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Metal Detection

Reliable metal detection/rejection is easily metal detection inside the processing plant Read more on page 6



Weighing Spotlight

For PLC systems that require weight data from a scale, compact SCT transmitters from Rice Lake Weighing deliver equivaler signal-conditioning function. Read more on page 16

Drying Spotlight

Exair's 1 NPT stainless steel Super Air Nozzle delivers strong blowing force for blow-off, cooling, and drying applications Read more on page 26





Particle Size & Shape Analyzer with Advanced **Software**

The Haver Tyler CPA 2-1 is a photo-optical particle that is ideally designed

non-agglomerating particles. What separates the CPA 2-1 technology from other particle analyzers is the exclusive Haver software that performs a correlation calculation, matching CPA 2-1 raw data to traditional test sieving results. The CPA 2-1 counts and measures, in real time, each individual particle of a representative material to fall past a high-resolution camera lens that is taking provides consistent, repeatable results. W.S. Tyler, Mentor, OH 800-321-6188 www.wstyler.com

Cyclomix Speeds. Simplifies Cosmetic Production

Conventional four-step producrequiring multiple machines, is being replaced by single machine



Lower investment costs, reduced cleaning and maintethis change across the cosmetics industry. The intensive but gentle mixing action of the Cyclomix is ideally suited leaves little product residue within the unit after discharge making the machine easy to clean and improving yields. Hosokawa Micron Powder Systems, Summit, NJ

> com



for daily equipment reviews, industry news updates, and



¹² CaseStudy

Hopkinsville Elevator Gets Double Shot from Texas Shaker Vibrating Screen

Most people don't think about clean corn when they pour a cocktail. But that is not the case at Hopkinsville Elevator in Hopkinsville, KY, where employees are thinking about clean corn 24 hours a day, 7 days a week. Hopkinsville provides one of the three ingredients used in the production of whiskey: clean whole corn.

Hopkinsville Elevator began in 1968, when a small group of farmers developed plans for the forming of Hopkinsville Elevator as a cooperative. Approximately 180 investors proceeded to buy an existing grain facility to serve their needs. This facility had served the area for a number of years and had a capacity of 634,000 bushels. From this recent beginning the elevator had grown in membership to more than 2300 patrons in 34 surrounding counties. The elevator system has a combined storage capacity of over 15 million bushels, with additional locations at South Union, Russellville, Casky, and Guthrie in



The 6x10-ft, 8-deck Texas Shaker at Hopkinsville Elevator

Kentucky, and a bargeloading facility at Clarksville, TN.

In 2011, the elevator set out to double the cooperatives cleaning capacity by adding a new grain cleaner at the South Union location. The company chose a Texas

Shaker vi-

brating screen from Triple/S Dynamics for its distillers' corn production. Triple/S sized a 6x10-ft, eightdeck arranged to scalp cob pieces and reduce F.M. to less than 1%, at 10,000 bushels/hr of dry shelled corn. The 6x10-ft screen decks are in four parallel sets of two, scalping through ½-in.-diam round holes and cleaning on ¼-in. clear opening woven wire



Feed Inlet - Feed end of the Texas Shaker

screens. The dual purpose screen scalps corn across 240 sq ft of screen area, and cleans across 240 sq ft.

The incoming stream is automatically divided into four equal streams discharging onto the scalping screens. The corn passes through the ½-in.-diam scalping screen that retains the cob pieces, and over the ¼-in. cleaning screen to separate the foreign

The coarse product and fines discharged from each of the four sets are brought together and discharged through three separate chutes oversize, product, and undersize.

material and chips. The coarse product and fines discharged from each of the four sets are brought together and discharged through three separate chutes – oversize, product, and undersize.

The Texas Shaker oscillates in a straight horizontal line, 1 in. at 475 rpm. The gentle action is best for efficient screening. The screen decks are inclined downward at six degrees. Self-cleaning, removable ball decks resist blinding. Live rubber balls confined in grids under the screens bounce against the screens to prevent blinding with pieces getting stuck in the openings. The attached vibrator module comprises two parallel gear-coupled unbalanced shafts, which counter-rotate to generate a straight-line inertia force. This makes it self-balancing; the inertia forces are absorbed in the motion of the machine. The shafts are mounted in spherical roller bearings and completely enclosed. Texas Shaker models are fully enclosed and dust-tight.

The Texas Shaker went into Hopkinsville in July of 2011. When asked if the new cleaner had met the company's expectations, Andy Newton of Hopkinsville said, "No. It is better than we expected. It's cleaning



Feed and silo - Feed system including spreader box



Looking down at the Texas Shaker during production (same unit from side view)

out more fines than we ever anticipated and it is exceeding the capacity promised by Triple/S."

With over a century of applications experience, Triple/S Dynamics (Dallas, TX) is a leading manufacturer of conveying, screening, and separating equipment for the processing industries. Its diverse product line includes vibrating equipment, components, and systems, each tailored to the specific customer and their application. For more information, visit www.sssdynamics.com.



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Dilute- and Dense-Phase Pneumatic Transfer Systems

These dilute- and dense-phase pneumatic transfer systems include vacuum, pressure, and vacuum-pressure systems and equipment. The selection of the correct style of transfer system is critical to insure reliable plant operations. System design is always engineered to specific material and transfer layout properties. Smoot analyzes your process and facility, and then tests your material in its fully equipped test facility. The company then designs and builds a system functionally integrated into your operation.

Smoot Company, Inc., Kansas City, KS 800-748-7000 www.magnumsystems.com



FE35 Tablet Press

The FE35 tablet press offers high productivity and fast changeover time. The flexible, single rotary tablet press can be fitted with up to 51 stations, enabling the production of up to 367,000 tablets per hour. The machine is clad in easily-detachable, FDA-certified highperformance polymer panels, and offers 360-degree access. All parts that come into contact with products are stainless steel, and the machine's geometrically optimized surfaces offer easiest-possible handling and fast cleaning. Other features include: an innovative filling system for easy feeding and an increase in product output - even with demanding product mixtures; a new rotor design for maximum yields, minimum product loss, and easy changeover; new compression stations for fast format and product changeover; an internal tablet discharge for guaranteed uninterrupted production; a flexible vacuum cleaning system for short cleaning cycles. Fette Compacting America Inc., Rockaway, NJ 973-586-8722 www.fette-compacting-america.com

ProductFocus Screening, Classifying, & Separation

Rota-Sieve Centrifugal Sifter

Engineered to meet high-capacity sifting for bulk load-in/load out and larger process applications, the Rota-Sieve proves its cost-efficiency in the handling of a wide variety of powder, granules, agglomerates, and other free-flowing materials. The combination of high-centrifugal force and blade spreading action reduces binding problems. **Prater-Sterling,** Bolingbrook, IL 630-759-9595 www.prater-sterling.com



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