

## Section II: Schedule of Requirements - Lot 2

eSourcing reference: ITB/2024/52072

### A. Summary of Requirements

#### Lot 2: Standard Medical Equipment

### B. Technical specifications for Goods and Comparative Data Table

Item No	Description	Quantity
01	ELECTRO-SURGICAL MACHINE	9
02	STATION OF 10 ELECTRIC SYRINGE PUMPS	16
03	BLOOD PRODUCTS WARMER	7
04	AIR WARMER	12

#### **General requirements for :**

Each device shall be CE marked, Conforms to the requirements as per MDR 745/2017 or MDD 93/42 or Provide a Regulatory approval and marketing authorization issued by FDA

Copy of the above mentioned certifications shall be included in the offer.

Copy of the above mentioned certifications shall be included in the offer.

The supplier must provide Installation, User and technical manual in French preferably or English hard copy for the medical system during delivery on site.

- The bidder should provide the contact of the official representative in Tunisia for each of the equipment offered. **The brand representative or distributor will be in charge of the after sales services during the warranty period. In case the bidder is not the local brand representative, a statement from the manufacturer or the local distributor of the brand in relation to after sales services must be provided by the bidder.**

The supplier must provide with his/her offer the corresponding Price List of accessories, consumables and most significant spare parts for the items.

#### **Associated services per site:**

### C. DELIVERY AND INSTALLATION

The supplier is responsible and in charge of supplying and installing goods following the below listed minimal conditions:

- 1) DPU Incoterms 2020 at the final user site for each equipment including unloading.
- 2) The transportation must be done following the manufacturer guidelines (storage conditions , temperature, humidity, movementation requirements, battery management... ) on how to handle the equipment, accessories, consumables and reagents when applicable:
- 3) Every single box delivered must be labelled as follow

#### 3.a- Label on the boxes

The supplier has to ensure that the boxes are labeled as per requirements and with reference to the “principles of Labeling for Medical Devices and IVD Medical Devices”, IMDRF/GRRP WG/N52 FINAL:2019 <https://www.imdrf.org/sites/default/files/docs/imdrf/final/technical/imdrf-tech-190321-pl-md-ivd.pdf>

**The consignee of the equipment will be the Tunisian Ministry of Health**

Region A Color code	Ministry of Health, TUNISIA		
Region: A	UNOPS Office Xxxxx , TUNIS, TUNISIA		
Beneficiary Hospital Data:	Tender: xxx	Lot xxx	Item xxx
Box	2	of	5
Box Weight kg	Length cm	Width	Height
xxx	xxx	xxx	xxx

3.b- Detailed Packing list of the box contents

The supplier has to ensure that the boxes are labeled as per requirements and with reference to the “principles of Labeling for Medical Devices and IVD Medical Devices”, IMDRF/GRRP WG/N52 FINAL:2019 <https://www.imdrf.org/sites/default/files/docs/imdrf/final/technical/imdrf-tech-190321-pl-md-ivd.pdf>

- 4) The boxes will be opened for contents check before starting the installation and a Report will be signed by the supplier and/or UNOPS:
- 5) All responsibility on the goods are transferred to the beneficiary Hospital once the installation , testing, training and commissioning is done and provisional acceptance documentation duly signed by Beneficiaries, UNOPS and Supplier representatives.
- 6) All the tools, instruments, products, solutions, simulators needed for the Transportation, Installation and testing as per manufacturer guidelines and country reglementation must be provided by the supplier during those activities.
- 7) Prior to shipment, the following documents should be sent to UNOPS:
  - Bill of Lading
  - Invoice
  - Packing List
- 8) Once UNOPS confirms that the information is correct, then you may proceed with the shipment.
- 9) UNOPS reserves the right to perform Pre-Inspection (virtual or physic) checks before packaging of goods for delivery.
- 10) After the goods are shipped, the supplier must provide to UNOPS an updated delivery plan/schedule at least 2 weeks before DPU delivery on the final beneficiaries sites. UNOPS will facilitate the necessary authorizations and coordinate & confirm delivery dates with the beneficiary hospitals.

11) The supplier must be flexible enough to accommodate variations in the deliveries and installation schedule.

**D. TESTING AND COMMISSIONING**

The supplier is responsible and in charge of Testing the medical system or equipment following the below listed minimal conditions:

- 1) Testing of all the essential functions of the equipment or system complete of accessories with the appropriate tools, measurement equipment, simulators
- 2) Testing of all the technical and clinical data according to manufacturer testing guidelines.
- 3) Recording and archiving of all the testing data. The testing report and test results will be annexed to the provisional acceptance documentation.
- 4) Formal commissioning and provisional acceptance reports must be Co-signed by Supplier, UNOPS, MoH for each site with reference to all the medical equipment or system supplied. The general commissioning is done after the training except if the Hospital delays the training for more than 2 weeks.
- 5) The signed provisional acceptance document is the reference for the warranty period start date.
- 6) Waste management: The supplier is in charge of the safe removal and disposal of all the waste produced during his interventions.
- 7) All the tools, instruments, products, solutions, simulators needed for the installation testing as per manufacturer guidelines and country reglementation must be provided by the supplier during those activities.
- 8) The supplier must be flexible enough to accommodate perturbation or delays due to the medical activities in some sites during his intervention.

**E. TRAINING REQUIREMENTS**

For all the following list of equipment and system , The supplier is responsible and in charge of providing appropriate training for users and biomedical technicians.

- The Training documentation (Operating manual, Technical manual, Training presentation, diagrams, schematics etc.) and training schedule/agenda in French must be provided to the UNOPS team at the latest 90 calendar days after contract signature. UNOPS reserves the right to provide suggestions or recommendations with regards to the training contents.
- The training must be held in French or translated in French
- The trainer(s) must perform the training Onsite (anti-covid prevention / medical insurance /appropriate vaccinations must have been be done by the trainers)

**C.1 Training Group 1: Technical Training**

Item	Description	Training location	Number of participants	Minimum duration	When

1	Electro-Surgical Machine	Hotel (In Tunisia)	9	2 days	Before equipment installation
2	Station of 10 Electric Syringe Pumps	Hotel (In Tunisia)	9	2 days	Before equipment installation

- All cost accommodations **and logistics** supported by the supplier
- Training duration: a training duration of 5 days for each category of equipment is suggested **but bidders must quote for the adequate number of days necessary for the advanced certifying training. Each training must be done separately.**
- Training location: Hotel
- Starting: On demo Equipment before Installation of equipment in beneficiary sites
- Theoretical and practical training sessions on the same model by the engineers or equipment specialists certified by the manufacturer
- Trained technicians will receive a manufacturer's training certificate (equivalent to field service engineer level).

### C.2 Training Group 2: Medical users on the use and operation of equipment.

Item	Description	Training location	Number of participants	Minimum duration
1	ELECTRO-SURGICAL MACHINE	Beneficiary sites (Where the equipment is installed)	5	1 day
2	STATION OF 10 ELECTRIC SYRINGE PUMPS	Beneficiary sites (Where the equipment is installed)	5	2 days
3	BLOOD PRODUCTS WARMER	Beneficiary sites (Where the equipment is installed)	5	1 day
4	AIR WARMER	Beneficiary sites (Where the equipment is installed)	5	1 day

- Starting: After Equipment installation
  - Theoretical session / practical sessions
  - Trained Users will receive a manufacturer's training certificate
  - Technical Assistance by clinical application engineers (in situ during operations on patients if applicable ) to enable users to fully familiarise themselves with the equipment might be requested.(the expected assistance requested during operations is: answering users questions in relation to the technologies installed, clarifications on how to find specific features on the equipments, users guidance during the use of the technologies...)
  - The Trainers must be a product specialist or field application engineer certified by the manufacturer.
  - Credentials (certificates, cv,...) must be sent to UNOPS at least 7 days before the start of training.
- 1) Each trainee documentation in French, training accessories (pen, pencil, notepad) must be provided by the suppliers.
  - 2) All the video projectors, Parts, the tools, instruments, products, solutions, simulators, calibrators, internet needed for the training as per manufacturer guidelines and tender requirements must be provided by the supplier during those activities.
  - 3) A training report and attendance list must be produced to MoH & Unops
  - 4) Waste management: The supplier is in charge of the safe removal and disposal of all the waste produced during his interventions.
  - 5) The supplier must be flexible enough to accommodate perturbation or delays due to the medical activities in some sites during his intervention.

### **C.3 The training minimum objectives to achieve are:**

#### **a) Users**

##### Theoretical session

- Introduction to the equipment (general presentation, description, functionalities )
- Presentation of the equipment parts and system components (Knobs, Display...) + accessories + Installation
- Presentation of accessories and their installation/integration
- Risks or conditions leading to incorrect operations of the medical system
- Functionalities, Parameters
- Reporting
- Safe start and stop for the medical system
- How to set up the parameters How to configure the equipment or system
- How to interpret/understand messages/warnings
- Mastering of the equipment use with reference to the expected clinical uses in the hospital
- Visual inspection, testing
- Hygiene and cleaning

##### Demo - Hands On - Practical session

- Demonstration, hands-on work
- Demonstration and hands-on use of all relevant safety devices, accessories and consumables.

**b) Biomedical Technicians**

## Theoretical session

- Users training + scope of equipment, machine parameters, operating environment
- Equipment principles of operation
- Study of Circuits, block diagrams, circuit diagrams, electronic board, hydraulic circuit, pneumatic circuit
- Device units, Boards and electronics testing
- Common fault / Failures & Solutions
- Troubleshooting
- Routine Testing & Preventive Maintenance (planning of operations: frequency, tools required, overhaul kit and consumables or supplies).
- QC norms and standards

## Demo - Hand On - Practical session

- Preventive and corrective maintenance (with fault simulation and correction): case studies.
- Quality control (control procedures, measuring equipment, standards, etc.).
- Parts replacements: Disassembly and assembly of machine units.
- Practical description of machine parameters (operating mode /programs).
- Describe the machine's technical parameters in practice (technical mode)

**F. WARRANTY REQUIREMENTS**

For all the equipment and system provided, The supplier is responsible and in charge of

- Preventive maintenance
- Corrective Maintenance / Repairs
- Technical support (remote/onsite) to the Hospital

These activities must be performed following the below listed minimal conditions:

- 1) All the Parts, the tools, instruments, products, solutions, simulators needed for the preventive maintenance, repairs as per manufacturer guidelines and country regulation must be provided by the supplier during those activities.
- 2) After the Maintenances a general Testing of all the essential functions of the equipment or system complete with accessories with the appropriate tools, measurement equipment, simulators and Testing of all the technical and clinical data according to manufacturer testing guidelines must be performed.
- 3) An Intervention report must be produced to MoH & Hospital after each intervention with indications of parts used code, tools, instruments, cost of the replacement parts or maintenance kits.
- 4) All the fees requested for providing the maintenance and technical support are supported by the supplier.
- 5) Waste management: The supplier is in charge of the safe removal and disposal of all the waste produced during his interventions.
- 6) The supplier must be flexible enough to accommodate perturbation or delays due to the medical activities in some sites during his intervention.
- 7) The supplier or local representative response delay in case of notification should be less than 2hrs

- 8) The time between the issue notification and the start of the intervention on site must be less than 48hrs .
- 9) The out of order time due to fault monthly should be less than 72 hours / 3 days
- 10) A minimum of one (1) preventive maintenance to be performed during the warranty years according to the manufacturer's recommendations.
- 11) The provisional acceptance will be done after the full commissioning of the medical system and the final acceptance will be done with the beneficiary representative after the warranty year following the evaluation of the performance of the equipment and after sales services provided by the local or regional representative.
- 12) A Warranty Services Level Agreement reflecting these conditions will be signed between each beneficiary hospital, the manufacturer and the local representative of the manufacturer to transfer the responsibility of the follow up during the warranty period from UNOPS to the end user hospital.

### **G. WASTE MANAGEMENT, HYGIENE, SECURITY AND SAFETY**

The sites are functional hospitals with medical and logistical activities involving several categories of people, equipment and vulnerable infrastructures.

The supplier is responsible for the removal and safe disposal of all waste generated during its operations. Waste disposal must not be integrated into the beneficiary hospitals' waste processing chain.

- A preliminary waste management plan will be provided with the technical offer for evaluation. UNOPS reserves the right to request adjustments to the waste management plan in line with best practice in the country.
- A methodology or preliminary plan for the prevention of incidents and accidents involving materials, equipment and people during the supplier interventions (from delivery till commissioning ) must be provided with the bid. UNOPS reserves the right to request adjustments to the plan in accordance with good safety and environmental management practices in force in the country.

The successful supplier will be required to take out an insurance policy covering accidents or incidents involving damage to persons or property in the beneficiary hospitals.

The supplier is responsible for the security of the materials, tools, equipment used to provide the requested services.

**Item 1-ELECTRO-SURGICAL MACHINE**

Item No	UNOPS minimum technical requirements	Quantity
1	Medical Equipment used for monopolar and bipolar cutting, as well as monopolar and bipolar coagulation, designed for all surgical procedures including underwater interventions.	9
	The Manufacturer of the proposed equipment is ISO 13485 certified	
	<b>Requirements: Electrical, Electromagnetic, Dimensions, documentation...</b>	
	Provide a Regulatory approval and marketing authorization (FDA, CE); CE Certification as per MDR 745/2017 or MDD93/42	
	Power supply requirements: 230VAC +/- 10%, 50Hz single-phase	
	Internal protection against overvoltage and overcurrent.	
	All system components must have FRENCH or ENGLISH as interface language	
	The medical system will be supplied with: User manual in French or English- electronic and hard copy as well as all user passwords	
	The medical system will be supplied with : Technical manual in French or English - electronic and hard copy as well as all technical / access passwords	
	<b>Operational Features</b>	
	Brand & Model	
	Provide detailed data sheet	
	Applications for: Abdominal surgery, Thoracic surgery, Neurosurgery, Gynecology, ENT surgery	
	Digital power display	
	Adjustable power output up to 400 Watts	
	Intuitive power control with different levels and mode selection from the main panel	
	Connectors for extension cables must be protected against water ingress IPX 4	
	Four modes: cut/coag monopolar and cut/coag bipolar	
	Neutral plate monitoring system for continuity and patient contact control	
	Microprocessor-controlled, with self-test and automatic current monitoring	
	Acoustic and visual indications or indicators of functions, alarms and errors	
	Presettled Cut and coagulation programs;	
	Manual and foot pedal activation	
	Automatic cut-off of the delivered power in the event of a fault	
	Minimum of 4 sound volume levels.	
	Alarm in the event of scalpel overheating	
	Capacity to connect two independent pedals	
	Capacity to select between pedal or hand button operation	
Self-test on generator power-up		
<b>Monopolar cut with at least 4 levels of adjustable hemostasis:</b>		

Adjustable hemostasis levels:	
Max pure cut mode up to 400 Watts	
3 mixed cut modes with different hemostasis levels up to 180 Watts.	
Endoscopic cutting mode for polypectomies	
Monopolar cutting mode for underwater Urology/Hysteroscopy/ Hydro cut	
<b>Monopolar coagulation :</b>	
Soft coagulation mode	
Forced coagulation mode with maximum power	
Spray mode	
Hybrid mode	
<b>Bipolar :</b>	
Bipolar underwater cutting / Hydro cut with 4 adjustable hemostasis levels and automatic power adjustment according to tissue type.	
Bipolar coagulation, maximum power 120 Watts with delayed AutoStart option	
<b>Included Accessories and Consumables</b>	
Supply of complete overhaul / preventive maintenance kit for the warranty year	
Dedicated genuine 4-wheel antistatic cart with brakes and space for accessories (shelf/drawer).	
Qty 1: dual-control pedal	
Qty 2: boxes for sterilizing the accessories	
Connexion Adaptor of universal single-use scalpel cables if applicable	
Connexion Adaptor of universal multiple-use scalpel cables if applicable	
Qty 2: reusable cables for single-use neutral plate,	
Qty 2: Multiple-use neutral plate	
Qty 10: single-use neutral plates, incl. cable	
Qty 2: multiple-use monopolar handles with cable	
Qty 4: multiple-use monopolar spatula electrodes	
Qty 1: multi-use bipolar cable,	
Qty 2: multi-purpose bipolar forceps: (1 bayonet type with straight tip; 1 bayonet type with curved tip)	
<b>Ancillary Services Included</b>	
The Bidder accepts the conditions of the On-site delivery, installation as described in Associated Services	
The Bidder accepts the conditions of the Testing & Commissioning as described in Associated Services	
The Bidder accepts the conditions of warranties (Preventive maintenance, repairs and technical assistance during the warranty) as described in the associated Services and Services level agreement	
The Bidder accepts the conditions of Training for medical & technical staff as described in Associated Services	
The Bidder accepts the conditions of the service level agreement	
The images below are intended solely as a guiding support and should be	

	<p>considered as purely indicative and not restrictive of the expected item characteristics:</p> <p>The images below are intended solely as a guiding support and should be considered as purely indicative and not restrictive of the expected item characteristics:</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	
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**Item 2 - STATION OF 10 ELECTRIC SYRINGE PUMPS**

Item No	UNOPS minimum technical requirements	Quantity
2	Infusion pumps system organized vertically and linearly; installed on a modular column enabling functional assembly of all infusion lines.	<b>16</b>
	The Manufacturer of the proposed equipment is ISO 13485 certified	
	<b>Requirements: Electrical, Electromagnetic, Dimensions, documentation...</b>	
	Provide a Regulatory approval and marketing authorization (FDA, CE); CE Certification as per MDR 745/2017 or MDD93/42	
	Power supply requirements: 230VAC +/- 10%, 50Hz single-phase	
	Internal protection against overvoltage and overcurrent.	
	Rechargeable batteries with autonomy of at least 2 hours	
	All system components must have FRENCH or ENGLISH as interface language	
	The medical system will be supplied with: User manual in French or English- electronic and hard copy as well as all user passwords	
	The medical system will be supplied with : Technical manual in French or English - electronic and hard copy as well as all technical / access passwords	
	<b>OPERATIONAL FEATURES</b>	
	Modular infusion column consisting of :	
	- Docking Station for 10 single-channel syringe pumps (1 docking station of 10 positions )	
	- 10 single-channel syringe pumps	
Brand & Model		
Provide detailed data sheets		

<b>1 - Syringe pumps used for intravenous anaesthesia with concentration target (IVAC) ; Target Controlled Infusion (TCI) and Total Intravenous Venous Anesthesia (TIVA).</b>
LCD screen
Flow rate range 0.1 - 1200 ml/h minimum (in 0.1 ml/h increments).
Flow rate accuracy +/- 2%.
Syringe volumes: 5, 10, 20, 30, 50, 60 CC
Syringe type: automatic recognition of syringe type and capacity
<b>Programming modes :</b>
Without drug name: infusion without drug name display
With drug names: infusion with display of drug names used
TIVA mode or equivalent : Total intravenous anaesthesia; secure intravenous administration with drug library
AIVOC mode or equivalent : Concentration Targeted Intravenous Anesthesia; mode includes pharmacokinetic models
Drug libraries: minimum 100 storable drugs
<b>Infusion mode :</b>
ml/h
Mass flow rate
IVAC drugs: includes pharmacokinetic models for Propofol, sufentanil and Remifentanil in TIVA and IVAC modes
<b>Dilution in AIVOC:</b>
Propofol: 1 and 2%
Sufentanil: max. 5 µg/ml
Remifentanil: 50 µg /ml max
<b>Target concentration :</b>
Propofol:0.1 to 15µg/ml
Sufentanil: 0.01 to 3ng/ml
Remifentanil:0.1 to 20ng/ml
Programmable parameters in AIVOC :
Programming modes: possibility of plasma target and sites target modes
Time to plasma target (in plasma mode): Flash or programmable from 1 to 60min
Volume/infused dose Volume: 0.1 - 999 ml
Purge function
Bolus: manual and programmed
Induction Dose or volume/time: 0.1 - 99 units / 00 min 01 - 59 min 59; automatic flow calculation.
Programmable pause from 1 min to 24h, increments per minute.
Real-time, time-stamped event history
History curves: infused volume/dose, pressure/flow, target/concentration
Real-time monitoring of occlusion or leak pressure in the infusion line,

represented by pictograms or equivalent.	
Real-time monitoring and display Infusion data	
Anti-bolus system to prevent over-infusion of drugs / reduce the bolus upon release of occlusion	
Keypad lock	
<b>Safety options, Alarm in at least the following cases:</b>	
-power failure;	
-low battery	
-syringe disengagement	
-Syringe positioning	
-Infusion control	
-Pre-alarm and occlusion	
-Pre-alarm and end-of-infusion	
- Volume limit pre-alarm	
-Keypad lock	
-Flow rate limits	
<b>2-Docking station</b>	
A stable mobile original docking station on castors with braking system	
Suitable docking station of 10 single-channel syringe pumps with their integrated power	
Integrated IV stand of at least 4 hooks.	
<b>Additional Consumables and accessories Included</b>	
Supply of complete overhaul kit / preventive maintenance for the warranty year	
Starting kit: 50 syringes of various volumes 50cc, 30cc, 20 cc, 10 cc.	
<b>Ancillary Services Included</b>	
The Bidder accepts the conditions of the On-site delivery, installation as described in Associated Services	
The Bidder accepts the conditions of the Testing & Commissioning as described in Associated Services	
The Bidder accepts the conditions of warranties (Preventive maintenance, repairs and technical assistance during the warranty) as described in the associated Services and Services level agreement	
The Bidder accepts the conditions of Training for medical & technical staff as described in Associated Services	
The Bidder accepts the conditions of the service level agreement	
The images below are intended solely as a guiding support and should be considered as purely indicative and not restrictive of the expected item characteristics:	


**Item 3-BLOOD PRODUCTS WARMER**

Item No	UNOPS minimum technical requirements	Quantity
3	The system is a fluid path warmer for blood products and infusion solutions up to the patient	7
	The Manufacturer of the proposed equipment is ISO 13485 certified	
	<b>Requirements: Electrical, Electromagnetic, Dimensions, documentation...</b>	
	Provide a Regulatory approval and marketing authorization (FDA, CE); CE Certification as per MDR 745/2017 or MDD93/42	
	Power supply requirements: 230VAC +/- 10% , 50Hz single-phase	
	Internal protection against overvoltage and overcurrent.	
	All system components must have FRENCH or ENGLISH as interface language	
	The medical system will be supplied with : User manual in French or English- electronic and hard copy as well as all user passwords	
	The medical system will be supplied with : Technical manual in French or English - electronic and hard copy as well as all technical / access passwords	
	<b>OPERATIONAL FEATURES</b>	
	Brand and Model	
	Provide detailed data sheet	
	Defibrillator -proof / internal and external treatment to the patient	
	Adjustable setting temperature range including +37° to +39° C.	
	Appropriate for standard I.V ( indicatively diameter 4 – 5 mm , 1.5m length)	
	Allowing fluids ≥ 20 ml per minute to be delivered warm to the patient	
	Integrated temperature sensors, Over Temperature alarm	
	Smooth surfaces simple to wash and disinfect	
	"Microprocessor control unit, LED display	
	Self-diagnostics & Audible and visual alarms of high and low temperatures and faulty operations	
No additional disposable or consumables required		
Included Mounting set: IV fluid warmer can be mounted on an IV stand or rail		

<b>Included Accessories and Consumables</b>	
Supply of complete overhaul kit / preventive maintenance kit for the warranty year	
Supply of all accessories required for proper operation and mounting on IV stand	
<b>Ancillary Services Included</b>	
The Bidder accepts the conditions of the On-site delivery, installation as described in Associated Services	
The Bidder accepts the conditions of the Testing & Commissioning as described in Associated Services	
The Bidder accepts the conditions of warranties (Preventive maintenance, repairs and technical assistance during the warranty) as described in the associated Services and Services level agreement	
The Bidder accepts the conditions of Training for medical & technical staff as described in Associated Services	
The Bidder accepts the conditions of the service level agreement	
The images below are intended solely as a guiding support and should be considered as purely indicative and not restrictive of the expected item characteristics:	
	

**Item 4-AIR WARMER**

Item No	UNOPS minimum technical requirements	Quantity
4	The air warming system is an active warming therapy device that transfers heat to a large area of skin and warms the patient in the operating room and recovery room. This forced-air warming device is intended for the prevention and treatment of hypothermia. to be used in Operating theater and intensive care unit	12
	The Manufacturer of the proposed equipment is ISO 13485 certified	
	<b>Requirements: Electrical, Electromagnetic, Dimensions, documentation...</b>	
	Provide a Regulatory approval and marketing authorization (FDA, CE); CE Certification as per MDR 745/2017 or MDD93/42	
	Power supply requirements: 230VAC +/- 10% , 50Hz single-phase	
	Internal protection against overvoltage and overcurrent.	
	All system components must have FRENCH or ENGLISH as interface language	
	The medical system will be supplied with : User manual in French or English- electronic and hard copy as well as all user passwords	
	The medical system will be supplied with : Technical manual in French or English - electronic and hard copy as well as all technical / access passwords	
	<b>OPERATIONAL FEATURES</b>	
	Brand & Model	
	Provide detailed data sheet	
	Mobile equipment, castors with brake or central brake system	
	Thermal protection of the system: safety thermostat	
	Automatic shutdown to prevent overheating	
	Low-pressure technology	
	Uniform distribution of hot air throughout the cover	
	Protection against liquid infiltration	
	Adjustable heating temperature	
	Automatic temperature adjustment	
	Audible and visual temperature alarms (high, low )	
	High air temperature alarm stops the unit	
	Disconnection alarm stops the unit	
	Digital parameter display	
	Real-time display of delivered air temperature.	
	Equipped with HEPA filter	
	Equipped with hour meter	
	Smooth, resistant shell for easy cleaning.	
	Dedicated cart mounted on 5 swivel wheels with brakes.	
	<b>Additional Consumables and accessories Included</b>	
Supply of complete overhaul kit / preventive maintenance kit for the warranty year		
Qty 10 - complete adult covers		
Qty 10 - adult upper body covers		

Qty 10 - adult lower body covers	
Qty 10 - complete pediatric covers	
Supply of all minor accessories required for proper operation.	
<b>Ancillary Services Included</b>	
The Bidder accepts the conditions of the On-site delivery, installation as described in Associated Services	
The Bidder accepts the conditions of the Testing & Commissioning as described in Associated Services	
The Bidder accepts the conditions of warranties (Preventive maintenance, repairs and technical assistance during the warranty) as described in the associated Services and Services level agreement	
The Bidder accepts the conditions of Training for medical & technical staff as described in Associated Services	
The Bidder accepts the conditions of the service level agreement	
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#### H. Delivery requirements and Comparative Data Table

UNOPS Requirements	
<b>Delivery time</b>	<ul style="list-style-type: none"> <li>- The Bidder shall deliver all the equipment no later than <b>16 weeks</b> after contract signature.</li> <li>- The Bidder shall complete the installation for the units no later than <b>4 weeks</b> after the delivery (<b>20 weeks after the contract signature</b>).</li> </ul>
<b>Delivery place and Incoterms rules</b>	Tunisia DPU (Consignee-wise quantity distribution list) UNOPS and/or the consignee will submit all tax exemption documentation to the selected supplier- The bidder must submit all shipment documents to UNOPS before departure of the shipment from the FCA point.
<b>Consignee details</b>	Ministry of Health in Tunisia
<b>UNOPS Right to vary requirements</b>	At the time the Contract is awarded, UNOPS reserves the right to vary the quantity of the goods and associated services specified above, provided this does not

	exceed +/- 20, without any change in the unit prices or other terms and conditions of the ITB.
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**Consignee-wise quantity distribution**
**Beneficiaries:**

TUNIS	LA RABTA	CCVT	ELECTRO-SURGICAL MACHINE	1
SFAX	HOP H BOURGUIBA	CCVT	ELECTRO-SURGICAL MACHINE	1
SOUSSE	HOP SAHLOUL	CCVT	ELECTRO-SURGICAL MACHINE	1
TUNIS	HOP LA MARSA	CHIRURGIE	ELECTRO-SURGICAL MACHINE	1
TUNIS	LA RABTA	UROLOGIE	ELECTRO-SURGICAL MACHINE	1
TUNIS	HOP CHARLES NICOLLE	UROLOGIE	ELECTRO-SURGICAL MACHINE	1
SOUSSE	HOP SAHLOUL	UROLOGIE	ELECTRO-SURGICAL MACHINE	1
SFAX	HOP H BOURGUIBA	UROLOGIE	ELECTRO-SURGICAL MACHINE	1
MONASTIR	HOP F BOURGUIBA	UROLOGIE	ELECTRO-SURGICAL MACHINE	1

SOUSSE	HOP SAHLOUL	CCVT	STATION OF 10 ELECTRIC SYRINGE PUMPS	2
SFAX	HOP H BOURGUIBA	CCVT	STATION OF 10 ELECTRIC SYRINGE PUMPS	2
SFAX	HOP H BOURGUIBA	REAN MEDICALE	STATION OF 10 ELECTRIC SYRINGE PUMPS	2
TUNIS	LA RABTA	ANEST REAN	STATION OF 10 ELECTRIC SYRINGE PUMPS	2
SFAX	HOP H BOURGUIBA	ANESTH REAN	STATION OF 10 ELECTRIC SYRINGE PUMPS	1
SFAX	HOP H BOURGUIBA	SAMU	STATION OF 10 ELECTRIC SYRINGE PUMPS	1
TUNIS	HOP CHARLES NICOLLE	ANESTH REAN	STATION OF 10 ELECTRIC SYRINGE PUMPS	2
TUNIS	HOP LA MARSA	ANESTH REAN	STATION OF 10 ELECTRIC SYRINGE PUMPS	2
MONASTIR	HOP F BOURGUIBA	ANESTH REAN	STATION OF 10 ELECTRIC SYRINGE PUMPS	2

TUNIS	LA RABTA	CCVT	BLOOD PRODUCTS WARMER	1
MAHDIA	HOP T SFAR	ANESTH REAN	BLOOD PRODUCTS WARMER	1
TUNIS	HOP LA MARSA	ANESTH REAN	BLOOD PRODUCTS WARMER	1
TUNIS	HOP CHARLES NICOLLE	ANESTH REAN	BLOOD PRODUCTS WARMER	1
SFAX	HOP H	ANESTH REAN	BLOOD PRODUCTS WARMER	1

	BOURGUIBA			
SOUSSE	HOP SAHLOUL	ANESTH REAN	BLOOD PRODUCTS WARMER	1
MONASTIR	HOP F BOURGUIBA	ANESTH REAN	BLOOD PRODUCTS WARMER	1

TUNIS	HOP LA MARSA	ANESTH REAN	AIR WARMER	2
TUNIS	HOP CHARLES NICOLLE	ANESTH REAN	AIR WARMER	2
TUNIS	LA RABTA	ANESTH REAN	AIR WARMER	2
SFAX	HOP H BOURGUIBA	ANESTH REAN	AIR WARMER	2
SOUSSE	HOP SAHLOUL	ANESTH REAN	AIR WARMER	2
MONASTIR	HOP F BOURGUIBA	ANESTH REAN	AIR WARMER	2

### I. Related services requirements

Service	UNOPS minimum requirements for services	Place where services will be performed	Final completion date(s) of services
1.	Delivery as per Distribution list	Tunisia (As per the distribution list)	Delivery should be made in fully as follows: - The Bidder shall deliver all the equipment no later than <b>16 weeks</b> after contract signature.
2.	Installation		- The Bidder shall complete the installation for the units no later than <b>4 weeks</b> after the delivery ( <b>20 weeks after the contract signature</b> ).
3.	Testing and Commissioning		Should be done at the end of the installation
4.	Preventive Maintenance, Corrective/Repair and technical assistance for users 1 year		Must be valid for 1 year (Warranty period)
5.	Training Group 1: Technical Training		Should be done before the installation (- Section E: TRAINING REQUIREMENTS)

6.	Training Group 2: Medical users on the use and operation of equipment.		Should be done at the end of the installation (No later than a week) (Section E: TRAINING REQUIREMENTS)
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