

Technical specifications for 2D material transfer system

I. Bidder Eligibility Criteria

Bidder Eligibility	Complied/Not Complied	Ref.Pg No
1.The bidder/OEM should have supplied at least 2 similar items to IITs, NITs, IISERs, CSIR Labs or other Govt. organizations in the last 3 years, PO copies or installation certificates along with contact details of end user need to be submitted as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation.		
2.The service center should be within India, Proof of facility registration, location & contact details to be provided along with technical bid.		

II. Technical specifications

Specifications	Complied/Not Complied	Ref.Pg No
The dry transfer / aligner system will be used to prepare van der Waals heterostructures of 2D materials		
Sample Stage		
XYZ-Theta stage, with Coarse adjustment of 360 degrees, Fine adjustment of +/- 5 degrees or better, High precision micrometer movements of 5 micron or better, XY travel range of 10 mm or more, Z travel range of 5 mm (or more). digital micrometer on one of the XY axis with 1 micron resolution.		
Stamping Stage		
XYZ stage, with XYZ travel of 10 mm or more, High precision micrometer movements of 5 micron (or better) in XY direction and 10 micron (or better) in Z-direction, Black anodized aluminium or black anodized aluminium alloy construction and with glass slide holder, digital micrometer on one of the complementary XY axis with 1 micron resolution, tilting platform.		
Sample Stage Heater with temperature controller		
From RT to 200 °C (or more), PID controlled, Uniform temperature control over the sample with 1-degree C resolution (or better).		
Vacuum provision for holding samples		
Vacuum Chuck to hold samples of 10 mm x 10 mm size (or more), Vacuum pump. Temperature-compatible material of construction		
Microscope		
Co-axial or Epi-illumination from the top, Variable Intensity White LED, Long-working distance Apochromatic objective, Maximum total optical magnification of at least 25X		
Zoom Ratio of 8 times (or more)		
Camera		
C-mount digital color camera, 5 MP (or better), HDMI or USB output compatible, Large optical size sensor sizes of 1/2.5" (or better), BMP/PNG/JPG images		
Base Plate		
Magnetic SS M6 tapped hole grid with level adjustment for firmly mounting all the components		
1-year Warranty		
On-site installation and training		