

<b>E-Beam Deposition System</b>		
<b>A. E-Beam Evaporator Specifications</b>		
1	Thin Film Materials to be deposited	Metals (Ti, Al, Au, Ag, etc.), Dielectrics (SiO <sub>2</sub> , TiO <sub>2</sub> )
2	Thickness Homogeneity (@ working distance of approx. 100 mm)	±2%
3	Thickness Reading Precision	0.1 A
4	Deposition Rate Reading Precision	0.01 A
5.	Vacuum Base Pressure	10 <sup>-7</sup> mbar
6	Pumping-down Time	< 30 mins.
7	Turbo pump	400 l/s on N <sub>2</sub>
<b>B. Vacuum Chamber</b>		
1	Dimensions	approx. 320*500 mm.
2	Permissible outgassing	10 <sup>-7</sup> mbar range
3	Spherical Chamber Area	304/316L (Stainless steel)
<b>C. System Dimension and Support Structure</b>		
1	Dimensions	1700 mm (H) x 1200 mm (L) x 750 mm (W)
2	Weight	~ 300 - 400 kg for entire system
<b>D. Substrate Holder and Rotation</b>		
1	Substrate size	up to 4''
2	Variable rotation	0-30 RPM
<b>E. Substrate Heating</b>		
1	Lamp Heating Temperature	850°C
2	Regulation precision	±1°C
3	Cooling Stage Temperature	40 to 80°C
<b>F. E-Beam Sources</b>		
1	Electron beam	Upto 4 Sources with crucibles of 4 cc
2	Distance from crucible to substrate plan	≥ 250 mm
3	E-Beam Power	≥ 3 kW
<b>G. Gas Distribution System</b>		
1	Featured Gas	Nitrogen, Compressed Air
<b>H. Vacuum Pumping System</b>		
1	Primary pump	6 m <sup>3</sup> /hour dry
2	Turbomolecular pump	400 l/s
3	Base Vacuum	range of 10 <sup>-6</sup> mbar
<b>I. High Resolution Pressure Control</b>		
1	Full-range pressure gauge	10 <sup>-9</sup> mbar to 1000 mbar
2	Sensor	SQC quartz crystal sensors
<b>J.</b> Suppliers should provide technical compliance including explanations without fail against each point given in the technical specifications for consideration of the offer.		
<b>K.</b> Power requirement: As per Indian electrical standards (230V AC, 50 Hz)		

<b><u>L.</u></b>	Warranty: Comprehensive warranty for 3 years from the date of installation.
<b><u>M</u></b> <b><u>.</u></b>	Parent company should be an established company with a good number of installations (at least 3) of similar equipment and after sales service support in India as well.
<b><u>N.</u></b>	Standard configurations will be required. <b>NO CUSTOM BUILT SYSTEMS WILL BE ENTERTAINED.</b>

**(Note: It is mandatory for the bidders to provide the compliance statement (comply/not comply) for the above points with document proof as required)**

**Note: If the compliance statement (comply/Not comply) is not furnished for the evaluation. Bidders will be disqualified.**