

LOADING INTO SHIP AND WAREHOUSES

During the course of 2017 Cimbria Unigrain received a record number of orders for loading chutes for discharging goods into ships and warehouses. These orders include loading chutes of various size and models designed for a wide range of products, including titanium, lead and zinc concentrates, fertiliser, sulphate, cement clinker, fly ash, coal, wood pellets, maize and grain. The vast majority of loading chutes are constructed using standard components, but are of course adapted to the conditions at each plant. Furthermore, they are designed to meet the specific application, in addition to a solution – drawn up in consultation with Cimbria – that meets the specific needs of the customer concerned. The loading chutes are sold both directly to end-users and via a number of distributors and dealers.

V400FF/29 to Tizir, Tyssedal, Norway

Tizir in Norway contacted Cimbria Unigrain with an enquiry for a loading chute for discharging titanium. Due to the fact that there was insufficient built-in height on the existing belt, the loading chute had to be able to be pulled up under the belt when it was extended over the side of the ship. The capacity was specified as 800 t/h, the length of the loading chute was approx. 20 m and it had to have a built-in filter. The solution to this task was a V400 with filter outlet which, following some development work, was provided with a tilting mechanism such that it could be pulled up under the belt, after which it could be run out to the ship. Since titanium is a very abrasive material, all parts coming into contact with titanium are executed in Hardox steel. The loading chute is also equipped with a universal joint, in such way that it

always hangs vertically when the derrick is raised and lowered. In conjunction with installation and subsequent commissioning, Cimbria Unigrain had a supervisor present at the customer's premises.

V650FF/29 to Bolidan, Rönskär, Sweden

From Bolidan in Skelleftehamn, Sweden, Cimbria Unigrain received an enquiry for a loading chute for loading lead and zinc concentrates onto ships. The capacity was stated at 1000-1500 t/h, in addition to which the material was very fine and dusty. The length of the loading chute was to be 15-20 m and had to have an integrated filter. The main challenge was that the solution had to be able to cope with ambient temperatures as low as -35° C. The chosen solution was a V650 with filter outlet in which all the electrical components are designated to be able to cope with an ambient temperature of -40° C. In addition, the loading chute is equipped with an extended inlet and chutes in Hardox, as the material is abrasive. The loading chute was delivered in August 2017 while the total price included a supervisor from Cimbria Unigrain and a service visit one year after commissioning.

V500FF10 to Telestack, Northern Ireland, end-user Nibolon, Ukraine

From Telestack, a Northern Irish manufacturer of mobile ship-loaders, Cimbria Unigrain received an enquiry in December 2016 concerning a solution for the loading of grain at a rate of 500 tonnes per hour. The solution had to include an integrated filter, as well as two loading chutes. We arrived at a solution featuring a

V500FF10 model and "intake" for Telestack's mobile ship-loader. The loading chutes are produced as an OEM project, delivered in colours that match Telestack's. Finally, the order was for 6 units, delivered in 3 stages. In conjunction with the first delivery, Cimbria Unigrain carried out a test of the loading chute fitted to the ship-loader at Telestack's factory in Northern Ireland. The final 2 loading chutes were delivered in November 2017. Loading chute executed as OEM unit fitted in mobile ship-loader

V300F/39 TBMA Europe bv, Netherlands, end-user Eurochem, Kazakhstan

In August 2016 Cimbria Unigrain received an enquiry for 4 loading chutes for stockpiling from our dealer TBMA Europe in the Netherlands. The end-user, Eurochem, needed a plant for the discharge of phosphate under special temperature conditions (product temperature ranging from -30° C to +80° C, with ambient temperature down to -38° C).

The chosen solution was four V300F/39s with all electrical components designated to cope with ambient temperatures as low as -40° C. The control units were supplied with a heating element, whilst the skirt on the outlets was specially produced in silicone rubber.

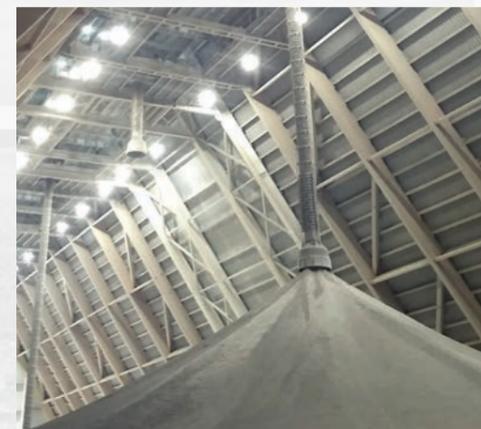
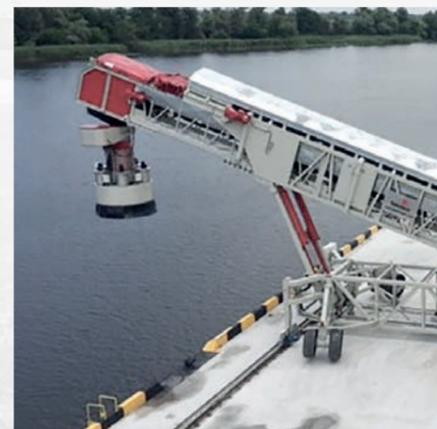
All parts in the loading chutes that come into contact with the material are fabricated in Hardox 400 due to the fact that phosphate is very abrasive. As the loading chutes are relatively long, they are equipped with a 4-m-long inlet pipe in order to be able to better concentrate the product in the centre of the chute.

V650FF/17, Bühler in collaboration with Kushiro, Japan

In August 2016, Cimbria Unigrain received an enquiry from Bühler, Uzwill in CH. They had received an enquiry from Kushiro, Japan, which needed a loading chute of approx. 15 metres for loading 815 tonnes of maize an hour. As the loading chutes were due to be used in very salty air near the sea, a special C5M coating was required, a specification that was subsequently revised to a galvanised finish. The Moduflex loading chute is to be used close to a built-up area, and thus the outlet on the filter was chosen to ensure the best possible filtration of dust.

V650F with trimmer, Firma Luicija in collaboration with RIMO, MUUGA terminal, Tallinn, Estonia.

Cimbria Unigrain's dealer in the Baltic, Firma Luicija, received an enquiry from RIMO, which was looking for a loading chute with trimmer for a newly-developed ship-loader which the dealer was charged with drawing up for the MUUGA terminal at the Port of Tallinn, where wood pellets were due to be unloaded. After one or two preliminary proposals, RIMO and Cimbria Unigrain agreed on a newly-developed trimmer with slewing bearing in stainless steel. The purpose of the ship-loader is that it is "fed" by trucks with a tipper. The wood pellets are conveyed via a belt up to the loading chute, after which they can be distributed over a larger radius than normal due to the rotating trimmer at the outlet.



Loading chute with tilting mechanism

Loading chute with trimmer at the outlet

Loading chute executed as OEM unit fitted in mobile ship-loader

Unloading of phosphate into a warehouse