



## **NOTIFICATION**

**NO. SO (STAND) 1-30/2020** In pursuance of the recommendations of the notified PVMS Committee and the subsequent approval of the Departmental Standardization Committee (DSC), the Competent Authority has been pleased to approve the PVMS specifications of the Cryoablation Machine pertaining to the Radiology specialty. These specifications are hereby notified and are binding on all Procuring Agencies under the administrative control of the SHC & ME Department.

2 The procurement process shall be carried out strictly in accordance with Punjab Procurement Rules-2014 and other relevant rules / regulations / policies.

3 Need of the Procuring Agency for Items (main / optional) must be reasonably justified.

**SECRETARY  
SPECIALIZED HEALTHCARE AND  
MEDICAL EDUCATION DEPARTMENT**

### **No & Date Even: -**

A Copy is forwarded for information & necessary action to;

1. All VCs & Principals of Medical Health Institutions, SHC&ME Department.
2. All Superintendents of Teaching Hospitals, SHC&ME Department
3. All Head of Special Medical Institutions, SHC&ME Department
4. Director ICT Cell, SHC&ME Department, with the request to upload these PVMS Specification on the Departmental website.
5. PSO to Secretary SHC & ME Department, Lahore.
6. P.S to Special Secretary (D&R), SHC&ME Department.
7. P.A to Additional Secretary (Procurement), SHC&ME Department.
8. P.A to Deputy Secretary (Procurement), SHC&ME Department

  
27-02-25  
(Engr. Muhammad Ateeb)  
**SECTION OFFICER (STANDARDIZATION)**

<b>Clinical Specialty</b>	Interventional Radiology / Surgical Oncology
<b>Generic Name</b>	Cryoablation device for oncology.
<b>Clinical Purpose</b>	The cryoablation system for tumour ablation is designed for minimally invasive cryoablation procedures, enabling precise freezing for targeted tissue destruction. It is intended for use in specialized healthcare settings such as Interventional radiology departments and operation theaters.

#### TECHNICAL SPECIFICATIONS:

- Capable of doing therapeutic applications for malignant and benign solid tumours (e.g., prostate, liver, kidney, lung, breast, bone, and soft tissue tumours), and other surgical or palliative care procedures.
- System should be able to create controlled ablation zones.
- Capable of using multiple cryoprobes simultaneously for larger treatment areas.
- Designed for integration with imaging systems for intraoperative guidance.
- Easy-to-use interface suitable for trained medical professionals.
- System must prevent uncontrolled freezing and gas leaks.

#### Gas Handling system:

- Efficient gas storage and supply system with standard connectors.
- Support for liquid nitrogen / argon or other similar gases, with pressure regulation and leakage prevention mechanisms.

#### System Features

- **Interface:** Intuitive, high-resolution touchscreen/Graphical TFT/LCD display for precise control and monitoring of the procedure.
- **Control System:** Compact, easy-to-operate console/touch screen/key pad , and remote control keypad for operational flexibility
- **Real-time Monitoring:** Real-time temperature monitoring during the procedure for precise control
- **Multi-Probe Capability:** Supports use of multiple cryoprobes for multi-zone ablation. Multiple reusable or disposable cryoprobes with varying lengths and diameters to suit different clinical applications.
- **Cryogen Technology:** Utilizes argon-based or liquid nitrogen cryogenics to achieve precise and controlled freezing and helium or ethyl alcohol for thawing.
- **Image Guidance:** CT & Ultrasound (Real-time) / MRI
- **Safety and Alarm system:** An emergency stop button is used to quickly stop the machine in emergencies. It has a built-in alarm system to keep the patient and machine safe.

### Operating Parameters

- **Temperature Range:** Capable of reaching cryoablation temperatures down to  $-140^{\circ}\text{C}$  or lesser at the probe tip, with a maximum temperature of  $40^{\circ}\text{C}$  or higher.
- **Ablation Zone:** Adjustable and customizable, supporting diverse clinical needs.

**Control System:** Integrated pressure and temperature monitoring for real-time adjustments

### Probes and Accessories

- **Cryoprobe Type:** Multi-channel high-performance probe of standard sizes and configuration.
- **Probe Cooling Capacity:** High thermal conductivity for uniform and rapid freezing.
- **Compatibility:** Compatible with reusable/disposable Probes
- **Number of probes:** Connect four or more independent temperature probes and four or more-use cryoprobes

### Accessories

- Standard set of all accessories including different sizes of probes (as per OEM)
- (Sizes & quantities will be decided by the end user.)
- Cryogen cylinder connectors and delivery systems.
- Footswitch for hands-free operation/touch screen/keyboard.
- User manual with clear instructions for use and disposal.
- Compatible Online UPS with backup of minimum 10 mins.

### Power Requirements

- Voltage: 220-240 V, 50/60 Hz.

### Training and Support:

- On-site user training for clinical and technical staff
- Comprehensive user manual and technical documentation.
- 24/7 technical support with a maximum response time of 24 hours for critical issues.
- Service personnel support during the procedure is necessary.

### Delivery and Installation:

- On-site installation and commissioning by the vendor.
- Vendors must ensure proper functioning of the equipment post-installation.
- Availability of consumables and spare parts over a minimum 10-year period.

### Warranty:

- Comprehensive 5 years' warranty with optional 5 years' extendable warranty.
- During the period of machine functioning before formal signing of the installation report, rectification of errors or replacement of faulty parts shall be the responsibility of supplying the firm without any financial implications or liabilities at the institute or End Users.

- The warranty shall start from the date of installation report signing.

**Post Warranty Service & Maintenance Contract:**

- The supplying firm shall be bound to enter into a comprehensive service contract with the institute for 05 years after the warranty period at a rate not more than 5 % of C & F purchase value including all components / equipment to keep the machine functional such as, UPS with batteries, non-proprietary items supplied with the machine with all specified parameters that shall cover labor and parts for all equipment
- Financial impact of post warranty service contract should be considered by the bidder while quoting the financial bid

**Maintenance:**

- Preventative maintenance schedule and availability of spare parts for a minimum of 10 years.

**Certification:**

- CE / FDA / MHLW

**Country of Manufacturer and Origin:**

- Any geographical region of the world as per prevailing laws of Pakistan

**Optional: (Procuring agency to select as per its actual requirement)**

- Nerve-monitoring device to allow detection of adjacent nerve injury during Cryoablation