

we make  
processes  
work



Paving the way for precise  
weighing, measuring and monitoring.

**MultiTrain® Technology. Rail industry weighing and safety technology.**



# Rail Industry Weighing and Safety Technology

With over a million railcars in service throughout North America, Schenck Process understands how critical it is to maintain a high level of weighing accuracy and safety for owners and operators in the railroad industry. For years, Schenck Process with its MultiTrain® rail industry product line has been supplying precision measuring, monitoring and weighing systems to some of the world's leading rail companies. These proven systems are now designed and fully tested for the North American rail industry. Whether legal-for-trade weighing accuracy, wheel impact load detection, or accurately weighing railcars before and after loading is required you can depend on Schenck Process to provide the most economical and safe solution through a wide range of rail product line offerings.



## Product Solutions

### MultiTrain® LegalWeight

MultiTrain® LegalWeight is a dynamic weighing system designed for the weighing of railcars in motion. The precise measuring technology permits the weights of railcars to be acquired accurately and legal-for-trade [NTEP]. For dynamic verification, the weighing system can be used as a static reference scale. Additionally, the system is optimally suited for monitoring load distributions. The measuring section is ideally configured by railcar type, weighing accuracy up to 0.2%, and velocity.

- **Legal-for-trade dynamic weighing of railcars**
- **Installation without rail gaps and foundation**
- **Quick installation. Typically in 2 days or less.**
- **NTEP certified legal-for-trade dynamic scale for speeds up to 14 mph (23 km/h)**



### MultiTrain® WheelLoad

MultiTrain® WheelLoad is a measuring technology that provides wheel and axle loads typically for workshops dedicated to the construction and repair of railcars. Designed with high precision strain gauge weigh discs that are mounted on solid concrete foundations, the weighing system transmits all forces and moments while measuring the vertical force component with a high degree of accuracy. Weight values and associated data are acquired and processed with the use of legal-for-trade weighing electronics and customized PC systems.

- **Weighing system for wheel and wheelset loads on railcars**
- **Determines relative wheel load differences**
- **Weighing range up to a 15 ton wheel load**
- **Accuracies of  $\pm 0.1\%$  full scale**





## MultiTrain® WILD

MultiTrain® WILD is designed as an innovative diagnostic system for railcars. The early recognition of excessive wheel impact loads aids in railcar maintenance and offers enormous savings potential in track utilization and servicing. Each system is equipped with high-precision measuring technology, which enables the forces between the wheel and rail to be acquired quickly and accurately. In addition, the wheel, wheelset and railcar weights can be acquired at high speeds and the data can be transmitted to a remote location. The diagnostic system safely identifies railcars that have the potential to damage the track through dynamic forces or overload.

- **Wheel impact load detection**
- **Weight acquisition at line speed**
- **Installation without rail gaps and foundation**
- **Diagnostic speed range from 6 to 155 mph (10 to 250 km/h)**



## MultiTrain® CheckWeight

MultiTrain® CheckWeight is designed for acquiring in-motion wheel and railcar weights at low speeds. Hermetically sealed, submersible IP68 sensors are built without gaps into the track rails for calculating the weights when a railcar moves over them. The sensors use measuring eye strain gauge technology, which are connected to weighing electronics and a PC interface. Measuring channels ensure the acquisition of the required signals with a sufficient scanning rate and dynamic weighing accuracies up to  $\pm 2\%$  of full scale.

- **Check for overloading and carry back to avoid penalties**
- **Quick installation with no foundation work**
- **Measuring eyes installed into web of rail – no joint bar or mechanical linkage issues**
- **Weighing speed range up to 5 mph (8 km/h)**

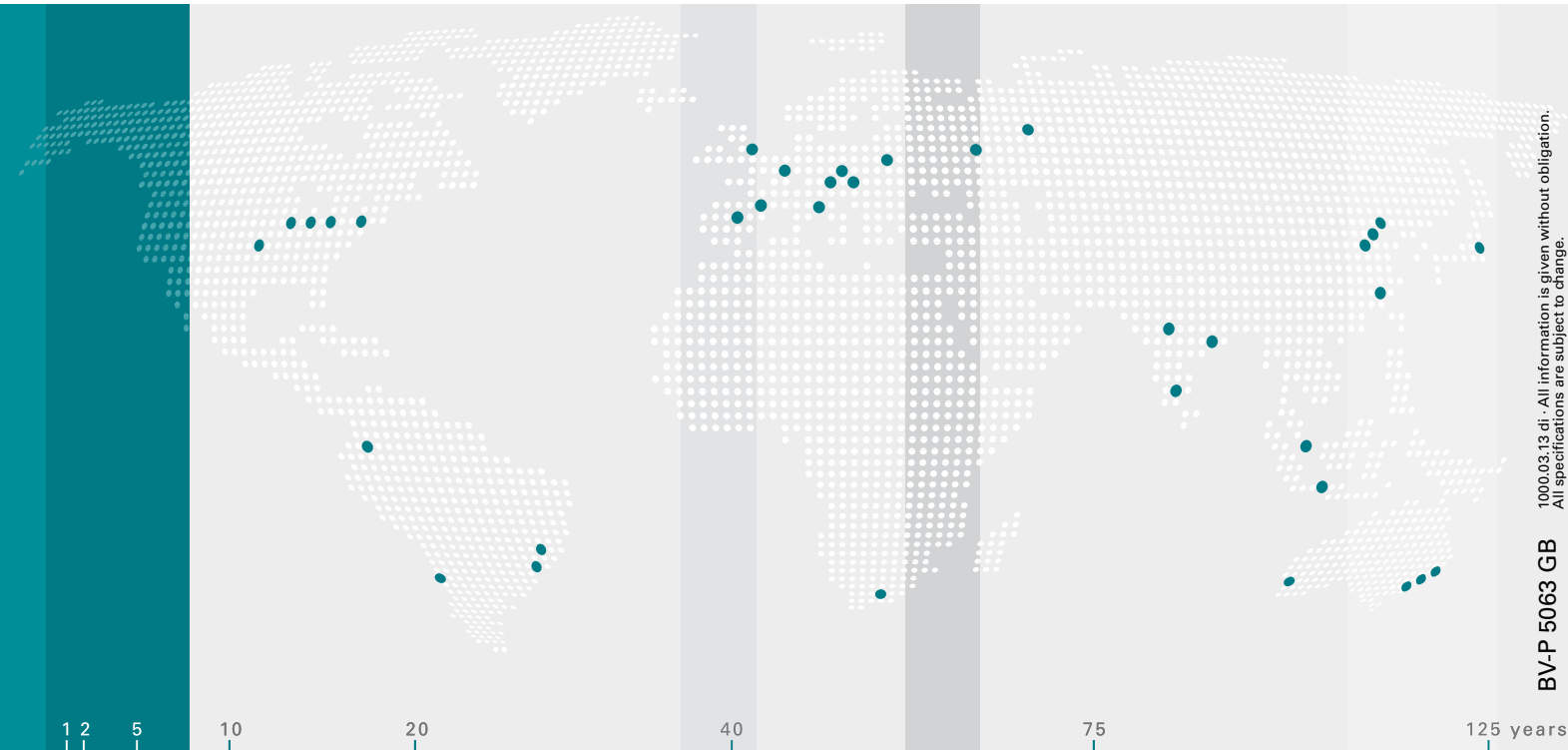


## MultiTrain® LoadOut

MultiTrain® LoadOut is the perfect addition to train loading systems. Railcars can be weighed directly before and after loading with the use of high precision load cells. The load cells, integrated in a concrete weighing tie, transmit all forces and moments while measuring vertical weight. The data is typically transferred directly to the PLC of the train load out equipment. By calculating net weight the LoadOut system makes it possible to adapt the loading process to take full advantage of railcar capacity.

- **Dynamic weighing of railcars**
- **Weighing accuracy of 0.5%**
- **Optimizes railcar capacities**
- **Train load out automation**





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All specifications are subject to change.

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Schenck Process is the global market leader of solutions for measuring and process technologies for industrial weighing, feeding, conveying, screening, automation and air filtration technology.

Schenck Process develops, manufactures and markets a full range of solutions, products and turnkey systems on the basis of combining process engineering expertise, reliable components and field-proven technology.

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