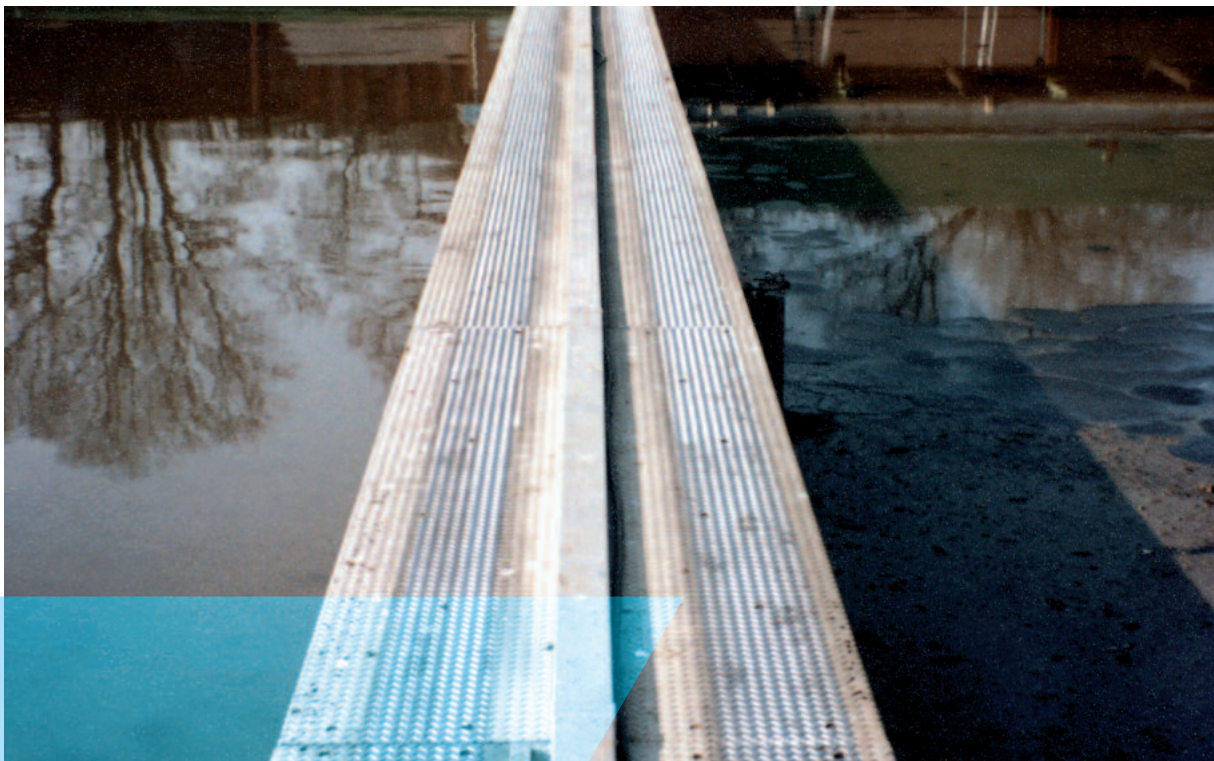


Coverings for tank heads

Durable wear protection



Coverings for straight and circular tank scraper trackways
for retrofitting or new constructions, with or without heating

►► The situation

Coverings for tank heads are exposed to high stress.

- Static: high surface pressure
- Dynamic: numerous variable loadings
- Physical: frost
- Chemical: defrosting agents
- Thermal: heat stress



The majority of tank heads are manufactured of concrete specifically chosen for this application. Frequently, severe damage occurs after a short period of time as the pictures below of typical sites show. What can be done to ensure trouble-free tank operation throughout the year?



►► Coverings for tank heads with HUBER know-how

There are a number of factors to be considered before installing coverings on scraper trackways:

- Unevenness in concrete surfaces produces individual points of support which results in local stress peaks.
- Bending stress and tensile strength stress in particular the field centre under the scraper wheel and at the joint.
- Thermal stresses between the concrete and stainless steel require expansion compensation to be allowed for.
- Stress corrosion is the result of incorrect material selection and processing.
- Fatigue strength reduction caused by fixing holes, corrugation or fillet welds leads to violation of the yield strength limit of the stainless steel.
- Stress is particularly high on projecting parts in the joint area.

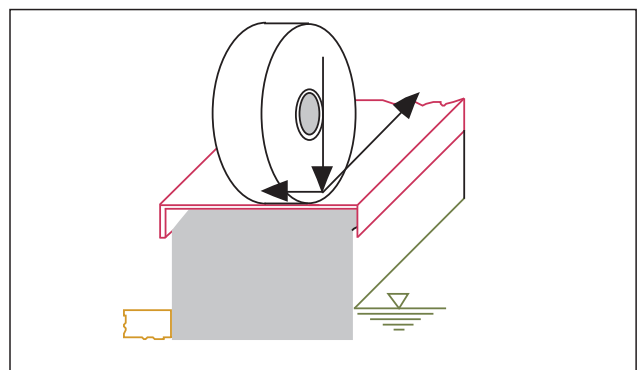
Conventional static calculations are not sufficient to accurately predict such complex processes.

To ensure that we have undertaken sufficient investigation into this matter rollover tests were carried out at the University of Munich and the German Welding Institute SLV Munich to investigate all the main criteria in question.

After months of successful testing we are therefore able to offer a fully developed design that ensures trouble-free long-term operation.

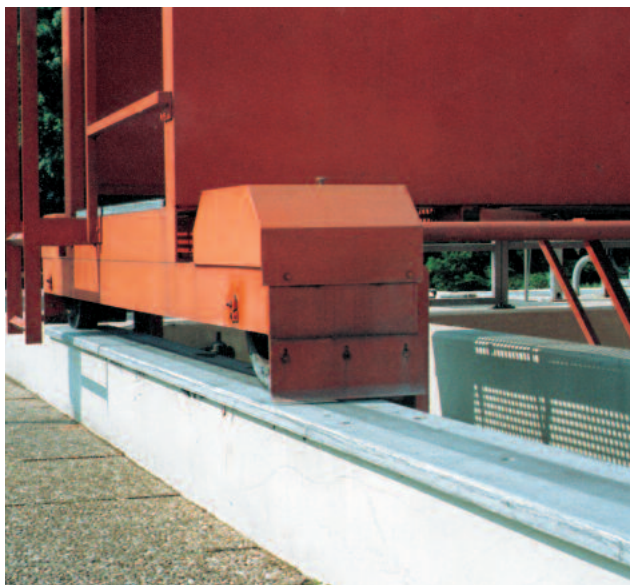
A technically mature construction provides the following outstanding features:

- The distortion-free construction: Increases the mechanical resistive torque, distributes the load evenly onto the substructure, and is completely manufactured in stainless steel which has been acid-treated in a pickling bath.
- Overlapping joints: Protect against moisture ingress and compensate high cantilever moments.
- Joining technology and material selection: sowohl der Werkstoff als auch die The design of both the material and stainless steel joints has been optimised to withstand high stress.

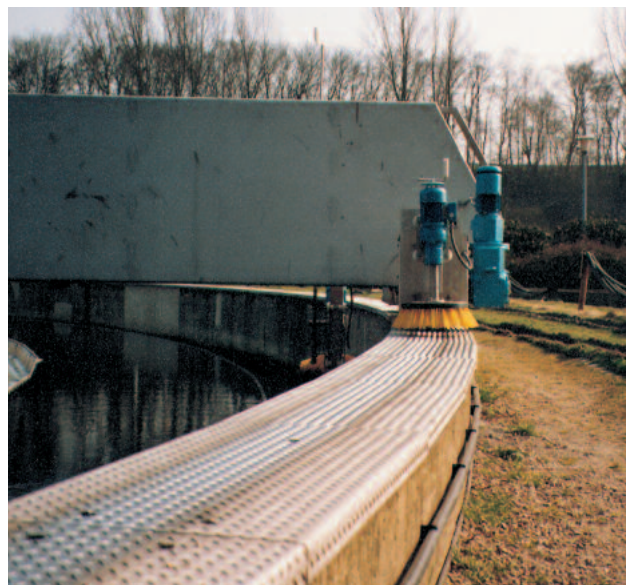


►► Selection and processing of the right material is decisive.

►► Our system solution – your benefit



Rectangular tank with a covering manufactured of smooth metal plate



Circular tank with a covering manufactured of stainless steel tear pattern sheet

►► The user's benefits

- Bevelled joints for scraper travel without juddering
- Moisture and temperature sensors included as standard
- Moisture and temperature sensors installed outside the traversable area
- Heating line specifically designed to suit different tank diameters and shapes

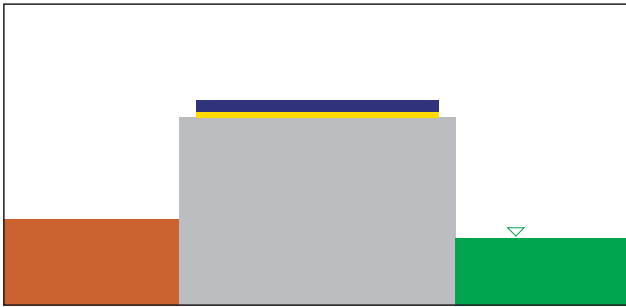
►► HUBER stainless steel products ...

... are the ones to choose for use in water supply or municipal and industrial wastewater treatment. Whatever the requirement, stainless steel is the material which satisfies the highest demands.



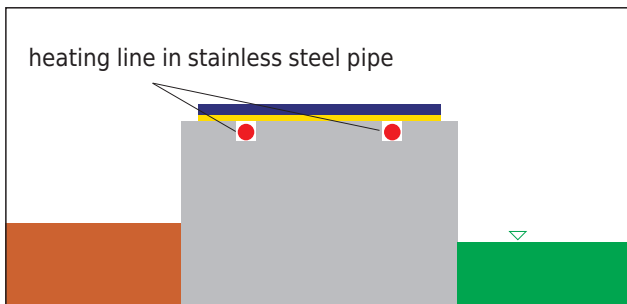
The covering protects the scraper trackway.

►► Our range of products:



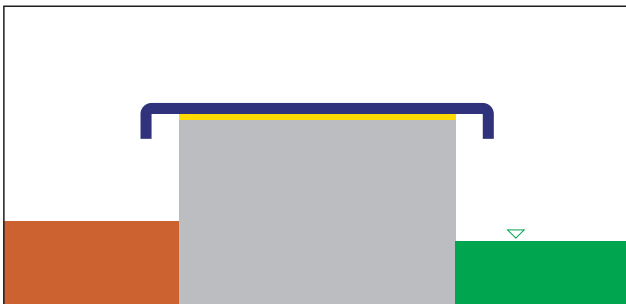
The covering without heating

protects the tank head only in the trackway area.



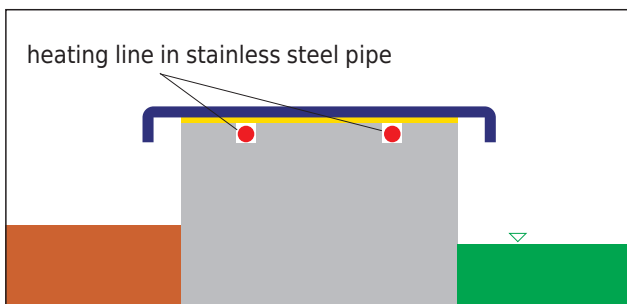
The covering with heating

protects the tank head only in the trackway area.



Full covering without heating

protects the complete tank head area.



Full covering with heating

protects the complete tank head area.

HUBER SE

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