



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**MATERIALS MANAGEMENT DIVISION**  
**Powai, Mumbai - 400076**

PR : 1000017939

Rfx : 6100000856

**TECHNICAL SPECIFICATION FOR N2 GAS GENERATOR :**

1. Technology used: Pressure swing adsorption (CMS) to produce N2 gas
2. N2 flowrate:400 CC /min @ 5to 6 bar
3. N2 Purity :99.9995%
4. Out let Particulate: <0.1 $\mu$
5. LED Indicators: Ready,Warm up,Standby,Alarm,Off
6. Temperature Range: From 5-35degC and Humidity 80% to 25degC
7. IP Rating: IP 20
8. Supply with Oil Free compressor
9. Noise level :< 55 dB
10. Electrical supply: 230V / 1 ph / 50 Hz or 110 V / 1 ph / 50-60 Hz
11. Should have an air receiver and a Storage tank inside for smooth flow of air and N2 respectively
12. Should be controlled using the colour touch-screen technology to display the process in real time, inlet / outlet pressure, N2 flow and status of the system with remote access for diagnostic control.
13. Remote PC monitoring with service manager contact details should be provided
14. Remote PC diagnostic analysis via USB to interface the unit with customer's PC software which shall allow to carry out checks and maintenance effectively, only via a remote connection.
15. Autotimer option on HMI screen should be available, for automatic start and stop while user is not present deliberately.
16. HMI display should show by default the dynamic schematic, showcasing air compressor, filter, CMS column.
17. System should also be provided with H2 & Zero Air Generators.

• **Hydrogen H2 :**

1. 110 cc/min of hydrogen
2. 100% titanium PEM cell technology
3. Purity > 99.9996%
4. (O2 < 1 ppm, Dew Point < -20°C (-4°F))
5. Pressure 7 bar
6. With static Maintenance Free Membrane Dryer
7. Touch Screen

• **Zero Air :**

1. 1000 cc/min of Zero Air
2. Purity < 0,05 ppm HCs, < 0,05 ppm CO
3. Outlet Pressure: Max 6.5bar
4. Power: AC 230V,50-60Hz

- System should come with 3 years warranty including parts and labour. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. The comprehensive warranty should include onsite warranty with parts.