



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY  
MATERIALS MANAGEMENT DIVISION**

**Ref No. 1000044661**

**RFX No 6100002004**

**TECHNICAL SPECIFICATION FOR LYOPHILIZER WITH 3 YEARS WARRANTY**

<b>Sr</b>	<b>Item Description</b>	<b>Detailed Technical specifications</b>	<b>Technical Compliance (Yes/No)</b>	<b>Additional information if any</b>
1.	Model type	Table top OR Trolley with a standalone model		
2.	Samples	It should be able to freeze dry samples containing aqueous and organic solvents of higher concentration.		
3.	Condenser	Drying Performance: 2.5 Kg or more per 24 hours		
		Ice holding capacity: minimum 4 litre		
		The collector coil and condenser chamber should be made of stainless steel, preferably SS316. A MOC certificate should be provided.		
		The condenser coil should be in direct contact with the vapours for an efficient cold trap.		
4.	Final condenser temperature	-105 degrees at ambient room temperature of 25 degrees C		
5.	Drying chamber	Clear, made up of tempered mineral glass and resistant to chemicals and scratches		
		It should have 12 ports with individual valves made up of chemical-resistant material to accommodate round bottom flasks/ wide neck bottles		
		Suitable detachable SS Rack with minimum adjustable 3 shelves for Petri dishes/ vials		
6.	Flasks	4 wide-mouth, flat-bottom suitable glass flasks should be provided each of 600 ml, 800 ml and 1000 ml capacity with chemical resistant cap and adapter for the post (total 12 flasks).		
7.	Vacuum pump & sensor	Organic chemical resistant		
		The vacuum hose connecting the pump to the freeze dryer should be stainless steel.		
8.	Vacuum control	Electromagnetic vacuum control valve to control the vacuum for faster drying		
9.	Display	Showing process data: Temperature, Process time, suction time & vacuum		
10.	Modes of the drying process	Automatic & manual		
11.	Other features	It should have a system leakage test, vacuum/performance test		
		It should have a defrost provision		
12.	Warranty	3 years Warranty		