schenck process

MULTIRAIL®
Improving safety and reliability in rail processes

» Weighing
» Monitoring
» Optimization

YOUR WORLDWIDE MULTIRAIL HANDLING PARTNER

Our world is interconnected through rail networks, whether it be for freight, material transport or passenger. The industry is increasingly seeing growing demands and challenges – impacting reliability, safety and performance. Schenck Process are here to address those challenges.

Mine owners and production companies around the world are competing for transport corridors planned to the minute, in a limited rail network with ever longer and ever heavier trains. Individual transport by car and plane have long reached the limits of their capacity and economic viability in many places.

New high-speed routes and underground systems are therefore being planned or already being constructed all around the globe. Not only does this place greater demands on passenger and freight transport, but also on the safety and reliability of the technology, which can only be met through precise measurements, monitoring, checks and settings. Our contribution is: MULTIRAIL® technologies.

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MORE AND MORE PEOPLE AND MATERIALS NEED TO REACH THEIR DESTINATIONS FASTER THAN EVER BEFORE.

SCHENCK PROCESS MULTIRAIL® HELPS YOU DO JUST THAT.

HOW WE ADD EXTRA VALUE

» Experienced and knowledgeable project management teams and technical experts
» Remote factory testing capabilities
» Investment in continued innovation
» Digital, remote capabilities for testing and troubleshooting
» Extensive supply of spare parts and aftercare support, including training

More product info?
Scan the code above for access.

Need help or a quote?
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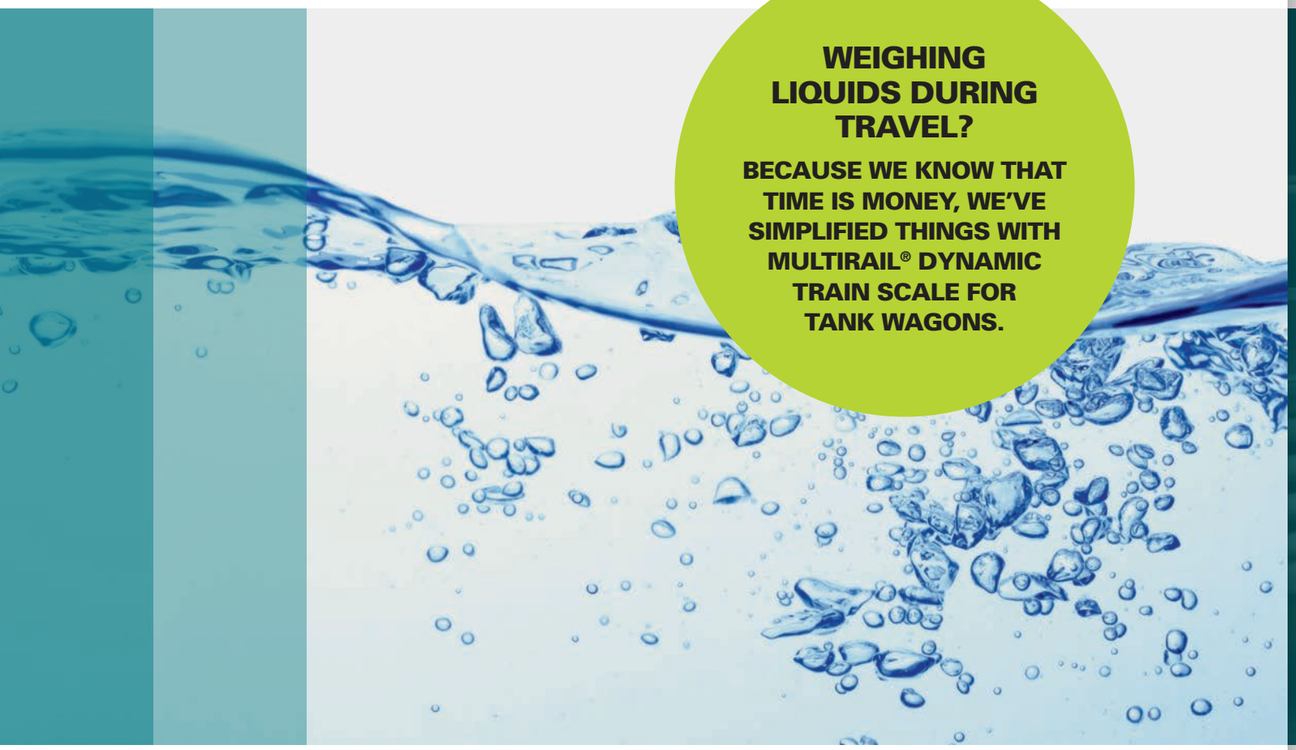

WEIGHING LIQUIDS DURING TRAVEL?

BECAUSE WE KNOW THAT TIME IS MONEY, WE'VE SIMPLIFIED THINGS WITH MULTIRAIL® DYNAMIC TRAIN SCALE FOR TANK WAGONS.

MULTIRAIL® TRAIN SCALE

Time is money – especially when loading precious liquids into tank wagons. When they leave the factory, they need to be weighed in a highly accurate and legal-for-trade manner.

We are finally seeing an end to the practice of trains having to remain stationary until the liquid is no longer swashing around and the wagons having to be accurately parked on the scales and decoupled.

With MULTIRAIL® Dynamic Train Scale for Tank Wagons, the train set can be easily weighed while travelling at a slow speed without the need to stop. The legal-for-trade weights of all wagons automatically appear on the operator's screen around one minute after weighing.

The process complies with OIML R 106-1 and saves both time and staffing resources. Not to the mention the simple way in which the weighing technology is fitted without any gaps or foundations. The UIC-wagon number is automatically recognized and recorded via cameras or tag readers. Each wagon weight is related to a wagon number. Results are available via REST interface.

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MULTIRAIL® TRAIN SCALE

MULTIRAIL® Dynamic Train Scale has been optimized in motion weighing of coupled train formations.

This certified system enables you to weigh with precision almost any type of wagon or complete train sets. If not being weighed, wagons can travel at the permissible speed for the track. The system is also optimised for axle and wagon load and the position of center of gravity of the wagon.

KEY BENEFITS:

» Weighing efficiently takes place without stopping transport

» Automated process, for greater speed

» Easy installation without rail gaps and foundation

Weighing in accuracy class 0.2 per OIML means a permissible tolerance of 200 kg for a 100 t wagon.

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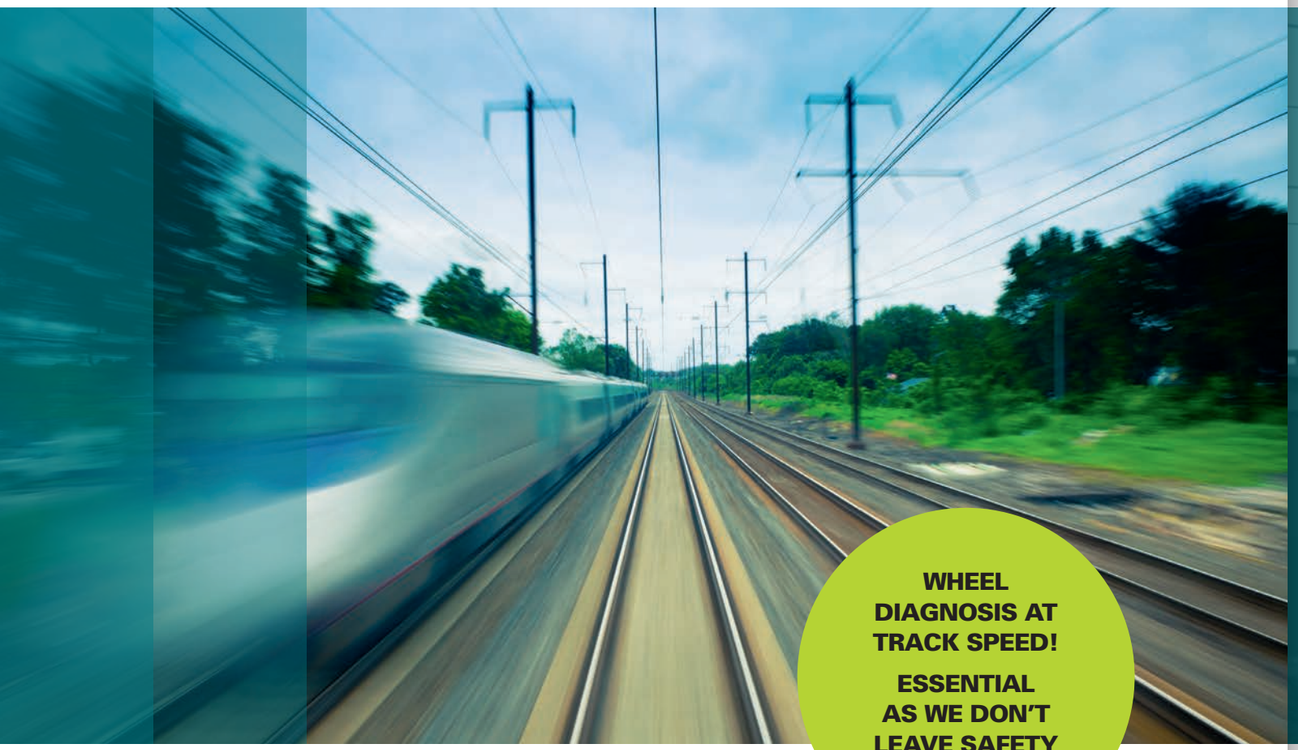


WHEEL DIAGNOSIS AT TRACK SPEED!

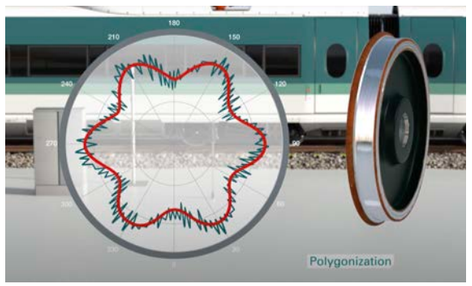
ESSENTIAL AS WE DON'T LEAVE SAFETY TO CHANCE.

MULTIRAIL® WAYSIDE TRAIN MONITORING

Rail track operators want to know the weight of trains travelling on their track, and the owners of rail vehicles need to know if their trains are running unevenly.

Such information is crucial to optimised maintenance intervals and rail transport safety, as heavily overloaded wagons or a wheel flat caused by a brake defect bring with them huge potential for derailment, which needs to be detected and corrected in good time. Optimised travel also improves comfort levels and reduces noise.

The MULTIRAIL® Wayside Train Monitoring additionally calculates the load distribution of every single wagon and dynamic peaks in load as an indication of wheel damage, even at high speed and without affecting transport speed.



MULTIRAIL® Wayside Train Monitoring has a measurement uncertainty of just ± 1 %, even at train speeds of 80 km/h.

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MULTIRAIL® WAYSIDE TRAIN MONITORING

The MULTIRAIL® Wayside Train Monitoring additionally calculates the load distribution of every single wagon and dynamic peaks in load as an indication of wheel damage, even at high speed and without affecting transport speed.

KEY FEATURES

- » Wayside monitoring system for line speed
- » Detection of wheel irregularities with 'full scan' method
- » Determination of load distribution in accordance with UIC loading guidelines
- » Highly accurate in-motion weighing

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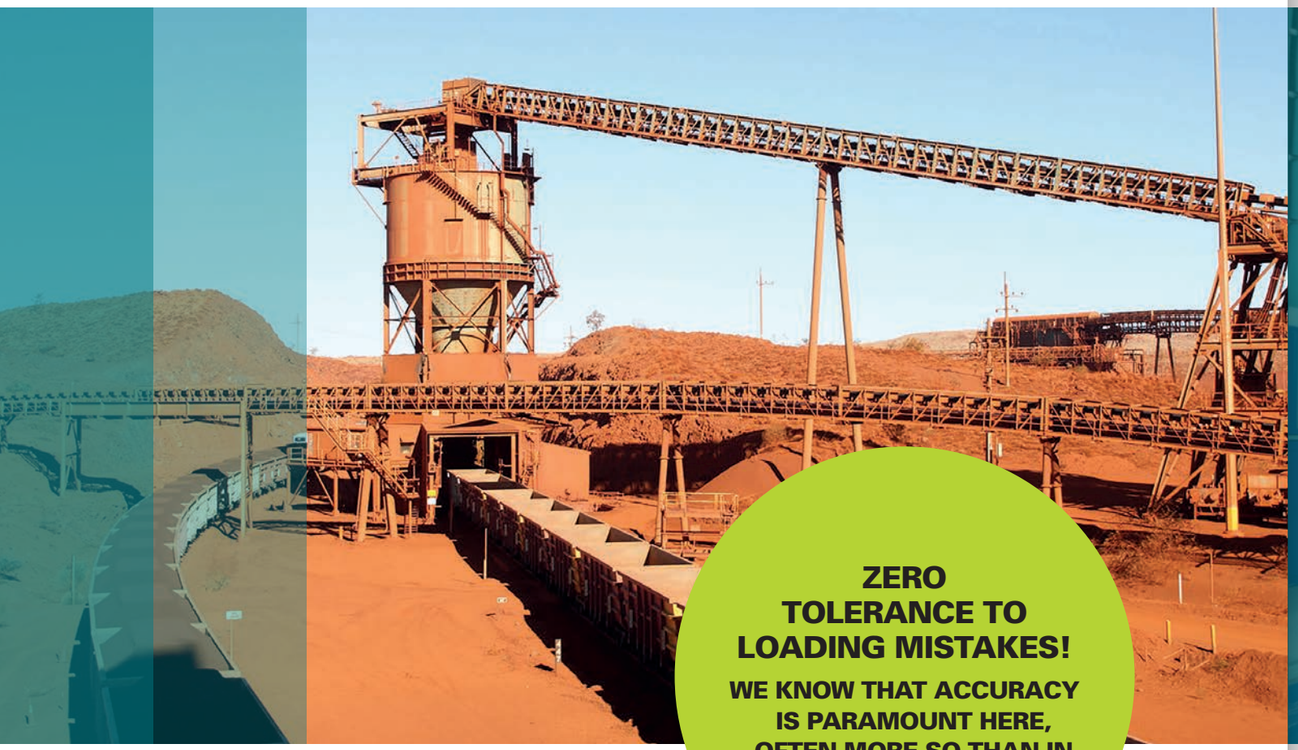

ZERO TOLERANCE TO LOADING MISTAKES!

WE KNOW THAT ACCURACY IS PARAMOUNT HERE, OFTEN MORE SO THAN IN OTHER SITUATIONS.

MULTIRAIL® TRAIN SCALE FOR LOADING

When mine operators need to load train sets with 5 locomotives, 234 wagons and a length of almost 3 km for transport to the port, each wagon has to be precisely loaded – not too light and not too heavy.

MULTIRAIL® Dynamic Train Scale for Loading plays a decisive role in achieving this optimum performance with high levels of reproducibility regardless of the weather and product characteristics.

The technology allows you to automatically weigh each wagon before and after loading and can immediately optimise its load depending on the results. This also benefits the port, which can fully rely on the incoming train set, accurately loaded to the target value. A large amount of the ore mined by global companies is weighed and loaded using Schenck Process technologies.

Axle load weighing helps improve the safety of material handling within transport.

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MULTIRAIL® TEST BENCH

Precision is needed in rail workshops to ensure that trains can run quickly and safely with minimum wear. Here bogies and rail car bodies are measured, adjusted and thereby optimised under simulated load conditions, both when originally built and undergoing maintenance.

Schenck Process MULTIRAIL® Test Bench is critical towards ensuring optimum performance, longevity and safe operation of bogies and wagons.

Our Test Bench enables automated inspections for the highest levels of precision and accuracy. Whether it be simulating and measuring Bogie Loads, Corner Loads or Wheel Loads, our comprehensible Test Bench solution covers all applications.

KEY FEATURES

- » Derailment and safety protection
- » Minimization of wear for longer-service life
- » Optimizes performance
- » Reduction in dynamic forces
- » Safeguarding of smooth running and comfort
- » Optimization of maintenance intervals

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MULTIRAIL® TECHNOLOGIES

We are the global partner that lives your process challenges with you. Our passion for always going the extra mile to find the best solutions is what drives our process for transforming your processes.

Schenck Process has developed special load cells for different, high- precision industrial applications. Virtually all the weighing technology solutions of the MULTIRAIL® family are based on well-engineered and virtually invisible force measuring technology, which stably transfer forces in the track and at the same time precisely calculate the vertical and sometimes horizontal wheel forces.

As force measuring is a key competence, our expertize in this area allows us to collaborate with virtually all major European rolling stock manufacturers in their test centres and production. Enabling us to play an important part in their product development, to continually improve performance for our customers.

We are also actively involved in European standards committees on the interoperability and comparability of test processes. As a technology leader, all this allows us to play an active role in setting global trends in rail transport with the motivation to increase safety, economic viability and comfort.

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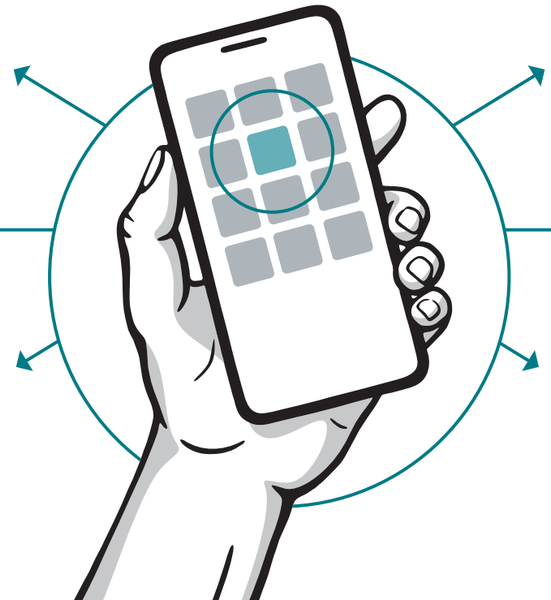
DIGITAL REMOTE AFTERMARKET SERVICES

Digital support from our global Aftermarket team, means that no matter your location, an engineer can be available to help you. To contact one our team please call: **+49 6151 1531 1531**, or email: **service-eu@schenckprocess.com**

PHONE SUPPORT
24/7 expert availability

VIDEO SUPPORT
Consultation including video streaming and desktop access



REMOTE CONNECTION
Remote in-depth analysis and support of your personnel

MIXED REALITY INTERACTION
Access to devices including augmented reality information exchange

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Your Partner

Please contact Schenck Process where you will be directly connected to an engineering expert.

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we make processes work