



Rail Safety Systems B.V.
(rail) track safety barrier

Kaldenkerkerweg 20, 5913AE Venlo, Netherlands
www.rss-rail.com

Side protection railings for track construction and maintenance work.
Removable and adjustable version for tracks.
Specially insulated version for third rail tracks.

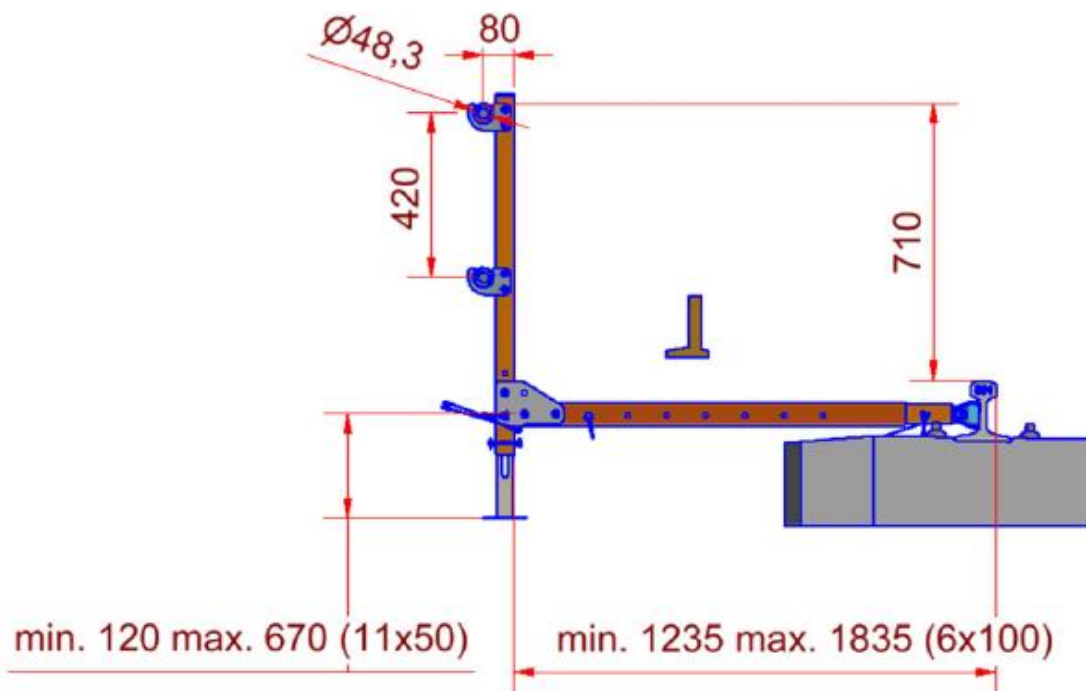
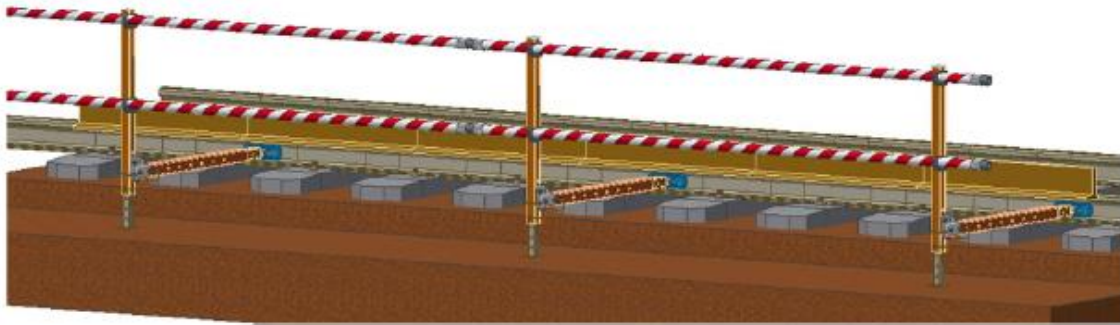


User Manual

A: Purpose of the device

In most cases, local and European directives stipulate that people working in the danger zone of tracks must be protected from danger by means of side guardrails against moving rail vehicles. The purpose of the RSS product is to install an effective safety side when working in the dangerous area of tracks.

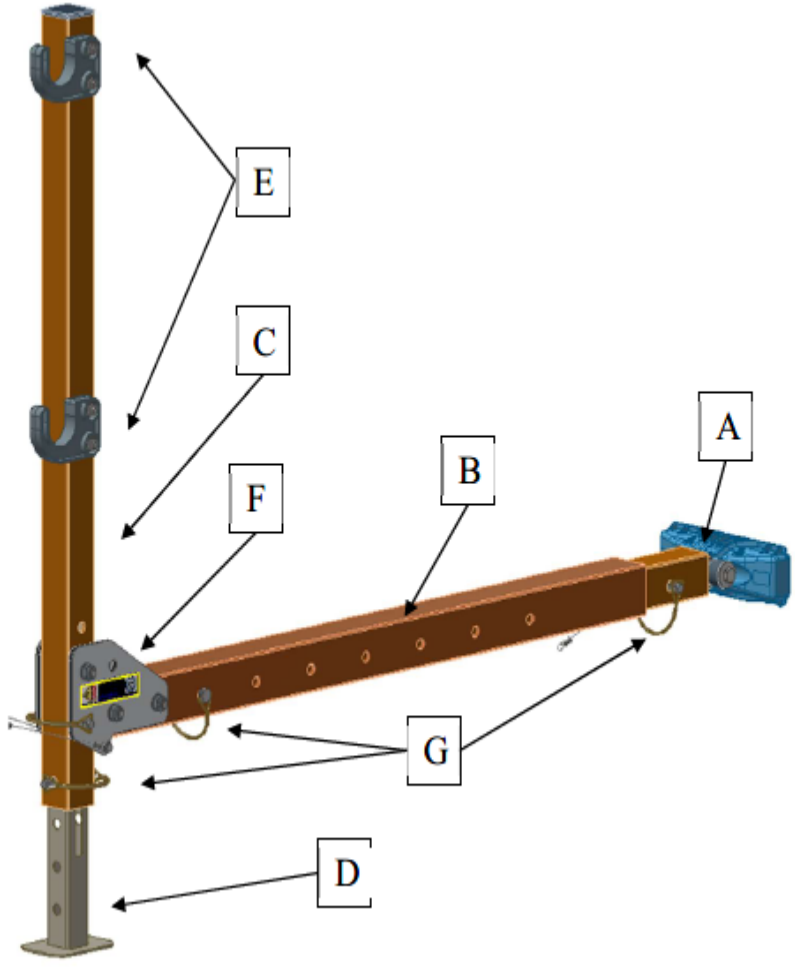


All user manuals and support information can be found on the website of Rail Safety Systems:
<https://www.rss-rail.com/support>




The RSS system is suitable for rail track profiles S49, UIC, and UIC60

B: Individual parts of RSS product

GRP stanchions with locking pin

	<p>1) Stanchion</p> <p>Total weight 11 kg</p> <p>A – Magnet housing with magnet</p>  <p>B –adjustable horizontal GRP stanchion bar C – vertical GRP stanchion bar D – Extendable support pillar E – Clamping brackets F – Identification plate G – Locking pin – 4 pieces</p>
	<p>2) Stanchion in transportation mode</p>

GRP Handrail

	<p>1) Fiberglass handrail tube</p> <p>Total weight 4.5 kg</p> <p>Tube diameter: 48.5 mm, equipped with bayonet coupling.</p> <p>Tube length: 3 meters</p>
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Remarks:

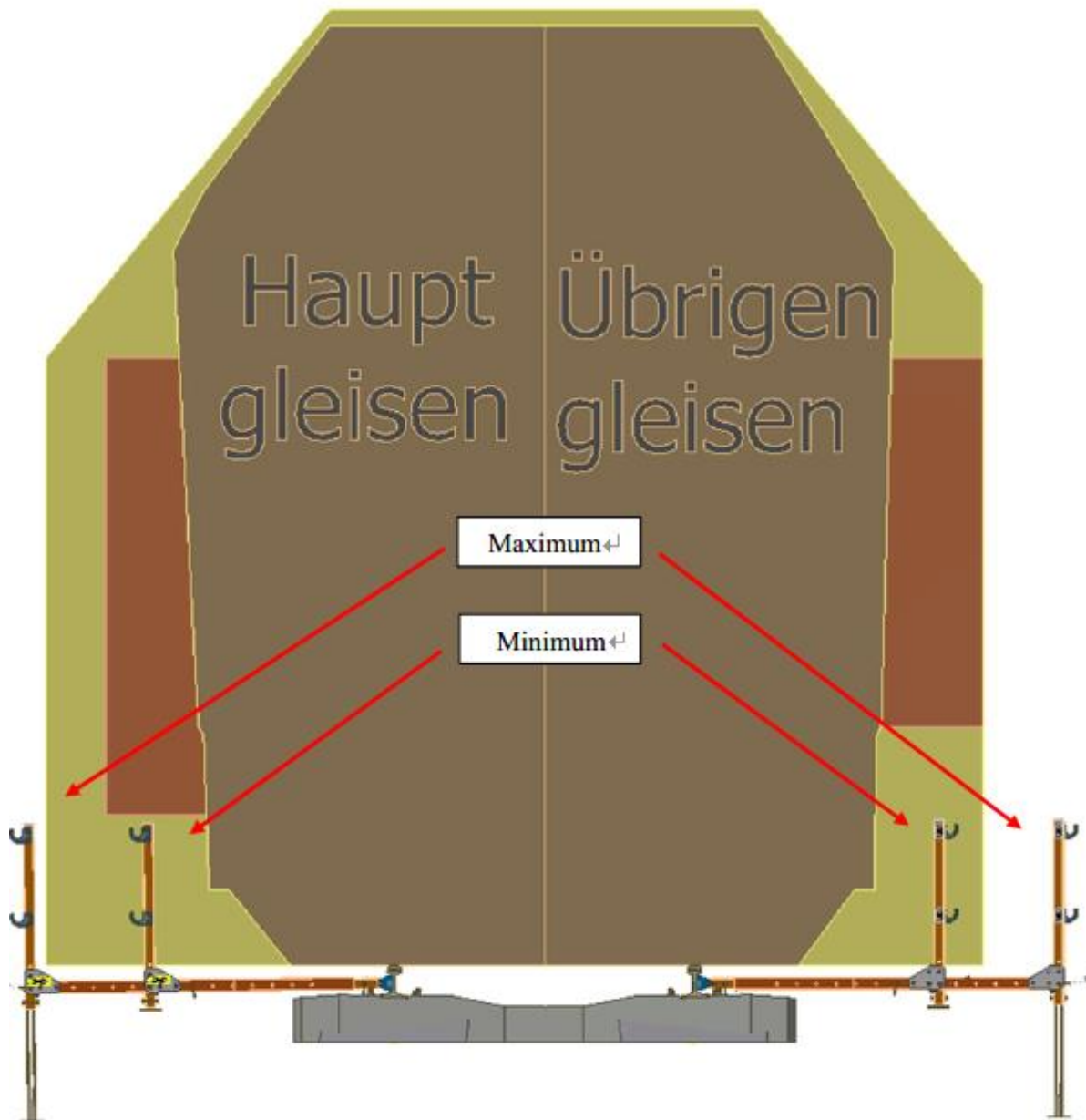
When using the tubes, transport these as horizontally as possible. When transporting vertically, always reckon with possible obstacles such as overhead lines, masts, etc.

Practical implementation:



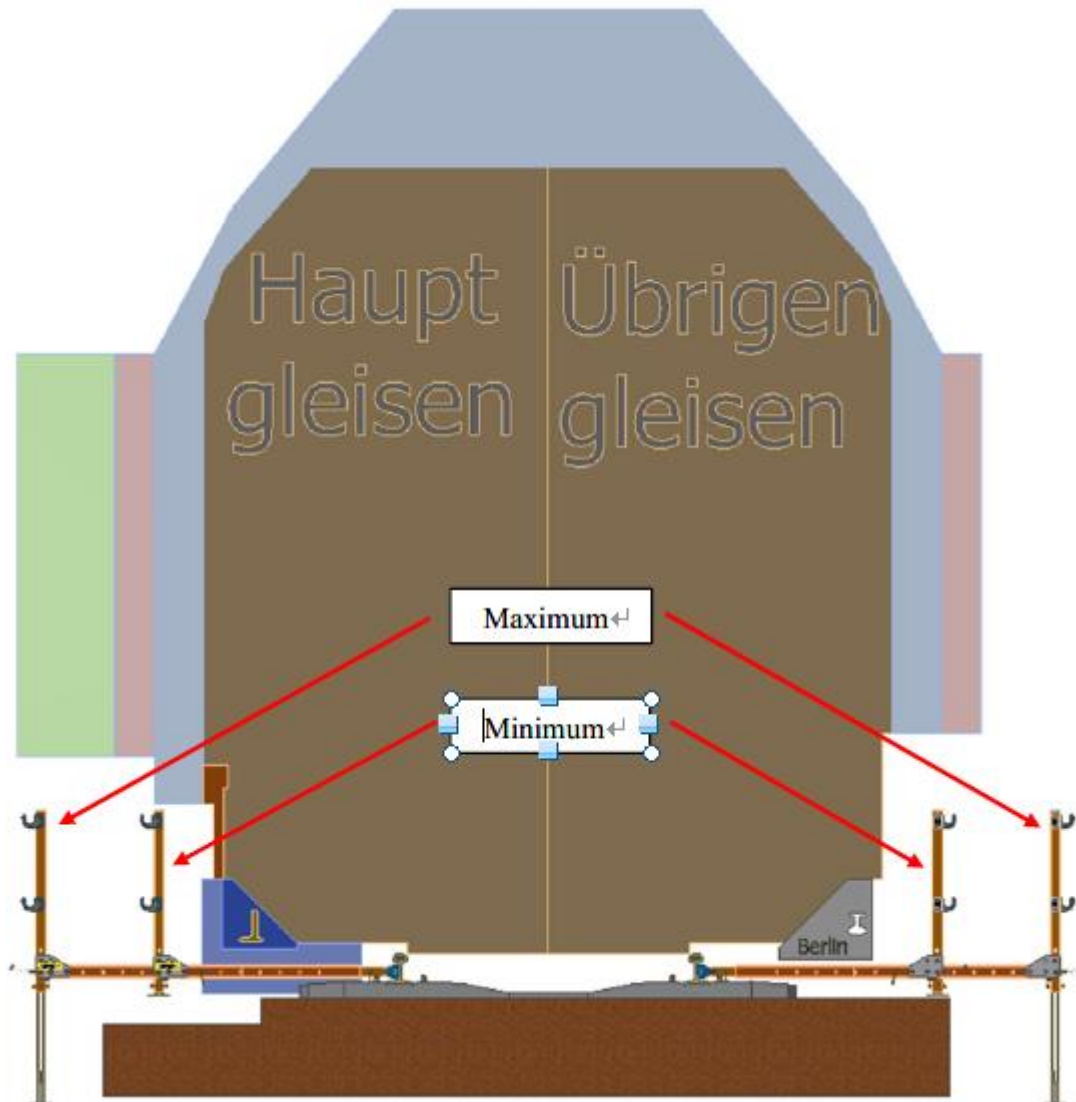
C: Application of RSS product

The possibility of adjusting the stanchions between the danger area zone A and zone B is shown schematically below. The distance from the center line of the track to the railing can be adjusted between 1.95 and 2.55 meters in increments of 0.10 meters.



The insulated stanchion is specially designed for third rail tracks. It is not suitable for switch tracks. The normal RSS track safety barrier cannot be applied to third rails.

The insulated track safety barrier for third rail is not certified for normal rail tracks. The existing lifting and lowering module (elevation compensation module) should not be applied to the fully insulated third rail track safety barriers.



In addition, all safety measures, applicable regulations and standards for work safety in the danger area of tracks must be observed. If necessary, security guards must also be set up.

The permissible working temperature for the track safety barrier is -20 to +80 degrees Celsius.

Railway grounding is required from a Voltage of 5 kV (AC) or 7 kV (DC).

D: Frequent product check and maintenance

Check and maintenance:

The RSS track safety barriers should be checked by an expert once a year. Since all individual components are made of durably assembled and processed materials, the maintenance of the product requires minimal effort.

In case the track safety barrier is used on tracks for longer periods of time, we recommend to do a daily visible inspection of the product.

Frequent checks:

Prior to each new installation of the track safety barrier, the individual parts must be checked for possible defects such as dents and or damages to the stanchions and handrail tubes. Check section B to oversee the individual parts of the product. No dirt and/or metal parts should stick to the magnets. If necessary, these should be removed from the magnets with a cloth. Also check whether the magnet can be moved up and down in its housing and whether the housing is allowed to tilt relative to the stanchion. If the housing is damaged or cracked, it must be replaced.

The identification plate shows the name of the manufacturer, the serial number and the year of production. Approximately 100 mm below the clamping bracket on the stanchion one can find a stamped serial number.

E: Installation and dismantling of the product

All assembly work during the installation and removal of the track safety barrier must be coordinated in advance with the locally responsible person in order to define appropriate alternative measures (operational and/or technical). Adequate personal safety must be ensured during installation, dismantling and relocation of the product.

Prior to installation:

Adjust the stanchion to the required distance. The distance can be adjusted in increments of 0.1 meters between 1.95 and 2.55 meters.

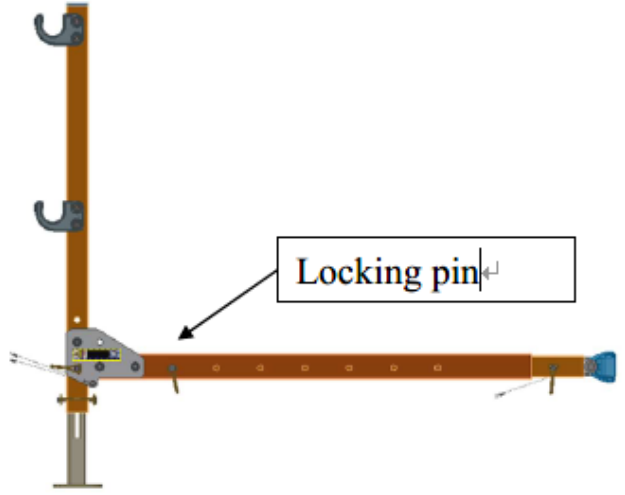
Check all individual components of the product for damages and possible defects.

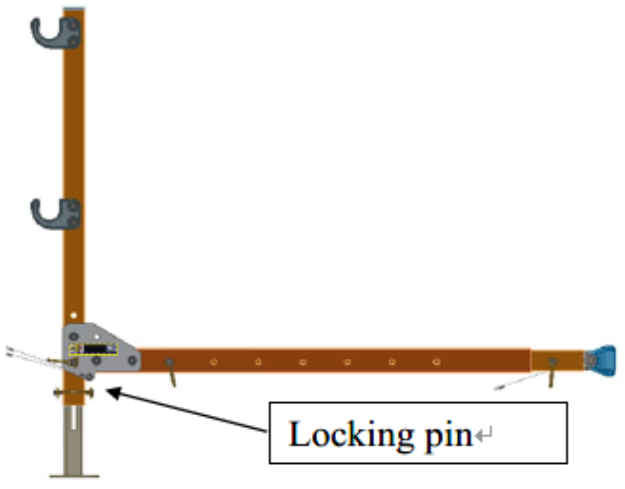
Check in advance whether the rail tracks are equipped with sound-absorbing rubber in the rail web. In this case, the side track safety barrier cannot be used.

Measure the distance between the center lines of adjacent tracks. If this is less than 4 meters, additional precautions may need to be taken.

Please make sure that the distance between sensors and magnets is at least 500 mm on both sides (reference: a forearm length with your hand).

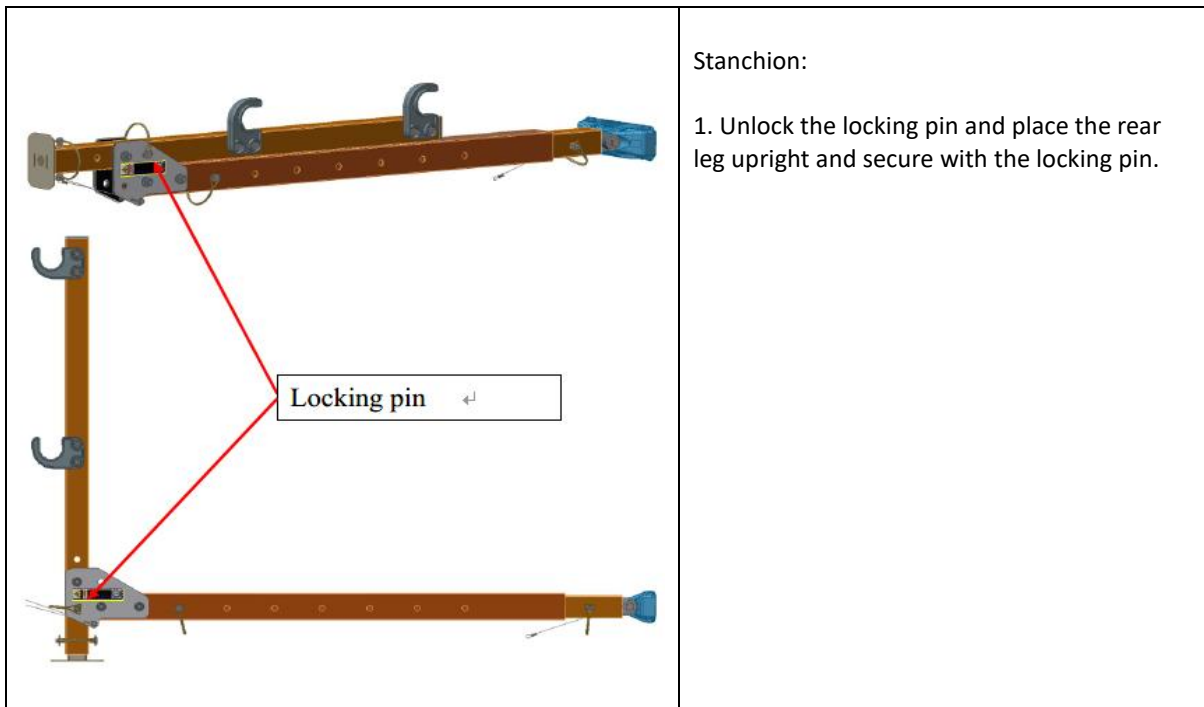
Tables 1 and 2

	<p>Adjusting the stanchion distances:</p> <p>Use the locking pin to set the desired distance for the stanchion from the nearer outer rail.</p> <p>Distances:</p> <ul style="list-style-type: none"> 1st hole: 1.95 m. 2nd hole: 2.05 m. 3rd hole: 2.15 m. 4th hole: 2.25 m. 5th hole: 2.35 m. 6th hole: 2.45 m. 7th hole: 2.55 m.
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	<p>Adjusting the stanchion height:</p> <p>Use the locking pin to set the desired height of the stanchion.</p> <p>The increments distances are 50 mm each. Minimum 120 mm Maximum 670 mm</p>
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Installation:

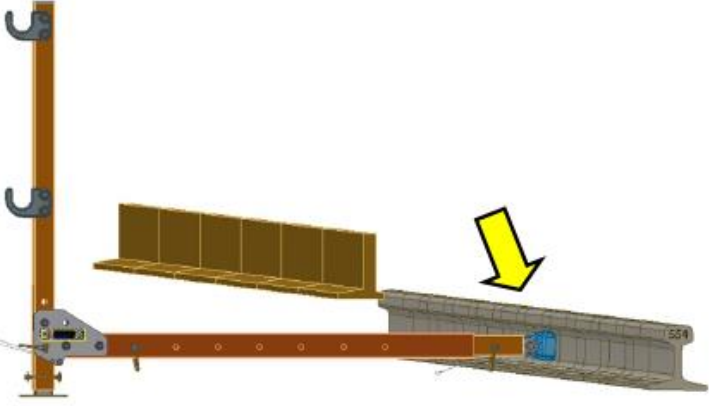
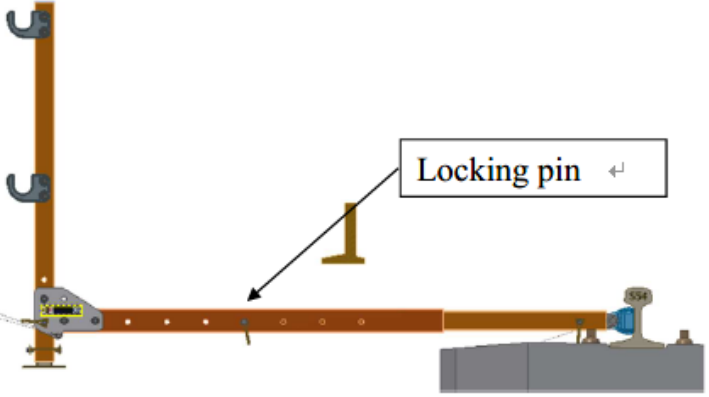
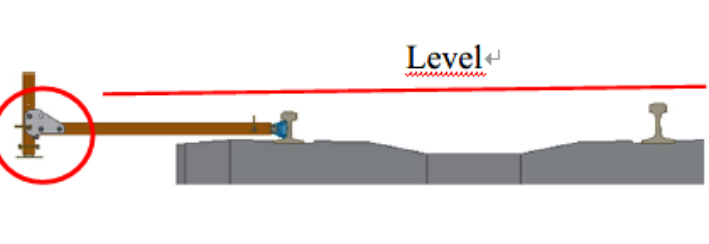
At first, the vertical stanchion bar of the transport position is erected in the position of use.

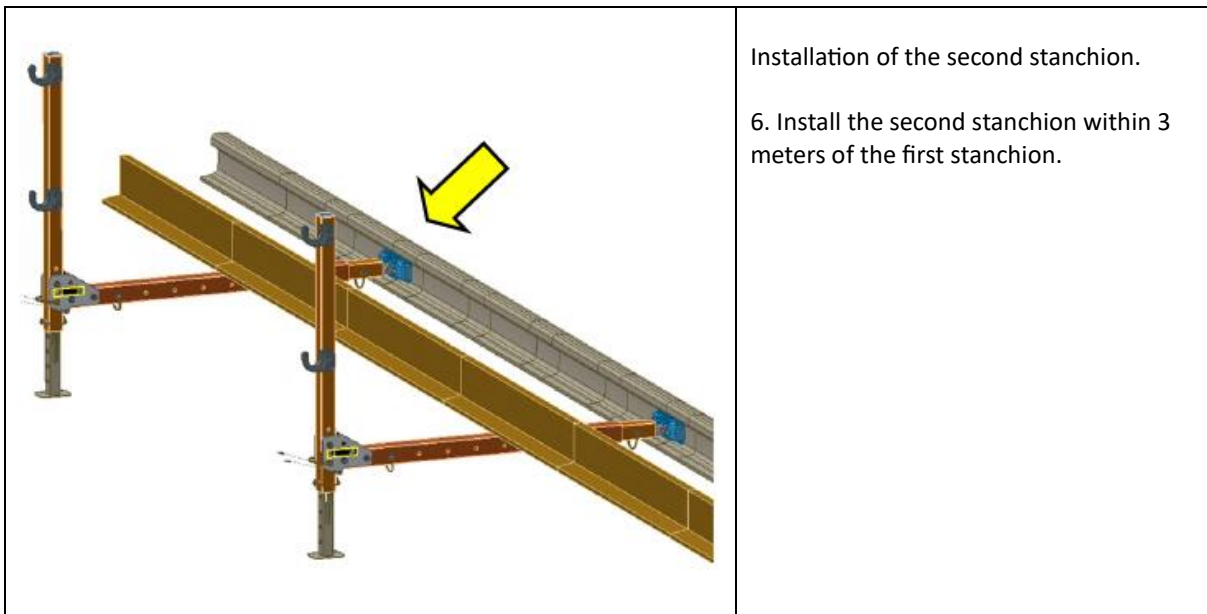
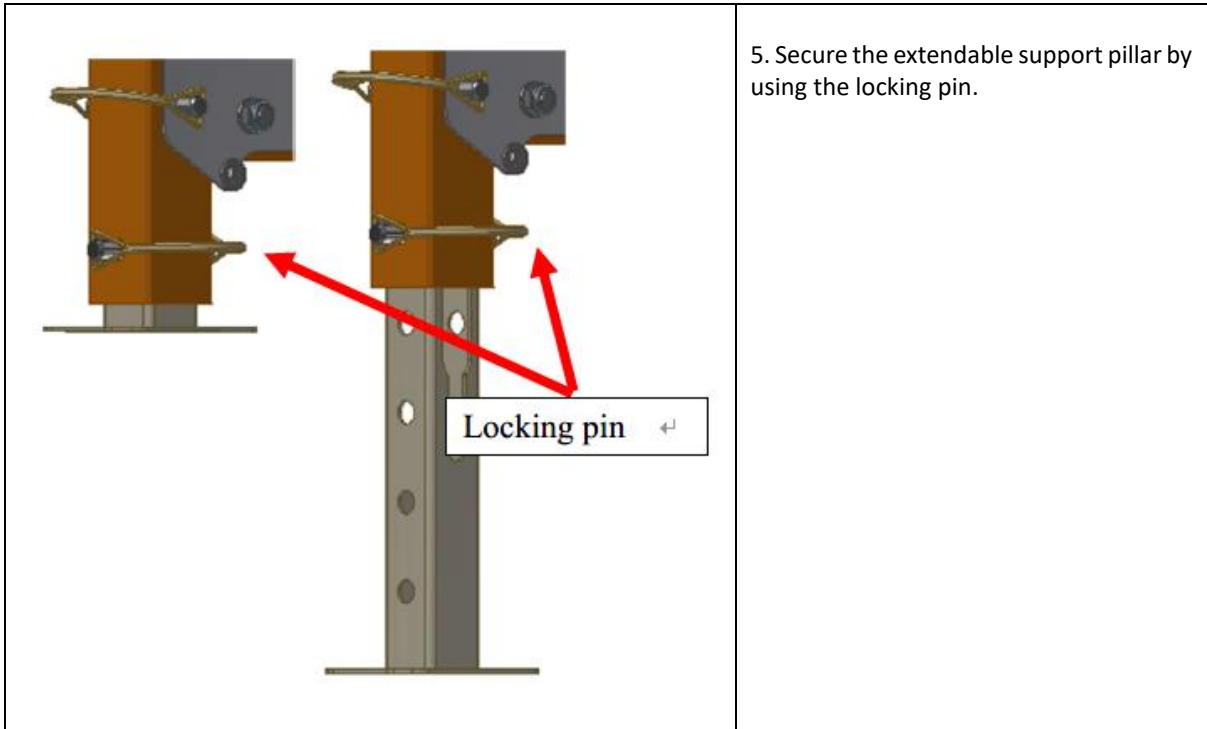


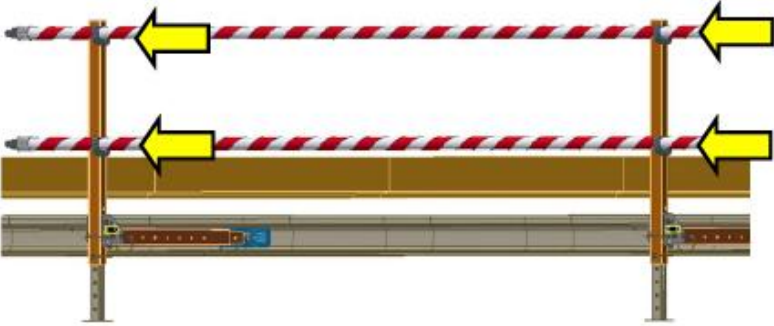
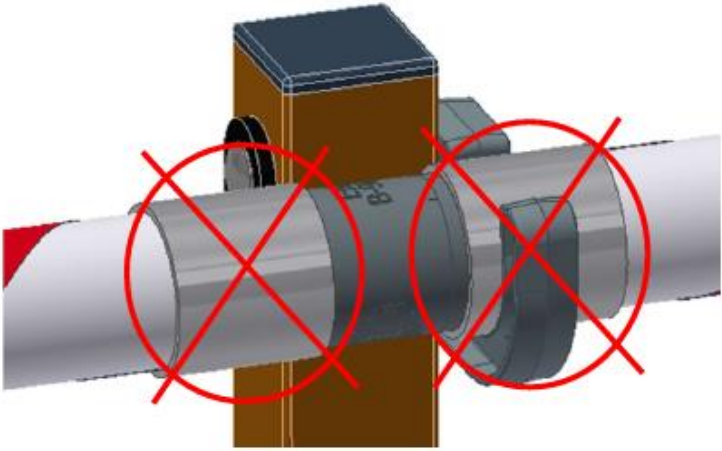
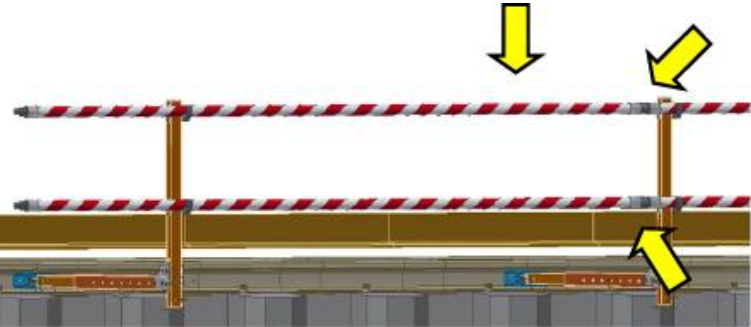
Attach the stanchion with magnet to the web of the rail at the position of a sleeper so that the horizontal bar then rests on the sleeper. In addition attach a second stanchion within 3 meters of the first stanchion. Then fasten two handrail tubes on top of each other in the clamping brackets of the stanchions. Continue building the railing in both directions.

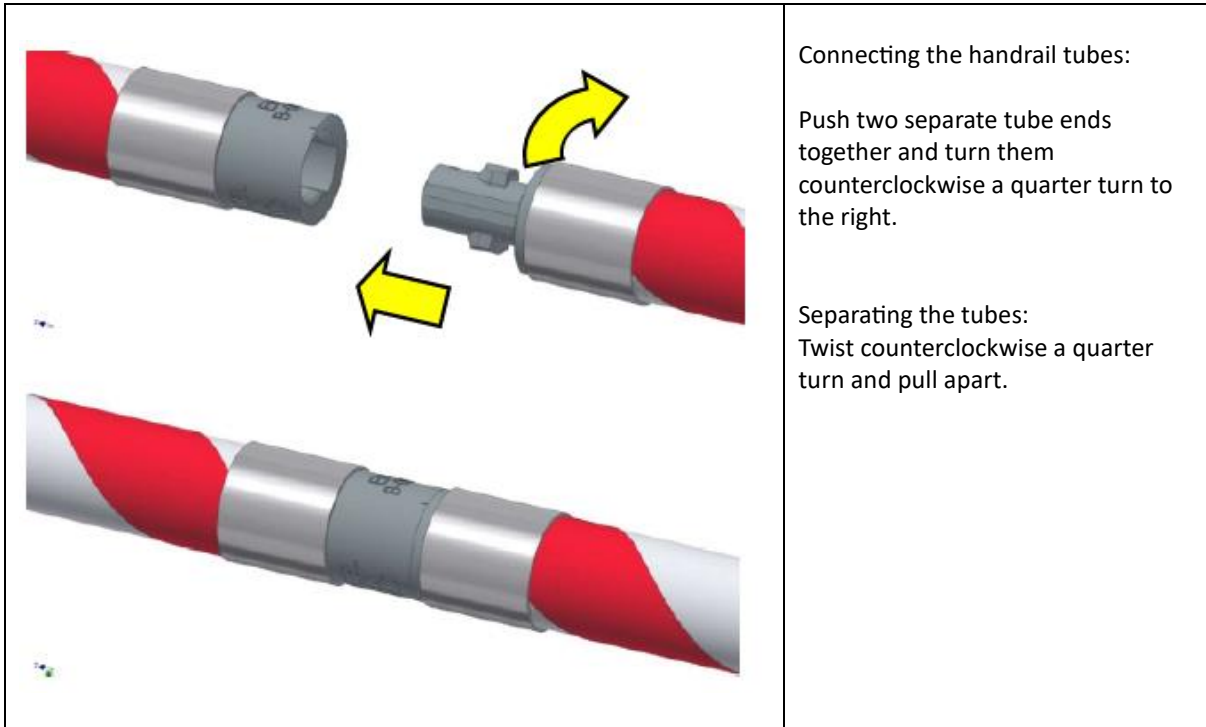
During assembly, all product components must avoid contact with surrounding elements.

The track safety barrier must not be electrically interconnected, i.e. the horizontal components must be electrically isolated from the vertical stanchions.

	<p>Installation of the first stanchion:</p> <ol style="list-style-type: none"> 1. Bring the stanchion to the web of the rail. <p>Remove coarse dirt between the magnet and the rail web. The horizontal part must be able to rest unhindered on the sleeper.</p>
 <p>Locking pin ←</p>	<p>Adjust the horizontal stanchion bar:</p> <ol style="list-style-type: none"> 2. Adjust the horizontal tube distance to the require distance. 3. Secure it by using the locking pin.
 <p>Level ←</p>	<p>Adjust the vertical stanchion bar:</p> <ol style="list-style-type: none"> 4. Adjust the vertical stanchion bar by setting the extendable support pillar. <p>The horizontal stanchion must level with the rail and must be well-grounded on the underlying bottom.</p>



	<p>Installation of the handrail tubes:</p> <p>7. Place the tubes in the clamping brackets of the stanchions.</p>
	<p>8. The tubes must not be connected with each other at the position of the clamping brackets.</p>
	<p>Extending the track safety barrier.</p> <p>9. Install another stanchion within 3 meters of the previous stanchion. Connect the tubes with each other by using the bayonet coupling and press the tubes onto the stanchion's clamping brackets.</p> <p>10. Repeat steps 1 to 8 for each additional extension.</p>



Connecting the handrail tubes:

Push two separate tube ends together and turn them counterclockwise a quarter turn to the right.

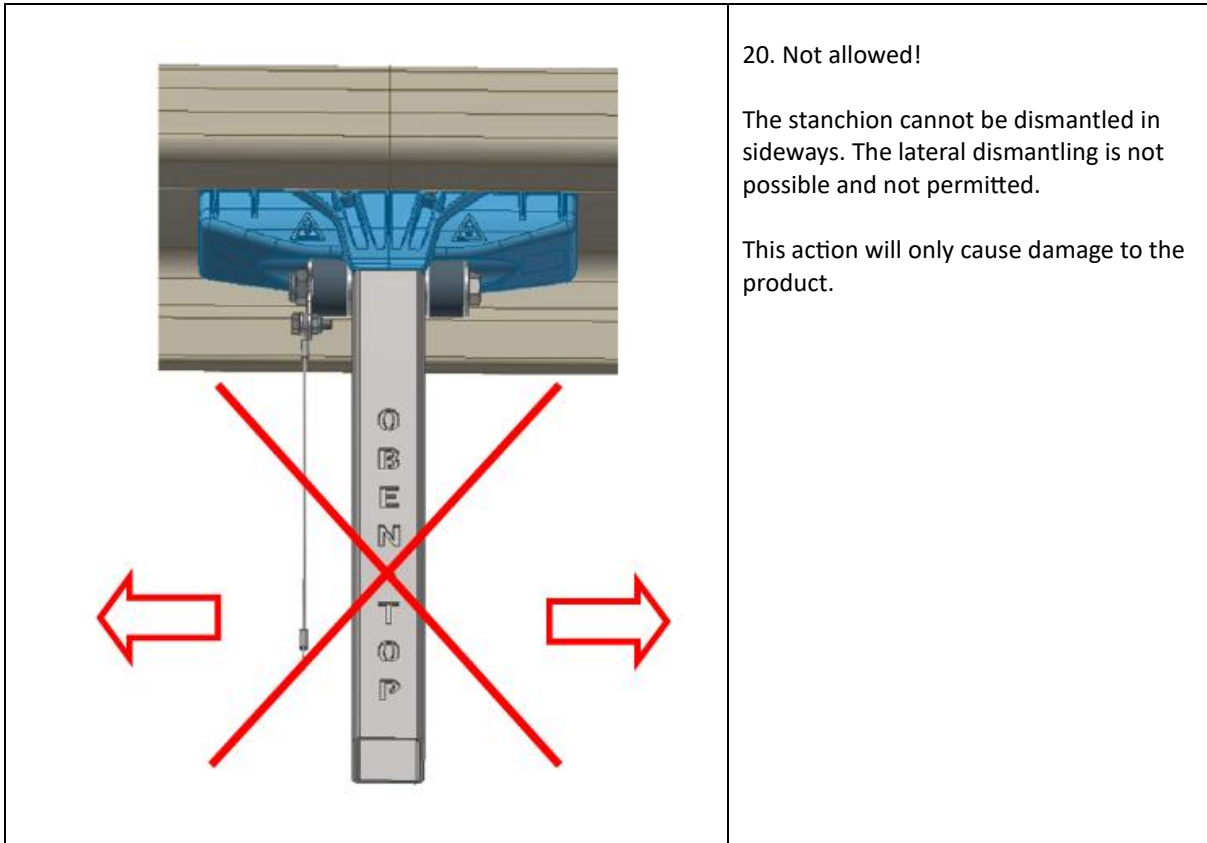
Separating the tubes:

Twist counterclockwise a quarter turn and pull apart.

Dismantling:

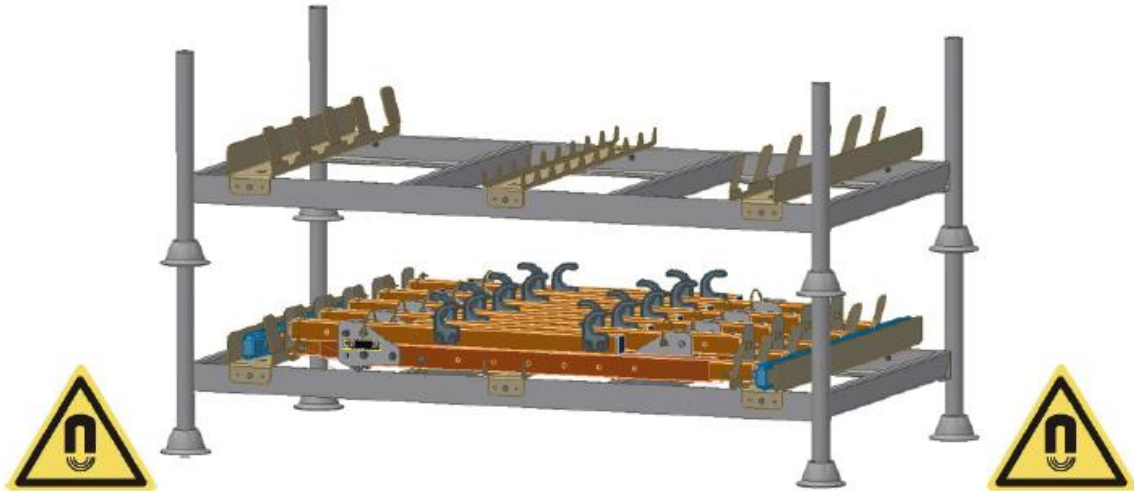
	<p>Dismantling of the track safety barrier at a normal rail track:</p> <p>11. Dismantling takes place in reverse order. Pull the tubes out of the clamping brackets by lifting and turning.</p> <p>12. In order to remove the stanchions, lift the stanchion until the magnet disengages from the rail and remove it.</p> <p>13. Clap the stanchion into the transport position and slide in the vertical support pillar.</p>
	<p>14. Not allowed!</p> <p>The stanchion must not be pulled sideways. Lateral dismantling is not possible and also not permitted. This action will only cause damage to the product.</p>

<p>Note: Eccentric holes.</p>	<p>Dismantling of the track safety barrier at a third rail track with electric rail.</p> <p>Dismantling takes place in reverse order.</p> <p>15. Dismantling the handrail tubes.</p> <p>Dismantling the stanchions.</p> <p>Check that no current is flowing on the third rail.</p> <p>16. Remove the locking pin.</p> <p>17. Pull the horizontal GRP bar back and remove.</p> <p>18. Pull the stainless steel bar up and remove it from the rail. At about 45 degrees, the magnet easily detaches from its attachment to the rail web.</p> <p>19. Fold the stanchion into the transport position and slide in the vertical support pillar and magnet.</p> <p>Note: The holes are eccentric and only fits the GRP bar in one position.</p>
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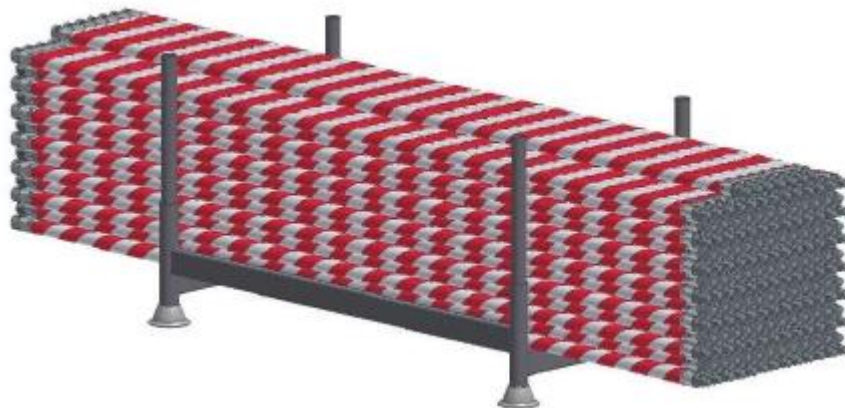


Storage and transportation

After dismantling from the rail tracks, the stanchions can be placed and stored in a transport cradle.



Storage/transport cradle for stanchions.



Storage/transport cradle for tubes.

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This product is designed for use in a commercial work environment.

Disclaimer.

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Appendix 1:

Type S285 Stanchion Third Rail – adjustable



Type S212 Handrail tube – fiberglass

		<p>Rail Safety Systems BV Type: S212 Tube GRP www.rss-rail.com</p>
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GRP Glass fiber Reinforced Polyester