

Miscellaneous

Fertiliser Bagging Systems

Overview

GAME was approached to design and install two new bagging plants handling various fertilisers into a variety of FIBC bag sizes.

Problem

The system was required to handle 90T/hr of fertiliser being bagged into 1tonne FIBC bags. Product is delivered using large front-end loading buckets at the Port of Immingham. The main issues of the project were the three different bag sizes to be filled; confined space in which to fit the equipment and protection against corrosion and oversize material entering the system.

Solution

Selection of the materials handling equipment and its contact parts was critical as the fertilisers being handled are extremely aggressive towards mild steel and any galvanised finish. Stainless steel contact parts were used where practical, together with lining materials for corrosion and abrasion resistance.

The front-end loader delivers product from its bucket into the intake hopper, utilising its built-in overs screens to remove any out-of-spec material. From here the material is discharged using a flat belt feeder into a belt and bucket elevator which delivers the product into the stainless steel holding hopper above the weighing and bagging system. The bagging system consists of a 1tonne nett weigher and adjustable filling head, all manufactured in stainless steel and capable of handling the range of weights and bag sizes specified. The filled bags are then released and taken away on a large flat belt stacking conveyor.

The contract was carried out as a sub-contract project complete with controls, site electrics and support and access platforms as required.

Result

The project was delivered on time ready for full commissioning and within budget.

