

**COLLEGE OF AGRICULTURAL ENGINEERING**  
**JAWAHARLAL NEHRU KRISHI VISHWA VIDYALAYA, JABALPUR**

**1<sup>st</sup> TENDER NOTICE**

Sealed tenders are invited from manufacturers/Authorized dealers /Suppliers/Agents for supply of **Laboratory, electronics, mechanical instruments and farm equipments, etc.** are invited for Department of Farm Machinery & Power Engineering, College of Agricultural Engineering (RKVY Project). Tender forms with details, terms and condition for supply can be down loaded from the JNKVV website [www.jnkvv.org](http://www.jnkvv.org). Last date of submission 04-10-2017.

Dean  
Agricultural Engineering

**FACULTY OF AGRICULTURAL ENGINEERING**  
**JAWAHARLAL NEHRU KRISHI VISHWA VIDYALAYA, JABALPUR**

**TENDER DOCUMENT**

**TERMS & CONDITONS**

1. Only the manufactures/authorized dealers/Publishers/Suppliers/Agents need submit the tender. The authorized dealers should furnish a copy of the current certificate from the Manufactures for their dealership.
2. No person or Firm shall submit more than one tender for the same item.
3. A broad-based specification of equipment is given in Annexure. The tenders should also take note of the remarks, if any given therein.
4.
  - (a) Tender must be submitted in sealed cover to the **Dean, College of Agricultural Engineering, JNKVV, Jabalpur-482004 (M.P.)** by Registered post or delivered personally so as to reach on or before **04.10.2017 by 3.00 PM**
  - (b) Belated tenders due to postal delay or any other reason will be rejected.
  - (c) The tender in for EACH item should be sent SEPARATELY. The outer cover of the sealed envelope should be superscripted. **'TENDER FOR AGRICULTURAL ENGINEERING (Name of the equipment with Serial No. )** due on **04.10 2017**
  - (d) IF OFFERS FOR MORE THAN ONE ITEM ARE CLUBBED TOGETHER, THE TENDER WILL BE REJECTED.
  - (e) The tender offers should have a validity of 90 days or more from the due date for the rates quoted.
  - (f) The tender will be opened on **04.10.2017 at 3.30 PM** in the office of the undersigned in the presence of the authorized representative of tenders. They should bring proper authority letters.
  - (g) J.N. Krishi Vishwa Vidyalaya; reserve the right to extend the due date and or the date of opening the tenders.
5. The rate quoted should be for delivery at College of Agricultural Engineering, JNKVV, Jabalpur. The rate quoted should be inclusive of Packing and forwarding charges, loading/unloading/handling charges, freight full risk coverage, insurance installation charges etc. & the AMC charges for next two years from the date of installation of the supplied instruments/equipments.
  - a) The price offered for individual items should invariably be in Indian Currency. The Firms are requested to convert the prices into Indian Rupees if they are offering goods. Prices for accessories if any are quoted separately.

- b) Excise duty, sales tax (with and without concessional certificate) VAT and other levees, if any, should be shown separately, and the total price of each item should be worked out incorporating the same.
  - c) Any other charges, such as technical service charges, cost of training, installation charges etc. if any should be shown separately for each item and sub-item.
  - d) Breakup of the prices for the main item and its sub-item should be given separately. This is necessary to workout prices of a desired configuration.
6. The tender should be accompanied by detailed printed technical literature, specification, make and model No. of each item and each sub-item quoted in the tender, otherwise offer shall be rejected.
7. If asked by JNKVV, the tenderer will have to arrange a demonstration of the equipments/system at JNKVV, Jabalpur without any charge of obligations.
8. All losses during transit will have to be made by the tenderer at his own cost within period of 15 days.
9. The tenderer must guarantee satisfactory functioning of the equipment/system and free service including free replacement of parts for a period of at-least one year from the successful and satisfactory installation of the equipment.
10. The tender must be accompanied by Earnest money deposit for each item, as mentioned in the form of crossed bank draft drawn on a nationalized bank, made infavour of J.N. Krishi Vishwa Vidyalaya, Jabalpur. Without the DD of earnest money deposit the offers are likely to be rejected.
- 11.
- (a) The standard terms and conditions of payment acceptable to JNKVV, are payment in full only after the contract is effected in full and to be satisfaction of JNKVV authorities.
  - (b) In special cases, payment in advance or payment through a bank against the document or payment by opening irrevocable letter of credit with a bank or any other mode of payment may be considered by JNKVV provided in such cases the tenderer furnished as unconditional Bank Guarantee for the full amount to JNKVV with an agreement that in cases of any loss, incomplete supply, delay or breach of contract in any manner, the JNKVV can recover full amount from the supplier through this Bank Guarantee.
  - (c) The tenderer should make it clear in the offer as to whether payment terms 11 (a) or 11 (b) both is acceptable to the tenderer else the tender offer is liable for rejection.
- 12.
- (a) If so desired by JNKVV, the tenderer shall have to enter into an agreement.
  - (b) Any deviation, or non-compliance of the terms and conditions by the tenderer shall be considered as a breach of contract and JNKVV reserve the right to forfeit the amount of earnest money and or security deposit in part or in full and to take actions as per legal arrangement.

13. Should there arise any dispute, the Vice-Chancellor, JNKVV, Jabalpur shall be the sole Arbitrator, whose decision in the matter shall be final and binding.

J.N.Krishi Vishwa Vidyalaya reserve the right to accept or reject any or all offers in full or in part without assigning any reason (s) therefore. It also reserves the right to place an order wholly or in part with one or more than one firm as they may be convenient to JNKVV.

14. The tenderer shall have to give an undertaking that the terms and conditions as mentioned above of this tender are acceptable to the tenderer.

**Note:** The details of tender documents can be obtained in website <http://www.jnkvv.org>. The tender document can also be downloaded from JNKVV website, which will be acceptable only deposited along with IPO/DD ₹ **500/- (Non refundable)** in favour of **Dean, College of Agricultural Engineering, JNKVV, Jabalpur** payable at Jabalpur up to **04.10.2017** at 3.00 pm.

**Dean**

**Agricultural Engineering**

(A) Item for RKVY Project

1	Sound level meter EMD-2000/-	Features: Precision Type 2 instrument, Measurement range: 30 to 140 dBa, Response modes: Fast, slow, Frequency weighting: A, C, Displays SPL, Maximum SPL. Includes: WS-7 wind screen, 56-990 calibrator Adopter, 56-533 storage case.(With essential accessories) <b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b>
2	Trade mill EMD-2000/-	0-12% elevation and 20 kmph speed and programmable. <u>Technical data</u> : motor-3 Hp continuous duty, Running surface- 150 x 50 cm, Running belt – 2 ply, Speed- 1- 20 km/h ( adjustable in increments of 0.1 km/h), Inclination- 0-12 % ( adjusted in 1% increments), <u>Console</u> : Display – time, distance, speed, inclination, pace, calories, pulse, display of course profile with LCD, Training programs: 20, 4 direct selection buttons for speed. <u>Features</u> : Heart rate measurement, chest strap incl., PC interfaces. <u>Extras</u> : transport wheel <b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b>
3	Carbon pollution monitor EMD-2000/-	Measurement of CO, Co <sub>2</sub> No, etc levels for Indoor air quality monitoring (With essential accessories) <b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b>
4	Digital Load cell with indicator EMD-2000/-	125 kg, 500 kg, 1 - 5 tonne (Each number = 3 with individual display) with Beam and diaphragm combination. Tension, compression and bi-directional options. Maximum error in axial force component measurement is limited to 0.25% within a 3° angle swept through 360° around the load cell axis. Its various end-fixing options are all inert and easily modified for direct inclusion in mechanical assemblies. Integral 4 to 20mA or ±10V output amplifiers can be fitted as an option. Other specifications Parameter Value Unit Non-linearity - Terminal ±0.05 % RL Hysteresis ±0.05 % RL Creep - 20 minutes ±0.05 % AL Repeatability ±0.02 % RL Rated output - Rationalized 2.0 mV/V Rationalization tolerance (applies to single direction calibrations) ±0.1 % RL Output symmetry ±0.3 % AO Zero load output ±4 % RL Temperature effect on rated output per °C ±0.002 % AL with capable rod ends and suitable for indicator as specification below: power source 6V sealed lead rechargeable battery bridged supply 5V dc fixed, calibration check internal shunt resistor, accuracy ±0.02 % <b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b>
5	Gear Shift Knob Sensor EMD-5000/-	The shift knob sensor mounts either directly (replacing the gear shift knob) or indirectly with a shaft gripping adapter and allows real time measurement of the “X” and “Y” force components as experienced by the driver. Dynamic recording of the signals produced by the sensor allows the design engineer to immediately verify changes in linkage mechanisms which can improve the subjective feel of the automobile to the driver. <b>SPECIFICATIONS</b>

		<p>Capacities..... 50, 100, 200 lbs.  Overload capacity..... 150% of F.S.  Output at full scale load..... 2.0 mV/V nominal  Non-linearity..... 0.25% of F.S.  Hysteresis..... 0.25% of F.S.  Zero balance..... 1% of F.S.  Compensated temperature..... 70 to 170°F  Useable temperature..... -65 to +250°F  Temperature effect on zero..... 0.002% of F.S./°F  Temperature effect on span..... 0.002% of Rdg./°F  Bridge resistance..... 350 Ohms  Excitation voltage, maximum..... 20 Vdc  Adaptor..... Ordered separately  <b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b></p>
6	Grain Moisture Meter EMD-1000/-	<p>Principle: Capacitance, weighing device, the moisture-temperature sensor.(With essential accessories)</p> <p>Range: 3-47 % (grain dependent)  Repeatability: ± 0.5 % in normal moisture range for stored grains.  Analysis: Whole seed analysis.  Memory: 12 crop memory.  Direct readout: 12 crop direct readout.  Chart mode: For analysis of crops other than the 12 programmed crops.  Programming: Yes, Customize the system to your choice.  Display: 3 Digit large LCD display.  Construction: ABS plastic- Non –corrosive; Aluminium.  Power: 4 “AA” Alkaline batteries.  Weighs: Automatic sample weighment.  Temperature: Automatic Temperature Compensation (ATC)  Bias: Maybe independently set by push-button for each of 12 grains.  Weight: 1.23Kgs.  <b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b></p>
7	Offset Rotavator EMD-5000/-	<p>Offset Rotavator (Side Shift Rotary Tiller)</p> <ol style="list-style-type: none"> <li>1. Working Tilling Width – 6 feet</li> <li>2. Tractor Power – 37- 48 hp</li> <li>3. Number of tines per rotor – 42</li> <li>4. Transmission – Gear box, Multi speed</li> <li>5. Max. working Depth – 6 inch</li> <li>6. With all accessories.</li> </ol> <p><b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b></p>
8	CAD/CAM/CAE modules for computer	<p>University plus bundle for CAD/CAM/CAE having following modules and 5 years of maintenance, along with 2 lic of online training and certificate from any registered organization/company/institute , CAD/CAM/CAE Package, and others accessories.  <b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b></p>

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9	Tractor Drawn Paddy Straw Chopper EMD 5000/-	<table border="1"> <thead> <tr> <th colspan="2"><b>Specification</b></th> </tr> </thead> <tbody> <tr> <td>Power source required</td> <td>45 to 55 hp</td> </tr> <tr> <td>Type</td> <td>Tractor pto operated trailed type <math>\pm 10</math> for 540 rpm</td> </tr> <tr> <td>Gear box</td> <td>Heavy duty gear box</td> </tr> <tr> <td>Real</td> <td>Diameter 400-500mm</td> </tr> <tr> <td></td> <td>Width 1700-1800mm</td> </tr> <tr> <td></td> <td>Spacing between tynes 170-190mm</td> </tr> <tr> <td>Cutter bar</td> <td>Width 1900-2000mm</td> </tr> <tr> <td></td> <td>Type of blade : Serrated</td> </tr> <tr> <td>Feeding Auger with stone trap mechanism</td> <td>Should be provided</td> </tr> <tr> <td>Bruising drum &amp; baffle plate assembly</td> <td>As per cutter bar width</td> </tr> <tr> <td>Chopping size</td> <td>7 – 8cm</td> </tr> </tbody> </table>	<b>Specification</b>		Power source required	45 to 55 hp	Type	Tractor pto operated trailed type $\pm 10$ for 540 rpm	Gear box	Heavy duty gear box	Real	Diameter 400-500mm		Width 1700-1800mm		Spacing between tynes 170-190mm	Cutter bar	Width 1900-2000mm		Type of blade : Serrated	Feeding Auger with stone trap mechanism	Should be provided	Bruising drum & baffle plate assembly	As per cutter bar width	Chopping size	7 – 8cm										
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11	Three point	Three point hitch system dynamometer for the measurement of all the loads between the tractor and the implement.																																		

	<p>hitch system dynamo meter</p>	<p><b>Specifications Load cell :-</b>  Capacity: 0-5 T.  Rated Output: 1/2mv/V  Safe Over Load: 150% of RO  Safe Side Load: 50% of RO  Zero Balance: ±0.01% of RO  Excitation: 10 V DC maximum  Non Linearity: ±0.01% of RO  Non Repeatability: ±0.01% of RO  Hysteresis: ±0.005% of RO  Temperature shift Zero: ±0.001% of RO  Temperature shift Span: ±0.001% of RO  Compensated Temperature: 25° to 50 °C  Operating Temperature: -10°  Input Impedance: 390 Ohm  Output Impedance: 350 Ohm  Protection: IP67</p> <p><b>Specification Digitizer-Controller :</b>  Display: Two Line alpha Numeric LCD display with backlight  Keypad: Soft touch key pad  Relay O/P: Two Programmable set point with relay O/P  Communication port: RS 232 o/p to transfer real time data  Calibration: Software calibration  Peak reading: Peak reading display option, selectable by switch  Analog O/P: 0-10 V corresponding to Force  Power supply: Inbuilt Battery Li-Ion &amp; 220 V AC  Microcontroller: 2 X 8 bit Industrial grade microcontroller  Dimension of enclosure: 96X96X170 or 144X144X95  Communication port: RS 232 o/p to transfer real time data</p> <p><b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b></p>
12	<p><b>Non-Contact Photo Tachometers</b></p> <p><b>EMD Rs 2000/</b></p>	<p>Photo tachometers  Specification:  Range (rpm): 5 to 99,999, Accuracy: ± (0.05% rdg + 1d), Sampling Time: 1 sec&gt; 60 rpm,  Resolution: 0.1 rpm (0.5 to 999.9 rpm); 1 rpm (&gt;1000rpm), Dimensions: 6.7x2.8x1.5" (170x27x37 mm), Weight: 8.8 oz (250g)</p> <p>Features:  Large 5 digit LCD display is easy to read Built-in memory recalls last MAX/MIN value stored, Auto ranging with 0.05% accuracy, Non contact measurements from 5 to 99,999 rpm, User reflective marker on object to be measured and integral light beam or accurate readings updated point every second, 2 to 6 inches (50 to 150 mm) measurement distance (depending on ambient light) Complete with 23" reflective tape, four AA batteries and case(With essential accessories).</p> <p><b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b></p>
13	<p><b>Plotter</b></p> <p><b>EMD Rs- 2000/</b></p>	<p>Big size color plotter for printing of drawings of machines, A-3 size.</p> <p><b>Warranty :3 years hardware and service warranty at JNKVV, Jabalpur</b></p>



