

Stacking Systems and Equipment



ThyssenKrupp Robins



ThyssenKrupp

Machines to Move Material

Meeting the needs of modern industry.



Above:

A Bridge-type Stacker with Tripper and Shuttle Conveyor for a 1,000,000 ton stockpile system in California.

Top Right:

Traveling Slewing Stacker working a longitudinal limestone stockpile in Mexico. Capacity: 3500 stph.

Bottom Right:

Traveling Luffing Stacker working a longitudinal limestone stockpile Alabama.

COVER PAGE:

Top Left:

Radial Stacker for Coal in Texas. Capacity: 2,000 tph.

Bottom Left:

Side Boom Stacker for Sulfur prill in Venezuela. Capacity: 200 mtpth.

Top Right:

A Shuttle Conveyor stacking system for coke storage in Aruba. Capacity: 1,100 mtpth.

Bottom Right:

Stacking Conveyor system with Tripper Car for limestone in Alabama. Capacity: 600 tph.

We design the machine to meet the need, from shipping and storage facilities to power plants, mining and heavy industry.

Storage

Stockyards play an integral part in the layout and operation of most materials handling systems. They serve as a storage area for raw or processed materials, a buffer area between the mine and processing facility, or to provide blending of two or more grades of material.

ThyssenKrupp Robins has supplied a major share of the stockyard equipment for circular or longitudinal storage systems.

ThyssenKrupp Robins offers a variety of stackers that are designed to fit your specific needs.

Luffing & Slewing Stackers

The luffing stacker travels along the entire length of the longitudinal stockpile conveyor and serves to build a stockpile on one side of the conveyor only. The tripper is connected to the traveling stacker by way of connecting structure and serves to transfer material to the boom. The stacker consists of a rigid structural design which has a boom pivot in the center of the machine. The luffing motion is often done by concrete counterweight design. Stacker and tripper are designed for variable speed travel and can be quickly relocated from one place of the stockpile to another. This machine can be operated in a manual mode, semi-automatic mode or fully automatic mode from a central control station.

The luffing stacker is the most cost effective design for a stockpile on one side of the conveyor. Its structure is simple and it has fewer mechanical components than the slewing and luffing stacker. A traveling slewing stacker serves both stockpiles, left and right of the stockpile yard conveyor. It is controlled remotely and can build a stockpile in chevron, coneshell or windrow stockpiling modes.

The Luffing/Slewing type of stacker is the most versatile since it is able to slew from a stockpile to the other side of the yard conveyor and build equal stockpiles on both sides of the yard feed conveyor.



Top Left:
A circular Stacker/Reclaimer system in Florida.

Bottom Left:
A wing stacker.

Right:
Luffing Traveling type stacker/reclaimer working a longitudinal coal stockpile.

Whether for circular or longitudinal storage systems, ThyssenKrupp Robins has a solution.

Wing Stackers

One wing stacker fulfills the function of two luffing stackers. It can be used to either simultaneously stack two stockpiles or just one at a time. The material flow comes over a tripper car and is diverted to one or two luffing booms. The structure in the center of the machine houses luffing winches for the luffing motion of the booms and a flop gate to divert the material flow.

Radial Stackers

Radial Stackers stockpile materials in a kidney shaped pile, slewing between 90° and approximately 360°. Boom angles are either fixed or can be made a luffing motion between plus 15° to minus 15°.

Tripper Cars for Stackers

The tripper car serves to transfer the material flow from one part of the machinery to the next for example from the stockyard longitudinal belt conveyor onto the conveyor in the boom of a stacker.

Side Boom Stacker/Reclaimer

The side boom stacker/reclaimer has the same reclaiming functions as the side boom stacker. A tripper trailer adds a stacking function to this machine. It transports material to the center of the transfer table and discharges it into the scraper blades. The scraper blades work in reversed rotation and build a stockpile in a slow motion traveling mode.

In order to achieve a clean material transfer, a rotating flop gate covers the reclaim opening. This machine can also send the incoming material in bypass mode back onto the yard conveyor and reclaim additional material on top of it. The side boom stacker/reclaimer can also be used to stack and reclaim separately.



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