made in germany

## SRAL®



### TYPICAL **STRAIL**

The brand STRAIL® already carries the level crossing in its name: **str**eet meets r**ail**.

The first STRAIL® level crossing was installed in 1976 and already back then it was done in close cooperation with the client.

Since then, we have been working together with our customers on our STRAIL® level crossings, optimizing their functionality. In the meantime, more than 80,000 level crossings have been delivered and installed worldwide. Our focus has always been on the sustainable further development of our STRAIL® products and their material properties.

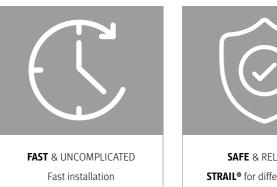
In doing so, we keep an eye on a steadily increasing share of the high-quality secondary raw materials used, which are processed together with virgin rubber for our fully recyclable products.

Our special, unique and patented manufacturing process guarantees a long service life and a high degree of robustness. Even the first STRAIL® panels were produced by means of vulcanization at high temperatures under high pressure.

The manufacturing process has also been constantly developed and optimised over the years. What used to be spread and pressed manually into moulds is now done by robots and hydraulics.

A wide variety of designs meet all requirements in terms of traffic, load classes and climatic conditions.

When it comes to level crossings, STRAIL® is the number 1.



and short blocking times pays off for you in hard cash!



**SAFE** & RELIABLE STRAIL<sup>®</sup> for different loads, climatic conditions and individual designs



LOW CARBON FOOTPRINT Use of virgin rubber in combination with high-quality secondary raw materials



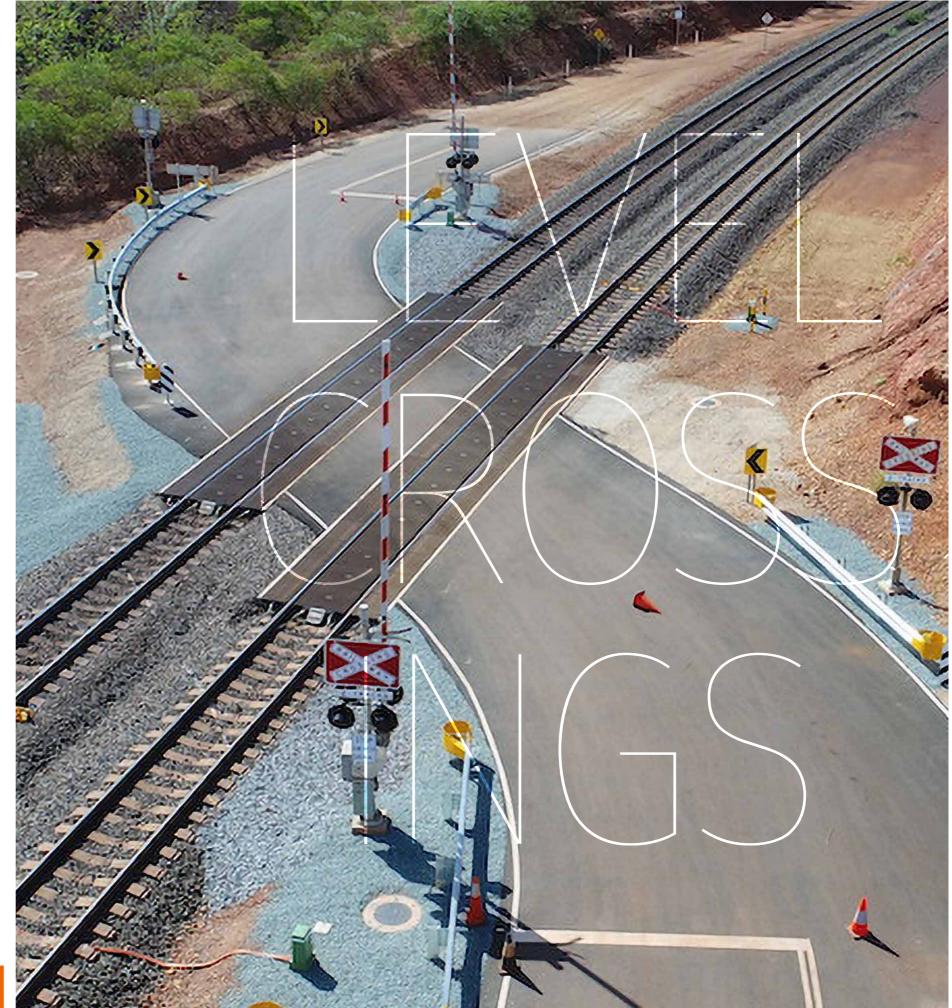
LONG SERVICE LIFE Proven since 1976 with virtually maintenance-free level crossing systems



CUSTOMER-ORIENTED & FLEXIBLE Our field service is there for you nearly around the clock, worldwide.



**INSTALLED** WORLDWIDE More than 80,000 times decades of experience ensure technically mature systems



#### The installation of a level crossing is divided into three essential steps\*

### SIMPLY FAST

Traffic should flow, quickly and freely. With **STRAIL®** you are simply fast: starting with the planning, through the installation to the virtually maintenance-free system.

You can install a nine-metre-long level crossing in just three hours, with four to six workers and, if required, without machines.

For maintenance work **STRAIL®** can be removed and reinstalled quickly and with little effort. And short blocking times pay off in hard cash.

Plus, our experts are available to you around the world, nearly around the clock, and are ready to help you in word and deed. Typical STRAIL®.

#### 1. Preparation of the track

Correct height & side position, tamping, welding and, if necessary, replace the track fastenings.

2. Installation of inner panels Insert inner panels, press them under the rail head using the STRAIL® installation lever or an excavator, install further panels and tight them together with our lock tight system.

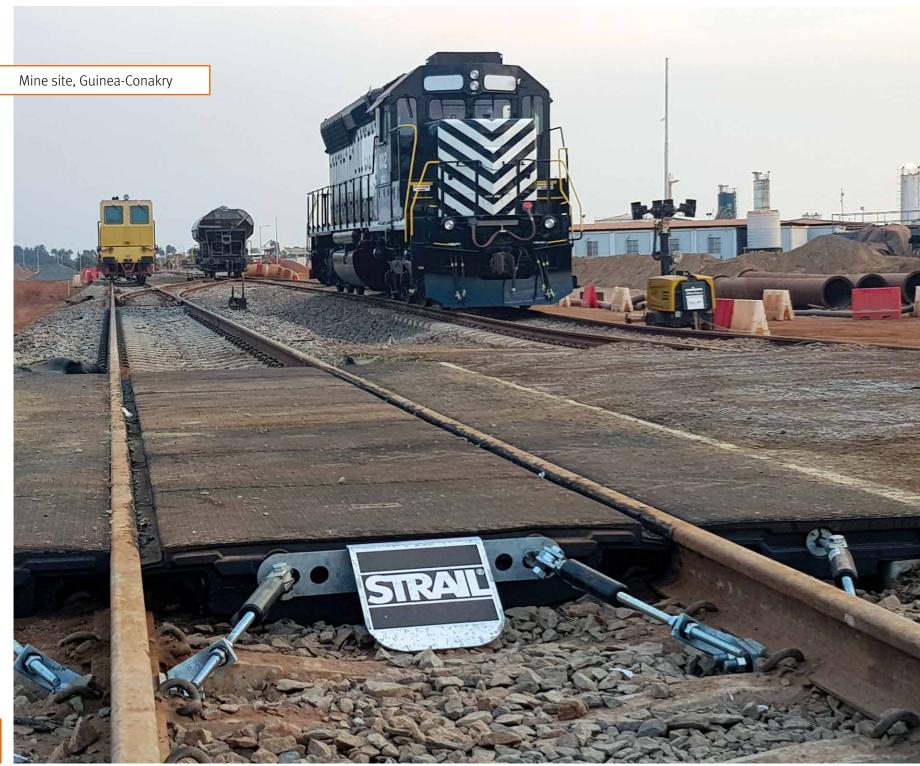








\*Installation steps may vary depending on the system, please refer to our detailed installation instructions.



#### 3. Installation of outer panels **NEW design** with **STRAIL®**

concrete broad kerbstone. No prefabricated foundation required.

Substrate: highly-compacted ballast. Lay B-kerb on top. Install outer panels.

#### Time saving: **approx. 40 - 50%** > shorter blocking times > saves money!

#### **CLASSIC DESIGN with** prefabricated foundation and T-kerbstone.

Insert the prefabricated foundation, place the kerbstone with a mortar levelling layer on top. Observe the curing times. Install the outer panels.

#### Alternative to the classic T-kerbstone.

The so-called D-kerbstone has an integrated drainage system.

### SIMPLY FLEXIBLE

When rail and road meet, the requirements are manifold, and our **STRAIL®** level crossing systems are correspondingly diverse. Each one has been specially designed and developed for its area of application.

What the modular rubber panels have in common, however,

are tongue and groove on the one hand and the patented lock tight system for all panel types on the other. This is why **STRAIL®** systems can flexibly be combined very well with each other.

Each **STRAIL**<sup>®</sup> level crossing panel is equipped with a tongue and groove.

This tongue and groove connection prevents the "tilting" that is a problem with single panel systems, especially when the panel is driven over at an angle.

Our easy-to-install lock tight system connects the **STRAIL®** panels lengthwise to form a continuous strand. This ensures positional stability and prevents the formation of gaps, even when driven over at an angle.

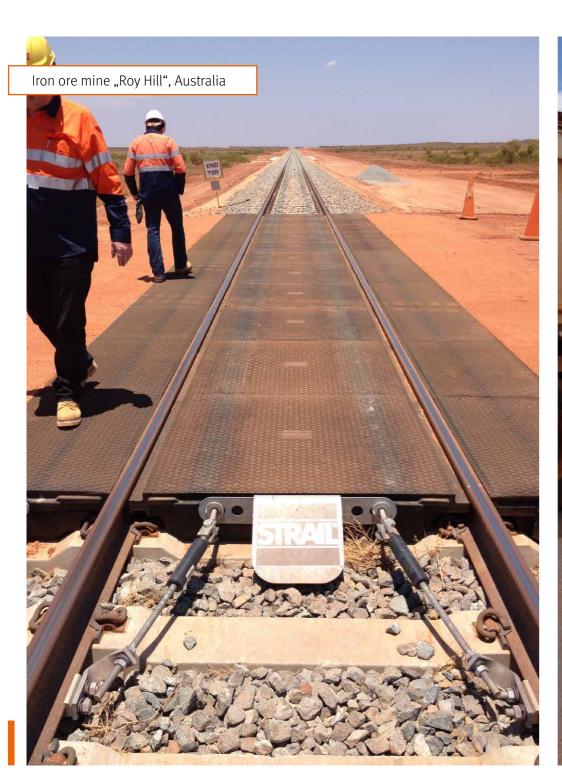
STRAIL® sticks together!

SIMPLY **RELIABLE** 

Several million axles roll over level crossings every year, both from individual traffic and trains > a double load that **STRAIL®** systems can cope with.

The individual solid rubber panels, some with fabric reinforcement, are available for all common types of superstructures.

A rhombus design optimised for wet conditions with pyramid tips and vulcanised corundum promises excellent slip resistance for vehicles and pedestrians alike and minimises wear and tear.





This gives our virtually maintenance-free level crossings a long service life span you can count on.

When other materials give way or even break under high loads, rubber is as good as ever. With **STRAIL®** there is no "sudden death" - for example, even after a train derailment, our **STRAIL®** level crossing could still be used as an emergency crossing in all directions.

**STRAIL®** > you can rely on!

## STRAIL

#### Inner- & outer panel system

#### The premium system.

STRAIL® is a heavy-duty and very durable level crossing system suitable for main artery roads.

- The modular system consists of individual solid rubber panels that are secured to a package using our lock tight system.
- suitable for all common rail and sleeper types
- pyramid surface with vulcanised corundum ensures slip resistance
- long service life
- quick and easy installation and removal
- fibre-reinforced to withstand ever increasing traffic loads

#### Facts:

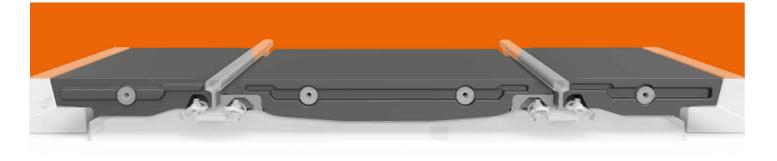
- Load capacity ++++
- L: 600 & 1,200 mm inner panels W: 591 & 713 mm outer panels for 600 mm sleeper spacing with filler block

## innoSTRAIL

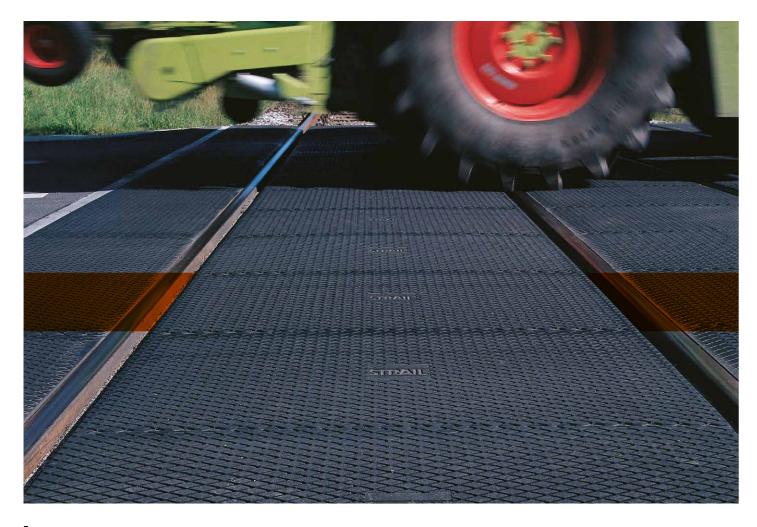
#### The economical system.

innoSTRAIL is recommended for crossings with medium to high loads (> depending on the track superstructure). The system, which is independent of the sleeper spacing, does not require any filler blocks and is therefore a particularly economical system.

- suitable for all common rail and sleeper types
- pyramid surface with vulcanised corundum ensures slip resistance
- quick and easy installation and removal









- long service life

optional application for rerailing points of road-rail vehicles for maintenance work and rescue operations

#### Facts:

no filler block

Load capacity +++ L: 1,200 mm inner panels W: 591 & 713 mm outer panels independent of sleeper spacing

### pedeSTRAIL

#### The lightweight system.

- The cost-effective system, specially developed for pedestrian and bicycle paths, ensures safe and comfortable crossing of the tracks, especially at stops, service crossings and stations.
- It can also be used for escape routes in railway tunnels and metros.
- suitable for all common rail and sleeper types
- special, non-slip pedeSTRAIL surface
- quick and easy installation and removal
- optional:
- with flame-retardant top layer

Inner- & outer panel system

- long service life
- lightweight panels > quick, easy installation which can be done manually

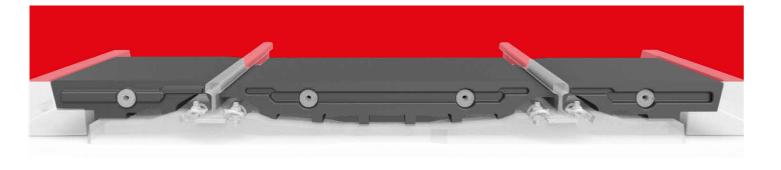
#### Facts:

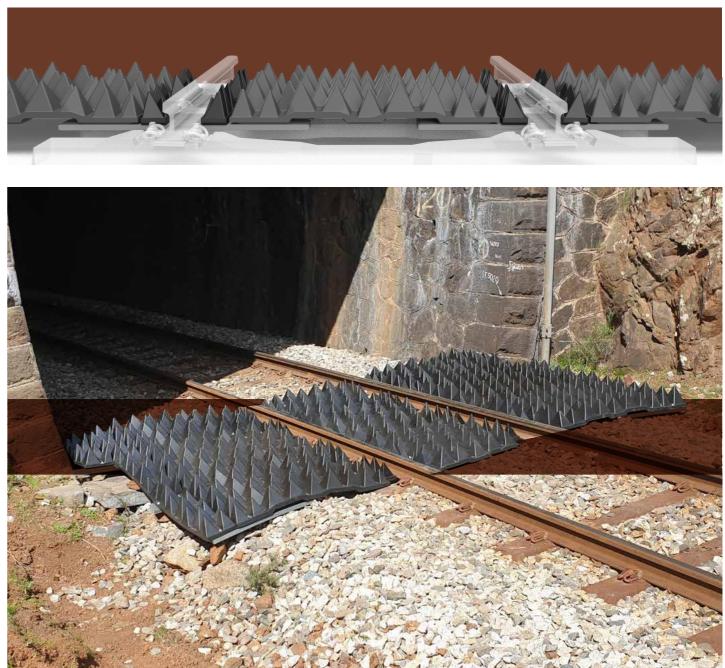
Load capacity + L: 900 mm inner panels W: 591 & 713 mm outer panels independent of sleeper spacing no filler block

### **STRAILgrid**

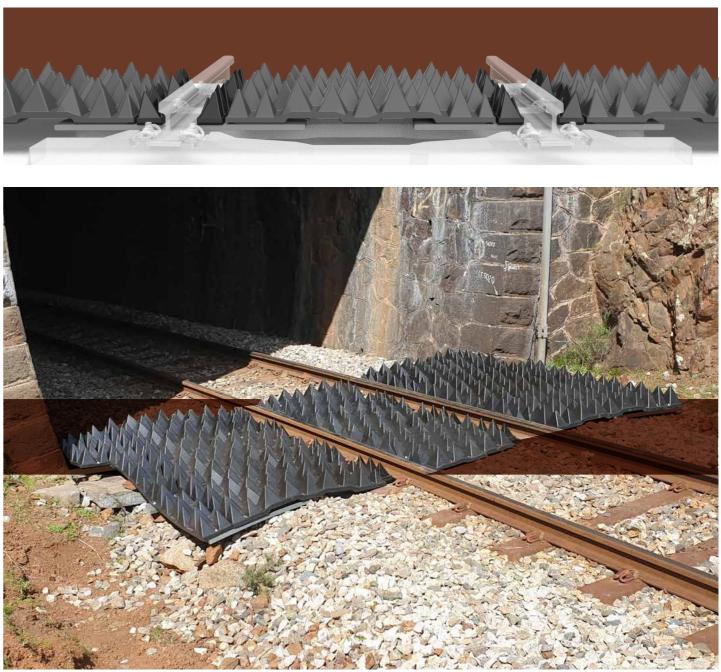
STRAILgrid serves as a visual deterrent and makes it difficult or impossible to trespass on tracks by means of its irregularly arranged pyramid peaks at different heights.

- universal panel
- can be used between and next to the rails
- quick and easy manual installation and removal









- integrated drainage - permanently screwed with intermediate elements

Facts: Load capacity: not traversable 900 mm universal panel

# LEVEL CROSSING SYSTEMS

### www.strail.com

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