Avery Weigh-Tronix

SmarTower®
UNMANNED WEIGHBRIDGE SYSTEM
Smart - Rugged - Accurate

Technical Specification

DESCRIPTION

SmarTower, an Unmanned Weighbridge System, is a smart add-on solution to any weighbridge for an automated operation, without the need of a dedicated operator. The system can automatically identify vehicles, instruct drivers to position their vehicle correctly on the weighbridge, and capture vehicle images. The system can be seamlessly integrated with a range of plant ERP systems to provide real time access to the weighbridge data.

SOLUTION FEATURES

› No need for dedicated weigh-room, as system is controlled over LAN
› Field instrumentation protected in outdoor tower enclosures
› Identification of trucks with UHF based long range RFID cards/tags
› Verification of correct truck position with sensors
› Guidance to truck drivers using programmed audio and visual messages
› Truck images are captured at the time of weighing
› Compatible for plant level integration with ERP over network
› Uni or bi-directional configurations available to suit different needs
› Option of movement control through integrated boom barriers

BENEFITS

Enhanced Accuracy and Efficiency - Automating your weighbridge system using the **SmarTower** will eliminate human errors and give accurate readings.

Automated vehicle marshalling ensures that vehicles are correctly positioned on the weighbridge. The approved ZM510 indicator ensures the weight taken is accurate and reliable for accurate billing and inventory management. Vehicle drivers are guided by using programmed audio (any language) and visual messages and positioning sensors. Integrated boom barriers are also available.

The **SmarTower**, with its intelligent vehicle marshalling, reduces vehicle queue time and improves throughput with faster processing, allowing vehicles to weigh in and out more quickly compared to a manned system.

Cost-Effectiveness - The **SmarTower** removes the need for a weighbridge cabin and can also reduce labour costs by minimising the need for full-time operators.

Automating your weighbridge system lowers the risk of fraudulent activities often associated with manual operations.

Increased Security - Using integrated systems such as CCTV cameras, RFID tags, and optional license plate recognition (ANPR) ensures secure identification and tracking of vehicles and stops unauthorised vehicles entering your site.

WEIGHING iNTELLIGENCE Software has tamper-proof features which reduce the risk of data manipulation with its user lever restrictions.

24/7 Operation - The **S**mar**T**ower can operate continuously, providing flexibility for businesses with extended or irregular working hours and can be used in remote locations.

Real-Time Data Management - WEIGHING iNTELLIGENCE Software provides real time monitoring and reporting and immediate transfer of data to centralised systems.

Easy integration with ERP and inventory management systems ensures streamlined operations.

IP cameras can capture the front and rear of the vehicle, and an optional additional camera can capture the top view of the vehicle, at the time of the weight transaction.

Improved Safety - Vehicle marshalling ensures the vehicle is correctly positioned on the weighbridge without the need of an operator being present on the weighbridge, reducing the risk of accidents.
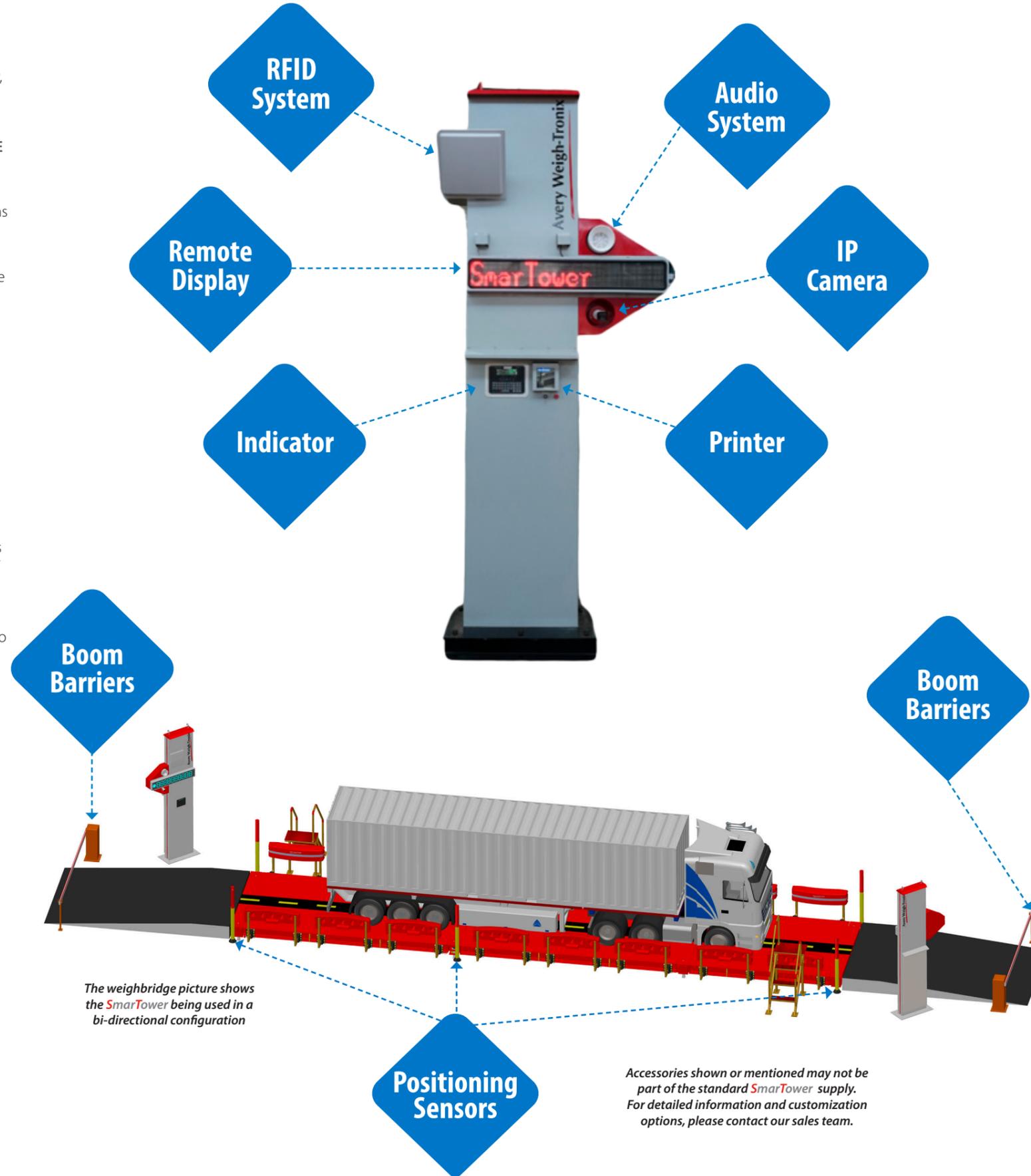
Environmental Benefits - Reduced vehicle idle time leads to lower fuel consumption and emissions.

Customisation and Scalability - The **S**mar**T**ower can be tailored to specific operational needs (e.g., integration with specific software, custom reporting formats).

Uni or bi-directional configurations are available to suit the site's flow of vehicles and site restrictions.

The **S**mar**T**ower is scalable to accommodate growing business requirements.

Regulatory Compliance - Proper vehicle marshalling and automated logs and detailed reports helps to meet the requirements for audits and inspections and avoid penalties.

SPECIFICATIONS

Smar**T**ower
› MS powder coated with 3.6 m height
› Floor mounted with anchor bolts
› Lockable cabinet with concealed wiring to house instruments

RFID System
› UHF (ISO 18006) reader on TCP/IP
› Angle adjustable mounting on tower

IP Cameras
› Day/night with 30 m IR range
› Secure, vandal resistant mounting
› IP67 rated, PoE enabled

Audio System
› Event triggered voice messages
› Standard language English/Hindi (others - optional)

Driver Display
› Multi-color dot matrix LEDs
› 13 characters scrolling, 150 mm size
› Message (English) and weight display

Truck Position Sensors
› Through-beam IR sensors, IP67

Boom Barriers (optional)
› Motorized barrier, 100% duty cycle
› 4~4.5 m adjustable aluminum boom
› Digital O/P or Ethernet controlled

Thermal Printer (optional)

Indicator (optional)

Weighing iNTELLIGENCE Software
› Browser based modular application
› Cloud compatibility
› Innovative user-friendly interface
› Multi-level security
› Customized database integration capability
› Advanced diagnostics
› Wide range of tickets and reports

RFID System

Audio System

Remote Display

IP Camera

Indicator

Printer

Boom Barriers

Boom Barriers

Positioning Sensors

*The weighbridge picture shows the **S**mar**T**ower being used in a bi-directional configuration*

*Accessories shown or mentioned may not be part of the standard **S**mar**T**ower supply. For detailed information and customization options, please contact our sales team.*

Avery Weigh-Tronix

www.averyweigh-tronix.com

Avery Weigh-Tronix is an ITW company

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