25-11-2025

Minutes of Pre-Bid Meeting

फाइल क्र. : PUR/EQP/76/(2025-26)

विषय: **High Resolution Physisorption Analyser**

A Pre-bid meeting regarding the procurement of the instrument was held on 25-11-2025 from 2:30 PM onwards in the conference room.

Dr Venkata Palla External Domain expert attended the meeting through online mode.

Representatives of two instrument manufacturing companies attended the meeting and their details are given below-

1) M/s Anton Parr India Pvt Ltd, Gurugram, represented by Mr. Anurag Maurya, Mr Sushant Jadav, Dr Rishi Gupta

2) M/s Verder Scientific Pvt.Ltd. Ghaziabad , represented by Mr. Shailender Pal Singh and Mr Roshan Desouza

During pre-bid meeting firms has raised following queries that have been replied by the committee member:

M/s Anton Paar

S/No.	Annexure Points	Request for amendment	Response
1	Point no. A (3) 0.35 - 400 nm N_2 or better range 0.25 - 400 nm with CO_2 or better range	To add range : 0.35-500 nm diameter	Modified to - 0.35- 400 nm or better range (for both N_2 and CO_2)
2	Point no A (7) I. 1000 torr +/- 0.12% Reading or better. II. 10 torr +/- 0.12% Reading or better. III. 0.1 torr +/- 0.15% Reading or better.	Pressure Transducer Accuracy II) 10 torr +/- 0.15% Reading or better	Modified to- I. 1000 torr +/- 0.15% Reading or better. II. 10 torr +/- 0.15% Reading or better. III. 0.1 torr +/- 0.15% Reading or better.
3	Point no. A (9) Sample cell capacity 1.5 cc and 5 cc. (30 Each)	Sample cell should have 9mm and 12mm (30 Each).	Modified to- Sample cell capacity 1.5 cc and 5 cc. or similar (30 Each)
4	Point no. A (10) Using liquid nitrogen with Dewar capacity of 2.5 L or more with Dewar holding time 30 hours or more	Using liquid nitrogen with Dewar capacity of 3 L or more with Dewar holding time 70 hours or more	Modified to Using liquid nitrogen with Dewar capacity of 2.5 L or more with Dewar holding time 60 hours or more
5	Point no. A (12) Separate analysis and separate degas modules to keep the Analysis	Software Controlled Integrated/ in-Situ degas	Modified to

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	manifold clean and eliminates the possibility of cross contaminating the analysis manifold.	modules for Data reports of Degassing, test for degassing completion, Degassing activity log for traceability.	Separate degas module internal or external to the Physisorption unit
6	Point no. A (13) Degassing unit having capability for pre-treatment / degassing minimum 6 samples simultaneously	I. The Instrument must have 6 or more with Software Controlled Integrated/ in-situ degassing stations. Internal/ external with access to turbo vacuum pump for efficient micropore analysis. II. Additionally provision for multiple heating ramp, hold time and n-number of degassing profile storage for multiple products: IV. Temperature: ambient (+10 °C) to 450 °C or more	No Modification suggested
7	Point no. A (14) Software should have the provision to measure the pore volume, pore area for mesoporous samples based on BET specific surface area, Langmir specific surface area, BJH, DH, Cl, INNES method.	Software should have the provision to measure the pore volume, pore area for mesoporous samples based on BET specific surface area, Langmuir specific surface area, BJH, DH, method. Remove: "CI, INNES"	Modified to Software should have the provision to measure the pore volume, pore area for mesoporous samples based on BET specific surface area, Langmir specific surface area, BJH, DH, Cl, INNES or equivalent method.
8	Point no. A (15) I. Turbo and Rotary vacuum pumps for instrument II. Rotary vacuum pump for degassing unit	Turbo Molecular drag pump and Dry Diaphragm pump for Analysis and Degassing both.	No Modification suggested
9	Point no. A (16) Reference standard I. For Surface area II. For Pore size distribution	Reference Standards: I.- Surface Area: 2 nos.	Modified to I. For Surface area (for Microporous and Mesoporous) II. For Pore size distribution
10	Point no. A (17) The system should have	Upgradation Facilities: To add: Vapor Absorption	No Modification suggested

	provision to add accessories like additional gas selector, circulating water bath and heater with controller depending upon application needs at any time in future.	upgrade	
11	Point no. B (16) Firm must submit a conceptual P&ID & flow diagram.	Compulsory clause: To remove: Firm must submit a conceptual P&ID & flow diagram.	No Modification suggested

M/s Verder Scientific

S/No.	Annexure Points	Request for amendment	Response
1	Point no A (7) I. 1000 torr +/- 0.12% Reading or better. II. 10 torr +/- 0.12% Reading or better. III. 0.1 torr +/- 0.15% Reading or better.	Change the Transducer Accuracy and asked for number of Transducers as per below suggestions. I. 1000 torr, 6 Nos. with reading of 0.15% or better II. 10 torr, 4 Nos. with reading of 0.50% or better III. 0.1 torr, 3 Nos. with reading of 0.25% or better	Modified to- I. 1000 torr +/- 0.15% Reading or better. II. 10 torr +/- 0.15% Reading or better. III. 0.1 torr +/- 0.15% Reading or better.
2	Point no A (8) Temperature Control 45 °C, ±0.05 °C with 3 or more number of RTDs helps to avoiding condensation of vapors and maintaining good reproducibility of results.	Change the number of RTDs from 3 to 2.	No Modification suggested
3	Point no B (1) Indigenous offer for following will be preferred (I to V capacity- 47 liters) I. Adsorptive Gas (N_2) with > 99.999% purity II. Helium Gas (He) with > 99.999% purity III. CO_2 Gas with > 99.99% purity IV. H_2 gas with > 99.999% purity V. Ar gas with > 99.999% purity	Remove the Kr gas cylinder requirements as this is very expensive and delivery of gas is taking 4-6 months.	Modified to- Indigenous offer for following will be preferred (I to V capacity- 47 liters) I. Adsorptive Gas (N_2) with > 99.999% purity II. Helium Gas (He) with > 99.999% purity III. CO_2 Gas with > 99.99% purity

	VI. Kr gas with > 99.999% purity (Capacity minimum 2 Liters)		IV. H_2 gas with > 99.999% purity V. Ar gas with > 99.999% purity

Other Technical Specification and terms and condition of the tender document will remain same.