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Fall/Winter 2010

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Wirtgen
TECHNOLOGY
FALL/WINTER 2010

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On the Cover: *Interlinked Mobicat MC 120 Z jaw crusher, Mobirex MR 122 Z impact crusher and Mobiscreen M 19 D mobile screen are interlinked to serve Calgary's BURNCO Rock Products Ltd.; see Page 20*

EVO Plants, Hamm Rollers Debut At Conexpo-Con/Agg As Wirtgen Moves To Central Hall

The new EVO Series of Kleemann track-mounted, mobile impact crushers from Wirtgen America Inc. – along with new HD+ tandem and GRW-class pneumatic rollers from Hamm – is among the nearly 30 new or revised products that will be on display at Conexpo-Con/Agg 2011.

Wirtgen America is moving from the outdoor display area to its 30,800 sq. ft. exhibit inside the Central Hall, Stand No. 5733, during Conexpo-Con/Agg 2011, March 22-26 in Las Vegas.

On display will be the exciting new **MR 110 EVO** mobile impact crusher plant. Kleemann's EVO line constitutes the next generation of impact crushers, and represents a genuinely new evolution for the entire plant spectrum in terms of performance, economic efficiency and equipment longevity.

New at Conexpo-Con/Agg from Wirtgen America will be the Hamm **HD+ 110 VO**, an all-new 66-in. tandem roller, with an operating weight of 11.5 tons, featuring both conventional vibration and exclusive Hamm Oscillation compaction.

Also new will be the Hamm **GRW 280**, an advanced-design eight-wheel pneumatic roller. With an operating weight between 10 and 30 short tons, the GRW 280 provides exceptional operator visibility, a new, "intelligent" ballasting concept, and the highest safety standards.

In fact, with the exception of a handful of models, all equipment exhibited will be either new to Conexpo-Con/Agg, or improved while retaining the original model numbers.

Kleemann EVO Line

The new MR 110 Z EVO from Kleemann is a universally adaptable plant which is suited for processing both blasted natural stone, asphalt and demolition waste, as well as producing a first-class quality end product. Despite its comparatively small crusher inlet dimensions of 3.6 x 2.6 ft. (1100 x 800 mm), it achieves outputs that up to now were only known to be achievable with larger crushing plants. Maximum input capacities of 350 tph easily can be achieved.

The new EVO concept matches refinements for all individual components with a new material flow concept. The new, highly efficient material flow concept of the EVO models eliminates all restriction to the flow of the material throughout the entire plant.

For example, the discharge chute under the crusher is 4 in. wider than the inner width of the crusher, and the subsequent discharge belt is another 4 in. wider than the discharge chute. Material is thus transported quickly and carefully away from the critical area under the crusher, with flow rate increased, and wear reduced.

The Kleemann **MC 110 ZS** also will be exhibited. The MC 110 track-mounted jaw crusher – with its high-torque reversible hydraulic jaw, and fully hydraulic gap adjustment – makes this model a great contractor's crusher.

The R version has an integrated grizzly and the Z version a fully independent double-deck pre-screen. The machine also can be fitted with an optional final screen and oversize discharge, allowing the operator to produce a final graded product with one machine.

The Kleemann plants will be located within the Wirtgen America stand, not in a separate exhibit as with Conexpo-Con/Agg 2008.

New EVO line from Kleemann constitutes next generation of impact crushers

New HD+ Roller Displayed

At Conexpo-Con/Agg 2011, Hamm Compaction Division will introduce an all-new 66-in. tandem roller, in two different weight classes.

The new HD+ 110 has an operating weight of 11.5 tons, and the new HD+ 90 features an operating weight of 10 tons. Both platforms will offer a variety of different options, including conventional vibration, high frequency compaction at 4,020 vpm, exclusive Hamm Oscillation compaction, a combination option, and even a split-drum option. The HD+ 110 VO incorporates vibration and Oscillation in a single platform.

The new roller will be joined by Hamm's **HD+ 120 VV HF** and **HD+ 140 VV** rollers. These new articulated tandem compactors – with respective operating weights of 13.2 and 15.4 tons (12 and 14 metric tonnes) have set new standards with an unprecedented amount of cabin space, perfect visibility conditions for the driver, and very impressive performance data.

Also new at Conexpo-Con/Agg 2011 will be the revolutionary-design GRW 280 pneumatic (rubber-tired) roller from Hamm, with an operating weight between 10 and 30 short tons.

In the operator's workplace of this rubber-tired roller, instead of the previous setup with two seats, the new GRW offers one comfortable, adjustable seat and thus maximum freedom of movement. For the first time ever, viewing channels in the frame structure offer a view of the edges and the tires of the outer wheels. What's more, a novel suspension of the front wheels allows for an uninterrupted view towards the front.

HD+ 110 VV HF will debut at Conexpo-Con/Agg 2011

GRW 280 pneumatic roller is complete redesign

W 210 dual engine model is a large but compact milling machine

Conexpo Debut For Cold Mills

Seen for the first time at Conexpo-Con/Agg 2011 will be Wirtgen's two big, new cold mills, the **W 210** and **W 200**.

The new W 200 single-engine model is a large but compact milling machine that can be equipped with milling drum assemblies of 59 in. (1.5 m), 79 in. (2.0 m), or 87 in. (2.2 m) working width. Three selectable engine speeds enable a broad range of applications, such as large-scale surface course rehabilitation, complete pavement removal at full depth, fine milling, and many others.

The W 200 has a milling depth of 0-13 in. and is powered by a single engine generating 550 hp. Its operating weight is 59,934 lbs. with half-full water tank, half-full fuel tank, a 175-lb. driver, and tools.

Like the W 200, the new W 210 dual engine model is a large but compact milling machine, which can be equipped with milling drum assemblies of 59 in. (1.5 m), 79 in. (2.0 m), or 87 in. (2.2 m) working width. But unlike the W 200, the W 210 boasts a unique fuel-saving drive concept utilizing two diesel engines, generating a total of 671 hp with both engines engaged. Like the W 200, it features three selectable engine speeds enable a broad range of applications. Its operating weight is 62,138 lbs.

First Showing Of Slipform Pavers

Wirtgen's new concrete slipform pavers will make their first Conexpo-Con/Agg appearances in 2011. The Wirtgen **SP 15** and **SP 25** concrete slipform pavers were introduced in 2010 and they will be new to visitors to Conexpo-Con/Agg 2011.

The SP 15 has a maximum paving width of 6 ft., curb/parapet placement height of 4 ft., 3 in., and weighs 27,500 lb. It has best-in-class trimming capacity, quick on-site changes for left or right side pouring, unsurpassed jobsite mobility, and pours the tightest, smoothest radius in the industry with all-track steering and positioning. The SP 15 also features an Eco mode which matches engine rpm to machine power requirements, thus saving fuel and reducing emissions.

The SP 25 paves 12 ft. wide, places barrier/parapet up to 6.5 ft., and has a maximum weight of 39,600 lb. It also features quick on-site changes to left or right side pouring. The machine's modular design allows for a wide array of applications with either three or four tracks. It also features an Eco mode which matches engine rpm to machine power require-

SP 15 concrete slipform paver will make first appearance at Conexpo-Con/Agg 2011

ments, thus saving fuel and reducing emissions.

Wirtgen has been manufacturing concrete pavers for a long time, but has not sold them in the North American market until this year. Customers look to Wirtgen concrete slipform pavers for the same reasons they have chosen Wirtgen's other lines, and the Wirtgen cold mills are a good example.

For example, the SP 15's trimmer – a drum with teeth that rotates and levels the grade immediately ahead of the concrete – comes from the market leader in milling technology, so it's no surprise that Wirtgen concrete slipform pavers have the best trimmer on the market.

Both the concrete slipform pavers and the cold mills are characterized by higher attention to detail, better componentry, and better engineering. It all leads to a better machine and better product out the back end.

New Re-Engineered Compact Line

Also new at Conexpo-Con/Agg 2011 will be the Hamm Compaction Division re-engineered **Compact Line** – its popular series of small asphalt rollers – with significant changes "under the hood" that will boost performance and productivity.

Models of the new Compact Line – with drum sizes from 31 to 54-in.-wide – are just as user-friendly and functional as ever, but now are quieter and more powerful. These articulated tandem rollers offer big-time compactive effort in a small package equally at home for commercial or roadbuilding applications.

Featured at Conexpo will be the 54-inch **HD 14 VV**; the 51-in. **HD 13 VT**, a combination model with smooth drum in front, and four smooth pneumatic tires in rear; the 47-inch **HD 12 VV**; the 39-in. **HD 10C VV**; and the 31.5-in. **HD 8 VV**.

VV stands for "Vibration Front, Vibration Rear", in which both drums offer vibration, with the capability of vibration running in the front drum only, in the rear drum only, in both drums, or no vibration. The Compact Line offers hydrostatic dual drum drive, automatic/manual vibration system, hydrostatic articulated steering and excellent maneuverability.

Key features of the Compact Line include its excellent visibility, low profile and ease of handling, superb driving characteristics, high compaction force and low center of mass.

In 2010 the Compact Line drive train was redesigned. All models were upgraded to the new, exceptionally quiet, environmentally friendly yet powerful Kubota diesel engines. In the HD 13 and HD 14 models, Hamm has increased the engine power by 15 percent. New drive train components have brought about only minor changes to the external design of the machines. They retain their "wasp waist" and superb visibility.

The operator platform is fully insulated against vibration, thus improving comfort levels. The operator's seat, steering column and tread plate are mechanically isolated from the framework, which significantly reduces vibration and makes working with the Compact Line even more pleasant.

The new engines and changed layout of the central electrical system mean quicker servicing and simpler maintenance in the future. Significantly, now all service points for the drive units are located on the same side, making them quicker and easier to check than before.

Vögele Vision Pavers

The innovative Vision Series pavers from Vögele America, Inc., will be displayed. The Vision Series includes the 10-ft. tracked **Vision 5200-2** and wheeled **Vision 5203-2**, and the 8-ft. tracked **Vision 5100-2** and wheeled **Vision 5103-2**. Altogether they represent the highest evolution of asphalt paver design to-date, and all will be displayed at the Wirtgen America exhibit at Conexpo-Con/Agg 2011.

Pavers of the Vision Series comprise the most practical and productive line of pavers on the market today. They are quieter, cooler and more productive than any competing

pavers or Vögele America predecessor models. The Vision Series is a "clean-sheet" design, although it incorporates time-proven Vögele Super Series technologies.

Operators will benefit from outstanding forward visibility, with unparalleled all-around visibility without turning. The slope of the machine and hood have been designed so the operator can see the sides, the hopper, and the conveyors in the back, without having to move around.

Also displayed will be the Vögele **Super 700** paver. The Super 700 – with electrically heated AB 200 V screed – packs big features in a small package, yet is one of the most innovative pavers on the market. This exciting paver combines highway class technology in a compact package perfectly suited for paving cart, bike and walking paths, confined areas, repair of milled areas, and conventional commercial applications. Unique to the Super 700 is its ability to drive through an opening less than 4 feet in width, pave within 2 inches of boundaries, and drive in a footprint of 43 inches. Also, it can be operated with one person, and has two positions at which the operator can stand, either on the screed, or on an elevated platform.

And the **Super 1800-2 SprayJet** paver will be on display. The Super 1800-2 with optional SprayJet module offers improved technology for placement of sophisticated pavement preservation surfaces like ultrathin bonded wearing courses and other powerful spray technologies. The Super 1800-2 SprayJet permits spraying of a tack coat and asphalt paving to take place in one pass, promoting optimum bonding between layers, keeping the job site clean, and eliminating the tack coat truck from the paving train.

With removal of the optional SprayJet module, the Super 1800-2 becomes a high-performance paver which can place hot mix asphalt, cement- or lime-treated bases, and roller-compacted concrete.

Other machines on display will include:

- **Wirtgen W 150.** The W 150 is a large but compact milling machine that can optionally be fitted with milling drums of 4 ft. (1.20 m), 4 ft. 3 in. (1.30 m) or 5 ft. (1.50 m) working width, letting the W 150 be used for a variety of different applications such as milling large surfaces, removing pavement layers at full depth, or leveling. Cutting depth is zero to 13 in.
- **Wirtgen W 120 F.** Whether wheel-driven or track-driven, the versatile W 120 F is a road milling machine with mechanically driven milling drum of up to 48 inches wide, and cutting depth of 13 in. The machine is equipped with permanent all-wheel drive as a standard feature.
- **W 50 DC.** The deep-cutting W 50 DC cuts 8 in. deep and a variety of widths up to 20 in. The Deutz 123 hp diesel engine, combined with a more robust 17,000-lb. design, 7-in. turning radius and standard rear loading conveyor, makes this a premier performer in the utility class.
- **WR 2400.** The WR 2400 is a state-of-the-art, mid-sized stabilizer/reclaimer. This 571 hp-class, high-performance and versatile machine lets contractors cut up to 20 in. deep at a 95-in. cutting width. It stabilizes with both emulsion and foamed asphalt, and can be equipped with a high capacity water pump for dry soil conditions and cement or lime stabilization projects.
- **Wirtgen 3800 CR.** The new Model 3800 CR from Wirtgen America Inc. offers the ability to cold-in-place recycle a full-lane of pavement in one pass, stabilizing with either foamed asphalt "green mix", or any other stabilizing medium such as asphalt emulsion or lime or cement slurry, but with a twist: with a conveyor mounted, it also will serve as a full-lane cold-mill. The 3800 CR utilizes the same platform as the 2200 CR, but is supplied with a full-lane, 12-ft., 6-in. (3800 mm)-wide drum.

A dedicated customer support counter featuring online access to **Wirtgen Parts & More** parts system, **WIDOS** documentation system, and **WISATRAIN** online service training modules will be available.

Plan to visit Stand No. 5733 and Wirtgen America, Inc., at Conexpo-Con/Agg 2011 this March!

Wirtgen Group To Mark 50th Anniversary In 2011

In 2011, Wirtgen Group will observe the 50th anniversary of its founding.

Reinhard Wirtgen (1941-1997) founded Wirtgen GmbH in 1961, and proceeded to pioneer asphalt and concrete pavement recycling to the benefit of the world. Asphalt recycling technologies developed under Wirtgen help road agencies make scarce road funds go farther, permit low-cost reconstruction of roads in rural areas, and re-use construction materials.

In 1965, Mr. Wirtgen and his associates built a concrete "guillotine"-style breaking machine, a cost-effective alternative to conventional "headache" balls. By 1971 Wirtgen had developed hot asphalt milling technology to remove asphalt pavements and completely process in-place. Later, using cutters from the mining industry, Wirtgen modified his hot milling machines into cold milling machines, which worked without pavement preheating, and now they have become a world standard. In 1989 Wirtgen unveiled machines for cold recycling of road base courses and materials. These machines helped popularize asphalt recycling to the extent that it is far and away the most-recycled product in the United States.

Recently Mr. Wirtgen was honored as one of the "Top 100 Private Sector Transportation Design & Construction Professionals of the 20th Century" by the American Road & Transportation Builders Association (ARTBA).

Today, Wirtgen America, Inc., Nashville, is the North American arm of the Wirtgen Group, the single-source marketer of the world's most technologically advanced lines of asphalt reclaiming and recycling equipment from Wirtgen, asphalt and soil compactors from Hamm Compaction Division, asphalt pavers from Vögele America Inc., and construction materials processing equipment from Kleemann.

New HD+ 90, HD+ 110 Advance-Design Rollers Enhance Hamm Line

The addition in 2010 of two new HD+ models to the Hamm HD+ tandem roller line underscores the popularity of this exciting, technologically advanced series of compactors.

At Bauma 2010 in April, Hamm Compaction Division rolled out an all-new 66-in. tandem roller, in two different weight classes. The new HD+ 90 features an operating weight of 10 tons, and the HD+ 110 has an operating weight of 11.5 tons.

Both models will offer a variety of different options, including conventional vibration, high frequency compaction at 4,020 vpm, exclusive Hamm Oscillation compaction, a combination option, and even a split-drum option.

They join the HD+ 120 and HD+ 140 rollers – introduced at World of Asphalt 2009 – with their respective operating weights of 13.2 and 15.4 tons, and respective drum widths of 78 and 84 inches. All are setting new standards for compactors, with an unusually large operator's platform, perfect visibility conditions for the operator, and very impressive performance data.

Each size compactor will be available in at least three models: the HD+ 90, 110, 120 or 140 VV, with standard vibration in both drums; the HD+ 90, 110, 120 or 140 VO, with vibration in the front and exclusive Oscillation compaction in the rear; and the HD+ 110, 120 or 140 VV HF, offering high-frequency vibration to 4,020 vpm. Frequency and amplitude can now be controlled independently on either drum, providing increased flexibility in the roller train.

Separate Adjustments For Drums

The new HD+ line offers separate adjustment of frequency and amplitude in both drums. This allows the tandem rollers to be precisely set to the requirements of new specialty or high-performance asphalts.

"The HD+ machines have been developed specifically to meet the criteria of the North American contractor," said Richard Evans, vice president-sales, Hamm Compaction Division of Wirtgen America, Inc.

HD+ performance options, operator comfort, visibility and ease of control are unsurpassed by any model. The cab is a real highlight of the new HD+ rollers. Its very roomy interior offers an excellent view of the machine and surrounding area. At the same time, the driver has more space than ever before.

The fully adjustable seat – with integral control levers – moves together with the operator's console completely from side to side and swivels through 180 degrees, for much better control and visibility, particularly to the drum edges.

Also, the intuitive operating panel in all HD+ tandem rollers is permanently connected to the driver's seat. That means it's always where it should be, in the field of view of the driver.

"In addition, if you are a big guy, the steering column tilts up out of the way when you are climbing in or out of the seat," Evans said. "Plus, the drive levers are wide, so you have plenty of room for your legs."

New HD+ 110 VV HF compacts in Indiana

Shelly & Sands' new HD+ 110 VV HF is among first in North America

The HD+ features additional operator conveniences such as large cup holders, and an adapter to enable the operator to charge a phone, or even plug in a refrigerator, which can be stored on the large cooler tray.

Innovative 3-Point Steering

An innovative type of 3-point pivot steering ensures optimized weight distribution, greater driving stability, uniform drum pressure, and therefore, optimum compaction of asphalt.

Innovative 3-point pivot steering ensures optimum control

The HD+ models feature Hammtronic operation as standard, providing engine management control for considerable fuel savings, programmable speed control, and the ability to independently control vibration frequency and amplitude to either drum.

Drum-mounted halogen lights are standard for improved illumination to all four drum edges, and either halogen or xenon light options are available to mount to the ROPS structure.

Unlike competing machines, which require physical movement of weights on the side of each drum, which is hard enough to do in the daylight, let alone at night when most of the major highway work is done, amplitude and frequency adjustment on the HD+ models can be done by the operator on the control panel.

Also unique is the HD+ Series' offset capability, which on the HD+ models is close to 7 in. "We can roll around a curb without risking the damage by the rear drum and now, with the extra 3-in. offset over the older model, we now have enough for a good roller operator to pinch a joint," Evans said.

That means an operator can keep the front drum on the hot material and offset the rear drum so it can bridge between the pre-compacted hot material and the cold joint, potentially saving a pass for higher productivity, and avoiding travel in the other lane of traffic, for enhanced safety. This capability is not available on some competing models.

Photos courtesy Scott McLean, The McLean Company

Personal Drive, Wirtgen Products Help Contractor Grow In Maryland Market

In old Baltimore, veteran W 1900 cold-mills Wilkens Ave.

Personal drive, dynamic leadership and attention to performance and customer service are helping a road contractor grow in its local Maryland market…with help from innovative Wirtgen Group equipment.

In the more than 25 years since its launch in 1985, M. Luis Construction Co., Inc., has expanded aggressively from a one-crew concrete contractor, to providing road construction services throughout Maryland. These services include asphalt and concrete paving, cold milling, maintenance programs and streetscapes.

That the firm thinks innovatively is underscored by the fact that in 2010, M. Luis became the only road construction company in the state of Maryland to create a State Highway Administration-approved portable asphalt testing lab, housed in a van.

The firm was founded as a one-crew concrete contractor by Albertina Luis and her husband Manuel. After years of expansion, in 2008, they sold the company to their two daughters, who serve as executive management.

Getting to the 25th anniversary of the business in October was a real milestone, said Cidalia Luis-Akbar, president, M. Luis.

"Mom always was a business-minded entrepreneur in every sense of the word, and Dad always has been the artisan," Luis-Akbar said. "We were never pushed into the business. It was our choice. We studied what we wanted to study. But after we had gone out and experienced the world, we came back of our own choice, which was really key to our success. We made a go of it and now are passionate about our industry and in making a difference, and in becoming mentors to the next generation of young women who really want to get into construction."

Success now comes externally from winning bids, and internally from self-examination of how business is conducted.

"Maintaining our growth has been challenging," said Natalia Luis, vice-president. "Change is hard. Every time we go into the winter we take a hard look at our company, at what we've done well and not done well. We get rid of what we're not good at, and do better at what we're good at. We have an established level of risk tolerance, but we've found that we thrive just outside of our comfort zones, and that has kept us energetic and enthusiastic, and enabled us to keep our eyes on the ball."

Milling And Paving Jobs

When visited in October, M. Luis had multiple milling and paving jobs underway in and around Baltimore, Washington D.C., and surrounding Maryland counties, all using Wirtgen Group equipment.

"The new W 210 incorporates a lot of changes. It's a bit smaller and that helps as our type of work takes place in the city on narrow rights-of-way. It's also easier to maneuver and the operator's point of view is much improved."

In Montgomery County, Md., M. Luis' Vision 5100-2 paver from Vögele America paves with Hamm HD O90V in breakdown mode

While the concentration of government activity has kept the region somewhat insulated from the recession, working conditions can be difficult, with very heavy traffic, delays in truck delivery of asphalt and turn-arounds, and limited work hours.

In particular, the Washington D.C. suburbs are laced with winding two-lane blacktop roads which connect one suburb or subdivision with another. While the roads are attractive as they twist their way through woods and fields, every day they very rapidly fill up with traffic, and can be backed up for miles, bumper-to-bumper, at rush hour.

"We have four supervisors directly involved with milling and paving operations," said Tony Monteiro, field manager, M. Luis. "All of our work is urban or suburban with very high traffic volumes all day long. Haul trucks often are stuck in traffic. We are limited to working 9 a.m. to 3 p.m. on many jobs, and as we don't own our own asphalt plant, it can be hard to control the entire operation."

For example, when visited in October, on Montgomery County, Md.'s Tuckerman Lane between Bethesda and Rockville, a Wirtgen W 2000 was used to remove 2 to 5 in. of aged asphalt, for a total of 7,000 tons. A Vögele Vision 5200-2 then was being used to replace the RAP with PG 76-22 hot mix asphalt with NMAS of 12.5, compacted to 95 or 96 percent density.

"All of our 11 asphalt rollers are Hamm products," Monteiro said. "We use Oscillation compaction; it helps us achieve density a lot faster than with regular rollers. It definitely helps us with Superpave and its tender zone. And if a mix cools down too much, we still can get the numbers that we need with Oscillation compaction."

Moreover, M. Luis still does portland cement concrete work. "We have 15 concrete crews," Monteiro said. "We do everything associated with the roadway; curbs, sidewalks, concrete storm drains, and drainage paving."

Swing-out operator's seat of M. Luis' Vision 5200-2 gives enhanced view on Tuckerman Lane project

Settling On Wirtgen Group

With the exception of concrete slipform paving – for which Wirtgen America, Inc. recently began marketing pavers – all of M. Luis' road work is done with the "Three Amigos" of Wirtgen America, Hamm Compaction Division and Vögele America, Inc. products.

"We've tried many other brands, but seven years ago we rented a Vögele America paver, as it was the only one available," Monteiro said. "I was amazed at what the paver could do, even with it being a very old model. It automated many of the tasks we had to do manually. The configuration of the controls, the whole set-up of the machine, made operation much easier with the Vögele paver. After that, as we began buying more product, we bought all Wirtgen equipment, like our two Vögele America 2116Ts, which we are still using.

"Things have improved even more since then," Monteiro said. "From there we went to the Vision pavers. Our three Vision 5200-2 models are amazing. We have a fourth and fifth Vision paver on rental, for a total of seven Vögele pavers in use this summer. Everybody in the company loves them. The software is improved and the slope controls are outstanding."

In addition to the Vögele pavers, M. Luis has 11 Hamm rollers: five HD 90s, and five HD 120s, some with Oscillation, and some without, and has just acquired an HD 75. They complement its six Wirtgen milling machines: a W 1900, bought four years ago; four W 2000s; and now a new W 210 purchased this year.

"The Wirtgen mills don't break," Monteiro said. "They do a good job. The new W 210 incorporates a lot of changes. It's a bit smaller and that helps as our type of work takes place in the city on narrow rights-of-way. It's also easier to maneuver and the operator's point of view is much improved over the W 2000."

On Avery Road in Montgomery County, M. Luis was rehabilitating the road by milling, doing base repairs, and following with paving a 2-in. overlay. For base repairs, M. Luis mills up to 6 in. down, and fills with 19mm or 25mm NMAS mix, depending on the contract. There, a W 2000 was milling with its 6-ft., 7-in. drum.

Vision 5200-2 is one of seven Vögele pavers in use by M. Luis in 2010

Mobile Testing Lab

M. Luis' new mobile testing lab, acquired in spring 2010, is the first of its kind in the state of Maryland. Officially tested and certified by the SHA, it travels from job to job, documenting performance. Not even the state has a mobile testing lab.

"The main reason for the mobile lab is to get a quick answer on the density of the roadway," said Mark Wray, lab manager. "We run a maximum specific gravity on the mixture, and when a core is compared to that, we get the density. Where it would take 24 hours to get that using a consulting testing lab, we can get it in 10 minutes."

The lab work is done in addition to use of nondestructive means such as nuclear density gauges. "We use nuclear density gauges too, but they are not as accurate as the cores," Wray said. "When I'm out on the road, I let the nuclear gauges compare to my results, which are very accurate. That way the gauges can be better calibrated to the cores."

Plus, for pay factors, a core will always override a nuclear density gauge, Wray said. "Density gauges are good for quality control and getting a quick answer, but for pay factors, you want the cores," he said.

Milling Urban Neighborhoods

It's a big leap from the shady lanes of suburban Maryland to the row houses of inner city Baltimore, but it's one that M. Luis makes all the time.

There, on Wilkens Ave., M. Luis was using its first and oldest mill, a W 1900, to remove 2-in. asphalt pavement in advance of base repairs and 2-in. of paving. It's the last phase of a curb-and-gutter streetscape project involving an attractive concrete median, and more. The $2.5 million job is part of the American Recovery and Reinvestment Act.

"The W 1900 is a smaller machine, which is easier to maneuver in tight urban quarters," Monteiro said. M. Luis will replace with 6,000 tons of 12.5mm NMAS mix with PG 64-22 performance-graded binder, using about 20 percent RAP.

"The W 1900 is our first baby," he added. "We have up to 7,500 hours on it, acquired about five years ago. It still operates in perfect condition. We follow the factory recommendations exactly, replace what has to be replaced, and it has served us well."

M. Luis' mobile testing lab is only one in Maryland

In Sierra Nevadas, KMA 220 Is Environmental Choice

In California's scenic Sierra Nevada mountains, a Wirtgen KMA 220 was the best choice for on-site, cement-bound, full-depth reclaiming of a failed National Forest Service road.

There, Pavement Recycling Systems (PRS) of Mira Loma, Calif., hauled its KMA 220 nearly 8,400 ft. above sea level to a clearing on Sherman Pass Road in the Sequoia National Forest.

After a quick set-up amid towering conifers, the unit began recycling reclaimed pavement of Sherman Pass Road, mixing it with cement and water prior to replacement of the material on the same stretch of road before the cement began to harden.

Limited Workability

Because the material would cure within an hour and a half, workers were removing failed pavement, trucking it to the KMA 220, and then hauling and placing the cement-bound material to very close where it had been excavated. After compaction the recycled material would serve as the driving surface on the former logging road, now used strictly for recreational access.

Aside from offering drivers the chance to see pine forests, mountain streams, and lands recovering from a 2002 forest fire, Sherman Pass Road provides visitor access to Troy Meadows, Fish Creek and Kennedy Meadows campgrounds. As the road climbs 4,000 feet, it winds between the northern boundary of the Domeland Wilderness and the southern edge of the South Sierra Wilderness.

During reconstruction, the lightly traveled road was subject to single lane closures at the sites where work was being done. However, reconstruction was limited to only the worst areas, where failed pavement was being milled out 6 in. deep.

"The U.S. Forest Service picked out the worst locations of the highway to be repaired," said Marty Castaneda, Jr., superintendent for PRS. "We mill about a thousand feet ahead of where the pavers start each day. Trucks bring the milled material to a stockpile next to our small crusher, which reduces it to 2-in.-minus gradation. It's placed into the KMA 220, processed with cement and water, and trucked right back to the paver."

The same trucks that brought the millings were loading up with processed material on their way back to the paving site, in a continuous round-trip that at one point was 14 miles one-

To ensure cement-treated mix workability, front end loader takes recycled material directly from KMA 220's conveyor to place in haul truck

Wirtgen KMA 220 recycles Sherman Pass Road pavement high in California's Sequoia National Forest

way. "We're averaging 2,700 linear feet per day, 24 ft. wide, in 6-in.-deep sections," Castaneda said.

While the hydrated, cement-bound material had a limited period of workability, PRS allowed the KMA 220 to keep a stockpile current from which it could load haul trucks headed back down the road. "We have about 45 minutes before the material starts to set up," he said. "We will keep milling 1,000 ft. ahead, pave 500 ft. at a time, and then back up, so we remain within our 45 minute window."

Part of the time utilization is keeping a stockpile of limited size handy at the KMA 220. "Instead of loading directly into the trucks, we are building a big enough stockpile so trucks can continually circulate back to the paver with full loads," Castaneda said. "But we won't allow it to sit any more than a few minutes on the ground or it will lose too much moisture."

To the crushed material within the KMA 220, PRS was adding 5 percent cement and 5 to 6 percent water. "We have storage tanks in back of the plant and water is being continuously trucked to the site," Castaneda said. As the machine produces 225 tons of cement-bound material per hour, a total of 18,000 to 20,000 tons of material will have been recycled by the end of the project.

100 Percent Recycled

Because the project provided 100 percent recycling of the existing road surface into a rebuilt, cement-bound pavement, it would appear to be the perfect "green" application for this environmentally sensitive location. But in fact, the owner had no choice but to recycle, as the two-hour haul times through winding mountain roads made anything other than recycling impossible.

"Due to the area's distance from any hot mix asphalt plants, or concrete plants, it's more advantageous to recycle

Water supply for recycled cement-bound pavement was trucked to site and stored in level area at rear of KMA 220

and reuse the existing roadway and subbase, and rebuild the surface," Castaneda said. "The KMA 220 makes it cost-effective and eliminates the logistics of having to move large quantities of material from lower elevations or the desert to the high Sierras."

While the reconstruction project was taking place miles on either side of the clearing where the KMA 220 was situated, the plant would stay right where it was, with trucks bringing and removing material no matter what their location was.

"We won't move the machine until we're complete," Castaneda said. "The portable plant is remaining stationary until the end of the project."

But moving the machine to that high elevation, while not effortless, was done without much ado. "It took some work, but it wasn't as bad as some other places we've hauled it, despite some hairpin turns," Castaneda said. "The KMA 220 is towable, and we just towed it up here and set it up. We then set up a cement silo and water system, and started processing."

The difficulty for the crews has been fighting narrow roads and mountain switchbacks daily, without a lot of room to work in, he said. "But we have been lucky in that we don't have a lot of traffic," Castaneda said.

Used For Foam, Emulsion Bases

PRS uses its KMA 220 to the fullest extent, for cement-, foamed asphalt- and asphalt emulsion-stabilized bases. It's employed for both cold in-place and cold foam processes.

"Throughout the year we will use it equally for emulsion, foam and cement stabilized recycling," Castaneda said. "In fact, it just came from an emulsion project for the city of Palm Desert, Calif."

The KMA 220 is powered by diesel fuel, which runs a generator for the electrical processes of the KMA 220. "It's been very reliable," he said. "We use it around the year." The same KMA 220 was used in Yosemite National Park last year.

Recycled cement-bound pavement will serve light recreational use for years to come

About The KMA 220

The new KMA 220 from Wirtgen America, Inc. builds on the success of its predecessor, the KMA 200, by adding a third axle to enhance the roadability of this popular portable cold mix plant. All three air-suspension axles have raising and lowering capability, as well as automatic, load-dependent all-wheel air brakes.

The KMA 220 portable cold mixing plant from Wirtgen will mix 220 tph of cold mix asphalt, without visible emissions and without requiring any EPA operating permits. Virgin and/or reclaimed materials can be processed using emulsions, foamed asphalt, lime, cement, polymer additives, fly ash and other materials. Because no heating is required, the mixing plant is virtually emission-free.

To make foamed asphalt Green Mix with the KMA 220, milled reclaimed asphalt pavement (RAP), excavated road base, and crushed recycled concrete aggregate (RCA) all can be incorporated up to 100 percent in cold Green Mix from the KMA 220.

"In many ways, Wirtgen's self-contained KMA 220, like its predecessor, the KMA 200, is the ultimate 'Green Machine'," said Wayne Evans, Wirtgen vice president, business development. "Its productivity is such that it can produce a 20-ton truck load of up to 100 percent recycled asphalt cold mix every six minutes. Contractors can locate this permit-free portable plant at or near their projects and cut dozens of trucks from long hauls, slashing traffic congestion and truck diesel exhaust."

Its features include its fully diesel-hydraulic drive of all components. Driving the KMA 220 is a completely modified, low-wear, twin-shaft continuous mixer, allowing a mixing capacity of 220 tph. The mixing plant is driven by a powerful diesel engine with an output of 175 hp, and all components are fully diesel-hydraulic driven. To ensure an ample supply of water, the capacity of the water tank is 1,188 gallons.

The precise sequence of the mixing process and all cold mix recipes are easily monitored and controlled by the Cockpit Graphics Center (CGC), an exceptionally user-friendly operating and control panel.

Trio Of 2200 SM Surface Miners Keeps Gypsum Flowing

In Shamrock, Tex., one of two 2200 SMs cuts gypsum ore

"The machine is excellent. It produces what we need, in any size we need, with great flexibility."

In Oklahoma and Texas, a trio of Wirtgen 2200 SM surface miners is providing economic production of gypsum ore for producer Harrison Gypsum, LLC.

At Bouse Junction, Okla., in the north central part of the state, a 2200 SM is surface mining gypsum for plaster-grade and food-grade products, and is helping Harrison reclaim 98 percent of the deposit, where conventional drilling and blasting would recover only a little over half.

And in Shamrock, Tex., in the Texas panhandle, two 2200 SMs are cutting gypsum with some much-harder anhydrite embedded in the deposit, to produce a variety of gypsum products.

"At Bouse Junction we drill and blast the deposit, and mill the rest of it up with the Wirtgen 2200 SM," said Kris Kinder, vice president of operations for Harrison Gypsum LLC. "That way we don't have as much waste as we might get by complete blasting."

The Oklahoma mine is benched. "We have a 22 to 25 ft. seam of rock, but the last 5 to 8 ft. of it is plaster-grade material," Kinder said. "We drill through the [less desirable] anhydrite, and below the anhydrite is the plaster-grade material, which is not drilled."

After drilling and blasting, a front end loader charges haul trucks with the raw anhydrite material, which take it to a crushing plant with primary jaw and secondary impact crushers. There it is reduced to 2 1/2-minus gradation and sold to the road construction industry for use in farm roads or roads serving the sprawling, and busy, oil fields of Oklahoma.

2200 SM Eliminates Waste

Harrison previously blasted the plaster-grade gypsum layer below the anhydrite, but lost a lot of the good ore in the process.

"We used to blast that material, but we had so much waste that it was not acceptable," Kinder said. "We now use the surface miner to recover 98 percent of it, where by blasting we were only getting 55 to 60 percent. Blasting reduces a lot of the ore to powder, and also pulls material up from the floor and contaminates it."

That would require extra processing to remove, with a grizzly scalping off 30 to 40 percent of unusable material, just to get rid of a small amount of contaminants.

Instead, the Wirtgen 2200 SM cuts 6 in. deep and breaks the plaster ore to 4 to 5-in.-minus material. This material is further crushed and screened.

"A front end loader picks up the surface-mined material in-place and puts it into haul trucks," Kinder said. "We dump it in the same crusher system as we use for the anhydrite. One type of

Harrison Gypsum's 2200 SM in Bouse Junction, Okla., mine selectively mines gypsum stratum following removal of anhydrite via blasting

In Oklahoma, 2200 SM cuts gypsum in 6-in.-deep lifts

plaster material takes a 1 3/4-in. by 7/16-in. size, and another type takes 7/16-in. minus.

"We have put a system in by which we are able to use our waste screenings," Kinder said. "Some of this normally would be wasted, but we are able to recover the waste for use as a 'green' product in our plaster. Piles of screenings that we were not able to use before now we can use."

In the meantime, the 1 3/4-in. material is taken to a nearby plant near Mooreland, Okla., where the higher-quality industrial plaster is further processed to be used for joint compounds, statuary, pottery and floor underlayments.

Likewise, from a different deposit in the mine, the 2200 SM removes a food-grade gypsum, used in the baking industry, that was otherwise unrecoverable by drilling and blasting. "With the surface miner we are able to get 2 to 3 ft. off the layer before it hits anhydrite or mud," Kinder said. "After that we determine if we will mill through the anhydrite, or clean the mud off, and mill another 3 ft. off it."

This material is brought to the crushing plant and reduced to 2 1/2 minus, and from there is taken to a manufacturing plant where a roller mill reduces it to powder. "We grind it down to 95 percent passing a 325 mesh," Kinder said.

The performance of the 2200 SM is what Harrison needs to keep its gypsum flowing into production. "The machine is excellent," Kinder said. "It produces what we need, in any size we need, with great flexibility."

Harrison And Allied Gypsum

Harrison Gypsum supplies custom products and a series of ground gypsum products such as flame retardant fillers, animal feed additives, agricultural and turf products, and a high purity food and pharmaceutical grade gypsum.

Harrison was founded in 1955 as a small family operation to supply gypsum to the family farm and neighbors. Over the years the company developed the mining business by supplying raw gypsum rock to nearby manufacturers of portland cement.

As the market area for Harrison Gypsum expanded, gypsum reserves and production capacity were expanded in turn. As the business grew, mining operations were improved through capital investment in modern mining equipment and infrastructure. Today the total gypsum reserves of Harrison Gypsum is estimated to be in excess of a quarter of a billion tons.

Harrison's subsidiary, Allied Custom Gypsum Inc., was founded in 1987. In 2001, Allied Custom Gypsum and Harrison Gypsum merged into a single company, benefiting from the operational synergies and increased financial strength present between the two organizations.

Harrison tests its product even before it is mined to ensure that the resultant ore will be suitable for use by its customers. Selective mining techniques as enabled by surface miners provide a flexible recovery of gypsum from its reserves, while ensuring that contaminants and substandard rock are discarded or used in off-spec applications.

Super 1800-2 SprayJet Gives Vegas Contractor Entry Into Ultra-Thin Overlays

A new Vögele Super 1800-2 SprayJet paver has given a Las Vegas asphalt contractor entry into the growing market of ultra-thin asphalt concrete surfacings (UTACS) in Nevada and the American Southwest.

With its new SprayJet paver, Las Vegas Paving Corp., North Las Vegas, Nev., now is able to undertake pavement preservation contracts as agencies like Clark County, Nev., use available funds to prolong the life of pavement structures.

In Clark County, UTACS (pronounced "you-tacks") are gap-graded wearing courses, bonded to the surface by a warm polymer modified membrane, followed immediately by the hot, gap-graded, ultra-thin asphalt concrete friction layer.

Bonded Wearing Course

As such UTACS are similar to Caltrans' bonded wearing course, "a gap- or open-graded, ultra-thin hot-mix asphalt mixture applied over a thick polymer modified asphalt emulsion membrane," to quote the agency. "The emulsion membrane seals the existing surface and produces high binder content at the interface of the existing roadway surface and the gap- or open-graded mix, all in one pass."

Las Vegas Paving's Super 1800-2 SprayJet paver places UTACS gap-graded wearing course on Jones Ave. for Clark County, Nev.

In addition to enhancing friction, gap-graded and open-graded mixes provide an open surface texture to allow rain water to flow through the surface, reducing tire spray, eliminating ponding, and suppressing noise at the tire/pavement interface. They represent one version of a porous asphalt pavement.

Such bonded wearing courses are primarily used in high traffic areas as a surface treatment over hot mix asphalt or portland cement concrete pavements. They are placed over structurally sound pavements as a maintenance treatment, but may also be used in new construction and rehabilitation projects as the final wearing course.

In a bonded wearing course like those specified by Caltrans, the polymer modified asphalt emulsion membrane seals the existing pavement while bonding the gap-graded or open-graded mix to the surface. The thicker nature of the membrane allows it to "wick" upwards into the mix, filling voids in the aggregate and creating an interlayer of high cohesion that does not delaminate or bleed, if applied correctly.

Right Paver Needed

However, to correctly place UTACS or other bonded wearing courses, the right kind of paver is needed: One that has the ability to spray asphalt emulsion onto a pavement, and then immediately place a thin overlay on top. Las Vegas Paving found the Vögele Super 1800-2 with optional SprayJet module fit the bill.

Las Vegas Paving acquired its Super 1800-2 SprayJet in early 2010, and has been using it for UTACS ever since. "We are the new kids on the block with this process," said Clark Webster, general superintendent, Las Vegas Paving. "This is our first year paving UTACS, and we were concerned that interest would not last, but agencies are still interested."

When visited in October, Las Vegas Paving was applying a UTACS to busy Jones Ave. between Tropicana and Russell for

the Clark County Department of Public Works.

This 2,700-ton job involved three lanes each way, including shoulders and turn pockets. "Jones is a piece of a larger contract we have with the county, with each piece being anywhere from 15,000 to 20,000 sq. yd. of UTACS," Webster said. "Jones was a 1-in. deep UTACS, with almost 100 percent passing 1/2-in. with some fines."

On Jones, warm polymer modified emulsion was being sprayed directly ahead of the screed via spray bars on each side of the Super 1800-2 SprayJet at a rate of 0.13 gal. per sq. yd.

"It's not unlike a prime or tack coat, but it provides much more coverage," Webster said. "And no one can run on it. The Super 1800-2 places the coat behind the wheels but ahead of the material, so cars or our haul vehicles can't drive over it and pick up the sticky, polymer modified emulsion. It gives us the best of both worlds; we are able to use a polymer modified emulsion without having the mess of tires tracking it everywhere."

The placement of emulsion spray is automated, and the system regulates percentages of emulsion applied, making it easy on the crew, Webster said. "If the paver slows down, the application rate slows down," he said. "It's easy to use."

Once the emulsion is placed, and asphalt compacted, traffic can be allowed on the pavement within minutes. "You can let traffic on the UTACS very quickly, it's not a very 'tender' mix," he said.

One eight-man crew handles the Super 1800-2 SprayJet and UTACS paving, and Andy Kimball is paving superintendent. A material transfer vehicle is required by agency spec, although the benefits of an MTV in an ultra-thin overlay aren't as obvious as with thicker lifts.

On Jones Ave., warm polymer modified emulsion is sprayed directly ahead of the screed via spray bars on each side of the Super 1800-2 SprayJet

About the Super 1800-2 SprayJet

The Super 1800-2 SprayJet paver from Vögele America, Inc. can do double duty for its owner.

With the exclusive SprayJet module mounted, a contractor or government agency can use the Super 1800-2 to place open-graded asphalt emulsions and other wearing courses. And with the optional module easily removed, the Super 1800-2 SprayJet can place conventional hot mix asphalt pavements. Its compact design makes it ideal for urban applications and low-cost transport.

Vehicles never pass over the emulsion prior to overlay, as the emulsion is immediately covered with asphalt. Tack coats no longer are brought onto pavements, curbs and parking lots, or tracked into stores or offices.

With the SprayJet module mounted, the Super 1800-2 has an integral spray system that sprays modified emulsion or binder in front of the mix being laid, followed immediately by aggregate, and then an optional second spray of emulsion or binder. The advantage is less mess; there is no traffic or construction equipment tracking the binder before the aggregate is placed, and a solid coat of emulsion is placed on the entire lift, edge to edge for a lane.

In addition, the spray system of the Super 1800-2 SprayJet operates with great precision as it works in conjunction with the paving speed and shot rate programmed into the machine. Various nozzle sizes are also available and easily changed to accommodate coverage requirements.

Now, an extra emulsion tank is available for contracts requiring very large rates of spread. The extra tank holds 1,320 gal, so a total of 1,849 gal of asphalt emulsion can be carried on board the paver. The extra tank is accommodated in the paver's material hopper.

The Super 1800-2 SprayJet works well with material transfer vehicles and truck interfaces. A stand-alone heating unit operated by diesel fuel is installed in the extra tank, keeping the emulsion at the desired temperature. Furthermore, the extra tank comes with its own pump circulating the emulsion and maintaining it in a highly homogeneous state.

The Super 1800-2 with SprayJet Module can pave widths up to 19.7 ft (6 m) as another option.

Interlinked Kleemann Plants Help BURNCO Enter RAP & RCA Processing

Mobicat MC 120 Z jaw crusher (foreground) feeds interlinked Mobirex MR 122 Z impactor and Mobiscreen M 19 D mobile screen for BURNCO just north of Calgary

This year, fourth generation, privately owned, Calgary-based BURNCO Rock Products Ltd. acquired three new minerals processing plants from Kleemann: a Mobicat MC 120 Z jaw crusher; a Mobirex MR 122 Z impact crusher; and a Mobiscreen M 19 D mobile screen.

BURNCO used its suite of three new Kleemann plants together to profitably produce aggregates, and individually to enter the growing market for processed reclaimed asphalt pavement (RAP) and recycled concrete aggregates (RCA).

When "interlinked" and run together using technology designed into the Kleemann equipment, the three plants can work as a team, enhancing throughput and productivity. They work in conjunction with each other, and are coordinated in terms of performance and function. For example, a blockage at a downstream plant will cause upstream interlinked plants to slow or stop production automatically.

But they also can work individually, and as impact crushers are the preferred means of processing RAP and RCA, BURNCO intends to use its impactor individually, moving it from stockpile to stockpile, "beneficiating" the raw recycle material to add value.

At the same time, BURNCO always will have the option of linking the plants together for large-scale, high-productivity aggregate processing. The choice is BURNCO's.

"We didn't buy the impactor to crush gravel," said Mark Skjaveland, C.E.T., operations manger, production operations, for BURNCO. "We bought it to recycle products. But we can use it for other products when we need to, for example, when we are in a tight bind, to crush gravel, and keep the wolves at bay."

BURNCO is a major player in western Canada in aggregate processing. The firm operates nine crushing plants and six wash plants, most of which migrate among 20 sand and gravel pits and one limestone quarry. The firm also has established a foothold in northeastern British Columbia with a handful of quarries.

Entering Recycling Market

"This is our first foray into materials recycling," said Kim Titus, C.E.T., vice president, BURNCO Aggregates Division. "In the past we did not crush recycle material. Instead we would bring another company in to do the crushing. On the good side, in our first attempt at recycling, we went with Kleemann."

BURNCO will use its new Kleemann plants to crush concrete and asphalt, Skjaveland said. While the processing and stockpile activity will take place within the firm's extraction

> ***"We noticed Kleemann had dust suppression, it had sound suppression for the cones, the jaws and the impactors. And the safety aspects indicated the equipment was really well put together."***

and plant sites, BURNCO also has the capability of crushing on urban demolition sites.

"Despite our years of experience in aggregates, the crushing of recycled materials constitutes a new area for us, but as we were hiring more and more of our work out to subcontractors, it made sense to go it alone," Skjaveland said. "We saw the market was growing, and we ourselves had too much product that had to be recycled, so we thought we would benefit from taking the step and get into it."

Skjaveland described the mounting piles of recycle material in BURNCO's own yards. "We have growing stockpiles of broken concrete and asphalt," he said. "We've seen these piles grow and grow, and the cost of subcontracting that crushing also kept going up. That's why we made the decision to get into recycle processing."

"Also, the asphalt industry is feeding at least 10 percent RAP into their mixes," Titus said. "RAP has become so important. And many of our customers say they have too much of the broken-out concrete and asphalt, with no place to store it. They ask if we would accept it in our pits. We've done that to a degree, and now we are faced with the need to recycle it into either RAP for hot mix, or a road gravel material."

When it comes to RAP, BURNCO will crush it into 5/8-in (16mm). product, all the way down. "That way it's all one product, we don't separate RAP into multiple sizes," Skjaveland said. "Concrete will be crushed to a 3-in (75mm). material, or a 3/4 –in (20mm) material."

Investigating Purchase Decision

BURNCO looked long and hard in investigating which equipment would be right for them and RAP, and last year local distributor SMS Equipment introduced them to the Kleemann brand.

"That was the time that we had become very interested, and had to get something in place so we could start crushing for next spring," Skjaveland said. "We looked at various different recycle plants, but concluded that the Kleemann was by far, quality-wise, the best plant for us."

Weight was a big consideration, as was how long BURNCO could use the machines, and over how many years it could amortize the costs.

"We looked at how the equipment was built," Skjaveland said. "I brought my equipment maintenance supervisor with me and we saw the amount of metal that was in these machines. We noticed Kleemann had dust suppression, it had sound suppression for the cones, the jaws and the impactors. And the safety aspects – seeing all the rollers encaged in metal, for example – indicated the equipment was really well put together."

While here interlinked with a jaw crusher and mobile screen, BURNCO's MR 122 Z impact crusher will be used primarily on its own to process RAP and RCA

Interlinked Plants

BURNCO's new screening plant has the option of running electric or diesel, Skjaveland said. Thus when it's "interlinked" with other Kleemann plants it can be plugged into either the jaw or impactor gensets, saving money and diesel fuel. Of course, it can power itself as well.

In an application in October, BURNCO was running the three plants interlinked. Staff used the self-propel feature of the plants to line them up. "We run the jaw first, and the jaw reduces the product," Skjaveland said. "The rock goes into the impactor, which reduces it more and sends it to a screening deck. From the deck, any oversize goes back into the impactor."

In October, the interlinked plants were working a glacial deposit for sand and gravel, crushing the stone down to 3-in. (75mm) product, at rates up to 350 tph.

"Anything that would pass a 3-in (75mm) screen would bypass the jaw," Skjaveland said. "Anything above that would be crushed down, and all that material would go into the impactor, which will pass 2-in (50mm) stone to go directly to the screen. All oversize rock would be crushed in the impactor and recirculated until it's sized properly."

The ultimate use of this product is road base. "It's a City of Calgary specification for road building," Titus said. "They will call for 6 to 8 in. of 75mm crushed gravel, top it off with a 20 to 25mm, and pave over all."

"The plants are interlinked with a CPU system," said Paul McLaren, Kleemann service manager. "If you get a shut down on one of the machines downstream of the material, it shuts everything down upstream so the material doesn't carry on and overload it."

Thus, in BURNCO's set up, if a conveyor belt breaks and the screen shuts down, the impactor and the jaw both will shut down; or if the impactor has a blockage and shuts down, it only will shut down the jaw while allowing the screen to run until all the material is out. But if an emergency stop is effected, the entire system will shut down.

"Everything is automated," McLaren said. "It has an automated start-up and shut-down process. Everything looks after itself. The only guy that is doing anything is the loader operator, bringing material to charge the hopper."

Also, an overpressure system keeps dust out of all the electrical cabinets. "It increases the air pressure inside the control cabinets," McLaren said. "The higher pressure keeps the outside atmosphere outside. Not only does it keep dust out; it keeps any moisture out, and keeps the components cool because air continues to flow over them. It maintains a good environment for the electrical components."

And BURNCO's system was taking advantage of the electrical power sharing available through the plant interlinking. "The jaw crusher and the impact crusher are the only two engines we have running," McLaren said. "The screen is running off the electrical supply of the impact crusher. And we also have extra power we can use; they have a mobile lunch room and two stackers which are being supplied from the Kleemann plants."

Closed overpressure systems in Kleemann plant electrical cabinets keep dust and moisture out, while cooling components

In glacial moraine north of Calgary, BURNCO's interlinked Kleemann plants process road base for City of Calgary, Alberta

Raw gravel and sand is fed to hopper of BURNCO's new Mobicat MC 120 Z primary jaw crusher

Kleemann in North America

Kleemann is a newcomer to the North American aggregate processing market, but its roots lie deep. Established in Germany in 1857, Kleemann was acquired by Wirtgen Group in 2006. Now, a growing network of equipment distributors and dealers is enabling Kleemann to boost its domestic profile and serve customers in North America.

Today Kleemann manufactures and markets a broad range of durable, productive mobile and stationary processing equipment and technology for crushed stone, demolition waste and mixed construction waste.

Kleemann's product brand names are:

- The Mobicat mobile primary jaw on crawler chassis with feeding unit, pre-screen and conveyors built in various sizes ranging from 100-1,000 tph capacity
- The Mobirex mobile primary impactor on crawler chassis with feeding unit, pre-screen and conveyors built in various sizes ranging from 100 to 1,000 tph capacity
- The Mobifox mobile secondary crushing machines with feeding unit, impact crusher and a screen producing up to 3 grain sizes, and
- The Mobiscreen mobile screening machines, producing up to 4 grain sizes with fixed or swiveling discharge belts, with a screening surface dependent on ultimate use.

'Technology Days' Gives Wirtgen Group Customers Glimpse Of Future

In September, more than 2,600 delegates from over 80 countries got an advance look at tomorrow's innovative technologies of Wirtgen Group, live and up close.

They journeyed to Wirtgen Group's newly opened Kleemann plant outside Stuttgart, where they witnessed current and future Wirtgen Road Technologies of Wirtgen, Hamm and Vögele, and Wirtgen Mineral Technologies of Kleemann.

Demonstrations and exhibits of state-of-the-art machine technology – along with tomorrow's construction methods – were the main themes of Wirtgen Group Technology Days 2010 Sept. 23-24.

Wirtgen Group – via its global network of 55 subsidiaries and more than 100 dealers – invited contractors from the road construction and mineral processing industries to Göppingen, in southern Germany, where they also toured the world's most advanced production plant for crushing and screening equipment.

Visitors arrived from all parts of Europe, from the North Cape, all the way to Andalusia. Several hundred visitors from Asia, more than 250 visitors from North and South America, as well as numerous customers from the Middle East, Australia and Africa also enjoyed this unique event, the third of its kind.

Wirtgen Products LIVE

While the program included expert lectures, a comprehensive static exhibition of all Wirtgen Group products, narrated machine walk-arounds, self-guided tours of Kleemann's new main plant, and even antique machinery displays, live demonstrations of machines from all divisions of the Wirtgen Group were the highlight of the event.

One demonstration – in front of thousands of spectators in grandstands, with the new Kleemann factory as a backdrop – showed how Wirtgen Group products cover the whole spectrum of road construction using recycled materials.

First, a Kleemann Mobirex **MR 110 ZS EVO** crushing plant with iron separator began processing demolition concrete fed to it by a backhoe. This beneficiated product then was fed to a Wirtgen **KMA 220** portable cold mix plant, which mixed the recycled concrete aggregate (RCA) with carefully metered water and cement to create a hydraulically bound road base.

In the meantime a new Wirtgen **W 200** cold mill with ECO (for "economical") cutter removed paved material to create cuts. The freshly mixed road base then was placed in the cuts by a new Vögele **Super 3000-2** with **AB 600-2 TP2** tamping screed. The base layer then was compacted by a Hamm

From grandstands, delegates to Technology Days 2010 watch the new Vögele Super 3000-2 asphalt paving demonstration using material transfer vehicle

New Kleemann plant outside Stuttgart is site of Technology Days 2010

HD+ 140 tandem roller, followed by a new, 10-ton **GRW 280** pneumatic (rubber-tired) roller.

Lastly, a new Wirtgen **SP 15** concrete slipform paver placed curb and gutter along the paved lanes using ready mixed concrete brought to the demo site.

Interlinked Kleemann Plants

Yet another demonstration began by showing the synergy created by "interlinking" Kleemann aggregate processing plants. There, a Mobicat **MC 120 Z** mobile jaw crusher, Mobirex **MR 110 Z** mobile impact crusher, and Mobiscreen **MS 19 Z** mobile screen worked together to crush limestone into multiple fractions.

While the plants perform superbly on their own, when interlinked, Kleemann mobile crushing and screening plants work in conjunction with each other, and are coordinated in terms of performance and function. For example, a blockage at the far end will cause upstream interlinked plants to slow or stop production automatically.

Two, three or more Kleemann plants can be combined for use in both natural stone quarrying and recycling, as shown in Technology Days 2010. The potential output of such plant combinations currently ranges from 100 tph up to 500 tph, but the upper limit has not yet been reached.

Following the Kleemann plant operation, a big Wirtgen **2500 SM** surface miner did a "drive by" before the grandstands. The 2500 SM offers flexibility and supreme performance when mining soft material and hard material without blasting. A big plus is its mechanical drum drive, which transfers the available engine power to the cutting drum with the highest possible efficiency. For example, it can make a 16-in.-deep cut in limestone at over 700 tph output. Its cutting width is 8.2 ft., and maximum cutting depth is 24 in.

However, it by no means is the largest Wirtgen surface miner. That honor belongs to the **4200 SM**, introduced in 2009. The 4200 SM is available to customers in two different designs: as a powerful miner for hard rock, such as iron ore, bauxite or phosphate; or for use in various types of soft rock including, for example, coal or lignite. The miner has a cutting width of 13.8 ft. and is capable of working at a maximum cutting depth of 32.7 in. in soft rock.

Milling And Paving

It was followed by three next-generation Wirtgen cold mills, the **W 210**, **W 200** and **W 150**. These new-design mills represent the cutting edge, so to speak, of asphalt and concrete milling technology, for both Wirtgen Group, and the industry as a whole. Operating in echelon, they removed pavement in advance of a hot mix asphalt paving demonstration.

That was undertaken by the new flagship of the Vögele line, the Super 3000-2 with SB 300-2 screed. Introduced to the world at Bauma 2010 in April, the Super 3000-2 features Vögele's innovative, user-friendly Dash 2 technology, which catapults it to the top of the class of large pavers in terms of performance, technological edge and ergonomics.

With its laydown rate of up to 1,600 tph, and a pave width of up to 52.5 ft., the Super 3000-2 can complete large projects within a very short space of time, and place jointless asphalt pavements at maximum width.

It was fed hot mix asphalt by a Vögele material transfer vehicle. Smoothly functioning material management is extremely important for high quality paving. Mobile feeders assure both high quality and economical operation, especially on large sites. That's because an uninterrupted supply of

Wirtgen SP 25 concrete slipform paver is part of static equipment display

mix is crucial to preventing any roughness-inducing stops in the paving process. A mobile feeder or material transfer vehicle is critical to attaining consistently high-quality smoothness results, especially on large-scale jobs.

With its numerous innovations and new features, Vögele's new mobile feeder, introduced at Bauma 2010 – the PowerFeeder **MT 3000-2** – is outstandingly equipped to meet these requirements. This machine has been designed for conventional material feeding in a straight line.

The MT 3000-2 Offset can do even more: its long-reach conveyor belt can be slewed by up to 55 deg, permitting completely new applications or use in challenging conditions.

Compaction at the demo was achieved by Hamm's newest tandem roller, the **HD+ 90 VO**, along with its older and larger brother, the **HD+ 140 VO**, the new **GRW 280** pneumatic roller in 10-ton configuration, the high-performance **DV 90**, and the **HD 12 VV** roller from Hamm's Compact Line.

Kleemann Plant Showpiece

As attractive as the products and demonstrations were, the real showpiece of Technology Days 2010 was the new Kleemann plant.

Earlier this year, Kleemann completed its new headquarters and state-of-the-art manufacturing plant, and the new plant incorporates the highest production technologies for the manufacture of aggregates and minerals processing equipment.

Delegates undertake self-guided tours of new state-of-the-art Kleemann manufacturing plant

At demo, delegates inspect curb-and-gutter placed by Wirtgen SP 15 slipform paver

The site, which extends across an area of over 30 acres, was open to customers for the duration of Technology Days, allowing visitors to view the high level of vertical integration, short distances inside the plant, and high precision employed in the production of Kleemann crushing and screening plants. Visitors saw individual component fabrication, product assembly, and quality control testing.

"The new plant is an ideal foundation for future success," said Dr. Gerhard Schumacher, managing director of Kleemann. "We have laid the technical foundations for a highly qualified workforce to supply the international markets with high-quality crushing and screening plants."

Technology Days gave Kleemann a unique opportunity to present its understanding of quality in manufacturing to industry peers, he said.

"Customers were given the opportunity during the Technology Days to discover both our high quality standards in manufacturing, and the solutions and technologies we offer," Schumacher said. "Our visitors will carry this message to their home countries in all parts of the world, and in the medium term it will certainly contribute to increasing our market share."

This new "greenfield" manufacturing plant is making Kleemann mineral processing equipment more available worldwide, and is speeding product delivery in North America. "With 350,000 sq. ft. of production area and 40,000 sq. ft. of administration area, Kleemann is exciting the market with new models and features for 2011," said Evan Clarke, vice president.

For over 150 years Kleemann has led the minerals processing industry with design ingenuity, producing crushing and screening equipment for many leading markets. Since being acquired by the Wirtgen Group in 2006, the company has experienced dramatic growth, which has led to reinvestment by the group to help streamline production and allow for greater volume for its new expanding markets.

"As Kleemann gathers momentum within the United States and Canadian markets, and new dealers take on the product line, many customers are seeing the 'Kleemann Advantage'," Clarke said. "We bring to the market a wide range of track mobile crushers and screens with many unique features."

The new plant utilizes the most modern German high-tech manufacturing processes, including short internal product assembly lines. On the 1.34 million sq. ft., site, the new manufacturing facility covers an area of 376,736 sq. ft., complemented with a 43,055 sq. ft. administration building. The oversized interior capacity of the new main production facility accommodates the enormous dimensions of Kleemann's largest crushing and screening machines.

The plant's central warehouse contains two storage zones, in which some 10,000 items are stocked. "On average, 200 items with a total weight of 8.8 tons are handled here each day," said Kleemann central warehouse manager Martin Zemmel. "We really benefited from the know-how of the other Wirtgen Group companies when building our new facility."

Kleemann's new painting facility for large parts is one of the largest such facilities in Germany, with a tremendous load-bearing capacity of 33 short tons, and around 21,500 sq. ft. of floor space. Kleemann's switch-over from wet spray painting to powder-coating not only marks a major step towards boosting surface quality, but also has far less of an environmental impact, with the system far exceeding the requirements of the EU environmental guidelines.

In huge tent, more than 2,600 delegates from 80 countries enjoy Wirtgen Group hospitality and entertainment

In hydraulic- (cement-) bound recycle demonstration, from right, recycled concrete aggregate (RCA) is fed into Kleemann Mobirex MR 110 ZS EVO plant; processed RCA is mixed with water and cement in Wirtgen KMA 220; bound material then is placed as 100 percent recycled pavement by Vögele Super 3000-2 paver. Boom above KMA 220 holds videocam for big screen viewing

Twin W 2200s, W 50 DC Make Quick Work Of Frost Heaves

A trio of Wirtgen cold mills made quick work of a severely frost-heaved provincial pavement in central Alberta in October, providing a smooth riding surface with thin overlay at a fraction of the cost of conventional hot mix asphalt overlay without milling.

Alberta Route 2 north of Grande Prairie suffered from profound frost heaving, with both trucks and cars tossed up and down as they drove the undulating surface. Milling contractor A. LeDuc Developments, Okotoks, Alb., undertook surface grinding to eliminate the wavy surface while saving the province money.

For this work LeDuc employed tandem W 2200s and a W 50 DC out of its fleet of seven milling machines from Wirtgen America, Inc.

"The pavement has trapped moisture underneath, and now is badly frost-heaved," said Greg LeDuc, general manager, A. LeDuc Developments. "After milling the paving contractor will come back with only one 50mm (2-in.) lift of asphalt, so we are using the leveling skis on our Wirtgen mills to give him as smooth a profile that we can."

The traditional response to frost-heaved pavements has been to place additional courses of asphalt on top. These "level courses" had to be quite thick to eliminate the undulations, at significant cost, and they never were a permanent fix.

"To achieve a smooth ride without 'level-coursing' the pavement, we are doing 'level-coursing' with our planers," LeDuc said. "That's new to Alberta. Now we will be taking out the roughness, rather than laying mix down. And to lay the conventional level-course mix down on a job of this size would be very expensive. Since the road still has structure we felt we could eliminate the roughness, cracking and rutting by milling, while providing a fresh surface to which the thin overlay can bond."

Further, by simply overlaying the heaved pavement without milling as in the conventional process, thick HMA would be placed over the humps, while the milling machine will cut straight through the humps. "To me, it's a way-better cure for the problem," LeDuc said.

A big W 2200 of A. LeDuc Developments mills in tandem with a second W 2200 to remove frost-heaved pavement north of Grand Prairie, Alberta

Three Wirtgen cold mills of A. LeDuc Developments at work on Alberta Route 2: W 50 DC heads for railroad crossing, W 2200 cold mills outside lane, and in distance, second W 2200 cold planes center of pavement

The milling is not extending to the base, so without base correction, frost heaving will return regardless of the type of overlay. However, the mill and thin overlay will remove the most offending surface imperfections, and replace with a much smoother thin lift, at a fraction of the cost of a conventional leveling course overlay. And the elimination of cracks and other surface imperfections will make it harder for moisture to infiltrate back into the road structure.

Route 2 consists of four 12-ft. lanes, two in each direction, with shoulders, and very heavy truck traffic, much of which is related to the continuing oil boom in this part of Canada. LeDuc is restoring a crown by careful attention to the superelevations of the existing highway.

LeDuc Developments is a family-owned business managed by Greg LeDuc, with Brad LeDuc as field operations manager, and Pam LeDuc Bergen as office manager. Considered one of the family is Wayne Van Tighem, milling superintendent of 22 years.

LeDuc milling superintendent Wayne Van Tighem adjusts LevelPro system on W 2200

Existing driving surface of Alberta Route 2 was profoundly frost-heaved with severe undulations

Twin W 210s, Vision 5200-2 Repave Illinois Interstate

A pair of new W 210 cold mills from Wirtgen America were joined by an older W 2000, and a Vision 5200-2 paver from Vögele America, to mill and pave I-57 in Kankakee County, Ill., south of Chicago.

The contractor and its new W 210 – Gallagher Asphalt Corp., Thornton, Ill. – was featured in our Spring/Summer 2010 issue (see *Gallagher's New W 210 Offers Versatility, Power And Production*, pp. 12-15). But almost immediately the contractor acquired another W 210 and put both to work shortly thereafter on a spectacular project on a cool summer night.

"We are resurfacing I-57, from the Will/Kankakee County line to Ill. 50, an 8.5-mile stretch," said Jim Trost, Gallagher superintendent of operations. "It's a 4-in.-deep grind over two lanes, plus a 4-ft. inside shoulder and 10-ft. outside shoulder, and we are replacing that with a new base course and surface course."

Two new W 210s of Gallagher Asphalt mill I-57 in tandem in Kankakee County, Ill.

The shoulder base course is a 70-gyration Superpave mix with PG 64-22 liquid, and the surface on the shoulder is a 90-gyration Superpave mix with a PG 64-22 liquid. The main line bottom lift is a 90-gyration Superpave mix with polymer modified 70-22 binder, and a 90-gyration Superpave mix with polymer modified 70-22 binder and steel slag for skid resistance.

New Mill Put To Work

The new W 210 was part of a group of three big cold mills working in echelon, if not in sight of each other once work began in earnest.

"For the outside shoulder we used a W 210 in echelon with a W 120 4-ft. machine, which has left the project," Trost said. "Together they cut the 10-ft. shoulder. Now we're cutting the 12-ft. passing lane, and the 4-ft. shoulder, with the two W 210s and the W 2000. We're taking a 16-ft.-wide swath 4 in. down."

The biggest challenge is keeping all this equipment running at the same time, Trost said. "We have to have good equipment in good shape. We've prepared the equipment and it's ready to go. If one shuts down it will pretty much stop everything.

"The other challenge is trucks," Trost said. "We have to make sure we aren't waiting for trucks on any of the machines. We have 30 trucks planned for tonight."

Gallagher's three Wirtgen mills would not be grinding at full bore that night. "We are limited by the length of lane closures we are allowed," Trost said. "Because we are only allowed a five-mile lane closure, we are limited in how far we can mill in front of the paver."

Vögele Vision Paver

The Vision 5200-2 10-ft. tracked paver would be placing asphalt with a Carlson EZ-IV screed set to 16-ft. wide. "We have screed extensions and auger extensions on the left hand side to catch the 4 ft. shoulder, and the hydraulic screed extension on the right," Trost said. "We will be paving at 350 tph."

The asphalt plant began shipping mix at 6:40 p.m., and paving would begin at 7 p.m. "They'll ship until about 5 a.m., because we have to be off the road by 6 a.m.," Trost said. "We can keep one lane closed during the week, but both lanes must be open Friday through Sunday."

Gallagher's Vision 5200-2 places asphalt 16 ft. wide on I-57

The Vision paver has worked great for Gallagher, Trost said. "It's performed very well," he said. "We have three of the Vision machines: two 5200-2 10-footers, and one 5100-2 8-ft. machine. All are tracked machines; we've standardized with tracked machines because of their flexibility to do jobs on both stone bases and milled surfaces. Standardization gives us the flexibility to put any paver on any project, not have to juggle machines, and allowed us to get by with fewer pavers in the fleet.

Illuminated control display on W 210 makes night work easier

W 210 balloon light and factory-equipped lighting system cuts darkness on I-57

WIRTGEN GROUP

Wirtgen News

Production Begins At New Vögele Plant

In September, the world's most modern paver manufacturing facility began operation in Germany.

Production of asphalt pavers has started in the brand new factory of Wirtgen Road Technologies manufacturer Joseph Vögele AG. After a construction period of just 18 months, the world market leader in asphalt pavers now is building its machines for delivery from the most modern paver production facility in the world, in Ludwigshafen on the river Rhine.

The $138 million (€100 million) project was constructed on a 94-acre site. There, some 635,834 sq. ft. is devoted to closed halls in which pavers and screeds are being built and assembled for the world market. Vögele AG can rely on its experienced, existing workforce, as the new factory is located a very short distance from Vögele's former plant in Mannheim.

The new Vögele plant is one of the most significant investments undertaken in the mechanical engineering sector in Europe. The decision to build on a "greenfield site" gave management, engineers and architects freedom in designing the factory layout. As a result, all work flows have been realized and implemented exactly as they would be in an ideal case.

New Powder Coating Plant

A number of major single investments were also undertaken in conjunction with the construction project. The new powder coating plant is one such investment. At $5.8 million (€4.2 million), it is the company's biggest investment in machinery.

At new Vögele plant in Mannheim, eco-friendly powder coating plant is the biggest single investment in machinery ever undertaken by the company

This new plant is particularly eco-friendly, for the coatings are applied without solvents, and consequently without emitting any pollutants.

The new flexible manufacturing system is another outstanding single investment by Vögele, at a total cost of $4.8 million (€3.5 million). With this new system, structural steel components within a single machine are stored, drilled and milled together, cutting production time by up to 25 percent.

Another important building on the new site is the new Centre for Training and Technology (CTT).

New Vögele asphalt paver plant near Mannheim is among the most modern in the world, and began operation September 2010

Centre for Training and Technology (CTT) at new Vögele plant near Mannheim already is one of the finest – and largest – construction equipment training establishments

In-house training, as well as further training for operators of the Vögele pavers, will be undertaken in this 32,921 sq. ft. facility.

All training courses will take place under optimum conditions, both functionally and in terms of space. Ultimately, it's anticipated that more than 6,000 participants from around the world will attend its training courses each year.

Record Crowds, Record Income For Wine Festival

Driven by a record 1,400-plus celebrants, the sixth annual Franklin Wine Festival raised over $140,000 for the children of Big Brothers Big Sisters. an all-time high. The Oct. 22 food and wine tasting event is supported by Wirtgen America, Inc. and other Middle Tennessee businesses.

"This year's Franklin Wine Festival was our largest event to date," said event chair Sandy Draper, inside sales manager, Wirtgen America. "I speak for the entire committee when I express my sincerest thanks to all the investors who made this success possible, particularly Nissan North America and Cool Springs Wines & Spirits, in helping the children in the Big Brothers Big Sisters program overcome adversity and change their lives for the better."

At The Factory at Franklin, more than 340 wines from around the world were available for sampling, and culinary offerings from Middle Tennessee's

finest area restaurants and caterers were offered. Rounding out the evening was live entertainment on two stages, including The Storm Kings, Art Four Sale and Franklin's own Tucker Perry, Miss Tennessee USA 2010.

The Grand Tasting has been held for the past six years at The Factory at Franklin, with volunteers from the Big Brothers Big Sisters program and their friends serving as event staff for the evening, pouring wine, assisting restaurants, and selling tickets.

The funds raised by the Franklin Wine Festival will be used to serve more children with a mentor throughout Middle Tennessee through Big Brothers Big Sisters programs. To date, the event has raised more than $500,000 for these programs.

Exquisite cuisine, and more than 340 wines, were featured at the 2010 Franklin Wine Festival, supported by Wirtgen America, Inc. and other Middle Tennessee businesses

Wirtgen Golf Classic Net Rises 50 Percent

Net receipts for the fourth annual Wirtgen America Golf Classic – held at Gaylord Springs Golf Links Monday, Oct. 4, 2010 – were up some 50 percent over the 2009 event.

This celebrity golf outing is sponsored by Wirtgen America and this year (as in 2009) was hosted by popular country music legend Charlie Daniels. It brought in over $45,000, up some 50 percent over $31,100 netted in 2009.

Flanking celebrity host Charlie Daniels at Wirtgen America Golf Classic Oct. 22 are, from left, Skip Pike, Jim Bell, Tim Wallace and Dick Clark, Villager Construction, Inc.

Over 30 teams competed in the tournament, which began with a Sunday evening reception at the famous Legends Corner Bar on Broadway in downtown Nashville. The tournament ended late in the day with a post-tournament awards reception.

Primary sponsor for the event was Wells Fargo Equipment Finance. Additional sponsors included ICON Specialized Transport, Villager Construction Inc., First Horizon Insurance Group, Deutsche Leasing USA, and William Morris Endeavor Entertainment. Wirtgen America, Inc. is principal sponsor.

"The continued support of our customers, dealers, vendors and corporate sponsors for this event is overwhelming," said event chair and Wirtgen America inside sales manager Sandy Draper. "We also appreciate the continued support we get from our host, Charlie Daniels. We hope to see even more golfers, Oct. 2, 2011 for the kickoff reception, and Oct. 3 for the 2011 Wirtgen America Golf Classic."

Proceeds from the event benefit the T.J. Martell Foundation, a national nonprofit organization that supports innovative research to fight leukemia, cancer and AIDS through six top research hospitals in the United States. In Nashville, the foundation annually supports cancer research at the Frances Williams Preston Laboratories at the Vanderbilt-Ingram Cancer Center.

Wirtgen SP 25 To Star At World Of Concrete

The new SP 25 concrete slipform paver from Wirtgen America, Inc. will be the star of the show at World of Concrete 2011, Jan. 18-21 in Las Vegas.

Wirtgen America will show the SP 25 in stand No. 5150 in the Central Hall at the Las Vegas Convention Center.

The Wirtgen SP 25 is available now and is being demo'ed in North America. The SP 25 paves 12 ft. wide, and places barrier/parapet up to 6.5 ft. It also features quick on-site changes to left or right side pouring. The machine's modular design allows for a wide array of applications with either three or four tracks.

The SP 25 also features an Eco mode, which matches engine rpm to machine power requirements, thus saving fuel and reducing emissions. Its maximum weight is 39,600 lb. (18,000 kg).

The SP 25 joins the SP 15, which was introduced to the industry at World of Concrete 2010. The SP 15 has a maximum paving width of 6 ft., barrier/parapet placement height of 4 ft., 3 in., and weighs 27,500 lb.

Hamm Compact Line At The Rental Show

Also, two rollers from the Compact Line of Hamm Compaction Division will be exhibited at The Rental Show, Feb. 27-March 2, at the Mandalay Bay Convention Center in Las Vegas. Hamm will show the HD 12 and the HD 10 C VV.

Service Awards

Wirtgen America would like to recognize the following employees for their years of service. Thank you for your dedication.

25 years of service
Gertie Foshie

15 Years
Marty Burks, Scott Lyons

10 Years
Van Carroll, Evan Clarke, Greg Cox, Paul Curry, Jim Griffith, Cindy Hart, Jim McEvoy, Bruce Monical, Steve Strom, Gene White

5 Years
Debbie Bason, Robert Bauer, Richard Gaines, Steve Howard, Mark Inman, Ingo Lindemann, Darnell Scoby, Christie Trost, Kevin Watts

Reinhard Wirtgen Learning Center 2011 Class Schedule Set, Register Online Now

Make plans now for you and your staff to attend one of the Wirtgen Group Technical Service School sessions this season!

By fully training your service technicians, you can optimize machine uptime and availability, better please your customers, and enhance your bottom line.

Training sessions are held at the world-class, 21,000-sq. ft. Reinhard Wirtgen Learning Center, opened in 2009 on the expanded headquarters campus of Wirtgen America in suburban Nashville.

The 2011 Class schedule is set and online registration is now available at:

http://www.wirtgenamerica.com/us/customer-service/training/Training_overview.html

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Hamm

New HD+ 90, HD+ 110 Advance-Design Rollers Enhance Hamm Line

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Wirtgen, Vögele, Hamm

Personal Drive, Wirtgen Products Help Contractor Grow In Maryland Market

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Kleemann

Interlinked Kleemann Plants Help BURNCO Enter RAP & RCA Processing

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