

Belt Scales

IN-MOTION
BELT SCALE SYSTEM



RICE LAKE[®]
WEIGHING SYSTEMS

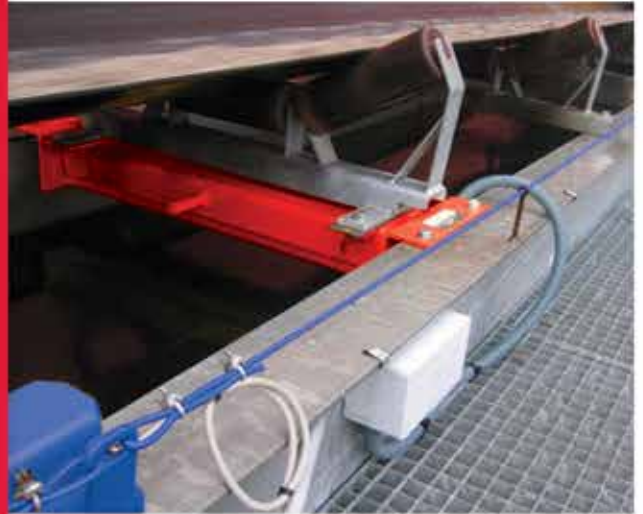
To be the best by every measure[®]

800-472-6703

www.ricelake.com

Belt Scales

Rice Lake Weighing Systems offers a broad delivery program of belt scales. Six different models guarantee the possibility of one or more alternatives for every application. Within different markets, there are many ways to use a belt scale to measure the actual flow on a conveyor belt which can also be used for dosing your product. Examples of markets in which belt scales are frequently used are the food, recycling, chemical, and tobacco industries, steel, animal feed, and compost production, sand and gravel quarries and harbor logistics.



311

The 311 model consists of an idler or roller placed on a simple load cell beam, which makes it a very cost effective solution. Suitable for belt widths up to 50 inches and belt speeds up to 400 feet/minute. This frame is often used in dosing belts that can regulate the capacity of a bulk flow using the measured value and a controlled belt speed.

221DB

The 221DB model consists of two arms, each equipped with a pivot and a load cell, that are mounted to the outside of the side supports of the conveyor belt. The idler or weighing roller will be mounted on top of both arms. This model provides easy assembly and good accessibility for service. The 221DB is suitable for most belt widths and capacities, which makes it applicable in various market segments.

BCi Weigh Frame

Durability or accuracy? With most belt scales, you get one or the other. With the patented design of Rice Lake's rugged BCi belt scale, now you can get both. This belt scale is not only one of the most accurate in its class, it's built to last. Ideal for mining, quarries, bulk material blending, process control operations, and truck/barge/rail load-out applications, the BCi easily handles capacities up to 10,000 tons per hour with unsurpassed accuracy.



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211

The 211 model consists of an inner frame that is mounted in two friction-free pivots on one end and at a load cell on the other end. An idler is mounted on the inner frame. The pivots absorb the tensile stress in horizontal direction, creating a very solid weighing frame that is also suited for heavy-duty applications.



143

The 143 model weighs three idlers on an inner frame that is supported by four load cells. This makes it the most accurate belt scale and is particularly qualified for higher capacities and high belt speeds. It is often used at harbors for loading ships and trucks, and to offload bulk cargo. The frame is custom made using the specifications of the conveyor belt, making it suitable for most models of belt conveyors.



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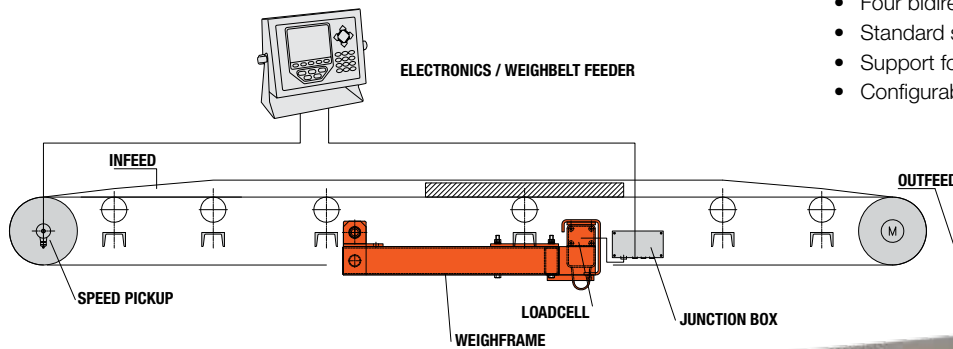
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Operation of Belt Scales

A belt scale consists of a weigh frame with one or more load cells, a speed sensor and a weigh processor, which integrates the two signals, load and speed, into the weight per hour.

The selection of the weigh frame and speed sensor is determined by the requested accuracy, variables like belt speed and inclination of the belt, the structure of the transport belt, and external circumstances like moisture and aggressive environment.

The execution of the weigh electronics is determined by the requested functionality (only measurement of the product quantity or the need to control the dosing of the product) and the way of communication with a PLC/PC (or other).



Standard Features

- Large 4.6"W x 3.4"H 320 x 240 pixel back-lit LCD graphical display
- NEMA 4X/IP66 stainless steel display enclosure
- Rate and speed time displayed by the hour, minute or second
- Measurement displayed in feet or meters
- Unit of rate displayed in tons, pounds, kilograms, metric tons, or long tons
- Digital I/O for totalizer
- Analog outputs optional
- Alarm outputs optional
- For added security, integrator has the ability to be password protected
- Available communication protocol cards include Rockwell Automation's DeviceNet™, Rockwell Automation's Remote I/O, Rockwell Automation's EtherNet IP™, Profibus® DP, 4-20mA analog output, Ethernet TCP/IP
- Four bidirectional communication ports
- Standard serial RS-232, RS-485, and 20mA current loop
- Support for ticket printing
- Configurable ticket printing



Easy-to-read display shows rate, speed, real-time load, and total material weighed across the belt since last reset. Configuration is intuitive and fast.



Your Rice Lake Weighing Systems distributor is:

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