Quotation

No.JJH/PUR/Qut/ **Electrosurgical Generator (Bipolar - RF Scalpel - Vessel Sealer)**/2308/ Offic
of the Dean, Sir J.J.Group of Hospitals, Mumbai.
Date : 23/06/2026

To,
M/s. ----------

Sub : Purchase of **Electrosurgical Generator (Bipolar - RF Scalpel - Vessel Sealer)** for General Surgery Departments of Sir J.J. Group of hospitals, Mumbai 400 008.

Dear Sir,

Sealed quotation is invited to supply the following material for this hospital. Your sealed quotations should be reach this office on or before 03/07/2026

The rate should be quoted for the **Electrosurgical Generator (Bipolar - RF Scalpel - Vessel Sealer)** specified below. The rate other than the specifie will not be considered. **Kindly mention Product MRP, Old RC Rate if any & Rate at which supply is made to Government hospital / BMC / other institute (with supportin documents) in your quotation**. Please quote this office reference on the top of the envelope with due date.

No	Name of Item	Required Qut.	Specification	Total Cost (Including GST
१.	०२	Electrosurgical Generator (Bipolar - RF Scalpel - Vessel Sealer)	**Technical Specification for Electrosurgical Unit** **1. General Description** **The equipment shall be a high-frequency, microprocessor-controlled electrosurgical generator designed for precision cutting, coagulation, and vessel sealing across all surgical specialities.** **It shall integrate advanced sensing and adaptive energy delivery platforms to ensure precise tissue interaction, consistent power modulation, and maximum safety for both patient and operator.** **2. Power and Modes**	

Category	Specification
Maximum Output Power	400 W (Monopolar)
Operating Modes	1. Monopolar Cut & Coagulation Modes – fine, blend, and spray options for precise cutting and hemostasis.2. Advanced Bipolar Vessel Sealing – with automatic tissue recognition and controlled sealing up to 7 mm vessels.3. RF Scalpel Mode – delivers simultaneous cutting and coagulation with minimal lateral heat spread, suitable for both open and laparoscopic procedures.4. PVT-powered Saline TUR Mode – plasma-based saline resection technology for controlled tissue vaporization with minimal thermal injury, ideal for urology, gynecology, and arthroscopy applications.
Output Ports	Minimum 1 Monopolar, 1 Bipolar/TUR, 1 Sealer, and 1 RF Scalpel
Power Regulation	Automatic real-time modulation through Tissue Sensing Algorithm

3. Technology
Real-Time Tissue Sensing: Continuously monitors tissue impedance and dynamically adjusts power to maintain consistent cutting and coagulation effect with reduced collateral thermal damage.
Adaptive Output Power System: Maintains constant power delivery even with fluctuating tissue impedance, ensuring uniform performance.
Vessel Sealing Technology: Utilises real-time feedback and impedance-based control to provide reliable sealing of vessels up to 7 mm, with minimal thermal spread and automatic power disconnect after seal completion.
Patient Return-Electrode Contact Quality Monitoring (RECQM) Platform: Continuously monitors impedance and contact quality using split-plate electrodes, ensuring safe energy dissipation and preventing electrode site burns.
Dynamic Voltage and Current Regulation: Provides precise energy control across all modes, ensuring optimal tissue effect and reproducibility.
4. User Interface and Controls

- **7-inch capacitive TFT color touchscreen** with intuitive menu navigation.
- **User-programmable memory** for up to 100 surgical settings.
- **Smart Lock System** with auto/manual lock and power-on protection.
- **Activation Timeout** – user-settable RF activation time limit with enable/disable option.
- **Audio and Visual Indicators:**
  - Distinct audible tones for activation, error, and warning signals.
  - Visual light indicators for split/non-split plate connection.
  - Real-time graphical display for patient plate contact quality.
- **Error and Event Logs:** Warnings and faults stored with timestamp for service review.

5. Safety and System Design

- **Power-up Self-Test:** Automatic diagnostic check at startup to ensure system integrity.
- **Real-Time Impedance Monitoring:** Continuous feedback ensures accurate and safe power delivery.
- **Multiple Microcontroller Supervision:** Independent supervision of RF power circuits for redundancy and precision.
- **Secure Boot Mechanism:** Verifies software integrity and prevents unauthorized modification.
- **Self-Diagnostic Routine:** Comprehensive internal test at every startup.

- **Advanced Cooling System:** Multi fan intelligent thermal management with temperature sensors.
- **Error Retention System:** Maintains fault logs for service traceability
- **Patient Safety:** Fully compatible with split and non-split CQM return electrodes
- **Isolation:** Monopolar and bipolar outputs fully isolated for operator and patient protection.

6. Accessories and Connectivity

- **Wireless Dual Footswitch:** Cable-free, dual-pedal control for monopolar and bipolar activation, lag-free operation.
- **Standard Handswitch Pencils:** Compatible with all monopolar modes.
- **Bipolar and Vessel Sealing Instruments:** Compatible with advanced SpectraSeal / V-Lock systems. Vessel Sealing should be compatible for known brands instruments available in market.
- **USB Interface:** For log retrieval, software updates, and configuration backup.

7. Technical Specifications

Parameter	Specification
Height	170 mm
Width	377 mm
Length	475 mm
Weight	Up to 9 kg

8. Operating Parameters

Parameter	Specification
Operating Temperature	+10°C to +40°C
Relative Humidity	15%–85% RH (non-condensing)
Atmospheric Pressure	70–106 kPa

9. Transport and Storage Conditions

Parameter	Specification
Storage Temperature	-10°C to +60°C
Relative Humidity	15%–90% RH (non-condensing)
Atmospheric Pressure	50–106 kPa

10. Power Requirements

Parameter	Specification
Mains Voltage	100–120 VAC / 200–240 VAC
Frequency	50 / 60 Hz
Power Consumption	≤1050 VA
Fuse Rating	10 A / 6 A

11. Standards and Compliance

The system shall conform to the following international and national standards:

- **IEC 60601-1:2020** – Medical Electrical Equipment, General Safety
- **IEC 60601-1-2:2020** – Electromagnetic Compatibility
- **IEC 60601-1-6:2021** – Usability Engineering
- **IEC 60601-1-8:2020** – Alarms and Indicators
- **IEC 60601-2-8:2018** – Electrosurgical Equipment
- **IEC 62304:2006 + A1:2015** – Software Lifecycle Processes

12. Warranty and Service Support

- **Minimum 1-year comprehensive warranty** covering all components.
- **OEM-certified local service support** for calibration, preventive maintenance, and repairs.
- **System logs are retrievable** for service audits and compliance checks.
- **Spare part support** available for at least **5 years post-warranty**.

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1 **Forwarding:** Forwarding Free on Road Destination, I.e. door delivery basis.

2 **Delivery Period**: 06 weeks from the date of receipt of order by the supplier to the consignee attached.

3 **Pre-Dispatch Inspection:** Supplier shall make necessary arrangement / facilitate to carry out Pre-Dispatch inspection as per Tender Terms & condition and submit the Inspection report to this office. The Pre-Dispatch inspection cost will be borne by supplier. Machine should be dispatched only after Satisfactory Pre-Dispatch Inspection.

4 **Risk purchase clause**: If the bidder fails to supply the stores within the stipulated delivery period, the order will stand cancelled. Undersigned shall be entitled to purchase such stores from any other source at such price which ordinarily should not be more than 10% of the tender price. The extra expenditure in such cases shall be recovered by Dean, Sir J. J. Group of Hospital, Mumbai from the Supplier.

5 **Payment Terms:** Payment of 100% of the contract value will be made within 8 weeks on delivery and successful installation and satisfactory commissioning and operation of the machinery.

6 **Acceptance & Receipt**: It should be submitted in Appropriate Format to the purchasing authority.

7 **Delivery Challan** - Should be sent in the name of consignee in duplicate. It should specify Name of Equipment / Mfg. by / packing & quantity.

8 **Invoice Copy** - Should be sent in triplicate on the Name of Dean, Sir J. J. Group of Hospital, Mumbai (Procurement Cell), Mumbai Along with Bill of Entry and Country of Origin Certificate of the consignment.

9 **Other Terms** :

1) Warranty: The warranty period shall be for 2 years from the date of commissioning of all equipment supplied as certified by the consignee. After completion of 2 years warranty period Manufacturer/Supplier should give commitment to ensure services and supply of spare part for further 8 years. The successful tenderer must ensure 95% uptime during warranty period. In case of downtime, warranty period will be extended for period of downtime. If the equipment is not attended within 24 hours for Mumbai and 48 hours for other places the supplier will be liable to pay a penalty of 0.07% of purchase cost for every day of delay. Such penalty will be recovered from the amount of security deposit. Certificate of such uptime / downtime issued by the end user will be binding for the supplier Replacement of spares parts thereof due to manufacturing defects during warranty period will be entirely at the supplier's cost.

2) The user institution will enter to the Comprehensive Maintenance Contract with supplier agency @ 5% of the order value (excluding taxes) of the equipment per year for 8 years after completion of warranty period. In case of non-compliance of CMC the supplier will be liable to pay penalty or for appropriate action. Payment of CMC on yearly basis will be made by the user's institution, at the end of the year after satisfactory performance report from the end user.

10 **Contract Agreement:** Bidder should submit Contract Agreement on non-judicial stamp paper of requisite value.

Fall Clause

It is a condition of the contract that all through the currency there of, the price at which you will the supply stores should not exceed the lowest price charged by you to any customer during the currency of the contract and that in the event of the prices going down below the rate contract prices you shall promptly furnish such information to us to enable to amend the contract rates for subsequent supplies.

Dean
Sir J.J. Group of Hospitals
Mumbai.

N.B.

1. The quotation will be accepted up to 5.00 pm on the working day.
2. The terms and conditions with delivery date should be mentioned.