

## ANNEXURE – 1

### Specifications for Ultrahigh Vacuum Gauge with control Unit

Quantity : 2 nos

1)	Type of Vacuum Gauge	Ultrahigh Vacuum Extractor Gauge with Pirani Gauge
2)	Measurement Range	<b>Range – 1:</b> Atmosphere (1023 mbar) to 1 x 10E-3 mbar Pirani Gauge <b>Range – 2:</b> 1 x 10E-3 mbar to 1 x 10E-12 mbar Extractor Gauge
3)	Measurement Accuracy	Range – 1 : Atmosphere (1023 mbar) to 1 x 10E-3 mbar : <b>+/- 20%</b> Range – 2 : 1 x 10E-3 mbar to 1 x 10E-12 mbar : <b>+/- 15%</b>
4)	Gauge Construction	In a single CF35 type Conflat Flange
5)	Gauge Leak Rate	Less than 1 x 10E-12 mbar lit / sec
6)	Gauge X-ray Limit	1 x 10E-12 mbar
7)	Gauge Calibration	Gauges to be certified traceable to International Standards from Bureau of Indian Standards or any other international standards organization.
8)	Gauge Control Unit	1) Automatic change over from Pirani Gauge to Extractor Gauge 2) Provision for Electron beam degas 3) Calibration for different gases 4) Set point Relays for Low Pressure and High Pressure 5) 5 ½ Digit LED Display or suitable Large screen TFT LCD display 6) USB / RS 232 output for remote monitoring 7) Input voltage : 230 VAC, 50 Hz, Single Phase
9)	Acceptance Criteria	1) Vendors shall provide Make / Model / Country of origin of their products 2) A compliance certificate for major parameters in the format appended below, shall be provided 3) Vendors shall arrange to display the working of the gauge upto 1x10E-9 mbar or below by connecting it to a vacuum pump

## Ultrahigh Vacuum Gauge with Control Unit

### Compliance Certificate

Description	Specification	Your Product
Type of Vacuum Gauge	Ultrahigh Vacuum Extractor Gauge with Pirani Gauge	
Measurement Range	<b>Range – 1:</b> Atmosphere (1023 mbar) to 1 x 10E-3 mbar Pirani Gauge <b>Range – 2 :</b> 1 x 10E-3 mbar to 1 x 10E-12 mbar Extractor Gauge	
Measurement Accuracy	Range – 1 : Atmosphere (1023 mbar) to 1 x 10E-3 mbar : <b>+/- 20%</b> Range – 2 : 1 x 10E-3 mbar to 1 x 10E-12 mbar : <b>+/- 15%</b>	
Gauge Construction	In a single CF35 type Conflat Flange	
Gauge Leak Rate	Less than 1 x 10E-12 mbar lit / sec	
Gauge X-ray Limit	1 x 10E-12 mbar	
Gauge Calibration	Gauges to be certified traceable to International Standards from Bureau of Indian Standards or any other international standards organization.	
Gauge Control Unit	<ol style="list-style-type: none"><li>1) Automatic change over from Pirani Gauge to Extractor Gauge</li><li>2) Provision for Electron beam degas</li><li>3) Calibration for different gases</li><li>4) Set point Relays for Low Pressure and High Pressure</li><li>5) 5 ½ Digit LED Display or suitable Large screen TFT LCD display</li><li>6) USB / RS 232 output for remote monitoring</li><li>7) Input voltage : 230 VAC, 50 Hz, Single Phase</li></ol>	