



STRAIL[®]lastic **STRAIL[®]WAY**



STRAILlastic_IP Installation Instructions



Subject to technical changes / Rev. 05 / March 2020 / JBA



KRAIBURG STRAIL[®] GmbH & Co. KG | STRAIL[®] | STRAILlastic | STRAILWAY

D-84529 Tittmoning | Göllstraße 8 | Tel. + 49 / (0) 86 83 / 7 01-0 | Fax + 49 / (0) 86 83 / 7 01-126
info@strail.de | www.strail.de | www.strailastic.de | www.strailway.de

If these installation instructions are not adhered to and if materials are used which were not supplied by the manufacturer as accessories, the manufacturer's warranty will become void.

1 / TRACK AVAILABILITY

Depending on local conditions, the system can also be installed during train breaks of more than 10 minutes. It is recommended that a suitable and detailed construction schedule (depending on the train schedule) be drawn up to coordinate construction progress.

With a team of 4 – 5 persons, depending on local conditions and the volume of rail traffic, an installation time of approx. 20 – 30 minutes per element is possible.

2 / NECESSARY TOOLS

- Masonry tools
- Lifting gear / slings
- Plastic hammer
- Lever tools (e.g. crow bar)
- Suitable screw grease
- Battery drill with bit inserts (TX25)
- Sabre saw, jigsaw & knife
- Socket wrench set (1/2 inch, wrench size 17 or 19)
- Torque wrench

(Manufacturer recommendation: Gleitmo WSP 5040 paste, alternatively MolyKote 1000 S or OKS 252)

SCOPE OF DELIVERY (Quantity related to one STRAILastic_IP element of 1.80 m)

No.	Item no.	Description	Material	Quantity
2	02059600	STRAILastic_IP_installed track-side	MS-STL-002-K	1
3	02071000	Strailastic_IP retaining bracket filling rod	1.4462 (X2CrNiMoN22-5-3)	8
4	02217600	Strailastic_IP clamping piece filling rod	PE 100 black	8
5	02070700	Nord-Lock washer NL10ss-254	1.4404 (X2CrNiMo17-12-2)	16
6	02070800	Hilti_wing nut_MQM_M10_R	1.4581	16
7	02070600	Screw M10 x 20 A4-70	1.4401 (X5CrNiMo17-12-2)	16
8	02071200	Clamping adapter for railing rod	PE 100 black	8
9	02237300	Countersunk head screw 5x60 A4 TX25	1.4401 (X5CrNiMo17-12-2)	8
10	02237000	STRAILastic_IP substructure support short	PE 100 black	1
11	02237100	STRAILastic_IP substructure support long	PE 100 black	1
12	02190000	Clamping adapter for post 70 mm	PE 100 black	1
13	02081800	STRAILastic_IP retaining bracket post 70	1.4462 (X2CrNiMoN22-5-3)	1
14	02217601	Clamping piece post	PE 100 black	1
15	02070200	STRAILastic_IP_installed road-side	MS-STL-002-K	1
16	02248200	Connector for support V4A 30x3,5x150	1.4401 (X5CrNiMo17-12-2)	2
17	02249400	PAGEL grouting mortar V1/50	cement-bound flowing concrete	1

3 / FASTENING THE SINGLE COMPONENTS

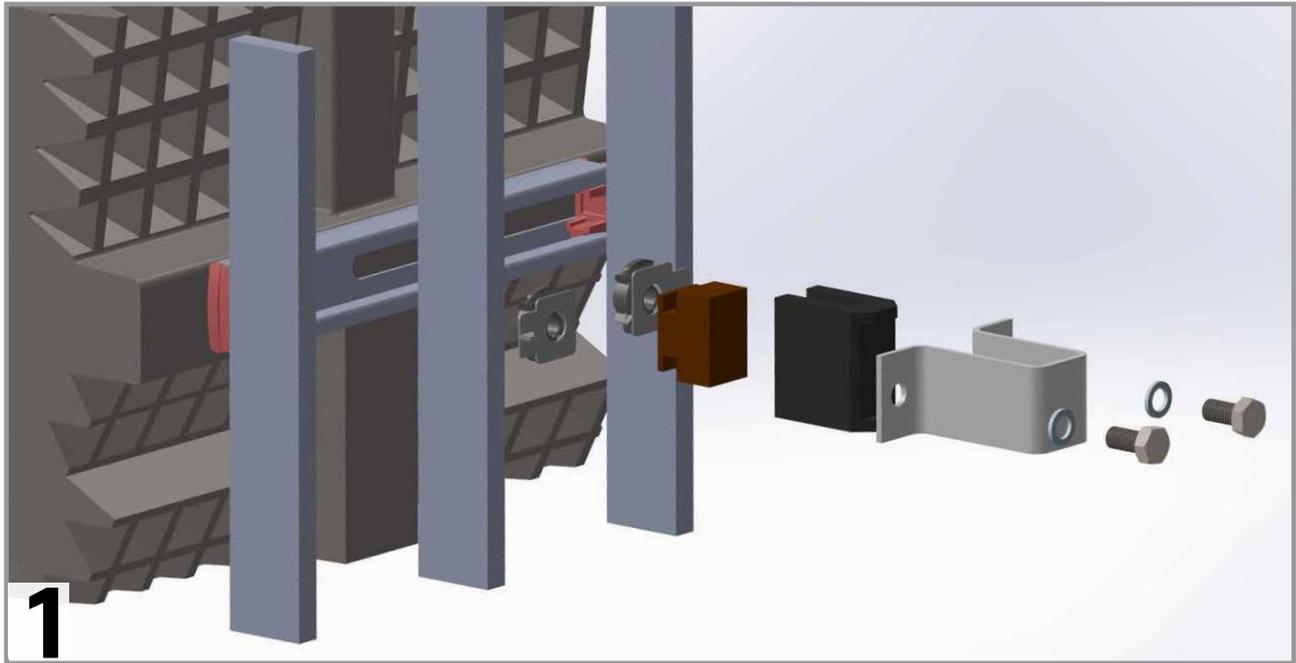


Figure 1: Illustration of the fastening components for the railing's filling rods

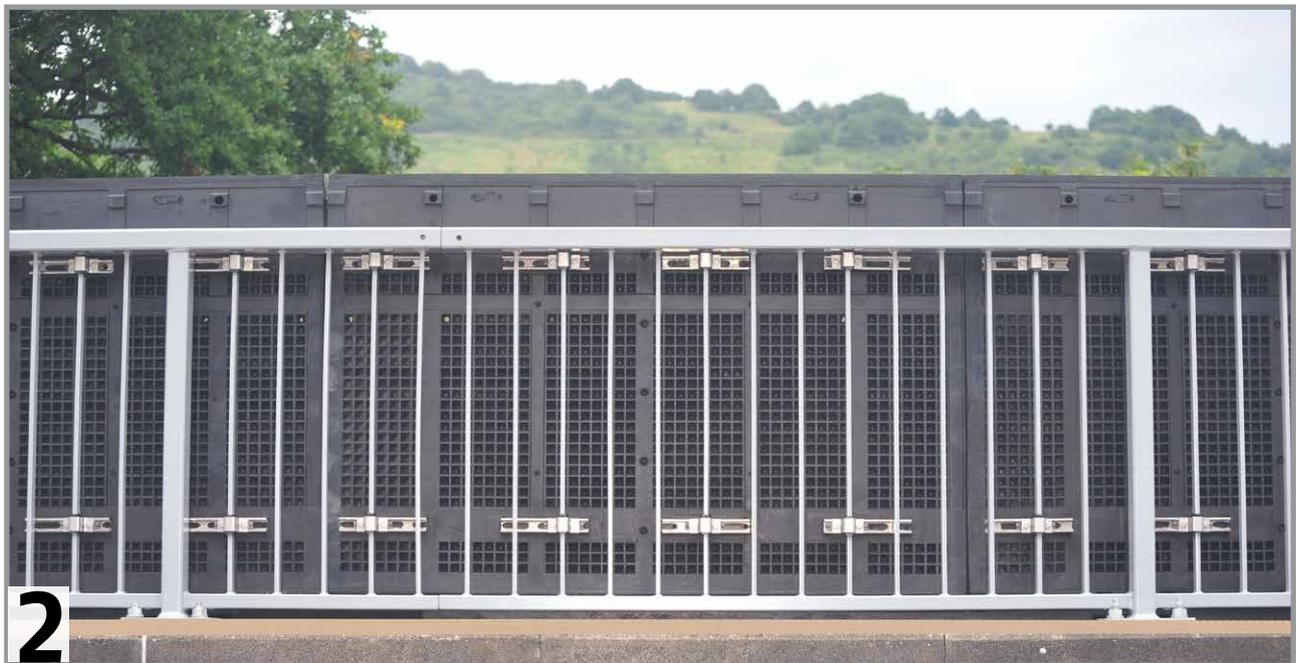


Figure 2: Example of how to fasten STRAILastic_IP

4 / INSTALLATION

4.1 / Mounting the STRAILastic_IP substructure

- The substructure supports (short and long) must always be adapted to the local conditions (hole spacing of the fastening of the post foot). The substructure support parts can be cut to length using standard tools (from wood or plastic processing).
- The two adjusted substructure supports must be screwed together at the side with 2 connectors for supports (item no. 02248200) using 8 countersunk screws (Figure 3).
In preparation for this, the actual drill positions must be pre-drilled with a 3 mm HSS drill.
Important > screw them together on an even surface!
- Apply low-shrink mortar (e.g. PAGEL V1/50 grouting mortar or similar) on the existing construction in the between the feet of the posts on a level with the top side of the foot of the post (Figure 4).
- Use a straightedge to bring the mortar on one level with the top side of the foot of the post.
- All requirements of **Guideline 804.5101 A01** still apply to the undercasting of the post foot plate.
- Place the previously configured substructure support onto the levelled bed (Figure 5).
Afterwards, use a trowel to chamfer the sides of the grouting mortar.
- Give the mortar enough time to cure and the start installing the **STRAILastic_IP** elements.
PLEASE NOTE > Adhere to the curing times given by the manufacturer of the mortar!



4.2 / Installing the STRAILastic_IP elements

- Position the STRAILastic_IP elements against the railing using suitable lifting gear (Figure 6) (see layout drawing). **CAUTION:** Definitely use a protective cover for the railing in order to prevent damage to the corrosion protection or the top coat of the railing (Figure 7). (Bild 7)



6

D Carry out installation according to the installation plan. The installation should not be started at different positions at the same time.

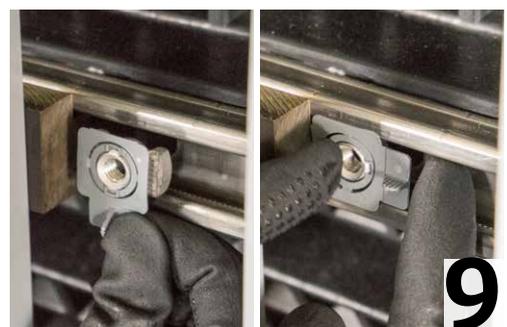
- Mark recesses on the STRAILastic_IP element (for e.g. screws, welding seams and grounding connections) with a marking pen and create them with a suitable cutting tool. (Figure 8)
- Reposition the elements against the railing. Ensure that the sealing lips are properly positioned on the substructure.
- Now fit the Hilti C rails (with clamping piece and Hilti_wing nut_MQM_M10_R). **Standard element** – 8 fastening points
Special element – 4 or 6 fastening points
- Insert the wing nuts with the wing at a diagonal position towards the Hilti C rail and then turn them through 90° by applying light pressure to the threaded opening. This ensures that the teeth of the nuts and the Hilti C rail engage properly. **The wing of the nuts must always be aligned in the longitudinal direction of the Hilti C-rail (Figure 9).**
- Slide the corresponding clamping adapter and retaining bracket over the filling rod (or post) (Figure 10).



7



8



9



10

- Fit the screws (M10 x 20 A4 – 70) with Nord-Lock wedge lock washers (NL 10ss – 254) (Figure 11), lubricate the screw thread and tighten hand-tight.

For lubrication, we recommend Gleitmo WSP 5040 Paste.



11

CAUTION > Check the correct position of the wing nut again. The wrong position is shown on the right (Figure 12).



12

- Finally, tighten all 16 screws of each standard element by applying a tightening torque of MA = 25 Nm. (Figure 13)

PLEASE NOTE > The infill panels must be fully supported by the STRAILastic_IP substructure.



13

- Proceed in the same way with the other STRAILastic_IP elements. Make sure that the tongue and groove connection engages well. A gap of approx. 2 – 3 mm must be maintained between the elements (Figure 14).



14

4.3 / Mounting the Alu-Dibond panels (optional)

- First, use a knife to expose the two openings for the metal sleeves.
- Knock the two metal sleeves into the infill panels to allow a permanent counter screw connection.
- Provide the Alu-Dibond panels with edge protection on the underside (piping tape, 14.5 mm x 10.0 mm) and place them in the tabs provided for this purpose at the bottom of the infill panels.



15

- ↪ Mount the retaining rails and make the counter screw connections (the screw head must be on the side facing the tracks).
- ↪ Tightening torque of the screws: MA = 32 Nm.
- ↪ Finally, screw one holding rail in angle design vertically to the beginning and the end of each railing using flat head screws.



5 / SELECTIVE REMOVAL – DISASSEMBLY

- ↪ Removal is done by carrying out the individual installation steps in reverse order.
- ↪ The **STRAILastic_IP** element to be removed must be secured against falling over or down using suitable transport equipment and slings.
- ↪ Then remove all fastenings. In addition, loosen the four adjacent fastenings from the two adjacent infill panels.
- ↪ To facilitate removal of the element, a gap must be created between two infill panels by using suitable lever tools.
- ↪ To reinstall a new plate, please refer to # 4.2. First mount the tongue and then the groove of the new plate.
CAUTION > Retighten the four adjacent fastenings of the adjacent elements.

7 / QUALITY & ENVIRONMENT

KRAIBURG / STRAIL is a certified company according to standard ISO 9001:2000

KRAIBURG / STRAIL uses environmentally friendly materials.

Externally monitored according to standard DIN 18200

NOTE

Please read the document carefully and install **KRAIBURG STRAIL** products in compliance with the manufacturer's guidelines, or request assistance from our assembly team. This document is for information purposes only in connection with **KRAIBURG STRAIL** products. No intellectual property rights are granted by this document. No part of this document may be reproduced in any form in whole or in part without the express written permission of **KRAIBURG STRAIL**. **KRAIBURG STRAIL** expressly disclaims any infringement of the rights of third parties which are the intellectual, industrial or other property of third parties. Changes and errors are reserved. The information provided in this document reflects our state of knowledge on the day of publication. The General Terms and Conditions of **KRAIBURG STRAIL** apply in the currently valid version.