

**INDIAN INSTITUTE OF TECHNOLOGY DELHI**  
**Department of Civil Engineering**  
**Notice Inviting Quotations**

NIQ No. IITD/Civil (Store)/2013-14

October 18<sup>th</sup>, 2013

**Deadline: November 4<sup>th</sup>, 2013 (5:00PM)**

Department of Civil Engineering wishes to purchase **PM<sub>2.5</sub> Personal Sampler with compatible pump** as per the specifications given below.

Technical & Financial bids (in two separate sealed envelopes) clearly labeled with note as “**Quotation for Purchasing of 3 units of both PM<sub>2.5</sub> Personal Samplers and Compatible Pumps**” should reach the following address on or before **November 4<sup>th</sup>, 2013 by 5:00 PM.**

**Technical Specifications:**

Three units of Portable battery operated system for Personal Sampling of PM<sub>2.5</sub> Aerosol with following specifications and features:

**1. Specifications of PM<sub>2.5</sub> Sampler (No of unit =3):**

S. No.	Specifications	Requirement
1	Type	Single stage impactor
2	Collection of Particle of Cutoff Diameter (d <sub>50</sub> )	Particle Diameter less than 2.5 μm (PM <sub>2.5</sub> ) at flow rate of 5 LPM or lower should be collected on filter paper.
3	Essential features	<ul style="list-style-type: none"> <li>• Sharp PM<sub>2.5</sub> Cutoff at flow rate less than 5 LPM</li> <li>• Compact and light weight</li> <li>• Should have collar clip</li> </ul>
4	Compatible filter paper size	47mm or 37mm, PTFE and GFF filter media
5	Necessary Tool-kit	Necessary tools is required to change filter papers in personal sampler
6	Bidder Credibility	The Bidder should be a reputed manufacturer with minimum 10 years of experience and they have Authorized Agent in India since last 2 years or more.

**2. Specification of Suction Pump compatible with above mentioned PM<sub>2.5</sub> Sampler (No of unit =3):**

S. No.	Specifications	Requirement
1	Type	Pneumatic Diaphragm Suction Pump
2	Flow rate and flow faults.	It should provide automatic constant flow suitable for PM <sub>2.5</sub> Sampler of above mentioned specifications (preferred range: 1 LPM to 5 LPM). Pump should shut down on ±5% variation in set flow.
3	Noise and vibrations	Silent and vibration less operation is required (or should be minimal)
4	Power	220 V +/- 10%, 50 Hz & Rechargeable battery with charger for minimum 12 hours operation with maximum 10 hours of recharging.
5	Memory and storage	At the event of battery failure there should not be any memory or samples loss.
6	Back-pressure capabilities	Should have high back pressure capabilities (for example: 20 inch of water at a flow rate of 5LPM).
7	Diagnostics	Self-diagnostics at the start
8	Weight	Should be less than 0.6 Kg including battery.
9	Accessories required	<ul style="list-style-type: none"> <li>i. Lithium ion or NiMH Batteries with charger,</li> <li>ii. Carrying case</li> <li>iii. Power cable</li> <li>iv. PTFE filters (of suitable size i.e. 37mm or 47mm)</li> </ul>

		v. Cable for data transfer on USB port*
		vi. Connecting tubing and hoses
		vii. Window based software for PC to read out data*
		viii. Calibration system (at least a calibrated flow meter) is required.
10	Calibration Facility	Bidder must have Calibration Facility in India and should provide details on the Calibration facility available with them
11	Bidder Credibility	The Bidder should be a reputed manufacturer with minimum 10 years of experience and they have Exclusive/Authorized Agent in India since last 2 years or more.
12	Preferred additional features	i. Continuous flow rate data logging.
		ii. Temperature and Humidity Sensor with simultaneous facility for data logging.

\* If required

For any queries, please do not hesitate to contact undersigned.

### Terms & Conditions:

- **The technical and financial bids should be sealed in separate envelops with proper labeling before putting them together in the sealed cover.**
- Detailed specifications, catalogue/literature and authorization certificate of all items quoted should be supplied with quotation.
- Bidder must specify Customs Tariff Code and Custom Duty applicable for IIT Delhi in their quotation.
- If the items quoted are proprietary in nature, please enclose proprietary certificate from the principals stating "Certified that ----- is a proprietary item of M/s ----- and no other manufacture make these items".
- Please quote prices at FOB basis in case of prices in foreign currency
- Price in Indian rupees shall be quoted on FOR IIT Delhi Basis.
- Quotation should clearly mention installation & delivery charges. Clearly indicate whether the prices are inclusive of all taxes. Otherwise indicate all taxes separately.
- Special discounts/rebate wherever admissible keeping in the view that supplies are being made for an Educational institute may be indicated in the offer.
- Supplier shall fully warrant that all the materials supplied under the order shall be new and first quality.
- Quotation should be valid for three months from due date.
- A minimum of 1 year's comprehensive warranty of the equipment is required.
- Payment in Foreign currency will be made by Letter of credit as per Institute's rules.
- Payment in Indian currency will be released after installation as per Institute's rules.
- Delivery period should be clearly indicated in the quotation.
- Order must be delivered and installed within 6 weeks of receipt of order.
- Incomplete and conditional submitted tenders would be summarily rejected.
- Institute Reserves the right to accept/Reject any or all quotation without assigning any reason.

### Name and Address for quotations:

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