

Annexure- A

No.56-Equip/RIMS-14

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**Item No. 1:- Technical Specification for Electro surgery Unit Cum Vessel Sealing**

- i. The unit should be a Microprocessor controlled 350 KHz output, up to 400 watts class Electro surgery unit with TFT single display having Touch screen(key Touch).
- ii. Visual indicator for the actual Power being delivered through Bar Graph.
- iii. The unit should have universal Socket for Bipolar, monopolar & neutral output socket along with multifunctional socket for Vessel sealing based on plug & play mechanism, also having the facility to upgrade to additional socket if required.
- iv. The unit should have heat dissipation without external air passing inside the unit i.e. Internal cooling system (no conventional external air cooling system).
- v. The unit should have precise Monopolar and bipolar modes for fine & micro - surgery applications.
- vi. The unit should have facility to use very less voltage from 40 volts for precise applications.
- vii. The unit should have the facility to upgrade with twin coagulation for simultaneous activation of 2 electrodes.
- viii. The unit should have Bipolar Auto start functions.
- ix. Automatic control of output power according to all currently available electrosurgical regulative technologies.
- x. Should have the facility for preview function to shows the expected target tissue effect on display even prior to activation.
- xi. Should have the facility to be up to date with the upgradable feature on site.
- xii. Should have facility to program more than 190 with procedure or surgeon's name.
- xiii. Should have facility of self check of the unit after every on & off of the unit.
- xiv. Should have facility to upgrade with optional precise Monopolar, Bipolar Cut & coagulation up gradation or down gradation.
- xv. Possibility for Upgrading to APC, irrigation system , Smoke evacuation system.
- xvi. Unit should have type: Protection class CF, class 1, 1 lb.
- xvii. Under maximum power settings and rated load conditions, the generator should be capable of operating at a duty cycle of 25%, defined as 10 secs active & 30 secs inactive, in any mode for a period of 4 hours.
- xviii. Power efficiency rating for Monopolar & Bipolar output characteristics should be more than 95%.
- xix. Unit should have CE & US FDA approved .
- xx. Should have continuous patient monitoring with return electrode(neutral electrode).
- xxi. Neo-Natal safety system and neutral electrode safety system for the pediatric applications
- xxii. Reusable vessel sealing instruments for open surgery- FDA approved instruments for 7mm vessel sealing with 23 degree bent and 150 mm length.
- xxiii. The unit should have special solution for charging the power settings without touching the equipment.
- xxiv. The unit should be supplied with nonstick bayonet bipolar forceps of 1mm blunt & 0.4 mm fine top having length of 170mm – 200mm with guide pin maintains parallel.
- xxv. The unit should be supplied with all standard accessories to make the system to work full functional includes (All accessories should be from same manufacturer):
  - a. Two pedal and single pedal foot switch- 1 No of each



- b. Non stick Bipolar forceps & cable – 1 no of each
- c. Reusable monopolar pencil with cable- 2 nos.
- d. Reusable patient plate with cable – 2 nos.
- e. Reusable vessel plate with sealing for open – 1 no

**Item No.2:- Electrocautery for periodontic department**

- i. REDIO FREQUENCY ELECTRO SURGICAL UNIT
- ii. NORMAL OPERATING FREQUENCY : 3.68Mhz
- iii. Coagulation modulation Frequency: 120Hz
- iv. Out put impedance: 600 Ohms
- v. Cord assemble – straight knife 1, Small Loop 1, Coagulation Ball 1
- vi. Cord Length minimum 1.5 meters.
- vii. Unit should have CE & US FDA approved.

**Item No.3:- Electrocautery for Surgery Department**

- (i) Manopolar and bipolar modes.
- (ii) Coagulation having at least of soft, force/spray modes.
- (iii) Bipolar coagulation with auto start.
- (iv) Automatic power regulation.
- (v) Patient plate test function.
- (vi) Input power at 220-240 Volts/40-60 Hz.
- (vii) Unit should have CE & US FDA approved .



(Prof. Ch. Arun Kumar Singh)  
Director  
Regional Institute of Medical Sciences,  
Imphal.