



THE SYSTEM ELIMINATES THE FLANGE GROOVE.

street  
meets  
rail.



LEVEL CROSSING SYSTEMS *for highest demands*

# 1 | APPLICATION

**veloSTRAIL** permits safe and easy crossing of the street.

At level crossings the flange groove – which needs to be kept free for the wheel flange of the wheelset – poses a certain danger to cyclists, wheelchair users, pedestrians etc. Another problem is ice formation in the flange groove during winter. For these cases **STRAIL** has added the version **veloSTRAIL** to its line. **veloSTRAIL** unfolds its benefits especially in those areas where cyclists, wheelchair users, inline-skaters, baby carriages,

as well as trolley bags should be able to cross a level crossing safely and easily. An easily replaceable flangeway element, which is fit in without removing the inner panel, closes the flange groove. As for maintenance, **veloSTRAIL** is very cost-effective > only very short, partial closing periods are required to exchange the replaceable flangeway element. This does not require any tools and only minimal manpower.



# 2 | ADVANTAGES

**veloSTRAIL** – eliminating the flange groove.

**veloSTRAIL** consists of 600 mm wide inner panels and a new way of connecting the panel with the interchangeable part ("Click System" > without the use of any adhesive). With the help of our integrated lock tight system, the panels are secured into a gap-free package. A smooth transition between the elements without any abutting edges, as well as an additional locking mechanism under the rail head makes driving over the crossing very comfortable. During winter months the flange groove no longer needs to be kept free from snow and ice.

- ◆ extremely safe crossing for cyclists, wheelchair users, inline-skaters, baby carriages and trolley bags
- ◆ **veloSTRAIL** inner panels are available in 600 mm and 1,200 mm and are designed for train speeds up to a **maximum of 120 km/h.**
- ◆ excellent compression of "flange groove", even at very low temperatures (tested down to - 25 °C) coupled with high load capacity in road direction for safe crossing of individual users.

**Note:**  
Lifetime of the **veloSTRAIL** interchangeable parts: When correctly installed at least one million axle crossings or two years, depending on which event occurs first. Formation of a groove in the area of the wheel flange is normal and does not cause reason for concern!

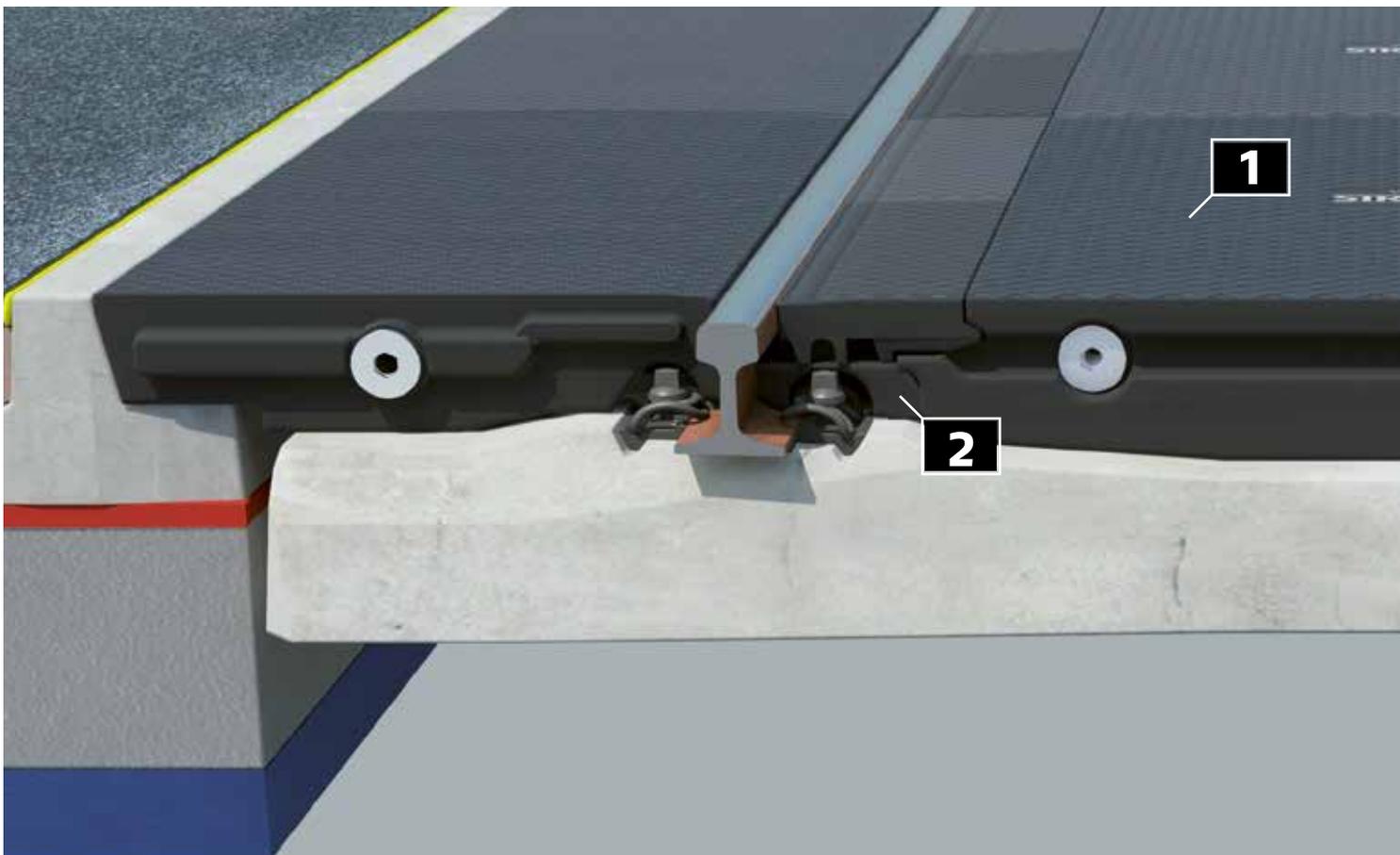


## 3 | DATA

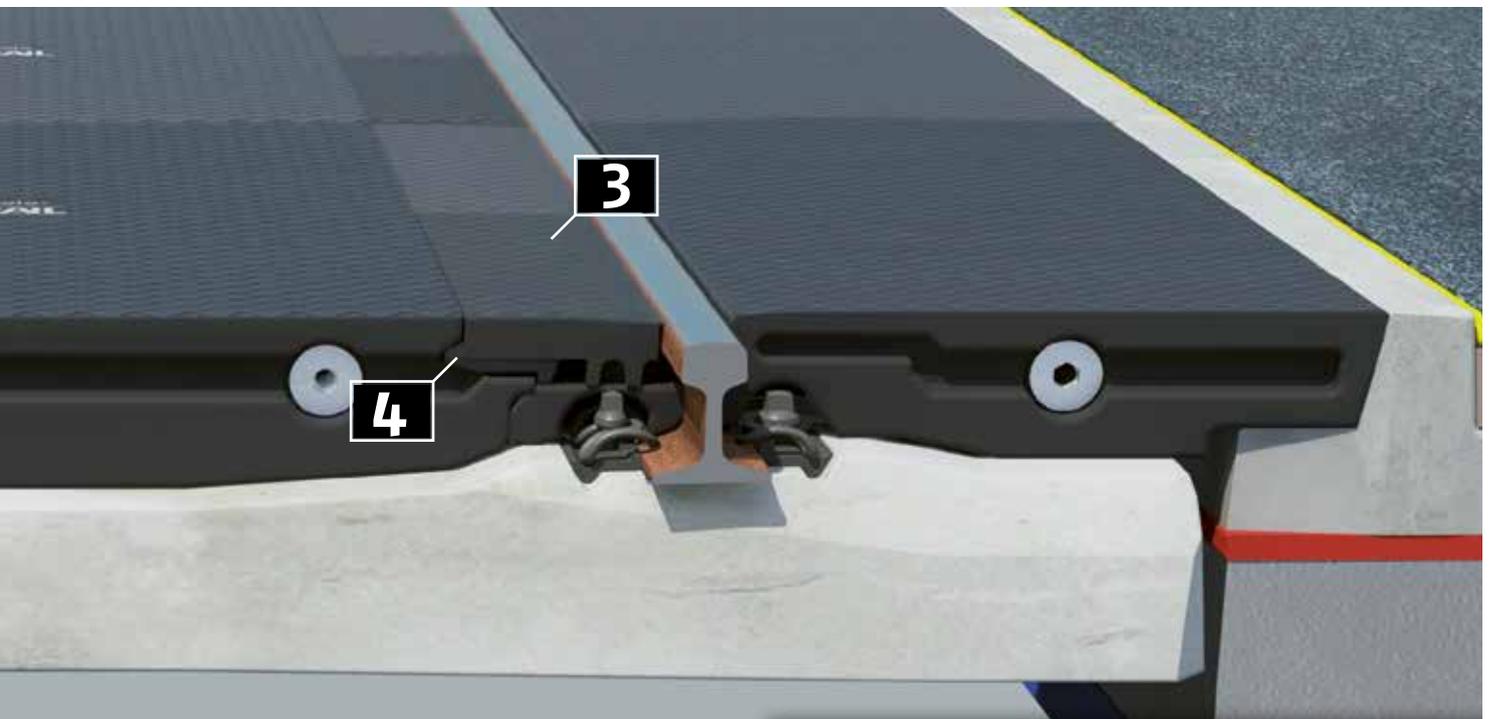
**veloSTRAIL** – eliminates the flange groove.

**veloSTRAIL** consists of vulcanised, precisely matched rubber compounds which have different characteristics. Several shifting protection elements, integrated in all directions, ensure high position stability.

- ◆ **veloSTRAIL** replaceable flangeway element for train speeds up to a **maximum of 120 km/h**  
> ask us for the test report.
- ◆ Safe connection of the replaceable flangeway element with the **veloSTRAIL** inner panel through multiple integrated shifting protection.

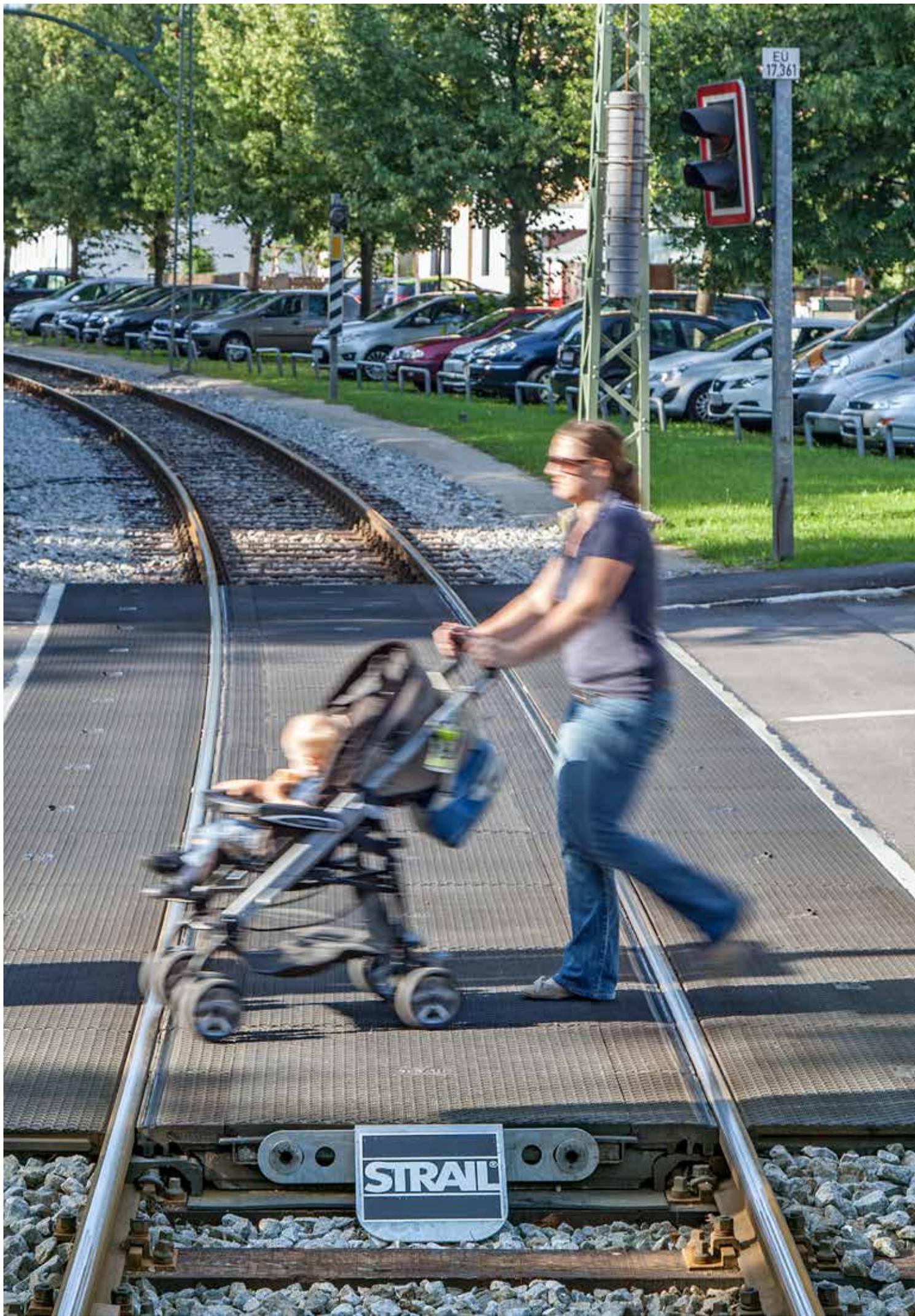


- 1** **veloSTRAIL** inner panel 600 mm (or 1,200 mm), for 1,435 mm gauge (also deliverable for other gauges)
- 2** filler blocks
- 3** **veloSTRAIL** replaceable flangeway element
- 4** dovetail joint to inner panel
- 5** integrated locking mechanisms in all directions



**mm in inches glossary:**

1,435 mm = 56.49 inch	750 mm = 29.53 inch
1,200 mm = 47.24 inch	600 mm = 23.62 inch



## 4 | DIMENSIONS

**veloSTRAIL** – inner panel 600 mm and 1,200 mm.



**veloSTRAIL** inner panels are available in two widths: 600 mm and 1.200 mm .

The advantages are obvious: on the one hand this doubles the area one can put down during installation, which helps to save time and thus reduce costs. On the other hand, position stability is greatly improved due to the expanded size of the surface. A smaller number of panels is required, which in turn significantly reduces the number of joints.

**veloSTRAIL** makes railroad tracks accessible for pedestrians, cyclists, wheelchair users, as well as baby carriages and permits easy and safe crossing of tracks.

The eliminated flange groove substantially increases safety and comfort for everyone. For applications of this kind in an urban setting, the 1,200 mm wide **veloSTRAIL** inner panel can even be installed in case of regular sleeper spacing of 600 mm to max. 750 mm (> depending on track structure).

In addition to being available for all common rail tracks, the 1,200 mm **veloSTRAIL** inner panels are compatible with all existing **veloSTRAIL** products.

### 1,200 mm inner panel

- ◆ specifically for pedestrians, cyclists and wheelchair users, as well as trolley bags, baby carriages and inline skaters
- ◆ in urban areas > applicable in case of regular sleeper spacing of 600 mm to max. 750 mm (depending on the track superstructure)



## 5 | INSTALLATION

Installing **veloSTRAIL** does not require substantial technical effort.

Once the track has been brought to the proper height and width, the position of the railway crossing is determined and the track superstructure is prepared, ensure sleeper spacing is exactly 600 mm.



**veloSTRAIL** is available for almost all types of track superstructure.

Depending on the height of the rail, K-fastenings need to be replaced with a lower type of fastening.

After cleaning, in order to ensure easy installation (starting in the center) e.g. to better press the panels into position, lubricate the rail base, filler blocks, **veloSTRAIL** panels and interchangeable parts with **STRAIL**<sup>®</sup> lubricant. Then the filler blocks and **STRAIL**<sup>®</sup> inner panels are inserted and secured longitudinally into one package by means of the patented lock tight system. Insert the interchangeable parts diagonally into the inner panels.

Use well-aimed taps with a plastic sledge hammer to the area of the dovetail joint (start on the side) to establish full connection with the inner panel. Afterwards hammer the hook of the interchangeable part near the rail under the rail head. Knock each of the interchangeable parts sideways against their neighbours so that a gap-free surface is created.

Detailed installation instructions are included with delivery or contact your **STRAIL**<sup>®</sup> contact person. You can find them at [www.strail.com](http://www.strail.com).

### Guarantee / Maintenance

When properly installed according to installation instructions, we offer a guarantee on the **veloSTRAIL** inner panel which goes beyond statutory warranty. **veloSTRAIL** requires no regular maintenance. Only the interchangeable flangeway element is subject to normal abrasion. Please see "note" under item 2.

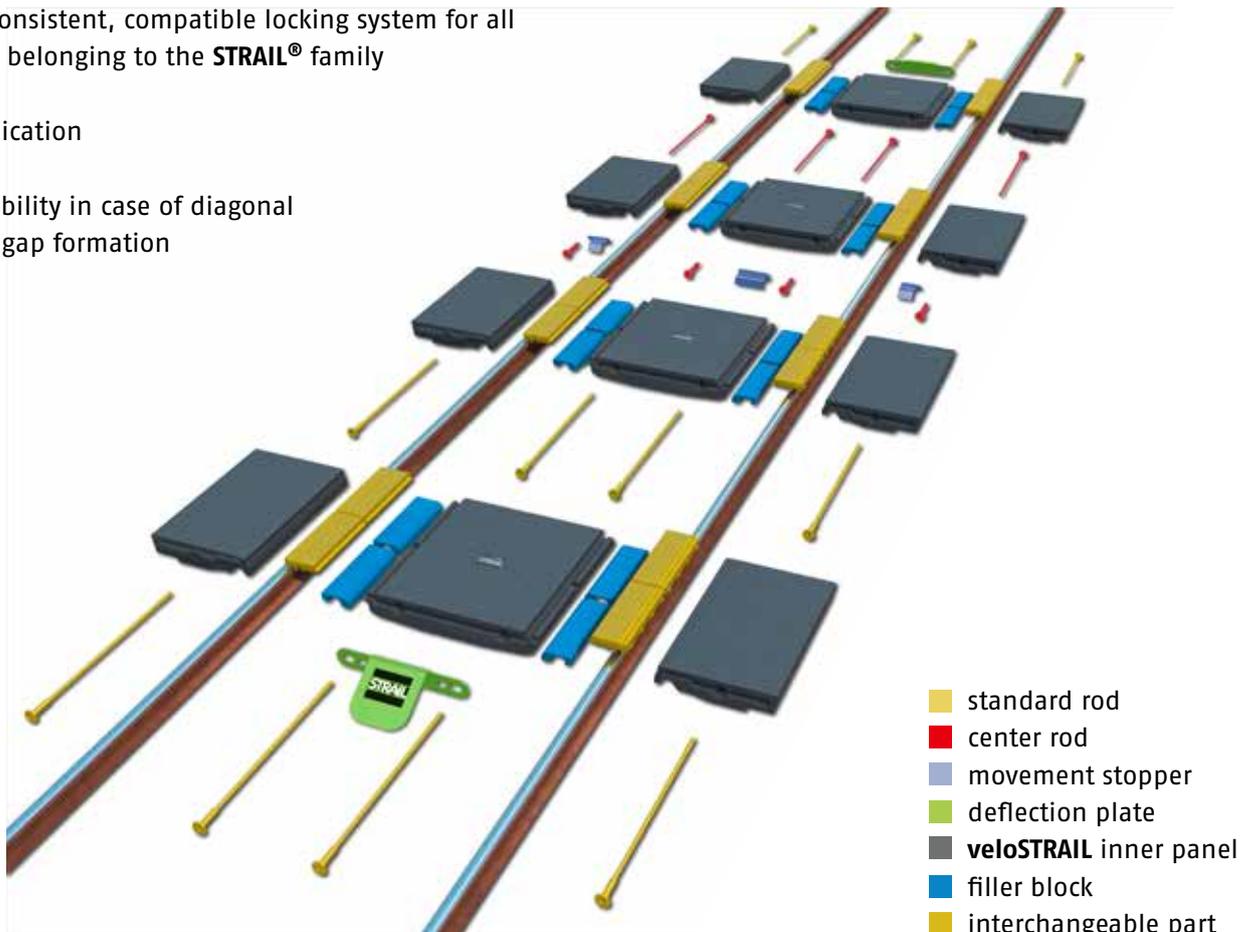
Service life of the level crossing depends on the respective traffic load. Extreme increases or reductions in traffic can affect service life.



# 6 | LOCK TIGHT SYSTEM

simple, intelligent, patented.

- ◆ patented, consistent, compatible locking system for all panel types belonging to the **STRAIL®** family
- ◆ simple application
- ◆ position stability in case of diagonal traffic > no gap formation



# 7 | THE STRAIL PRINCIPLE

we connect street and rail.



**fast.**

Traffic needs to flow, freely and quickly. With **STRAIL®** you simply are fast – for planning, building and maintenance. Our offers are typically drawn up within 48 hours. Your level crossing leaves our factory as early as two weeks after placing your order. Using a crew of 4–6 people and no additional machines, you can install a 9 m long crossing in merely three hours.

In case of track maintenance, **STRAIL®** can be removed and reinstalled quickly and without much effort. In addition, our experts are available virtually around the clock.

**STRAIL®** is profitable. From the outset.



**safe.**

Wherever safety is concerned, we accept no compromises. **STRAIL®** is different – ranging from its technically simple, yet fast and safe installation, to its ability to bear continuous loads on a daily basis without any gap formation.

The tongue and groove connection prevents – especially in case of diagonal traffic – the dreaded “sudden collapse” effect, well-known from other single-panel systems.

Products which are part of the **STRAIL®** family have the smallest, permissible flange groove. **veloSTRAIL** eliminates this gap entirely.

**STRAIL®**. Safety for your level crossings and for your investments.



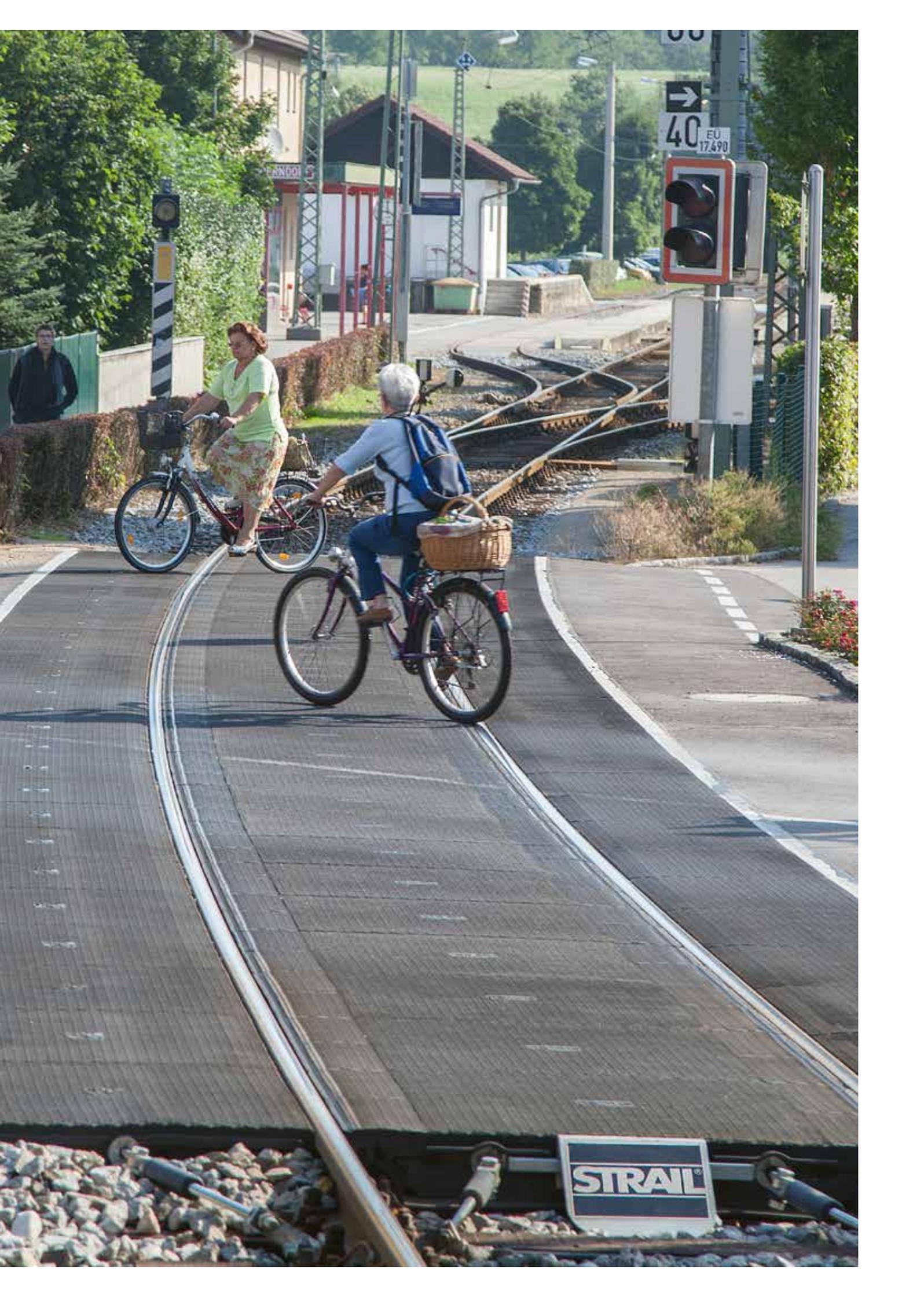
**reliable.**

Building level crossings is one thing. Keeping them in excellent condition is quite another. “Fit & Forget” is our motto; as a result: maintenance-free level crossings. Over 30,000 crossings under varying climatic conditions on five continents form the basis of our reliable technology and materials. Besides, your experiences help us to continuously perfect **STRAIL®**.

You benefit from the long service life of our products and with the support of the worldwide operating **KRAIBURG** group we have been your reliable partner for over 40 years.

**STRAIL®** fulfills your expectations.





[www.strail.com](http://www.strail.com)



made  
in  
germany 

*-/ level crossing systems*

KRAIBURG STRAIL® GmbH & Co. KG

D-84529 Tittmoning | Goellstr. 8

tel. +49 (0) 8683 / 701-0 | fax -126 | [info@strail.com](mailto:info@strail.com)

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