Date: 01.09.2016

**DUE DATE: 22.09.2016** 



# Dept. of Applied Mechanics, Indian Institute of Technology Madras Chennai - 36

Dr. Shaikh Faruque Ali Assistant Professor Department of Applied Mechanics. Phone: +91(0) 44 2257 4054 Fax : +91(0) 44 2257 4052

## Ref. No.: APM/SHAI/2016/DST/ENQ1

#### Tenders are called for purchase of a Vibration Shaker System

- 1. Quotations are invited in duplicate for the various items shown in Enclosed list (Annexture I).
- 2. Quotations are invited as **TWO-BID** system, i.e., **technical** bid and **financial** bid.
- 3. The Quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
- 4. The Quotations should be valid for sixty days from the due date and the period of delivery required, warranty terms etc. should also be clearly indicated. A minimum of one year warranty required.
- 5. Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items enquired have been supplied must be provided.
- 6. Compliancy certificate is to be provided indicating conformity to the technical specifications.
- 7. If the item is under DGS&D Rate contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
- 8. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples / machine/ equipment if called for should be submitted / demonstrated at free of charges, and collected back at the supplier's expenses.
- 9. Packing and delivery charges must be clearly indicated.
- 10. The rate of sales / General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales / General Taxes will be admitted at any stage and on any ground whatsoever The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to non Government Educational Institutions run with no profit motive for which a concession. Sales Tax Certificate will be issued at the time of final settlement of the bill.
- 11. Goods should be supplied carriage paid and insured.
- 12. Goods shall not be supplied without an official supply order.
- 13. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later.
- 14. In case of LC. payment, 90% of the payment will be made after completion of the supply. The balance 10% of the payment will be made after satisfactory installation of the software.
- 15. IIT Madras is exempt from payment of Excise Duty and is eligible for concessional rate of custom duty. Necessary certificate will be issued on demand. IIT Madras will make necessary arrangements for the clearance of imported goods at the Airport/Seaport. Hence the price should not include the above charges.
- 16. **Acceptance and Rejection**:- I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

Yours faithfully

## ANNEXURE - I

Ref. No.: <u>APM/SHAI/2016/DST/ENQ1</u> Date: <u>01.09.2016</u> DUE DATE: <u>22.09.2016</u>

SL. NO.	DESCRIPTION	QUANTITY
1	Vibration shaker system	1
	Shaker Specifications:	
	Force (sine): Min. 200 kgf (1960 N)	
	Force (random): Min. 200 kgf (1960 N)	
	Stroke: Min. 25 mm (Peak to Peak)	
	Velocity: Min. 2000 mm/s (sine peak)	
	Acceleration: Min. 100 g (sine peak)	
	Frequency Range: DC to 4 kHz	
	Maximum Payload: Min. 50 kg	
	Shaker Weight: Max. 500 kg	
	Armature diameter: 150mm	
	Can be operated in horizontal and vertical directions	
	Should operate at the temperature ranges of Chennai	
	Associated Power Amplifier specifications:	
	Amplifier Output: 2 kVA	
	Voltage Output, Max. 120 V, RMS	
	Current Output, Max. 50 A, RMS (Continuous)	
	Frequency Range: 0.1 Hz to 4 kHz (±3 dB)	
	10 Hz to 3 kHz ( $\pm 1$ dB)	
	Input Impedance > 10 kOhm	
	Total Harmonic Distortion + Noise	
	< 0.5 % (0.1 Hz 500 Hz)	
	< 1 % (500 Hz 5 kHz)	
	Signal-Noise-Ratio: More than 65 dB at 100 V rms output	
	DC Stability: < 0.05% of full output voltage with 10%	
	changes in line voltage	
	Amplifier Efficiency: >90%	
	Shakar ayatam ahayld ba yyith all agazagarias lika saklas	
	Shaker system should be with all accessories like cables,	
	stringers etc., included. There may be a need to show a demonstration at 'Vibration Control & Energy	
	Harvesting Laboratory' before purchase. Prices should	
	include all installation costs.	
	include all installation costs.	

## Note:

The sealed quotation to be sent to

Dr. Shaikh Faruque Ali Room No. MSB 231 Department of Applied Mechanics, IIT Madras, Chennai-600036, Tamil Nadu, India