

Annexure 'A'

Subject: Reply of CUH on the queries raised by the bidders during the Pre-bid Meeting held on 10/03/2026.

Name of Equipment: Mercury Intrusion Porosimetry Machine of department of Bio-chemistry.

Sr. No.	Name of Firm	Reference to NIT No. CUH/E&GA/HEFA/CIC/2025-26/43	Bidder's comment/observations	Reply from CUH/Technical committee
1.	Verder Scientific Pvt. Ltd.	<p>Instrument Features</p> <p>The porosimeter should be capable of carrying out complete pore structure analysis of powders and solid chunks.</p> <ul style="list-style-type: none"> • It should have one or more ports to reliably measure pore diameters from 6.4nm to 1100um or broader. • Offered system should fully meet the requirements of ISO 15901-1 standards for pore size distribution and porosity of solids using mercury Porosimetry and gas adsorption - Part 1. Determination of the specific pore surface according to DIN 66133. Determination of the apparent and absolute mercury density according to DIN 51065. • It should be possible to measure wet samples without changing the moisture or solvent content. • The offered system should be very compact (able to keep in Fumehood), self contained and plug and play type analyser. • Should have up to 2000 detection points per analysis for high resolution measurement. • Sample tubes must be horizontally aligned on low pressure port to minimize the head pressure of the liquid mercury column. <p>It should be possible to select and adjust the degassing pressure for depending upon</p> <ul style="list-style-type: none"> • The nature of sample materials (ex. for wet samples). The 	<p>We request you to please make changes as follows.</p> <ul style="list-style-type: none"> • It should have one or more ports to reliably measure pore diameters from 3.6nm to 1000um or broader. Reason: There is no price changes because of above change in range and gives better opportunity to user with low pore diameter analysis. • Part 1. Determination of the specific pore surface according to DIN 66133. Determination of the apparent and absolute mercury density according to DIN 51065. Request you to please delete these lines from para. Reason: DIN methods are old methods followed in Germany and now replaced with ISO.. • Sample tubes must be horizontally/Verticle aligned on low pressure port to minimize the head pressure of the liquid mercury column. Reason: Each manufacturer has their own technology and we are using verticle procedure to introduce and measure pore sizes via MIP, using verticle procedure measuring wet samples are 	<p>Point by point reply is Given below-</p> <ul style="list-style-type: none"> • The Equipment should have one or more ports to reliably measure pore diameters from 3.6nm to 1000µm or broader. • Deleted <p>Both horizontally/Vertically Aligned configuration are accepted without compromising the output of the equipment.</p>

		<p>outgassing time must be user defined.</p>	<p>more accurate and repeatable. Making changes in horizontal/vertical gives more chances to more vendors to participate in the bid.</p>	
		<p>Analysis Station Mercury filling must be fully automatic and quick filling under constant high vacuum using only one port. • Low pressure station – 2 nos - 0.2-50 psia • High pressure station – 1 no - 0-33,000 psia • Pressure control range: 0.2 - 33,000 psia • Pore Diameter Range: 1100-0.0064 µm or better, • Max. detectable volume 0.5 cm³ - 2 cm³ with Volume Resolution of ±0.0001 cm³ Pressure Transducer Accuracy: Better than ±0.11% F.S or better</p>	<p>We request you to please make changes as follows. • Low pressure station – 2 nos - 0.2-50 psia Request you to please delete quantity (2 Nos.). Reason: If user ask/require for 1 no. of high pressure station than user have to ask for 1 no of low pressure station and if user require 2 nos. Of high pressure station than ask for 2 nos. Of low pressure. • High pressure station – 1 no - 0-33,000 psia Request you to please delete qty and change range from 0-60,000 psia. Reason: to achieve range from 1000-3.6 µm instrument require pressure range from 0-60,000 psia. Changing in range not impacting the pricing but gives more opportunity to analyze in</p>	<p>The updated specifications may be read as under- • Mercury filling must be fully automatic and quick filling under constant high vacuum using only one port. • Low pressure station - 0.2-50 psia • High pressure station - 0-60,000 Psia or more • Pressure control range: 0.2 -60,000 psia or more • Pore Diameter Range: 1000- 0.0036 µm or better, • Max. detectable volume 0.5 cm³ - 2 cm³ with Volume Resolution of ±0.0001 cm³ Pressure Transducer Accuracy: Better than ±0.11% F.S or better</p>

			<p>low pore diameter range.</p> <ul style="list-style-type: none"> • Pressure control range: 0.2 - 33,000 psia <p>Request you to please change Pressure control range: 0.2 - 60,000 psia</p> <p>Reason: To achieve Pore size Diameter range: from 1000 μm - nm we require high pressure range.</p> <ul style="list-style-type: none"> • Pore Diameter Range: 1100-0.0064 μm or better, <p>Request you to please change 1000-3.6 μm.</p> <p>Reason: There is no price changes because of above change in range and gives better opportunity to user with low pore diameter analysis.</p>	
		<p>Sample/holders/Dilatometer/ Penetrometers</p> <p>Sample cell(s) should be suitable for variety of samples including inorganic materials, polymeric porous, constructs, scaffolds, samples, paste, and specimens of size up to 25 mm diameter.</p> <ul style="list-style-type: none"> • Sample holders must be easy to operate and have a safe handling via screw cap and integrated opening aid. <p>Must be suitable for analysis of solids, powders, and wet samples</p> <ul style="list-style-type: none"> • 3 quantity of sample cell must be included – 2 quantity of 0.5 cm³ Stem volume cell and 1 quantity of 2 cm³ Stem volume cell 	<p>We request you to please make changes as follows.</p> <ul style="list-style-type: none"> • 3 quantity of sample cell must be included – 2 quantity of 0.5 cm³ Stem volume cell and 1 quantity of 2 cm³ Stem volume cell <p>Request you to please change and describe 2 nos of small sample cell range from 8-15 cm³ and 1 no of large sample cell from 25-35 cm³.</p> <p>Reason: Each manufacturer have their own sample cell size range.</p>	<p>Sample cell(s) should be suitable for variety of samples including inorganic materials, polymeric porous, constructs, scaffolds, samples, paste, and specimens of size, up to 25 mm diameter and sample cell shall be provided covering all ranges of the samples designed by their OEM in compatible with their manufactured equipment</p>

		1 quantity of Macro Sample Cell - capable of accommodating samples up to 1-inch diameter (drilling cores, etc.)		
		<p>Additional Accessories</p> <p>1. Multiple safety backup systems including cold trap to prevent release of mercury vapor to laboratory environment, enclosed bench-top design which allows for the instrument to be housed inside of fume hood, mercury spill kit and a vapor ventilation kit.</p>	<p>We request you to please make changes as follows.</p> <p>1. Multiple safety backup systems including cold trap to prevent release of mercury vapor to laboratory environment, enclosed bench-top design which allows for the instrument to be housed inside of fume hood, mercury spill kit and a vapor ventilation kit.</p> <p>Request you to please change cold trap or equivalent technology.</p> <p>Reason: Each manufacturer using their own designed and technology to trap or mercury.</p>	<p>Cold trap or equivalent Technology can be accepted designed to prevent release of mercury vapor to laboratory environment,</p>
2.	Anton Paar India Pvt. Ltd.	Analysis (As per tender documents)	Point no- 2- In Analysis Stations: High pressure station – 1 no – 20 - 33,000 psia instead of 0- 33,000 psia	Pressure control range: 0.2 -60,000 psia or more
		In additional accessories (As per Tender Documents)	Point no- 4 - In additional accessories – Please mentioned Fume hood is provided by supplier or Provided by CUH	All the accessories required for smooth and safe functioning of the instrument shall be supplied and ensured by the bidders.