



# The Checkweigher Buyer's Guide

Information to help you choose a system for your checkweighing needs



**RICE LAKE**<sup>®</sup>  
WEIGHING SYSTEMS

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[www.ricelake.com](http://www.ricelake.com)

# Checkweigher Basics

Checkweighers are used in a wide range of industries, such as food and beverage packaging, pharmaceuticals, cosmetics and logistics. Most often, checkweighers are used at the end of a production line, but their uses go beyond simply weighing products.



Checkweigher uses include both typical and statistical applications:

- *Checking for under- and/or overweight products*
- *Classifying products into weight zones*
- *Monitoring product line efficiency*
- *Ensuring product compliance with federal regulations and standards*
- *Checking for missing package components, including caps, lids, labels or product*
- *Providing feedback reports for process analysis and adjustment*



## Benefits of Adding a Checkweigher

Product inspection ensures quality control throughout all stages of the manufacturing process. Checkweighers, whether in-motion or static, create an inspection point to verify weight, but they can also help optimize manufacturing processes and reduce overall costs. Checkweighing benefits include:

- *Maintaining legal standards*
- *Reducing product giveaway*
- *Eliminating human error*
- *Capturing process data*
- *Improving customer satisfaction and company reputation*

# In-Motion/Static Overview

In-motion checkweighers automatically weigh products as they move along a production line, while static checkweighers require operators to move products on and off the scale.

## In-motion Checkweighing



An in-motion (dynamic) checkweigher weighs products, then rejects or accepts them based on preset weight zones. In-motion checkweighers automate processes, increasing speed and productivity while decreasing operator intervention. These systems provide a 100% inspection rate and reduce human errors.

## Components of an In-motion Checkweigher

### Conveyor Belts

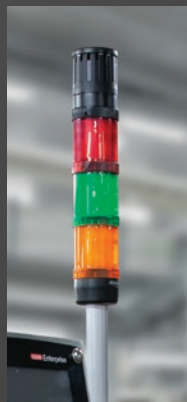
Infeed and outfeed conveyor belts move products through the checkweigher and along the production line.

### Weight Indicator

The indicator, or controller, displays weight data and serves as the command center for the operation and calibration of the checkweigher.

### Options

From reject devices and stack lights to alarms and fieldbus protocols, in-motion checkweighers offer a variety of accessories to make your production line more manageable and efficient.



## Static Checkweighing



A static checkweigher is designed to verify product weight to be within a preset range or target, but it requires an operator to move product on and off the platform. A static checkweigher requires very little maintenance and there is no process control to service. This type of checkweigher also has a lower initial cost.

## Components of a Static Checkweigher

### Platform

The checkweigher platform can be a flat top, roller top or ball top so operators can easily transfer material on and off the scale. The platform should be easy to clean and some are specifically designed for environments requiring heavy washdowns.

### Weight Indicator

The indicator displays weight data and typically includes alert lights for over, under and target weight zones. It may be mounted to a column above the weighing platform or as a standalone device.

### Options

Stack lights indicate over- and underweight measurements, and a column can attach the indicator to the platform, keeping it at eye-level. Mobile carts allow static checkweighers to be moved throughout production as needed.

# Before You Buy

Implementing a checkweigher into your production line can transform operations, but specific business needs should be assessed before investing in checkweighers to ensure you select the right weighing solution.



## Choosing Your Scale Supplier

Research scale distributors in your area before deciding who you want to work with. Your scale distributor should be an expert with checkweighing systems, accessories and scale services. They will review your unique business needs to ensure they recommend the best solution for your process. In-motion checkweighers are specialized systems that not every scale technician is familiar with, so it's essential to find a distributor who has experience with in-motion checkweighing if that's the type of checkweigher you need.

Your scale distributor may be able to provide in-house checkweigher demonstrations or show you a non-competitor business currently using a checkweigher you're interested in. Seeing a checkweigher in use can help you choose a system that will simplify processes and be easy for operators to use.



## Factors to Consider When Choosing a Checkweigher

### Type of Product Being Weighed

The type of product being weighed will determine the design, capacity and accessories of your checkweigher.

### Environment

Temperature fluctuations, humidity levels, air currents, debris and dust are all environmental factors that can affect the checkweighing process.

### Vibration

To minimize vibrations and errors, install checkweighers away from other machines, moving parts or conveyors.

### Standards, Regulations and Specifications

Any checkweighers you use must ensure compliance to relevant legal standards, such as maintaining Legal for Trade certification or meeting HACCP safety and sanitation requirements.

### Checkweigher Accuracy

Accuracy measures how close weight values are to a known test value. In checkweighing, accuracy is demonstrated by how close the product is to the preset target weight. Because checkweighers are used across many different industries that must adhere to strict regulations, accuracy is vital.

The accuracy of a scale is composed of two main factors: linearity and repeatability. Linearity refers to how close to the actual weight of a test package the checkweigher measures each time the test package is weighed. Repeatability is measured using standard deviation and describes the weight variance calculated from weighing a specific test mass several times. An accurate checkweigher is both highly linear and repeatable.



# Checkweighing Software Integration

In addition to selecting the right type of checkweigher for your application, you also need to carefully consider the software that will integrate with your scale data. Rice Lake Weighing Systems' Myrias® modular software captures, monitors and reports all process data so you can make strategic production decisions.

Myrias generates reports in real-time, both locally and remotely for easy data access from multiple locations. Easily integrate Myrias with third-party ERP and MRP systems or export data to spreadsheet programs such as Microsoft Excel® for digital recordkeeping and analysis.

## In-motion Checkweighing Module

Record all packs from checkweighers with real-time charting and receive immediate warnings of low weights and expensive giveaways with Myrias. Comprehensive records help operators analyze pack weights and diagnose filling faults. Operators can also manage a product database from one PC to control settings for all of the in-motion checkweighers at your facility. Myrias also provides optional reporting capabilities for integrated metal detectors.

## Static Checkweighing Module

Myrias adds efficiency to manufacturing, sorting and food-processing applications by continuously monitoring packs as operators place them on static checkweighers to ensure packs are within preset ranges. Control filling with checkweighing lights that notify operators of weight status and automatically record each weighment based on operator, product or other key data you determine.



# Rice Lake Weighing Systems' In-motion Checkweighers



**ELS SERIES**  
ELEVATED LOAD CELL STANDS

ELS Series elevated load cell stands can replace existing legs on a conveyor to convert it into a scale. ELS Series weigh stands integrate into pre-existing systems to fit the exact height and width of conveyors from a wide range of manufacturers.



**MotoWeigh®**

CASCADE SCALE

The MotoWeigh Cascade Scale in-motion gravity drop checkweigher offers increased efficiency and consistency in a compact package. Ideal for weighing small part kits, it can ensure all necessary components are present before shipment.



**MotoWeigh®**

IMW IN-MOTION CHECKWEIGHERS  
AND CONVEYOR SCALES

MotoWeigh® helps producers tighten target weights, increase profit margins, and improve quality and customer satisfaction with options like bar code readers and metal detection systems. These are just a few of the benefits you'll discover when MotoWeigh gives your business an edge over the competition.



*MotoWeigh software allows four different access level permissions for operators, line leads, supervisors and managers. Store data for 1,000 unique products with fields for description, tare weight, unit and zone ranges.*

02:41 PM 01/25/2017

**MotoWeigh**  
In-motion Checkweighing System

Product ID: 4    Product Description: prod4    LOGIN

Last Weight: 6.80    GROSS: 11.01

-	6.99	7.00 - 8.99	9.00 - 10.00	10.01 - 11.00	11.01	+
---	------	-------------	--------------	---------------	-------	---

**6.80 lb**    STOP

Product    Statistics

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**MotoWeigh**  
In-motion Checkweighing System

Product ID: 4    Product Description: prod4    LOGIN

Last Weight: 9.00    GROSS: 11.01

-	6.99	7.00 - 8.99	9.00 - 10.00	10.01 - 11.00	11.01	+
---	------	-------------	--------------	---------------	-------	---

**9.00 lb**    STOP

Product    Statistics    Setup

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**MotoWeigh**  
In-motion Checkweighing System

Product ID: 4    Product Description: prod4    LOGIN

Last Weight: 10.25    GROSS: 11.01

-	6.99	7.00 - 8.99	9.00 - 10.00	10.01 - 11.00	11.01	+
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**10.25 lb**    STOP

Product    Statistics    Setup

**RICE LAKE**  
WEIGHING SYSTEMS

# Rice Lake Weighing Systems' Static Checkweighers



## CW-90

OVER/UNDER CHECKWEIGHER

This bench checkweigher helps accelerate weighing processes and reduce production downtime. The CW-90's straightforward operation can help error-proof your production process and is as simple as watching for the over/under lights to appear on the indicator.



## CW-90X

OVER/UNDER WASHDOWN CHECKWEIGHER

The CW-90X has all the great, user-friendly features of the CW-90 but is designed to meet HACCP requirements and withstand heavy washdown and cleaning routines. The CW-90X features a tough piezo keypad made to withstand sharp knife-point contacts as well as contaminants and liquids.



## RT-M

36×100 ROLLER TOP SCALE

This roller top checkweigher is designed to easily integrate into existing production lines with custom sizes and capacities available.



## CUSTOMIZABLE

CHECKWEIGHING SYSTEMS

Rice Lake offers an extensive line of platform scales and indicators that can be combined to create a checkweighing system specifically for your operations.

**| Learn more about Rice Lake's checkweighing solutions at [www.ricelake.com/checkweighing](http://www.ricelake.com/checkweighing) |**

SALES AND TECHNICAL ASSISTANCE

**RICE LAKE**  
WEIGHING SYSTEMS

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