

19

**NATIONAL INSTITUTE OF TECHNOLOGY
KURUKSHETRA-136119**

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Dated: 10/01/18


M/s Instituto website

Sub: INVITATION OF QUOTATIONS RUT WHEEL TESTER WITH SHAPER

1. You are invited to submit your most competitive quotation for the following goods:

Sr.No.	Brief Description & Specifications of Goods	Quantity
1.	Rut Wheel Tester with Shaper (Detailed Specifications are attached)	01 Nos.

2. Necessary literature of the goods may please be sent to facilitate to take decision.
3. All duties taxes and other levies payable by the Institute shall be included in the total price. This Institute does not issue Form C or D.
4. Payment will be made Online through RTGS/NEFT within 30 days after receipt of material in good condition and according to specifications. The Bank detail for making online payment may be indicated in the quotation.
5. The supplier shall deposit Earnest Money alongwith the Quotation amounting to Rs. 32000 /- in shape of Accounts Payee Demand Draft, Fixed Deposit Receipt, Bankers Cheque or Bank Guarantee from any commercial Bank in favour of the Director, National Institute of Technology, Kurukshetra. The Quotations without Earnest Money shall be rejected, the EMD will remain valid for a period of 45 days beyond the final validity period of quotation.
6. Performance Security @ 05% of the total value of the equipment may be furnished in shape of Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any Commercial Bank in favour of the Director, NIT Kurukshetra valid upto 60 days after the date of completion of warranty .
7. The items must be supplied within delivery period or delivery period extended by the Institute on the request of the supplier on genuine grounds otherwise the penalty for delayed period @ 0.5% of the amount shall be charged for every week or part thereof and the maximum 10%..
8. The goods are not required exclusively for Research Purpose. The Duties are payable by the Institute.
9. The quotation should remain valid for a period not less than 60 days from the date of submission.
10. The firm must have got **GST No.** printing on their quotation
11. The right of accepting or rejecting any quotation and to cancel the bidding process and reject all quotations without assigning any reason is reserved with the Institute.
12. The due date for receipt of quotation is **01.02.2018** and will be opened on next working day. Please quote on the top of the envelope our Ref. No. and due date of opening.


Consultant (Stores)

Rut wheel Tester with Shaper *9/2/17*

WHEEL RUT TESTER ALONG WITH SHAPER

REFERENCE STANDARD: - EN EN12697-22 and EN12697-33

1. This part of the equipment must be suitable for determining the resistance of compacted asphalt concrete mixtures to load applied using a rolling wheel at constant temperature.
2. Test wheel speed: 42 ± 1 rpm,
3. Moving distance of sample table: 230 ± 10 mm,
4. Hardness of rubber wheel: 78 ± 2 at 60°C ,
5. Specimen sizes to be tested :
 - a. 300x300x50 mm
 - b. 300x300x70 mm
 - c. 300x300x100 mm
6. LVDT's with displacement measuring range of 0-50 mm (with least count 0.1 mm),
7. Wheel pressure applied on specimen: 0.5 MPa -1.0 MPa [Should have suitable mechanism to change and set applied pressure within $\pm 1\%$],
8. Operating temperature of cabinet: 5°C to 80°C (Accuracy $\pm 0.2^\circ\text{C}$) [Should be provided with suitable electronic control system],
9. Capacity of load cell: 100 kgf (1kN) ,
10. The test should be automatically controlled by a data acquisition and processing system with following requirements
 - a. Data acquisition software (user interface) should be installed on the computer (operating system will be windows XP, Windows 7 or any later versions available during time of installation) provided by supplier.
 - b. Data acquisition system should be able to acquire and store data to a computer during the testing time upto 4 hours,
 - c. Data acquisition system should acquire data like applied load; deformation in specimen, and temperature of cabinet,
 - d. Data acquisition system should store data in such a format that can be opened by MS Excel, or Notepad, or Word pad,
 - e. User interface of data acquisition system should provide options to adjust the duration of data acquisition, sampling frequency, and sampling speed of the test.

Wheel Rut Shaper

1. The wheel rut shaper part of the equipment should be pneumatically operated and capable to compact the asphalt concrete mixture to specified target density (or height),
2. Rolling wheel radius: 500 mm,
3. Rolling wheel width: 300 mm,
4. Should be able to control the temperature of mold between ambient and 200°C (Accuracy $\pm 0.5^\circ\text{C}$) during compaction using suitable electronic system,
5. Compaction pressure: up to 18 bar,
6. Bearing car speed: 6 rpm,
7. Distance in & out: 300 mm ,
8. Timer: 0-999 rounds [Should be able to change this setting using user interface],
9. Should be supplied with three molds of following size:
 - a. 300x300x50 mm (1 No)
 - b. 300x300x70 mm (1 No)
 - c. 300x300x100 mm (1 No)

24-01-17