

# ELECTRONIC WEIGH BRIDGES

(POPULAR BRAND OF INDIA)





# SATYAM WEIGHING SYSTEM

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#### Introduction

Since 2008, Satyam Weighing System is a leading manufacturer of all type of weighbridges & weighing scales and its all models are approved by director legal metrology department govt. of India. It provides quality solutions for all type of weighing scales and weighbridges. The Satyam Weighing System electronic weighbridges are the outcome of 10 years of experience in Government Departments, Semi Government, PSU's and private sector who are fully satisfied with our services and products as we have received several repeat orders on the basis of our excellence. The head office of the company is in Lucknow (UP) and popular far and wide across the country.

#### Our Productive

Electronic Weigh or idea courses of fabricated steel/ RCC Platform having 4/6/8 load cells connected with junction box and digital indicator, fastering with PC/ Intelligent Terminal & 80 Col. Dot Matrix Printer. Electronic Weighbridge can be classified.

## Pit-Leik Tyne Surface Mounted Weighbridge

Complete all Steel structure. Speciated to form a box type squarish grid network in semi bolted construction covered with M.S. Plates duly ribbod. A rugged cubron web unique modular design. The modules consists of Steel deep section main "I" Beams, which are in lated longitudinally in the direction of the traffic, which take the real weight. The load cells are mounted under these main beams. Cross if beam modules are bolted / welded crosswise, carefully fabricated in rigid box type grid work to prevent deflection and distortion, even on overloads.

## Pit Type Weighbridge

Pit Type Weighbridge occupies less space as the ramps are not required on either side.

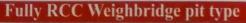


#### Mobile Weighbridge

Mobile Weighbridges are most suitable for temporary usage at construction sites etc. There is no civil foundation needed in mobile weighbridges and can be installed in only 10 hours. The main requirement is a smooth hard surface at the loading point. MS Ramps & Portable Control Cabin can be supplied with the weighbridge if required.

## Semi RCC Weighbridge pit less type (Concrete platform)

- Combines the strength and light weight of steel with the durability of concrete. Fast and economical Installation.
- Excellent levels of corrosion protection through shot blasting and, epoxy painting.
- These weighbridges enables throughputs of bulk materials and are designed to keep installation, maintenance and operations as simple as possible even in the saline and corrosive environment.
- The steel frame of this weighbridge is designed to withstand harsh environmental conditions.
- The production system ensures impeccable focus to the performance of the product and faster response to customer's needs.
- As compared to steel platform weigh bridges, concrete weigh bridges are maintenance free and economical as it does not
  require painting every year, the parts do not get rusted, absorbs more vibrations, capacity can be increased without using
  extra material, no bending of steel structure, more stable due to heavy mass structure, no effect of lightening.



With ever-rising steel prices, it makes great economic sense to install concrete platform weighbridges. Apart from low costs, it offers high strength and is virtually maintenance free – requiring no painting every year. Its life is 100 years as compared to that of 15 years of a typical steel platform. Due to the advantages of concrete platforms, the developed world has been using them for over 30 years. In Europe 95% of electronic weigh bridges are made with concrete platform.

As the platform gets longer, cost saving increases. Modern day transportation is moving towards using longer trucks and trailers. MNC truck manufacturers, such as Volvo, who have started manufacturing in India, are introducing longer models which are capable of carrying heavier payloads. The concrete platform weighbridge can bear heavier loads.



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That is why all modern bridges that one sees on the city roads are

either concrete or composite.

A heavily loaded truck entering the weigh bridge gives heavy jerks on braking. Vibration thus caused, reduces the life and accuracy of the load cell and thus needs to be reduced to minimum. Vibration is much more in the case of steel as compared to concrete as it absorbs vibration.

### **Digital Indicator**

Digital Weighbridge Indicator is specially designed for weighbridge applications and is used at weighbridges for printing weight slips and generating weight reports.



- Battery backup with inbuilt charges
- PC not required for processing & data contagoment.
- O/P of individual loadcells is displayed or indicator's LCD screen along with total weight.
- Nonvolatile memory up to 20,000 durishmis netions record.
- 16 character LCD display for date, time & weight.
- 101 key IBM keyboard for data enti-
- 13mm LED display & optional parallel 2 inches LED 7 segment Red LED display.
- RS-232C port to connect indicator to a computer. Data can be converted into Excel format



Intelligent terminal is a rugged and sleek system specially designed for use in harsh and dusty environment. Software has been developed in such a way that it fulfills most of the requirements of weighbridge data management. This is a RAM/ Rom based system and does not have any rotating parts such as hard disc and hen ce gives you trouble free / reliable performance. This intelligent Terminal can drive any size of LCD/LED/CRT monitors and is suitable for all weighbridge platform sizes.

#### Features

USB port for Keyboard / Pen drive facility No calibration required Satyam Digital Load Cell Memory for 200000 to 250000 records Facility to send SMS for weighment record (Optional) Facility to send Auto E-mail Data Transfer Facility (Optional) Field programmable 10 subtitles for ticket data entry Coding facility (100 codes for 4 entries) Field Programmable Pre-printed tickets Vehicle-wise data entry and report printing Multi level passwords for security (Dynamic or Regular) 240x64 Graphic LCD display for weight / weighment data Optional LCD with back light control for data entry LED display with brightness control for weight display

#### Technical Specification

Processor: 32 bit Processor

Processor clock frequency: 50 MHZ

Real time clock: On board battery backed RTC (32.768 KHz.)

Memory: Capable of storing 200000 to 250000 records

Power supply: SMPS power supply Input Voltage: 90V to 300V AC @ 50Hz A/D Converter: 24 Bit Sigma Delta type

Load cell exciation: 8V DC, Can drive up to-12 load cells of

350 ohms each

Protection: (A) 750mA fuse for input AC mains

(B) Input line filter for EMI and RFI suppression

(C) Spike suppressor for input transients

(D) Opto-isolation of signals for high immunity from Electrical noise

Power Consumption: 10 VA (approximately) Display (standard): 240x64 Full Graphic LCD





Keyboard port : Alphanumerical with USB compatible keyboard

USB Port: USB Port configured for connecting Pen Drive Printer port: Isolated Centronics compatible printer port provided on rear panel for connecting 80-column dot matrix printer for printing of weighment records and reports.

Serial port: RS-232 serial port is provided for computer

interfacing, remote displays or modem

Remote Display Port: Remote display port is provided to connect optional LED display (various size)

Wi-Fi: Transmission facility to connect wireless peripherals

**Environment**: Operating temperature: 0° to +65°C

Humidity: up to 95% RH non-condensing

Mechanical: Dimensions: 294 mm (w) x 220 mm (D)

x 210mm (H)

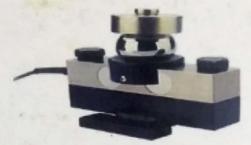
Weight: 2.5 kg (approx.)

#### **Load Cell**

A load cell is a transducer that is used to create an electrical signal whose magnitude is directly proportional to the force being measured. The various load cell types include hydraulic, pneumatic, and strain gauge. There are several types of load cells:

- · Shear beam, a straight block of material fixed on one end and loaded on the other
- Bending beam, a compact, extremely versatile load cell that can easily fit into components where space is limited.
   These devices are commonly used in industrial and commercial measurement applications.
- Pancake, low-profile compression and wheel tension load cells that have a wide surface area for absorbing shock loads.
- Single point / platform load cells, allow the construction of a weighing scale or machine with only one load cell.

  Used in small / medium sized platform scales.
- Double-ended shear beam, a straight block of material fixed at both ends and loaded in the center
- · Compression load cell, a block of material designed to be loaded at one point or area in compression.



(Double endeed shear beam type load cell )



(Compression Type Load cell)

#### Size and capacity of weighbridge

Platform size in mm (Length x Width)	Capacity	Graduation	No. of Load cells
3600x2400	5/10 T.	1 KG.	4
4800x2400	10 T. / 15 T.	2 KG.	4
6100x3000	20T / 25T / 30T	5 KG.	4
7500x3000	30 T/ 40T / 50 T	5 KG.	4
9000x3000	25T / 30T / 40T / 50T /60T	5 KG./10 KG.	4/6
10000x3000	40T/ 50T / 60T / 80T	5 KG./10 KG.	6
12000x3000	40T/ 50T / 60T / 80T	5 KG./10 KG.	6
14000x3000	40T/ 50T / 60T / 80T	5/10 KG.	6
16000x3000	40T/ 50T / 60T / 80T	5/10 KG.	6/8
18000x3000	60T / 80T / 100T	10/20 KG.	8
20000x3000	100T	20 KG.	8

# Our Reliable Customers



(A subsidiary of Coal India Limited)











Heavy Engineering Corporation Ltd. (A Government of India Enterprise) Ranchi, India