

"ONLY FOR OFFICIAL USE"

1. No contents/terms of this rate contract shall be disclosed to any unauthorised person/persons.
2. The duly authorised Deptts., Institutions/Bodies can only make the purchases against this rate contract. This contract is neither meant for the use of private parties nor it can be put into personal use by any Government officer.
3. While making correspondence, the number and date of this rate contract may invariably be quoted.

TELEGRAM-HIMSTORE SHIMLA TELEPHONE/FAX NO. 2812613

Website: <http://www.himachal.nic.in/industry/storepurchase.htm>

Addl. Controller of Stores,
Himachal Pradesh.

Rate Contract NO: 4-IND/SP-3(M-122)16/2009 (22) dated 11/12/2009

To

M/S Multi Weigh (India) Pvt. Ltd.,
Village Chowkiwala, Ropar Road, Nalagarh (HP)

Subject: Annual Rate contract for the supply of Fully Electronic Pit Type Weigh Bridge.

Validity: The validity of this rate contract will remain in force up to 31/12/2010.

Dear Sirs,

In continuation of this office acceptance letter No. 4-Ind/SP-2(M-122)43/2009 dated 17/11/2009, it is to inform you that your rates are finally approved in respect of the items detailed in the enclosed schedule "A" on the terms and conditions specified therein as also in the schedule "B" & "C".

Yours faithfully,

Addl. Controller of Stores,
Himachal Pradesh.

Encl: As above

On behalf of Governor of Himachal Pradesh.

Endst No: 4-IND/SP-3(M-122)16/2009 (22) dated 11/12/2009

Copy of the above is sent for information and necessary action to :-

1. All the Administrative Secretaries to the Govt. of H.P. Shimla-2.
2. All the Heads of the Departments/Managing Directors of the Corporations/Heads of Boards and Autonomous Bodies/Deputy Commissioners along with two spare copies.
3. All the Direct Demanding Officers in H.P.
4. Dy. Director of Industries (SP), Directorate of Industries Section Officer (SAS), Store Purchase Organisation, Shimla-1.
5. Statistical Asstt./Tender Section/Sample Assistant/Computer cell in the Store Purchase Organisation, Shimla-1.
6. P.A. to the Addl. Controller of Stores, H.P. Shimla-1

Addl. Controller of Stores,
Himachal Pradesh.

SCHEDULE "A"**Rate Contract****(ON ANNUAL RATE CONTRACT BASIS VALID UPTO 31-12-2010)****SCHEDULE OF RATES TO RATE CONTRACT NO.4-IND/SP-3(M-122)16/2009 (22) TENDER CODE NO: M-122 OPENED ON 01/09/2009 FOR THE SUPPLY OF: Fully Electronic Pit Type Weigh Bridge.**

To

M/S Multi Weigh (India) Pvt. Ltd.,
Village Chowkiwala, Ropar Road, Nalagarh (HP)

ITEM CODE	GENERAL DESCRIPTION /SI SPECIFICATION	Rate (Rs.)	Unit
	Annual rate contract for supply, installation, testing and commissioning of 100 MT Pit Type Electronic Weigh Bridges including Civil and Electrical works at locations located all over the State of Himachal Pradesh on Turnkey basis: Technical specifications are given in Annexure-A		Each
M12201001001	Cost of Equipments: a) Comprising of Platform, structures, load-cells, Digital Weight Indicator, Standard RS. 232 communication interface to connect PC & Intelligent Terminal, Intelligent terminal, Printer, junction box, Jambo display unit, UPS, stablizer, Complete as per Technical specifications and Jumbo display unit (complete) for 100 MT 16mx3m platform size pit Type weighbridge as given in the Technical specifications.	6,61,000.00	-do-
M12201001002	Cost of civil and electrical works including taxes and duties (including construction of weighbridge foundation, weighbridge cabin, approach road, ramp Installation, commissioning and stamping charges of weighbridge complete in all respect (inclusive of taxes & duties) as given	3,00,000.00	-do-

	in the Technical specifications.		
M12201001003	Any other cost not envisaged above but required for the completion of turnkey job (Freight Charges)	6790.00	-do-
	Total	967790.00	

SPECIAL TERMS & CONDITIONS:-

1. Extent of contract:

(a) The contract comprises of design, manufacture, delivery, trial runs, tests, installation, tamping, commissioning, guarantee of the works, including construction of foundation, ramp and cabin and except in so far as the contract otherwise provides, the provisions of all labour, materials, manufacturing plant, temporary works and everything whether of temporary or permanent nature for completion of works.

(b) Codes and standards to comply with IS-9281 (Part-I, II, III & IV), as amended on date) for Electronic weighing system including load cells.

(c) Material specifications for major platform components shall be as per IS: 2062.

2. Drawings:

The contractor shall supply four complete sets of all drawings relating to the equipment as well as their installation at his own cost (Mechanical, Electrical and Civil Drawings).

The contractor shall keep one complete set of all drawings and specifications at site of work in good order.

3. Contractor's responsibility for errors in Drawings/ designs:

The contractor shall be responsible for and shall bear the cost of any alterations of the work due to any discrepancies, errors or omissions in the drawings, designs or other particulars supplied by him whether such drawings, designs or particulars have been approved by the Indenting Officer or not.

4. Total time stipulated:

The total time stipulated for completion of all the works upto the date of issue of "Taking over certificate" shall be 45 days or as indicated by the concerned

Indenting Officer, taking into consideration of their requirement of Weighbridges being ordered by them.

5. Schedule of work:

The contractor shall submit to the Indenting Officer a schedule of progress of supply, installation and commissioning of equipments including civil works within the overall period stipulated from the date of commencement of work to the date of taking over.

6. Contractor's Supervision:

The Contractor, without prejudice to the rights of the Indenting Officer regarding inspection supervision and testing as set out in the various clauses of this contract, shall provide full superintendence during the execution of the work and also thereafter as the Indenting Officer may decide. The contractor shall locate a competent representative and any necessary assistants duly approved by the Indenting Officer constantly on the works and shall give whole time supervision on the works. Such authorized representative shall receive on behalf of the contractor directions and instructions from the Indenting Officer or his representative.

7. Setting out works, levels, alignment & measurements:

The contractor shall be responsible for the true and proper setting out of works and for the correctness of the location levels, dimensions and alignment of all parts of the works. He shall arrange to supply or provide all necessary instruments, appliances and labour in connection therewith. If, at any time during the progress of the works, any error shall appear in regard to positioning, level, dimensions or alignment of any part of works, the contractor shall immediately notify the Indenting Officer and shall at his own expense rectify such errors and mistakes with the approval of the Indenting Officer. The direction of the Indenting Officer for the checking of any setting out or any line or level shall not in any way relieve the contractor of his responsibility under the contract. The contractor shall also supply the requisite number of persons with necessary instruments and

accessories for making any counting, weighing and taking measurements or examination of works at any time during the progress of the works,

8. Care of site:

The contractor shall at all times during the execution of the works maintain the site and working area free from all surplus materials, rubbish and offensive matter all of which shall be disposed of in a manner to be approved by the Indenting Officer on the completion of the works, the contractor shall clear away and remove from the site all constructional plants, surplus materials, rubbish and temporary works in a manner to be approved by the Indenting Officer and leave whole of the site and works clean and in a workman like condition.

9. Contractor's office and stores:

All offices, sheds and stores required by the contractor shall be erected at his own cost with the prior approval of the Indenting Officer and shall be dismantled and removed upon the completion of the contract if so directed, within 3 months of the issue of such intimation. Such buildings shall be subject to the approval of the Indenting Officer and shall be maintained in a clean and hygienic condition throughout the period of work.

10. Care of Works:

The Contractor shall take full responsibility for the care of works and all temporary works from the commencement to the completion of the project and in case any damage or loss shall happen to the works or to any part thereof from any cause whatsoever shall, at his own cost repair and make good the same so that on completion of the works they shall be in good order and in conformity with the requirements of the Contract. The Contractor shall also be liable for any damage to the works necessitated in the course of any operations carried out by him for the purpose of complying with his obligation under guarantee.

11. Inspection of works:

(a) The Indenting Officer shall arrange to carry out pre-purchase inspection and post installation inspection of EWB through their *authorized representative*. The inspection reports of such inspection carried out shall be approved by the Indenting Officer.

(b) The bidder shall be responsible for arranging test weights / power, lubricants and any other items required for initial trial runs / trial tests.

(c) The load cell test certificate shall be provided by the bidder at the time of inspection

All work under or in course or execution or executed in pursuance of the contract shall at all times be open for inspection and supervision of the Indenting Officer or his representatives. The contractor shall at all times during the normal working hours and all other times at which reasonable notice of the intention of the Indenting Officer or his representatives to visit the works shall have been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the contractor himself

12. Rectification of defects:

If, during the progress of the work, the Indenting Officer or his representative shall observe and notify in writing to the contractor that the contractor has executed any unsound or imperfect work or has supplied any plant or material inferior in quality to those specified, the contractor on receiving details of such defects or deficiencies shall, at his own expense, within such time as may be reasonably necessary for making it good, proceed to alter, reconstruct, or remove such work and to supply fresh materials conforming to the standard of the specifications. In case the contractor fails to do so, the Indenting Officer may, on giving the contractor seven days notice in writing of his intention to do so, proceed at the cost of the contractor to remove the work or materials objected to and perform all such work or supply all such materials provided that nothing in this clause shall be deemed to deprive the Indenting Officer of or affect any rights under the contract which it may otherwise have in respect of such defects or deficiencies.

The contractor shall be responsible for and to make good all damages and repairs to works occasioned by fire or other causes and shall indemnify the Indenting Officer from any claim for injuries to persons or from structural damage

to property, happening from any neglect, default, want of proper care or misconduct on the part of the Contractor or of anyone in his employment during the execution of the work. He shall further take precautions to ensure that no damages occur to adjacent property or structures due to earth work or piling work. If the contractor or his workers or servants shall break, deface, injure or destroy any property or installation, the contractor shall make good the same at his own expense, failing which the Indenting Officer may cause the same to be made good by some other agency and deduct the expense (of which the certificate of the Indenting Officer shall be final) from any sums that may be due to the contractor by the Indenting Officer. The contractor shall further ensure that the plant and machinery supplied against this contract and all other works are insured at his own expense against all contingencies of fire labour trouble, storm, lightning, flood, earth quake, air craft or anything dropped there from, aerial objects, riots and civil commotion and natural calamities for the full value thereof till the date of issue of taking over certificate and the contractor shall deposit with the Indenting Officer the policy or policies and the receipt in respect of premium paid and should the contractor make default in insuring or continuing to insure as aforesaid, the Indenting Officer may itself insure against any risk in respect of which the default shall have occurred and or deduct a sum equivalent due to or to become due to the contractor. He shall also take measures to ensure their proper security in consultation with the Indenting Officer. The Indenting Officer will also not in any way be held responsible for damage or loss on any such account.

13. Interference with traffic, extraordinary & water borne traffic:

All arrangements and operations necessary for the execution, completion and maintenance of the works and for the construction of any temporary works shall, so far as compliance with the requirement of the contract permits, be carried on so as not to interfere unnecessarily or improperly with the traffic or the access to use and occupation of public or private roads and footpaths, permanent way, or by any other properties on land, whether in possession of the Indenting Officer or of any other person and the contractor shall render harmless and indemnify

Indenting Officer in respect of all claims and demands whatsoever arising out of any such matters.

The contractor shall ensure that no highways, bridges, culverts shall be damaged by reason of his movement of heavy loads. It shall be the responsibility of the contractor to ascertain the safe load-carrying capacity of all highways, bridges and culverts from the highway Departments of the concerned State Government Department and he shall select routes and restrict loads accordingly. Any damage or injury due to the movement of loaded or unloaded vehicles to the property of or chartered by the contractor or any sub-contractor shall be the sole responsibility of the contractor.

14. Workmanship, Materials, Samples & Testing:

All materials and workmanship shall be of the best available quality in trade in accordance with the specifications, drawings, designs and instructions approved from time to time. All materials and equipment used on the work shall be new and unused. They shall be subject to such tests as may be directed by the Indenting Officer at the place of manufacture or fabrication or at any convenient place agreed upon. The contractor shall provide such assistance, instruments, equipment, labour and materials as are normally required for examination, measuring and testing any work for determining the quality, weight or quantity of any materials used. The contractor shall supply samples of materials before using them in the works for testing as required by the Indenting Officer.

15. Timely Commissioning of Weigh Bridges:

The contractor may be required to execute performance Bank Guarantee upto 10 % of the contract value by the Indenting Officer for the timely execution of the contract. In the event of contractors failure to have the weigh bridges commissioned by the time or times respectively specified in the letter of acceptance or contract, purchaser shall withhold, deduct or recover from the contractor as penalty, a sum @ 2% (two percent) of the price of equipment which the contractor has failed to commission as aforesaid for each and every month (part of a month being treated as a full month) during which the equipment may

not have been commissioned, subject to an upper limit of 10% (ten percent) of contract value.

16. Trial Runs/Test:

The contractor shall inform the Indenting Officer in advance of his intention to commission the equipment(s) for a trial run/test. In such an event the contractor shall provide the necessary staff and meet all other expenses for carrying out the trial runs/tests. He shall ensure that every portion of works such as power supply and any associated material, required for performing such test runs are also completed before undertaking the trial runs. He shall also indemnify the Indenting Officer against any damage to the completed works or the personnel engaged in such trial operation or to any other structure that might get damaged during the progress of such trials.

It shall be the responsibility of the contractor to get the weighbridges verified and stamped from the concerned weights and measures authorities at his own expenses and submit proof of such verification to the Indenting Officer at the time of taking over.

17. Guarantee:

(a) Quality of work:

The contractor shall guarantee all work done and material used by him. The contractor shall also guarantee that the design, materials and workmanship for each component of the equipment and the work shall be upto the satisfaction of concerned authority and whole equipment will operate successfully in all respect required by the specifications with no undue noise, heating, straining of parts, wear and vibration, even during voltage fluctuation. The guarantee shall be valid even if the installation is carried out by an agency other than the supplying contractor.

(b) Date of commencement of Guarantee:

The guarantee for all plant, equipment and work done, shall commence on the date of taking over certificate issued by the Indenting Officer.

(c) Period of Guarantee:

The period of guarantee on all plant and equipment including load cells shall be 12 months from the date of taking over certificate or 18 from the date of dispatch which ever is earlier. In case of break down or major defects which cause complete dislocation of weighbridge operation and the machine is not attended to and rectified within a period of 2 (two) *days* from the date of receipt of intimation by the firm or its branch office.

Liquidated damages @ Rs.500/- per day for the number of days for which the machine remains out of operation or the expenditure incurred by Indenting Officer on private weighment beyond the period of 3 days whichever is higher, will be levied on the firm subject to the maximum of 10% of the value of the contract. The compensation of such private weighment got done by Indenting Officer will be made within 10 days by the contractor failing which the said amount will be adjusted from the amount due/withheld under terms of payment. These charges will be in addition to the levy of compensation of maximum 10% falling under section 16 above. Thus Indenting Officer can levy maximum 20% of the value of contract for delay in completion of the work in all respects and not providing satisfactory service during guarantee period as detailed above.

(d) Rejection:

If during the period of guarantee any equipment or material or work done shall fail in any respect to meet the above guarantee, the contractor shall replace such equipment or re-do the work in a condition, which will meet the above guarantee immediately but not later than 30 days.

(e) Failure to rectify defects:

Failure to rectify any defects or replace such equipment or material, which shall have been notified to him in writing during the period of guarantee, it shall be deemed a breach of contract and the Indenting Officer will take appropriate action.

(f) Cost of execution of work of repair etc.

All such work shall be carried out by the contractor at his own expenses if the necessity thereof shall, in the opinion of the Indenting Officer due to the use of material or Workmanship not in accordance with the contract or due to the neglect or failure on the part of the contractor to comply with any obligation expressed or implied on the contractor's part under the contract.

(g) Remedy on contractor's failure to carry out work required.

If the contractor fails to do any such work as aforesaid by the Indenting Officer , the Indenting Officer shall be entitled to carry out such work by its own workmen or by others and if such work is that work, which the contractor should have carried out at the contractor's own cost, Indenting Officer shall be entitled to recover from the contractor the cost thereof or may deduct the same from any moneys due or that become due to the contractor. This is without prejudice to any other right, which the Indenting Officer may have against the contractor under law and/or under this contract.

(h) Contractor to search:

The contractor shall, if required by the Indenting Officer in writing, search for the cause of any defect, imperfection or fault. Unless such defect, imperfection or fault shall be one for which the contractor is liable under the contract, the cost of search by the contractor shall be borne by the Indenting Officer. But if such defect, imperfection or fault shall be one for which contractor is liable, the cost of work carried out in searching as aforesaid, shall be borne by the contractor and he shall in such case repair, rectify and make good such defect, imperfection or fault at his own expenses in accordance with the provisions of this Clause.

(i) Replacement:

In respect of equipment replaced under the terms of guarantee, the period for which such equipment shall be individually guaranteed shall extend to six months from the date of renewal or to the end of the Guarantee period whichever is later.

(j) Contract valid during Guarantee period:

This contract shall remain valid and in force until the date on which the guarantee period terminates.

18. Taking Over:

(a) Inspection and Trial Runs:

When the machinery installation and other structures of the specific part of the works are ready for operation, the contractor shall report this in writing to the Indenting Officer and simultaneously request for arrangement to Taking Over thereof. The Indenting Officer shall there upon fix the date for the trial run/test run and inspection. The contractor shall be present at the time of trial runs and inspection. If, however, the contractor fails to be present on the date so fixed, the work shall not be taken over and the contractor shall render himself liable to

compensate if otherwise leviable under Clause-8 (Section-IV) hereof without prejudice to other rights and remedies that the Indenting Officer may have against the contractor under this contract. Details of Trial Run/Test Run and consequences of failure: The machinery installation and related structures shall be inspected in order to ascertain that they conform to the stipulations of the contract and the technical specifications and trial runs shall be made in order to establish that the equipments and controls function properly and that the capacities are in conformity with the specified capacities. The trial runs shall be carried out under each of the various conditions prescribed in the contract. In case the required results are not obtained and the machinery, equipment, the installation and related structures do not fulfill the requirements of the specifications and appropriate standard, the contractor shall remedy all deficiencies and defects in so far as such works are covered by the contract; tests shall be repeated until satisfactory results are obtained

(b) Establishment of Record:

The results of the trial run/ test runs inspection shall be confirmed by the establishment of a record signed by the Indenting Officer and the contractor.

(c) Certificate of taking over:

If no deficiencies or faults are found and the machinery installation and related structures are in a position to function without break down at rated capacities, the date of establishment of this record shall be considered as the date of Taking Over by the Indenting Officer . The Indenting Officer shall issue a certificate of Taking Over of works in the form prescribed only after the stamping and verification of the weighbridge by the Weights & Measures Department of the respective State is got done by the contractor and including completion of all other works of the contract.

(d) Power, Lubricants, Test Weights etc.:

The contractor shall be responsible for arranging, test weights, power, lubricants and any other items required for initial trial runs/trial test.

(e) Erection, Operation and Maintenance Instruction Manuals:

The contractor shall supply at each site four sets of manuals written in English language comprising operating, servicing, maintenance and overhaul instructions for each category of equipment. Instructions shall be either in the form of standard printed manuals or leaflets.

OTHER TERMS AND CONDITIONS:-

1. The above rates are F.O.R. destination in Himachal Pradesh F.O.R. for Kinnaur, Lahaul & Spiti and Pangi is upto Reckong Peo, Manali & Chamba respectively.

2. 100% payment will be made within 21 days against physical delivery of inspected/accepted stores duly supported with satisfactory inspection note and after receipt of correct goods at consignees site/destination. The payment for civil works will be done after installation and handing over of the complete unit.
3. The VAT will be charged extra as and if applicable.
6. The above rates have been approved keeping in view the fact that a unit is a local Industrial Enterprise and as such the material supplied shall be manufactured in the unit itself and not arranged from outside Himachal Pradesh or any other source otherwise it will constitute a breach of rate contract.
7. The other conditions as mentioned in the enclosed Schedule "C".

Addl. Controller of Stores,
Himachal Pradesh.

ANNEXURE-A

1. Technical Specifications for Electronic Weigh Bridges:

The 100 MT weighbridge shall have overload capacity, at least 50% of rated capacity. The requirement shall be tested for dimensional parameters. Functional testing will be done at site. Material specifications for major platform components shall be as per IS: 2062.

1. Minimum graduation for weighbridges 100 MT shall be (\pm) 5 Kg.
2. Load cells shall be hermetically sealed and have IP68 protection class. Test certificate in conformation of the above class by a reputed Test House to be provided along with tenders.
3. The main girders and other cross members shall be rigidly secured to the foundation restricting any movement of weighbridge.
4. Weighbridge readings shall not differ by more than one resolution value, when the vehicle is placed on different locations on the weighbridge.
5. Digital Weight Indicator with alphanumeric key board with minimum memory of 10,000 weighments, suitable to operate under temperature -5 degree centigrade to 50 degree centigrade. Battery backed memory should also be provided.
6. The weighbridge calibration should stay for a minimum period of one year from the date of installation without the need for any readjustments.

1.1 Weighbridge Specifications:

Sl. No	Parameter	Value
1.	Capacity	100 MT
2.	Type	Pit Type
3.	Accuracy	0.025% OF RATED CAPACITY
4.	Interval	5 Kg
5.	Platform	MS
6.	Size	16mx3m
7.	Individual load cell capacity	30 MT
8.	Type of constraining	Appropriate constraining arrangements without hampering weighments accuracy
	Platform structural:	
9.	Material of construction of components: Main beams, Cross beams and transverse beams:	Mild steel as per IS: 2062 Transoms 4 Nos (Specify No. and material details and is size) I Section 6 Nos (18Pcs) ISMB 300mm x 140mm each

10.	Deck Plate	Chequered anti-skid Mild Steel plate as per IS: 2062 in convenient lengths of thickness not less than 14mm.
11.	Total Weight of Platform	To be provided by tenderer.
12.	Material Test Certificate	To be provided by tenderer.

2. Electronic weighing system and load cells:

(a) 8 No. Compression type load cells should be of reputed indigenous/ imported make. Manufacturer's test Certificates in respect of all requirements specified in IS: 9281 (Part-III) as amended on date (Tables 1 & 2) to be furnished by the contractor for each electronic weighbridge.

(b) General Requirements:

1. Hermetically sealed (IP-68 Protection class) maintenance and corner adjustment free, inert gas- filled, point contact, compression/shear beam type load-cell suitable to operate under (-)10 degree centigrade to 60 degree centigrade temperature and upto 95% moisture; capable to sustain specified overload, destruction load and side thrusts without further adjustment.

2. Housing of Stainless Steel 17.4 PH(1.4548)

3. Capacity of each load cell will be 30 MT.

4. Insulation resistance - 1000 Mega ohms or more.

5. Proper ingress and lightning protection as per Indian standards.

6. Load cell to be housed in lockable Sheet Metal Box.

7. Load Cells should confirm **OIML Standards** of standards laid down by Weights and Measure

Dept. Govt. of India

Minimum lateral displacement of load @ 12 Smax

Operating Temp. -40 to + 80 deg.

Excitation Voltage v 5.15

Zero balance % RO < + 1.0

Ultimate Load Emax 300

Safe load Emax 200

Load Cells Mounting Cups. (As per Tender)

Load Cells Top Bottom Plate (As per Tender)

Load Cells Base Plate (As per Tender)

Load Cells Teflon Bush (As per Tender)

Specify technical parameters for symantic of load cell assembly

Load Cell Base Plate
 Load Cells Assembly Plate
 M.S Bush with Collar
 M.S Bush without Collar
 Teflon Bush
 Teflon Plate
 Bush ass. showing L.C. fixture

(3) Junction Box:

1 No. Suitable to connect 8 Load Cells

1. Protection class: IP 65

1.	Surge protection	Surge arrestors provided within
2.	Material of: Construction	Cast Aluminium/stainless steel.
3.	Connection type:	Terminals on PCB mounted inside Junction box.
4.	Glands for entry	Double compression type.

(4) Interconnecting cable:

The load cells to be provided with 4-wire system and shielded type cable approximately 10 meters in length to be laid in class “B” GI Pipe.

- i) No. of cores To be specified by the manufacturer/supplier
- ii) Type of connection -do-
- iii) Type of cable shield. -do-

5. Digital weight Indicator, Personal Computer and Printer

(a) Digital Weight Indicator

This should be state of the art high performance micro processor based system having high internal resolutions, clear and bright seven digit LED display auto zero tracking, tare/gross weight indications, Auto calibration facilities etc. It should be capable of interfacing with the computer for further processing of data as per requirement operating temperature is to be -5 degree centigrade to 50 degree centigrade, response time less than 0.5 seconds, electrical safety IEC-348. Software to print, process and store weigh-data like Address, Tare, Gross & Net Weight along with list print of Date-wise, Vehicle-wise, Material-wise and Supplier-wise details.

STANDARD FUNCTIONS:

High Precision A/D conversion with readability 1/10000

Call and display inner code to replace weight observing and analysis tolerance

Able to set up zero-tracking automatically.

IP 65 class protection

AC Power Supply

Standard RS. 232 communication interface to connect PC & Intelligent Terminal.

TECHNICAL PARAMETER:

- A/D conversion method:
- A/D conversion speed: 10-20 times/sec
- Max. A/D conversion bits: 8
- Input sensitivity: $> \frac{V}{e}$
- Load Cell excitation: 10 V.D.C.
- Load Cell conversion mode: 4 wire
- Verified counts up to 10000
- Max. external counts: 10000
- Max. internal resolution: 40000
- Division: 1/2/5/10
- Display 6 Nos. Red LED Display of character size 25mm and 2 status indications
- Display range: - up to 99990(e=10)
- RS 232C Serial communication interface, with selectable baud rate by continuous Sending Method
- Transmission distance: RS 232 < 30 meters
- Power supply: AC 187-242V/49-51 HZ

(b) INTELLIGENT TERMINAL

- Intelligent Terminal is E-Prom based mechanism having standard weighing software to process, provide & store data like hauler's name, material name, 1st weight, 2nd weight & net weight. It also provides data like date & time of vehicle in along with registration no. of the vehicle.
- Micro 2000 Version VII is Micro Computer, simple to operate & should be virtually maintenance free mechanism.
- IBM/DELL/HCL PC compatible keyboard interface for convenient data entry.
- Display 12x2 characters large backlit LCD.
- Port IBM PC compatible 1 No. serial RS 232 Port 1 No. Port for printer.
- Ticket entry through Reg. No. of vehicle , character 12 Nos.
- Hauler's Name characters 16 Nos.
- Material name characters 16 Nos.
- Date and time record for each weighment, 1st and 2nd
- 2nd weight selection by serial no. or vehicle no.
- Net weight-Automatically calculated and displayed after 2nd weight.
- Date and time- Auto Entry. 24 Hours Format. Separate for 1st and 2nd Tickets.
- Manual Tare- With indication on tickets.
- Tickets should be saved and verified before printing.

- Any stored ticket could be viewed and reprinted.
- Paper size 4", paper for the Tickets 12" Paper for the Summary.
- No manual delete. Auto delete of 1 ticket at a time.
- Payment-Cash/Credit.
- Automatic entry of charges.
- Reference selection by code, up/down keys. Manual overwrites for unlimited references.
- Clock real time clock for the 100 years.
- Simple auto allocation of the serial no.
- Multiple-page report printing should be done with 55 tickets printed per page. The page length is assumed to be 12- inches. Every page included the report-type and headings on top for easy readability.
- Reference entries in memory could be changed by the user Vehicle type/Material type/Party type.
- Unlimited types of materials and parties could be entered.
- Non-volatile date retention to attend to 100 years even without power.
- Serial No. – Automatic allocation.

(c) The Printer (80 Col.) with speed compatible with the Micro Processor.

The equipment shall be provided with electronic recording unit designed to provide printed records of (a) Sl. No. (b) date (c) code (d) gross weight (e) tare weight (f) net weight and (g) commodity. It shall be freestanding, microprocessor based, 80 C01 240 CPS Dot Matrix impact type printer interfaced with indicator system. Operating temperature range should be (-) 5 degree centigrade to 50 degree centigrade of reputed make such as WIPRO/TVSE/HCL/EPSON. TVS OR WIPRO

(6) U.P.S.

Online UPS of reputed make e.g. TVSE /Tata/ Libert /APC /Numeric/ Elnova/ Data Vision of 500VA supported with 2 nos. of 130 AH or 3 nos. of 90 AH each of Exide/ Standard/ AMCO or equivalent approved make maintenance free batteries for 6 hr. operation in case of power failure.

(7) Constant Voltage Stabilizer/ Transformer

500 VA rating servo transformer of reputed and approved make to protect the equipment from voltage variation.

(8) Jumbo display unit

An additional display unit at a suitable place outside the cabin of weighbridge for clear viewing of drivers in day light or in darkness of character size of 100 mm, 5 digit bright, LED type to be provided.

Note

Manufacturers, their dealers/representatives/ suppliers should have appropriate licence for the installation of the weighbridge system from Directorate of Metrology, Government of India/State Government.

(9) Sealing and Stamping

a) The sealing and stamping of load cells as well as that of the total weighing system shall conform to the requirements laid down under "Indian Weights & Measures Act, 1976".

b) The chassis of the electronic equipment shall be designed in the manner that it is feasible to lock the whole system electronically to make it completely tamper proof at one place for subsequent verification by the concerned authorities.

10. Packing: The mechanical and electronic components of the weighing system shall be suitably packed. All the conditions of storage before actual installation shall be specified by the manufacturers.

11. Performance: The performance of the load cells as well as the total system shall also comply to all the technical and metrological requirements laid down under the Indian Weights & Measures Act, 1976 and IS: 9281 (Part-III) - 1981' as amended on date.

12. Civil Works

The work shall be executed in accordance with the latest CPWD/Punjab PWD Manual Specifications and IS Codes.

(a) Civil pit Foundations and Platform Bed:

The tenderers should enclose civil pit foundation drawings with complete specifications. Any special treatment that may be required for the foundation to cater to the needs of the poor soil conditions shall be carried out by the contractor at his own cost. Suitable guarding arrangement need be incorporated lengthwise of the platform to prevent sliding of vehicles as per relevant IS Code.

(a) The main girder/ beams and cross beams will be preferably in single piece without any welded/ joint section.

(b) Thickness of M.S. Plate for Deck should be not less than 14mm for 100 MT capacity weighbridge.

(c) The tenderer will indicate the approximate weight of Steel Structure with detailed calculation indicating the details & sizes of structures to be used.

(b) Ramp and approach road:

On both sides of the weighbridge, ramps and approach road, required if any, and with width equal to the width of the weighbridge shall be provided. These ramps/road shall consist of the following: -

- i) 150 mm thick sand filling well rammed.
- ii) 150 mm thick lean concrete of (1:4:8) mix.
- iii) 175 mm thick plain cement concrete of Grade M-20 (1:1 ½: 3).

(c)Cabin:

A weighbridge room of internal dimensions of 3 mtr by 5 mtrs consisting of brick/stone masonry walls and foundations and RCC roof shall be provided. The internal surface shall be cement plastered. Roof shall be laid with proper terracing and treated for waterproofing; flooring shall consist of 150 mm thick sand filling, 100 mm thick PCC (1:4:8) sub-base layer floor with 40 mm thick PCC (1:2:4) floor topping with smooth finish. Steel door and windows partly glazed with grills fixed to windows shall be provided. The internal surfaces of walls shall be finished with dry distemper and external surfaces treated with snowcem of approved quality and shade. One computer Chair and Table will be provided in the room. If the size of the room constructed of smaller size, the payment will be deducted on pro-rata basis.

(d) Electrical Works:

This shall conform to *latest* CPWD specifications and Indian Electricity Rules. Service connection for 230V supply upto the switchboard in the cabin will be provided by Indenting Officer or his representative. The wiring shall be carried out with copper wiring PVC insulated of suitable size in recessed PVC conduit as per *latest* CPWD specifications.

Number of light/fan points will be as under: -

Item	Quantity	Description
Light Points	2 Nos.	Box type tube light fittings ISI marked with tube inside the cabin.
	1 No.	440 watts totally enclosed water tight, weatherproof, and dustproof type streetlight fitting complete with accessories mounted on a G.I. bracket outside the cabin.
Fan point	1 No.	including 1200 mm sweep ceiling fan complete of approved make with electronic regulator conforming to relevant ISI specifications.
5 Amps Socket outlet	1 No.	On the switch board itself (ISI Mark standard make).

		Outlet
15 Amps Socket outlet	2 Nos.	At skirting level (ISI Mark standard make)
Main Board	1 Set.	Angle iron frame of suitable dimension With one 30 Amps MCB (Incoming) and 2 Nos. 16 Amps MCB (outgoing) MCB should be ISI Mark standard make
Pipe earthings	1 Set	Pipe earthing complete as per latest CPWD specifications.
	1 Set	Copper plate earthing for electronic equipment as per latest CPWD Specifications.

The contractor shall be required to submit 4 copies of the drawing along with design calculations for approval by the Indenting Department. The Indenting Officer shall be at liberty to modify the design given by the contractor and he should follow the same without any extra claim.

13. Shop Tests and Inspection

- (a) Type tests and routine tests shall conform to IS: 9281 (Part-II) as amended unto date and those specified herewith.
- (b) Shop Assembly: Equipment shall be shop assembled, prior to transportation/shipment, to the extent required to facilitate field installation.

14. Installation

- (a) Alignment and adjustment of machinery shall be carried out by skilled and experienced machinery fitters.
- (b) All machinery shall be assembled fitted or mounted in such a manner that all necessary clearance shall be retained.
- (c) The contractor shall be responsible for all necessary alignment and adjustment of structure, machinery and equipment to obtain efficient operation of the equipment.
- (d) Errors, omissions and misfits shall not be corrected by burning, except with permission of Indenting Officer.

15. Painting

Two coats of anticorrosive and one coat of finished paint on all steel structures after preparation of surface to be applied for protection against corrosion/rust.

16. Drawings and Data to be submitted by Contractor

The Contractor shall at his own expense prepare and submit four copies of drawings showing foundation details, location and size of bolts and structural

steel supports, general, arrangement and assembly drawings showing important particulars, overall dimensions and clearances etc.

On completion of the Work and before the tests are carried out, the contractor shall at his own expense prepare and supply to the Indentor four (4) certified copies of the following: -

1. Installation Manuals.
2. Inspection and Maintenance Manuals.
3. Operation Manuals.

