

# Notice Inviting Tender for Microwave Digestion System

Sealed tenders are invited for supply of Microwave Digestion System. The tender is to be submitted under two bid system viz. 'Technical bid' and 'Commercial bid' in two separate sealed envelopes and should accordingly be super scribed. Both the sealed envelopes should be kept in a third envelope on which it should be superscribed '**TENDER FOR MICROWAVE DIGESTION SYSTEM**'. The commercial bid will be opened only for those bids that have been technically acceptable.

The technical and commercial bids should be submitted to the following address, latest by 05 February, 2012

Prof. A. K. Mittal  
Department of Civil Engineering  
Indian Institute of Technology Delhi  
Hauz Khas, New Delhi-110016

## **MICROWAVE DIGESTION SYSTEM** **(CLOSED VESSEL SYSTEM)** **Technical Specifications**

Microwave Digestion System should be used for the digestion of organic and inorganic sample matrices. The instrument should be fitted with digital/fluorescence graphical display or suitable software operation

The Microwave Digestion System must be able to ensure efficient operation for the digestion of minimum 10 samples simultaneously for refractory / ceramic materials, Coal Ash, Ore etc. at high pressure (1450 psi)

It should have power of 1200 W or better with dual magnetrons with unpulsed 0-1200 power supply.

Microwave Digestion Unit (with IR sensor). Segmented/Single 10 or more vessels High Pressure Rotor with following specs to be quoted: (100 ml volume and TFM for using with HF – hydrofluoric acid)

No of vessels	: 10 or more
Vessels design (Linear Material)	: PTTE- TFM or Quartz or PFA
Volume	: 40 ml or more
Pressure	: 30 bar or more
Temperature	: 230 <sup>0</sup> C or higher

- Overpressure protection to be provided as standard.
- Forced air cooling system to prevent over heating is desirable
- Exhaust system to remove fumes from the cavities

- Protection shields around the reaction vessels for safety.
- The system must have temperature & pressure sensors to monitor temperature & pressure.

The system must be compatible to with stand exposure to corrosive chemicals and spills.

System must be operated through controls with appropriate software for real time temperature and pressure.

All necessary accessories/spare parts/consumables should be quoted for smooth and trouble free operation of the equipment for minimum 3 years.

Note : *The instrument should be installed at Department of Civil Engineering, IIT Delhi*

## **Terms and Conditions**

Original Equipment Manufacturer (OEM) should be submit their bid directly.

Quotation shall remain valid for a period not less than 90 days after the deadline date specified for the submission.

The bidder whose bid is accepted will be notified for the award of contract by the Purchaser prior to the expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.

Special discount/rebate wherever admissible keeping in view that the supplies are being made for Educational Purposes in respect of Public Institution of national importance may please be indicated.

Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

The rates should be inclusive of taxes (excluding Sales Tax), levies, freight, insurance, forwarding and installation for Indian Institute of Technology Delhi. Rates are to be quoted only in Commercial Bid, otherwise it will be considered as invalid.

Detailed specifications, catalogue/literature, authorization certificate of all the items quoted should be supplied with the technical bid. Bids incomplete in any respect are liable to be rejected.

The bidders must submit their company profile, brochure, make and model of the machine to be supplied. A list of Institutions/Universities/Organizations/Agencies along with copies of the supply order to which the instrument has been supplied must be sent along with the Technical Bid.

**The instrument should be with onsite comprehensive warranty for a minimum period of Three year after satisfactory installation.**

**Only 90% payment of the cost of instrument will be made through LC and balance 10% payment will be released after satisfactory installation and one month operation.**

Each bidder should clearly specify that the bidder agrees to abide by the conditions of this tender document on their printed letter head indicating hereon Sales Tax Registration, FAX, Email, Telephone numbers, etc.

The supply of equipment has to be made within a period of 2 months time from the date the issue of Purchase Order by the Institute. In case firm fails to supply the machine in the specific time, penalty shall be charged as per the prevailing institute rules.

Director, Indian Institute of Technology Delhi reserves the right to reject or accept any tender without assigning any reason. In case of any dispute, Director, Indian Institute of Technology Delhi, India will be the final authority to decide the appropriate action.