

# Installation and Assembly instructions

**WHIS®wall**

For use along railways

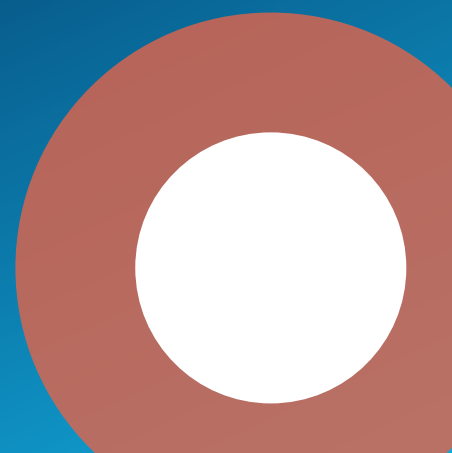


reducing  
traffic  
noise

**4SILENCE**

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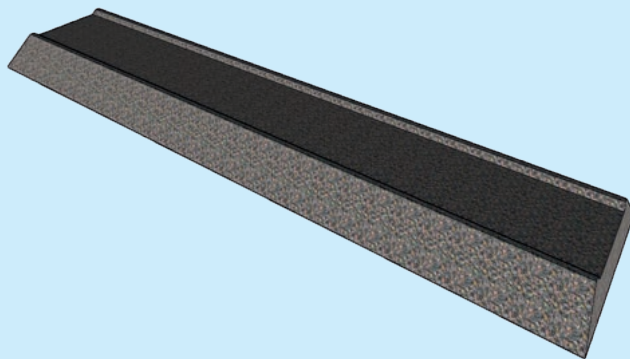


# 1. Prepare Foundation

## STEP 1

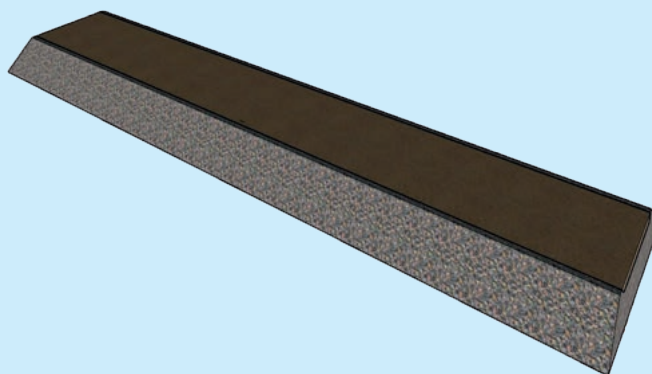
The foundation must be able to support the weight of 1.2 kN/m<sup>2</sup>, have sufficient drainage capacity and be resistant to frost.

The granulate [8-16] is applied up to -50 mm below the bottom of the precast concrete element.



## STEP 2

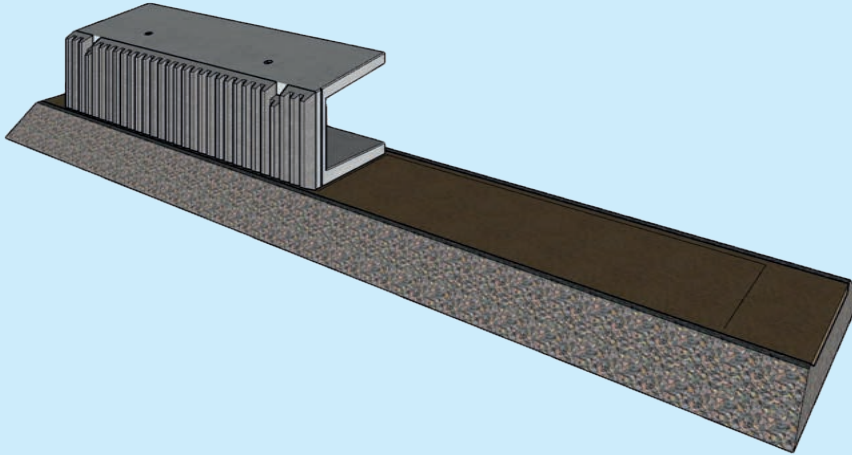
The last 50 mm consists of a layer of fine granulate [0-8] is at the desired installation height.



## 2. Place precast concrete substructure

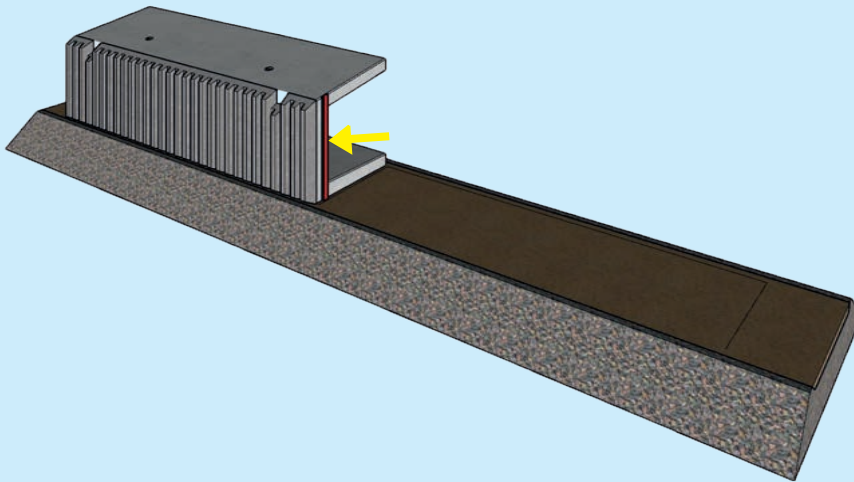
### STEP 3

The concrete elements are placed on the levelled foundation and aligned. The absorbent side is directed towards the track.

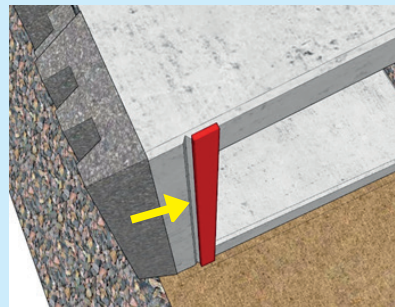


### STEP 4

A compressed Comba-band 40/8 foam tape or equivalent must be applied vertically between the elements to prevent sound leakage.



The 40 mm wide compressed foam tape is best applied directly behind the V-groove on the concrete element (Detail step 4).



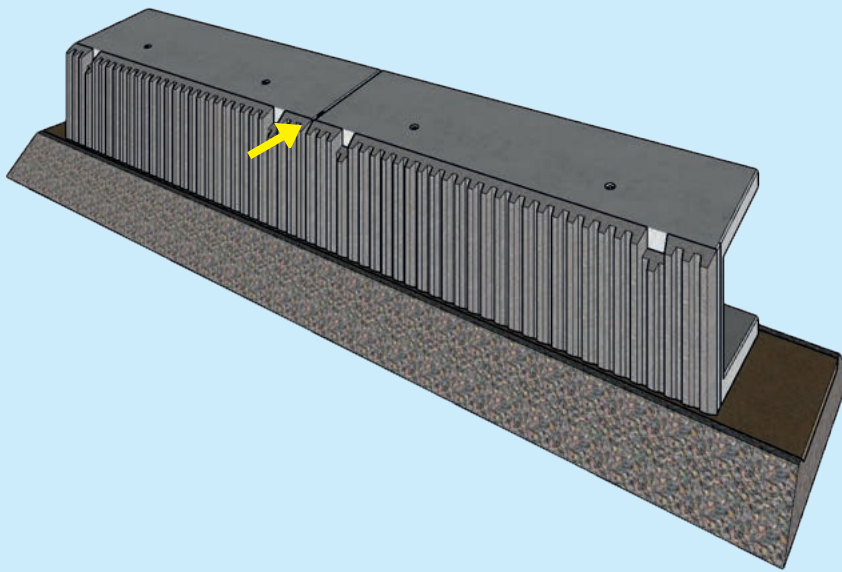




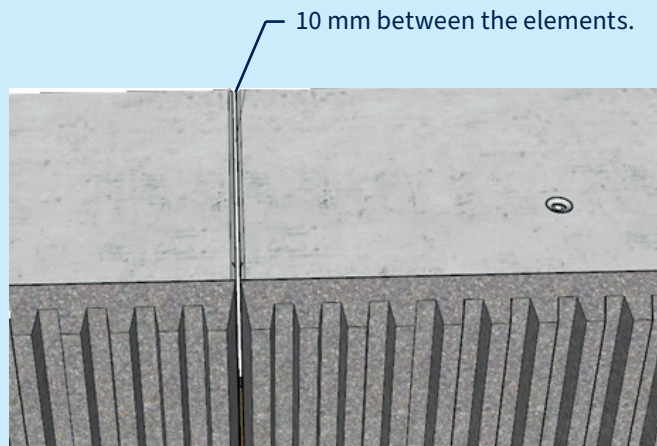
After placing the following concrete element, check that the compressed foam tape is correctly placed in the joint over the full height of the element. If this is not the case then re-do **step 4 and step 5**.



### STEP 5

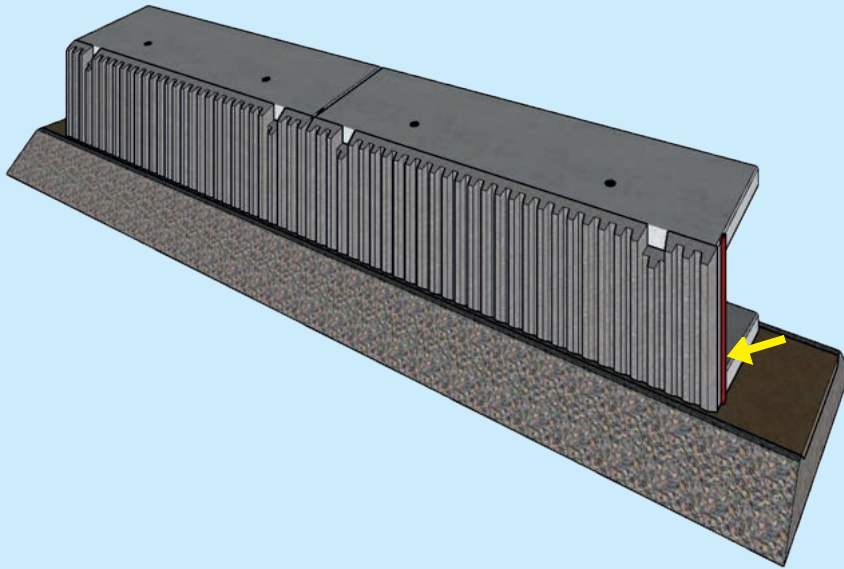


A free space of 10 mm must remain between the precast elements.



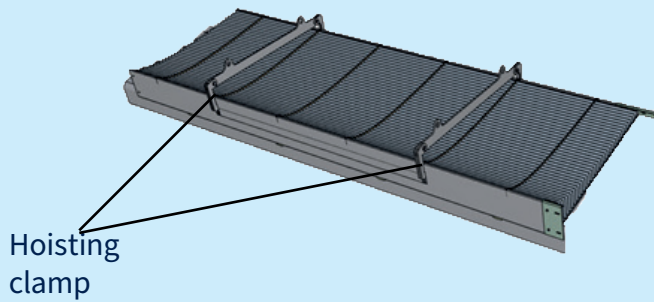


Apply a compressed foam tape again before placing the next element, as indicated under **step 4**.



### 3. Mount diffractors

The diffractors are installed on the prefab substructure by using the special hoisting clamp



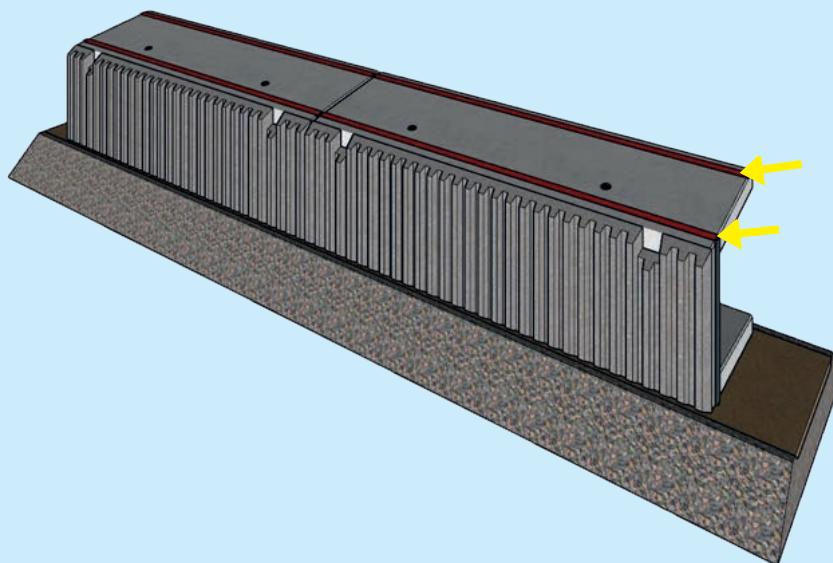
*It is not permitted to hoist the diffractor in any other way than with the special hoisting clamp!*

#### STEP 6



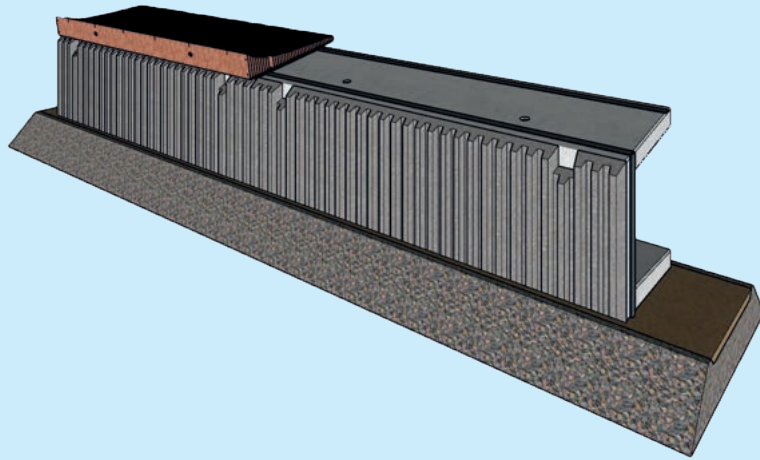
Before placing the diffractor(s) on top of substructure, first apply a Vilton Reciflex tape or equivalent with a size of 50x5 mm.

These tapes should be 50 to 100 mm from the edges.

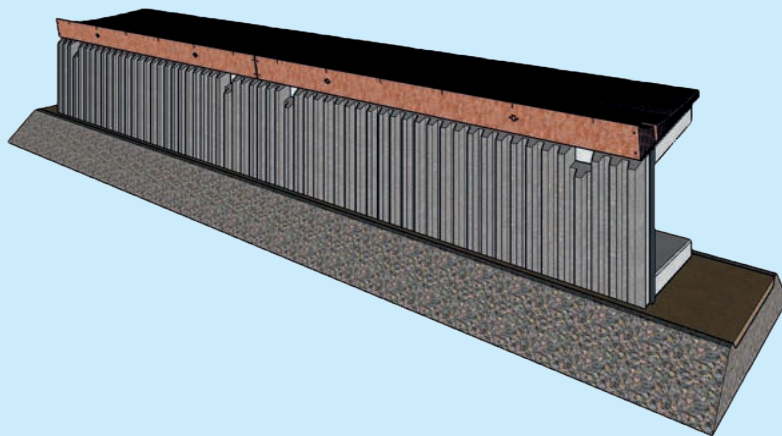
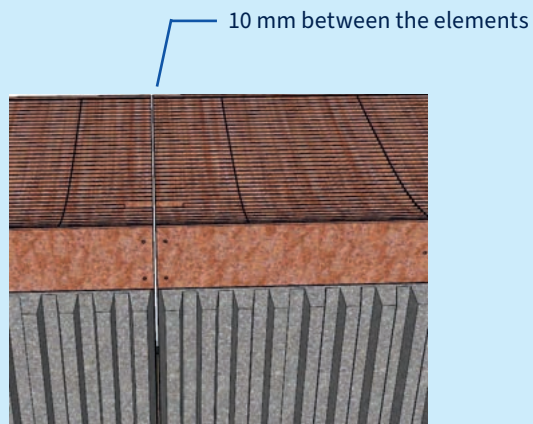


## STEP 7

Hoist the diffractor on top of the concrete substructure with the special hoisting clamp.



A free space of approx 10 mm must remain between the diffractors.



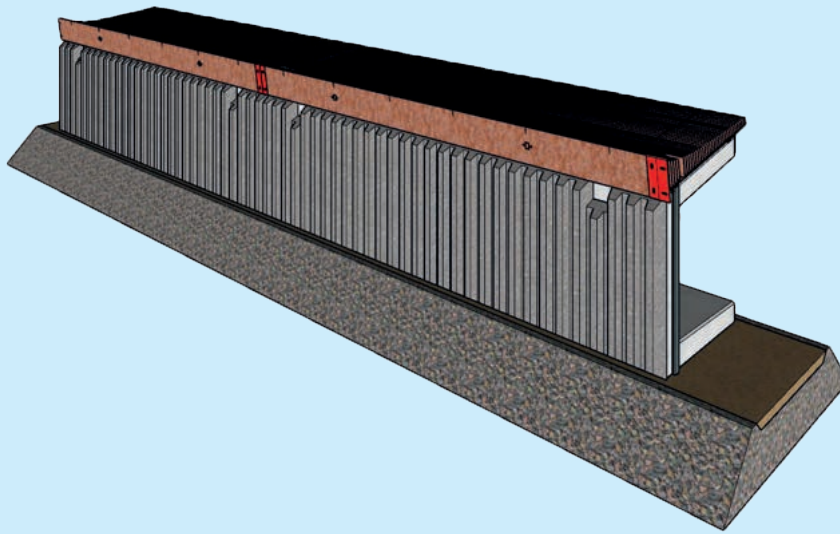


## STEP 8

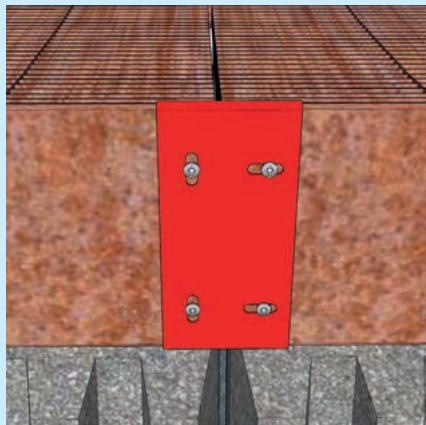
After installing the diffractors on the substructure, they must be coupled and sealed using the supplied coupling plates, coupling strips and cover plates.

Fasten parts with A2 stainless steel drilling screws  $\varnothing$  6.3 x 25 mm with flange.

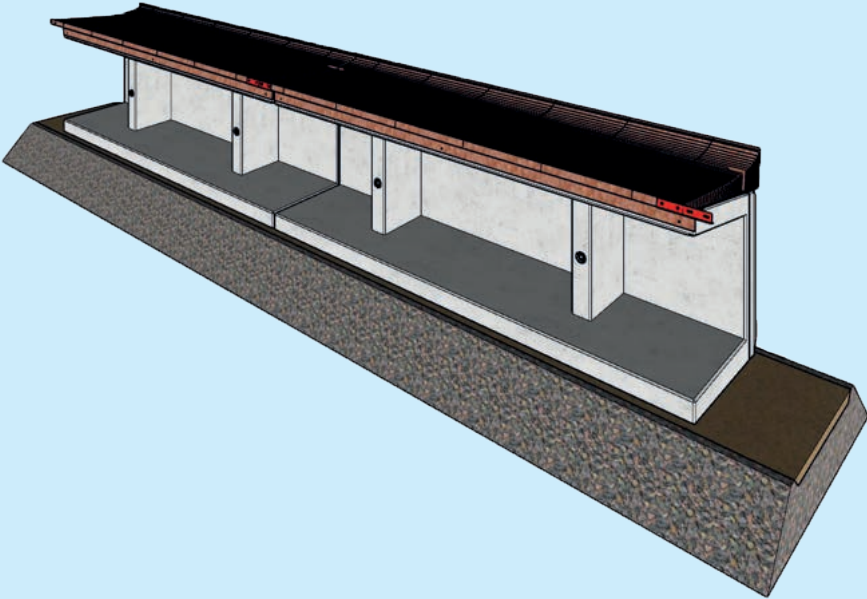
Coupling plates front side:



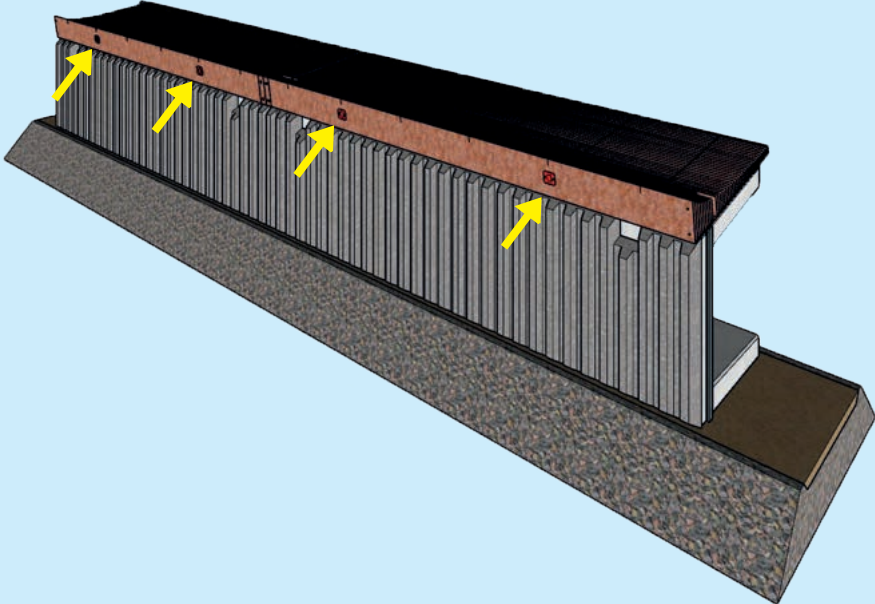
**i** It is allowed to fit the fixing in the extreme position of the slotted holes.



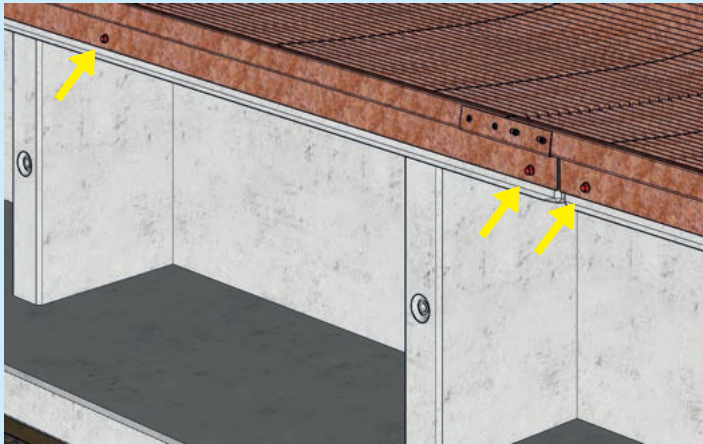
Coupling strip rear side:



Cover plates for hoisting holes:



Mount diffractor on substructure (rear):

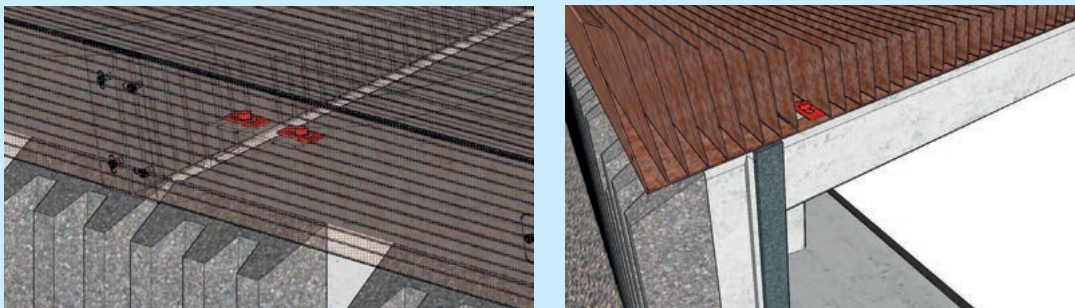


Fix in the insertion sleeve with a stainless steel A2 tap bolt hexagon M10x35 (DIN 933) + 3xd ring M10.

The angle line may be slightly free from the concrete element in order to be able to align the diffractors. If necessary, fix the distance with a hard plastic wedge to be able to tighten the bolt sufficiently.

In certain situations it is possible that an anchor is prescribed by the client in connection with deviating requirements, approval or specific certification.

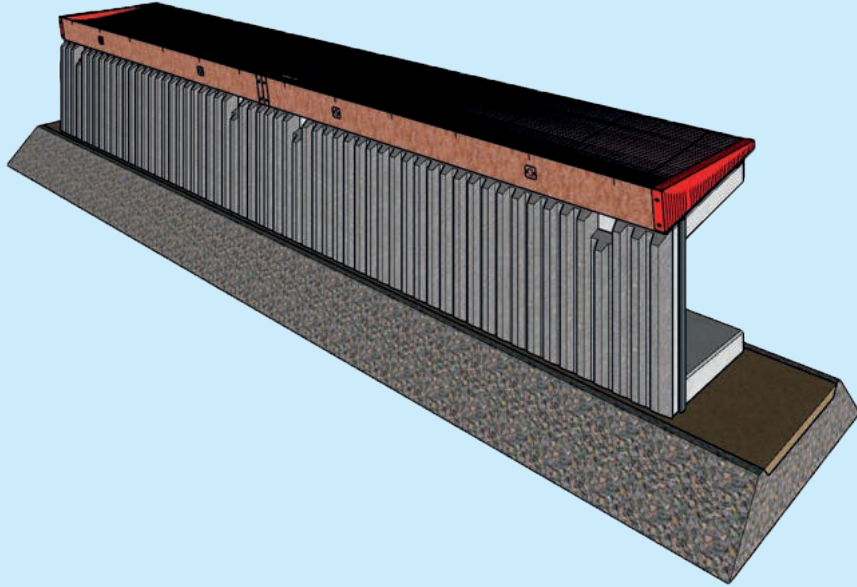
Mounting diffractor on substructure (trackside):



Fix in the insertion sleeve with a stainless steel A2 cylinder head bolt M10x40 with internal hexagon (DIN 912) + 3xd washer M10 and the supplied stainless steel adjusting plate with slotted hole.

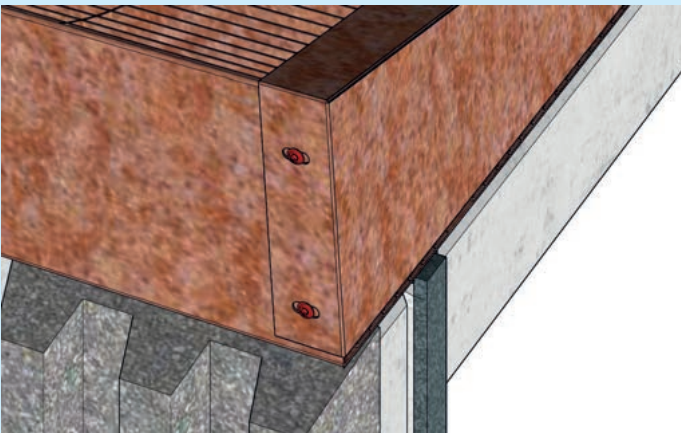
## STEP 9

Mount end piece on the head side of the diffractors:



- i** An end piece is mounted on the diffractor at the standard mounting points of a coupling plate and a coupling strip.

Only the outer mounting point is used on the back.





## 4. Install grounding



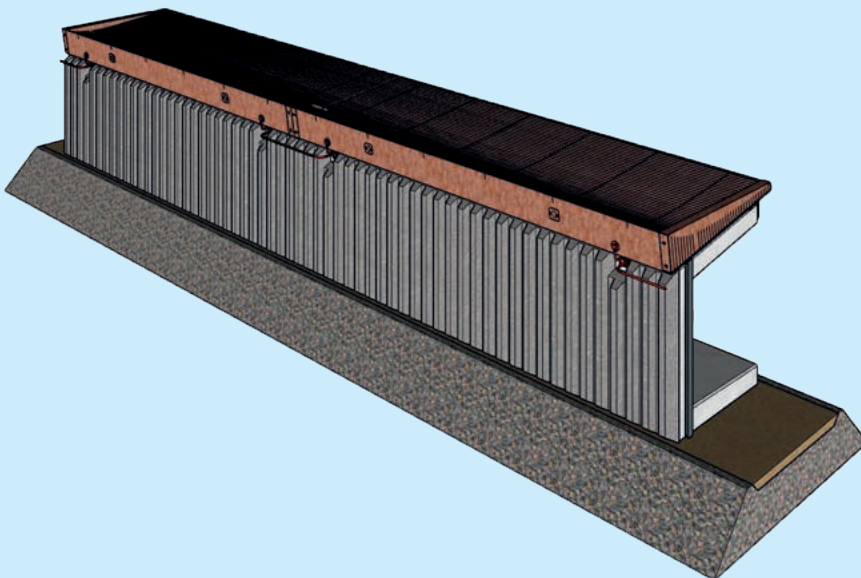
Depending on the type of track, the voltage on the catenary and whether or not cable ducts are present, specific rules apply with regard to the number of earth points, the required resistance in Ohms and the mutual distances.

For each location, this must be in a grounding plan.

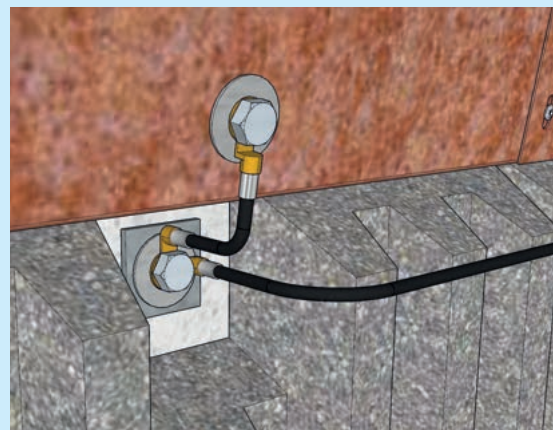
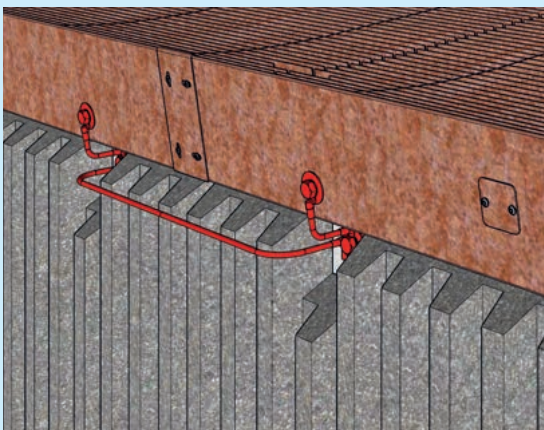
Earthing provision in accordance with client specifications.

### STEP 10


Interconnecting of grounding in the concrete elements and diffractors:



Grounding details:







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