

Which Crane Scale is the best fit for my application?

Crane Scales are fundamental instruments for countless applications to ensure safety and deliver accurate load measurements. When used properly, Crane Scales can help prevent or limit unsafe conditions by providing real-time measurement of the operational load, as well as immediate feedback to operators and safety systems. By exploring the goals of overhead weighing and analyzing aspects of your environment, the Crane Scale best suited for your application can be determined.

Overhead Weighing Goals

Load monitoring prevents crane accidents, regulates compliance, maintains employee safety, and protects equipment. To ensure compliance, the scale should meet or exceed OSHA, ANSI, ASME and other safety design standards (5:1 ultimate safety factor). Accuracy is generally 1-3% full scale.

Process control aims to deliver accurate weighments, real-time information, and integration with manufacturing data acquisition systems, which in-process Crane Scales often require. Accuracy is .1% full scale.

Data integration systems strive to increase informational exactness and control, stream data from the weighing system to customer database program, offer the ability to go paperless and eliminate or reduce human error.

Crane Weighing Solutions

Common overhead weighing equipment includes below the hook, integrated scale, integrated sensor, and RF and signal processors. From bridge cranes to gantry and tower cranes, rugged, reliable overhead weighing solutions are available for many different applications.

Below are common types of cranes and the weighing system ideally suited for each.

Monorail Hoist

The most common hoist, a monorail hoist uses a chain hoist or block with wire rope or cable and has a one- to 10-ton capacity. Due to their versatility and high capacity, monorail hoists are most commonly found in industrial facilities. Recommended scale: **MSI-3460**.

Jib Crane

A jib crane features a horizontal member supporting a moveable hoist, and is commonly seen in workstation applications and machine shops. It is also useful in production and shipping where there is often a need to weigh smaller machine parts during production (or after) to check weight for shipment. Recommended scale: **MSI-3460**.

Bridge Crane

In a one- to 100-ton bridge crane, the trolley moves laterally while the bridge moves longitudinally. In turn, this offers a wide range of motion, creates efficiency, easily integrates into existing applications and is ideal for safety. Recommended scales: **MSI-9300, MSI-6260CS, MSI-4260**.

Rail-Mounted or Rubber Tire Gantry

Frequently found in factory applications such as steel yards, paper mills and other heavy industrial facilities, the rail-mounted or rubber tire gantry has similar movement to a bridge crane. They are common on rails or tires, as well as in heavy capacity weighing industries, where capacities can range from one to 200 tons. Recommended scale: **MSI-9300**.

Semi-Gantry

A semi-gantry is essentially a gantry crane with one end of the bridge rigidly supported on one or more legs that run on a fixed rail or runway. The other end of the bridge is supported by a truck running on an elevated rail or runway. With a one- to 100-ton capacity, we recommend the **MSI-3460**.

Integrated Weighing Solutions

Most bridge, monorail, jib, gantry and straddle crane safety systems employ an integrated load sensing system. An integrated load sensor is designed to be permanently installed and integrated where load is consistently applied relative to the actual load the crane is handling, generally with sheave pin, load link and compression designs.

RF and Signal Processing Solutions

Add traceability and transparency to your processes. With several methods of radio frequency (RF) technology, wireless communication products are an easy integration for most any industry or environment.

Whether used in shipping, material handling, foundries, shipyards, construction or freight applications, Rice Lake's MSI brand of trusted overhead weighing solutions assists in creating safe and efficient operations.