



Notice Inviting e-Tender

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Supply and Commissioning of Cryotherapy Unit at Department of Chest Medicine of Medical College & Hospital, Kolkata.

(Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-483/2023

Dated-16.08.2023

Amendment-I

REVISED TECHNICAL SPECIFICATION

Mobile Pulmonary Cryotherapy Unit

1. The unit must be suitable to perform endobronchial and transbronchial lung biopsies, recanalization & devitalization, foreign body, blood clot & mucous plug removal.
2. The offered equipment's accessories & consumables should be of same offered Original Equipment Manufacturer.
3. The offered Cryo System should be programme based, monochrome display, activation via footswitch and the minimum freezing temperature should reach within 5 seconds.
4. The unit should be mounted on imported original mobile cart with wire basket & CO₂ Cylinder (01 Unit) compatible with CO₂ gas as coolant provided with connection pipe for gas exhaust.
5. The offered Cryo System should be flow controlled for operating gas pressure between 45 - 65 bar.

6. The unit should have feature to count the reprocessing cycle of the instrument.
7. The Offered System should have Effect Settings up to 2 depending on the type of instruments used with a programmable memory of up to 10 settings.
8. The offered System should work on Frequency of 50/60Hz with a line current of 0.4-0.8 Amp.
9. The offered System should be of dimension of 410 x 130 x 370mm & of weight 6.7 kg.
10. The offered Cryo System should be supplied along with three types of disposable flexible Probes - size of 1.1mm diameter x length 1150 mm, 1.7mm diameter x length 1150 mm & 2.4mm diameter x length 1150 mm (10 qty each).
11. Should be able to connect in future with an integrated RF Electro Surgical Unit for electrosurgical Cut & Coag modes for optimum effect of HF surgery & Argon plasma coagulation unit for homeostasis of bleeding tissues & devitalization of pathological tissues with non-contact technology for coagulation.
12. Certification : CE (4 digit notified body)/UK CERT/US FDA/BIS

Advanced Electro surgery unit

The electro surgical generator should be a 400 Watt touch screen display with 15 digital signal processors working in parallel.

1. Unit should facilitate functions of monopolar, bipolar & vessel sealer with in-built regulated power supply adapter for underwater bipolar resection.
2. Unit should have a Stepguide suggesting appropriate setting configurations for every instrument and application.
3. The system should make 25 million measurements / sec for enhanced tissue effect and should measure tissue impedance through power peak system.
4. The system should have Wi-Fi communication interface facility to access, change and save the settings
5. System should have wifi compatibility for future OR integration.
6. System should have remote function to allow user to access 6 sub programmes directly from the sterile field.
7. The system should have four multifunction sockets which can be replaced anytime upon requirement.
8. Unit should have the facility to store 1800 programs or applications.
9. Unit should have the facility to show the active instruments on the screen display.
10. The generator should have an inbuilt feature of accessory assignment.
11. Supply frequency should be in the range of 50 -60 Hz.
12. Power consumption at Max HF power should be 550 watts with max pulse power consumption of 1600 watts.
13. The generator should work on a supply voltage of 100 – 120 VAC & 220 – 240 VAC
14. Power consumption in standby mode should be less than 30W.
15. Each socket should support the Autostart function for bipolar instruments.
16. Unit should have Soft Coagulation mode with quick start function for any bronchoscopic application

17. Unit should have an AutoCut bipolar mode to facilitate bipolar cutting instruments.
18. Unit should have Dry cut & Swift Coagulation mode for optimized dissection in open, laparoscopic and advanced bronchoscopic cases.
19. The unit should have Endo cut I/Endo cut Q modes for bronchoscopic procedures.
20. The generator should be compatible with Argon plasma coagulation unit having forced APC, pulsed APC and precise APC modes for surgical as well as bronchoscopic procedures.
21. The generator should also be compatible with hydro jet to facilitate use of unique hybrid technology instruments for surgical as well as bronchoscopic procedures.
22. Unit must be compatible with Intelligent smoke evacuation module, suction module and irrigation module from OEM.
23. The footswitches should be 100% waterproof (IPX8) and washable in surgical washers.
24. Unit should support Nassy as a neutral electrode.
25. The system should have neonatal function with alarm to prevent high current output (above 300mA) when using small patient plate for infants
26. The system should automatically alert the user of any errors/malfunctioning through clear audio visual signal.
27. The system should also store the data of any errors or malfunctioning.
28. The system should have automatic monitoring of the patient plate and should measure & display the tissue impedance, it should automatically stop current in case the connection drops beyond the safe point.

Argon Plasma Coagulation (APC Unit)

1. For management of bleeding and devitalisation of tissue abnormalities achieved by optimal coordination with RF generator
2. The Argon Plasma Coagulation system should have automatic parameters setting for various types of instruments and automatic depth controlled plasma regulation.
3. Should have three different APC modes suitable for different indications
 - i. Precise APC – adjustment made using the effect settings for finest surface coagulation(right colon, cecum)
 - ii. Pulsed APC – adjustment made using the parameter power settings for effective staunching of bleeding and tissue ablation

- iii. Forced APC – adjustment made using the parameter power settings for angiodysplasia, tissue reduction
4. Should have Adjustable argon flow rate from 0.1L/min to 8L/ min in steps of 0.1 L /min with automatic regulation of selected flow rate.
5. Should be compatible with 3 types of APC probes from OEM- Axial Fire, Side Fire & Circumferential Fire.
6. Should have the facility to use unique hybrid instruments for conditions like Barrett's Esophagus
7. Should have automatic monitoring of flow rate and Argon supply and auto purge facility. It should have the facility to connect with central gas supply.
8. Should give visual display of argon gas bottle content and should give Acoustic alarm when bottle content reaches a minimum.
9. Should have facility for activation of unit by foot pedal of the Electro Surgical unit.
10. Should have facility to use in double balloon endoscopy procedures.
11. Argon gas cylinders-2Nos. 5litre capacity should be supplied.

Following accessories to be supplied with the workstation should be from same single OEM:-

- Footswitch with facility for swapping between programs - 2Nos.
- Patient plate with equipotential ring -50Nos.
- Filter integrated Argon Plasma coagulation flexible probe (side fire) - 10Nos.
- Filter integrated Argon Plasma coagulation flexible probe (axial fire) - 10Nos
- Filter integrated Argon Plasma coagulation flexible probe (circumferential fire) - 10Nos
- Work station trolley
- Monopolar cable-02 Nos.

