

ON SITE CALIBRATION

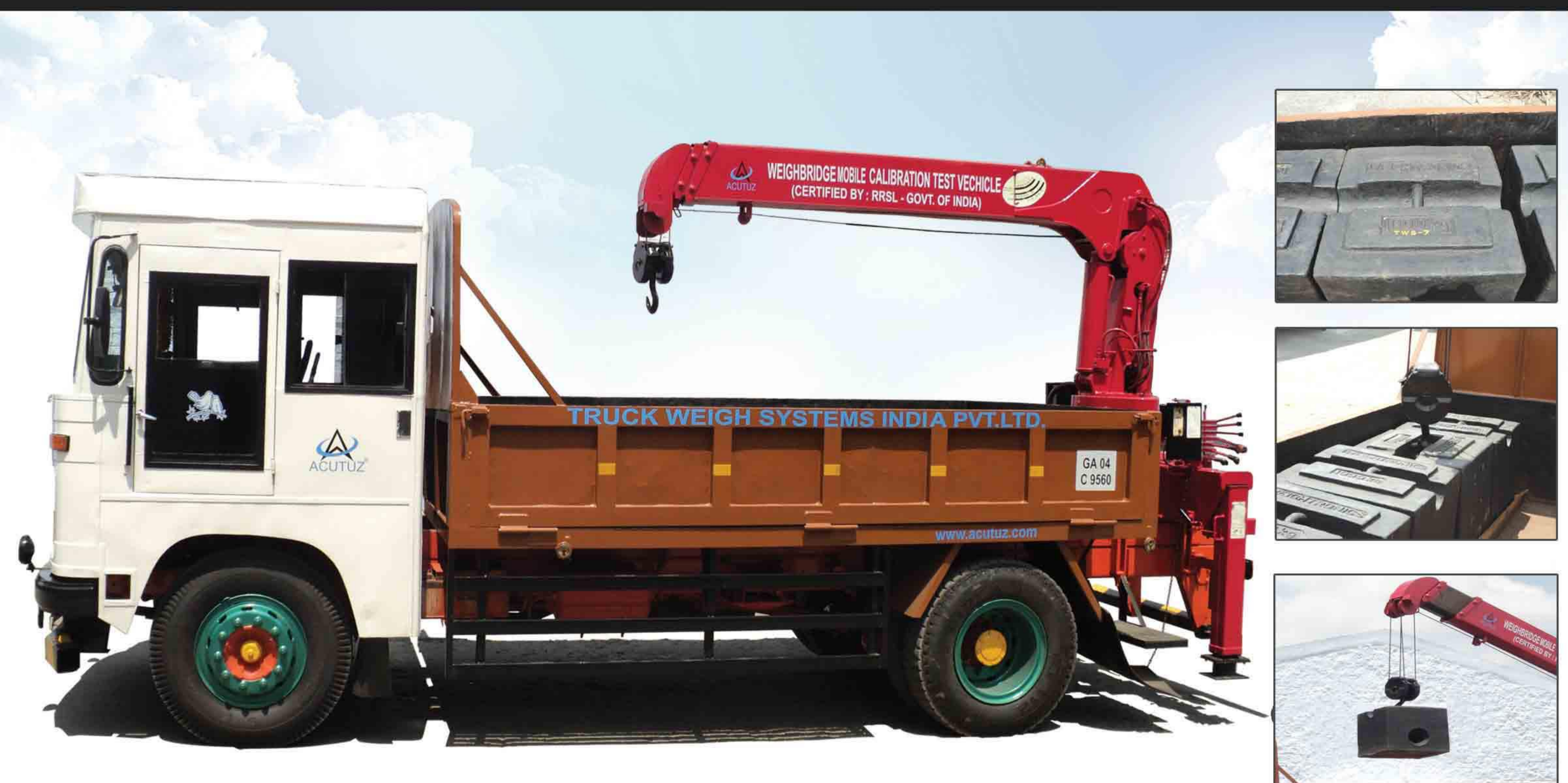
TRUCK WEIGH SYSTEMS INDIA PVT. LTD.

(An ISO 9001 : 2008 Certified Company)



Truck Weigh Systems India Pvt. Ltd., one of the leading Manufacturers, Supplier, Exporter and Service providers of Electronic Weighbridges ranging from 5 tonnes to 200 tonnes since 2004.

Truck Weigh Systems has launched "MOBILE TESTING and CALIBRATION (MTaC)" a new and integrated equipment to calibrate the Weighbridges ON SITE. This is to ensure 100% accuracy on each weighment to our valued customers.



Salient Features of this equipment are as follows :

- ▶ Truck mounted with Crane for lifting test blocks
- ▶ Hydraulic Crane is capable of lifting 3 tonnes of weight with 360° rotation along with a boom which can extend upto 20' length
- ▶ Truck contains 10 tonnes of Cast Iron Weights each test block weighing 1 tonne
- ▶ Entire testing process can be completed within 2-3 hours
- ▶ Facility to test & calibrate any type and any position of weighbridge
- ▶ All test blocks are calibrated and certified by RRSL (Regional Reference Standards Laboratory) , Bangalore, Ministry of Consumer Affairs, Govt. of India
- ▶ Traceability certificate after each testing
- ▶ After Calibration we will obtain verification certificate of your weighbridge from Dept. of Legal Metrology

Benefits :

- ▶ Ensure 100% accuracy on each weighment and avoid material weight difference disputes with suppliers and customers
- ▶ Ensure trust with stake holders
- ▶ Increase your Supplier and Customer base
- ▶ Avoids material short weight receipt and save money

How much you could save when your weighbridge is functioning accurately ?

- ▶ Consider that a Weighbridge is weighing short of 20 kg for 10 tonnes
- ▶ Assume 500 tonnes of total material transactions are taking place in a month and this would result in loss of 1000 kg
- ▶ Assuming average cost of the material as Rs.50.00
- ▶ Total loss : $1000 \times 50.00 = \text{Rs.}50000.00$
- ▶ Cumulative loss / year : $12 \times 50000.00 = \text{Rs.}6,00,000.00$
- ▶ On calibration of Weighbridge with 10 tonnes of Calibrated Test Block can save about Rs. 6,00,000.00 approximately in a year



REASONS FOR INACCURACY IN WEIGHMENT :

When your weighbridge is Calibrated with reference to nearest weighbridge measured weight :

- ▶ Technically or legally this is not the right method even though the nearest Weighbridge is certified by Legal Metrology Department. Any weight error already persistent with reference weighbridge will propagate to the Weighbridge which is to be Calibrated

Improper Installation, Maintenance and Calibration of Weighbridge can result in Weighment inaccuracy :

- ▶ Weighing instrument has to ensure 100% of LINE, LEVEL & GAUGE at all times
- ▶ Improperly installed weighbridge, periodical non maintenance of Weighbridge, load cells, earth grounding and electrical connections will lead to inconsistent weighment result

SOLUTION FOR ACCURACY IN WEIGHMENT :

- ▶ All Weighbridges should be Calibrated with Reference Standard Calibrated Weights
- ▶ Regional Reference Standard Laboratory is a wing of Ministry of Consumer Affairs, Govt. of India and Dept. Of Legal Metrology, Govt. of Tamilnadu or any States are empowered to Calibrate the Reference Standard Weights
- ▶ Truck Weigh Systems new integrated equipment "MOBILE TESTING and CALIBRATION (MTaC)" with 10 tonnes RRSL Certified test blocks can ensure 100% accuracy on every weighment for our valued customers

Testing Methods :

Zero Calibration Test

- ▶ Empty weigh bridge platform is tared and Calibrated to zero

Load cell Eccentricity Test

- ▶ Each load cell in a Weighbridge may produce unequal output which gives corner error and results in inconsistent weight error on every weighment
- ▶ General thumb rule for eccentricity test is to, test each load cell with a ratio of TOTAL WEIGHBRIDGE CAPACITY / No. OF LOAD CELLS. For example a Weighbridge with the Capacity of 60 tonnes with 6 Load cells should be tested with 10 tonnes Weights on each load cell

Range Test

- ▶ It is very important to CALIBRATE the Weighbridge with maximum known weight
- ▶ General thumb rule to Calibrate any Weighbridge system is with 10% of its total capacity. For example, a 100 tonnes Weighbridge may be Calibrated with 10 tonnes reference standard test weights

Linearity Test

- ▶ Weighbridge capacity is tested with reference standard test weights along with dummy loads

Repeatability Test

- ▶ Repeatability of the Weighbridge system is ensured by verifying that the same weight is displayed at all times when applying a given calibrated load in any direction

"Profit Shield" at a Glance

Average material transaction in a month	A =	<input type="text"/>	kg
Average cost of the material per kg	B = Rs.	<input type="text"/>	
Total cost difference for the month	C = Rs.	<input type="text"/>	$C = A * B$
Total cost difference for the year	D = Rs.	<input type="text"/>	$D = C * 12$



"Accuracy in material weighments are your rights and the LORD delights"

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