INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
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(PR No. 1000038295) **(RfxNo.6100001663)**

Technical Specifications for HIGH-END ULTRASONICATOR (Add-on component of existing NGS System) (Qty: 1 Nos.)

Sr.No	Specification	Compliance (Yes/No)
I	1. DNA sonication for massively parallel sequencing applications. 2. Sample shearing through focused ultra-sonic acoustic energy to ensure isothermal processing and reduce heat induced damage of sample. 3. Acoustic based focused shearing performed at ultrasonic range of 500Khz. 4. The system should be able to process single in a minimal time. 5. Capacity of sample volume ranges from15 µl to1 ml. 6. Size of DNA fragments obtained after sample shearing ranges from 100bp- 5Kb. 7. The processing time to generate 150bp DNA fragments should be low like less than 5 minutes. 8. System should come with integrated chiller for temperature control and automated water bath management. 9. System should come with a software which can provide real time monitoring and integrated quality control. 10. System should include a dedicated notebook computer which can handle the software's without any glitch. 11. The system must be capable of various applications as: a. Mechanical shearing of DNA for Next Generation Sequencing. b. DNA/RNA extraction from Formalin-Fixed, Paraffin-Embedded (FFPE) tissue samples. c. Extract DNA for NGS from whole blood. d. Chromatin Mechanical Shearing for ChIP-Seq. e. Yeast cell lysis. 12. System should come with Three years warranty. 13. System should come with starting kit(reagents) for smooth running of the facility 14. Power requirements: 100-240 VAC; 500 VA; 50-60 Hz.	