AUTOMATIC LOADING AND UNLOADING STORAGE SYSTEM

Manufacturer: SmartTEH

Description:
Flat storage warehouses are cost-effective alternatives to silo systems. They can also be implemented where the load-bearing capacity of the substrate does not permit silo cells or where locally applicable construction regulations impose limits on the maximum building height. Also existing suitable buildings can usually be converted to flat storage warehouses without great expense. For flat storage warehouses, in particular, the savings potential is enormous, when filling and emptying are realized with an intelligent, automated solution. This is the only way to avoid squandering storage space due to point filling and non-distributed filling, or to avoid excessive personnel effort when emptying. Our fully automated hall charging not only utilizes the entire surface, but also the entire volume of the storage facility.

Our engineered storage loading and unloading system are designed for product (such as grain, fodder and other granular products) loading in and out of storages with unlimited space. This storage solution is very attractive for fast loading, mostly for ports, where large amount of products must be accumulated in a short period of time and after a short period of time, the same product are quickly unloaded.

Together with our partners in the tent structure production and construction, we are developing individual solutions for each customer's requirements. Based on our calculations, the customer can precisely plan the profitability of investment and to make a comparative calculation with already existing production handling processes.
TECHNOLOGY

THE DRY PIT ST-B35 is a suspended modular grain pit, which has been developed in order to provide optimal conditions for servicing and avoiding water in it. The steel pit must hang in a concrete pit with vertical sides, and it is produced in sections of galvanized steel plate, that are to be bolted together. The pit is produced in a drive-over version. The DRY PIT parameters are: 3m (W) x 7m (L) x 3m (D) with total capacity of 35m³.

- Easy service access
- Simple assembly
- Optimal protection against water
- Easy and economical transport, as the DRY PIT can be packed on pallets
- No horizontal areas where grain and feedstuff can remain
- Designed in modular sections, made of 3-4 mm galvanized steel plates

THE BUCKET ELEVATOR TYPE ST-E300 is made of galvanized steel, which makes it particularly suitable for outdoor applications. It works effectively and has low power consumption in relation to its capacity.

We have designed the machine to be stable in tall versions and to be capable of running continuously for many hours. It is designed for transportation of grain, granulates, and other bulk goods. The upward and downward side of the bucket elevator can be fed with the same capacity.
Chain-type conveyors are mostly used in conveyor system solutions; their loading and unloading places can be adjusted by remote control. Conveyor productivity is calculated on the basis of the customer’s requirements.

The chain conveyor is made in strong galvanised material, which makes it particularly suitable for outdoor applications. The **CHAIN CONVEYOR ST-K serie** is designed for industrial transport of grain, granulates, and other bulk goods. A steel chain fitted with synthetic carriers ensures that all material transport is conducted quietly, safely, and effectively. The chain conveyor works effectively in both a horizontal position and at an upward angle of up to 30° and has low power consumption in relation to its capacity.

**THE LEVELING AUGER ST-I150** is manufactured in galvanized steel and designed in a light and easy-to-assemble modular system. The leveling auger is quiet, and has low power consumption in relation to its capacity. The leveling auger is designed for transportation of grain, granulates and other bulk goods.

The leveling auger is produced for two-way transport, and it is particularly designed for filling of flat floors.

For temperature and air ventilation we offer relatively inexpensive solutions, which are widely used in the USA and Europe.

As the main advantage of this system we want to highlight the *sustainable development*, which includes a number of technical solutions, making them quickly and relatively inexpensively mounted, demountable, mobile or extensible:

- Storages are built from lightweight metal construction with PVC coating. The optimum width is 40 m with no restrictions in length; moreover, it is possible to increase the length later.
- Hangar floor covering depends on the customer’s chosen solution, but in practice, the floor of panels has proven itself in both, the price and quality as to the others. In addition, it can be relatively easy to disassemble.
- For the side walls we offer to use Masterblock wall solutions, which allow to make partitions as needed for hangar redistribution, as well as to increase the wall height,
BENEFITS

- Price and mounting time;
- Unloading up to 500 t/h;
- Loading up to 300 t/h;
- Aeration system;
- Reduced human resources;
- Less grain dust;
- Better maintenance of the quality of product;
- Lower storage maintenance costs;
- Low risk for dust explosions in comparison with other vertical storage solutions (silos);
- Sustainable development factors.

Please contact us for more information!

Pictures