



INDIAN INSTITUTE OF TECHNOLOGY,
GT ROAD, KALYANPUR, KANPUR-208016
UTTAR PRADESH, INDIA

TENDER REFERENCE NO: **IITK/SEE/KSN/2022-23/06**

BID SUBMISSION END DATE: **23.09.2022**

TENDER DOCUMENTS

FOR

Nitrogen Laser System with optical Table

Tender Document

Department of Sustainable Energy Engineering

INDIAN INSTITUTE OF TECHNOLOGY,
KANPUR-208016

Enquiry Date: 12.09.2022

Enquiry No: IITK/SEE/KSN/2022-23/06

PRODUCT NAME: “Nitrogen Laser System with optical Table”

S. No.	Technical Specification of Nitrogen laser
1.	337 nm wavelength 170 pulse energy Internal or external triggering to 20 Hz Replaceable laser cartridge No mirror alignment necessary Fully compatible with VSL-337i OEM
2.	Beam Characteristics <ul style="list-style-type: none">• Wavelength 337.1 nm• Spectral bandwidth 0.1 nm• Pulse width (FWHM) <3.5 ns• Pulse energy 170 µJ• Energy stability 3 % std. dev. (at 10 Hz) (Pulse to pulse)• Peak power 45 kW• Average power 3 mW (at 20 Hz)• Beam size 3 × 7 mm• Beam divergence 5 × 8 mrad (full angle) (Full Angle)
3.	Triggering Repetition rate 0 to 20 Hz (external trigger) 1 to 20 Hz (internal trigger) External trigger input TTL (opto-isolated) Int. trigger generator 1 to 20 Hz (adjustable)
4.	General <ul style="list-style-type: none">• Power requirements +24 VDC, 1.5 A (average) at 20 Hz., 3 A (peak)• Power consumption 36 W (20 Hz operation)• Key switch ON/OFF• Interlock switch Built-in• Dimensions 3.75" × 3.75" × 11" (WHD) (9.5 cm × 9.5 cm × 27.9 cm)• Weight 7.5 lbs., 3.4 kg• Warranty Cartridge is warranted to maintain at least 70 % of its energy for twenty million pulses or one year, whichever occurs first
5.	With power supply of this Nitrogen Laser

S. No.	Technical specifications for Optical Table:
1.	<p>Size 4feet x 6 feet Table Thickness 200 mm Flatness +/- 0.1 mm over 300mm x 300mm Construction Symmetrical Isotropic Construction in All Axes Top and Bottom Plates 5 mm Thick Stainless Steel, 430 Grade Working Surface Core Construction Aluminum Honeycomb core 0.3mm Thick Damping Proprietary Optimized Broadband Damping Side Panels Rigid Steel Box Section Side Trim Finish Matte Black Linoleum, 2 mm Inset from Table Surface Top Surface Finish Machined Matte Finish Mounting Holes Metric Threads and Spacing M6 Tapped Holes on 25 mm Centers Maximum Screw Depth 20mm Standard grid marking on the Table Alpha-Numeric Grid Label</p>
2.	<p>Rigid Support Frame SPECIFICATIONS: Frame size: There will be four vertical members at corners made of ~ 75 x75 mm² size MS pipe. The vertical members will be interconnected at top and bottom by horizontal members of MS by nut and bolts. The frame will be suitable for 4 feet x 6 feet breadboard. Leg Height: 700-720 mm Load capacity: 900-1000 kg Height adjustment: inches Material: Mild Steel Finish: Black epoxy coated Vibration dampeners: Fixed on top Wheels and legs: Four heavy caster wheel at bottom to shift the table and four height adjustable legs with nylon base at bottom to stabilize the table by freeing caster wheels.</p>
3.	<p>Optical Table Overhead Shelf 1.Frame is made of square steel tube and weld into the frame 2.Black surface and electrostatic spraying, resistance of corrosion and wear. 3. load capacity 100-120 kg Free-standing can be positioned anywhere over the table does not affect vibration isolation adjustable shelf height sturdy metal frame supports heavy loads</p>

Terms & Conditions: -

1. **Installation** – Installation required for this system.
2. **Delivery:** Delivery schedule is confirmed after receiving purchase order.
3. **Warranty:** This product is warranted against defects and materials for a period of one (1) year after shipment. Cartridge is warranted to maintain at least 70 % of its energy for twenty million pulses or one year, whichever occurs first.
4. Batteries (if used in your instrument), chopper motors, diaphragm pumps and rebuilt turbomolecular pumps are warranted for 90 days from the date of shipment. Damage caused by misuse of your instrument is not covered under the warranty program.
5. Quote Validity: 90 Days.
6. **GST** applicable as per government norms.
7. All equipment must be compatible with Indian electrical standards and codes. Engineering documentation on the physical sizes and weights of all major and minor components must be submitted.
8. TENDER Specific Manufacturer Authorization Form from OEM Required.
9. The Institute reserves the right of accepting or rejecting any/all quotations without assigning any reason thereof.
10. All prices should be *F.O.R.*
11. Installation by OEM is preferred.
12. We need Company Boucher with specified Technical specifications.
13. Local Contain must be specified according to it's parts.

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Dr. KANWAR SINGH NALWA
Department of Sustainable Energy Engineering
Indian Institute of Technology Kanpur
Kanpur 208 016, India
0512-259-2141