

THE FEED



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QUARTER 1

The official magazine of KPI-JCI and Astec Mobile Screens

A LETTER FROM THE PRESIDENT



I would like to thank the entire dealer network for attending the latest National Dealer Conference held this past September in Davenport, IA. As always, the conference was filled with informative content from the factories, marketing, sales and service. We have continued to expand on the best practices from the dealership and end-user perspective, which I believe is always informative and enlightening. This year was really meaningful to me as it was first time Astec Mobile Screens hosted the event.

Many of you have been to the Astec Mobile Screens factory in the past, and hopefully you recognize the changes we have been through over the past few years. For those visiting for the first time, you were able to see our capabilities. This meant a lot to everyone at Astec Mobile Screens and it gave our associates the opportunity to show what our abilities are, not only from our manufacturing capabilities but from an application, engineering and product support standpoint. The opportunity to have live demonstration of equipment at a local quarry showing the new Multi-Frequency screen and the GT104 in operation was another new addition to the event. I've always been a fan of seeing equipment run in real-time and the challenges and opportunities it brings.

Overall NDC showed me once again that we have the best dealer network in the industry. And year after year we continue to improve and strengthen this network. Once again, thank you for attending, and we look forward to hosting this event again.

Timothy Gougeon

THE FEED

The Feed is a quarterly magazine designed to bring awareness to the latest equipment offerings, customer and dealer success stories and upcoming industry and factory events from Kolberg-Pioneer, Johnson Crushers International and Astec Mobile Screens.

To report an error, subscribe or suggest a story idea, please contact:

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ABOUT

Kolberg-Pioneer, Inc., Johnson Crushers International, Inc. and Astec Mobile Screens, Inc. of Astec Industries (NASDAQ: ASTE) are worldwide leaders in manufacturing equipment for the aggregate, construction and recycling industries. As innovative, high-integrity manufacturers, the three companies develop quality, state-of-the-art products and have the ability to engineer custom products because of a highly-qualified sales application and engineering staff. Kolberg-Pioneer, Inc. manufactures its products in Yankton, South Dakota, Johnson Crushers International, Inc. in Eugene, Oregon and Astec Mobile Screens, Inc. in Sterling, Illinois. For more information, call (605) 668-2524 or visit www.kpijci.com.

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UPCOMING EVENTS

FEBRUARY

Feb. 22-24

National Demolition Association
Austin, TX

Feb. 27- March 1

Jaw and VSI PRO Service Training
Kolberg-Pioneer, Inc.
Yankton, SD

MARCH

March 6-8

Agg1/World of Asphalt Expo
Huston, TX

March 19-21

Material Handling Product and Application
Kolberg-Pioneer, Inc.
Yankton, SD

APRIL

April 3-5

Mobile Track and Crushing PRO Service Training
Kolberg-Pioneer, Inc.
Yankton, SD

April 23-25

Mobile Crushing and Screening Product and Application
Astec Mobile Screens
Sterling, IL

APPLICATION ANGLE

It's all about perspective. It's all about results.



A contractor looking to cut costs while recycling concrete and asphalt pavement, producing approximately one million tons per year, invested in the new GT440 Hybrid and GT205 Hybrid Multi-Frequency Screen.

THE OBJECTIVE

The contractor typically processes recycled asphalt and concrete from highway construction. They wanted to keep a highly-mobile track-mounted system, but wanted the benefits of running off of electric power. However, they also wanted to retain the option to run off of diesel when running in more remote areas. The recycled material included slabs of up to 20 inches. The concrete included rebar wider than an inch in diameter.

THE SOLUTION

The contractor purchased the new GT440 Hybrid and GT205 Hybrid Multi-Frequency plants to run in closed circuit and produce two finished products on site. Both machines can run on electric or diesel power. The GT440 Hybrid features a 42 x 40 Andreas horizontal shaft impactor and a state-of-the-art, patent-pending hybrid power system. The GT205 Hybrid Multi-Frequency features a 5 x 20 screen box with a high-frequency bottom deck, providing up to 50% more capacity.

THE FIGURES

When using a traditional track-mounted set up, the contractor was using about 24 gallons of fuel and around 1.3 gallons of DEF per hour running at 90% engine load. This amounted to approximately \$58 an hour cost. Running under the same conditions, the new track spread was operating on about \$41 an hour cost for electricity. This resulted in a \$17 an hour savings for power. Over the course of a standard season of 3,000 hours, this means a savings of over \$51,000. In some areas, the savings to switching from electric from diesel can result in over \$42 an hour.

Operating on electric power also allows for better performance in dusty applications—especially asphalt—reduced service costs, reduced noise and allows the contractor to operate in areas with tighter environmental regulations.

THE BOTTOM LINE



51K

Annual decrease in operating costs



GT440 HYBRID

- Mobile 42 X 40 horizontal shaft impactor (HSI) with power source options via hybrid technology.
- 30% more uptime with continuous crushing and tracking.
- Manage operating costs effectively using electric or diesel power when necessary.
- On-site mobility and quick set-up provide more flexibility.
- Maximize performance and production with proven Overload Protection System.



GT205 HYBRID MULTI-FREQUENCY

- High performance 5 X 20 screen designed for aggregate, recycle and industrial operations.
- Up to 50% higher screening capacity on bottom deck with multi-frequency technology.
- Manage operating costs effectively with the option of electric or diesel power when necessary.
- Simple controls create an easy-to-operate machine increasing uptime.
- Full line of mobile screening plants give on-site flexibility for every application.

CHANGING THE GAME

Couch Aggregates
Doubles Down on GT205
Multi-Frequency Screen

Todd Barnes has two rules for his wash plant at Couch Aggregates' sand and gravel operation: More pay product, less fine sand waste.

Barnes, who is plant manager for the dry mine facility in Jackson, Alabama, fights a daily battle against the mine's high-moisture, clay-rich aggregate and organic material. The unwanted sand and woody waste are costly barriers to maximum productivity, adding unnecessary expense from wear, fuel and handling of material.

In early 2017, Couch Aggregates conducted side-by-side testing of two industry-leading mobile screening plants. The company ultimately chose to buy two GT205 Multi-Frequency Screening Plants from Astec Mobile Screens, which gave it the ability to scalp off the oversize rocks and organic material, remove the unwanted fine material and capture an intermediate product of ¼" by 2" rock.

The GT205 Multi-Frequency Screen is a 5' x 20', track-mounted plant featuring a conventional screen on the top deck and high-frequency screen on the bottom deck. The unique combination of high frequency and conventional screens in one self-contained unit puts more energy into the screening process, creating a powerful machine capable of increasing capacity by up to 50 percent on the bottom deck.

"It's a game changer in the sand and gravel market," said Zack Gradwell, Georgia sales manager for Stone Equipment Company, who worked with Couch Aggregates to help the company find the perfect screening tool for its operation.

"The GT205 Multi-Frequency Screen handles nasty material better than any screen I've seen. We've had competitive units out here and none of them were able to put out the production we've been able to put out in this sandy, wet, clay-rich material."

Couch Aggregates is a leading producer of fine and coarse aggregates in Alabama and northwest Florida. The company has operations in Jackson, Tuscaloosa, Montgomery and Dothan, Alabama, as well as operations in Panama City and Walton County, Florida. It supplies materials for a wide variety of markets, including ready-mix and asphalt producers, general contractors, landscapers, masons, golf courses and grading contractors.

When the company began looking at equipment that could relieve the burden on its main wash plant, it chose KPI-JCI and Astec Mobile Screens because one of the company's partners had experience with Astec Industries equipment and Stone Equipment Company.

"We already had a pre-screener on site, and so we had it go head-to-head with the GT205 Multi-Frequency Screening Plant to test its abilities," Barnes said. "The multi-frequency screening plant outperformed our existing plant, allowing us to get more of a usable product to our washing area and leave a lot of the material that we don't sell."

Gradwell said the previous screening unit Couch Aggregates was using – a comparable 5' x 20' mobile screening plant from an industry-leading manufacturer –

was producing 80-90 TPH, whereas the GT250 Multi-Frequency Screen produced 135-140 TPH in the same conditions. But the real difference lay in the cleanliness of the product.

"The GT205 not only produced 60 percent more product, but the material was also so much cleaner," he said. "The competitive unit was able to get up to almost 100 TPH, but it just became real dirty with a lot of blinding and runover – basically just a lot of unwanted sand, which is not what they were looking to achieve."

By using the GT205 Multi-Frequency Screen, Couch Aggregates increased production by 20 percent and reduced unwanted fine material going to the settling ponds by 10-15 percent, in addition to cutting down on fuel costs and increasing handling efficiency by up to 300 percent, Barnes said.

"The screen on the GT205 plant has outperformed the other ones we've tried," Barnes said. "It's a fairly simple design, which makes it operator friendly. They're dependable machines that give you very little trouble. You come in the morning, check everything out on them, make sure everything is topped off and tightened down, and you go to work with them and they work all day."

Couch Aggregates' Jackson operation runs year-round with a team of 26-32 people and produces about 700,000 tons per year, Barnes said. Out of that material, 60 percent is a #67 aggregate, 20 percent is a pea gravel and 20 percent is oversize aggregate that is sold as a metallurgical rock.

The material is mostly composed





of a heavy iron stone, or sandstone. The material starts as a 60/40 sand-and-gravel mix, and Barnes seeks to achieve a 40/60 sand-to-gravel mix before the material is run through the wash plant. The larger material is scalped off to prevent damage to the wash plant. Some of the material has a heavy clay base, which tends to stick together, so Barnes and his team work to screen out the larger clumps of clay to just get the usable material they need for the wash plant.

“We deal with a couple of different clay bases in various spots at the mine,” Barnes said. “Some of it is a blue-gray, thick, gummy clay. Some of it is a chalky clay, and that’s scattered throughout the whole job site. It changes about every 100 feet, so you’ll never dig in the same substance twice. These are just obstacles we have to learn to overcome.”

Barnes also combats unfavorable Alabama weather – long, hot summers, cold, short winters and an abundance of rain year-round.

“It rains a lot here, and whenever the material gets wet, it’s harder for us to do some of the dry screening,” Barnes said. “We try to keep a good pile of material on higher ground so that whenever it does rain, it has a way of draining out so that we can keep the dry material going through the screens. But the wet material actually does really well with the GT205”

The operation’s production begins by clearing the land, then bringing in the screening plants and placing them as close as possible to the mining operation. Since the GT205 Multi-Frequency Screen is portable

The GT205 Multi-Frequency Screen handles nasty material better than any screen I’ve seen. We’ve had competitive units out here and none of them were able to put out the production we’ve been able to put out in this sandy, wet, clay-rich material.

Zack Gradwell, Georgia sales manager for Stone Equipment Company

and self-contained, it’s easy for Barnes to move around in the pit, going from one side of the quarry to the next in a matter of minutes, he said.

After mining the rock, the material is pre-screened to remove as much sand as possible from the product, which is then run through the wash plant. The product is separated into four categories: sand, pea gravel, #67 and #57. From there, the sized material is hauled to a site on the river and conveyed onto a barge, where it is delivered all along the East Coast and down into the Florida Panhandle.

The GT205 is the first multi-frequency screen to hit the market,

and was launched in 2015 by KPI-JCI and Astec Mobile Screens. Multi-frequency screens blend the technology of conventional incline and high frequency screens to create a screening tool that increases fines separation, according to Stephen Whyte, Fast Trax and Global Track product manager for KPI-JCI and Astec Mobile Screens.

Conventional incline screens function by applying a lower speed (900-950 RPM) and increased stroke (1/4”-3/8”) to the entire screen box to convey the material down the screen and maintain consistent bed depth. This applies up to five g’s of energy into the material. High frequency screens apply high speed vibration (3,600-4,200 RPM) directly to the screen media to allow for increased stratification and separation of material.

The GT205 Multi-Frequency Screen combines the two screening theories to produce a one-of-a-kind vibration that applies 15 g’s of energy to the bottom screen deck and creates a versatile screen prepared to tackle any application.

“The GT205 Multi-Frequency Screen allows producers to process finer materials with higher moisture content that no conventional screen could process, all while being operated at a lower angle than a high frequency screen,” Whyte said.

Barnes said his team typically pushes at least 1,500 tons per day through the screening plants, which allows them to get between 800-1,000 tons of usable material to take to the wash plant. They keep the remaining 500-700 tons

of unusable material in the mining area to use for reclamation instead of hauling it to the wash plant and straight back again.

“These guys push the machines really hard,” Gradwell said. “This is a tough, robust machine. These plants run sometimes 24 hours a day, seven days a week. This machine stands up to some really, really high temperatures, some really high-productive scenarios and situations, and it just keeps producing.”

In addition to the increased productivity and cleanliness of the material, Barnes said he appreciates the simplified design and ease of maintenance, as well as the assurance of having parts and service readily available.

“Changing the screens out is really easy. I can usually take a greenhorn and put him with a veteran and they pick it up real quick,” he said. “It doesn’t take hours and hours to show someone how to operate the machine or how to actually change out the screens.”

“It’s also a lot easier to get parts than other machines we’ve dealt with in the past,” Barnes said. “With other machines, the parts all came from overseas, and we’d be down weeks at a time waiting on a simple part. That’s money we’re losing. The GT205 is American-made, and its parts are readily available, which is important to us because downtime is everything. We’ve also got faith in our partners at Stone. If we have a problem, it doesn’t matter if they’re on vacation or not, they’re readily available to pick up their phone and get the problem fixed to keep you going.”

2018 Product and Application Schools

Work with our experts to gain the product and application knowledge to successfully market and sell KPI-JCI and Astec Mobile Screens equipment. Full agendas coming soon!

March 18 – 21

Material Handling Product and Application

Kolberg-Pioneer | Yankton, SD



April 23 – 25

Mobile Crushing and Screening Product Application

Astec Mobile Screens | Sterling, IL



2018 Service Training Schedule



January 30 - February 1

Washing and Classifying
700 W. 21st St. • Yankton, SD 57078
Early Bird Registration: January 12

This three-day course will educate attendees on the operation, maintenance, and application processes for a variety of washing and classifying equipment including sand classifying tanks, log washers, coarse material washers, blademills, sand screws, Series 9000 fines recovery systems and material handling equipment.

February 27 - March 1

Jaw & VSI
700 W. 21st St. • Yankton, SD 57078
Early Bird Registration: February 9

This three-day course will educate attendees on the advanced tear down, maintenance, and operation of the Pioneer Jaw Crusher and vertical shaft impactor. Participants will receive hands-on assembly training as well as classroom education consisting of wear component replacement and adjustments, basic lubrication and equipment troubleshooting.

April 3 - 5

Mobile Track Crushing Level I
700 W. 21st St. • Yankton, SD 57078
Early Bird Registration: March 16

Course Prerequisite: Fewer than two years worked on KPI track-mounted equipment.
This three-day course will educate attendees on the basic set-up, operation and maintenance of all **KPI track-mounted equipment**. Participants will also learn how to operate the equipment efficiently, effectively and economically. This course will include classroom and hands-on training.

April 3 - 5

Mobile Track Crushing Level II
700 W. 21st St. • Yankton, SD 57078
Early Bird Registration: March 16

Course Prerequisite: Two or more years worked on KPI track-mounted equipment.
This three-day course will educate attendees on how to troubleshoot advanced electrical and hydraulic system issues on **KPI track-mounted equipment**. Participants will receive classroom and hands-on training.

July 31 - August 2 or August 7 - 9

Cone Crushing & Screening
86470 Franklin Blvd. • Eugene, OR 97405
Early Bird Registration: July 13 or July 20

This three-day course will educate attendees on how to assemble, disassemble, operate and maintain the Kodiak® Plus Cone Crusher, Combo™ Screen and triple-shaft horizontal screen. Participants will receive hands-on training as well as classroom education. The course will also review the new KCS control system, which replaced the MILO control system.

August 10

Mobile Crushing & Screening
86470 Franklin Blvd. • Eugene, OR 97405
Early Bird Registration: July 20

This one-day course will educate attendees on the set-up, operation, and maintenance of **JCI track-mounted equipment** - including cone and screen plants- and their related control systems (JMG and KCS). Participants will also do extensive schematic reading on both hydraulic and electrical systems. In addition, attendees will participate in troubleshooting and resolving fault scenarios in both the classroom and manufacturing facility.

October 23 - 25

Mobile & High Frequency Screens
2704 West LeFevre Road • Sterling, IL 61081
Early Bird Registration: October 5

This three-day course will educate attendees on how to safely prepare, operate, and maintain **Astec Mobile Screens** equipment. Participants will receive hands-on training, working with full-scale high frequency screens, ProSizer® RAP processing plants and track-mounted screening plants from Astec Mobile Screens.

December 4 - 6

Service Application
700 W. 21st St. • Yankton, SD 57078
Early Bird Registration: November 16

This three-day classroom course will provide a basic understanding of machine application capabilities, operational parameters and troubleshooting misapplications for crushing and screening equipment. The course objective is to educate proper application as it translates to the root cause of mechanical interruptions and problem prevention.





FILTER KITS NOW AVAILABLE FOR KOLBERG-PIONEER MOBILE EQUIPMENT

Kolberg-Pioneer, Inc. (KPI), has released new filter kits for all mobile equipment.

The new filter kits will further improve engine performance in asphalt and other dusty environments. “Our equipment is well-suited for RAP applications, these filters allow us to build on that strength for even better performance,” says Tim Harms, product manager for crushing and screening products.

The filter kits cover all access doors and openings. They can

be easily retrofitted to any model and serial number. The filter media is easily replaceable using a simple retention system with positive locking pins and clips. The media can also be purchased in bulk.

To learn more about these kits or Kolberg-Pioneer mobile equipment, contact Tim Harms. Tim can be reached at timharms@kolbergpioneer.com.

AEM ANNOUNCES ‘I MAKE AMERICA’ AWARD WINNERS

Kolberg-Pioneer, Inc. (KPI), Johnson Crushers International, Inc. (JCI) and Astec Mobile Screens, Inc. are among a small group of companies being recognized by the Association of Equipment Manufacturers (AEM) for their advocacy efforts and participation in the ‘I Make America’ campaign.

KPI-JCI and Astec Mobile Screens participated in a number of advocacy acts including contacting members of Congress and other local, state, and federal government officials to discuss industry priorities and issues. All three companies also hosted regional or national legislators at their facilities to showcase the importance of the ‘I Make America’ campaign. In addition, representatives from KPI-JCI and Astec Mobile Screens attended the AEM Annual Conference to show their support for the campaign.

According to the Association of Equipment Manufacturers, ‘I Make America’ is driven by pro-manufacturing policy priorities, including: reforming our nation’s tax code, modernizing America’s transportation infrastructure, protecting agricultural production, increasing U.S. exports,



and developing domestic energy sources to fuel America’s economic growth.

“As an industry leader, we are thrilled to be part of a movement that will help drive our economy forward and create jobs. ‘I Make America’ allows us to come together with other manufacturers to create a powerful, collective voice and to educate elected officials about the equipment manufacturing industry,” Jeff Elliott, Group Vice President, Astec Aggregate and Mining, says.

To learn more about the ‘I Make America’ campaign, visit www.imakeamerica.com.

ANDERSON HIRED AS MARKETING COMMUNICATIONS SPECIALIST

Kolberg-Pioneer, Inc. (KPI), Johnson Crushers International (JCI) and Astec Mobile Screens have hired Holly Anderson as marketing communications specialist.

In this position, Anderson will be working to successfully develop and execute internal and external communication programs to promote KPI-JCI and Astec Mobile Screens products and services through social media, industry publications, email and other channels.

Anderson graduated from the University of South Dakota with a degree in Strategic Communication (media and journalism) with a marketing emphasis.

“Holly’s media background will expand our ability to create compelling content that tells the extraordinary stories of our customers, and showcases our innovative products

and services,” Daniel Filsinger, Customer Development Manager, said.

Holly Anderson can be reached by emailing her at hollyanderson@kpijci.com.



SCHMIDTLEIN HIRED AS CHANNEL DEVELOPMENT MANAGER



Kolberg-Pioneer, Inc. (KPI), Johnson Crushers International (JCI) and Astec Mobile Screens have hired Joe Schmittlein as channel development manager.

In this position, Joe will be responsible for working with KPI-JCI and Astec Mobile Screens subsidiaries to successfully develop and execute market channel strategies and programs to promote its products and services.

Joe has been active in the construction equipment industry with over twelve years of management experience, as both a contractor and distributor.

“Joe will play a pivotal role in the development of everything from sales to service,” Ron Earl, Vice President, Sales & Marketing said. “His extensive background working as a distributor will provide a unique perspective and valuable input to our group.”

Joe Schmittlein can be reached by emailing him at joeschmittlein@kpijci.com.

KING HIRED AS WARRANTY AND CUSTOMER SERVICE SPECIALIST

Kolberg- Pioneer, Inc. (KPI) has hired Adam King as warranty and customer service specialist.

In this position, King will develop and coordinate quality assurance and warranty activities to ensure that Kolberg Pioneer, Inc.’s products and services are produced correctly and represented properly.

Adam King can be reached by emailing him at adamking@kpijci.com.

KPI-JCI AND ASTEC MOBILE SCREENS RELEASE DROP-IN CARBIDES FOR VSI



Drop-In carbides are now available for all models of vertical shaft impactors (VSI) from Kolberg-Pioneer, Inc. (KPI).

The new industry-standard drop-in carbide wear parts will significantly decrease downtime required for service and maintenance.

“We place a huge priority on the ease and quickness of maintenance on all of our products,” said Tim Harms, product manager for crushing and screening products. “We understand

that every second spent down drains valuable profits from our customers. The new carbides cut replacement time to around 20% of what it is with other solutions.”

The drop-in carbides can be retrofitted into existing VSI crushers from KPI.

To learn more about the drop-in carbides or crushing and screening equipment from KPI, contact Tim Harms. Tim can be reached at timharms@kolbergpioneer.com.



COLUMBUS EQUIPMENT COMPANY ANNOUNCED AS NEW DEALER IN OHIO

Kolberg-Pioneer, Inc. (KPI), Johnson Crushers International, Inc. (JCI) and Astec Mobile Screens, Inc. have announced Columbus Equipment Company (CEC) as a new dealer of mobile crushing and screening equipment. CEC will market, sell and service KPI-JCI and Astec Mobile Screens products throughout the state of Ohio.

“We are very excited to have Columbus Equipment join our distributor network,” said Ron Earl, Vice President, Sales & Marketing. “For over sixty years CEC has offered excellent product support for its customers and has several full-service

locations across the state of Ohio that will now be stocking our equipment and parts.”

Established in 1952, Columbus Equipment Company is headquartered in Columbus, OH with additional branches in Toledo, Cincinnati, Richfield, Cadis, Dayton, Massillon, Zanesville, Painesville, and Piketon. CEC is an independent heavy equipment distributor, offering construction, mining, paving, and lifting equipment.

For more information about Columbus Equipment Company, visit their website at www.columbusequipment.com.

NATIONAL DEALER CONFERENCE

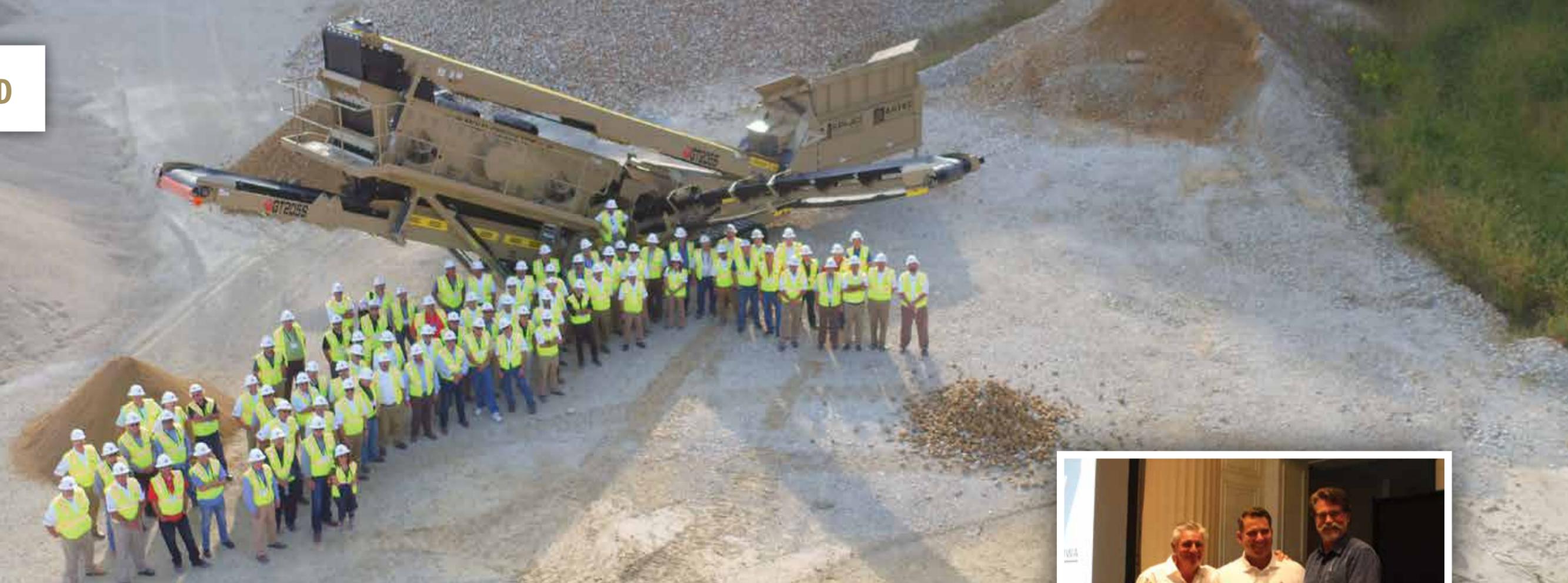
Davenport, Iowa



This year Kolberg-Pioneer, Johnson Crushers International and Astec Mobile Screens held their National Dealer Conference (NDC) in Davenport, Iowa. NDC provides the group of companies and their dealers the opportunity to exchange valuable information with peers and top professionals in the industry. The group of companies discussed opportunities for the industry, current equipment technology and how their equipment offering can help the dealers expand in new business opportunities.



NDC CONTINUED



This year, the company also featured an equipment expo and factory tour at Astec Mobile Screens, as well as two live demos of the GT104 scalper and GT205 Multi-Frequency track screens.



CLOSE QUARTERS

How a compact but powerful
plant made all the difference



Making the trek up the steep, mountainous terrain of Tillamook, Oregon, is no easy feat – especially when you’re maneuvering 111,000 pounds of solid iron and steel.

The narrow, winding logging roads and tight corners make hauling equipment a serious challenge for contractors who crush base for roads used by logging mills, timber companies and others in the forestry industry.

For Ron Braxling, owner of Braxling & Braxling, equipment size became the primary consideration when updating his old rubber tire plant. With roughly 20 jobs performed annually for the forestry industry, he needed a compact but powerful plant that would allow him to easily move from location to location, crush within a tight footprint, handle diverse types of difficult material and make a variety of products, all while meeting a stringent state spec.

“We have different needs than many contractors, as we don’t just easily pull into a quarry and start crushing,” he said. “Logging roads typically follow the outside of the hillside, and there are natural barriers and restrictions because of the culverts and streams you encounter. That poses challenges when you are trying to haul a crusher to get to the pit.”

“Not to mention, we often encounter material that is marginal,” he added. “We might process clay or stickier material – we don’t go into many environments where we consistently have good, hard basalt rock. We have to make

sure to mix that material up for a high-quality, consistent end product

Braxling found his answer for a compact but high-performing crusher in the GT200CC and FT200CC, two track-mounted, closed-circuited cone plants from Johnson Crushers International (KPI-JCI and Astec Mobile Screens). “We were the first contractors in North America to try the GT200CC after its launch,” he said. “JCI has been so good to work with. They ask for feedback regularly and look for things to improve to better meet our needs, and work with us to implement those design changes.”

BUILT ON PASSION

Braxling & Braxling is a second-generation contracting company serving all of northwest Oregon. Started in 1961 by Ron’s father, Art, Braxling & Braxling was built on a passion for hauling materials and working in the woods. Today, the company has approximately 30 employees and is one of the leading contractors in the Oregon forestry industry.

In addition to their mobile contracting services, Braxling & Braxling also owns two commercial quarries in Newport and Tillamook. The company primarily makes road base products including ¾”, 1”, 1-1/2”, 3” and 4-6”, as well as concrete recycle material.

Braxling has spent the past three years investing in track-mounted equipment from KPI-JCI and Astec Mobile Screens, selecting the equipment for its mobility, performance capabilities and user-friendly design.

The GT200CC uses a 1200LS Cone Crusher and is capable of producing up to 385 tons per hour. Its slightly bigger cousin, the FT200CC, is still just 12’ by 61’ ¾” long, and features a Kodiak Plus® K200+ Cone Crusher, with a capacity of up to 400 tons per hour.

Both cone plants are engineered with a unique roller bearing design that generates higher efficiencies and can reduce operating expenses by up to 50 percent, according to Stephen Whyte, product manager for track-mounted equipment for KPI-JCI and Astec Mobile Screens. The plants use a two-stage system that allows Braxling to meet spec, whether he’s making a ¾” or 3” product.

“Our track cones allow us to make a really broad range of products with less equipment while minimizing set-up and transport time,” Braxling said. “The ability to change the settings on the fly is really beneficial to us, and we also appreciate the remote control aspect so we can have fewer guys on the ground.”

When out on a contract crushing job, the rock is first drilled and blasted by McCallun Rock Drilling. Braxling then builds a pad and moves his equipment in – typically an excavator, the FT2650, GT200CC and the FT3660 Track-Mounted Conveyor. Within a day, the site is set up and rock is ready to be crushed, Braxling said.

After being blasted, the material is loaded by excavator or loader into the FT2650 Jaw Crusher. The company typically uses an excavator to better control and sort the mix, Braxling said. Next,

the material is run through the GT200CC Cone Crusher. Because the track plant is closed circuited, the material can be rerun to bring it to spec if needed. The material is then stockpiled using the FT3660, a 36” x 60’ Track-Mounted Radial Stacker.

“With the jaw, we can close our closed-side-setting and get down to a 3” rock, but the cone gives us the versatility to get down to a ¾”-minus,” Braxling said. “The closed circuit configuration gives us the ability to control our finished products. With an open circuit plant, you can get elongated pieces or a few stragglers that don’t meet spec. With the spec we have to meet, you have to produce a lot of fines a lot of the time, and there aren’t a lot of natural fines here. We wouldn’t be able to do this without having the closed circuit plants.”

A CLOSE COLLABORATION

Braxling & Braxling’s relationship with JCI has continued to grow in the four decades since Art Braxling first invested in an ElJay cone plant. The company also owns a FT2650 Track-Mounted Pioneer Jaw Crusher, a 2436 Pioneer Jaw Crusher and a FT3660 Track-Mounted Radial Stacker from Kolberg-Pioneer, Inc., JCI’s sister company.

“We’ve carried on with JCI because of their service,” Braxling said. “For me, the true test comes after the sale. I appreciate that the equipment is made locally in Eugene and that my team has a great rapport with all of the guys at that facility – all the way from the top down. We know that every piece



of equipment is going to encounter troubles at some point, but it’s how you fix the problem and how long it takes that makes the difference to us.”

Supporting an American-made company has also been a deciding factor for Braxling, who flies American flags on his jaw crushers as a patriotic gesture.

“It’s a major factor for us,” he said. “We try to steer away from overseas parts and products. We are very conscientious about choosing American-made.”

John Hereher, operations manager for Braxling & Braxling, also values the local PRO Training opportunities his team receives through KPI-JCI and Astec Mobile Screens. The crew learned to perform its own liner changes during a service training event last year, which has saved them significant time and money.

“The training was extremely beneficial to teaching us more about the cone plants,” Hereher said. “We’ve realized how easy liner changes are to do on the Kodiak Cone Crusher. It’s an extremely user-friendly machine.”

The training also helped the crew form important relationships with the team at the factory, he said.

“Any of our guys can call down there any time they have a problem and someone will answer the phone and help troubleshoot and guide them to a solution,” Hereher said. “It’s invaluable.”

After years of collaboration, the relationships are more than just business – they’ve become friends he can count on in a moment of need, Braxling said.

Braxling recalls one memorable experience when the GT200CC went down and JCI engineering manager, Gary Heesze, visited the site with engineer, Tom Furrer, to help troubleshoot the problem. What Braxling witnessed stays with him to this day.

“Here are two guys who are white-collar engineers with an exceptionally broad range of knowledge and mechanical ability,” Braxling said. “I finally left at 1 a.m., but these guys stayed on and were there at 6 a.m. in the pouring rain working on the equipment.”

“Their dedication and fortitude amazed me,” he continued. “For



those guys in their positions to be that dedicated to stay in the muck and rain trying to solve our issues – it spoke volumes about who we were working with.”



TALKING SHOP Turning Fines into Dollars

For producers, having the right products available to meet the needs of their customers while minimizing unwanted products can be a very difficult balance. A large quantity of fines is often the byproduct of generating the coarse aggregates needed for concrete and asphalt. This creates an imbalance in saleable inventory.

At the end of the day, the biggest question on a producer's mind is, "Did I make a profit?" Any time you can find a way to produce more and waste less – or create a saleable product out of material that was going to waste – you're going to be ahead of the game. Where can producers turn to optimize their production? The answer can be as simple as a screen.

In an aggregate production facility the screen is usually one of the last items that is talked about. Technology in the production of aggregates has changed greatly in the last 100 years and so has screening technology. There are many different types and applications for screens, and picking the right one is critical to maximizing profitability.

One screen that offers the end user an opportunity to maximize output and increase profitability is the high frequency screen. A high frequency screen operates at speeds in the range of 3600-4200 RPM and directly induces vibration into the screen media instead of vibrating the entire screen box.

This aggressive vibration generates improved stratification of the material by lifting coarse particles higher. This keeps the fine particles closer to the screen media, therefore increasing the probability of those finer particles falling through the screen opening. The nature of the vibration being directly induced into the media also means that the high frequency screen can handle more moisture than conventional screens at the same opening size.

One question producers are usually asking, especially when sales slow down, is how to eliminate waste stockpiles. One solution is implementing a high frequency screen. The features of a high frequency screen create the opportunity to take waste fines stockpiles and turn them into a saleable product.

What does the process to reduce or eliminate waste stockpiles look like? The first question is always, "what

is the source?" It's important to identify if you're still generating the waste product. If so, what is the production rate and gradation of the waste product? How many tons of the source product are currently stockpiled on the ground, and what is a rough average moisture in the stockpile?

The next question that has to be answered is what fractions or sizes of product are available in the waste product stream, and is there a market channel to sell them in the region? The worst thing that can happen is to spend more money and energy to generate a product that has no viable market. This step can be one of the toughest, because markets for fine fractions of products are often outside of the traditional sales streams. Examples of these would be agricultural lime, fertilizer filler, chicken feed, ice control chips, concrete sands, etc.

Once these first two steps are complete, the best process to turn the waste product into the desired saleable product can be identified. If the waste product is still being produced, production and storage of that waste product should be eliminated. Typically this can be accomplished by incorporating a screen into the system. The ideal solution is adding a feed bin and a screen that is larger than needed for the system feed. This allows the system feed through the plant while a percentage of the waste stockpile material is blended back in.

After a process has been identified and the equipment installed, the final step is implementation. After the desired products are being made from the system feed, the next step is to begin adding feed from the waste stockpile through the feed bin. The critical variable is the rate the waste stockpile can be blended in without causing a large disruption to the system flow. Also, the operator feeding the waste product has a responsibility to make sure they work around the outside of the pile, being careful not to dig into large pockets of wet or highly contaminated material.

At the end of the day, all producers are fighting a battle to produce more material at lower costs within a given specification. This often leads to waste in their production process. Eliminating the waste in the process will lead to increased profits, and also could lead to a more diverse customer portfolio. Accomplishing this is not always easy, and usually requires some out-of-the-box thinking. However, the potential to eliminate waste and turn fines into profit is a worthwhile reward.

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