Signature Not Verified
Digitally signed by ANIL KUMAR SINGH
Date: 2026.14 09:51:14 IST
Reason: IREPS Document
Location: IREPS-CRIS

DETAILED TECHNICAL SPECIFICATIONS for Advanced diuode lasar system for anoproctology and varicose vains surgery with standered accessories

1.1 General Requirements

a) The offered equipment shall be a **high-performance Multi-Application Surgical Diode Laser System** suitable for:

- Proctology
- Endovenous Laser Therapy (EVLT)
- ENT Surgery
- Laser Lipolysis
- General Soft Tissue Surgery

b) The system shall be supplied as a **complete turnkey solution** with all accessories, reusable/disposable fibers, safety equipment, and initial consumables required for immediate clinical use.

c) The equipment shall be a new, unused, latest-generation model currently in production.

1.2 Laser Console : The laser system shall have the following minimum specifications-

- Laser Technology: Semiconductor Diode Laser
- Wavelength: **1470 ±10 nm (preferred)** or equivalent clinically proven wavelength for the intended applications.
- Output Power: Minimum **15 Watts.**
- Power Adjustment: 0.5–30 W in increments of ≤0.1 W.
- Operating Modes:
  - Continuous Wave (CW)
  - Pulsed Mode
  - Repeat Pulse
  - Single Pulse
- Adjustable pulse duration: 10 ms to 10 seconds or better.
- Real-time display of:
  - Output power
  - Delivered energy
  - Pulse duration
  - Pulse frequency
  - Total energy delivered
  - Procedure time

1.3 User Interface: The console shall have:

- Minimum 10-inch high-resolution colour touchscreen.
- Intuitive graphical user interface.
- Pre-programmed treatment protocols for Proctology, EVLT, ENT, and Lipolysis.
- Storage for at least 100 user-defined protocols.
- On-screen alerts and system diagnostics.

1.4 Safety Features: The system shall include:

- Key-operated activation switch.
- Emergency stop button.
- Laser-ready visual indicator.
- Audible warning before laser emission.
- Password-protected settings.
- Over-temperature protection.

Rishi 13/7/26

Signature Not Verified
Digitally signed by AMAR SINGH GAUTAM
Date: 2026.09.04 11:13:09 IST
Reason: IREPS-CRIS
Location: New Delhi

- Automatic self-diagnostic system.
- Compliance with IEC 60601-1 and IEC 60601-2-22.

1.5 Cooling System

- High-efficiency air cooling or equivalent.
- Designed for prolonged continuous clinical operation without overheating.

1.6 Clinical Applications

A. Proctology : The system shall support:

- Laser Hemorrhoidoplasty (LHP), Fistula Laser Closure (FiLaC), Sinus Laser Closure (SiLaC)
- Hemorrhoids, Anal fissure, Anal fistula, Pilonidal sinus, Anal polyps.

Compatible with appropriate bare, conical, ring, hemorrhoid, and fistula fibers.

B. Endovenous Laser Therapy (EVLT): The system shall support treatment of:

- Great Saphenous Vein (GSV), Small Saphenous Vein (SSV), Incompetent perforator veins,
- Compatible with: Radial fibers, Two-ring radial fibers, 360° radial fibers.
- Fiber sizes between 400–600 µm or equivalent.

C. ENT Surgery: Suitable for:

- Inferior turbinate reduction, Tonsillotomy, Oral cavity lesions, Nasal polyps, Vocal cord lesions,
- Laryngeal lesions, Soft tissue excision and coagulation.

Compatible with rigid and flexible laser delivery systems.

D. Laser Lipolysis: Suitable for:

- Face, Neck, Chin, Arms, Abdomen, Flanks, Thighs, Gynecomastia.

Compatible with dedicated lipolysis fibers and cannula-based delivery systems.

1.7 Optical Fiber Compatibility : The system shall accept reusable and disposable fibers ranging from 300 µm to 1000 µm or equivalent. The offered system should support:

- Bare fibers, Radial EVLT fibers, Conical fibers
- Hemorrhoid fibers, Fistula fibers, Lipolysis fibers

1.8 Accessories (Minimum Supply): The following accessories shall be supplied:

- Laser console – 1
- Mobile trolley – 1
- Foot switch – 1
- Fiber cleaver – 1
- Fiber stripper – 1
- Fiber inspection microscope – 1
- Laser warning signboards – 2
- Operator laser safety goggles – Minimum 5 pairs
- Patient safety goggles – Minimum 2 pairs
- Dust cover – 1
- Power cord and connectors
- User manual &Service manual

Rishu
13/7/26

Signature Not Verified
Digitally signed by AMAR SINGH GAUTAM
Date: 2026.09.04 11:13:09 IST
Reason: IREPS-CRIS
Location: New Delhi

1.9 Initial Consumables: The bidder shall supply-

- Bare fibers – 10 Nos., Radial EVLT fibers – 10 Nos., Hemorrhoid fibers – 5 Nos.
- Fistula fibers – 5 Nos., Lipolysis fibers – 5 Nos.

All consumables shall be compatible with the offered system and supplied in sterile condition where applicable.

1.10 Quality & Regulatory Compliance: The equipment shall comply with applicable standards, including:

- ISO 13485/CE (Medical Device Regulation)/IEC 60601-1/IEC 60601-2-22/BIS registration (where applicable)

Supporting documentary evidence shall be submitted.

1.12 Installation & Commissioning

- The successful bidder shall provide:
- Site inspection before installation.
- Installation and commissioning.
- Functional testing and calibration.
- Acceptance testing in the presence of the purchaser's representatives.
- Clinical demonstration and user training.

No additional charges shall be payable for these activities.

1.13 Warranty : Comprehensive onsite warranty for five (5) years Includes labour, spare parts, preventive maintenance, corrective maintenance, travel, calibration, and software updates during the warranty period.

1.14 Service Support : Service response within 24 hours, Breakdown rectification within 48 hours, subject to availability of major spare parts, Availability of spare parts for a minimum of 10 years from the date of installation.

1.15 Technical Compliance

The bidder shall submit a **point-by-point compliance statement** against each specification in this chapter, supported by page references from the manufacturer's original product catalogue, brochure, or technical literature. Unsupported claims may be treated as non-compliant.

STANDARD ACCESSORIES, CONSUMABLES & OPTIONAL ITEMS:

The bidder shall supply the **Multi-Application Surgical Diode Laser System** complete with all accessories, reusable/disposable fibers, safety devices, consumables, and ancillary equipment required for immediate clinical use. All items supplied shall be new, compatible with the offered system, and from the OEM or OEM-approved sources.

2.1 Standard Accessories (Mandatory Supply)

The following accessories shall be supplied along with the laser system:

Sl. No.	Item	Minimum Quantity
1	Laser Console	1 No.
2	Mobile Medical Grade Trolley	1 No.
3	Foot Switch (Waterproof/Medical Grade)	1 No.
4	Fiber Cleaver	1 No.
5	Fiber Stripper	1 No.
6	Fiber Inspection Microscope	1 No.

Signature Not Verified
Digitally signed by AMAR SINGH GAUTAM
Date: 2026.09.04 11:13:09 IST
Reason: IREPS-CRIS
Location: New Delhi

Rishi 13/7/26

7	Laser Fiber Holding Tray	1 No.
8	Laser Safety Warning Signage	2 Nos.
9	Operator Laser Safety Goggles	Minimum 5 Pairs
10	Patient Protective Goggles	Minimum 2 Pairs
11	Dust Cover	1 No.
12	User Manual	1 Set
13	Service Manual	1 Set
14	Power Cord & Connectors	1 Set

2.2 Optical Fibers (Initial Supply)
The bidder shall supply sterile, OEM-compatible fibers for immediate clinical use.

Application	Minimum Quantity
Bare Fiber	10 Nos.
Radial EVLT Fiber	10 Nos.
Hemorrhoid Fiber	5 Nos.
Fistula Fiber	5 Nos.
Lipolysis Fiber	5 Nos.

All disposable fibers shall be individually packed and sterile. Reusable fibers, where offered, shall include validated instructions for cleaning and sterilization.

2.3 Laser Safety Equipment: The bidder shall supply:

- Laser Safety Goggles for all specified wavelengths.
- Patient Eye Protection.
- Laser Warning Sign Boards.
- Emergency Stop Facility.
- Key Switch.
- Laser Emission Indicator.
- Audible Warning System.

The supplied safety equipment shall comply with applicable laser safety standards.

2.4 Cleaning & Maintenance Accessories : The following shall be supplied:

- Fiber Cleaning Kit.
- Lens Cleaning Kit (if applicable).
- Cleaning Brushes.
- Cleaning Cloths.
- Approved Cleaning Solution (where applicable).
- Maintenance Tool Kit for routine user maintenance.

2.5 Initial Consumables : The initial supply shall include sufficient consumables for commissioning, demonstration, and commencement of clinical services. Where applicable, consumables shall include:

- Disposable laser fibers.
- Sterile protective caps/connectors.
- Fiber preparation accessories.
- Cleaning materials.

Rishi
13/2/26

Signature Not Verified
Digitally signed by AMAR SINGH GAUTAM
Date: 2026.09.04 11:13:09 IST
Reason: IREPS-CRIS
Location: New Delhi

Consumables shall have an adequate remaining shelf life at the time of delivery.

2.6 Optional Accessories (Price to be Quoted Separately, if Requested): The bidder may quote separately for the following optional items:

- Smoke Evacuation System.
- High-Efficiency Medical Smoke Filter.
- Online UPS (minimum 2 kVA) with suitable backup.
- Additional Foot Switch.
- Additional Mobile Trolley.
- Additional Laser Safety Goggles.
- Additional Fiber Cleaver.
- Additional Fiber Inspection Microscope.
- Additional Sterilization Tray.
- Storage Case for Fibers.

Quotation of optional accessories shall not affect technical evaluation unless specifically included in the tender requirements.

2.7 Spare Parts Availability: The supplier shall ensure:

- Availability of genuine spare parts for a minimum of **10 years** from the date of installation.
- Ready availability of frequently used service parts within India.
- Timely supply of accessories and consumables throughout the warranty and CMC period.

2.8 Future Availability of Consumables : The bidder shall provide an undertaking that all consumables, accessories, and compatible laser fibers required for the offered system will remain commercially available in India for at least 10 years from the date of installation. An indicative price list of commonly used consumables may be submitted if requested by the purchaser.

2.9 Packing & Transportation: All accessories and consumables shall be:

- Properly packed to prevent damage during transit.
- Clearly labelled with item description, batch number (where applicable), manufacturing date, expiry date (where applicable), and storage conditions.
- Delivered together with the main equipment unless otherwise agreed.

2.10 Acceptance Criteria : The accessories and consumables shall be considered accepted only after:

- Verification of quantity and specifications.
- Successful installation and commissioning of the laser system.
- Functional testing of all supplied accessories.
- Demonstration of compatibility with the offered equipment.
- Acceptance by the designated committee of the purchaser.

CMS/NCR/CNB 13/7/26

ACMS/M&P/NCR/CNB 13/07/26

(Dr.Rishi Dixit) 13/7/26
DMO/NCR/CNB

Signature Not Verified
Digitally signed by AMAR SINGH GAUTAM
Date: 2026.09.04 11:13:09 IST
Reason: IREPS-CRIS
Location: New Delhi