

• APPLICATION NOTE • Weigh-In-Motion

Dynamic Weighbridge Technology for Gate Operations - Thessaloniki, Greece

Automation is a large focus for container terminals to become more efficient and handle ships and cargo quickly. The Port of Thessaloníki, Greece uses Weigh-In-Motion (WIM) technology operating as dynamic weighbridges to process vehicles and cargo faster for gate in/out transactions.

Rapid collection of weights during standard gate vehicle processing is vital to increasing the level of automation of port and terminal procedures.

With the Port of Thessaloníki, four rows (8 total sensors) were installed per lane. Vehicles crossing the <u>WIM sensors</u> have their weight information synchronized with the automated vehicle records created at the gate, and enables method 1 SOLAS VGM compliance.

The WIM sensors and system were optimized to measure at low to medium speeds expected in the terminal entry lanes. After installation, a truck with known weights was processed over each lane, with the dynamic weighbridge systems reporting weights with less than 1% error from static weights. This performance has led to incorporation of Strip Sensors into future plans for gate automation.

Intercomp sensors are installed in channels cut in existing vehicle lanes, and can be integrated with a variety of electronics platforms and gate or TOS software. The sensors utilize similar strain gauge technology which is used in static weighing applications.

The WIM Strip Sensors are used for low- and high-speed (LS-WIM and HS-WIM) applications throughout the world.

Weigh-In-Motion Strip Sensors

- Strain Gauge Load Cell Sensors in a Minimally Invasive Enclosure for Quick Installation
- Weigh Vehicles & Cargo at Speeds up to 80 mph (130 km/h)
- Designed to Comply with Local Weighing Regulations
- Used in Screening, Enforcement, Data Collection, Tolling & Ports WIM Applications



In-ground installation of port dynamic weighbridges in Thessaloniki, Greece



Weigh-In-Motion Strip Sensors were installed in four rows per lane for the port gate application.



The strip sensors use strain gauge technology similar to static weighbridges.