

The Ton-Tel™ Weighbridge

Plug-and-Weigh™ Technology



Built to last in a tough environment

Proven reliability, lower total cost of ownership.

Digital Load Cell weight sensors sealed to IP68.

Plug-and-Weigh™

Standard Sizes: 6.3m, 7.8m, 10.3m, 12.3m, 15.3m, 18.3m, 21.3m, 22.8m, 24.3m, 28.3m, 30.3m, 35.3m. Other sizes to order.



The Ton-Tel™ weighbridge has been built to give high precision weighing. Vehicles can now be weighed precisely using Griffith Elder electronic 'Plug-and-Weigh™' technology, without compromise on the rugged build strength which makes these weighbridges suitable for the heaviest usage.

The Ton-Tel™ weighbridge is made so that it can easily and quickly be installed in a prepared site. The sections are dropped onto weigh beams and locked into position. All cables are plug-in for quick fit. Factory calibrated. The weighbridge structure is only 340 mm deep.

The strength of the Ton-Tel™ is in the heavy duty welded steel structure. High quality steel beams form the superstructure with a surface deck finished in steel chequer plate to provide a high strength non-skid platform of optimum rigidity. There are no wearing parts and all the electronics are sealed against the environment to ensure a long and trouble free life.

The system is available with a wide choice of indicators and software which can be tailored to suit any particular application.

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Ton-Tel™ Weighbridge

Simple drop in place sections



Weigh Beams made for easy assembly

Each weighbridge has a number of weigh beams which actually detect the weight on the platform. Built into each beam are two high precision load cells which are sealed with welded caps to ISO standard IP68. The robust design ensures a long working life and is maintenance free. The high reliability of the loadcells means a lower total cost of ownership and we are able to offer a long warranty.

Choice of Models

The lengths can be from 6.3 metres up to 35.3 metres, with widths of 3.0 metres, 3.5 metres and 4.0 metres available. All platforms 0.34 m height.

The weighbridge is fabricated in sections so that it is capable of being portable or in a fixed installation. All parts can be lifted with a forklift truck or small crane for ease of handling on site.

The signal cables all come with connectors for ease of installation and the load cells are factory fitted to the load beams to reduce the cost of site preparation and installation. The platform sections are dropped onto the beams and locks hold them in position.

Load Cells

The load cells are chosen to match the capacity of the weighbridge. Usually these are 20 tonnes capacity each, but load cells of 6 tonnes, 12 tonnes and 30 tonnes capacity are also available.

The type of load cell used in the Ton-Tel™ weighbridges have a high degree of stability without the need for specialist civil works and also have very long life. They are of a welded construction giving a rating of IP68, OIML class 3 approved.

All load cells are pre-calibrated in the factory and do not normally need calibration adjustments during commissioning of the weighbridge.



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Installation

The Ton-Tel™ weighbridge can either be mounted above the ground with ramps at each end, or in a shallow pit making the surface flush with the roadway. Above ground installation is simpler and eliminates the need to construct a pit and a drain. Ramps can be cast in concrete or delivered with the weighbridge in steel. The above ground models only need a very simple concrete foundation under each loadcell which keeps the overall site costs to a minimum. However, pit mounting allows easier access and can make better use of yard space.

Our civil engineering team are able to provide a complete turn-key package if required; undertaking all aspects of site preparation, concrete foundations, installation and commissioning.

Simple construction on site

The Ton-Tel™ weighbridge is easy to install. Only a standard forklift truck is required on site to place the components in position and lock the sections in place. Each section is easily lifted with a standard fork truck. No special tools are needed to install the weighbridge and the whole unit can be up and running within a few hours of delivery.

Twist Lock fixings

The Ton-Tel™ uses the same fittings as found on ocean going containers, namely the well proven twist lock system, to hold platform sections to the structural beams. The twist locks locate into holes in the structural sections which align the platforms with the beams. This ensures perfect fitment but at the same time ensures fast and simple installation. A quarter turn of each lock is all that is required to hold the weighbridge components together.

After assembly the load cell feet are bolted to the foundation. This is easily achieved because locations within the structure allow a drill to access the load cell feet and foundation without disturbing the platform position.

Once the weighbridge is assembled plug in the cables to the computer and power supply and switch on. Full instructions are provided.



Recording Equipment

A choice of indicators is available depending on which options are selected for use with the weighbridge. The simplest system is a standard model WB1 indicator with a printout on a tally roll or a four part ticket. The model WB2 allows input of number and tare weights so that a print will give tare, gross and nett weights together with date and time and unique ticket number.



Computer Program

Both indicators can be connected directly to a PC computer with full database Ton-Tel™ software. This is the normal option for today's weighbridges. The computer gives the operator a full database system with the ability to record the details at the time of weighing and hence allows detailed reports to be made or print outs of invoices and lists of all transactions and vehicles for a particular customer. Software is also available for recording and detailing of overloading. There are several programs available for different industries from grain storage systems to recycling enterprises. All the software is configurable to suit individual business needs using our own in-house software engineers at very little extra cost to a standard package.



Printers

There are three printers available for use with the standard indicators. If a computer is used then tickets can be printed direct from the computer software.

The basic printout is on a tally roll, with extra copies being available by pressing the print again. For a more sophisticated ticket we supply a four part ticket printer which takes pre-printed tickets which have your name and address on them. This is useful if a number of personnel need a ticket each time the weighbridge is used.

Externally a tally roll printer is available which is housed in a weather proof enclosure so that a driver can take a ticket without getting out of the vehicle. This is particularly useful for unmanned weighbridge installations.

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Steel Ramps

Made to suit the system these ramps are both robust and easy to install. Where a weighbridge is being put onto existing concrete without new foundations the steel ramps are a useful way of completing the weighbridge and make moving to a new site a very quick and easy task.

Traffic Lights

A red cross shows the vehicle when to stop and a green arrow shows a driver when to move onto and leave the weighbridge. Traffic lights can be automatically controlled from computer software or can be manned by an operator for ease of traffic management. They are often used in conjunction with the automatic identification systems for unmanned weighbridges.



Large Display

A large red LED display (scoreboard) with 120 mm high digits is available so that the truck drivers can see at a glance what their weight is. The display has high visibility even in the brightest sun light.

Automatic number plate recognition

For the ultimate in automatic operation, a camera can be strategically placed to capture number plates. This ensures that every vehicle entering the weighbridge will be logged in the computer database. The camera software communicates with the weighbridge software so that vehicle identification is coupled with the weights on the ticket.

Driver Terminal / Keypad at weighbridge

A keypad can be put at the weighbridge for driver entry of details. Typically this is used in un-manned weighbridges where the details of the goods being carried need to be typed in by the driver. This saves the driver getting out of the truck. The display is menu driven for ease of use.

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Automatic Barriers

A barrier can be positioned before and after the weighbridge to give a driver a strong signal that they must stop and wait to be admitted. Often these are used in conjunction with an external keypad or identification system so that only after a routine has been completed will the vehicle be allowed onto the weighbridge.

Infra red detector

Sometimes it is more convenient to have a detector at the exit of the weighbridge instead of a barrier. The detector will not allow a weight to be taken if the vehicle is overhanging the end of the platform. If a light is coupled into the detector the driver can see that the vehicle needs to be repositioned in order for a weight to be captured.

Automatic Identification

Vehicles and drivers can have their own transponder tags so that they are immediately identified as they go onto the weighbridge. This is useful if the same trucks are returning time after time. Modern tags are electronic and can be in the form of credit cards or key fobs which are identified when they come into proximity of a reader. The distance a tag can be read is usually in the region of 200 mm, so the driver can wave a tag out of the window and be picked up by the reader.

Kiosk

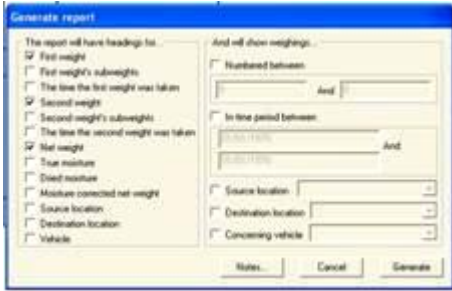
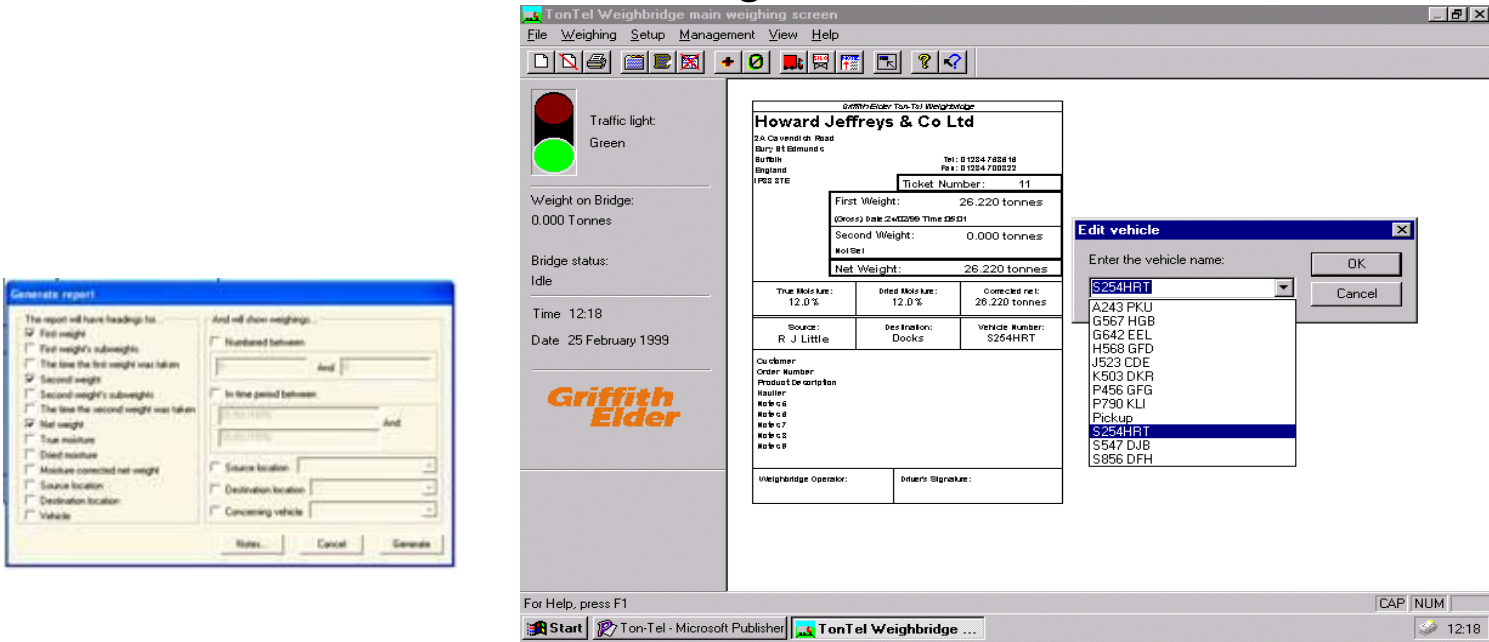
A weighbridge kiosk can be provided to house the electronic indicator and printer equipment. Usually this will have appropriate windows so that an operator can see the whole weighbridge from the kiosk.

Safety Guide Rails

Normally if safety rails are required they are bolted to the ground alongside the weighbridge so that they do not form part of the weighing platform. These are only required where a weighbridge is being used in a situation where the drop off the platform is too large. Sometimes it is prudent to put rails along the sides of a weighbridge installed in a pit to direct traffic centrally over it.

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The Ton-Tel™ Weighbridge Computer Software is a powerful yet easy to use system for recording and analysing all weighbridge operations. There are two very different software designs, one for management of vehicles in commercial businesses and another for law enforcement which is used for recording of vehicles on the highways, usually associated with over-loading.

Transport Management

The transport management programme monitors goods in and out and can be used to monitor stock levels and record all vehicle movements. The Ton-Tel™ software can be customised to suit individual customer requirements. A number of different ticket options are available, and there are user definable note headings for additional information.

Law Enforcement

The law enforcement program shows a ticket with the all the relevant information needed for monitoring and controlling vehicle weights on the highway. Additional information concerning each weighing can be easily entered using the drop down boxes. For Single Axle Weighbridges, the individual axle weights are also recorded.

Reports

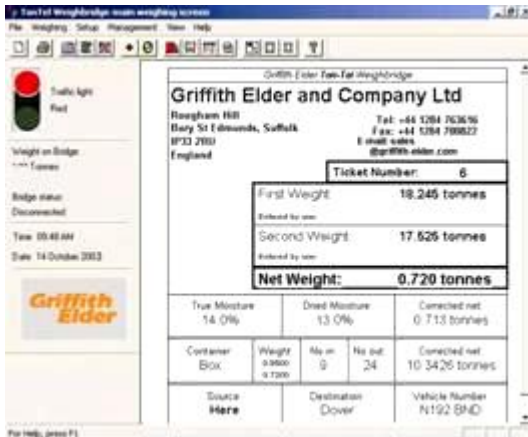
The Ton-Tel™ software system contains a powerful reporting facility. The operator selects the parameters for the report, and the information to be shown. A typical report might be of all the weighments which went to a particular customer between two dates or all the movements over the weighbridge for the last week.

Information can easily be exported from the Ton-Tel™ programme to other programmes for further data analysis. It is compatible with all spreadsheets. Networking is also possible so that real time weighing information can be seen at another location.

All Weighing operations are automatically recorded on the computer and tickets can be printed off on the computer's printer.

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General Specifications

Load cells	size to suit, Sealed to IP68. OIML approved.
Platform	Durbar steel plate surface, steel construction
Maximum Capacity:	40 t, 50 t, 60 t, 80 t, 100 t, or 120 tonnes
Maximum strength:	140 tonnes
Graduation:	10 kg, 20 kg or 50kg, depending on model
Sensitivity	10 kg
Zero tracking	plus/minus 5 kg
Accuracy	1 part in 5000.
Construction	Steel platform on load cells, concrete base works
Operation	Internal rechargeable battery or mains supply.
Electronics:	Microprocessor weigh controller sealed to IP68.
Power required	110/230 volts AC, or 12 volt battery.

Environmental specification

Temperature range:	minus 30 degrees C to plus 80 degrees C.
Protection:	Load cells are protected against ingress of water, fertilizer, petroleum products, and attacks of acid mists. IP68

Weighbridge surface painted in marine weatherproof paints

Ton-Tel™ power supply unit in waterproof housing

Indicator	weatherproof housing
Printer	Desktop or weatherproof outdoor tally roll
Computer	not rated

Humidity range:	Weighbridge: 10 to 100 percent RH
	Indicator/printer unit: 10 to 98% RH

Dust:	Weighbridge: 100 percent protection
	Indicator/printer unit 100%
	Computer not rated



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