

RAILBOSS™ FAQs

1. What is RailBoss?

RailBoss is an in-line rail weighing solution consisting of a series of 5-foot, 10-inch rail sections that are installed in an existing rail line. Full-draft and double-draft rail weighing systems are available.

2. Is RailBoss Legal-for-Trade?

RailBoss has an accuracy of 0.25 percent for full-draft systems (± 200 pounds), and 0.4 percent (± 300 pounds) for double-draft systems, but has not been certified Legal for Trade.

3. How does RailBoss work?

RailBoss' series of 5-foot, 10-inch rail sections, four per set of rail trucks, are designed to weigh each wheel of the rail car. Four rail sections are required for double-draft systems. Eight rail sections are required for a full-draft system. Essentially, each rail section is a load cell that measures the deflection of the rail, totalizes the signals, and provides a weight.



4. In what rail sizes is RailBoss available?

Standard RailBoss sizes are 115RE and 132RE rail. Custom rail sizes are also available.

5. What kind of foundation is required for RailBoss?

RailBoss does not require a traditional concrete foundation. RailBoss is installed on top of existing rail ties and ballast. A rail maintenance contractor is needed to position the rail ties, cut the existing rail, and install the rail sections in accordance with Rice Lake drawings. This work is the responsibility of the property owner. Most customers who have a rail spur have a rail maintenance contractor available.

6. Can RailBoss be installed on a concrete foundation?

Yes. Maintenance is also lessened when RailBoss is installed on concrete.

7. What kind of rail site is ideal for RailBoss?

The ideal site is level, with rail, ties and ballast in good condition and preferably one rail car clearance on each side of the scale.

8. Is existing rail track condition relevant to the operation of the scale?

Yes. Rail, ties and ballast should be brought up to main line standards; a maximum of $\frac{1}{4}$ -inch deflection of rail under load.

9. How long does it take to install RailBoss?

Typically, RailBoss can be installed in as little as one day to minimize disruption of the customer's rail spur.

10. How are rail cars positioned on the scale?

Several products are designed to move rail cars on a rail spur or within a rail yard. TrackMobile[®] and RailKing[®] are the more common brand names. Many customers have developed custom, in-house devices to move and position rail cars along with locomotives either owned or servicing the rail road.

11. What size rail cars can RailBoss handle?

RailBoss sections are 5-feet, 10-inches in length and designed to weigh rail cars with like rail truck centers of 5-feet, 9-inches to 5-feet, 11-inches. Most rail car trucks have a center-to-center wheel measurement of approximately 5-feet, 10-inches. Each rail section has a weighing area of approximately ± 4 inches from center where the rail car wheels will be located. Custom designs are also available.

12. Can RailBoss handle different rail car lengths?

The double-draft RailBoss system can handle an infinite number of rail car sizes, although it does require weighing each end of the rail car. The full-draft RailBoss is designed to weigh a specific rail car length. The distance between the two sets of rail sections must be accurately determined. Most industries have standardized common car lengths. The distance between the two sets of rail sections should be sized to the most common rail car. All other cars would have to be weighed in double-draft mode.

13. Can more than eight rail sections be installed?

Yes. Customers often purchase 12 rail sections and install them to full-draft weigh the two most common rail car sizes.

14. What are the differences between a full-draft system and a double-draft system?

A full-draft system consists of eight 5-foot, 10-inch RailBoss sections designed to simultaneously weigh all eight wheels of a rail car. A double-draft system consists of four 5-foot, 10-inch RailBoss sections designed to weigh each set of rail trucks individually. The double-draft system requires each end of the rail car to be positioned and weighed.

15. Can rail cars be weighed coupled?

The most accurate method of weighing any rail car is uncoupled at both ends. Some sacrifice in accuracy may be seen when weighing rail cars coupled at one or both ends. The knuckle connections between the rail cars can exert forces that affect the weight.

16. Can locomotives cross the scale?

Yes. RailBoss is simply an extension of the rail line.

17. What types of applications are ideal for RailBoss?

RailBoss is the ideal choice for customers who need to check rail car shipping weights, to verify weights of incoming rail cars, rail car filling applications, inventory control, and checking for under-loaded and overloaded rail cars.

18. What instrument is used with RailBoss?

The Rice Lake 920i[®] with RailBoss custom software is recommended. There is a 920i RailBoss version for full-draft and double-draft systems.

19. What information will the 920i with RailBoss software provide?

The 920i will provide a visual readout for Rail Truck #1, Rail Truck #2, and Total. Tare weights and rail car ID can be entered into the instrument. Gross and net rail car weights are provided, as well as operator prompts.

20. Can the 920i provide gross, tare and net rail car information?

Yes, known rail car weights may be inputted via the keypad tare, or empty rail cars may be weighed to determine the tare weight. The instrument will provide gross, tare and net weight information.

21. How is RailBoss calibrated?

Rice Lake has developed a hydraulic calibration and test unit that attaches to the rail. The RailBoss calibration unit will be available for short-term rental or purchase. RailBoss can also be calibrated and tested using a known rail car weight.

22. What is the RailBoss warranty?

RailBoss has a two-year limited warranty.

23. Can RailBoss be used for special applications such as detecting out-of-balance rail cars?

Yes. Applications for RailBoss are very diverse. Custom software programs, iQUBE²[®], as well as other Rice Lake products can be used with RailBoss.

24. What target markets will be most interested in RailBoss?

Anyone with a rail spur or a need to weigh rail cars is a potential customer for RailBoss. Scrap metal, recycling, chemical, aggregate, sand and gravel, timber, agriculture, mining, transportation, solid waste, steel, and manufacturing enterprises are all prominent target markets.

25. Where is RailBoss manufactured?

RailBoss is manufactured at Rice Lake Weighing Systems' headquarters in Rice Lake, Wis., USA.

TrackMobile[®] is a registered trademark of TrackMobile LLC.

RailKing[®] is a registered trademark of Stewart & Stevenson.