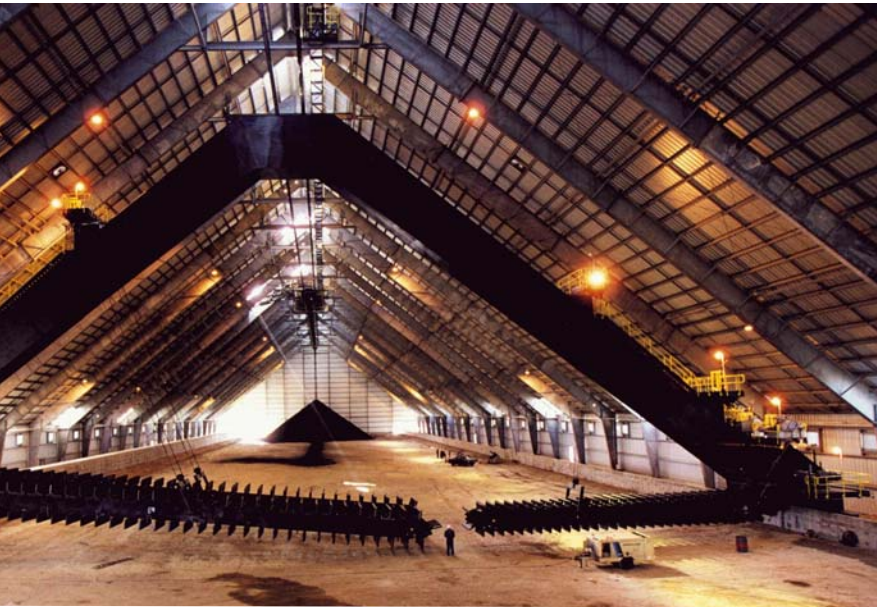


Reclaiming Systems and Equipment



ThyssenKrupp Robins



ThyssenKrupp

Machines to Move Material

Meeting the needs of modern industry.



Above:
Bridge-type bucket wheel reclaimer handling coal. Capacity: 2,000 tph.

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

Bottom Right:
Large portal reclaimer with two scraper booms at a cement plant. Capacity: 2,000 tph.

COVER PAGE:

Top Left:
Portal Reclaimer handling Petroleum Coke. Capacity: 2,000 MTPH

Bottom Left:
Bucketwheel Stacker/Reclaimer handling limestone. Capacity: 4990 MTPH Reclaiming , 3,175 MTPH Stacking.

Top Right:
A Drum Reclaimer

Center Right:
A Bridge-type reclaimer with a rake designed to blend and reclaim coal in a circular stockpile.

Bottom Right:
A Side Boom Type Reclaimer viewed from the boom end to show the blade size and shape.

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

Storage

ThyssenKrupp Robins supplies several types of reclaimer systems, including scraper chain, rotating drum and bucket wheel reclaimers.

Our expertise includes both indoor and outdoor operations, and our equipment can be tailored to meet building designs and store-yard restrictions.

Circular Stacker/Reclaimer

The Circular Stacker/Reclaimer is designed for 360 degrees of rotation. The design consists of a slewing and luffing stacker to stack the material, a bent chain slewing and luffing reclaimer and a central column which includes a feeding and discharge hopper. The stacking and reclaiming systems operate independently.

Bucket wheel Reclaimers

Bucket wheel reclaimers travel on a rail track alongside the

piles. They can reclaim different stockpile sections selectively. This is done in four directions (quadrants) on both sides of the track. Within the traveling limits and operation radius, active stockpiles can be deposited and reclaimed up to both boundary zones, the bucket wheel can cut into them from both ends.

Bucket wheel stacker reclaimers offer a possibility for selective stacking and recovery of materials in different stockpile sections. This is done in two directions (quadrants) on both sides of the track. Reclaiming over four quadrants is possible with units whose tripper-trailers can be uncoupled. Active stockpiles can be stacked and reclaimed within the traveling limits and operating radius, which is up to the boundary zone of the storage area on the boom side of the machine. On the trailer side,

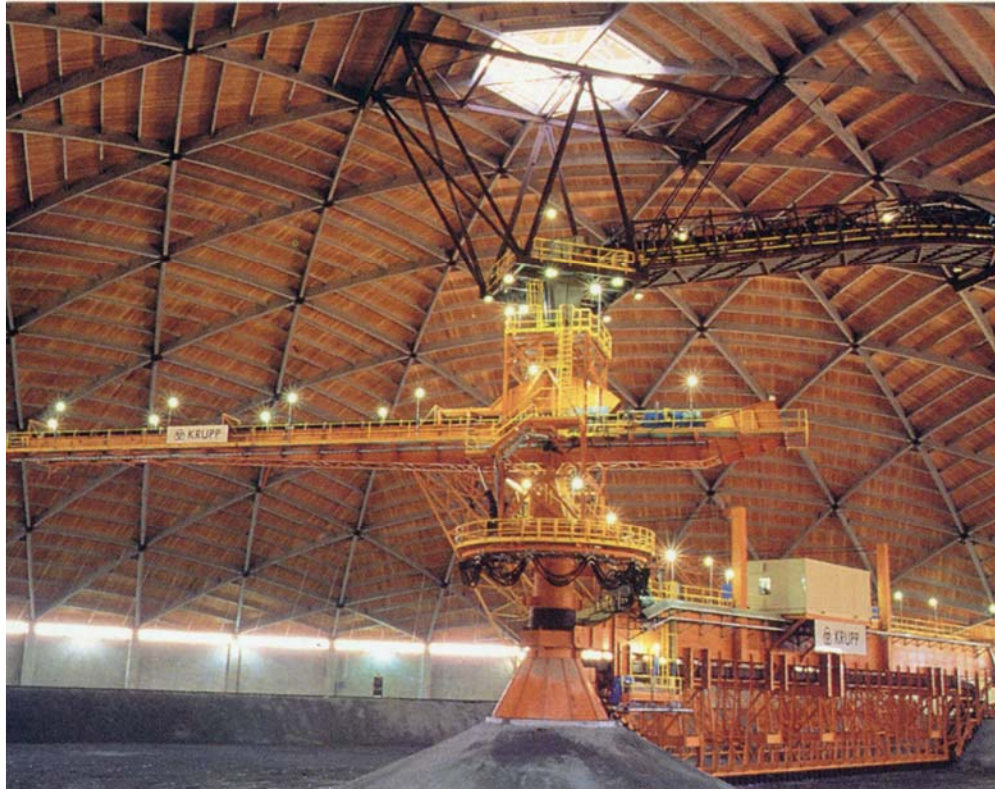
a clear space or box cut is provided, which permits the bucket wheel to cut into a free end face of the pile.

Bridge Scraper Reclaimer

The bridge reclaimer, together with a proper stacking method, provides a very high blending ratio which is often required for homogenizing materials such as limestone, coal, iron ore, etc. The bridge-type box girder spans the pile and supports a trolley that gradually reciprocates as it travels along the length of the box girder. Suspended from the trolley are triangular shaped harrows, one per side, loosening the material on the pile cross-section.

Bridge-Type Bucketwheel Reclaimer

The bridge type Bucket wheel reclaimer reclaims, blends and homogenizes material from a



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

Bottom Left:
A Trencher Reclaimer, which differs from the Bucketwheel Reclaimer in that Instead of the usual slew movement it recovers material by travel movement. The material is reclaimed with the bottom part of the bucket wheel cutting periphery.

Right:
A covered circular stacker/ Bridge-type Reclaimer in a coal-fired power plant. Capacity: 2,500 MTPH stacking / 1,200 MTPH reclaiming.

blending yard previously piled up to the chevron system stackers. The machines operate at the front end of the pile, the bucket wheel trolley with two bucket wheels moves parallel to the front end and takes up the material stripped off by the rakes. Each cross-travel of the trolley is followed by a forward step of the complete machine.

As the buckets can be transposed and each bucket wheel is equipped with two rakes, the machines can operate in two directions. This is an essential advantage for stacking one stockpile while reclaiming another.

The bucket wheel trolley on the main girder travels on eight vertical rollers. Four horizontal rollers at the level of the lower bridge chord ensure lateral guidance of the trolley.

The trolley travel speed is adjustable so that, in connection with the variable cutting depth, optimum operating conditions can be chosen for reclaiming a variety of materials.

clutch, a worm gear, and a succeeding auxiliary spur wheel gear.

Bridge type bucket wheel reclaimers can be designed for manual as well as automatic operation.

Drum Reclaimers

Drum Reclaimers are high capacity reclaimers for blending materials, such as coal, limestone, ore etc. They can work in one or two reclaim directions and span stockpiles up to 140 feet wide and capacities of 5000 STPH in coal.

Portal Reclaimers

Portal Reclaimers feature either one or two reclaimer booms with a pair of traversing scraper chains and scraper flights. This arrangement is used to avoid interference with the roof structure of an indoor installation ; outdoor installations would use a single reclaimer boom. For reclaiming the stacked material the reclaimer booms are lowered to a point where the scraper flights engage in the material while the portal

reclaimer moves along the pile. The scraped material is loaded to a yard conveyor alongside the pile. The reclaimed capacity is controlled by varying the travel speed of the machine.

Side Boom Scraper Reclaimers

This machine travels alongside the stockpile on two rails with a rail gauge between three to five meters. It is supported by travel bogies with a three-point system. The luffable reclaim boom ranges between 10 meters and 30 meters in length and normally reclaims low tonnages of 50 TPH, but can also reclaim up to 1000 TPH. It has a luffing winch, a scraper reclaim drive and a travel drive. It is of lightweight construction and one of the most economical reclaimers for low tonnages.



ThyssenKrupp Robins Inc.
7730 East Belleview Ave. Suite 404
Greenwood Village, Colorado
80111-5820 U.S.A.

www.thyssenkrupprobins.com
Phone: 303-770-0808
Fax: 303-770-8233
E-mail: sales.tkri@thyssenkrupp.com