

WASTE &  
RECYCLING



## Avery Weigh-Tronix

Weighing systems for the  
demanding waste  
environment.

Waste &  
Recycling  
WEIGHING SYSTEMS

*Scales and weighing systems designed  
for heavy use in industrial environments*

# Weighing Waste

**Avery Weigh-Tronix**

The recycling industry revolves around weight, as both the buying and selling of recycled materials are based upon the weight of the collected items. Whether the goal is to optimize profits, to pay for precisely the materials deposited or purchased, or simply to offer an added level of security, scale equipment capable of reliable and repeatable weighing is essential for improving billing accuracy and the overall bottom line in recycling applications.

With many scale systems available and an increased focus on traceability, selecting the proper equipment for a recycling operation is an important task. In this incredibly harsh environment, selecting a scale that is fit for purpose is vital. The selection process involves examining the types of material to be recycled, including the average weight of each load, as well as the value of the commodity.

Scale systems typically used for recycling applications are rail scales, truck scales, floor scales and forklift scales. All provide a viable weighing solution, but each differs in load capacity and increment size—

making some more well suited for certain application requirements than others. For smaller or more valuable loads, more precise weight measurements can be provided by bench scales.

Waste is increasingly being recognized as a valuable resource. Weight information is key to tracking the amount of waste collected, monitoring inputs and outputs during materials recovery, extracting energy and disposing of waste. Whether processing waste materials to make products for commercial gain, or for environmental reasons such as creating energy, weighing data is vital.

## Legal-for-trade weighing

A scale system capable of legal-for-trade weighing is an invaluable asset in the waste industry, as revenue is commonly based upon the weight of commodities purchased or shipped. Avery Weigh-Tronix provides a wide range of legal and non-legal scales, but the benefits of a legal-for-trade system extend beyond legality. The legal-for-trade approval can also be seen as a badge of reliability - proof that your scale can provide repeatable weighing of goods, ensuring customer satisfaction, precise billing and accurate inventory records.

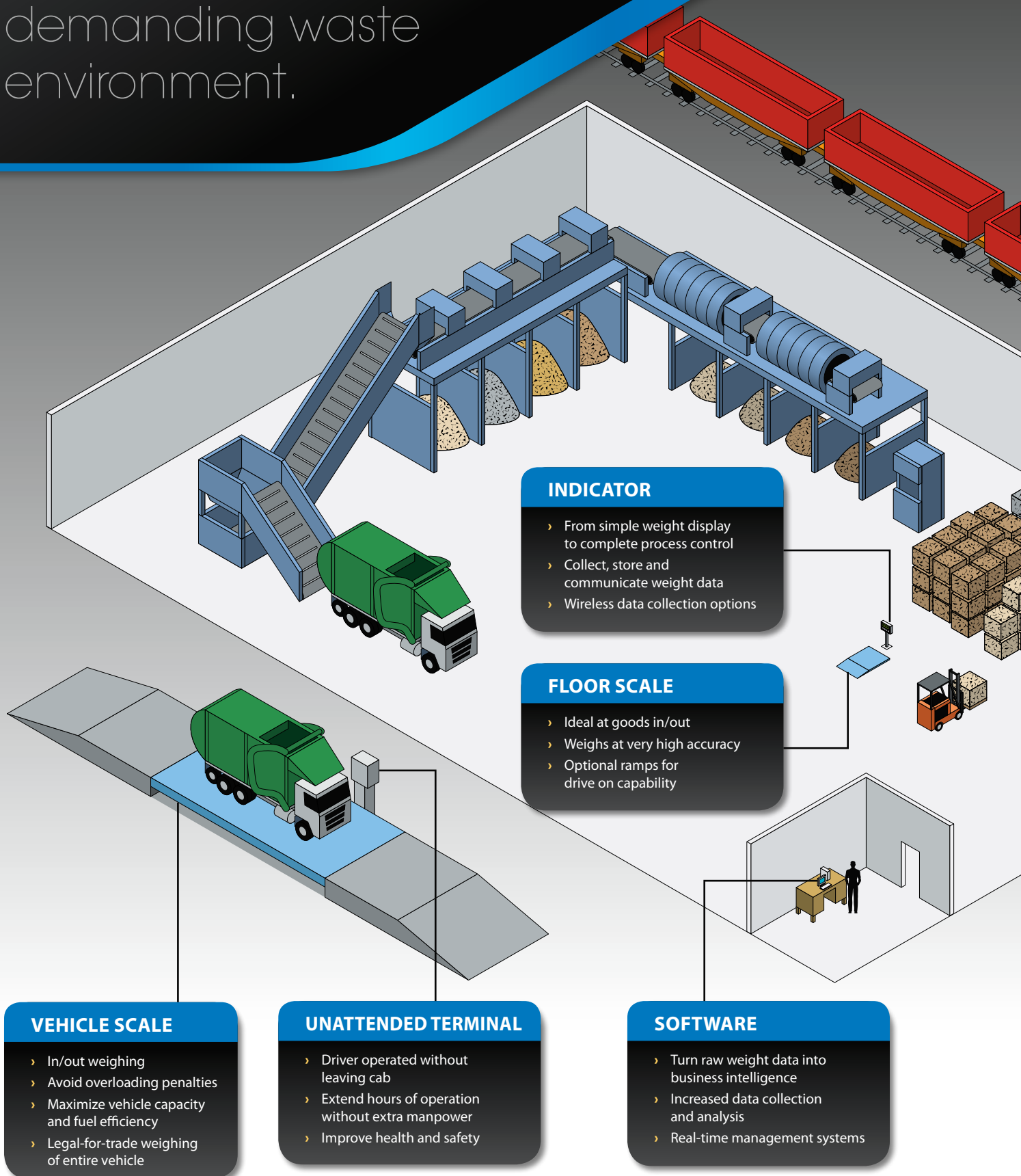


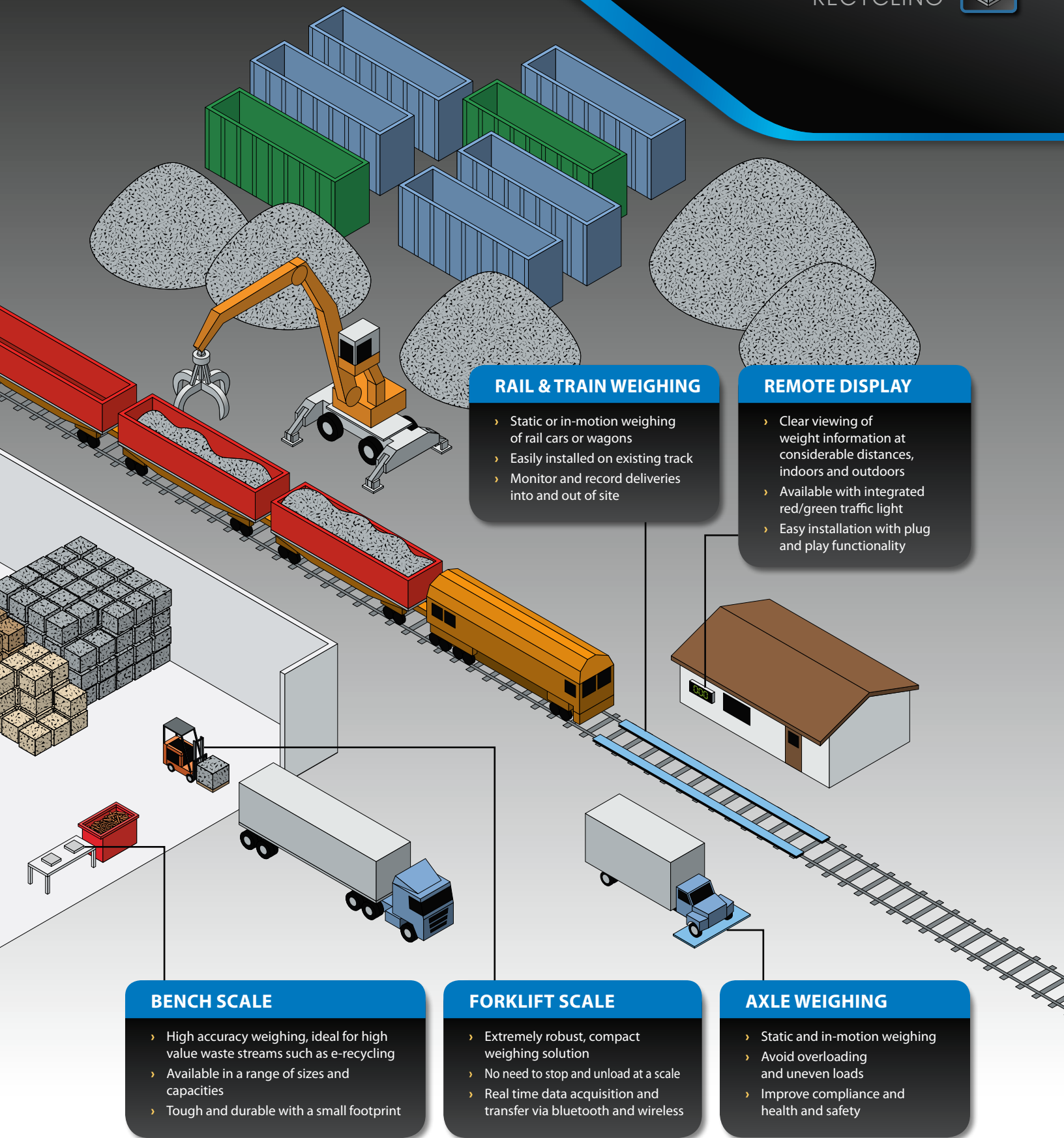






## Weighing systems for the demanding waste environment.







## Vehicle and Axle Scales

Perhaps the most versatile solution for waste and recycling applications, weighbridges can be used to weigh virtually any material. A vehicle scale weighs vehicles as they arrive at or depart from the waste facility, allowing managers to carefully monitor each transaction by capturing initial weights and load details.

Weighbridges and axle weighing systems from Avery Weigh-Tronix will help ensure that trucks are loaded to the ideal weight and conform to stringent legal maximum weight regulations. Accurate weighing helps companies avoid costly fines as well as premature vehicle wear due to excessive loading, while also avoiding costly under-loading by ensuring that vehicles are loaded properly to utilize the full carrying capacity.

In addition, the ability to use software, RFID (radio frequency identification) and video footage to track vehicles provides users with an additional level of security, acting as a funnel which provides important data about who and what is entering and leaving the site.



### Unattended terminals

For increased efficiency, weighbridge controls may be integrated into a standalone console that facilitates unattended weighing operations. The terminals enable drivers to complete weighing transactions 24/7, without leaving their cab. The result is that your weighbridge can run smoothly without a dedicated operator. This results in reduced operating costs, extended hours of availability and improved health and safety by allowing the driver to stay within their vehicle.



## Rail Scales

For the heaviest commodities, a rail scale can provide an ideal weighing solution and prevent over or under-loading of a train or wagon. The scales can either be modular decks that are spaced to match up below the axles of the wagons to be weighed, or sections of instrumented rail that can be installed on the existing ties and ballast.

Rail scales can be configured for static or in-motion weighing. Many systems employ the use of RFID tags and readers for more complete tracking of the data. Besides total wagon weights, rail scales also can be set up to provide readings for individual axles and even wheels.

The scale is connected to a digital instrument that will record transactions and display the weight. A variety of peripheral devices, such as a printer, PC or remote display, can be connected to the instrument.



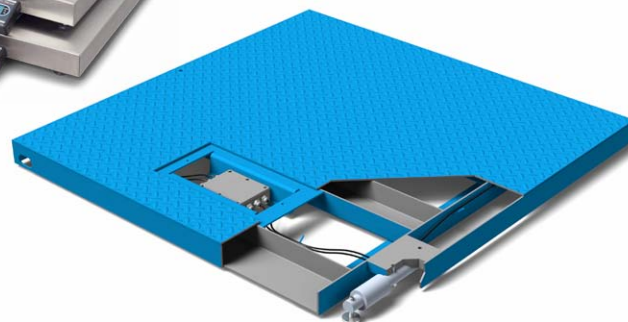




## Floor Scales and Bench Scales

Floor scales and bench scales are capable of weighing goods with very high accuracy. A floor scale can be placed at a central location within a waste sorting facility or can be ideal for monitoring of different waste streams when sorting waste. Floor scales can generally be used in two ways: Operators can wheel lighter loads onto the scale for weighing or, for heavier loads, operators can drive forklifts carrying bundled or palletized commodities directly onto the scale. With this in mind, it is vital that the scale chosen is robust and able to withstand heavy use.

Bench scales are available in a range of sizes, capacities and finishes and designed with a small footprint to maximize work space. Again, capable of weighing to a high degree of accuracy, these scales are ideal



for facilities that deal with high value waste streams such as e-recycling. Both bench and floor scales are tough enough to take on any harsh environment and can withstand overloading and shock loading while weighing quickly and accurately.



## Forklift Scales

To seamlessly integrate weighing and data management into recycling centres, forklift scales allow users to weigh bundled and palletized recycled materials en route. This expedites operations by enabling forklift drivers to take commodities directly to storage upon delivery, while accessing real-time data such as weight and origin during transportation. The ability to transport and weigh materials in one simple step results in tremendous time savings and a speedy return on investment.

Forklift scales are also a compact weighing solution, making them suitable for use in a busy waste and recycling environment. In-cab instruments such as bar code scanners allow forklift operators to instantly capture all necessary data available, then transmit this information with weight data wirelessly via Bluetooth® or radio to supervisory computer systems.

In addition, the forklift scale is compatible with a range of accessories such as fork clamps, bale clamps and pulp clamps, providing a simple way to build weighing into a process without taking up additional time.

It is important that users select a forklift scale that



is built with the tough environment in mind. Our patented design features two metal plates coupled together with Weigh Bar weight sensors, which means no springs, hydraulics or flexures that can be easily damaged.



## Indicators

On a basic level, a weight indicator is the piece of equipment which actually displays the weight reading, used in conjunction with the scale itself. They are able to collect, store and communicate weight data. More advanced digital indicators use wireless communications to transmit data to back office systems, improving management information and control and producing instant, accurate data for all materials weighed. Further, these indicators can be linked to printers, barcode scanners, computers and other peripherals for integration into existing networks, allowing effortless data transfer and management from anywhere in the operation.



## Software

Avery Weigh-Tronix scales can be paired with sophisticated software and indicators to provide additional data collection, tracking and analysis. Collecting and reporting waste data is essential for waste disposal authorities, transfer stations and landfill operators, not to mention proper monitoring of waste streams to control disposal costs.

Software innovations help to facilitate efficient documentation and management of key weight, commodity and scale data. Whether you need a simple data capture package collecting weight information from a vehicle, or an integrated management system monitoring operations in real-time, we can supply a standard or tailor-made solution to suit.



## Service

In addition to traceability, cost of ownership is always a significant issue for waste and recycling companies.

That often begins with equipment durability. Selecting the right equipment for this incredibly harsh environment directly impacts cost of ownership. Low maintenance equals fewer service trips, less down time, and less money spent over the life of the scale.

Avery Weigh-Tronix is supported by a global network of dedicated technicians on hand to install and maintain your equipment, including regular calibration, servicing and repair. Focusing on regular preventative maintenance keeps your equipment working at maximum efficiency and reduces the likelihood of costly emergency breakdowns.

Highly trained service technicians will work with you to identify potential issues before they arise to ensure that your equipment is running reliably and accurately. We will ensure that your equipment is both accurate and compliant.

Having a trusted and reliable service supplier can keep your business moving and maximize 'up-time'. We are committed to providing high quality, lifetime service support for all of our weighing equipment.

## More online

[www.averyweigh-tronix.com/  
waste-recycling](http://www.averyweigh-tronix.com/waste-recycling)

- ▶ Product literature & specifications



# Avery Weigh-Tronix

[www.averyweigh-tronix.com](http://www.averyweigh-tronix.com)

Avery Weigh-Tronix is an ITW company



Avery Weigh-Tronix is a trademark of the Illinois Tool Works group of companies whose ultimate parent company is Illinois Tool Works Inc. ("Illinois Tool Works"). Copyright © 2014 Illinois Tool Works. All rights reserved. This publication is issued to provide outline information only and may not be regarded as a representation relating to the products or services concerned. This publication was correct at the time of going to print, however Avery Weigh-Tronix reserves the right to alter without notice the specification, design, price or conditions of supply of any product or service at any time.

Waste-Recycling\_L\_501227.indd (C&D)  
V1 AWT35-501227