INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
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PR No. 1000042560 RFx. No. 6100001896

Technical Specifications for the Add-On Components and their Integration into the Existing Sputtering System

Sr. No	Item Description	Detailed Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1.	Chamber	Modification of existing chamber: Load lock chamber with pumping arrangement using the existing process chamber roughing pump, appropriate gate valve, pump controller and pressure gauge with display, magnetic transfer arm to transfer samples between load lock and processing chamber.		
2.	Sample holder	Sample holder modification to make it compatible for loadlock and with heating upto 300 degrees Celsius. Heated 2-inch diameter rotating sample holder with heating up to 300 degrees Celsius with temperature control.		
3.	Pulsed DC power supply	Pulsed DC-source with following specifications: a) Frequency in PulseDC operation 10 to 300KHz, b) Duty Cycle in PulseDC operation 3 to 65%, c) Output Voltage/Current/Power 0 – 1000 VDC negative (ignition voltage 1200V) and 0 – 3000 mA (1 mA step), d) Regulation type Power, current and voltage, e) Ripple noise Switching: 2% p-p (50kHz) Line: 1% p-p (100/120 Hz), f) Programmable ramp timer, g) Local or remote through Communication Interface, h) Arc detection< 2 us Response Time		
4.	Display controller for existing MFC	Display controller for existing MFC and valve		
5.	Gate valve CF63 manual	Gate valve CF63 manual		
6.	Pump controller for Hipace 80	Pump controller for Hipace 80		

7.	Loadlock chamber	Loadlock chamber		
8.	Pirani gauge for loadlock	Pirani gauge for loadlock		
9.	Gauge display	Gauge display		
10.	Magnetic transfer arm	Magnetic transfer arm		
11.	Pumping arrangement	Pumping arrangement for loadlock using backing pump of main chamber		
12.	Modification of the frame	Modification of the frame to accommodate the changes		
13.	Chiller (1KW)	Chiller (1KW)		
14.	Warranty	one-year Warranty		