

Project

Development and building of a turnkey hopper on railway tracks

Client:

Verbrugge Terminals

Terneuzen - The Netherlands



De Regt Conveyor Systems delivers turnkey bunker on rails at Verbrugge Terminals Terneuzen

Verbrugge Terminals Terneuzen is the proud owner of a new multifunctional hopper on rails including belt conveyor and truck loading chute, which was designed, built and assembled by De Regt Conveyor Systems.

General information:

This installation was delivered turnkey and is designed on the basis of the customer-specific wishes and requirements for the transport of various bulk goods such as fertiliser substances, nephiline, soda and limestone. The installation has a total capacity of 1,200 T/h.

Hopper with dust reduction system:

By means of a transshipment crane, the product is transferred from ship to the hopper, which has a total height of approx. 16.5 metres. The inlet has an opening of 8x8m and is equipped with a dust control system and a coarse grid. For a sustainable future, the hopper is constructed from 304 stainless steel. Wear and noise are minimised by the inner lining of the hopper with 15mm thick rubber wear plates. The hopper itself has a height of 6.5 metres and a water capacity of 150 m³. However, water through rain is kept out as much as possible by the application of a movable sliding roof.

Subframe with flange wheels, for transport on rails:

The installation's subframe has a total width of 17.5 metres and a height of approx. 10 metres. The construction is fully compatible with the existing railway track. By using 10 flange wheels, the frame is movable and the electric drive ensures a driving speed of max. 0.3 m/sec.



"We are proud that we can and may prove our added value here, as a local company"

Peter de Regt - De Regt Conveyor Systems

Discharge via vibrating chute to ascending conveyor belt

The hopper discharges via a vibrating chute from Jöst to an ascending conveyor belt. The vibrating chute is equipped with an electrically adjustable slide valve to regulate the product flow. The enclosed space around the vibrating feeder is fitted with sound-insulating sheet piling.

Conveyor belt with a length of 20 metres and two directions of rotation.

Trough this vibrating chute, the product is transported to a 20-metre long ascending belt with a inclination angle of 11°, a belt width of 1,200 mm and a 30kW gear motor. This belt conveyor is also equipped with a belt weighing system. The conveyor belt has two directions of rotation, so that the product can be transferred to either a stainless steel transfer valve for the choice between loading 2 existing belts in the quay gallery or loading a trucks loading chute with a flow rate of 850 m³/h.

In addition to the durability, the customer had chosen for a wear-resistant coating (C-5M), and this conveyor belt is equipped with stainless steel 304 cover plates. The entire installation is operated from the control container present on the installation, with a wireless remote control or from the control room. Included in the electrical control are the high voltage transformer and the cable reel.

Easy access for maintenance, inspection or cleaning work.

Stairs and platforms are provided to ensure safe access for inspection and maintenance work. Keeping the installation clean is easy because the hopper, conveyor belt and switch valve are equipped with spacious inspection hatches. The stainless steel water pipe, which runs from floor level to various locations, ensures that cleaning water is always within reach.

Verbrugge Terminals; a satisfied client

Peter de Regt, director/owner of De Regt Conveyor Systems: "We have been allowed to provide Verbrugge Terminals in Terneuzen with internal transport solutions for many years. We have received positive feedback from our client and we ourselves are also very satisfied with the realisation of this project. Besides, we are proud that we can and may prove our added value here as a local company".



