



Notice Inviting e-Tender

West Bengal Medical Services Corporation Limited

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**Supply and Commissioning Nd Yag Laser at Regional Institute of
Ophthalmology , Medical College and Hospital , Kolkata Campus**

Bid Reference No.: WBMSCL/NIT-171/2023

Dated-12.04.2023

Amendment-I

REVISED TECHNICAL SPECIFICATIONS

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Nd Yag Laser

1. Laser type should be Q-switch (CQ-crystal) Nd YAG.
2. The laser wave-length should be 1064 nm with mode of delivery beam
Super/Gaussian/fundamental and optical breakdown being typically 2.5 millijoule
in air.
3. Astigmatism Distortion detection **should be done at 2 point or more** aiming
beam for highlighting astigmatic distortions.
4. The pulse duration should be less than 4 nano second (Typically 2-3 Ns) with
maximum laser energy and pulse width should be in between 3 ns – 5 ns.
 - a) Single pulse – typically 10 millijoule
 - b) Double pulse - typically 23 millijoule

- c) Triple pulse - typically 37 millijoule
- 5. The energy level should be 22 steps with a pulse repetition frequency of maximum 2.5 hz and a focused diameter of 10 μ m in air (1/e²).
- 6. Machine should have burst model (1,2 or 3 pulse per burst).
- 7. Spot size should be 6-10 μ m.
- 8. Angle of exit aperture should be 16 degree and the range should be within 15-17 degree with aiming beam laser diode preferably 670 nm, power 5 μ W - 150 μ W.
- 9. The focus shift variably should be preferably ± 150 μ m
- 10. Electrical connection 100-240 V, $\pm 10\%$, 50-60 Hz and the illumination of 12V; 30W halogen lamp adjustable.
- 11. The magnification should be 5 step magnification through Galileian changer with 10X eye pieces and tube f=140mm.
- 12. The tube should be parallel tube f=140mm with 50-78mm PD adjustment and convergent tube should be available as option.
- 13. Eye pieces should be 10X high eye point eye pieces with ± 8 Diopter compensation of emetropia; 12.5 X available as option.
- 14. A slit adjustment width should be 0-14mm, continuous length, in steps 1/3/5/9/14mm and the isolation transformer machine should isolation transfer for safe handling.
- 15. Ionization in water should be less than equal to 1 mili Joule
- 16. Lens for capsulotomy and iridotomy
- 17. Motorized table for Nd-Yag laser
- 18. **Safety & Standard:** European CE or US FDA Certificate or BIS