BIGBAG DISCHARGE SYSTEM – FAST, SIMPLE AND SAVE BULK MATERIAL HANDLING

The special challenge for loading and reloaing systems: their technical design for particular product properties as well as on-site conditions.

That is why Schrage Conveying Systems has developed a flexible solution based on a tube chain conveyor, which combines gentle product handling and flexibility. The Schrage bigbag discharge system works independent of other systems - as a permanently installed system or, upon request, as a mobile unit. Each conveyor is customized to suit the individual requirements of the client, thereby eliminating the need for on-site alterations. Variable bigbag discharge system is suitable for everybody who needs to convey bulk materials over short distances in a flexible, economic, and possibly mobile manner, i.e. reloading bulk material, filling receptacles, or emptying bigbags or regular bags.

EASY BIGBAG DISCHARGING - JUST PLUG IT IN

All you need to operate the conveyor is a power outlet as well as an even, stable base. Up to a length of 10 m, the system can be delivered fully assembled. It can solve many problems common during the filling of silo vehicles, sacks, containers, freight cars, or bigbags. The compact tube chain conveyor has also proven to be a good solution for loading bulk material into mixers, agitators, mills, filling station, or any other processing machinery. Depending on the desired output, the bigbag discharge system is available in five sizes - the type denomination (115, 135, 160, 200, and 270) reflects the tube diameter. With these different sizes, it is possible to convey material with a grain size of up to 50 mm, a bulk density of more than 2 t/m³, and flow rates of up to 80 m³/h. A height-adjustable version is also available, which uses a vertical pivoting motion to adjust the loading system to the desired height. This way, the optimum operating position can be selected. In addition to the basic version, accessories such as an integrated rotary valve for bulk material metering or a tumble station for product discharge support are also available.
SCHRAGE CONVEYOR TECHNOLOGY: AT HOME IN MANY INDUSTRIES

Due to the large variety of conveyed bulk materials, bigbag discharge systems from Friedeburg are being used worldwide and in many different industries. The conveyor systems will convey virtually any flowable bulk material, including dusty or granular but also coarser bulk materials. Clean, gas-tight, and pressure-tight loading of all free-flowing and pourable bulk material is guaranteed: The closed bigbag discharge system is also suitable for conveying challenging and sensitive bulk materials dust-free and without any contamination. Low levels of grain destruction and the particularly gentle handling of the product are just as possible as the reliable conveyance of explosive products by means of a special design. ATEX-compliant designs are also available.

Since Schrage has been designing solutions for bulk materials for decades now, a wide range of experience has been gained with virtually every product. The factors determining the design of the system are the grain size, bulk density, and flow properties of the conveyed product. Depending on the conveyed medium, Schrage selects special materials and wall thicknesses as well as project-specific designs, which have passed numerous test runs in the on-site test facility.

The bigbag discharge systems from Friedeburg are being used in almost all industries – here are some examples:

- **Food industry**: Flour, milk powder, corn starch, tea, sugar, salt, pepper, malt, corn flakes, etc.
- **Agriculture**: Cereals, coffee beans, nuts, malt, beans, mustard seeds, seeds, etc.
- **Building materials industry**: Sand, soil, cement, chalk, clay, plaster, calcite, etc.
- **Animal feedstuff industry**: Wheat, barley, oats, rye, corn, peas, millet, pellets, etc.
- **Chemical industry**: Synthetic granules, laundry detergent, fertilizer, pesticides, sulfates, PTA, etc.
- **Fuel industry**: Pellets, wood chips, animal meal, carbon powder, coal, biomass, etc.

DIFFERENCES TO CONVENTIONAL HANDLING SYSTEMS

Even today, in many industries bulk material is still handled manually or with the help of a lift truck, both of which require enormous amounts of time and money. Or transport media such as screw conveyors, bucket elevators, or conveyor belts are used. However, these do not always constitute the best solution. Conveyor belts require a lot of space due to their low angle of elevation. They cannot be closed off and can, therefore, not be used for dusty bulk materials. Screw conveyors have problems transporting dusty bulk materials with good flow properties: The steeper the pitch is, the higher the (undesired) reflux. They are also hard to clean and quite expensive. Stationary bucket elevators have similar disadvantages. Tube chain conveyors, on the other hand, have no dead space, are easy to clean, and allow quick product changes. The tube chain conveyor also keeps the bulk material from demixing during the loading process and guarantees an almost complete residual discharge.
BIGBAG DISCHARGE SYSTEM: ECONOMIC, ENVIRONMENTALLY SOUND, AND RELIABLE

The flexible Schrage bigbag discharge system is easy to operate and offers high levels of reliability. Each tube chain conveyor can be configured individually to minimize the operating and labor costs. The major advantages are the dust-tightness during the reloading process achieved by an absolutely closed system as well as high structural stability during the loading process. On top of that, the system facilitates almost complete residual emptying and a level of self-cleaning that allows for uncomplicated product changes. All of the systems are made of weather-resistant materials, can be used indoors as well as outdoors, require little maintenance, are very wear-resistant, and can be operated even in extreme weather conditions. This kind of efficient bigbag discharge system not only saves time, but it also reduces the operational costs, pays off quickly due to fast commissioning, high availability and economic operation and shows just how convenient flexible bigbag discharging can be.