Purpose of Weighing

- Commercial weighing
  - Static and dynamic weight acquisition of trains and wagons for invoicing
  - Loading and unloading
  - Data acquisition and processing
SCHENCK PROCESS
Rail weighing systems

Purpose of Weighing

- Safety, Maintenance
  - Overload control
  - Detection of wheel flats
  - Load distribution in wagons and locos
  - Data acquisition and processing
**SCHENCK PROCESS**

**Rail weighing systems**

The best and economical solutions - safety and maintenance

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<th>MULTIRAIL®</th>
<th>Special scale</th>
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<td>wheel load scales</td>
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SCHENCK PROCESS
Rail weighing systems

Dynamic gapless weighing systems

Automatic weighing operation

Legal for trade in the range from 5 - 15 km/h

Check weighing in the range from 16 - 100 km/h

Usable for almost all wagon types

Installation in a minimum down time

Optional track stabilisation through ballast bonding

No limitation of the travelling speed

Design without weighbridges or foundations
SCHENCK PROCESS
Rail weighing systems

MULTIRAIL®

- New standardised rail weighing concept for world-wide marketing
- Economical and technological leading solution
- Cooperation with the DB-AG (German Railway)
MULTIRAIL® concept:

**Commercial weighing:**
- Legal for trade dynamic weighing systems

**Safety:**
- WheelScan systems

**Production and maintenance:**
- Wheel-load-measuring systems

*Speed < 16 km/h*
- Legal for trade (OIML)

*Speed up to 240 km/h*
- Monitoring and diagnosis
SCHENCK PROCESS
Rail weighing systems

MULTIRAIL® - solution:

- Weighbeams installed under the driving rails without a bridge or a concrete foundation
- Measuring-eyes allow the compensation of force derivations
MULTIRAIL®

Advantages:
- Gap-free integration
- Integrated static reference scale
- Modular solution with an economical service concept
- Quick installation
- Possible installation in main lines
SCHENCK PROCESS
Rail weighing systems
SCHENCK PROCESS
Rail weighing systems
September 2001:
First approved MULTIRAIL® weighing system in Germany (WLE) -

with integrated reference scale!
Weighbeam Technology:

+ 20 years development / experience of SCHENCK
+ R 60 test and C 1 approved
+ stainless steel
+ hermetically sealed / laser welded
+ temperature range from -50 °C to 100 °C
SCHENCK PROCESS
Rail weighing systems

MULTIRAIL® - WHEELSCAN
MULTIRAIL®

0,5% precision can be achieved already without pre-calibration due to the use of Schenck weighbeams.

After static calibration with standard weights the static accuracy can be achieved with 0,1%.
SCHENCK MULTIRAIL®

Wheel Load Test Stations