

# Equipment Roundup: Stackers

BY GINA TVERDAK, ASSOCIATE EDITOR

## **ABCO Engineering Corp.**

ABCO Engineering Corp.'s Model AS-608 Portable Telescoping Radial Stacker raises and lowers to prevent degradation of material, and also telescopes to prevent segregation of material. The telescoping radial stacking belt conveyor increases stockpiling capacity compared to conventional non-telescoping stackers of equal length. By telescoping and retracting while rising in small increments and traveling slowly in a predetermined arc, the stacker forms a homogenous stockpile. The ABCO Model AS-608 is fully portable and delivered with controls and wiring. It is available in belt widths of 30- to 48-inches and extended lengths of 110- to 150-ft. Capacities range from 500 tph to 1,500 tph.

When placed in the conventional mode, the conveyor will operate as a normal portable stacking conveyor producing a stockpile of material in one location after the initial positioning of the conveyor using the manual mode. The conveyor can be moved side to side, up or down, and extended or retracted while the belts are operational by using the jog push-buttons.

ABCO Engineering's Model HP-105 Adjustable Height Radial Stacker has a 30-in. all-welded modular truss, heavy structural undercarriage, and large single pneumatic tires that can swivel from radial to tow position for moving to a new location. The design has pinned connections of all undercarriage supports for fast and economical erection. The HP-105 is available in belt widths of 18- to 48-in. and in lengths of 40- to 85-ft.

The Model PS-606 Adjustable Height Radial Stacker is available in

several configurations. These heavy duty stackers can be site or road portable. Options such as side folding frame, hydraulic power fold, powered radial travel, and tandem walking beam axle allow the conveyor to be customized for particular applications. The sizes range from 90 ft to 135 ft with belt widths from 18- to 60-inches.

ABCO Engineering's Mast Type Radial Stackers, Model RS-610, has a cable suspension system that allows the discharge point of the stacker to remain slightly above the top of the pile, decreasing material segregation and degradation. Conveyor components are shipped match marked for ease in erection. A full line of optional has are available to fit individual requirements. Sizes are available to 200 ft in length and belt widths from 18- to 60-inches.

The Model FS-620 Fixed Height Radial Stacker has rugged 30 inch all-welded modular truss, heavy structural undercarriage, and large single pneumatic tires that can be swiveled from radial to tow position for moving to a new yard location. The FS-620 is available in belt widths of 24- or 30-inches and in lengths of 90 or 100 ft. The Model FS-630 Fixed Height Radial Stacker has an all-welded truss, heavy structural undercarriage, and large dual pneumatic tires that can be swiveled from radial to tow position for moving. The FS-630 is available in widths up to 60 inches and in lengths exceeding 200 ft.

The TR-680 tower mounted radial stacker is available with either an electric winch powered raise and lower or as a fixed height stacker. This stacker can be mounted off the customer's

structure, or ABCO Engineering will provide the tower. Various belt widths and lengths are available.

[www.abccoveyor.com](http://www.abccoveyor.com)

## **CEC**

CEC offers three stacker types: the Top Truss conveyor/stacker, the Lattice side fold radial stacker, and the Stack 'N Go conveyor/stacker. The Top Truss Conveyor/Stacker is available in widths 24-, 30-, and 36-inches, and in lengths 40-, 50-, 60-, and 80-ft. Standards include hydraulic raise and lower, power travel, end tension decks, and towing tongue. The 80 ft conveyor has optional 20 ft top folding tip section.

The Lattice Side Fold Radial Stacker is available in widths 24-, 30-, 26-, and 42-inches and in lengths of 80-, 100-, and 120-ft. Standards include hydraulic raise and lower, power travel, wrap drive, and towing tongue. Just like the Top Truss conveyor/stacker, CEC's radial stacker offers the optional 20 ft top folding tip. The swivel axle end can also turn wheels from tow position to radial position. Options available on both the Top Truss conveyor/stacker and the Lattice side fold radial stacker are TEFC motor, self-cleaning winged tail pulley, flotation tires, two-ply belting/220 lb tensile, Budd wheels, tail guard and drive guards, runs to 20° angle, receiving hopper with skirt boards, tows at legal height, pin connected undercarriages, rubber lagged head pulley, and pin up and down levels.

CEC also offers the Stack 'N Go conveyor/stacker. This machines is available in 60- and 70-ft lengths. Conveyor one feeds conveyor two,

which feeds conveyor three. The conveyors can be used separately or together. The bottom conveyor has lights, brakes, axles, tires, and fenders, as well as fifth wheel pull and mud flaps. The Stack 'N Go conveyor/stacker also comes with TEFC motor, rubber lagged head pulley, flotation tires, winged tail pulley, feed box, tail guard and drive guards, 35° idlers, axles offset for easy transport, tows at legal height, wheel conveyor sections non-radial, bolt on charging hopper, and air brakes. [www.ceccrusher.com](http://www.ceccrusher.com)

### Crusher Rental Sales

Crusher Rental's 36-in. x 60-ft stackable conveyor comes with standard equipment such as 15 hp, TEFC, 254 T Frame electric motor, 480 V, 60 Hz, 3 Phase, 1,760 RPM; TXT 425AT shaft-mount reducer with T/L bushing; motor sheave, 2B6.6 with T/L bushing; drive sheave, 2B5.8 with T/L bushing; B-58 V-belts; lagged head pulley with bushings and shaft; wing tail pulley with bushings and shaft; pillow blocks, roller bearing, 2-7/16-in. bore; CR&S Acme screw take up frames, 18-in. travel; troughing idlers, 5-in. diameter, CEMA "C" roller bearing with brackets; CR&S 5-ft long receiving hopper with 1/2 x 8-in. rubber flashing; and conveyor belting, two-ply, 3/16-in. x 1/16-in. covers.

The company also offers the 36-in. x 56-ft radial stacker. These stackers include heavy duty lattice frame; 25 hp, TEFC electric motor, Dodge S-R-M- V-belt drive and guard; lagged head pulley; wing tail pulley; Cema-sealed bearing troughing idlers; impact idlers in receiver section; receiver pivot plate; and mounted on single axle carrier with (four) 11 x 22.5 tires and rime, air brakes, king pin, manual raise and travel.

Crusher Rental also has a pit portable radial stacker with a 36 ft x 60 ft belt length. The heavy duty channel frame with square tube top frame and supports a 15 hp electric motor with shaft mount reducer, V-belt drive and guard; wing tail pulley; lagged

head pulley; two-ply rubber conveyor belting; pit portable carrier with manual raise and lower, pivot wheels for radial travel; 4 ft receiver section with bolt on wing extensions; pivot plate assembly; and tow hitch.

[www.crushboss.com](http://www.crushboss.com)

### Eagle Crusher

Eagle Crusher has jump conveyors or radial stackers. Its conveyors are manufactured to exact specifications and designed to keep up with the high volumes of material. All Eagle Crusher conveying systems are designed for years of trouble free service and backed by the company's parts and service group. Eagle offers three types of portable radial stackers. The first is the 30 in. x 50 ft with 24 in. deep truss frame, rigid axle with manual swivel wheels and 10:00 x 20 12-ply tires, manual raise and lower, gathering hopper, pintle hook, 15 hp, 1,800 RPM, TEFC, electric motor drive, pre-wired with 150 ft cable from tail (on-site portable only). The second is the 30 in. x 60 ft with 24 in. deep truss frame, rigid axle with manual swivel wheels, and 10:00 x 20, 12-ply tires, manual raise and lower, gathering hopper, pintle hook, 15 hp, 1,800 RPM, TEFC, electric motor drive, pre-wired with 150 ft of cable from tail. Eagle's third portable radial stacker is the 30 in. x 70 ft with 24 in. deep truss frame, rigid axle with manual swivel wheels and 10:00 x 20 12-ply tires, manual raise and lower,

gathering hopper, pintle hook, 20 hp, 1,00 RPM, TEFC electric motor drive, pre-wired with 100 ft cable from tail. [www.eaglecrusher.com](http://www.eaglecrusher.com)

### KPI-JCI

KPI-JCI's 48 in. x 150 ft Super-Stacker is said to be the largest road-portable telescoping conveyor on the market. Despite its 2,000 tons per hour capacity, it can still be packed up and hauled it away quickly and efficiently. The SuperStacker can handle most any job and offers desegregated stockpiling, which means more material that matches the spec, and also means no reblending and less discounting. Automatic discharge height adjustment means lower degradation due to decreased material impact. The SuperStacker has a heavy duty undercarriage which is essential for highway hauling. It is easy to set-up and tear-down, and has the optional Wizard Touch, an automated control system key to efficient stockpiling operation and produces a higher quality product.

KPI-JCI also offers the portable radial stacker available in standard sizes up to 42 in. x 150 ft. These stackers feature the top-fold conveyor found on the Series 13 and side-fold found on the Series 31 and offer power, belting, control, and towing options. Optional quick set-up provides portability and hydraulic options allow units to be powered off of other KPI-JCI equipment. Heavy duty con-



McCloskey feeder stackers are used in wood waste, bark, compost, and topsoil applications.

struction and high quality, off-the-shelf components are readily available. [www.kpijci.com](http://www.kpijci.com)

### McCloskey International

McCloskey feeder stackers are designed to efficiently stockpile bulk materials that would bridge and block conventional stackers. Used in applications such as large wood waste, bark, compost, and topsoil, the feeder stacker can be directly fed via large loaders and excavators. The feeder unit meters material onto the matched main belt, doing to job previously required a separate feeder and stacker unit. It hydraulically folds and travels as one unit, making set up and tear down easy.

Options include hydraulic landing gear, hydraulic wheel drive, and hydraulic top fold; 127 hp Cat C4.4 engine; 48 in. Chevron feed and main belt; remote stop, start, and reverse; 13.5 cubic yard hopper; option of open hopper, hydraulic tipping grid, or vibrating grid; optional secondary air-ride axle; and aggregate duty and wood waste/compost duty options.

McCloskey's newly designed 36 in. x 80 ft (914 mm x 24.4 m) stacker comes standard with a diesel power pack, radial axle, hydraulic top fold and hydraulic raise and lower. The McCloskey 36 x 80 stacker provides stockpiling capability that exceeds 32 ft (10 m) in height and a radial stock pile volume of 14,260 yd<sup>3</sup> (10,900 m<sup>3</sup>) at

180°. Options include belt scale, close coupled hydraulic drive, hydraulic wheel, air brakes, remote grease line kit, 30 hp/22 kW electric drive, and hydraulic axle jacks and landing gear.

Benefits include hydraulic top fold—straight forward hydraulic controls to fold and unfold, and raise and lower conveyor. The power unit is 48 hp/36 kW Tier III diesel drive. The belt speed has been designed for optimum efficiency and reduced belt load for longer life with larger capacity. Integrated pivot plate automatically adjusts to various operating heights, while the pivoting axle box allows wheels to radial to create radius stockpiles. McCloskey has also made the stacker operator friendly with accessible engine bays at ground level, universal user friendly controls throughout the McCloskey line, quick setup time, highly maneuverable on site, user friendly belt adjusters, and ground level grease points. [www.mccloskeyinternational.com](http://www.mccloskeyinternational.com)

### Metso Minerals

Metso's Nordberg LL conveyors are designed to link the Lokotrack primary crushing unit to further processing stages in mine and quarry operations. Nordberg LL conveyors carry the material crushed by the primary unit directly, or through a field conveyor, to secondary crushing. Each conveyor can be moved individually or as a com-

bination of two or three sections using a Nordberg LT or other mobile equipment normally present at the quarry. The mobility and flexibility of the Nordberg LL conveyors ensure production is interrupted for as short a time as possible when the Lokotrack and conveyors are moved. [www.metso-minerals.com](http://www.metso-minerals.com)

### Sandvik Mining & Construction

Sandvik stackers stockpile bulk materials in an efficient and orderly manner. Stationary or traveling, borne on rails or crawlers, they can be supplied in fixed, luffable or luffable-and-sleuable boom designs, with capacities from 150 to 20,000 tons per hour. The choice of design depends on factors such as the stacking method (Chevron, Windrow and Cone Shell) and size of the stockpile, the type of material, the required throughput and the demand for mobility. Tripper cars or tripper systems for transferring material from the yard conveyor to the stacker are considered part of the stacker.

**Luffable and Sleuable Stackers PS100-PS300:** This type of stacker is able to luff and slew the boom and designed to service stockpiles on both sides of the rails. The higher initial cost of this stacker is quickly recovered by economies gained from their flexible mode of operation, as well as their ability to layer and blend. Boom length can range from 10 m to more than 60 m, and the exact configuration, as well as the operational, will depend on the application. Three configurations are available, the PS100—Pylon Type, used for standard heavy-duty applications; PS200—Cantilevered Type, simple design and used for light-duty applications with low migration of center of gravity; and PS300—Rockers Type, to minimize migration of center of gravity in operation to allow for an economic rail gauge and to keep useable stockyard width at a maximum.

**Luffable Stackers PS400:** Luffable-only stackers are used for applications where the stockpile is required to be stacked from one side



The Sandvik PS100 luffable and sleuable stacker is used in standard, heavy duty applications.

only, with little or no demand for blending. The absence of a slewing mechanism makes them an economical option in the right applications. Boom length can range from 10 to more than 60 m, and the exact configuration, as well as the operational has, will depend on the application.

**Standard Stacking Conveyors HS Series: HS Series-Movable Type**—The standard range of movable stackers covers belt widths (650-, 800-, 1,000-, 1,200- and 1,400-mm) each having different lengths up to 40 m. The movable stacking conveyors have a typical capacity range of 300 to 2,800 tons per hour. A combination of movable feeder and stacking conveyor can be used to load barges or ships, or equal. **HS Series-Radial Type**—The standard range of radial stackers covers three belt widths (650-, 800-, and 1,000-mm) each having five different lengths (20-, 25-, 30-, 35-, and 40-m) for a typical capacity range of 200 to 1,200 tons per hour. Adopting of the stacker conveyor allows stockpiles to be more strategically placed, more quickly processed and, when there is a series of stackers, it can work faster and more efficiently than fixed conveyors.

To ensure an optimal and continuous flow of bulk materials at critical transfer points of all challenging applications, Sandvik provides tailor-made chute solutions with the newest design technology including discrete element method (DEM) for simulation of the material flow of dry and sticky materials as well as 3-D modeling. Stackers were originally manually controlled machines with no remote control. Modern machines from Sandvik are typically semi-automatic or fully automated, with parameters remotely set. The control system with its PLC (programmable logic controller) and HMI (human-machine interface) on the stackers allow a wide range of parameter settings and stacking options, and also offer clear display functions and a comfortable operator environment. [www.sandvik.com](http://www.sandvik.com)

### Superior Industries

Superior's TeleStacker conveyor can be used in a variety of applications. The company offers a large range of sizes and options, and from highly mobile to stationary and fixed. Standard has include a seal system that prevents belt sag in load zone, elimi-

nates spillage between belt and hopper skirting, and is available in several configurations. Another standard feature is the Navigator Return Trainer. It provides continuous belt alignment, no damaging side contact with belt, and flange mount bearings housed in center to avoid contamination.

## C&D RECYCLING SYSTEMS



WASTE EXPO  
May 4 - 6, 2010  
Atlanta, GA  
Visit us booth # 2261

### CUSTOM-DESIGNED & BUILT FOR YOUR OPERATION



Contact us today! We'll listen and work with you to meet your objectives!

1-800-267-7574

[info@erinrecycling.com](mailto:info@erinrecycling.com)

[ERINRECYCLING.COM](http://ERINRECYCLING.COM)

**Erin**  
BY PREMIER TECH



Superior's TeleStacker conveyor is available in four model-types and can be used in a variety of applications.

Superior's TeleStacker conveyors also offer several options including galvanized steel, telescoping discharge chutes, FB undercarriage for strength and support, conveyor cover and Stinger conveyor cover, Exterra belt cleaner, four wheel drive, hydraulic landing jacks, Moxie rolls, Sentinel belt speed sensors, Sonicscout material sensors, rockguards, Urathon return rolls, walkways, wireless remote system, and spray.

Four model-types are available. The FD Axle has been designed for highly mobile applications. It offers quick set up between transport and stockpile modes, enclosed hydraulic planetary wheel drive, tandem walking beam suspension, and is road portable. The Swing Axle has been designed for limited mobility. It offers load equalizing walking beam arrangement, hydraulic power travel, and is also road portable. The Pit Portable has been designed for high capacity, high tonnage applications and stationary applications. The Low Profile eliminates feed conveyor between portable plant and TeleStacker conveyor. It minimizes the number of loads in transport and offers faster, easier relocation with quick change fifth wheel hitch. It also reduces space requirements

[www.superior-ind.com](http://www.superior-ind.com)

#### Terex Corp.

Standard on the Terex Finlay 426 and 532 stockpiler are hydraulic drive, conveyor hydraulic raise/lower (fitted to

hydraulic drive only), radial hubs, lagged top end drum, heavy three-ply belt, and disc return rollers. Options include electric drive (not including electric control panel, remote stops—two off required on site wiring), hydraulic raise/lower on electric conveyors, hydraulic powered hub, Chevron belt, variable speed on conveyor, rubber or steel lined feedboot (bolt on), low level feedboot, low level pivot stand, electric/hydraulic drive (motor size depends on specific application), and diesel/hydraulic drive (Deutz Air Cooled). [www.terexfinlay.com](http://www.terexfinlay.com)

#### Trio Engineered

Trio supplies a diverse range of conveyors for applications ranging from a single 18 in. belt feeder conveyor to complete plants with overland systems. The company's line includes stackers, radials, overland and specialty convey-

ors. Trio can deliver rugged units with short lead-times and competitive pricing, and offer many modular designs for shipment to global destinations.

Standards include: applications from 18 inch belt feeder conveyor to complete plants with overland systems; stackables; power radial stackers; grasshopper field conveyors; 12-, 24-, 30-, 36-, and 48-in. truss; pit-portable; lowest total cost of ownership for purchase, service parts, maintenance and transportation; short lead-times; and design platform is based on well known principles with a proven track record in both aggregate and mining applications. The Trio Cone design will endure normal abuse of the day to day operation and will keep running under moderate overloads until a shut down is scheduled. Design automation friendly and can easily be integrated into any automation scheme of an existing plant, and designed with both operation and maintenance personnel in mind. They are easy to operate, maintain, troubleshoot, and repair. Additional benefits include one-year warranty, continuing service commitment, global distribution, rapid delivery, off-the-shelf parts, advanced materials and processes, improved service life of critical components, and lower maintenance and operating costs.

TRIO conveyor systems can be delivered completely assembled or packed in kit form. [www.trioproductions.com](http://www.trioproductions.com)



Terex offers two stockpiler options—the 426 and the 532.

Copyright of C&D World is the property of Mining Media Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.