



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
Powai, Mumbai 400076.

Ref. PR No. 1000043484

RFx no.6100001972

Repair and return of existing equipment (Vantec-500)

The VANTEC-500 is a cutting-edge two-dimensional (2-D) X-ray diffraction detector. With a large detector window measuring 140 mm in diameter, the VANTEC-500 excels in capturing high-quality images, delivering both exceptional resolution and high-count rate, making it ideal for advanced X-ray diffraction (XRD2) applications. The VANTEC- 500's broad range of applications and exceptional performance makes it the ideal solution for demanding 2-D X-ray diffraction techniques in both research and industrial settings. It is specifically designed for a variety of high-precision tasks, including:

Sr. No.	Item Description	Detailed Technical Specifications	Technical Compliance (Yes / No)	Additional Info. (if any)
1.	Microdiffraction	Enabling detailed analysis of small-scale samples with high spatial resolution.		
2.	Texture Analysis	Facilitating the study of material orientation and crystallographic texture in bulk and thin film samples.		
3.	High-Throughput Diffraction	Providing efficient analysis for large sample sets in automated environments		
4.	Residual Stress Determination	Supporting the analysis of internal stresses in materials.		
5.	Small-Angle X-ray Scattering (SAXS)	Optimizing the study of nanoscale structures and morphology in samples.		
6.	Reciprocal Space Mapping (RSM)	Enabling advanced studies of crystal structures and strain in various materials		
7.	Warranty	12 months		