



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION

Ref.No. 1000049621

Rfx. No. 6100002365

Item Description: Controlled Atmosphere Furnace – 1 No.

Sr. No.	Tender Specifications	Compliance (Yes/No)	Additional Information
A	The Controlled Atmosphere Furnace is suitable for operating in inert atmosphere with purging gas of high purity Argon / nitrogen/ Helium. The furnace body will be constructed with SS304 metal plates with water cooling provision on the exterior of the furnace. Heating in vacuum of 10^{-5} MPa internal pressure must be possible		
1.	Chamber Size : 200mm(W) x 200mm(H) x 300mm(D)		
2.	Heating Element : Good quality, to last long for continuous operation at 1400 deg C.		
3.	Maximum Temperature : 1500°C		
4.	Continuous operating temperature : 1400°C		
5.	Heat shield and proper insulation to minimise heat loss to the environment (room)		
6.	Power Supply: 3 phase, 440V 50Hz.		
7.	Control panel with facility for programming the heat treatment cycles, measurement and control of temperature to ± 1 deg C. Eurotherm PID Controller, EPC3016, Thyristor, ON-OFF switches, indicating lamp, safety controller, heating transformer, vacuum indicators and pressure indicator should be provided.		
8.	Gas inlet port and outlet port along with pressure monitoring system should be provided along with vent valve for breaking vacuum.		
9.	High quality gaskets (water cooled if necessary) to serve as effective vacuum seals (retain vacuum at the set level for at least 10 hours).		
10.	The time frame of Delivery, Installation & Commissioning from the date of receipt of PO should be indicated explicitly.		
11.	Warranty : 01 Year from the date of commissioning.		