintenance
- All main components must from the original manufacturer
- Warranty for not less than 10 years for spare parts
- Training course for one biomedical engineer at manufacturer included
- Operator and Service manuals in English are included

Complete unit will be delivered, Installation, operation with all standard accessories and ready for use

ITEM : 24	Digital Panorama x-ray	QTY :1
Specifications :		

- * Available for Adult, Pediatric, Cephalometric, TMJ, left, right for frontal partial views and upper jaw joints, low jawbone.
- ❖ Also the picture must be includes sinuses, nasal sinus and the whole 32 teeth .
- ❖ Adopted small focus x-ray tube. Clear image can be available
- Patient positioning must be free standing.
- High voltage Generator.
- automatic high voltage compensation devices
- minimum radiation for patient.
- ❖ Adopted small focus x-ray tube. Clear image can be available.
- ❖ The Control is included touch panel, LCD display or touch screen .
- ❖ Anode voltage : 50 KvP to 85 KvP in step of 1 KvP
- ❖ Scanning time is less than 20 sec .
- ❖ Vertical movement is Motorized.
- ❖ The image is stored in the film and CD.
- ❖ Including 5KVA online UPS

Warranty:

- ❖ 3 years warranty include tube, spare parts and preventive maintenance
- Training course for one biomedical engineer at manufacturer included
- Warranty for not less than 10 years for spare parts
- Operator and Service manuals in English are included

- High quality film processor
- Heavy duty with feed and receiving tray
- Digital read out display for developer temperature
- ❖ Processing capacity 220film 35*43 cm/Hour
- 90 second cycle time for 35*43 cm films
- Tank for developer and TWO tanks for fixer
- ❖ Total capacity of (developer,2 fixer, and washing) tanks not less than 25 liters
- Drying system works with infrared and hot air
- Automatic replenishment system
- Stands control that saves energy and reduces water consumption 3L/min
- Complete with all accessories and ready for use.
- Warranty two years from date of acceptance.
- Warranty for not less than 10 years for spare parts
- Service and operation manuals original in English language

- Main ENT treatment and diagnostic unit
- Steel housing 550 mm with PUR shaped top parts.
- Easy access to air filter, condensation discharge and liquid bottle.
- ❖ Large instrument surface that pre warms all instruments, two storied, with aluminium trays and set of stainless steel dividers and Plexiglas cover, to protect instruments.
- Compressed air unit, continuously adjustable from 0,1-4 bar,(spray /politzer), fine regulation hand piece, pressure limiter .
- Compressed air handle and tube must be autoclavable and made from steel
- ❖ 3 spray bottles in different colours with glass protection in Stainless steel.
- Cannulas in two different diameters
- ❖ The System contain a 1, 5 Litre. tank for compressed air.
- The compressor is completely separated from the suction unit, silently motorized.
- The chrome plated steel handle is adjustable to politzer olives.
- ❖ A set of politzer olives in 3 sizes is included.

ITEM: 26	ENT Unit page2/4	QTY:1

- Motor suction unit, silently motorized, -0, 92 bar max. Vacuum, 32 Litres /min., bacterial filter, double overflow control fuse, 1,25 Ltr. liquid container.
- ❖ The suction tube is equipped with an automatic on/off switch for the vacuum function. A small ear rinsing funnel is included in the System .
- Suction tube must be autoclaveable
- ❖ Mirror reheating unit, single handed heating function with 6 V heating coil.
- Drawer as a writing surface with removable on steel telescope guides.
- Plexiglas shelf insert
- Paper dispenser drawer.
- ❖ Instrument drawer with aluminium trays and set stainless steel dividers
- Big storage drawer
- ❖ Warm water rinsing device, complete with chrome plated handle, Handle is autoclavable as well as the tube snap closure system, to connect the tube, fine spray regulation valve, 38° water temperature, water is heated in a separate tank system, to prevent mineral built-up, system includes sinus drainage tube, as well as several front cannulas and a water supply hose.

Including autoclavable water filter with cartridge

See next page

ITEM: 26	ENT unit page 3/4	QTY:1

- Suction pipe cleaner with exchangeable, reusable, chrome plated adapter.
- ❖ The adapter is shaped like a cone, to make it suitable for tubes and suction pipes of different diameters.
- * The reservoir for the disinfection liquid (1 Ltr.) isolated in the service box. Adapter is autoclavable .
- ❖ Automatic liquid container discharge, trough existing water drain connections.
- Must have separate motor.
- ❖ Kidney shaped ear rinsing funnel on a swivel support including ear wax Separator and anatomically shaped Ear insert.
- ❖ With additional suction tube connected to the liquid jar.
- Operated through a switch in the front.Panel.
- ❖ Low voltage connection, adjustable 0-6 V.
- Mirror preheating unit, thermostat control, adjustable for more than 50 mirrors of different sizes, detachable for cleaning, also preheating function of instrument deposit surface.

- ❖ Waste container and melamine drawer for used Instruments
- ❖ To be provided in a stainless steel drawer for hygienic aspects

See next page

ITEM : 26 ENT unit page 4/4 QTY :1

- ❖ Wall or floor connection box, with control valve, to connect the water
- supply and water drain hose to existing plumbing connections.

Examination Chair

- Motor support, integrated footswitch.
- Stroke 30 cm from 510-810 mm adjustable.
- ❖ Motor support for simultaneous movement of back and footrest.
- ❖ Backrest can re incline to horizontal position by motor support.
- Rotatable
- Fully synthetic leather cover black.
- Sloping column for child examination.
- Rotation left right has to be by electric motor.

- The unit and chair should install and ready for use.
- Including all necessary accessories and ready for use.
- Warranty: Two years including spare parts.
- Service and operation manual in English language

ITEM: 27	Head Light With Light Source	QTY :4

- Consist of illumination head , Fiber optic and light source .
- ❖ Diameter of fiber around 3.5 mm
- ❖ Length of fiber around 2.5 mm
- Adapters for many types of light source
- Focusing of light beam
- High light intensity 300w XENON lamp
- Color temperature of more then 6000K
- ❖ Light intensity continuously adjustable from 0 to 100 % manually and automatically .
- Display of lamp service life .
- Stand by mode
- ❖ Built- in anti fog –air pump .

- Complete with all accessories and ready for use.
 Service and operation manuals original in English are included.
- Warranty two years from date of acceptance.

ITEM: 28	Otoscope	QTY:8

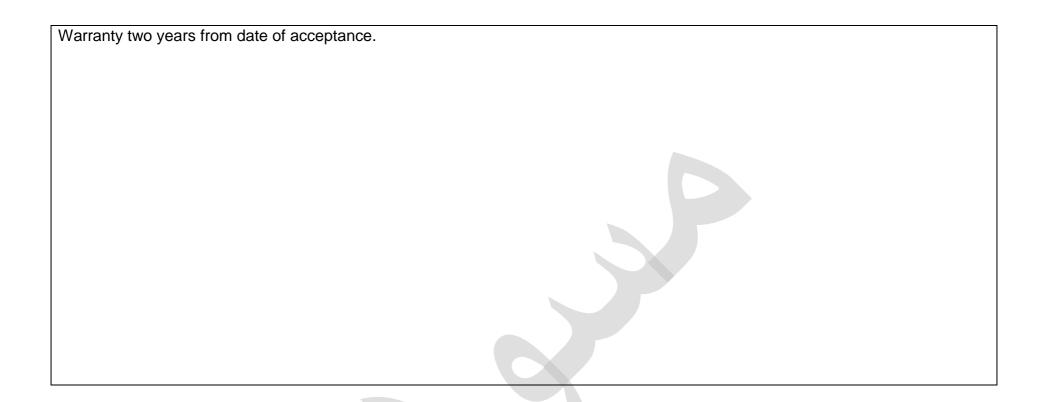
- Lightweight and compact.
- Illumination: Halogen illumination provides brighter, whiter, longer lasting light.
- Fiber optic light transmission in the otoscope.
- Viewing Lens: Glass condensing lens.
- Wide angle magnifying lens.
- Standard 2AA batteries with interchangeable heads.
- Including all necessary accessories and ready for use.
- Accessories: 5 Replacement lamps.

Warranty 2 years



ITEM: 29	Laryngoscope	QTY:8

- Sterilizable stainless steel five (0,1,2,3,4)
- Complete Laryngoscope Set.
- Made of surgical stainless steel
- Highly recommended for use with newborns
- ❖ Spare Bulbs: (5 pieces).
- Metal handle for regular CC battery
- Complete with all accessories and ready for use.



ITEM: 30	Anesthesia Machine page1/8	QTY :1

- ❖ Adult and Pediatric anesthesia machine
- ❖ Flow meter: Three gases O2-N2O and Air with 30% Hypoxic guard system.

• O2: 0.1~10 Lit/min

• N2O: 0.1~10Lit/min

• Air: 0.1~10 Lit/min

❖ Oxygen Monitor: Galvanic cell type with automatic flow detection on /off switch.

- ❖ Bag meter: 0~ +100cm H²O
- ❖ CO2 absorber unit: Double chamber capacity 1600gr or one chamber equivalent.
- ❖ Line pressure gauge; O2, N2O and air 0~1000Kpa.
- ❖ Auxiliary Cylinder yokes: O2 and N2O with pressure gauge.
- Safety Devices: Automatic N2O cut off valve.
- ❖ O2Flush
- Fresh Gas outlet.
- ❖ 30% Hypoxic guard system
- Whistling alarm systems.
- Anesthetic Gas Scavenge
- ❖ Semi closed coaxial circuit (Quantity 2) Reusable
- ❖ Jackson system (Quantity 2) Reusable
- Monitor shelf, Drawer unit and Table Top.

See next page

ITEM: 30	Anesthesia Machine page2/8	QTY:1

Ventilator for an aesthesia machine:

- ❖ Ventilator method: Electrically driven or gas (air or O2) driven , microprocessor controlled volume preset , time cycling including airway pressure monitor .
- Ventilation mode: Controller (IPPV-SMV).

Minute volume: 1~20Lit /min.

❖ Tidal volume : 100~1500 ml.

Breathing frequency: 5~40 times/min.

❖ 1/E Ratio: 1:1,1:2,1:3

❖ Flow Rate: 0.5 ~40Lit /min.

Relief Valve at least 80 mbar

❖ Alarm: Low inspiratory pressure, improper parametric setting, power failure

trouble in CPU, O2 ratio, mean pressure, tidal volume or minute volume.

Vaporizer

- ❖ Halothane vaporizer , Isoflurane vaporizer , Concentration Rang :0.1~5 vol %
- ❖ Flow Rang:250ml/min.~15Lit /min, Temp.Rang,+15C°~35C°
- ❖ Patient circuit for Adult and for Pediatric must be included.
- Training course at manufacture for biomedical engineer.

See next page

ITEM: 30	Anesthesia Machine page3/8	QTY :1

- Operator and complete service manuals including electronic diagrams.
- Warranty 3 Years
- ❖ Including all necessary accessories and ready to use for adult and pediatric

- Anesthesia Monitor:

- ❖ Large Monitor at least 15" inch, high resolution color, non-fade .
- Display for up to 6 wave form.

ECG:

- Standard:(1, 2,3 lead display) at the same time.
- ❖ Trace Sweep Speed. 50 -12-12.5- mm/sec
- ❖ Standard leads: I, II, III, AVL, AVR, AVF, and V1-V6.
- Multi leads .S T segment analysis
- ❖ QRS .Detection :detects QRS .complexes ,with durations of 20 to 120 ms and amplitudes
- ❖ Heart rate Range: 30 to 300 bpm.
- Heart rat Alarm .adjustable high and low limits.
- Defibrillator protection: provided.
- Patient leakage current: Less than 10 μA.
- ❖ AC filter provided.
- ❖ Patient cable and lead wire must be delivered.

See next page

ITEM: 30	Anesthesia Machine page4/8	QTY :1

Respiration:

- ❖ Input 10 lead, 5 lead or 3 lead ECG cable.
- * Respiration Rate Range: 0 to 200 breathe per minute.
- Respiration Rate Alarm: adjustable high and low limits.
- ❖ Apnea Alarm .selectable between 5 and 40 seconds in 5 second increments., in neonatal
- ❖ Numeric update Rate :Every 3 second , or immediately at the onset of an apnea alarm
- ❖ Trace Sweep Speeds: 25, 12,5;6,25 mm/sec.

Invasive Blood Pressure 1 channel:

- ❖ Transducer Type: Standardized to 5µv /v/mm Hg ± 1%.
- Measurement Range: 20 to 300 mm Hg.
- Zero Adjust: ±200 mm Hg.
- ❖ Accuracy 0.1 mm Hg or 1% of rang.
- ❖ Filter Frequency: Adjustable between 3 and 40 HZ.
- ❖ Labels: Arterial. (ART), central venous (CVP), left Atrial (LP) pulmonary (PA, Right Atrial (RAL).
- ❖ Display parameters: Systolic, diastolic and mean pressure displayed.
- Split view of 1 invasive Blood pressure (Wave Form Display).
- Alarms: High and low pressure for all measured parameters.
- Alarm limit: adjustable high and low limits.

- ❖ Trance sweep speed: 25, 12.5, 6.25, mm/s.
- Numeric update Rate: Every 3 seconds.

Trunk cable for disposable invasive Blood pressure Transducer should be delivered at least 3 and 10 disposable transducers

Noninvasive blood pressure:

- Measurement units: mm Hg.
- Measurement Ranges: Adult systolic .30 to 300 mm Hg.
- Diastolic: 20 to 240 mm Hg.
- ❖ Mean: 25 to 250 mm Hg.
- Neonatal: Systolic: 30 to 140 mm Hg.
- ❖ Diastolic: 15 to 120 mm Hg.
- ❖ Mean: 20 to 130mm Hg.
- Measurement: start / stop /Automatic or Manual.
- ❖ Automatic Measurement Intervals: Adjustable intervals of 1 to 10 in one minute increments, 15 20, 30,......

NIBP hose and reusable cuff for adult, reusable cuff for Pediatric and reusable cuff for neonatal should be delivered

See next page

Pulse Oximetry .SPO2:

- ❖ Measurement Rang:-O2 saturation 20 to 100 %
- ❖ Pulse Rate :- 10 to 250 bpm
- Alarm High low saturation Values.
- ❖ Display update: 2 second and Numeric update rate every 2 second.
- Finger probe for adult, probe for pediatric and for neonatal and Extension cable should be delivered.

Temperature:

- 2- Channel.
- ❖ Measurement Rang: 0 to 50 °c.
- Numeric update Rate.
- Alarm limit adjustable high and low limits.
- Display parameters .Temp (single probe attached), T1,T2 , and delta temperature ΔT, (tow probes attached) .
 Oral and skin probe should be delivered.

See next page

ITEM: 30	Anesthesia Machine page7/8	QTY:1

Capnograph Co2:

- CO 2:
- Measurement Method: side stream infra-red absorption technique.
- ❖ Rang 0-10% (0 76 mmHg).
- ❖ Wave form display: Breath by breath, 6,25 mm/s .
- ❖ Numeric display: End tidal co2 user adjustable.
- ❖ High ETCO2:0.0 9.9%, default 8,0%.
- **❖** Low ETCO2: 0.0 9.9%, default 3,0%
- ❖ Co2rebreathing: (1%, 2%, 3%, and off).
- ❖ Respiratory rate :Respiratory rate :Rang :(4 60 breaths /min)
- ❖ Detection 1%, (7.6 mm HG) variation in co2 base line level.
 - N2o:
- Measurement methods side stream infrared absorption technique.
- ❖ Range : 0- 100%
- Numeric display :inspiratory values
 - O2:
- Measurement Method: Side stream paramagnetic airways.

❖ Range: 0 -100 %

See next page

ITEM: 30 Anesthesia Machine page8/8 QTY:1

- ❖ Wave from display: Breath by breath, 6,25 mm /s .
- Numeric display: End tidal and inspiratory values.
- ❖ Alarms: Inspiratory O2 user adjustable.
- ❖ High FIO2 off and 18-99%, default. Off.
- ❖ Low FIO2 18 -100 %default 13%

Anesthetic Agent:

- * Range:0-10 % (HAL,ISO,ENF,SEV)
- ❖ 0-20%(DES)
- ❖ Resolution :0.1%
- ❖ Accuracy: I (0,1 % 2% of reading).
- ❖ Response time: < 400 ms ,175ml /min .
- Values: inspired Agent and Expired Agent.
- ❖ Mix –message appears on screen as (MIX) when an agent mixture is detected .
- ❖ Power requirements :220vac±10%, 50 Hz
- ❖ The unit should be mounted on Anesthesia machine shelf.

- Complete with all necessary accessories and ready for use
- Operation and service manuals should be in English Language delivered.
- Warranty 2 Years

ITEM: 31	Sphygmomanometer	QTY :30	

- Measurement rang. 0—300 mm hg
- Mercury purity 99.99%
- ❖ Glass tube 3 cm (I.D) * 320 mm
- Stand shaft flexibility range 350 mm
- Adult, Pediatric and Infant Cuffs should provided (3 cuff)
- Complete with all accessories and ready for use.
- Warranty two years from date of acceptance.



ITEM: 32	UV Sterilization for Operating theater	QTY :2

- To be used in the operation theater for sterilization .
- Included lamp life counter or hour counter
- ❖ Air purifier machine including :
 - 1. HEPA filter
 - 2. circulation pump
 - 3. ultra violet lamp
- field of work : remove a wide range of pollutants such as :
 - formaldehyde
 - phenol
 - ozone

- cigarette smoke
- paint fumes
- urea
- Ethanol
- Bacteria
- Viruses
- Mobile on 4 castors
- ❖ Power 220V/50 HZ
- ❖ 4 UV lamp & HEPA Filter as spare parts included
- ❖ Warranty 2 year from installation
- Service and operation manuals are included

ITEM: 33	Autoclave 50L	QTY :4

- Electrical control full automatic cycle.
- Horizontal design
- Capacity: 50 Liter stainless steel chamber at least
- Programs: all program parameters can be altered and stored
- ❖ Power: 220VAC/50 Hz
- ❖ Audible and visual alert upon cycle interruption and completion

- Double safety locking device
- Outer and inner chamber made of stainless steel
- Overheating protection
- Two trays are included
- ❖ Water level indicator with automatic low water level cut off device
- Pressure and temperature controlled and monitored
- Pressure and temperature alarms
- Digital display
- Safety valve is included
- Supplied with standard accessories.
- Including all necessary accessories and ready for use.
- Warranty: Two years including spare parts.
- Service and operation manual in English language

ITEM: 34	Autoclave 250L page1/2	QTY :1

- ❖ Style: Single door,
- Cabinet type.
- Chamber: 250L made of stainless steel 316l.
- ❖ Operating Temperature: 100 °C to 135 °C.

Air Removal: Vacuum / Gravity.

Control: 8 bit Microprocessor.

Display: LCD, Dots Graphic Display.

Printer: include.

Power Source: AC 380V, 3ph, 5 wire, 50Hz.

Steam Source: Built in Steam Generator,

❖ Water Pump : 300 W.

Loading System: One Loading Car and Basket.

One Rack.

3 Shelves manufacturing from stainless steel.

Water Source: Filter Water.

❖ Vacuum System: Water Ejector.

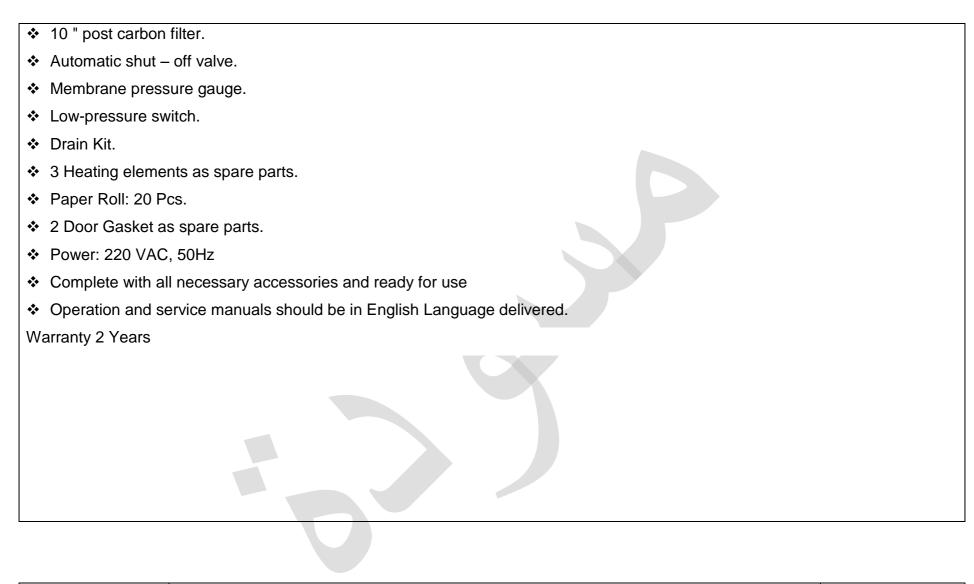
❖ Water Treatment unit , RO System 500 litters/day.

With storage Tank 500L

See next page

ITEM: 34 Autoclave 250L page2/2 QTY:

- 20", 5 micron polypropylene sediment filter
- ❖ 200 GPD membrane high rejections.
- ❖ 20 " active carbon filter.



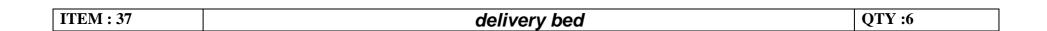
ITEM: 35	Pediatric Electronic Scale	QTY :5
Specifications :		

- Digital weighting scale.
- ❖ Weight range 0-30 kg.
- ❖ Accuracy +/- 5gms, resolution 5 gms.
- ❖ Unit should have facility accurately weighs the hectic / active baby and retain the digital display for 30 sec. Even baby is removed from the scale.
- ❖ Unit should have facility to "Freeze" display to show reading even whom baby is removed.
- Unit: in grams /Kg.
- Memory: Up to 10 Readings.
- Mounting: On a lightweight compact mobile trolley.
- ❖ Power supply: 220 V, 50 Hz with DC adapter.
- Capable of working on battery.
- Complete with all accessories and ready for use.
- Warranty two years from date of acceptance.
- Service and operation manuals



- ❖ Two tunable diaphragms allow the user to conveniently alternate between the lowand
- high-frequency sounds without turning over the chest piece.
- Solid stainless steel chest piece for outstanding acoustics.
- ❖ Dual-lumen design eliminates tube noise artifact from two tubes rubbing together.
- Excellent acoustic seal and comfortable fit with Ear tips.
- Comfortably angled, anatomically correct headset.

Patient-friendly, no chill rim and diaphragm



- ❖ Hi-Lo height adjustable by a foat operated hydraulic jack (57-83) cm.
- ❖ Semi fowler-backrest angle manually adjustable by a gas spring piston.
- ❖ 4 castors, 2 with brakes .Antistatic Ø 125 mm .Steering castor.
- Three section mattress surface.
- Mattress surface perforated St Sheet.
- Detachable head panel.
- Adjustable lithotomy poles.
- Frame should be of epoxy powder coated steel
- ❖ Should have adjustable leg rests available as an accessory.
- ❖ It should be easy to clean, sterilize (especially blood stains) and maintain.
- It should have catheter bag holder which can be attached on either side of bed
- Should have retractable foot section so as to convert bed into table
- Central braking system.
- Should have IV rods which have adjustable heights, quick release and attaches to all corners of bed.
- Safety side –rails.
- Two pulling handles.
- Water proof mattress.
- Warranty: Two years including spare parts.
- User and Technical manuals to be supplied in English

ITEM: 38	Emergency Trolley	QTY :6

- Frame chrome plated.
- Plate construction of stainless steel.
- Interlocking function.
- 4 Antistatic castors with two brakes.
- ❖ Drawers (6), with easy sliding motion, one lockable.
- ❖ Wire basket for catheters and hoses at the back of the trolley.
- ❖ Hooks (3) for hanging e.g. scissors and tongs.
- ❖ Dimensions: 765 Lx 550 W x 950 H (mm)

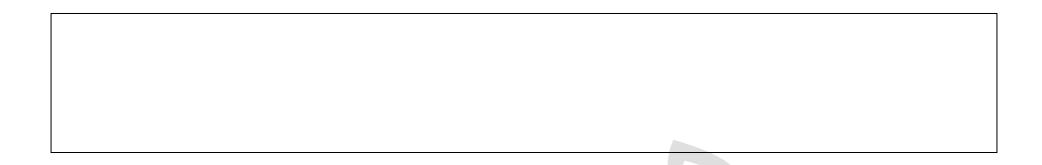
Accessories:

- Drawer divider system
- I.V Pole.
- Oxygen bottle holder.
- Slide shelf for defibrillator.
- Base rail system for tilt bins organizer.
- Chart holder.
- Waste receptacle.
- ❖ Slide rail for fixing suction bottles, scopes, blood pressure meter, catheters etc.
- Complete with all accessories and ready for use.

*	Warranty two years from date of acceptance.

ITEM: 39	Medical Bed	QTY :20

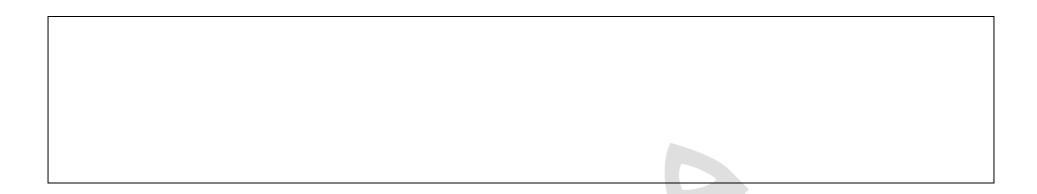
- Full fowler hospital bed
- Backrest operation gas spring
- Easy to use variable height, reliable, foot-controlled height variation
- Operated individual raise and lower pedals on both sides of the bed
- Stable two-way tilt has a tilt system with four points of support, tilt between 12 degrees foot-up and 6 degrees foot down
- Braking security, at either side of the bed locking three braking castors to give added security
- ❖ The braking system has a steering lick position technical specification: Length in-bed 2087mm, excluding corner buffers:
 2195mm, Including corner buffers 2219mm
- ❖ Width: excluding corner buffers 912mm, Including corner buffers:1000mm
- Height: Range: 415mm to 790mm.
- Complete with all accessories and ready for use.
- Warranty two years from date of acceptance.
- Service and operation manuals original in English language.



ITEM: 40	Dressing Trolley		QTY :6	

- Stainless steel
- With two shelves
- Support with 200mm Dim Jars
- Tray shaped.
- Equipped with bottle holder
- Movable rectangular waste bin
- Drawer and bowl are placed
- Push handle.
- 4 castors 2 brakes
- ❖ Dimension 900 L *500 W * 850H mm Approx.
- Complete with all accessories and ready for use.

Warranty two years



ITEM: 41	ECG machine		QTY:5

- ❖ Standard 12 Leads.
- ❖ Input impedance: 10 Mohm.
- ❖ CMRR: 100dB.
- Digital filtering: AC interference filter.
- Liquid crystal display:
- ❖ Battery Operation mark, paper empty, leads off QRS mark, lead group, and heart rate ECG wave form display.
- ❖ Parameter Measurement: Ventricle rate, PR. interval, QRS duration.
- * Recorder: Printing process: High- resolution thermal print head.
- Sensitivity: 5-10-20mm/mV.
- Operation mode Auto and manual lead selection.
- ❖ Automatic function: Electrode check, gain control, positioning, periodic.
- * Recording, Time compressed Recording, R irregular interval recording, Lead.

- Protection against defibrillation and pace making.
- Automatic electrode check function: provided.
- Copy function provided.
- Safety IEC 601-1, class I Type CF.
- ❖ Power supply (220 VAC/50Hz) /Rechargeable Battery.
- ❖ Battery operating time: 30min in continuous operation.
- Original Mobile trolley.
- Complete with all standard accessories and ready for use operation and service
- Warranty 2 years including spare parts.
- Service & operation manual in English Language.

ITEM: 42	Patient Monitor page1/3	QTY :10

❖ Large monitor not less than15 inch, high resolution color, non fade type display for up on either waveform.

ECG:

- Input 5 lead, 3 lead .ECG cables.
- Trace sweep speeds: 50,25,12.5 mm/s.
- ❖ Standard leads : I , П ,Ш , AVL ,AVR ,AVF.
- Lead .ST segment analysis.
- QRS detection detects QRS complexes with duration of 20 to 120 ms and amplitudes of 0.2 to 5.0 mv (adult) or 0.15 mv to 5.0 mv for (pediatric) heart range: 30 to 300 bpm.
- Pacemaker detection.
- Defibrillator protection: provided.

- 12 lead ECG facility.
- Patient leakage current: less than 10 μa.
- ❖ Patient cable 5 lead and lead wire must be delivered

Respiration

- * Respiration rate range: 0 to 150 breathes per minute.
- * Respiration rate alarm: adjustable high and low limits.
- ❖ Trace sweep speed: 25, 12.5, 6.25 mm/sec.
- Trans-Thoracic impedance plethsmography .

See next page

ITEM: 42	Patient Monitor page2/3	QTY :10

Non-invasive blood pressure:

- Measurement unit: mmHg.
- Measurement range: Systolic range: Adult / Ped 30-250 mmHg.
- ❖ Diastolic: 15-220 mmHg.
- ❖ Mean: 25 to 250 mmHg.
- Cuff Press: 0 to 330 mmHg.
- Measurement : Start / Stop automatic or manual
- NIBP hose cuff for adult, cuff for pediatric, 2 reusable different size for each should be delivered.

Pulse Oximetery SPO2:

- ❖ Measurement range: O2 saturation: 80 to 100 % pulse rate: 30 to 250 bpm.
- Alarm high and law saturation value. Limits high range (85-100 %) and low (85-95 %).
- ❖ Display update: 2 second and numeric update rate every 2 second.
- ❖ Probe for adult and pediatric and extension cable should be delivered.

Temperature:

- 2 channels.
- ❖ Measurement range: (0 to 50) C°.
- Numeric update range: every 3 seconds.
- Alarm limit: adjustable high and low limits.
- 1 Oral probe and 1 skin probe should be delivered

See next page

ITEM: 42	Patient Monitor page3/3	QTY :10

Specifications:

Entered values and ranges:

- Patient weight (1 to 180) kg.
- ❖ Heart rate (0 to 300) bpm.
- ❖ Mean arterial pressure to 300mmHg.
- Central venous pressure (0 to 99) mmHg.
- ❖ Mean pulmonary pressure (10 to 99) mmHg. etc

Power:

- ❖ Power Supply: 220 VAC ± 10 %, 50 Hz.
- * Rechargeable battery at least 3 working hours.

Offer should include:

- All necessary standard accessories and ready for use.
- Warranty 2 years from acceptance date including spare parts.
- Service and operation manuals

ITEM: 43	Pulse Oximeter with NIBP	QTY :4

- Portable spo2 / NIBP
- Adult / infant operation
- ❖ Spo2 range :1-99%
- ❖ Accuracy: 2-3%
- ❖ Resolution :1%

❖ Pulse Rate Range 20-300BPM

❖ Pressure range : 30-300 mmHg adult

20-150 mmHg neonate

❖ Resolution :1%

❖ Accuracy :2%

Automatic measurements cycle adjustable

❖ Alarms: low spo2, high spo2, low pulse, high pulse, low pressure & high pressure

❖ Alarm silence : Available

Memory :24 hrs data storage

❖ Battery : more than 5 hrs lead acid

Digital display for spo2, heart rate and pressure

Spo2 finger probe is included

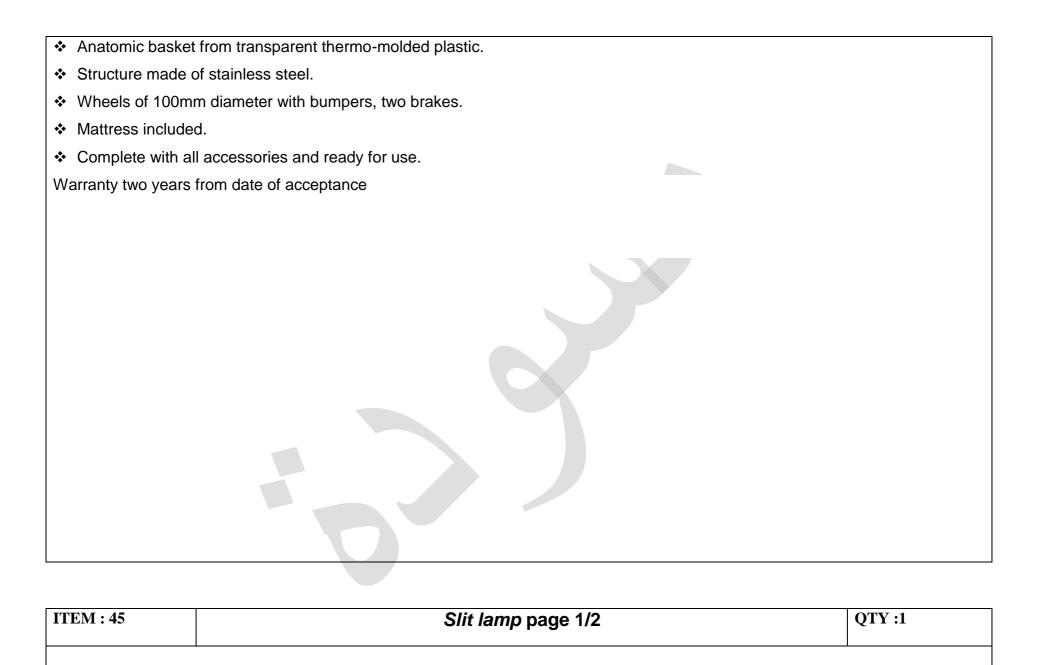
NIBP Cuff and hose are included for adult and child

Mobile stand is included

❖ Spare parts : spo2 finger probe , adult NIBP cuff and hose , infant NIBP cuff & hose

❖ Warranty 2 year from installation

Service and operation manuals are included



- Open system lamp
- ❖ Maximum power 400 Watt
- Slit image width 0 8 mm continuous
- Slit image length1 8 mm continuous
- Illumination field diameters 8, 5, 3, 2, 1, 0.2 mm
- Slit image radial range test mark with fixation star
- ❖ Radial movement of the slit light ± 90 degrees
- Illumination relative to the microscope axis
- ❖ Horizontal ± 90 degrees, vertical 0 20 degrees
- Filters: Blue, red free (green), grey (10 %), heat absorption filter
- Illumination intensity:150 000 -600 000 lux
- Parallel optics stereo-microscope
- Beam splitter unit
- Objective lens focal length :105mm
- ❖ Ocular magnification :12.5x
- Range of adjusting oculars :+ 8 to -8 dioptres
- Inter papillary distance :52-78mm

See next page

ITEM: 46	Ophthalmoscope	QTY :5

- ❖ Complete set consist of ophthalmoscope head, handle, rechargeable battery and charger.
- Halogen illumination.
- Not less than 68 focusing lenses.
- Auto step coaxial.
- 6 apertures.
- Dust free sealed optics.
- * Red free and cobalt blue filter.
- Universal convertible handle.
- Rubber brow rest for safety.
- Clearly identification settings of lens dial.
- Crossed linear polarizing filter.
- Ability to use red filter with all lenses.
- ❖ 3.5 v lamp qty 5.
- Nickel- cadmium rechargeable battery.
- Desk type charger.
- ❖ Warranty 2 years

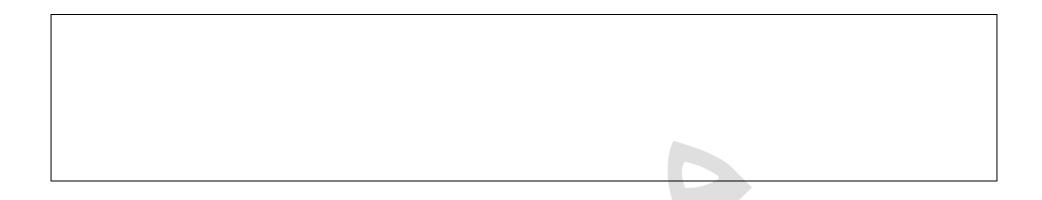
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ITEM: 47	prism bar set	QTY:1	

- Complete set consist of :-
- Complete vertical prism bar with the following powers :
 - 1,2,3,4,5,6,8,10,12,14,16,18,20,25,30
- Complete horizontal prism bar with the following powers :_
 - 1,2,4,6,8,19,12,14,16,1820,25,30,40,45
- ❖ All parts must be high quality .
- Included the hand bag to carry it .

ITEM: 48	synaptophore	QTY :1

- can be applied in inspecting and treating various binocular functions, such as strabismus, amblyopia, diplopia, etc
- ❖ With functions of diagnosis, treatment, simultaneous viewing, syncretic viewing, solid viewing, and afterimage.
- Equipped with a pair of Haidingers Brush and 20 pairs of pictures with different angle.
- ❖ Advanced semi-transparent and semi- reflecting viewfinder is convenient for the surgeon to observe.
- ❖ Advanced LED luminophor has even Illumination, low heat and long service life.
- Pictures designed by new technology are anti-broken and has long service life.
- Manual or automatically coruscation with accurate frequency are at surgeon's option.
- Optional pictures for quantitative measuring of solid acutance (40"~1000")
- Including all necessary accessories and ready for use.
- Warranty 2 years
- Service and operation manual in English language.

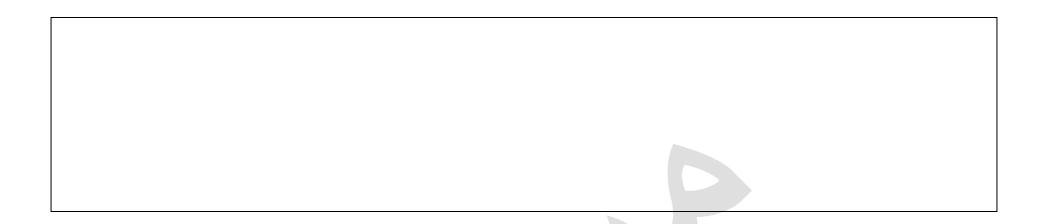


Ultrasound therapy

QTY :6

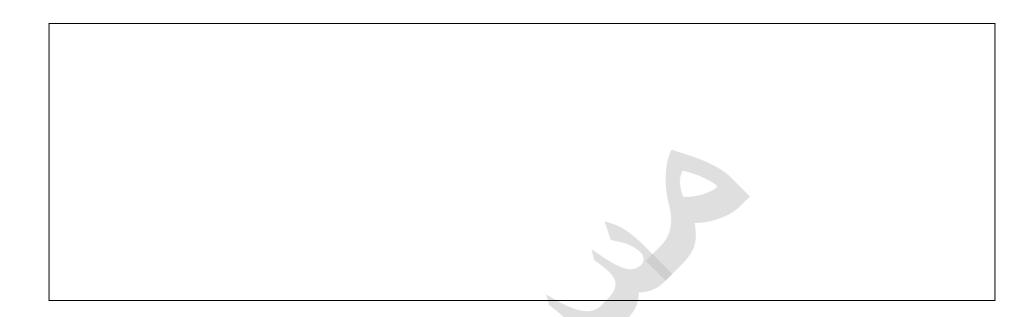
ITEM: 52

- multifreq .treatment head (1+3 MH2)
- combination therapy
- free programmed treatment
- pre- programmed treatment
- Warranty two years from date of acceptance.
- Service and operation manuals original in English language



ITEM: 53	Electric Muscle Stimulator	QTY:3

- Hand held type.
- Battery operated .
- 2 channel unit
- Conveniently arranged display
- Can be programmable
- ❖ Amplitude : current at low intensity 10-30 Ma
- ❖ Pulse width duration:10-1000 µsec
- ❖ Frequency 40-150 HZ
- With bipolar forceps
- Warranty two years from date of acceptance.
- Service and operation manuals original in English language are included



ITEM: 54	Infra- Red Lamp	QTY :6

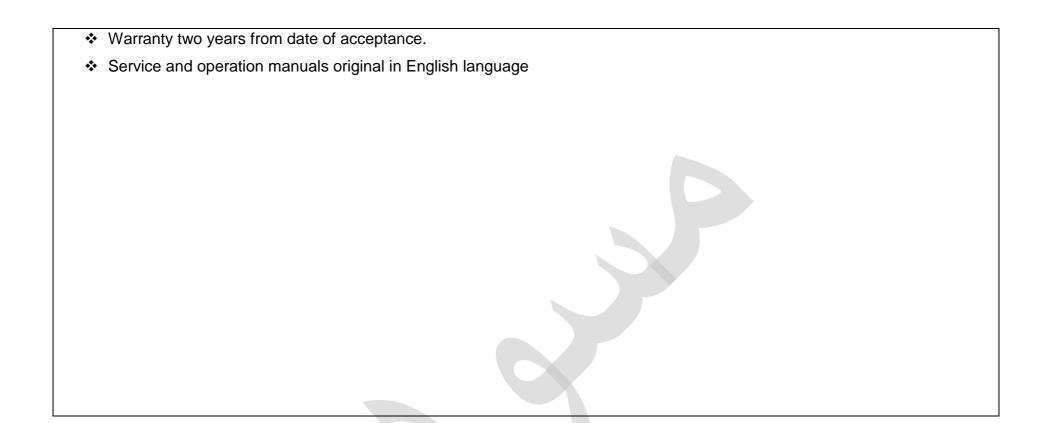
- Mounted in heavy duty metal housing
- ❖ 1 spare part lamp
- With continuous low intensity
- Pulsed high intensity
- Warranty two years from date of acceptance.
- Service and operation manuals original in English language



ITEM: 55	Short wave machine	QTY :3
Specifications : ❖ one treatmen	t head (arms)	
continuous m	aximum output of 400w	
impales maxi	mum out put of 1000w	
at least 20 fre	ee programmable memory positions	
❖ at least 40 free	ee programmed treatment suggestions	

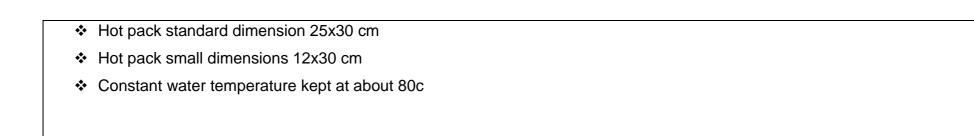
Free programmable memory

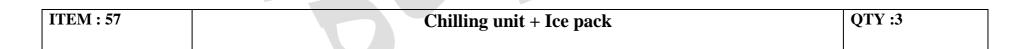
Pre- programmed treatment suggestions



ITEM: 56	Heater & packs	QTY :3

- mobile apparatus
- provided with removable rack that allows several packs to be in position. During heating
- ❖ Hot pack neck length 60cm
- ❖ Hot pack oversize dimensions 35x60 cm

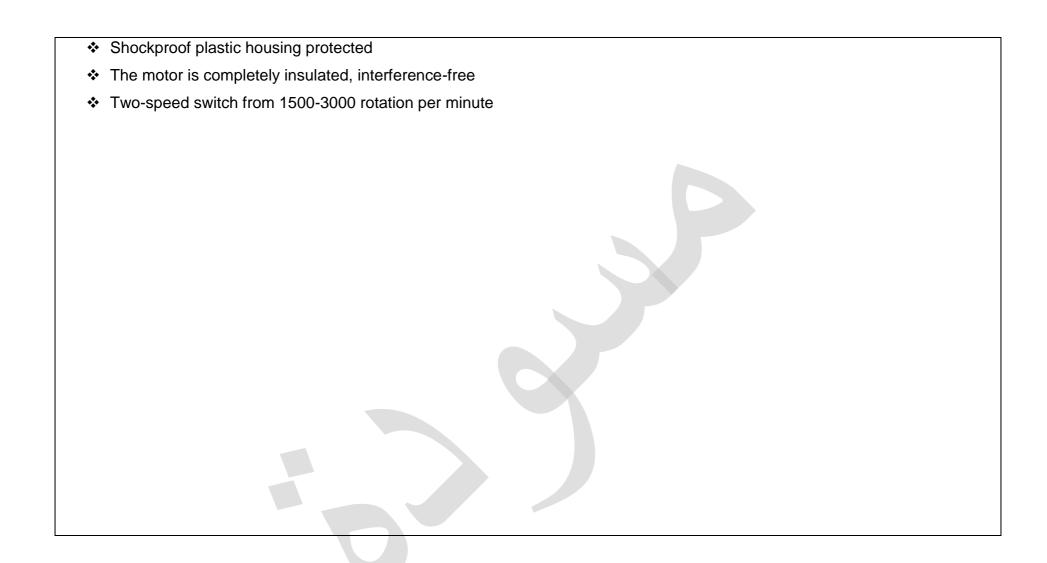




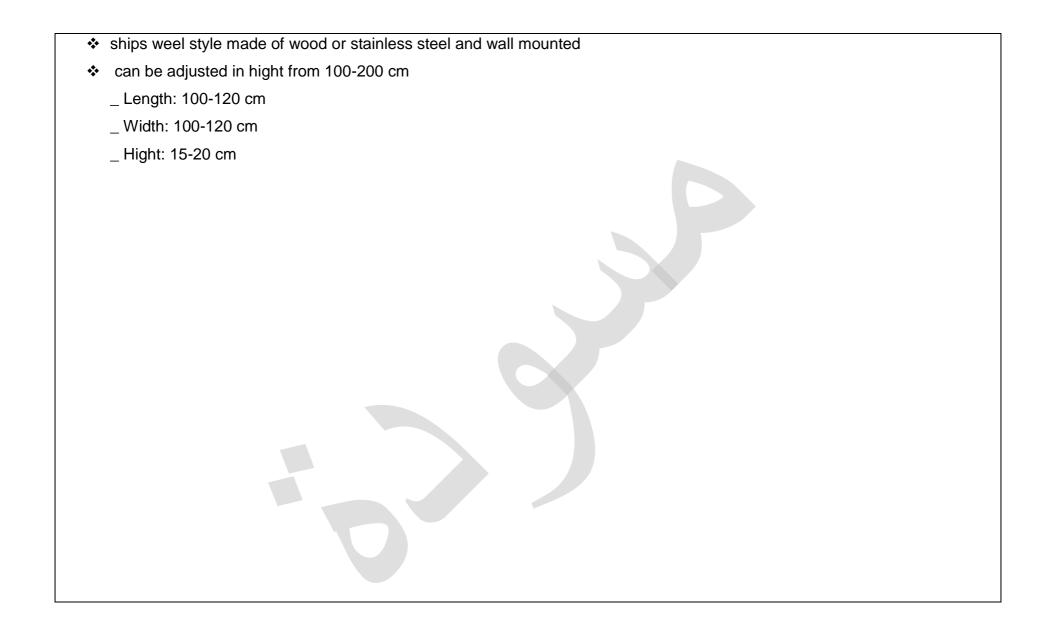
- ❖ Ice pack small 15x30 cm synthetic pack filled with gel
- Chilling unit used to make cooling system
- ❖ This cooling system able to make ice .



ITEM: 58	Vibrator massage	QTY :8
Specifications: Havy duty ma	assage apparatus 1kg – 1.5kg)	

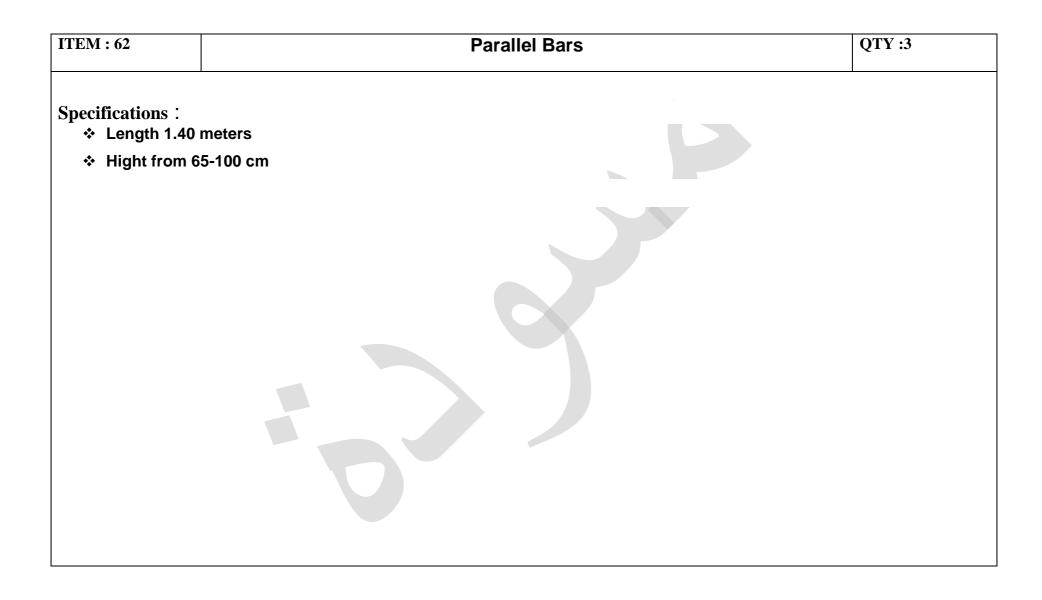


Shoulder Wheel	QTY :4
	Silouidei Wileei



Specifications: ❖ Quadriceps bench Upper leg fixation belt ❖ The resistance is obtained by adding Wight 15-20kg

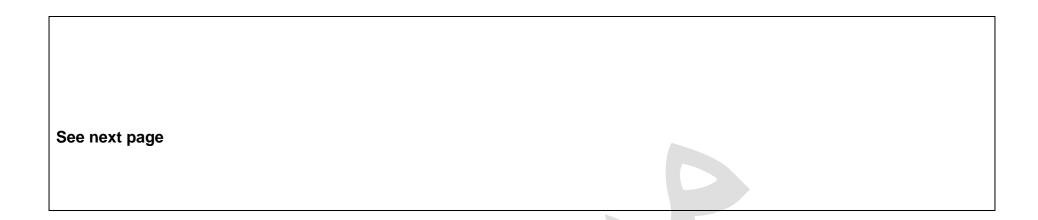
- ❖ load rang from 30-100 watt at 110 RPM
- Electronic readout of: time, speed, distance and RPM
- ❖ Adjustable handle bar (can rotate 360)
- Free programmable memory
- Pre- programmed treatment suggestions



Dumbbells & Different weights **ITEM: 65 QTY** :1 **Specifications**: ❖ Set of chrom. Iron dumbbells 1,2,3, 4kg with support

ITEM: 68	maintenance TOOLS page 1/2	QTY :1

- 1) Digital Multimeter :_ Qty 2
- o Fluke Multi meter
- Voltage DC : Maximum 600V ,Accuracy :7% , Resolution : 1mv
- Voltage AC : Maximum 600V ,Accuracy :1% , Resolution : 1mv
- O Current DC: Maximum 10A, Accuracy: 1%, Resolution: 1mA
- Current AC : Maximum 10A ,Accuracy :1% , Resolution : 1mA
- o Resistance : maximum $40M\Omega$, Accuracy :0.9% , Resolution :0.1 Ω
- O Capacitance: Maximum 10000μF, Accuracy: 1.9%, Resolution: 1nf
- o Frequency: Maximum 50KHZ, Accuracy 0.1 %, Resolution: 0.1HZ
- Diode measurement is available
- o Continuity measurement is available .
- o Case: hard case
- o Probes are included
- Alkaline battery is included.



ITEM: 68 maintenance TOOLS page 2/2 QTY:1

Specifications:

2) ECG Simulator :_ Qty 1

12 lead configuration

ECG amplitude: 0.5, 1.0, 1.5, 2.0 mv

• Rates: 30 -300 B/min

Pulse: 30,60 bpm with 60 ms pulse width

Square wave : 2.0 , 0.125 HZ

Sine wave 0.5, 5, 10, 40, 50, 60, 100 HZ

Triangle wave : 2.0 , 2.5 HZ

• Blood pressure measurements are included

• Temperature measurements are included

•	Temp probe is included	
•	Warranty two years	
•	Service & operation manuals are included .	

ITEM: 69	GALL BLADDER & BILE SET	QTY :1
Specifications :		I
It consist for the state of	the following:_	

No.	Description	Qty
1	TC METZENBAUM SCISSORS 20CM CVD.	1
2	DISSECTING FORCEPS 200MM	2
3	ALLIS TISSUE FORCEPS 19CM 5*6 TEETH.	4
4	ROCHESTER-PEAN HEMOSTATIC FCPS. 16CM CVD.	6
5	LOWER GALL DUCT FORCEPS 185CM CVD.	2
6	MIXTER DISSECT. FORCEPS 18CM	2
7	BLAKE GALL STONE FORCEPS 210MM CVD.	1
8	DESJARDIN GALL STONE FORCEPS 23CM NO.2	1
9	DOYEN ISTESTINAL FORCEPS 230MM CURVED	2
10	DEAVER RETRACTOR 315*75MM	2
11	ISREAL RETRACTOR 25CM 4 PRONGS 40*40MM	1
12	BAKES GALL DUCT DILATORS 230MM SET OF 9	1
13	MAYO GALL DUCT PROBE 33CM MALLEABLE	1
14	MAYO COMMON DUCT SCOOP 260MM, 5MM	1
15	MOORE GALL STONE SCOOP 30CM	1
16	OCHSNER GALL STONE PROBE 38CM	1
17	OCHSNER GALL STONE PROBE 38CM	1
18	OCHSNER TROCAR 20FR CATHETER	1
19	YANKAUER SUCTION TUBE 280MM SS WITH EXTR OLIVE	1
20	TC MAYO HEGAR NEEDLE HOLDER 26CM G2500	1
21	MAYO GALL DUCT PROPE 33CM MALLEABLE	1

ITEM: 70	VASULAR FOFCEPS SET page 1/2	QTY :1

No.	Description	Qty
1	DEBAKEY VASC.FCPS.150MM STR. 1.5MM	2
2	DEBAKEY VASCULAR FORCEPS 200MM STR.2MM	2
3	DEBAKEY VASCULAR FORCEPS 240MM STR.2MM	1
4	TC POTTS-SMITH DISS.FORCEPS 160MM	1
5	TC POTTS-SMITH DISS.FORCEPS 250MM G400	2
6	APPLYING GORCEPS F.BULLDOG CLAMPS 20CM	1
7	SIMKEN TISSUE FORCEPS 125MM 1*2 TEETH	2
8	TC ADSON DISS.FORCEPS 120MM PAR STY G400	1
9	DEBAKEY SATINGSKY VASCULAR CLAMP 24CM	2
10	DEBAKEY SATINGSKY VENA CAVA CLAMP 24.5CM	1
11	DEBAKEY MULTI PUROSE FCPS.22CM 90DG.CVD	2
12	COOLEY LIGTURE FCPS.17CM CVD NO.2	1
13	COOLEY LIGTURE FCPS. 27CM NO.3	1
14	DEBAEY-BECH AORTIC CLAMP 165MM	2
15	COOLEY ANSTOMOSIS CLAMP 17CM	2
16	DEBAKEY COARCTATION FCPS. FCPS.19.5CM ANG.	2
17	LELAND-JONES VALC.FCPS.195MM 15DGR.CVD.	2
18	BEAKEY BULLDOG FORCEPS 8CM STR.C/A	2
19	BEAKEY BULLDOG FORCEPS 7.5CM CVD.	2
20	BEAKEY BULLDOG CLAMP 12.5CM STR.	4
21	BEAKEY BULLDOG CLAMP 11.5CM CVD.C/A	4
22	BULLDOG CLAMPS APPLYING FORCEPS 23CM	1
23	GLOVER-DEBAKEY COARCTAION FCPS.26CM S	1
24	WEBER AORTIC CLAMP 26CM CVD.RIGHT PATT.	1

See next page

ITEM: 70	VASULAR FOFCEPS SET page 2/2	QTY :1

25	GRUENWALD NASAL FORCEPS 195MM BAY SHAPE SERRATED	2
26	TROEL TSCH NASAL FORCEPS 170MM ANGLED	2
27	JANSEN MIDDLETON BONE FORCEPS 19CM SPOON	1
28	BALLENGER-HAJEK ELEVATOR D/E 19CM	1
29	FREER D/E ELEBATOR 185MM. 4.5MM SH/BL	1
30	COAKLEY ANTRUM CURETTE 17CM NO.1	1
31	COAKLEY ANTRUM CURETTE 17CM NO.2	1
32	COAKLEY ANTRUM CURETTE 17CM NO.3	1
33	COAKLEY ANTRUM CURETTE 17CM NO.4	1
34	COAKLEY ANTRUM CURETTE 17CM NO.5	1
35	COAKLEY ANTRUM CURETTE 17CM NO.6	1
36	EOCJEM ANRUM CANULA 3.0MM 150MM	2
37	ZEGLER HEAD MIRROR 90MM WITH HEADBAND	2
38	LARYNGEL MIRROR SIZE 1 12MM W.HANDLE	2
39	LARYNGEL MIRROR SIZE 3 16MM W.HANDLE	2
40	HARTMANN-HALLE SPECULUM 155MM NO.1	2
41	DEAN TONSIL SCISSORS 17CM UP ANGELD SERRATED	2
42	BACHHAUS TOWEL FORCEPS 115MM	24
43	FOERSTER SPONGE FORCEPS 250MMSTR.SERR	6

ITEM: 71	MYRINGOTOMY FOREIGN BODIES SET	QTY :1

No.	Description	Qty
1	GRUENWALD NASAL FORCEPS 195MM 1*2 BAY.	1
2	HARTMANN SPECULM 5.0MM BLACH	1
3	HARTMANN SPECULM 6.0MM BLACH	1
4	HARTMANN SPECULM 7.0MM BLACH	1
5	FARREL COTTON APPLIC. 160MM 1.2MM SERRAT	1
6	HARTMAN EAR FORCEPS 8CM SERRATED	1
7	FRAZEIR SUCTION CANNULA 18CM 6FR.30 WORKING TENGTH 110MM	1
8	FRAZIER SUCTION CANNULA 18CM 7FR.30	1
9	BILLEAU EAR LOOP 165MM, NO.2	1
10	GROSS EAR HOOK AND SPOON 12CM D/E BLUNT	1
11	SCALPE HANDLE NO.3	1
12	SCALPE HANDLE NO.7K 12.5CM	1

ITEM: 72		QTY:1
	RHINOPLASTY SET page 1/2	

No.	Description	Qty
1	SCALPEL HANDLE NO. 3	2
2	JOSEPH RHINGOP;STIC KNIFE 15CM	1
3	COTTLE PLASTIK KNIFE 15CM STR.	1
4	BALLENGER SWIVEL KNIFE 21CM STR.3MM BL	1
5	BALLENGER SWIVEL KNIFE 21CM STR.4MM BLD.	1
6	FREER SEPUM KNIFE 16.5CM	
7	HEYMANN-KNGHT NASAL SCISORS 17CM STR.	1
8	MAYO DISSECTING SCISSORS 17CM ANGLED	1
9	COTTLE NASAL PLASTIC SURG.SCISSORS 13.5CM CVD.	1
10	JOEPH SCISSORS 14.5CM STR.	1
11	JOEPH SCISSORS 14.5CM CVD.	1
12	ADSON DISSCTIING FORCEPS 120MM, TIP 1,2MM	1
13	ADSON TISHUE FORCEPS 120MM 1*2CM CVD.	2
14	LUCAE EAR FORCEPS 140MM BAY-SHAPE	2
15	BROWN TISSUE FORCEPS 150MM 9*9 TEETH	2
16	ALLIS TISSUE FORCEPS 15,5CM 5*6 TEETH.	2
17	HALSTED MOSQUITE FORCEPS 12,5CM STR.	2`
18	HALSTED MOSQUITE FORCEPS 12,5CM CVD.	2
19	AUFRICHT RETRACTROR 16CM 45*12M	1
20	WIENER NASAL SEPCULUM 140MM, NO.2	1
21	FOMON RETRACTOR 17CM 2 PRONG WITH BALLS	1
22	COTTLE-DAZANFIAN NASAL CUTT.FCPS.190MM	1
23	SPENCER-WELLS HEMOSTATIC FCPS 13CM STR.	1
24	ASCH SEPUM STRAIGHITENGING FORCEPS 23CM	1
25	LUC-BRUEUENIGN SEPRUM FORCEPS NO.1 120CM	1

See next page

ITEM: 72	RHINOPLASTY SET page 2/2	QTY:1
		I
26	JOSEPH RASPATORY 160MM, 4MM, STR.CVD.	1
27	MCHENTY SEPTUM ELEVATOR 15CM 4MM	1
28	COTTLE CHISEL 4*180MM STR.	1
29	COTTLE CHISEL 7*180MM STR.	1
30	ASCH SEPTUM STRAINGTENING FORCEPS 23CM	1
31	JOEPH SKIN HOOK 16CM 2 SHAPE PROGS 5MM	1
32	JOEPH SCISSORS 14,5CM CVD.	1
33	JOSEPH SCISSORS 15CM 1 SHAPE PROGS	2
34	JOSEPH SCISSORS 14,5CM STR.	1
35	FRAZEIR SUCTION CANNULA 18CM10FR.30	1
36	COTTLE HAMMER 19CM 300 GRAMM HANDLE BLACK COATED	1

ITEM: 73	BASIC SET TONSILLECTOMY / ADENOIDECTOMY page1/2	QTY :1

No.	Description	Qty
1	RUSSEL-DAVIS TONGUE BLABE 65*28MM	1
2	RUSSEL-DAVIS TONGUE BLABE 75*32MM	1
3	RUSSEL-DAVIS TONGUE BLABE 80*37MM	1
4	RUSSEL-DAVIS TONGUE BLABE 94*41MM	1
5	HARTMAN NASAL CUTTING FCPS.NO.3 9MM	1
6	HARTMAN TONGUE DEPRESSOR 15CM	1
7	BRUIENING TONGUE DEPRESSOR 19CM	1
8	LARYNG. MIRROR RHODIUM 14MM, W.HDL.	1
9	LARYNG. MIRROR RHODIUM 22MM, W.HDL.	1
10	TONSIL NEEDLE STR.LUER-LOCK	1
11	SEPTUM NEEDLE KNEE-SHAPED LUER-LOCK	1
12	SPARE BARREL 5ML LUER-LOCK	1
13	BACKHUS TOWEL FORCEPS 115MM	6
14	LOTION BOWL 66*36MM 90ML	1
15	DAVIS-MEYER FRAME ONLY	1
16	MCIVOR MOUTH GAG W.3 BLADES W/O ETHERTUB	1
17	BRUENING TONSIL SNARE 28CM	1
18	SNARE WIRES 0.3 MM PCKG.OF 12EA.	1
19	BLOHKE TONSIL SEIZING FORCEPS 20CM	1
20	COLVER TONSIL SEIZING FORCEPS 19CM CVD	1
21	GOOD TONSIL SCISSORS 19CM CVD.PLAIN	1
22	YANKUAER SUCTION TUBE 280MM SS WITH EXTR OLIVE	1
23	HENKE TONSILDISSECTOR 23CM STYLE 1	1
24	SCHNIDT TONSLIL FORCEPS 19CM SL.CVD.	1
25	MIKULICZ PERITONEUM FORCEPS 185MM CVD	1

See next page

ITEM: 73	BASIC SET TONSILLECTOMY / ADENOIDECTOMY page2/2	QTY :1	
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DISSECTING FORCEPS 200MM	1
TISSUE FORCEPS 200MM 2*3 TEETH	1
BACKMANN ADENOID CURETTE 8MM FIG.0	1
BACHMANN CURETTE 22CM 10MM NO.1	1
BACKMANN ADENOID CURETTE 22MM 11MM NO.2	1
BACKMANN ADENOID CURETTE 8MM 12MM NO.3	1
BACKMANN ADENOID CURETTE 8MM 13MM NO.4	1
NAGER PILLAR RETRACTOR 23CM	1
JURACZ ADENOID CUTTING FCPS. 19CM	1
TC MAYO HGAR NEEDLE HOLDER 18CM, 0,5MM	1
BIPOLAR FORCEPS 200MM BL. 1MM ANGL.	1
	TISSUE FORCEPS 200MM 2*3 TEETH BACKMANN ADENOID CURETTE 8MM FIG.0 BACHMANN CURETTE 22CM 10MM NO.1 BACKMANN ADENOID CURETTE 22MM 11MM NO.2 BACKMANN ADENOID CURETTE 8MM 12MM NO.3 BACKMANN ADENOID CURETTE 8MM 13MM NO.4 NAGER PILLAR RETRACTOR 23CM JURACZ ADENOID CUTTING FCPS. 19CM TC MAYO HGAR NEEDLE HOLDER 18CM, 0,5MM

No.	Description	Qty
1	VOLKMANN RETRACTOR 21.5CM 4BLUNT PRONGS	2
2	HIBBS RETRACTOR 23CM 75*25MM	1
3	HIBBS RETRACTOR 23CM 80*25MM	1
4	KEY PERIOSTEAL ELEVATOR17CM 6MM WIDE	1
5	KEY PERIOSTEAL ELEVATOR19CM 13MM WIDE	1
6	KEY ELEVATOR 20CM 16MM WIDE	1
7	MURPHY-LANE BONE SKID 310MM 30/19MM	1
8	BLOUNT BONE LEVER 26 CM SINGLE PRONG	1
9	BENNET TIBIA RETRACTOR 24CM 44MM WIDE	2
10	BENNET TIBIA RETRACTOR 24CM 64MM WIDE	2
11	VOLKMANN OVAL BONE CURETTE 17CM NO.3	1
12	VOLKMANN OVAL BONE CURETTE 17CM NO.4	1
13	SMITH-PETERSON OSTEOTOME 13*200MM STR	1
14	LUER BONE RONGEUR 18.5CM STR	1
15	LUER BONE RONGEUR 18.5CM GEB	1
16	LISTON BONE CUTTING FORCEPS 19CM STR.	1
17	MARTIN CARTILAGE SCISSORS 20CM CVD.SERR.	1
18	MARTIN CARTILAGE CLAMP 16 CM STR.	1
19	SMILLIE MENISCOTOME 17CM STR.RIGHT PATT	1
20	SMILLIE MENISCOTOME 17CM STR.LEFT PATT	
21	DOWNING CARTILAGE KNIVE 23CM	1

ITEM: 75	STANDER SET FOR EXTERNAL FIXATOER (TUBULAR SYSTEM)	QTY :1



No.	Description	Qty
1	Aluminum case	1
2	Tray (lower)	1
3	Tray (upper)	1
4	Drill bites diameter 3.5mm extra long	2
5	Drill bites diameter 4.5mm extra long	2
6	Drill sleeve diameters 5.0/3.5mm length 110mm	1
7	Trocher with point diameters 3.5 mm for previous drill sleeve	1
8	Drill sleeve diameters 6.0/3.5mm length 110mm	1
9	Use Steinmann pin diameters4.5mm as a Trocar	1
10	Socket wrench width across flats 11mm	1
11	Combination wrench width across flats 11mm	1
12	Simple T- handle for Steinmann pin insertion	1
13	Hexagonal Allen key width across flats 305mm for above T- handle	2
14	Open compressors	1
15	Bar with hook	1
16	Sliding drill sleeve diameter 3.5 and 80mm long	1
17	Check tube for device alignment	1
18	Steinmann pins diameter 4.5 length 150mm	6
19	Steinmann pins diameter 5.0 length 180mm	4
20	Steinmann pins diameter 5.0 length 180mm	6
21	Schwarz screws diameter 5.0mm length 150mm	6
22	Protective caps for Steinmann pins , diameter 4.5 mm	6
23	Protective caps for Steinmann pins , diameter 5mm	10
24	Pluge for tubes	12
25	Tube , 2 of each 150 /250/300/400 mm	8
26	Single adjustable clamp , universal joint	16
27	Single open clamp , with one nut	12
28	Twin adjustable clamp universal joint	2

ITEM: 76		QTY:1
	Accessories for surgical instrument page 1/2	

No.	Description	Qty
1	Wire cutting pliers 22 cm	1
2	Wire cutting pliers 24 cm	1
3	DRILL HANDLES ,REAMERS 145 CM	2
4	DRILL HANDLES ,REAMERS 140 CM	2
5	DRILL HANDLES ,REAMERS 100 CM	2
6	NERVE ROOT RETRACTOERS 90 MM	1
7	NERVE ROOT RETRACTOERS (90 ANGLED) 102 MM	1
8	COAGULATION FORCEPS, BIPLAER 16.5 CM (stump blunt)	2
9	COAGULATION FORCEPS, BIPLAER 16.5 CM (stump blunt) curved	2
10	GALL DUCT FORCEOS (DESJARDINS)20 CM	3
11	GALL DUCT FORCEOS (LAHEY)19 CM	3
12	GALL DUCT FORCEOS (DEBAKEY)18 CM	3
13	SUCTION TUBE (YANKAUER) 28 CM	3
14	SUCTION TUBE (POOLE) 10 CM	5
15	RETRACTORS (DEAVER)1/2, 30 CM /38 MM	4
16	RETRACTORS (DEAVER)1/2, 30 CM /50 MM	4
17	RETRACTORS (DEAVER)1/2, 30 CM /75 MM	4
18	HEMOSTATIC FORCEPS (HALESTED – MOSQUITO) STRAIGHT 14 CM	20
19	HEMOSTATIC FORCEPS (BABY - CRLLE) CURVED 15 CM	50
20	DELICATE HEMOSTATIC FORCEPS (ADSON) 21 CM	20

ITEM: 76	Accessories for surgical instrument page 2/2	QTY :1



21	DELICATE HEMOSTATIC FORCEPS (ADSON) CURVED 21 CM	40
22	DELICATE HEMOSTATIC FORCEPS (HEISS) 24 CM	10
23	NON TRAUMATIC VESSEL FORCEPS (DEBAKEY)15 CM	15
24	NON TRAUMATIC VESSEL FORCEPS (DEBAKEY)20 CM	15
25	NON TRAUMATIC VESSEL FORCEPS (DEBAKEY)24 CM	15
26	TISSUE FORCEPS (STANDERD) 11.5 CM	5
27	TISSUE FORCEPS (STANDERD) 13.5 CM	5
28	TISSUE FORCEPS (STANDERD) 14.5 CM	10
29	TISSUE FORCEPS (STANDERD) 16 CM	20
30	TISSUE FORCEPS (STANDERD) 25 CM	5
31	SCALPEL HANDEL (Number 3)	20
32	SCALPEL HANDEL (Number 4)	20
33	HEMOSTATIC FORCEPS (ROCHESTERO CHSNER)30 CM	20
34	INTESTINAL & TISSU GRASPING FORCEPS (ALLIS – SLEM)5*6 14.5CM	10
35	INTESTINAL & TISSU GRASPING FORCEPS (ALLIS – SLEM)4*5 15.5CM	10
36	INTESTINAL & TISSU GRASPING FORCEPS (BABCOCK SLIM)14CM	5
37	INTESTINAL & TISSU GRASPING FORCEPS (BABCOCK SLIM)16CM	5

ITEM: 77	Accessories for External Fixated	QTY:1

No.	Description	Qty
1	Adjustable clamp	100
2	Schonze screw 150 mm	80
3	Schonze screw175 mm	70
4	Schonze screw 200 mm	80
5	Carbon fiber bar 200 mm	30
6	Carbon fiber bar 250 mm	40
7	Carbon fiber bar 300 mm	40
8	Carbon fiber bar 400 mm	50
9	Tube to tube clamp	20
10	KIRSCHNER TROCARPOINT\FLAT 310MM,D.1,0MM	10
11	KIRSCHNER TROCARPOINT\FLAT 310MM,D.1,2MM	10
12	KIRSCHNER TROCARPOINT\FLAT 310MM,D.1,6MM	10
13	KIRSCHNER TROCARPOINT\FLAT 310MM,D.1,8MM	10
14	KIRSCHNER TROCARPOINT\FLAT 310MM,D.2,0MM	10
15	KIRSCHNER WIRE DRILLS 310MM D.3,0 MM	10
16	KIRSCHNER TROCARPOINT\FLAT 310MM,D.1,0MM	10
17	KIRSCHNER TROCARPOINT\FLAT 310MM,D.1,2MM	10
18	KIRSCHNER TROCARPOINT\FLAT 310MM,D.1,6MM	10
19	KIRSCHNER TROCARPOINT\FLAT 310MM,D.1,8MM	10
20	KIRSCHNER TROCARPOINT\FLAT 310MM,D.2,0MM	10

ITEM: 78	Rigid Sigmoidoscopy	QTY :1

No.	Description	Qty
1		10
2	Scope	1
3	Stylet obturator	1
4	Eye piece	1
5	Air filter	1
6	Light source	1

ITEM: 79	Gastroscopy and colonoscopy	QTY:1

Disposable Sclerotherapy Needles \emptyset 2.3 mm for working channels $\geq \emptyset$ 2.8 mm.

Length	Needle	Ø 0.7 mm	Needle Ø 0.9 mm	
	Need	dle length	Needle length	
	4 mm	6 mm	4 mm	6 mm
160 cm	3	5	3	3
180 cm	5	5	5	5
230 cm	2	2	2	2

ITEM: 80	Esophageal Dilator sets	QTY :1
	Esophagear Dilator sets	Q 2 2 3 2
1 guide 1 clear 25 dispe	components Irs Ø 5-20 mm/ length 70 cm. wire ing brush sable flushing adapters ge case	

ITEM: 81	Laparoscope tools	QTY :1

No.	Description	Qty
1	12 mm 10 cm cannula. with 12 mm sharp trocar with retractable blade.	20
2	5 mm cannula with sharp trocar with retractable blade .	20
3	10mm 11 mm cannula with sharp trocar with retractable blade.	20
4	Universal reducer . 12-5 mm	20
5	Trumpet valve . 5 mm 33 cm .probe with holes .dual spike tubing set.	5
6	Trumpet valve . 10 mm 33 cm .probe with holes .dual spike tubing set.	5
7	5 mm disposable curved scissors . 330 mm with monopolar. 17 mm blade .	5
8	5 mm disposable curved scissors . 330 mm with monopolar. 12 mm blade .	5
9	5 mm disposable hook electrode with monopolar diathermy connection.	5
10	5 mm 33 cm aspiration needle with luer fitting.	2
11	Monopolar cable .	5
12	Fan – retractor (5 finger) with rinsing channel 10 mm.	3
13	Fan – retractor (3 finger) with rinsing channel 5 mm.	3
14	Grasper forceps . john 20 mm serrated with ratchet 5 mm .	10
15	Grasper forceps . john 45 mm serrated with ratchet 5 mm.	10
16	Grasper forceps . endo clinch atraumatic serrated with ratchet 5 mm .	10
17	Grasper forceps . pointed atraumatic, straight, serrated with ratchet 5 mm .	10
18	Grasper forceps . Maryland fine , curved, serrated with ratchet 5 mm.	10
19	Grasper forceps .bab cook 5 mm.	2
20	Grasper forceps .Allis 5 m	2
21	Wier basker (450 *250*30 mm).	1